



PRINCETON PLASMA PHYSICS LAB

Purchase Order Number:
S005243-F

Part Number:
VVSA PORTS

Part Name:
VVSA PORT EXTENSIONS
FOR LOT 1

MTM Work Order Number:
65678/7.0



Major
Tool & Machine, Inc.

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
1	CERTIFICATE OF CONFORMANCE

110030 - CF BLANK FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
2	188	10	10	Certificate of Conformance: / 110030 - CONFLAT BLANK FLANGE, 8.0 DIA. [mc107848.tif] (CERTIFIED)
3	191	10	10	Certificate of Conformance: / 110030 - CONFLAT BLANK FLANGE, 8.0 DIA. [See Item #2] (CERTIFIED)
4	220	10	10	Certificate of Conformance: / 110030 - CONFLAT BLANK FLANGE, 8.0 DIA. [See Item #2] (CERTIFIED)
5	223	10	10	Certificate of Conformance: / 110030 - CONFLAT BLANK FLANGE, 8.0 DIA. [See Item #2] (CERTIFIED)

110032 - CF BLANK FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
6	204	10	10	Certificate of Conformance: / 110032 - CONFLAT BLANK FLANGE, 10.0 DIA. [mc108994.tif] (CERTIFIED)
7	210	10	10	Certificate of Conformance: / 110032 - CONFLAT BLANK FLANGE, 10.0 DIA. [See Item #6] (CERTIFIED)

110058 - CF FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
8	200	10	10	Certificate of Conformance: / 110058 - CONFLAT BLANK FLANGE, 12.0 DIA. [mc107054.tif] (CERTIFIED)
9	200	10	10	Non-Conformance: 17237 Customer document: SUBMITTAL [car04477.pdf]

190019 - BOLT SET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
10	97	10	10	Certificate of Conformance: / 190019 - BOLT SET .500-20 X 3.0 SST HHCS,WASH, NUT [mc107847.tif] (CERTIFIED)

401000 SPECIAL - CF HALF NIPPLE 2.5" LONG

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
11	110	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [mc107040.tif] (CERTIFIED)
12	119	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)
13	130	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)
14	149	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)
15	196	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)
16	201	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)

480FAN100-G-E - CF FLANGE 6"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
17	262	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [mc111127.tif] (920183)
18	263	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
19	264	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
20	265	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
21	266	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
22	267	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
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Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

23	275	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
24	276	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
25	283	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
26	284	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)
27	285	10	10	Material Certification: / 480FAN100-G-E - BORED FLANGE, 6CF, FIXED, TAPPED [See Item #17] (920183)

480FAN160-G-E - CF FLANGE 8"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
28	268	10	10	Material Certification: / 480FAN160-G-E - WELD FLANGE, 8CF, FIXED, TAPPED [mc111259.tif] (920135)
29	270	10	10	Material Certification: / 480FAN160-G-E - WELD FLANGE, 8CF, FIXED, TAPPED [See Item #28] (920135)
30	277	10	10	Material Certification: / 480FAN160-G-E - WELD FLANGE, 8CF, FIXED, TAPPED [See Item #28] (920135)
31	278	10	10	Material Certification: / 480FAN160-G-E - WELD FLANGE, 8CF, FIXED, TAPPED [See Item #28] (920135)

480FAN200-G-E - CF FLANGE 10"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
32	273	10	10	Material Certification: / 480FAN200-G-E - WELD FLANGE, 10CF, FIXED, TAPPED [mc111128.tif] (920014)
33	274	10	10	Material Certification: / 480FAN200-G-E - WELD FLANGE, 10CF, FIXED, TAPPED [See Item #32] (920014)

480FAN250-G-E - CF FLANGE 12"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
34	269	10	10	Material Certification: / 480FAN250-G-E - WELD FLANGE, 12CF, FIXED, TAPPED [mc111125.tif] (920014)
35	271	10	10	Material Certification: / 480FAN250-G-E - WELD FLANGE, 12CF, FIXED, TAPPED [See Item #34] (920014)
36	272	10	10	Material Certification: / 480FAN250-G-E - WELD FLANGE, 12CF, FIXED, TAPPED [See Item #34] (920014)
37	279	10	10	Material Certification: / 480FAN250-G-E - WELD FLANGE, 12CF, FIXED, TAPPED [See Item #34] (920014)
38	280	10	10	Material Certification: / 480FAN250-G-E - WELD FLANGE, 12CF, FIXED, TAPPED [See Item #34] (920014)

480FBL080-E - CF FLANGE 4.625"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
39	281	10	10	Material Certification: / 480FBL080-E - BLANK FLANGE, 4.625CF, FIXED [mc111126.tif] (920135)
40	282	10	10	Material Certification: / 480FBL080-E - BLANK FLANGE, 4.625CF, FIXED [See Item #39] (920135)

DOMESKIRT

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
41	257	10	10	Material Certification: / INCONEL 625_5 - PLATE,NICKEL ALLOY .375" THK [mc109674.tif] (2650 4 6997)
42	257	30		Inspection Data Checklist: 3 steps
43	258	10	10	Material Certification: / INCONEL 625_5 - PLATE,NICKEL ALLOY .375" THK [See Item #41] (2650 4 6997)
44	258	30		Inspection Data Checklist: 3 steps

PORT DOME

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
45	4	22		Inspection Data Checklist: 3 steps
46	4	24		Map(s): X-RAY MAP [mc115447.tif]

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47	4	24	Certification: X-RAY CERT [mc111320.tif]
48	5	22	Inspection Data Checklist: 3 steps
49	5	24	Map(s): X-RAY MAP [mc115448.tif]
50	5	24	Certification: X-RAY CERT [mc111321.tif]

SE120-004 4-1 SW BLANK - PORT 4-1 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
51	124	10	10	Material Certification: / SE120-004 4-1 SW BLANK - PORT 4-1 SW FLAT BLANK [mc109053.tif] (2650 5 6805)
52	139	10	10	Material Certification: / SE120-004 4-1 SW BLANK - PORT 4-1 SW FLAT BLANK [See Item #51] (2650 5 6805)

SE120-004 4-1 SW - PORT 4-1 SIDEWALL Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
53	124	20		Certificate of Conformance: [mc112408.tif]
54	139	20		Certificate of Conformance: [mc111587.tif]

SE120-004 4-2 SW BLANK - PORT 4-2 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
55	125	10	10	Material Certification: / SE120-004 4-2 SW BLANK - PORT 4-2 SW FLAT BLANK [mc109057.tif] (2650 5 6805)
56	140	10	10	Material Certification: / SE120-004 4-2 SW BLANK - PORT 4-2 SW FLAT BLANK [See Item #55] (2650 5 6805)

SE120-004 4-2 SW - PORT 4-2 SIDEWALL Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
57	125	20		Certificate of Conformance: [See Item #53]
58	140	20		Certificate of Conformance: [See Item #54]

SE120-004 4-3 SW BLANK - PORT 4-3 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
59	135	10	10	Material Certification: / SE120-004 4-3 SW BLANK - PORT 4-3 SW FLAT BLANK [mc108540.tif] (2650 4 6737)
60	141	10	10	Material Certification: / SE120-004 4-3 SW BLANK - PORT 4-3 SW FLAT BLANK [See Item #59] (2650 4 6737)

SE120-004 4-3 SW - PORT 4-3 SIDEWALL Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
61	135	20		Certificate of Conformance: [See Item #53]
62	141	20		Certificate of Conformance: [See Item #53]

SE120-004 4-4 SW BLANK - PORT 4-4 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
63	136	10	10	Material Certification: / SE120-004 4-4 SW BLANK - PORT 4-4 SW FLAT BLANK [mc108539.tif] (2650 4 6737)
64	142	10	10	Material Certification: / SE120-004 4-4 SW BLANK - PORT 4-4 SW FLAT BLANK [See Item #63] (2650 4 6737)

SE120-004 4-4 SW - PORT 4-4 SIDEWALL Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
65	136	20		Certificate of Conformance: [See Item #53]

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66 142 20 Certificate of Conformance: [See Item #53]

SE120-004 4-5 SW BLANK - PORT 4-5 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
67	137	10	10	Material Certification: / SE120-004 4-5 SW BLANK - PORT 4-5 SW FLAT BLANK [mc109056.tif] (2650 5 6796)
68	143	10	10	Material Certification: / SE120-004 4-5 SW BLANK - PORT 4-5 SW FLAT BLANK [See Item #67] (2650 5 6796)

SE120-004 4-6 SW BLANK - PORT 4-6 SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
69	138	10	10	Material Certification: / SE120-004 4-6 SW BLANK - PORT 4-6 SW FLAT BLANK [mc118206.tif] (2650 5 6796)
70	144	10	10	Material Certification: / SE120-004 4-6 SW BLANK - PORT 4-6 SW FLAT BLANK [See Item #69] (2650 5 6796)

SE120-004 12-1 SW BLANK - PORT 12A SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
71	31	10	10	Material Certification: / SE120-004 12-1 SW BLANK - PORT 12-1 SW FLAT BLANK [mc109051.tif] (2650 5 6805)
72	113	10	10	Material Certification: / SE120-004 12-1 SW BLANK - PORT 12-1 SW FLAT BLANK [See Item #71] (2650 5 6805)

SE120-004 12-1 SW - PORT 12- SIDEWALL LARGE RADIUS Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
73	113	20		Certificate of Conformance: [mc112352.tif]

SE120-004 12-2 SW BLANK - PORT 12A SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
74	32	10	10	Material Certification: / SE120-004 12-2 SW BLANK - PORT 12-2 SW FLAT BLANK [mc109052.tif] (2650 5 6805)
75	114	10	10	Material Certification: / SE120-004 12-2 SW BLANK - PORT 12-2 SW FLAT BLANK [See Item #74] (2650 5 6805)

SE120-004 12-2 SW - PORT 12-2 SIDEWALL Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
76	32	20		Certificate of Conformance: [See Item #73]
77	114	20		Certificate of Conformance: [See Item #73]

SE120-004 NB SW BLANK - PORT NB SIDEWALL BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
78	26	10	10	Material Certification: / SE120-004 NB SW BLANK - PORT NB SIDEWALL BLANK [mc109033.tif] (2650 5 6820)
79	26	10	10	Material Certification: Trace ID: 122988 / SE120-004 NB SW BLANK - PORT NB SIDEWALL BLANK [mc118207.tif] (2650 5 6820)
80	27	10	10	Material Certification: / SE120-004 NB SW BLANK - PORT NB SIDEWALL BLANK [See Item #78] (2650 5 6820)
81	27	10	10	Material Certification: Trace ID: 122989 / SE120-004 NB SW BLANK - PORT NB SIDEWALL BLANK [See Item #79] (2650 5 6820)

SE120-004 PORT 2 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
82	180	10	10	Material Certification: / VVSA PORT 2 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111112.tif] (132793)
83	180	20		Inspection Data Checklist: 1 steps
84	180	30		Certification: X-RAY CERT [mc111796.tif]

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
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85	180	30		Map(s): X-RAY MAP [mc115232.tif]
86	180	50		Inspection Data Checklist: 1 steps
87	183	10	10	Material Certification: / VVSA PORT 2 TUBE - TUBE, 4" O.D. X 0.25" WALL [See Item #82] (132793)
88	183	20		Inspection Data Checklist: 1 steps
89	183	30		Map(s): X-RAY MAP [mc115231.tif]
90	183	30		Certification: X-RAY CERT [mc111792.tif]
91	183	50		Inspection Data Checklist: 1 steps

SE120-004 PORT 2A - PORT EXT. 2A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
92	6	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 2B - PORT EXT. 2B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
93	7	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 4A - PORT 4A SUB-ASSEMBLY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
94	8	30		Inspection Data Checklist: 22 steps
95	8	40		Inspection Data Checklist: 3 steps
96	8	70		Certification: X-RAY CERT [mc113146.tif]
97	8	70		Map(s): X-RAY MAP [See Item #96]
98	8	80		Inspection Data Checklist: 9 steps
99	8	120		Inspection Data Checklist: 6 steps

SE120-004 PORT 4B - PORT 4B SUB-ASSEMBLY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
100	9	30		Inspection Data Checklist: 22 steps
101	9	40		Inspection Data Checklist: 3 steps
102	9	70		Certification: X-RAY CERT [mc113142.tif]
103	9	70		Map(s): X-RAY MAP [See Item #102]
104	9	80		Inspection Data Checklist: 9 steps
105	9	120		Inspection Data Checklist: 6 steps

SE120-004 PORT 5 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
106	186	10	10	Material Certification: / VVSA PORT 5 TUBE - TUBE, 6.0 OD X .188 WALL [mc107834.tif] (2650-4-6731)
107	186	20		Inspection Data Checklist: 1 steps
108	186	30		Certification: X-RAY CERT [mc110343.tif]
109	186	30		Map(s): X-RAY MAP [mc115230.tif]
110	186	34		Inspection Data Checklist: 2 steps
111	189	10	10	Material Certification: / VVSA PORT 5 TUBE - TUBE, 6.0 OD X .188 WALL [See Item #106] (2650-4-6731)

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112	189	20		Inspection Data Checklist: 1 steps
113	189	30		Map(s): X-RAY MAP [mc115229.tif]
114	189	30		Certification: X-RAY CERT [mc110341.tif]
115	189	34		Inspection Data Checklist: 2 steps

SE120-004 PORT 5A - PORT EXT. 5A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
116	10	10		Inspection Data Checklist: 2 steps
117	187	10	10	Non-Conformance: 17240 Customer document: CUSTOMER SUBMITTAL [car04472.pdf]

SE120-004 PORT 5B - PORT EXT. 5B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
118	11	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 6 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
119	192	10	10	Material Certification: / VVSA PORT 6 TUBE - TUBE, 10.0 OD X .250 WALL [mc107793.tif] (2650 4 6731)
120	192	20		Inspection Data Checklist: 1 steps
121	192	30		Certification: X-RAY CERT [mc110334.tif]
122	192	30		Map(s): X RAY MAP [mc115422.tif]
123	192	34		Inspection Data Checklist: 2 steps
124	197	10	10	Material Certification: / VVSA PORT 6 TUBE - TUBE, 10.0 OD X .250 WALL [See Item #119] (2650 4 6731)
125	197	20		Inspection Data Checklist: 1 steps
126	197	30		Map(s): X-RAY MAP [mc115421.tif]
127	197	30		Certification: X-RAY CERT [mc110333.tif]
128	197	34		Inspection Data Checklist: 2 steps

SE120-004 PORT 6A - PORT EXT. 6A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
129	12	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 6B - PORT EXT. 6B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
130	13	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 7 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
131	202	10	10	Material Certification: / VVSA PORT 7 TUBE - TUBE, 8.0 OD X .188 WALL [mc107833.tif] (2650-4-6731)
132	202	20		Inspection Data Checklist: 1 steps
133	202	30		Map(s): X-RAY MAP [mc115423.tif]
134	202	30		Certification: X-RAY CERT [mc110330.tif]
135	202	34		Inspection Data Checklist: 2 steps

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136	208	10	10	Material Certification: / VVSA PORT 7 TUBE - TUBE, 8.0 OD X .188 WALL [See Item #131] (2650-4-6731)
137	208	20		Inspection Data Checklist: 1 steps
138	208	30		Map(s): X RAY MAP [mc115424.tif]
139	208	30		Certification: X-RAY CERT [mc110332.tif]
140	208	34		Inspection Data Checklist: 2 steps

SE120-004 PORT 7A - PORT EXT. 7A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
141	14	10		Inspection Data Checklist: 2 steps
142	203	10	10	Non-Conformance: 17233 Customer document: SUBMITTAL (SAME AS 17237) [car04482.rtf]
143	207	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)

SE120-004 PORT 7B - PORT EXT. 7B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
144	15	10		Inspection Data Checklist: 2 steps
145	209	10	10	Non-Conformance: 17233 Customer document: SUBMITTAL (SAME AS 17237) [See Item #142]
146	211	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)

SE120-004 PORT 8 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
147	212	10	10	Material Certification: / VVSA PORT 8 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111113.tif] (132793)
148	212	20		Inspection Data Checklist: 1 steps
149	212	30		Map(s): X-RAY MAP [mc115227.tif]
150	212	30		Certification: X-RAY CERT [mc111790.tif]
151	212	50		Inspection Data Checklist: 1 steps
152	215	10	10	Material Certification: / VVSA PORT 8 TUBE - TUBE, 4" O.D. X 0.25" WALL [See Item #147] (132793)
153	215	20		Inspection Data Checklist: 1 steps
154	215	30		Certification: X-RAY CERT [mc111791.tif]
155	215	30		Map(s): X-RAY MAP [mc115228.tif]
156	215	50		Inspection Data Checklist: 1 steps

SE120-004 PORT 8A - PORT EXT. 8A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
157	16	10		Inspection Data Checklist: 2 steps
158	214	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [mc108146.tif] (CERTIFIED)

SE120-004 PORT 8B - PORT EXT. 8B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
159	17	10		Inspection Data Checklist: 2 steps
160	217	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)

SE120-004 PORT 9 - PORT EXT. SUB-ASSY

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
161	218	10	10	Material Certification: / VVSA PORT 9 TUBE - TUBE, 6.0 OD X .188 WALL [mc107834.tif] (2650-4-6731)
162	218	20		Inspection Data Checklist: 1 steps
163	218	30		Certification: X-RAY CERT [mc110337.tif]
164	218	30		Map(s): X-RAY MAP [mc115425.tif]
165	218	34		Inspection Data Checklist: 2 steps
166	221	10	10	Material Certification: / VVSA PORT 9 TUBE - TUBE, 6.0 OD X .188 WALL [See Item #161] (2650-4-6731)
167	221	20		Inspection Data Checklist: 1 steps
168	221	30		Certification: X-RAY CERT [mc110338.tif]
169	221	30		Map(s): X RAY MAP [mc115426.tif]
170	221	34		Inspection Data Checklist: 2 steps

SE120-004 PORT 9A - PORT EXT. 9A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
171	18	10		Inspection Data Checklist: 2 steps
172	219	10	10	Non-Conformance: 17240 Customer document: CUSTOMER SUBMITTAL [See Item #117]

SE120-004 PORT 9B - PORT EXT. 9B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
173	19	10		Inspection Data Checklist: 2 steps
174	222	10	10	Non-Conformance: 17240 Customer document: CUSTOMER SUBMITTAL [See Item #117]

SE120-004 PORT 10 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
175	225	10	10	Material Certification: / VVSA PORT 10 TUBE - TUBE, 10.0 OD X .250 WALL [mc107793.tif] (2650 4 6731)
176	225	20		Inspection Data Checklist: 1 steps
177	225	30		Certification: X-RAY CERT [mc110324.tif]
178	225	30		Map(s): X RAY MAP [mc115438.tif]
179	225	34		Inspection Data Checklist: 2 steps
180	230	10	10	Material Certification: / VVSA PORT 10 TUBE - TUBE, 10.0 OD X .250 WALL [See Item #119] (2650 4 6731)
181	230	20		Inspection Data Checklist: 1 steps
182	230	30		Map(s): X RAY MAP [mc115436.tif]
183	230	30		Certification: X-RAY CERT [mc110323.tif]
184	230	34		Inspection Data Checklist: 2 steps

SE120-004 PORT 10A - PORT EXT. 10A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
185	20	10		Inspection Data Checklist: 2 steps
186	228	10	10	Certificate of Conformance: / 110058 - CONFLAT BLANK FLANGE, 12.0 DIA. [See Item #8] (CERTIFIED)
187	228	10	10	Non-Conformance: 17237 Customer document: SUBMITTAL [See Item #9]
188	229	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

SE120-004 PORT 10B - PORT EXT. 10B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
189	21	10		Inspection Data Checklist: 2 steps
190	233	10	10	Certificate of Conformance: / 110058 - CONFLAT BLANK FLANGE, 12.0 DIA. [See Item #8] (CERTIFIED)
191	233	10	10	Non-Conformance: 17237 Customer document: SUBMITTAL [See Item #9]
192	234	10	10	Certificate of Conformance: / 401021 SPECIAL - DEL-SEAL CF HALF NIPPLE (SPECIAL LENGTH) [See Item #11] (CERTIFIED)

SE120-004 PORT 11A - PORT EXT. 11A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
193	22	10		Inspection Data Checklist: 2 steps
194	235	10	10	Material Certification: / INCONEL 625_112 - PIPE, ALLOY 625, 2.5" SCH 10 [mc108425.tif] (26504674)

SE120-004 PORT 11B - PORT EXT. 11B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
195	23	10		Inspection Data Checklist: 2 steps
196	238	10	10	Material Certification: / INCONEL 625_112 - PIPE, ALLOY 625, 2.5" SCH 10 [See Item #194] (26504674)

SE120-004 PORT 12A - PORT 12A SUB-ASSEMBLY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
197	2	30		Inspection Data Checklist: 4 steps
198	2	40		Inspection Data Checklist: 3 steps
199	2	70		Map(s): X-RAY MAP [mc115223.tif]
200	2	70		Certification: X-RAY CERT [See Item #199]
201	2	80		Inspection Data Checklist: 11 steps
202	2	120		Inspection Data Checklist: 7 steps
203	299	30		Map(s): X-RAY MAP [mc115225.tif]
204	299	30		Certification: X-RAY CERT [See Item #203]

SE120-004 PORT 12B - PORT 12B SUB-ASSEMBLY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
205	3	30		Inspection Data Checklist: 4 steps
206	3	40		Inspection Data Checklist: 3 steps
207	3	70		Certification: X-RAY CERT [mc112734.tif]
208	3	70		Map(s): X-RAY MAP [See Item #207]
209	3	80		Inspection Data Checklist: 11 steps
210	295	30		Certification: X-RAY CERT [mc112733.tif]

SE120-004 PORT 15 - PORT EXT. SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
211	241	10	10	Material Certification: / VVSA PORT 15 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111107.tif] (132793)
212	241	20		Inspection Data Checklist: 1 steps
213	241	30		Certification: X-RAY CERT [mc111816.tif]

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

214	241	30		Map(s): X-RAY MAP [mc115247.tif]
215	241	50		Inspection Data Checklist: 1 steps
216	244	10	10	Material Certification: / VVSA PORT 15 TUBE - TUBE, 4" O.D. X 0.25" WALL [See Item #211] (132793)
217	244	20		Inspection Data Checklist: 1 steps
218	244	30		Map(s): X-RAY MAP [mc115246.tif]
219	244	30		Certification: X-RAY CERT [mc111818.tif]
220	244	50		Inspection Data Checklist: 1 steps

SE120-004 PORT 15A - PORT EXT. 15A SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

221	24	10		Inspection Data Checklist: 2 steps
222	243	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)

SE120-004 PORT 15B - PORT EXT. 15B SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

223	25	10		Inspection Data Checklist: 2 steps
224	246	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)

SE120-004 PORT 17 - PORT EXT. SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

225	166	10	10	Material Certification: / VVSA PORT 17 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111109.tif] (132793)
226	166	20		Inspection Data Checklist: 1 steps
227	166	30		Map(s): X-RAY MAP [mc118859.tif]
228	166	30		Certification: X-RAY CERT [See Item #227]
229	166	50		Inspection Data Checklist: 1 steps
230	174	10	10	Material Certification: / VVSA PORT 17 TUBE - TUBE, 4" O.D. X 0.25" WALL [See Item #225] (132793)
231	174	20		Inspection Data Checklist: 1 steps
232	174	30		Certification: X-RAY CERT [mc111808.tif]
233	174	30		Map(s): X-RAY MAP [mc115244.tif]
234	174	50		Inspection Data Checklist: 1 steps

SE120-004 PORT 17A - PORT EXT. 17A SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

235	162	10		Inspection Data Checklist: 2 steps
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SE120-004 PORT 17B - PORT EXT. 17B SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

236	164	10		Inspection Data Checklist: 2 steps
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SE120-004 PORT 18 - PORT EXT. SUB-ASSY

Item# Sub Op Pc Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)

237	171	10	10	Material Certification: / VVSA PORT 18 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111111.tif] (132793)
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Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

238	171	20		Inspection Data Checklist: 1 steps
239	171	30		Certification: X-RAY CERT [mc111795.tif]
240	171	30		Map(s): X-RAY MAP [mc115243.tif]
241	171	50		Inspection Data Checklist: 1 steps
242	177	10	10	Material Certification: / VVSA PORT 18 TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111111.tif] (132793)
243	177	20		Inspection Data Checklist: 1 steps
244	177	30		Certification: X-RAY CERT [mc111798.tif]
245	177	30		Map(s): X-RAY MAP [mc115242.tif]
246	177	50		Inspection Data Checklist: 1 steps

SE120-004 PORT 18A - PORT EXT. 18A SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
247	163	10		Inspection Data Checklist: 2 steps

SE120-004 PORT 18B - PORT EXT. 18B SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
248	165	10		Inspection Data Checklist: 2 steps

SE120-004 PORT FJS - PORT EXT. FJS SUB-ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
249	224	10		Inspection Data Checklist: 2 steps
250	247	10	10	Material Certification: / VVSA PORT FJS TUBE - TUBE, 4" O.D. X 0.25" WALL [mc111108.tif] (132793)
251	247	20		Inspection Data Checklist: 1 steps
252	247	30		Certification: X-RAY CERT [mc111822.tif]
253	247	30		Map(s): X-RAY MAP [mc115248.tif]
254	247	50		Inspection Data Checklist: 1 steps
255	249	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)

SE120-004 PORT NB - PORT NB SUB-ASSEMBLY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
256	1	30		Inspection Data Checklist: 4 steps
257	1	40		Inspection Data Checklist: 2 steps
258	1	70		Map(s): SE120-002-1PNX [mc115249.tif]
259	1	70		Certification: X-RAY CERT [mc111824.tif]
260	1	75		Inspection Data Checklist: 9 steps
261	1	90		Inspection Data Checklist: 6 steps

SE120-004-16 - PORT 11 PIPE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
262	235	30		Inspection Data Checklist: 3 steps

SE120-004-20B - VVSA DOME B

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
263	5	20	10	Dimensional Report: / SE120-004-20B - VVSA DOME B [mc110475.tif] (CERTIFIED)
264	5	20	10	Certificate of Conformance: / SE120-004-20B - VVSA DOME B [See Item #263] (CERTIFIED)

SE122-004-20B BLANK - DOME B FLAT BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
265	5	10	10	Material Certification: / SE120-004-20B BLANK - VVSA DOME B FLAT BLANK MATERIAL [mc108864.tif] (2650 4 6771)

SE120-004-23 - CONFLAT, 6.0 OD TAPPED Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
266	167	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [car04483.rtf]
267	172	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
268	175	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
269	178	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
270	181	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
271	184	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
272	213	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
273	216	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
274	242	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
275	245	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]
276	248	10		Non-Conformance: 17167 Customer document: SUBMITTAL (SAME AS 17237) [See Item #266]

SE120-004-29 - CF REDUCING NIPPLE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
277	168	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [mc106776.tif] (CERTIFIED)
278	173	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [mc107546.tif] (CERTIFIED)
279	176	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)
280	179	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)
281	182	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)
282	185	10	10	Certificate of Conformance: / FA06000133 - CF REDUCING NIPPLE, 6.00 TO 1.33" [See Item #158] (CERTIFIED)

SE120-004-32 - BOLT, 12PT, SILV PLT.

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
283	259	10	10	Material Certification: / SE120-004-32 - BOLT, 12 PT, SILVER PLATED, .50-20 X 3.5 [mc110752.tif] (062313725)

SE120-004-33 - BOLT SET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
284	159	10	20	Certificate of Conformance: / 190165 - BOLT SET, .312-24 X 2.00 LG [mc107045.tif] (CERTIFIED)

SE120-004-34 - BOLT SET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
285	159	10	30	Certificate of Conformance: / 190058 - BOLT SET, .312-24 X 1.25 12PT SILVER PLT [mc107047.tif] (CERTIFIED)

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
 Customer P.O.: S005243-F
 Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

SE120-004-35 - BOLT SET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
286	159	10	40	Certificate of Conformance: / 190059 - BOLT SET, .312-24 X 1.75 12PT SILVER PLT [mc107046.tif] (CERTIFIED)

SE120-004-36 - COPPER GASKET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
287	159	10	50	Certificate of Conformance: / 191011 - GASKET, COPPER, 3.01 I.D. [mc107044.tif] (CERTIFIED)

SE120-004-37 - COPPER GASKET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
288	159	10	60	Certificate of Conformance: / 191013 - GASKET, COPPER, 4.01 I.D. [mc107043.tif] (CERTIFIED)

SE120-004-38 - COPPER GASKET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
289	159	10	70	Certificate of Conformance: / 191017 - GASKET, COPPER, 6.01 I.D. [mc107042.tif] (CERTIFIED)

SE120-004-39 - COPPER GASKET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
290	159	10	80	Certificate of Conformance: / 191019 - GASKET, COPPER, 8.01 I.D. [mc107041.tif] (CERTIFIED)

SE120-004-40 - COPPER GASKET

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
291	159	10	90	Certificate of Conformance: / 191094 - GASKET, COPPER, 10.00 I.D. [mc107039.tif] (CERTIFIED)

SE120-004-42 - VITON O-RING

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
292	108	10	10	Certificate of Conformance: / SE120-004-42 - O-RING, VITON [mc106890.tif] (CERTIFIED)
293	122	10	10	Certificate of Conformance: / SE120-004-42 - O-RING, VITON [See Item #292] (CERTIFIED)

SE120-004-44 - O-RING, VITON

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
294	133	10	10	Certificate of Conformance: / SE120-004-44 - O-RING, VITON [mc106822.tif] (CERTIFIED)
295	152	10	10	Certificate of Conformance: / SE120-004-44 - O-RING, VITON [See Item #294] (CERTIFIED)

SE120-004-47 - SEAL RETAINER SCREW

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
296	101	10	10	Material Certification: / 98164A133 - BHCS 316SST #8-32UNC-3A X 0.25" LONG [mc105456.tif] (CERTIFIED)
297	112	10	10	Material Certification: / 98164A133 - BHCS 316SST #8-32UNC-3A X 0.25" LONG [See Item #296] (CERTIFIED)
298	123	10	10	Material Certification: / 98164A133 - BHCS 316SST #8-32UNC-3A X 0.25" LONG [See Item #296] (CERTIFIED)
299	134	10	10	Material Certification: / 98164A133 - BHCS 316SST #8-32UNC-3A X 0.25" LONG [See Item #296] (CERTIFIED)
300	153	10	10	Material Certification: / 98164A133 - BHCS 316SST #8-32UNC-3A X 0.25" LONG [See Item #296] (CERTIFIED)

SE120-004-48 - VVSA CLEVIS BOSS "A"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
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Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

301	252	10	10	Material Certification: / INCONEL 625_255 - BAR,ROUND,NICKEL ALLOY 2.0" DIA [mc111533.tif] (900257)
302	252	30		Inspection Data Checklist: 1 steps
303	293	10	10	Material Certification: / INCONEL 625_255 - BAR,ROUND,NICKEL ALLOY 2.0" DIA [See Item #301] (900257)
304	293	30		Inspection Data Checklist: 1 steps

SE120-004-49 - VVSA CLEVIS BOSS "B"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
305	253	10	10	Material Certification: / INCONEL 625_255 - BAR,ROUND,NICKEL ALLOY 2.0" DIA [See Item #301] (900257)
306	253	30		Inspection Data Checklist: 1 steps

SE120-004-50 - VVSA CLEVIS BOSS "C"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
307	254	10	10	Material Certification: / INCONEL 625_255 - BAR,ROUND,NICKEL ALLOY 2.0" DIA [See Item #301] (900257)
308	254	30		Inspection Data Checklist: 1 steps

SE120-004-51 - VVSA CLEVIS BOSS "D"

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
309	255	10	10	Material Certification: / INCONEL 625_255 - BAR,ROUND,NICKEL ALLOY 2.0" DIA [See Item #301] (900257)
310	255	30		Inspection Data Checklist: 1 steps

SE120-004-55 - NUT, 1/2-20 UNF, GRADE 8

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
311	259	10	20	Material Certification: / SE120-004-55 - NUT, 1/2-20 UNF, GRADE 8 [mc110063.tif] (744072 & E28031 & HT9618EY)

SE120-004-56 - WASHER, 0.531 ID X 1.062 OD X 0.095 THK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
312	288	10	10	Material Certification: TRACE ID: 127786 / SE120-004-56 - WASHER, 0.531 ID X 1.062 OD X 0.095 THK [mc113530.tif] (CERTIFIED)
313	288	10	10	Material Certification: TRACE ID: 127786 / SE120-004-56 - WASHER, 0.531 ID X 1.062 OD X 0.095 THK [mc110737.tif] (CERTIFIED)

SE120-004-57 - BOLT, 12 PT, 1/2-20

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
314	259	10	40	Material Certification: / SE120-004-57 - BOLT, 12 PT, 1/2-20 UNF X 2.00, INCO 718 [See Item #311] (744072 & E28031 & HT9618EY)

SE122-018-1A BLANK - PORT 12A FLANGE BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
315	291	10	10	Material Certification: / SE122-018-1A BLANK - NCSX VVSA PORT 12A FLANGE BLANK [mc111004.tif] (818102)
316	291	20		Inspection Data Checklist: 5 steps
317	291	50		Certification: [mc111911.tif]

SE122-018-1A - PORT 12A FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
318	2	118		Inspection Data Checklist: 6 steps

SE122-018-1B BLANK - PORT 12B FLANGE BLANK

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
 Customer P.O.: S005243-F
 Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
319	292	10	10	Material Certification: / SE122-018-1B BLANK - NCSX VVSA PORT 12B FLANGE BLANK [See Item #315] (818102)
320	292	50		Certification: [See Item #317]
321	292	70		Certification: VENDOR CERT [mc112551.tif]

SE122-018-1B - PORT 12B FLANGE Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
322	3	116		Certificate of Conformance: [mc113511.tif]
323	3	118		Inspection Data Checklist: 6 steps
324	292	20		Inspection Data Checklist: 5 steps

SE122-019-1A BLANK - PORT 12A SEAL RETAINER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
325	107	10	10	Material Certification: / SE122-019-1A BLANK - PORT 12A SEAL RETAINER BLANK [mc110471.tif] (604254-2B)

SE122-019-1A - PORT 12A SEAL RETAINER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
326	107	20		Inspection Data Checklist: 8 steps
327	107	30		Inspection Data Checklist: 1 steps

SE122-019-1B BLANK - PORT 12B SEAL RETAINER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
328	120	10	10	Material Certification: / SE122-019-1B BLANK - PORT 12B SEAL RETAINER BLANK [See Item #325] (604254-2B)

SE122-019-1B - PORT 12B SEAL RETAINER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
329	120	20		Inspection Data Checklist: 8 steps
330	120	30		Inspection Data Checklist: 1 steps

SE122-049-1A - PORT 4A FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
331	8	118		Inspection Data Checklist: 6 steps
332	126	20		Inspection Data Checklist: 6 steps
333	126	50		Certification: [mc111762.tif]

SE122-049-1B - PORT 4B FLANGE Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
334	9	116		Certificate of Conformance: [mc113726.tif]
335	9	118		Inspection Data Checklist: 6 steps
336	145	20		Inspection Data Checklist: 6 steps
337	145	50		Certification: [See Item #333]

SE122-057-1A BLANK - PORT 4A SEAL RETAINER BLANK

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
338	131	10	10	Material Certification: / SE122-057-1A BLANK - PORT 4A SEAL RETAINER BLANK [See Item #325] (604254-2B)

SE122-057-1A - PORT 4A SEAL RETAINER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
339	131	20		Inspection Data Checklist: 8 steps
340	131	30		Inspection Data Checklist: 1 steps
341	296	10		Inspection Data Checklist: 1 steps

SE122-057-1B - PORT 4B SEAL RETAINER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
342	150	20		Inspection Data Checklist: 8 steps
343	150	30		Inspection Data Checklist: 1 steps
344	297	10		Inspection Data Checklist: 1 steps

SE122-072-1 - PORT NB FLANGE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
345	82	20		Inspection Data Checklist: 8 steps

SE122-072-1BLANK - PORT NB WELD FLANGE BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
346	82	10	10	Material Certification: / SE122-072-1BLANK - PORT NB FLANGE BLANK [mc110077.tif] (512120L04)

SE122-104-1A BLANK - PORT 12A COVER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
347	106	10	10	Material Certification: / SE122-104-1A BLANK - PORT 12A COVER BLANK [mc109665.tif] (818102)

SE122-104-1A - PORT 12A COVER ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
348	106	20		Inspection Data Checklist: 12 steps
349	106	30		Inspection Data Checklist: 2 steps
350	106	50		Inspection Data Checklist: 3 steps

SE122-104-1B - PORT 12B COVER ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
351	117	20		Inspection Data Checklist: 12 steps
352	117	30		Inspection Data Checklist: 2 steps
353	117	50		Inspection Data Checklist: 3 steps

SE122-112-1 - PORT 10B COVER ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
354	232	10		Inspection Data Checklist: 2 steps

SE122-149-1A BLANK - PORT 4A COVER BLANK

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
355	128	10	10	Material Certification: / SE122-149-1A BLANK - PORT 4A COVER BLANK [mc109667.tif] (65X9)

SE122-149-1A - PORT 4A COVER ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
356	128	20		Inspection Data Checklist: 4 steps
357	128	30		Inspection Data Checklist: 2 steps
358	128	50		Inspection Data Checklist: 3 steps

SE122-149-1B BLANK - PORT 4B COVER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
359	147	10	10	Material Certification: / SE122-149-1B BLANK - PORT 4A COVER BLANK [See Item #355] (65X9)

SE122-149-1B - PORT 4B COVER ASSY

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
360	147	20		Inspection Data Checklist: 4 steps
361	147	30		Inspection Data Checklist: 2 steps
362	147	50		Inspection Data Checklist: 3 steps

SE122-172-1 - PORT NB COVER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
363	84	10	10	Material Certification: / SE122-172-1BLANK - PORT NB COVER BLANK [See Item #346] (512120L04)
364	84	20		Inspection Data Checklist: 3 steps
365	84	40		Certificate of Conformance: [mc114932.tif]
366	84	50		Inspection Data Checklist: 7 steps

SE122-173-1 - PORT NB SEAL RETAINER

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
367	98	20		Inspection Data Checklist: 6 steps

SE122-173-1BLANK - NB SEAL RETAINER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
368	98	10	10	Material Certification: / SE122-173-1BLANK - PORT NB SEAL RETAINER BLANK [mc110068.tif] (NX4533AG)

SE122-174-2 - HELICOFLEX SEAL

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
369	290	10		Inspection Data Checklist: 1 steps

WELD WIRE

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
370	0	10	30	Material Certification: TRACE ID: 29110 / INCONEL625_035_GMAW - WELD WIRE/GMAW, .035 DIA [mc068650.tif] (VX3417AK / XB8273)
371	0	10	30	Material Certification: TRACE ID: 123160 / INCONEL625_035_GMAW - WELD WIRE/GMAW, .035 DIA [mc109152.tif] (VX3417AK / XB8273)

Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

372	0	10	60	Material Certification: TRACE ID: 95373 / INCONEL625_093_GTAW - WELD WIRE/GTAW, .093 DIA [mc095872.tif] (CB7996 / CT7519 / CV8061 / K48)
373	0	10	60	Material Certification: TRACE ID: 83645 / INCONEL625_093_GTAW - WELD WIRE/GTAW, .093 DIA [mc075605.tif] (CT7519)
374	0	10	60	Material Certification: TRACE ID: 119262 / INCONEL625_093_GTAW - WELD WIRE/GTAW, .093 DIA [mc107551.tif] (CB7996 / CT7519 / CV8061 / K48)
375	0	10	60	Material Certification: Trace ID: 121405 / INCONEL625_093_GTAW - WELD WIRE/GTAW, .093 DIA [mc108429.tif] (CB7996 / CT7519 / CV8061 / K48)
376	0	10	60	Material Certification: TRACE ID: 94241 / INCONEL625_093_GTAW - WELD WIRE/GTAW, .093 DIA [mc094945.pdf] (CB7996 / CT7519 / CV8061 / K48)
377	0	10	70	Material Certification: TRACE ID: 94238 / INCONEL625_062_GTAW - WELD WIRE/GTAW, .062 DIA [mc094944.pdf] (AB8051 / AV8128)
378	0	10	70	Material Certification: TRACE ID: 94881 / INCONEL625_062_GTAW - WELD WIRE/GTAW, .062 DIA [mc095279.pdf] (AB8051 / AV8128)

SE120-004-20A - VVSA DOME A

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
379	4	20	10	Dimensional Report: / SE120-004-20A - VVSA DOME A [mc110475.tif] (CERTIFIED)
380	4	20	10	Certificate of Conformance: / SE120-004-20A - VVSA DOME A [See Item #379] (CERTIFIED)

SE122-004-20A BLANK - DOME A FLAT BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
381	4	10	10	Material Certification: / SE120-004-20A BLANK - VVSA DOME A FLAT BLANK MATERIAL [mc108864.tif] (2650 4 6771)

SE122-049-1A BLANK - PORT 4A FLANGE BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
382	126	10	10	Material Certification: / SE122-049-1A BLANK - NCSX VVSA PORT 4A FLANGE BLANK [mc109789.tif] (65H7)

SE122-049-1B BLANK - PORT 4B FLANGE BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
383	145	10	10	Material Certification: / SE122-049-1B BLANK - NCSX VVSA PORT 4B FLANGE BLANK [See Item #382] (65H7)

SE122-057-1B BLANK - PORT 4B SEAL RETAINER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
384	150	10	10	Material Certification: / SE122-057-1B BLANK - PORT 4B SEAL RETAINER BLANK [mc110471.tif] (604254-2B)

SE122-104-1B BLANK - PORT 12B COVER BLANK

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
385	117	10	10	Material Certification: / SE122-104-1B BLANK - PORT 12B COVER BLANK [mc109665.tif] (818102)

SE122-112 - CF FLANGE Qty: 1

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
386	200	10		Supplier Technical Requirement: CUSTOMER RESPONSE TO N.C. [mc120902.tif]

Z_NCR

Item#	Sub	Op	Pc	Document Type: Document Description / Material - Material Description [File Name] (Heat Lot)
387				NCR17167: [ncr17167.pdf]
388				NCR17314: [ncr17314.pdf]



Customer: 8780 - PRINCETON PLASMA PHYSICS LAB
Customer P.O.: S005243-F
Customer Part ID: VVSA PORTS - VVSA PORT EXTENSIONS

388	NCR17233: - NCR17233.pdf
389	NCR17237: - NCR17237.pdf
390	NCR17240: - NCR17240.pdf
391	NCR17286: - NCR17286.pdf
392	NCR17287: - NCR17287.pdf
393	NCR18590: - NCR18590.pdf
394	NCR18609: - NCR18609.pdf
395	NCR19060: - NCR19060.pdf
396	NCR19116: - NCR19116.pdf
397	NCR19286: - NCR19286.pdf
398	NCR19288: - NCR19288.pdf
399	NCR17314: - NCR17314.pdf
400	NCR18144: - NCR18144.pdf
401	NCR18175: - NCR18175.pdf
402	NCR18402: - NCR18402.pdf
403	NCR18459: - NCR18459.pdf
404	NCR18542: - NCR18542.pdf
405	NCR17157: - NCR17157.pdf

CERTIFICATE OF CONFORMANCE

Page: 1
Date: 09/16/06
User ID: UPCHURC#

TO: PRINCETON PLASMA PHYSICS LAB

DATE: 09/16/2006

ATTENTION: Receiving Department

Seller certifies that:

Part Number: VVSA PORTS

Purchase Order: S005243-F

Part Name: VVSA PORT EXTENSIONS

Workorder: 65678/7.0

Part Serial Number: N/A

Quantity: 1

1. These materials and/or parts were produced in conformance with all contractually applicable Government and/or Customer specifications referred in, or furnished with, the above Purchase Order.
2. The materials and/or parts furnished under the above Purchase Order were produced:
 - From materials furnished by Customer for the production of such parts.
 - From materials for which the seller has available for examination chemical and/or physical test reports or other evidence of conformance to applicable specifications.
3. All processes required in the production of these part and/or materials are listed below and were performed by a facility or personnel approved or certified by the Seller and the customer when such approval or certification is required by contract.

Certifications are on file at this plant.

Other Requirements:

WSA PORT EXTENSIONS FOR LOT 1 MANUFACTURED PER P.O. REQUIREMENTS.

Signature: R. K. Upchurch Title: Inspector Date: 9-16-06



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>
HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

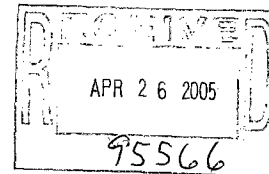
ATTENTION: KATY DEBERNARDI

DATE: April 14, 2005

SUBJECT: CERTIFICATION OF PO# P05-01402

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: tcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522



1-12
B-1



4/26/05

Dedicated to Quality and Service



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23842 Cabot Blvd., Hayward CA 94545-1651
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E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>
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Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL AND MACHINE, INC.

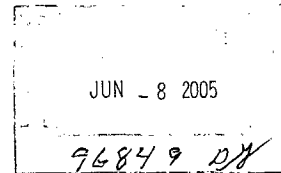
ATTENTION: KATY DEBERNARDI

DATE: 6/8/05

**SUBJECT: CERTIFICATION OF PO# P05-01402
MDC ORDER CONFIRMATION NUMBER: M390352**

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation JUN 15 2005
e-mail: mschultz@mdcvacuum.com
phone: 510 265 3500



Line 13-18

Dedicated to Quality and Service

Form 10-13, Rev B



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>
HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: tcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05
95013
1-9
B.A.

Dedicated to Quality and Service



4/6/05

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Frank Malinowski

E-Mail: fmalinowski@pppl.gov

Telephone: 609-243-2441

Fax: 609-243-2021

Part: /SE122-112-3 (CF BLANK FLANGE)

Drawing ID: SE122-113

Revision: 0

Customer P.O.: S005243-F

Serial No./Qty: N/A

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433

Fax: 317-634-9420

Problem: Magnetic Permeability requirement 1.02 Max

Checks > 1.05, but < 1.1

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Princeton University Plasma Physics Laboratory
James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

26 August 2005

Ms. Teresa L. Hubbard
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Subcontract S005243-F
Approved Disposition of Major Tool, Inc. Non-Conformance Reports
17157, 17167, 17233, 17237, 17240, 17286, 17287, 17288, 17314,
and 17342

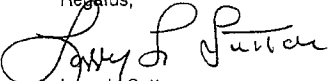
Dear Ms. Hubbard:

Attached are ten Major Tool & Machine, Inc. submitted Non-Conformance Reports (NCRs) and their disposition approved by the National Compact Stellarator Experiment (NCSX) Procurement Technical Representative and the Responsible Line Manager for the Vacuum Vessel Sub-Assembly.

Please note the one signed Project Disposition form applies to all ten of the NCRs.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441 and by e-mail lsutton@pppl.gov.

Regards,


Larry L. Sutton
Senior Subcontract Administrator

Attachments: As stated

cc: M. Viola



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
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HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

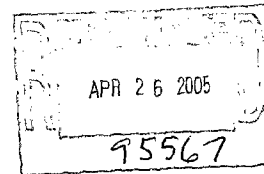
ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: icasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522



83-87
B.J.



Dedicated to Quality and Service



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HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ

Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: ksarary@mdcvacuum.com
Phone: (510) 265-3500 x 3522



4/6/05

4/4/05
95042
112-141
B.J.



Trinos Vakuum-Systeme GmbH · Anna-Vanderhoeck-Ring 44 · 37081 Göttingen

Major Tool & Machine, Inc.
 1458 E. 19th Street
 Indianapolis, IN 46218
 USA

Certificate / Werksbescheinigung DIN EN ISO 10204 2.2:

Item: 33 x 480 FBL 100-G-E, Weld Flange CF 6", thread
Bezeichnung:

We hereby confirm that the above described items are from:
Hiermit bestätigen wir Ihnen, dass die Teile aus:

Order Number: P.O. 5-04027 , AB-05-02356, RG 05-04280
Auftrags-Nr.:

Date: ----- / 2. Aug. 2005 / 17. Aug 2005
Datum:

Material: 316 LN ESR , CERN SPECS
Werkstoff:

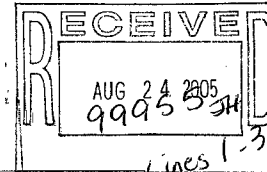
Supplier ID: K10386
Lieferanten Nr.:

Batch ID : 920 183
Chargen Nr.:

Other Specs:
Andere Kennziffer: Magnetic permeability better than 1.01 mμ

Göttingen, 19.Aug.2005

AUG 29 2005



Geschäftsführende Gesellschafter:	Bankverbindungen:		
Betriebswirt Peter Spreitz	Sparkasse Göttingen	BLZ: 260 500 01	Konto-Nr:670 59 41
Dipl.-Phys. Marcus Weinhausen	Kreis-Sparkasse Northeim	BLZ: 262 500 01	Konto-Nr.: 6 36 36
	Dresdner Bank	BLZ 260 800 24	Konto-Nr.: 9 238 232 00

Ust-IDNr.:
 DE 188 544 351
 Amtsgericht Göttingen
 HRB 3008



Erzeugnisform Product		Stab, rund, geschmiedet, geschält Round bars, forged, peeled									
Werkstoff / Quality		1.4429 X2CrNiMoN17-13-3 ESU									
Anforderungen Requirements		Kundenbestellung / customer order 1.4429 X 2 CrNiMoN 17-13-3 ESU ,DIN 17440 09/96 1.4429 X2CrNiMoN17-13-3 "ESU" ,SL-LV 4429ESU 01/05									
Besichtigung und Maßprüfung Inspection and dimensional control Inspection et contrôle de dimension ohne Beanstandung without objection				Erschmelzung/Nachbehandlung Melting/secondary refining Mode d'élaboration/traitement ultérieur ESU				Verwechslungsprüfung (spektralanalytisch) Identification test (spectral-analysis) examination of identification (analyse spectrale) ohne Beanstandung without objection			
Pos. Item	Anzahl Quantity	Abmessung Dimension								Gewicht kg Weight kg	Schmelz-Nr. Heat-No.
1	2	155 mm rd. x 4880 - 5510 mm								1586	920183
Schmelz-Heat-Nr.	C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co	
920183	0,018	0,20	1,62	0,031	0,002	16,61	2,51	12,00	0,2180	0,046	
Der N2-Gehalt wurde toleriert. / The N2 content was tolerated.											
Wärmebehandlungszustand Condition of heat treatment		Lösungsgeglüht / solution annealed 1050°C 1h Wasser/water									
Probe-Nr. Test-No.	Lage Loc.	Temp. °C	Rp0,2 N/mm ²	Rp1,0 N/mm ²	Rm N/mm ²	A5 %	Z %	Kerbschlagenergie Impact value J	Probenform Shape of test piece Charpy-V	Härte HB Hardness	
Soll/Req.	L	RT	>=300	>=330	>=600	>=40	>=85	RT			
614J1	L	RT	371	427	689	49	82	296	298	298 RT 164-167	
Stückanalyse / Check analysis:											
C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co	(N2 wurde toleriert/ N2 was tolerated)	
0,015	0,19	1,62	0,026	0,001	16,45	2,52	12,20	0,2150	0,036		
Korngröße nach / Grain size acc. ASTM E 112: 4											
Reinheitsgrad nach / Degree of purity acc. DIN 50602: K1 = 1,30											
Reinheitsgrad nach / Degree of purity acc. ASTM E 45, method D:											
Dünn/thin - Type A: 0,5 Type B: 0,6 Type C: 0,4 Type D: 1,0											
Dick/heavy - Type A: 0,5 Type B: 0,5 Type C: 0,4 Type D: 0,5											
Gefüge: / Microstructure: Austenit / austenitic											
Permeabilität / Permeability: max. 1,007 µr											
Die US-Prüfung nach SEP 1921 - 12/84, Prüfgruppe 3, Größenklasse D, Häufigkeitsklasse d wurde durchgeführt: ohne Beanstandung The UT examination acc. SEP 1921 - 12/84, examination class 3, dimension class D, frequency class d was done: without objection											
Anlagen Empl. Amesse US-Zaugs/ UT cert.					Lieu et date 21.07.2005			Abnahmebeauftragter Third Party Inspector Inspecteur de réception Langer			
Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig. This certificate was generated by data system (i) must not be signed for validity as well. Ce certificat a été émis par système informatique et est valable sans signature aussi.											



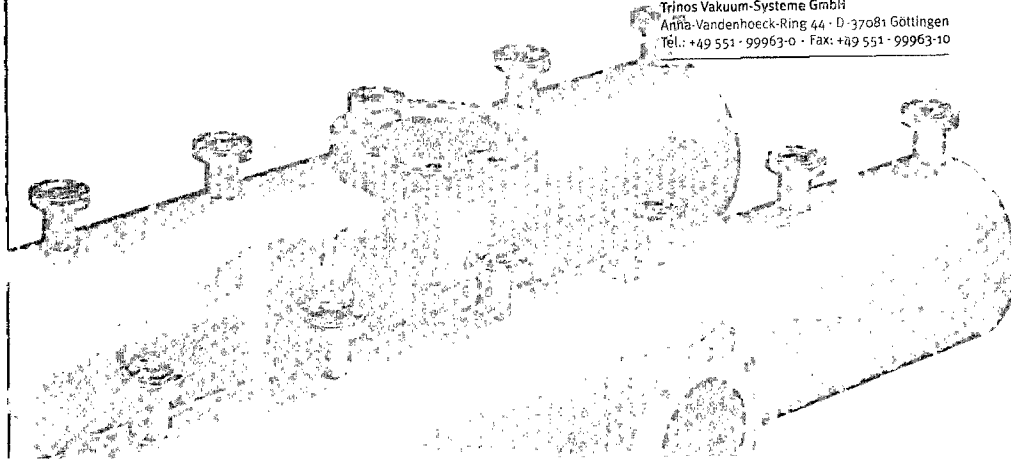
I, the undersigned, exporter of the goods covered by this document declare that except where otherwise indicated, the goods meet the conditions to obtain originating status in preferential trade with: United States of America
And that the country of origin of the goods is: THE EUROPEAN COMMUNITY

Göttingen, 17.08.2005, Arne Schulte *Arne Schulte*

Place, date, full name signature, official stamp



Trinos Vakuum-Systeme GmbH
Arlha-Vandenhoeck-Ring 44 · D-37081 Göttingen
Tel.: +49 551 99963-0 · Fax: +49 551 99963-10





Trinos Vakuum-Systeme GmbH, Anna-Vanderhoock Ring 44, 37081 Göttingen

Major Tool & Machine, Inc.
 1458 E. 19th Street
 Indianapolis, IN 46218
 USA

Certificate / Werksbescheinigung DIN EN ISO 10204 2.2:

Item:
Bezeichnung: 12 x 480 FBL 160-G-E, Weld Flange CF 8", thread

We hereby confirm that the above described items are from:
Hiermit bestätigen wir Ihnen, dass die Teile aus:

Order Number:
Auftrags-Nr.: P.O. 5-04027 , AB-05-02356, RG 05-04280

Date:
Datum: / 2. Aug. 2005 / 17. Aug 2005

Material:
Werkstoff: 316 LN ESR , CERN SPECS

Supplier ID:
Lieferanten Nr.: K10386

Batch ID :
Chargen Nr.: 920 135

Other Specs:
Andere Kennziffer: Magnetic permeability better than 1.01 mμ

Göttingen, 19. Aug. 2005

AUG 30 2005
 RECEIVED
 AUG 29 2005
 100051 JH
 Lines 34-45

Geschäftsführende Gesellschafter:	Bankverbindungen:	Ust-IDNr.:
Betriebswirt Peter Spreitz	Sparkasse Göttingen	DE 188 544 351
Dipl.-Phys. Marcus Weinhausen	Kreis-Sparkasse Northeim	Amtsgericht Göttingen
	Dresdner Bank	HRB 3008
	BLZ: 260 500 01	Konto-Nr670 59 41
	BLZ: 262 500 01	Konto-Nr.: 6 36 36
	BLZ 260 800 24	Konto-Nr.: 9 238 232 00



POS-04027

Erzeugnisform Product		Stab, rund, geschmiedet, geschält Round bars, forged, peeled												
Werkstoff / Quality		1.4429 X2CrNiMoN17-13-3 ESU												
Anforderungen Requirements		Kundenbestellung / customer order 1.4429 X 2 CrNiMoN 17-13-3 ESU ,DIN 17440 09/98												
Beschreibung und Maßanweisung Inspection and dimensional control Inspection et contrôle de dimension ohne Beanstandung without objection					Erzschmelzungsbehandlung Meltingprocess/reactory refining Mode d'élaboration/traitement réacteur ESU					Verwechslungsprüfung (Spektralanalyse) Identification test (spectral analysis) examen/essai d'identification (analyse spectrale) ohne Beanstandung without objection				
Pos. Nr. Item	Anzahl Quantity	Abmessung Dimension								Gewicht kg Weight kg	Schmelz-Nr. Heat-No			
3	4	210 mm rd. x 3200 - 3546 mm								3756	920135			
Schmelz-Nr. Heat No	C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co				
920135	0,017	0,21	1,59	0,027	0,003	16,81	2,56	12,10	0,1530	0,051				
Wärmebehandlungszustand Condition of heat treatment		Lösungsgeglüht solution annealed												
Traitement thermique		1050°C Wasser/water												
Probe-Nr. Test No.	Lage Loc.	Temp. °C	Rp0,2 N/mm ²	Rp1,0 N/mm ²	Rm N/mm ²	A5 %	Z %	Kerbschlagenergie Impact value J	Prüfarten Shape of test piece Charpy-V			Härte HB Hardness		
Soll/Req.	Q	RT	>=295	>=330	>=580	>=30		>=55	RT					
430T1	Q	RT	355	446	664	45	75	296	296	294	RT	177-181		
430T2	Q	RT	349	442	658	45	74	298	295	297	RT			
Korngröße nach ASTM E 112 : 4 Grain size acc. ASTM E 112: 4														
Reinheitssgrad nach DIN 50602 : K1 = 1,01 Degree of purity acc. DIN 50602: K1 = 1.01														
Permeabilität: 1,006 G/Oe Permeability : 1.006 G/Oe														
Die US-Prüfung nach SEP 1921 - 12/84, Prüfgruppe 3, Größenklasse D, Häufigkeitsklasse d wurde durchgeführt; ohne Beanstandung The UT-examination acc. SEP 1921 - 12/84, examination class 3, dimension class D, frequency class d was done; without objection														
Anliegen End Address		Place and date Lieu et date 06-11-2004					Der Werkbeauftragte Works-Inspector L'expert de l'usine Langer							
Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig.						This certificate was generated by data system it must not be signed for validity as well Ce certificat a été établi sur système informatique et est valable sans signature aussi								

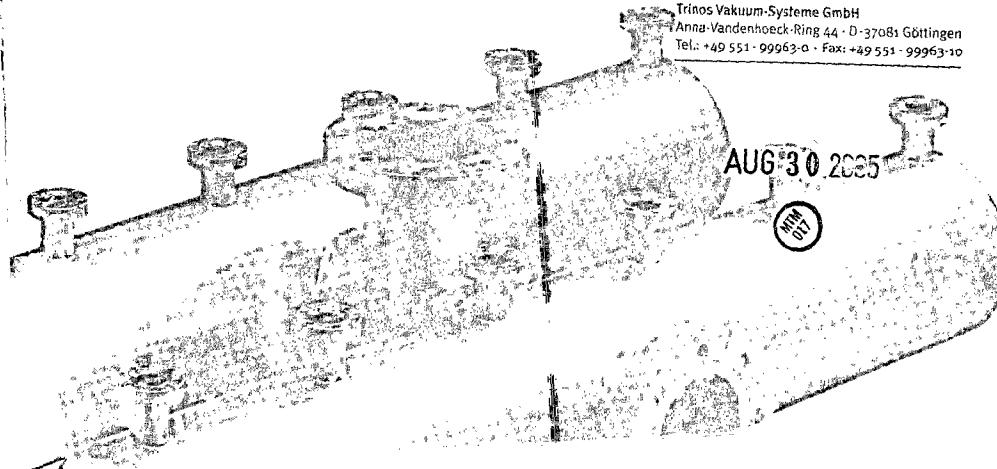
AUG 30 2005



I, the undersigned, exporter of the goods covered by this document declare that except where otherwise indicated, the goods meet the conditions to obtain originating status in preferential trade with: United States of America
And that the country of origin of the goods is: THE EUROPEAN COMMUNITY

Göttingen, 19.08.2005, Anne Schulte Anne Schulte
(place, date, full name signature, official stamp)

TRINOS VAKUUM
Trinos Vakuum-Systeme GmbH
Anna-Vandenhoeck-Ring 44 · D-37081 Göttingen
Tel.: +49 551-99963-0 · Fax: +49 551-99963-10





Trinos Vakuum-Systeme GmbH - Anna-Vandenhoeck-Ring 44 - 37081 Göttingen

Major Tool & Machine, Inc.
 1458 E. 19th Street
 Indianapolis, IN 46218
 USA

Certificate / Werksbescheinigung DIN EN ISO 10204 2.2:

Item:
Bezeichnung:

**We hereby confirm that the above described items are from:
 Hiermit bestätigen wir Ihnen, dass die Teile aus:**

Order Number:
Auftrags-Nr.:

Date:
Datum:

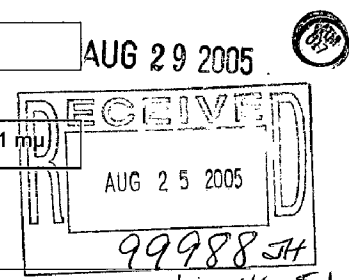
Material:
Werkstoff:

Supplier ID:
Lieferanten Nr.:

Batch ID :
Chargen Nr.:

Other Specs:
Andere Kennziffer:

Göttingen, 19.Aug.2005



Geschäftsführende Gesellschafter:	Bankverbindungen:	Ust.-IDNr. lines 46 51
Betriebswirt Peter Spreitz	Sparkasse Göttingen	DE 188 544 351
Dipl.-Phys. Marcus Weinhagen	Kreis-Sparkasse Northeim	Amtsgericht Göttingen
	Dresdner Bank	HRB 3008
	BLZ: 260 500 01	Konto-Nr: 6 36 36
	BLZ: 262 500 01	Konto-Nr.: 9 238 232 00
	BLZ 260 800 24	

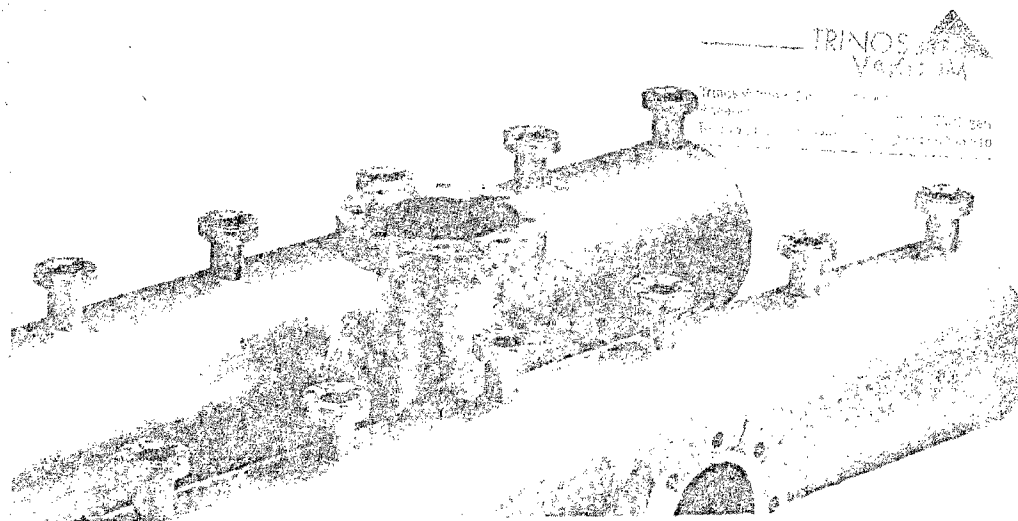


Erzeugnisform Product		Stab, rund, geschmiedet, gedreht Round bars, forged, turned									
Werkstoff / Quality		1.4429 X2CrNiMoN17-13-3 ESU									
Anforderungen Requirements		Kundenbestellung / customer order 1.4429 X2CrNiMoN17-13-3 ESU, DIN 17440 - 09/96									
Beschreibung und Maßprüfung Inspection and dimensional control Inspection et contrôle de dimension				Erschmelzung/Nachbehandlung Melting/process/secondary refining Mode d'élaboration/traitement ultérieur				Verwechslungsprüfung (spez./analytisch) Identification test (spec./analytical) examenation d'identification (analyse spectrale)			
ohne Beanstandung without objection				ESU				ohne Beanstandung without objection			
Pos. Item	Anzahl Quantity	Abmessung Dimension								Gewicht kg Weight kg	Schmelz-Nr. Heat-No.
2	1	310 mm rd. x 4215 mm								2550	920014
Schmelz-Nr. Heat No.	C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co	
920014	0,020	0,30	1,89	0,023	0,002	16,80	2,53	11,75	0,1400	0,061	
Ni-Gehalt wurde akzeptiert. / Ni content was accepted.											
Wärmebehandlungszustand Condition of heat treatment		Lösungsgeglüht solution annealed									
Traitement thermique		1050°C Wasser/water									
Probe-Nr. Test-No.	Lage Loc.	Temp. °C	Rp0,2 N/mm²	Rp1,0 N/mm²	Rm N/mm²	A5 %	Z %	Kerbschlagarbeit Impact value J	Probenform Shape of test piece Charpy-V	Härte HB Hardness	
Soll/Req.	Q	+20	>=295	>=330	>=580	>=30		>=55	+20 °C		
383C1	Q	+20	340	370	610	40	75	294 294 298	+20 °C	175-180	
<p>Korngröße nach ASTM E 112 : 3 Grain size acc. ASTM E 112: 3</p> <p>Reinheitsgrad nach DIN 50602 : Kl = 1,13 Degree of purity acc. DIN 50602: Kl = 1.13</p> <p>Permeabilität: 1,007 G/Oe Permeability : 1.007 G/Oe</p> <p>Die US-Prüfung nach SEP 1921 - 12/84, Prüfgruppe 3, Größenklasse D, Häufigkeitsklasse d wurde durchgeführt: ohne Beanstandung The UT-examination acc. SEP 1921 - 12/84, examination class 3, dimension class D, frequency class d was done: without objection</p>											
Ausgeben Encl. Annexe		Lieu et date 20.04.2004				Der Werkstoffverantwortliche Workshop Director Responsable des Matériaux LANGER					
Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig. Ce certificat a été établi sur système informatique et est valable sans signature manuscrite.											



I, the undersigned, exporter of the goods covered by this document declare that except where otherwise indicated, the goods meet the conditions to obtain originating status in preferential trade with: United States of America
And that the country of origin of the goods is: THE EUROPEAN COMMUNITY

Göppingen, 17.08.2005, Anne Schulte Anne Schulte
(Place, Date, full name signature, official stamp)





Trinos Vakuum-Systeme GmbH · Anna-Vanderhoock-Ring 44 · 37081 Göttingen

Major Tool & Machine, Inc.
 1458 E. 19th Street
 Indianapolis, IN 46218
 USA

Certificate / Werksbescheinigung DIN EN ISO 10204 2.2:

Item:
Bezeichnung: 15 x 480 FBL 250-G-E, Weld Flange CF 12", thread

We hereby confirm that the above described items are from:
Hiermit bestätigen wir Ihnen, dass die Teile aus:

Order Number:
Auftrags-Nr.: P.O. 5-04027 , AB-05-02356, RG 05-04280

Date:
Datum: ----- / 2. Aug. 2005 / 17. Aug 2005

Material:
Werkstoff: 316 LN ESR , CERN SPECS

Supplier ID:
Lieferanten Nr.: K10386

Batch ID :
Chargen Nr.: 920 014

Other Specs:
Andere Kennziffer: Magnetic permeability better than 1.01 mμ

AUG 29 2005

RECEIVED
 AUG 24 2005
 99948 SH

Lincs 52-66

Göttingen, 19. Aug. 2005

Geschäftsführende Gesellschafter:	Bankverbindungen:	Ust.-IDNr.:
Betriebswirt Peter Spreitz	Sparkasse Göttingen BLZ: 260 500 01	DE 188 544 351
Dipl.-Phys. Marcus Weinhausen	Kreis-Sparkasse Northeim BLZ: 262 500 01	Amtsgericht Göttingen
	Dresdner Bank . BLZ 260 800 24	HRB 3008
	Konto-Nr670 59 41	
	Konto-Nr.: 6 36 36	
	Konto-Nr.: 9 238 232 00	



Erzeugnisform Product		Stab, rund, geschmiedet, gedreht Round bars, forged, turned									
Werkstoff / Quality		1.4429 X2CrNiMoN17-13-3 ESU									
Anforderungen Requirements		Kundenbestellung / customer order 1.4429 X2CrNiMoN17-13-3 ESU, DIN 17440 - 09/96									
Beschreibung und Maßangabe Inspection and dimensional control Inspection et contrôle de dimension ohne Beanstandung without objection				Erzmetzung/Nachbehandlung Melting/Process/secondary refining Mode d'élaboration/traitement ultérieur ESU				Verwertungsprüfung (Spektroskopisch) Identification test (spectral analysis) examination of identification (analyse spectrale) ohne Beanstandung without objection			
Pos. Item	Anzahl Quantity	Abmessung Dimension							Gewicht kg Weight kg	Schmelz-Nr. Heat-No.	
2	1	310 mm rd. x 4215 mm							2550	920014	
Schmelz-Nr. K.	C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co	
920014	0,020	0,30	1,89	0,023	0,002	16,80	2,53	11,75	0,1400	0,061	
Ni-Gehalt wurde akzeptiert. / Ni content was accepted.											
Wärmebehandlungszustand Condition of heat treatment Traitement thermique		Lösungsgeglüht solution annealed 1050°C Wasser/water									
Probe-Nr. Test-No. Soll/Req.	Lage Loc.	Temp. °C	Rp0,2 N/mm ²	Rp1,0 N/mm ²	Rm N/mm ²	A5 %	Z %	Kerbschlagarbeit Impact value J	Probenform Shape of test piece Charpy-V	Härte HB Hardness	
	Q	+20	>=295	>=330	>=580	>=30		>=55	+20°C		
BB3C1	Q	+20	340	370	610	40	75	294 294 298	+20°C	175-180	
Korngröße nach ASTM E 112 : 3 Grain size acc. ASTM E 112: 3											
Reinheitssgrad nach DIN 50602 : K1 = 1,13 Degree of purity acc. DIN 50602: K1 = 1.13											
Permeabilität: 1.007 G/Oe Permeability : 1.007 G/Oe											
Die US-Prüfung nach SEP 1921 - 12/84, Prüfgruppe 3, Größenklasse D, Häufigkeitsklasse d wurde durchgeführt: ohne Beanstandung The UT-examination acc. SEP 1921 - 12/84, examination class 3, dimension class D, frequency class d was done: without objection											
Anlagen Encl. Annexe		Lieu et date 20.04.2004					Der Verantwortliche Work-inspector L'expert de Pushe Langer				
Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig. This certificate was generated by data system it must not be signed for validity as well. Ce certificat a été établi sur système informatique et est valable sans signature aussi.											



I, the undersigned, exporter of the goods covered by this document declare that except where otherwise indicated, the goods meet the conditions to obtain originating status in preferential trade with: United States of America
And that the country of origin of the goods is: THE EUROPEAN COMMUNITY

Göttingen, 17.08.2005, Anne Schulte Anne Schulte
(Place, date, full name signature, official stamp)

TRINOS VAKUUM
Trinos Vakuum-Systeme GmbH
Anna-Vandenhoeck-Ring 44 · D-37081 Göttingen
Tel.: +49 551-99963-0 · Fax: +49 551-99963-10





Trinos Vakuum-Systeme GmbH, Anna-Vandenhoeck-Ring 44, 37081 Göttingen

Major Tool & Machine, Inc.
 1458 E. 19th Street
 Indianapolis, IN 46218
 USA

Certificate / Werksbescheinigung DIN EN ISO 10204 2.2:

Item:
Bezeichnung: 6 x 480 FBL 080, Blank Flange CF 4 5/8"

We hereby confirm that the above described items are from:
Hiermit bestätigen wir Ihnen, dass die Teile aus:

Order Number:
Auftrags-Nr.: P.O. 5-04027, AB-05-02356, RG 05-04280

Date:
Datum: ----- / 2. Aug. 2005 / 17. Aug 2005

Material:
Werkstoff: 316 LN ESR, CERN SPECS

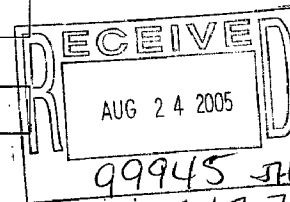
Supplier ID:
Lieferanten Nr: K10386

Batch ID :
Chargen Nr: 920 135

Other Specs:
Andere Kennziffer: Magnetic permeability better than 1.01 mμ

Göttingen, 19.Aug.2005

AUG 29 2005



Geschäftsführende Gesellschafter:
 Betriebswirt Peter Spreitz
 Dipl.-Phys. Marcus Weinhagen

Bankverbindungen:
 Sparkasse Göttingen
 Kreis-Sparkasse Northeim
 Dresdner Bank

BLZ: 260 500 01
 BLZ: 262 500 01
 BLZ 260 800 24

Konto-Nr:670 59 41
 Konto-Nr.: 6 36 36
 Konto-Nr.: 9 238 232 00

Ust-IDNr.:
 DE 188 544 351
 Amtsgericht Göttingen
 HRB 3008



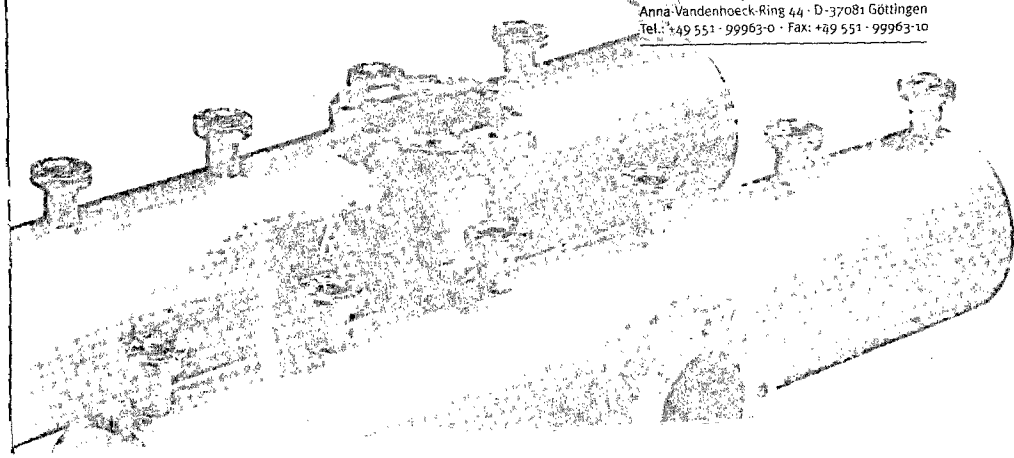
I, the undersigned, exporter of the goods covered by this document declare that except where otherwise indicated, the goods meet the conditions to obtain originating status in preferential trade with: United States of America
And that the country of origin of the goods is: THE EUROPEAN COMMUNITY

Göttingen, 17. 09. 2005, Anne Schulze
(Place, Date, full name signature, official stamp)

Anne Schulze



Trinos Vakuum-Systeme GmbH
Anna-Vandenhoeck-Ring 44 · D-37081 Göttingen
Tel.: +49 551 - 99963-0 · Fax: +49 551 - 99963-10





Erzeugnisform Product		Stab, rund, geschmiedet, geschält Round bars, forged, peeled									
Werkstoff / Quality		1.4429 X2CrNiMoN17-13-3 ESU									
Anforderungen Requirements		Kundenbestellung / customer order 1.4429 X 2 CrNiMoN 17-13- 3 ESU ,DIN 17440 09/96									
Besichtigung und Maßnachprüfung Inspection and dimensional control Inspection et contrôle de dimension ohne Beanstandung without objection			Erschmelzung/Nachbehandlung Melting process/secondary refining Mouls d'élaboration/traitement ultérieur ESU			Verwechslungsprüfung (spektralanalytisch) Identification test (spectroanalytical) examenation of identification (analyse spectrale) ohne Beanstandung without objection					
Pos. Item	Anzahl Quantity	Abmessung Dimension					Gewicht kg Weight kg	Schmelz-Nr. Heat-No.			
3	4	210 mm rd. x 3200 - 3546 mm					3756	920135			
Schmelze Heat %	C	Si	Mn	P	S	Cr	Mo	Ni	N2	Co	
920135	0,017	0,21	1,59	0,027	0,003	16,81	2,56	12,14	0,1510	0,051	
Wärmebehandlungszustand Condition of heat treatment		Lösungsgeglüht solution annealed									
Traitement thermique		1050°C Wasser/water									
Probe-Nr. Test-No.	Lage Loc.	Temp. °C	Rp0,2 N/mm ²	Rp1,0 N/mm ²	Rm N/mm ²	A5 %	Z %	Kerbschlagarbeit Impact value J	Probenform Shape of test piece Charpy-V		Härte HB Hardness
Soll/Req.	Q	RT	>=295	>=330	>=580	>=30		>=55	RT		
430T1	Q	RT	355	446	664	45	75	296	296	294	RT
430T2	Q	RT	349	442	658	45	74	296	295	297	RT
<p>Korngröße nach ASTM E 112 : 4 Grain size acc. ASTM E 112: 4</p> <p>Reinheitsgrad nach DIN 50602 : K1 = 1,01 Degree of purity acc. DIN 50602: K1 = 1.01</p> <p>Permeabilität: 1,006 G/Oe Permeability : 1.006 G/Oe</p> <p>Die US-Prüfung nach SEP 1921 - 12/84, Prüfgruppe 3, Größenklasse D, Häufigkeitsklasse d wurde durchgeführt: ohne Beanstandung The UT-examination acc. SEP 1921 - 12/84, examination class 3, dimension class D, frequency class d was done: without objection</p>											
Abgeben Encl. Attaché						 Lieu et date 05.11.2004			Der Werkstoffprüfer Works Inspector L'expert de fusine LANGER		
Das Zeugnis wurde maschinell erstellt und ist auch ohne Unterschrift gültig.						This certificate was generated by data system it must not be signed for validity as well. Ce certificat a été créé sur système informatique et est valable sans signature aussi.					

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 442499001-0	Date Entered Date De Commande Bestelldatum 06/02/05	Customer Reference Reference Client Kundenbestelldaten P05-03067	Report No. Rapport No Zeugnis Nr 20050610009	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelldenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.375 x 7 x 70 DOME SKIRT MATERIAL HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	---	--

Specification • Specification • Spezifikation ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantite Commandee Bestelldenge 2 PC	Quantity Shipped Quantite Expeditee Liefermenge 2 PC
--	--	---

Heat Number Numero de Cuite Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	Ch-Ti (Sb-Ti)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 4 6997	0.17		0.02		0.14	21.9	0.08	4.61	0.28	8.63	59.96	0.007	0.002	0.18	0.3			BUTT END *01
2650 4 6997	3.44	<0.05																BUTT END *01

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
6/10/2005

Amanda Aguirre
MIA 016 JUL 01 2005

RECEIVED
JUL - 6 2005
77927 *AK*

Line 1, 2

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT EQUIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR OPINIONS ON THIS DOCUMENT MAY BE PENALIZED AS A VIOLATION UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS FROM MULTIPLE MATERIAL SPECIFICATIONS.

MC109674.TIF1

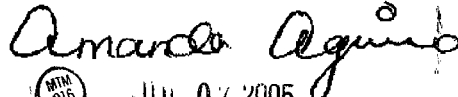
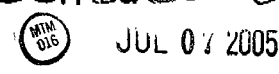
FILE COPY 2

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS															
Invoice No No. De Facture Rechnungs Nr 442499001-0		Date Entered Date De Commande Bestelldatum 06/02/05		Customer Reference Reference Client Kundenbestelldaten P05-03067		Report No. Rapport No Zeugnis Nr 20050610009		Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4							
Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA				Ship To • Destinaaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA				Product Description • Description Produit • Material Beschreibung 0.375 x 7 x 70 DOME SKIRT MATERIAL HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100							
Specification • Specification • Spezifikation ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E						Quantity Ordered Quantite Commandee Bestellmenge 2 PC		Quantity Shipped Quantite Expeditee Liefermenge 2 PC							
Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Htc. Temp. Warm Zugversuch					Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Lim. Elong. A 1% Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. to % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. to % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Stress Constraint Spannung	Hours Heures Stunden	% Elong. to % Allong EN % Dehnung	% RA
124000 PSI		61000 PSI	53 %	(1)(A)											

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
6/10/2005 (1) 2741025901

Amanda Aguirre



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MC109674.TIF2

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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS																				
Invoice No No. De Facture Rechnungs Nr 442499001-0		Date Entered Date De Commande Bestelldatum 06/02/05		Customer Reference Reference Client Kundenbestellnr POS-03067			Report No. Rapport No Zeugnis Nr 20050610009		Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4											
Sold To • Client • Bestellaanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA						Ship To • Destinaaire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA						Product Description • Description Produit • Material Beschreibung 0.375 x 7 x 70 DOME SKIRT MATERIAL HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100								
Specification • Specification • Spezifikation ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E									Quantity Ordered Quantite Commandee Bestelmenge 2 PC			Quantity Shipped Quantite Expediee Liefermenge 2 PC								
Annealed Hardness Durete Recuit Geacht Haerte		Aged Hardness Durete Vieilli Gealt Haerte		Grain Size Grosueur De Grain Korngroesse				IGA	Uniformity	Corrosion Rate		Oxidation Rate	Charpy Impact Test				Creep Rupture			
Gram Size	Predominant Grain Size	Reqs. Grain	Library Grain %	ALA	P&W Figure Number	Attack Depth	Corrosion	Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Essai Versuch	Stress Contrainte Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% Elong @ 15 FPM			
95 HRB	(1)(A)	6.5					MPY													

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
6/10/2005 (1) 2741025901

Amanda Aguirre
ATH 016
JUL 07 2005

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MC109674.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Invoice No No. De Facture Rechnungs Nr 442499001-0	Date Entered Date De Commande Bestelldatum 06/02/05	Customer Reference Reference Client Kundenbestelldaten P05-03067	Report No. Rapport No Zeugnis Nr 20050610009	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.375 x 7 x 70 DOME SKIRT MATERIAL HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E			Quantity Ordered Quantite Commandee Bestelmenge 2 PC	Quantity Shipped Quantite Expediee Liefermenge 2 PC

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2741025901 (2 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Beschönigt Durch: Amanda Aguirre
Certification Technician

6/10/2005

Amanda Aguirre



JUL 07 2005

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SPECIFICATION MARKING REQUIREMENTS MAY BE OBTAINED ON ORDERS REGARDING MULTIPLE MATERIAL SPECIFICATIONS.

MC109674.TIF4

018
MTH

JUL 07 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on July 5, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Heats Tested

2650-4-6997

Purchase Order Numbers

P05-03067

Best Regards,



Marlin C. Losch III

Quality Assurance Documentation for Part ID: DOME SKIRT - Item: 42

Workorder: 65678/7-0 Sub:257 Op:30

Part: DOME SKIRT - - DOME SKIRT

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				MFG		VISUAL	VISUAL INSPECT OKA	791-D.W	933-D.L		A
(10)		VWI ROOT PASS WELD DSB		CWI				08-05-05	08-05-05		
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATIONS REQU	933-D.L	933-D.L		A
(40)		VWI EXTERIOR COVER PASS WELD DS		CWI			REMENTS.	08-05-05	08-05-05		
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATIONS REQU	933-D.L	933-D.L		A
(50)		VWI INTERIOR COVER PASS WELD DSB		CWI			REMENTS..	08-05-05	08-05-05		

Quality Assurance Documentation for Part ID: DOME SKIRT - Item: 44

Workorder: 65678/7-0 Sub:258 Op:30

Part: DOME SKIRT - - DOME SKIRT

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPECIFICATIONS.	709-K.A	581-D.E		A
(10)		VWI ROOT PASS WELD DSA		CWI				08-04-05	08-04-05		
*				MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPECIFICATIONS.	709-K.A	933-D.L		A
(40)		VWI EXTERIOR COVER PASS WELD DS		CWI				08-05-05	08-05-05		
*				MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPECIFICATIONS.	709-K.A	933-D.L		A
(50)		VWI INTERIOR COVER PASS WELD DS		CWI				08-05-05	08-05-05		

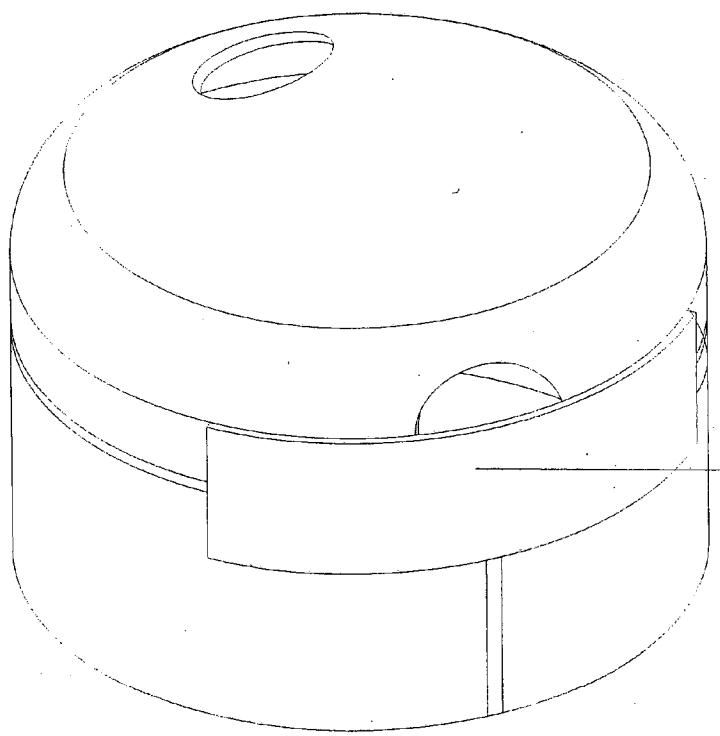
Quality Assurance Documentation for Part ID: PORT DOME - Item: 45

Workorder: 65678/7-0 Sub:4 Op:22

Part: PORT DOME - -

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				MFG		VISUAL	OK	093-M.S	933-D.L		A
(10)		VWI ROOT PASS WELD DA		CWI				08-24-05	08-24-05		
*				MFG		VISUAL	ACCEPT	771-B.S	933-D.L		
(40)		VWI EXTERIOR COVER PASS WELD DA		CWI				08-24-05	08-24-05		A
*				MFG		VISUAL	ACCEPT	771-B.S	933-D.L		A
(50)		VWI INTERIOR COVER PASS WELD DA		CWI				08-24-05	08-24-05		

Rev	By	Date	Description
01	LAK	12.2.05	First Issued



1

65678/7/4/24/818
 SE120-004 Dome Skirt A
 8/24/05

Item No.	Film Number	Location	Comment
1			

CDCP, Inc. (A Division of Raytheon)

Unless Otherwise Specified Dimensions are in inches Tolerances: Angular: Welds Two Place Decimals Three Place Decimals		Revision 01 Date 8 Dec 05	Title: Dome XRay Map
Proprietary and Confidential The information contained in this drawing is the sole property of Creative Design Concepts and Marketing, Inc. Any reproduction in part or as a whole without the written consent of CDCP Inc. is prohibited.		Scale: 1:2	Weight: 01



4959
10520 Chester Road
Woodlawn, Ohio 45215

CLIENT Major Tool & Machine	INTERPRETER/LEVEL Robert Weaver	RADIOGRAPHER Robert Weaver	JOB NO. 13880291	P.O. NO. N/A	DATE 8/29/05					
ISOTOPE/RAY IR192	EX. X LENNY 118" x 0.94"	CURIES/MA 37	FOCAL SPOT SIZE .151"	SFD 8.875"	GOD 8.5"	TIME 1:45	FILM PROCESSING Auto	FILM TYPE Kodak Mx162	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS GTAW	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER 17" I.D.	MATERIAL THICKNESS .375"	PENETRATOR ASTM 1B	SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1, UW-51				

DESCRIPTION
65678/70/4/24/818
Dome Skirt - A

REMARKS

FITTING SCAM/FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAG	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER/PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
Circ.	0-1	N/A	1B	.010"																									
	1-2																												
	2-3																												
	3-4																												
	4-0																												
Horiz.	0-1																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
 S Shim
 L Location Marker
 () OTHER

Robert Weaver 65554/IL
Cooperheat-MQS Signature

Douglas P. Edwards
Customer Representative Signature

8/29/05
Date

MC111320.TIF

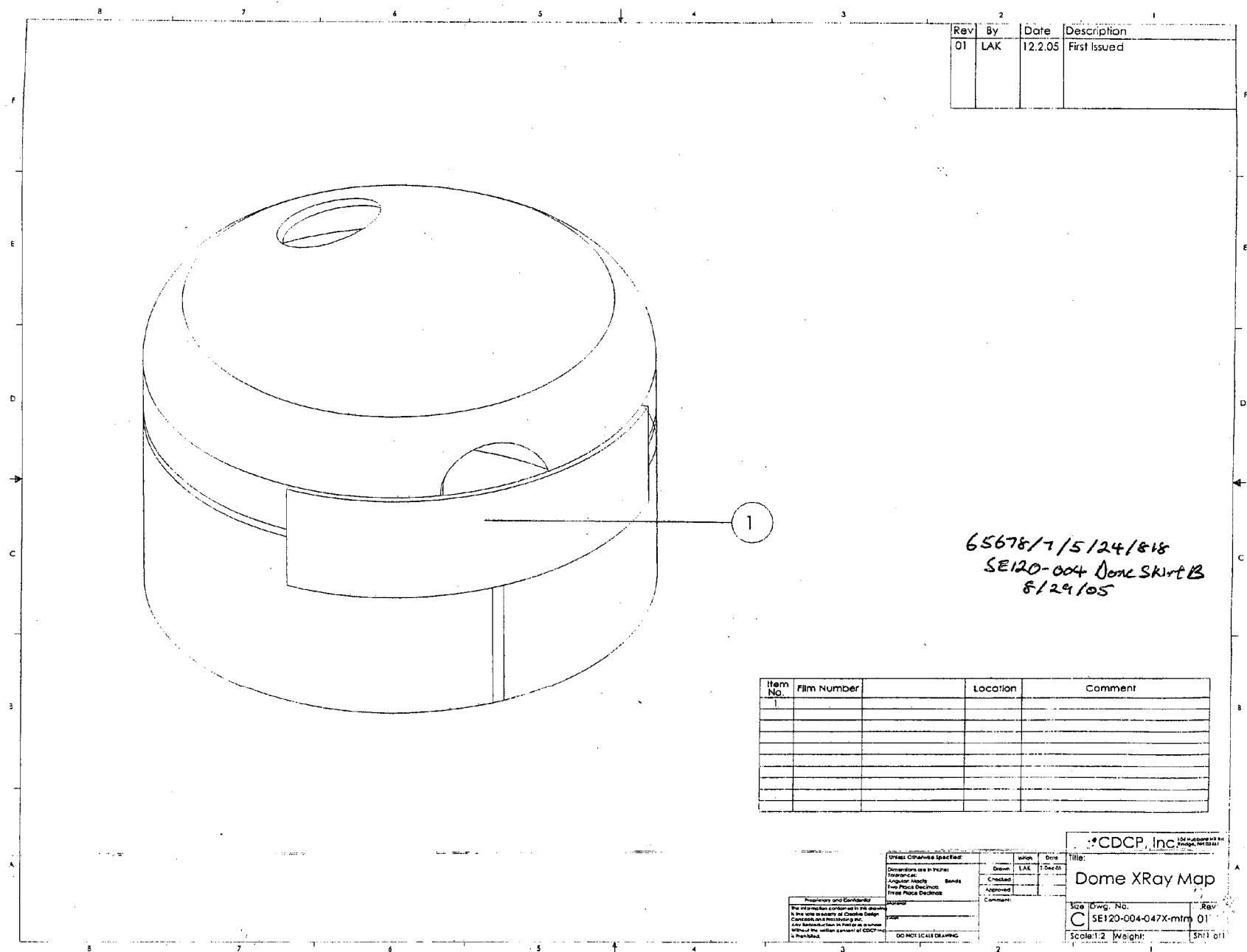
INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: PORT DOME - Item: 48

Workorder: 65678/7-0 Sub:5 Op:22

Part: PORT DOME - -

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	093-M.S	581-D.E	
(10)		VWI ROOT PASS WELD DB		CWI				08-25-05	08-25-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(40)		VWI EXTERIOR COVER PASS WELD DB		CWI			DRAWING AND SPECI ICATIONS	08-26-05	08-26-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(50)		VWI INTERIOR COVER PASS WELD DB		CWI			DRAWING AND SPECI ICATIONS	08-26-05	08-26-05	A



Rev	By	Date	Description
01	LAK	12.2.05	First Issued

65678/7/5/24/818
 SE120-004 Dome Skirt B
 8/29/05

Item No.	Film Number	Location	Comment
1			

CDCP, Inc. 104 Hubbard St., Bridgeport, CT 06610

Title: Dome XRay Map

Size: Cwg. No. SE120-004-047X-mim 01

Rev: C

Scale: 1:2 **Weight:** **Sheet:** 01

Unless Otherwise Specified:
 Dimensions are in Inches
 Tolerances:
 Angular Holes Bands
 Free Piece Decimals
 Free Piece Decimals

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DO NOT SCALE DRAWING

4959

10520 Chester Road
Woodlawn, Ohio 45215



CLIENT Major Tool & Machine		INTERPRETER LEVEL Robert Weaver		RADIOGRAPHER Robert Weaver		JOB NO. 13850291	P.O. NO. NA	DATE 8/29/05
ISOTOPE X-RAY IR192	DU, X LENNY 118" x .094"	CURIES/MA 37	FOCAL SPOT SIZE .15"	SPD 8.875"	SOD 8.5"	TIME Auto	FILM TYPE Kodak MX105	FILM TECHNIQUE Double
WELD PROCESS G25 Inconel		MATERIAL SPEC. 17" I.D.	MATERIAL DIAMETER .375"	MATERIAL THICKNESS ASTM B	PENETRATOR N/A	SHIM ASME VIII Div. 1, UW-51	ACCEPTANCE STANDARD	

DESCRIPTION
65678/7.0/5/24/818
Dome Skirt - B

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVECTIVITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURST THROUGH	CONTRAST	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	ASH MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
circ.	0-1	NA	IB	.010"																									
	1-2																												
	2-3																												
	3-4																												
	4-0																												
Horiz.	0-1																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
 S Shim
 L Location Marker
 () OTHER

Robert Weaver 655514/H
Cooperheat-MQS Signature

Daigbo D. P. P. P.
Customer Representative Signature

8/29/05
Date

MC111321.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 437985001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01373	Report No. Rapport No Zeugnis Nr 20050526077	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produits • Material Beschreibung 0.500 x 32 x 43 SE120-004-10MTM REF:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

Heat Number Numero De Coque Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse															Si	Ti	V	W	BUTT END *02
	Al	B	C	Ch/Ta (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti					
2650 5 6805	0.21		0.028	3.3	0.2066	21.97	0.1637	4.7452	0.2713	8.67	59.49	0.007	0.004	0.21	0.3211					BUTT END *02
2650 5 6805	3.2994	<0.05		Zr	Bi	Se	La	Cu+Ni	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo			BUTT END *02

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/26/2005

Amanda Aguirre

JUN 15 2005

97110-214

Rev 1-6



JUN 15 2005

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MC109053.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437985001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01373	Report No. Rapport No Zeugnis Nr 20050526077	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 32 x 43 SE120-004-10MTM REF:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100	
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC		

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Hie.Temp. Warm Zugversuch					Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong in % Allong. EN % Dehnung	%RA	Test Essai Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong in % Allong. EN % Dehnung	%RA	Test Essai Versuch Temp.	Stress Coordinate Spannung	Hours Heures Stunden	% Elong in % Allong. EN % Dehnung	% RA
130000 PSI		61000 PSI	48 %												

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/26/2005 (1) 2743540351

Amanda Aguirre

MTM 016 JUN 15 2005

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MC109053.TIF2

FILE COPY 2

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS			
Invoice No No. De Facture Rechnungs Nr 437985001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01373	Report No. Rapport No Zeugnis Nr 20050526077
Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4			

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 32 x 43 SE120-004-10MTM REF:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
--	---	--

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
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Annealed Hardness Durete Recuit Gegleucht Haerte	Aged Hardness Durete Vieilli Durete Haerte	Grain Size Grosueur De Grain Korngroesse				IGA	Uniformity	Corrosion Rate		Oxidation Rate	Charpy Impact Test				Creep Rupture					
		Grain Size	Prolemaant Grain Size	Recry. Grain	Unrecry. Grain %			ALA	PR W Figure Number		Attack Dpth	Corrosion	Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Eisal Versuch	Stress Constraine Spannung	Hours Heures Stunden
94 HRB	(1)(A)	5							MPY											

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
5/26/2005 (1) 2743540351

Amanda Aguirre

MTM 016 JUN 15 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SUPPLY. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS UNLESS MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS.
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SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

MC109053.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ÉSSAIS CERTIFIÉ • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 437985001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01373	Report No. Rapport No Zeugnis Nr 20050526077	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 32 x 43 SE120-004-10MTM REF:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC	

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2743540351 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre 5/26/2005
Certification Technician

Amanda Aguirre

JUN 15 2005



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MC109053.TIF4

FIRST METALS & PLASTICS TECHNOLOGIES, INC.

CERTIFICATE OF CONFORMANCE

Part Number Port 12

We do hereby certify that the material shipped on Purchase Order 5-04709 conforms to all specification requirements called out or referenced on the above purchase order.

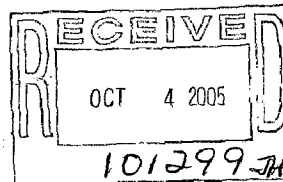
The above items were processed and/or manufactured in accordance with the template and/or gauge, which have been supplied to FMP by the customer.

FMP used only the material supplied to us by the customer.

[Signature] O.A. 10/04/2005
Signature Title Date



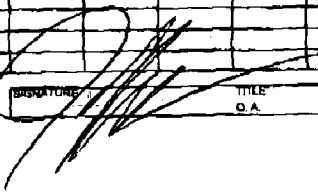
OCT 06 2005



Lines 1,4,5,7,8,9,10,11,12,
19,22,23,24,25,26,27,28,29,30

**Production Part Approval -
Dimensional Results**

SUPPLIER FIRST METALS and PLASTIC TECHNOLOGIES, INC.		PART NUMBER							
NAME OF INSPECTION FACILITY FIRST METALS and PLASTIC TECHNOLOGIES, INC.		PART NAME							
ITEM	DIMENSION/SPECIFICATION	<i>Comments</i>	SUPPLIER MEASUREMENT RESULTS					OK	REJ
			1	2	3	4	5		
1	The above items were processed and/or manufactured in accordance with the template and/or gauge, which have been supplied to FMP by the customer.							X	

SIGNATURE: 
TITLE: D.A.
DATE: 10/4/2005

MTM 016
OCT 06 2005

FIRST METALS & PLASTICS TECHNOLOGIES, INC.

CERTIFICATE OF CONFORMANCE

Part Number N/A Neutral Port Fitting

We do hereby certify that the parts shipped on 09-02-2005

conforms to all specification requirements requested by Major Tool.

The above items were processed and/or manufactured in accordance with applicable drawings

And/or specifications unless otherwise noted. See the following insert,

There were no drawings supplied for the individual parts. Therefore First Metals used the weld fixture as a template and the request of Major Tool to fit the parts within 0.090 inches to the contour of the fixture.

3 pairs, or 6 parts were made to fit the fixture shown on the attached print. The parts conform to the tolerance of .090 inches gap or less after being clamped to the fixture.

Major Tool & Machine, Inc supplied the material used.

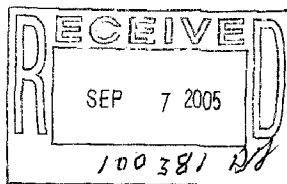

Signature

QA
Title

9/7/05
Date



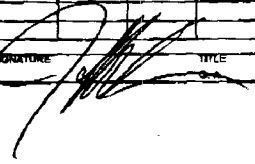
SEP 12 2005



lines 1-6

Production Part Approval - Dimensional Results

SUPPLIER FIRST METALS and PLASTIC TECHNOLOGIES, INC.			PART NUMBER N/A							
NAME OF INSPECTION FACILITY FIRST METALS and PLASTIC TECHNOLOGIES, INC.			PART NAME Neutral Port Fitting							
ITEM	DIMENSION/SPECIFICATION	TOLERANCE	SUPPLIER MEASUREMENT RESULTS						OK	REF
			1	2	3	4	5	6		
1	Gap to Fixture (customer supplied)	Less Than 0.00	100% Gauged Okay	100% Gauged Okay	100% Gauged Okay	100% Gauged Okay	100% Gauged Okay	100% Gauged Okay		X

SIGNATURE:  TITLE: DATE: 8/2/2005



SEP 12 2005

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437974001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01374	Report No. Rapport No Zeugnis Nr 20050610030	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4

HAYNES
International

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Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 29 x 44 SE120-004-11MTM-REV:1A HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditie Liefermenge 6 PC

Heat Number Numero De Caudes Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	Ch-Ta (Nb-Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 5 6805	0.21		0.028	3.3	0.2066	21.97	0.1637	4.7452	0.2713	8.67	59.49	0.007	0.004	0.21	0.3211			BUTT END *02
2650 5 6805	(ONS)	Ta	Zr	Bi	Se	La	C-Nb	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo		BUTT END *02
	3.2994	<0.05																

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

6/10/2005

JUN 15 2005

Amanda Aguirre

977109 PJH

JUN 15 2005

linso 1.6

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MC109057.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No. No. De Facture Rechnungs Nr 437974001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01374	Report No. Rapport No Zeugnis Nr 20050610030	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 29 x 44 SE120-004-11MTM-REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
--	--	---

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Hte. Temp. Warm Zugversuch					Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Stress Coefficient Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% RA
130000 PSI		61000 PSI	48 %		(1)(A)										

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

6/10/2005 (1) 2743540351

Amanda Aguirre

MM 016 JUN 15 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE REQUIREMENTS OF FEDERAL, INTERNATIONAL OR MANUFACTURER'S STANDARDS OR SPECIFICATIONS ON THIS DOCUMENT MAY BE PROVIDED AS A PRESENT UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, COPIED OR FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUESTING MULTIPLE MATERIAL APPLICATIONS.

MC109057.TIF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 437974001-0	Date Entered Date de Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01374	Report No. Rapport No Zeugnis Nr 20050610030	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestelleranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 29 x 44 SE120-004-11MTM-REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
--	--	--

Annealed Hardness Durete Recuit Gepluht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grosueur De Grain Korngroesse						IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test				Creep Rupture				
		Grain Size	Prevalent Grain Size	Recry. Grain	Library Grain %	ALA	P&W Figure Number					Attack Depth	Corrosion	Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Essai Versuch Temp.	Stress Contrainte Spannung PSI
94 HRB	(1)(A)	5																		

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Certification Technician
6/10/2005 (1) 2743540351

Amanda Aguirre


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MC109057.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437974001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01374	Report No. Rapport No Zeugnis Nr 20050610030	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC	Product Description • Description Produit • Material Beschreibung 0.500 x 29 x 44 SE120-004-11MTM-REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100

HAYNES
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PO Box 9013
Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2743540351 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

6/10/2005

Amanda Aguirre



JUN 15 2005

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MC109057.TIF4

JUN 15 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Items Tested

2650-5-6801
2650-5-6796
2650-5-6805
2650-5-6808
2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,

Marlin C. Losch III

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

CUSTOMER COPY

Invoice No No. De Facture Rechnungs Nr 437987001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01375	Report No. Rapport No Zeugnis Nr 20050525041	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 20 x 44 SE120-004-12MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantité Commandée Bestelmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
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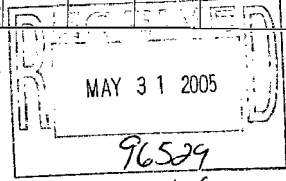
Heat Number Numero De Cofree Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																		
	Al	B	C	Cr+Ta (Obs+Td)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W		
2650 4 6737	0.22		0.03	3.62	0.46	22.06	0.13	3.94	0.26	8.72	59.8	0.006	0.003	0.17	0.26				BUTT END *03
2650 4 6737	3.61	<0.05																	BUTT END *03

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/25/2005

Amanda Aguirre

MAY 31 2005



1-6 B.A.

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MC108540.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437987001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01375	Report No. Rapport No Zeugnis Nr 20050525041	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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HAYNES
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1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 20 x 44 SE120-004-12MM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
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Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte.Temp. Warm Zugversuch						Stress Rapture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Lim. Elast. A 1% Zugfestigkeit	1% Yield Lim. Elast. A 0.2% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong in % Allong EN % Dehnung	%RA		Test Essai Versuch	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong in % Allong EN % Dehnung	%RA		Test Essai Versuch	Stress Contrainte Spannung	Hours Heures Stunden	% Elong in % Allong EN % Dehnung	% RA
133000 PSI		67000 PSI	50 %		(I)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
5/25/2005 (1) 2741771301

Amanda Aguirre



MAY 31 2005

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MC108540.TTF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
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Annealed Hardness Durete Recuit Gehticht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grosueur De Grain Korngroesse							IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test					Creep Rupture								
		Grain Size	Probominat Grain Size	Recry. Grain	Unrecry. Grain %	ALA	P&W Figure Number	Attack Depth					Corrosion	Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Yard Essai Verzuch	Stress Constraine Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% Elong @ 15 Hrs			
97 HRB	(1)(A)	8.5																								

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician 5/25/2005 (1) 2741771301

Amanda Aguirre

MAY 31 2005

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437987001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01375	Report No. Rapport No Zeugnis Nr 20050525041	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
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1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 20 x 44 SE120-004-12MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC	

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2741771301 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre 5/25/2005
Certification Technician

Amanda Aguirre



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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437998001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01376	Report No. Rapport No Zeugnis Nr 20050325044	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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--	---	--

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
--	--	--

Heat Number Numero De Coque Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																			
	Al	B	C	CH+TA (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W			
2650 4 6737	0.22		0.03	3.62	0.46	22.06	0.13	3.94	0.26	8.72	59.8	0.006	0.003	0.17	0.26					BUTT END *03
2650 4 6737	(0.05)	Ta	Zr	Bi	Se	La	(0.005)	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				BUTT END *03
	3.61	<0.05																		

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Certification Technician

5/25/2005

Amanda Aguirre

MAY 31 2005



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96530
1-6 B.1

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437998001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01376	Report No. Rapport No Zeugnis Nr 20050525044	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4

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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellemenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
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Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Hte.Temp. Warm Zugversuch					Stress Rapture Temperature • Essai A Charge De Rapture Zeitstandversuch					
Ultimate Lim. Elast. A 1% Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA	Test Essai Versuch Temp.	Stress Constante Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	%RA
133000 PSI		67000 PSI	50 %	(1)(A)											

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Certification Technician
Amanda Aguirre
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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS																																			
Invoice No No. De Facture Rechnungs Nr 437998001-0		Date Entered Date De Commande Bestelldatum 04/04/05		Customer Reference Reference Client Kundenbestelldaten P05-01376		Report No. Rapport No Zeugnis Nr 20050525044		Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4																											
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA						Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA						Product Description • Description Produit • Material Beschreibung 0.500 x 17 x 44 SE120-004-13MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100																							
Specification • Specification • Spezifikation PS-489, E						Quantity Ordered Quantite Commandee Bestellmenge 6 PC		Quantity Shipped Quantite Expediee Liefermenge 6 PC																											
Annealed Hardness Durete Recuit Gegleucht Haerte		Aged Hardness Durete Vieilli Gealtert Haerte		Grain Size Grasseur De Grain Korngrösse				IGA		Uniformity		Corrosion Rate		Oxidation Rate		Charpy Impact Test				Creep Rupture															
				Grain Size Grain Size		Reery. Grain Umreey. Grain %		ALA		P&W Figure Number		Attack Depth		Corrosion Corrosion		Test Method		Toughness Avg		Toughness 1		Toughness 2		Toughness 3		Test Essai Versuch		Stress Constrance Spannung		Hours Heures Stunden		% Elong In % A Elong EN % Dehnung		% Elong @ 15 Hrs	
97 HRB		(1)(A)		8.5										MPY				Fl. Lbs.		Fl. Lbs.		Fl. Lbs.		Fl. Lbs.		Temp.		PSI							

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Amanda Aguirre

MAY 31 2005
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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr 437998001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01376	Report No. Rapport No Zeugnis Nr 20050525044	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
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Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantité Commandée Bestellemenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC	

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2741771301 (6 PC)
(A) 1750 °F to 1950 °F

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No. No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No Zeugnis Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 0/0 x 0/0 SE120-004-14MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
--	--	--

Heat Number Numero De Cointe Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	Ch-Ta (Ni-Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 5 6796	0.23		0.032	3.72	0.1655	21.78	0.0551	3.9177	0.2854	8.77	59.93	0.007	0.002	0.3	0.3282			BUTT END *03
2650 5 6796	3.7198	<0.05																BUTT END *03

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Certification Technician

6/10/2005

Amanda Aguirre



JUN 15 2005

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Invoice No No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No Zeugnis Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Sold To • Client • Bestellausschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 0/0 x 0/0 SE120-004-14MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
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Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Hie.Temp. Warm Zugversuch					Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Along EN	%RA	Test Kern Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Along EN	%RA	Test Essai Versuch Temp.	Stress Contrainte Spannung	Hours Heure Stunden	% Elong In % Along EN	% RA
132000 PSI		64000 PSI	46 %	(1)(A)											

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6/10/2005

(1) 2743702401

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No Zeugnis Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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MAJOR TOOL AND MACHINE INC
1458 E 19TH ST
INDIANAPOLIS
IN 46218 USA

Ship To • Destinataire • Bestellmenge
MAJOR TOOL AND MACHINE INC
1458 E 19TH ST
INDIANAPOLIS
IN 46218 USA

Product Description • Description Produit • Material Beschreibung
0.500 x 0/0 x 0/0
SE120-004-14MTM REV: 1A
HAYNES(R) 625 ALLOY PLATE -
Nadcap CERTIFICATE NUMBER 0089
S400E,S1000E, EN 10204 3.1.B, AS9100

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellemenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
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Annealed Hardness Durete Recuit Geglueht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grosses De Grain Korngrösse	IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test				Creep Rupture						
							Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Essai Versuch	Stress Contrainte Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehning	% Elong @ 15 HS		
		Grain Size Predominant Grain Size	Recry. Grain	Unrecry. Grain %	ALA ?	P&W Figure Number	Attack Depth	Corrosion	Test Method	Fi. Lbs.	Fi. Lbs.	Fi. Lbs.	Fi. Lbs.	Temp.	PSI		
99 HRB	(1)(A)	6						MPY									

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
6/10/2005 (1) 2743702401

Amanda Aguirre

MTM 016 JUN 15 2005

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MC109056.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No Zeugnis Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestelleranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 0/0 x 0/0 SE120-004-14MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestellemenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC	

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Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2743702401 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre 6/10/2005
Certification Technician

Amanda Aguirre



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JUN 15 2005

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MC109056.TIF4

JUN 15 2005

**Magnetic Permeability Test Witness**

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were < 1.01 magnetic permeability.

Heats Tested

2650-5-6801
2650-5-6796
2650-5-6805
2650-5-6808
2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,

Marlin C. Losch III

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestellidien P05-01377	Report No. Rapport No Zongint No 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelldesige MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produits • Material Bezeichnung 0.500 x 0/0 x 0/0 SE120-004-14MTM REV: 1A HAYNES(R) .625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expedite Liefermenge 6 PC

Heat Number Numero De Cofree Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	CrTa (NbTa)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 5 6796	0.23		0.032	3.72	0.1655	21.78	0.0551	3.9177	0.2854	3.77	59.93	0.007	0.002	0.3	0.3282			BUTT END *03
2650 5 6796	3.7198	<0.05																BUTT END *03

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

6/10/2005

Amanda Aguirre



JUN 15 2005

JUN 15 2005

97108 DV
line 1-6

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS BY THE SUBJECT'S REPORT. WHEN MATERIAL MEETS THE REQUIREMENTS OF THE UNITED SPECIFICATIONS, LABORED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECEIVING OF THESE INSTRUCTIONS OR PRINTING OF LETTERS ON THIS DOCUMENT MAY BE REQUIRED AS A FELLOW UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, COPIED, EITHER IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE PAID BY ORDER REQUIRING MULTIPLE MATERIAL SPECIFICATION.

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MC118206.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestellidatun P05-01377	Report No. Rapport No Zugsugs Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Bezeichnung 0.500 x 0/0 x 0/0 SE120-004-14 MTM REV: 1A HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	---	---

Specification • Specification • Spezifikation *S-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
--	--	--

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hie. Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Setbackgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Setbackgrenze	% Elong In % Abzug EH % Dehnung	RA RA		Test Essai Versuch	Ultimate Zugfestigkeit	1% Yield Lim. Elong. A 1% 1% Setbackgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Setbackgrenze	% Elong In % Abzug EH % Dehnung	RA RA		Test Essai Versuch	Stress Corrosion Spannung	Hours Heure Stunden	% Elong In % Abzug EH % Dehnung	RA RA
132000 PSI		64000 PSI	46 %		(1)(A)												

Certified By • Certifie Par • Bescheinigt Durch: **Amanda Aguirre**
 Certification Technician
 6/10/2005 (1) 2743702401

Amanda Aguirre
 JUN 15 2005

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Zmc109056.TIF

MC118206.TIF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No. No. De Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No. Zeugnis Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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Kokomo, Indiana, 46902

Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelloenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 0/0 x 0/0 SE120-004-14MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	--

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
--	--	---

Annealed Hardness Durete Recuit Geleght Haerte	Aged Hardness Durete Vieilli Geleght Haerte	Grain Size Grossor: De Grain Korngrosse								IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test					Creep Rupture												
		Grain Size Grain Size	Finest Grain Rezy. Grain	Uniformity Grain %	ALA	FW Figure Number	Attack Depth	Corrosion	Test Method					Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Ezel Verzuch	Stress Contrainte Spannung	Hours Heure Stunden	% Elong In % Allong EN	% Elong In % Dehnung	% Elong @ 15 Sec								
99 HRB	(1)(A)	6																													

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
6/10/2005 (1) 2743702401

Amanda Aguirre

 JUN 15 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS OF THE COMPANY EQUIPMENT. THE MATERIAL, WITH THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, IDENTIFIED BY ANY OTHER NAME OR BY TRADE NAME OR BY TRADE ORDER REQUIREMENTS.

LES DONNEES CONTENUES ICI SONT OBTENUES A PARTIR D'ECHANTILLONS QUI SONT REPRESENTATIFS DES PRODUITS DE L'EQUIPEMENT DE LA SOCIETE. LE MATERIEU, AVEC LES EXIGENCES DES SPECIFICATIONS ENUNCEES, IDENTIFIEE PAR UN AUTRE NOM OU UN NOM COMMERCIAL, IDENTIFIEE PAR UN AUTRE NOM COMMERCIAL OU PAR UN NOMBRE D'ORDRE DE TRAVAI.

MC118206.TIF3

Enc:109056.TIF

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. de Facture Rechnungs Nr 439603001-0	Date Entered Date De Commande Bestelldatum 04/25/05	Customer Reference Reference Client Kundenbestelldaten P05-01377	Report No. Rapport No Zangab Nr 20050610028	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellerschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellosege MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 0/0 x 0/0 SE120-004-14 MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC	

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Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2743702401 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

6/10/2005

Amanda Aguirre



JUN 15 2005
JUN 15 2005

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4mc109056.tif

MC118206.TIF4

5mc109056.TIF



JUN 15 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were < 1.01 magnetic permeability.

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2650-5-6805
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2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,**Marlin C. Losch III**

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437960001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01369	Report No. Rapport No Zeugnis Nr 20050525089	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4

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Kokomo, Indiana, 46902

Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 38 x 52 SE120-004 REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E; PS-489, E	Quantity Ordered Quantité Commandée Bestelmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC

Heat Number Numero De Cooles Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	Cr-Ta (Nb-Ti)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 5 6805	0.21		0.028	3.3	0.2066	21.97	0.1637	4.7452	0.2713	8.67	59.49	0.007	0.004	0.21	0.3211			BUTT END *02
2650 5 6805	3.2994	<0.05																BUTT END *02

Certified By • Certifié Par • Bescheinigt Durch: Tammy Shepherd
Certification Technician 5/25/2005

T. Shepherd

MTM 016 JUN 15 2005

JUN 15 2005
97115 DJ
lines 1-6

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, MODIFIED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTE INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION AND/OR REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

MC109051.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437960001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01369	Report No. Rapport No Zengnis Nr 20050525089	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 38 x 52 SE120-004 REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E, PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
---	--	---

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hts.Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA		Test Essai Versuch Temp.	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EN % Dehnung	%RA		Total Essai Versuch Temp.	Stress Contrainte Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% RA
127000 PSI		61000 PSI	53 %		(1)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Tammy Shepherd
Certification Technician
5/25/2005 (1) 2742657051

T. Shepherd
JUN 15 2005



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MC109051.TIF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437960001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01369	Report No. Rapport No Zeugnis Nr 20050525089	Pages of Pages Page de Pages Anzahl der Seiten 3 OF 4

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 PO Box 9013
 Kokomo, Indiana, 46902

Sold To • Client • Bestellausschrieb MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelldmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 38 x 52 SE120-004 REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation PS-489, E; PS-489, E	Quantity Ordered Quantite Commandee Bestelldmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
---	---	--

Annealed Hardness Durete Recuit Gepluht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grosueur De Grain Korngroesse						IGA	Uniformity	Corrosion Rate		Oxidation Rate	Charpy Impact Test				Creep Rupture			
		Grain Size	Prodominant Grain Size	Recry. Grain	Unrecry. Grain %	ALA	P&W Figure Number			Attack Depth	Corrosion		Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Eskal Versuch Temp.	Stress Constraint Spannung	Hours Heures Stunden
93 HRB	(1)(A)	6								MPV										

Certified By • Certifie Par • Bescheinigt Durch: **Tammy Shepherd** 5/25/2005 (1) 2742657051
 Certification Technician

T. Shepherd
JUN 15 2005



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MC109051.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 437960001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01369	Report No. Rapport No Zeugnis Nr 20050525089	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellaufschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 38 x 52 SE120-004 REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E; PS-489, E			Quantity Ordered Quantite Commandee Bestellemenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2742657051 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: **Tammy Shepherd**
Certification Technician

5/25/2005

T. Shepherd



JUN 15 2005

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SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED OR OBLIQUE REGARDING MULTIPLE MATERIAL SPECIFICATIONS.

MC109051.TTF4

JUN 15 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

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2650-5-6805
2650-5-6808
2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,

Marlin-C. Losch-411

FIRST METALS & PLASTICS TECHNOLOGIES, INC.

CERTIFICATE OF CONFORMANCE

Part Number Port 12

We do hereby certify that the material shipped on Purchase Order P05-04709 conforms to all specification requirements called out or referenced on the above purchase order.

The above items were processed and/or manufactured in accordance with the template and/or gauge, which has supplied to FMP by the customer.

FMP used only the material supplied to us by the customer.

[Signature] QA 9/26/05
Signature Title Date

9.27.05
100997 WA
line 37.48



OCT 05 2005

**Production Part Approval -
Dimensional Results**

SUPPLIER METALS and PLASTIC TECHNOLOGIES, INC.			PART NUMBER								
NAME OF INSPECTION FACILITY			PART NAME								
FIRST METALS and PLASTIC TECHNOLOGIES, INC.			Port 12								
ITEM	DIMENSION/SPECIFICATION	Tolerance	SUPPLIER MEASUREMENT RESULTS					OK	REJ		
			1	2	3	4	5				
1	The above items were processed and/or manufactured in accordance with the template and/or gauge, which have been supplied to FMP by the customer.							x			

SIGNATURE *[Signature]* TITLE Q. A. DATE 8/30/2005



OCT 05 2005

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Kokomo, Indiana, 46902

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International

Invoice No No. De Facture Rechnungs Nr 437972001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01372	Report No. Rapport No Zeugnis Nr 20050525093	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4																
Sold To • Client • Bestellanrschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 26 x 52 SE120-004-36MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100																
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC																	
Heat Number Numero De Cooite Charge Nr 2650 5 6805	Chemical Analysis • Analyse Chimique • Chemische Analyse														Si	Ti	V	W	BUTT END *02	
	Al	B	C	Cb+Ta (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S							
	0.21		0.028	3.3	0.2066	21.97	0.1637	4.7452	0.2713	8.67	59.49	0.007	0.004	0.21	0.3211					
	(GAG)	Ta	Zr	Bi	Sc	La	(GAG)	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				BUTT END *02
2650 5 6805	3.2994	<0.05																		

Certified By • Certifie Par • Bescheinigt Durch: **Tammy Shepherd**
Certification Technician

5/25/2005

T. Shepherd
 JUN 15 2005

JUN 15 2005
97113 *DA*
Area 1-6

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MC109052.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437972001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01372	Report No. Rapport No Zeugnis Nr 20050525093	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4

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International

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PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellaanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 26 x 52 SE120-004-36MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
--	---	---

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
--	--	--

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hie.Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch					
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong in % Allong EN % Dehnung	%RA		Test Essai Versuch Temp:	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong in % Allong EN % Dehnung	%RA		Test Essai Versuch Temp:	Stress Contrainte Spannung	Hours Heures Stunden	% Elong in % Allong EN % Dehnung	% RA
127000 PSI		61000 PSI	53 %		(1)(A)												

Certified By • Certifie Par • Bescheinigt Durch: **Tammy Shepherd**
Certification Technician

5/25/2005 (1) 2742657051

T. Shepherd
MAY 15 2005
MTM 016

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS UNLESS INDICATED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUESTING MULTIPLE MATERIAL SPECIFICATIONS.

MC109052.TIF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 437972001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01372	Report No. Rapport No. Zeugnis Nr 20050525093	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinatire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Bezeichnung 0.500 x 26 x 52 SE120-004-36MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	--

Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
--	--	--

Annealed Hardness Dureté Recuit Geglüht Härte	Aged Hardness Dureté Vieilli Gealtert Härte	Grain Size Grosseur De Grain Korngrösse						IGA	Uniformity	Corrosion Rate		Oxidation Rate	Charpy Impact Test				Creep Rapture				
		Grain Size	Preferential Grain Size	Recty, Grain	Unrecy, Grain %	ALA	P&W Figure Number			Attack Depth	Corrosion		Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Easi Veruch	Stress Constraite Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung
93 HRB	(1)(A)	6								MPY											

Certified By • Certifié Par • Bescheinigt Durch: **Tammy Shepherd** 5/25/2005 (1) 2742657051
Certification Technician

T. Shepherd
JUN 15 2005



THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS UNLESS INDICATED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUESTING MULTIPLE MATERIAL SPECIFICATIONS.

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 437972001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01372	Report No. Rapport No Zeugnis Nr 20050525093	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 26 x 52 SE120-004-36MTM REV: 1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC	

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All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2742657051 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Tammy Shepherd
Certification Technician

5/25/2005

T. Shepherd



JUN 15 2005

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MC109052.TIF4



JUN 15 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Heats Tested

2650-5-6801
2650-5-6796
2650-5-6805
2650-5-6808
2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,

Marlin C. Losch III

MC109033.TIF

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr 438000001-0	Date Entered Date de commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestellkürzel P05-01379	Report No. Rapport No Zeugnis Nr 20050526076	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4
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PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaire • Bestelldung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produits • Material Beschreibung 0.500 x 12 x 50 SE120-004-4MTM REV:1A HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

Heat Number Numero De Coute Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																		
	Al	B	C	Cs+Ta (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W		
2650 5 6820	0.2		0.027	3.44	0.3649	22.33	0.0685	4.9097	0.3096	8.54	59.05	0.008	0.003	0.14	0.2713				BUTT END *02
2650 5 6820	3.4331	<0.05																	BUTT END *02

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/26/2005

Amanda Aguirre

MTM 016 JUN 16 2005

JUN 16 2005

77148 NY

lines 1-6

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS				
Invoice No No. De Facture Rechnungs Nr 438000001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01379	Report No. Rapport No Zeugnis Nr 20050526076	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4

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Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.500 x 12 x 50 SE120-004-4MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Hie.Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandversuch				
Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Dehnung	%RA	Test Essai Versuch	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Dehnung	%RA	Test Essai Versuch	Stress Contrainte Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% RA
133000 PSI		66000 PSI	45 %	(1)(A)											

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/26/2005 (1) 2043612691

Amanda Aguirre

MTM 016 JUN 16 2005

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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Invoice No No. De Facture Rechnungs Nr 438000001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten P05-01379	Report No. Rapport No Zeugnis Nr 20050526076	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4	HAYNES International Haynes International 1020 West Park Avenue PO Box 9013 Kokomo, Indiana, 46902
Sold To • Client • Bestellanschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 12 x 50 SE120-004-4MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100	
Specification • Specification • Spezifikation PS-489, E			Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC	

All tests and inspections have been performed and results meet specification requirements.
 THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
 Material conforms to PS-483 Revision H as applicable.
 Mill Orders Used: 2043612691 (6 PC)
 (A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
 Certification Technician 5/26/2005

Amanda Aguirre

MM 16 2005

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JUN 16 2005

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on June 10, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Heats Tested

2650-5-6801
2650-5-6796
2650-5-6805
~~2650-5-6808~~
2650-5-6820

Purchase Order Numbers

P05-01369
P05-01372
P05-01373
P05-01374
P05-01377
P05-01378
P05-01379

Best Regards,

Marlin C. Losch III

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS				
Invoice No. No. De Facture Rechnungs Nr. 438000001-0	Date Entered Date De Commande Bestelldatum 04/04/05	Customer Reference Référence Client Kundenbestelldaten F05-01379	Report No. Rapport No. Zugsatz Nr. 20050326076	Page of Pages Page de Pages Anzahl der Seiten 1 Of 4

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Specification • Spécification • Spezifikation PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC

Heat Number Numéro de Corder Charge Nr.	Chemical Analysis • Analyse Chimique • Chemische Analyse																	
	Al	B	C	CHN (DBH)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W	
2650 S 6820	0.2		0.027	3.44	0.3649	22.33	0.0685	4.9097	0.3096	8.54	59.05	0.008	0.003	0.14	0.2713			BUTT END *02
2650 S 6820	3.4331	<0.05																BUTT END *02

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/26/2005

JUN 16 2005

Amanda Aguirre

HTM 016 JUN 16 2005

97148 24
lines 1-6

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Invoice No No. de Facture Rechnungs Nr.	Date Entered Date de Commande Bestelldatum	Customer Reference Reference Client Kundenbestellnr.	Report No. Rapport No. Zertifikat Nr.	Pages of Pages Page de Pages Anzahl der Seiten	438000001-0			04/04/05	PO5-01379	20050526076	2 Of 4				
Sold To • Client • Bestellanschrift			Ship To • Destinataire • Bestelldung			Product Description • Description Produit • Material Bezeichnung									
MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			0.500 x 12 x 50 SE120-004-4MTM REV:1A HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100									
Specification • Specification • Spezifikation			Quantity Ordered Quantité Commandée Bestellmenge	Quantity Shipped Quantité Expédiée Liefermenge											
PS-489, E			6 PC	6 PC											
Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiente • Zugversuch Bei Raum Temp.					Tensile Test at Elevated Temperature • Essai De Traction A Elev. Temp. Warme Zugversuch					Stress Rupture Temperature • Essai A Charge De Rupture Zeitstandsversuch					
Min. Yield Zugfestigkeit	0.2% Yield Lim. Elast. A 1% 1% Strain/gauge	0.2% Yield Lim. Elast. A 0.2% 0.2% Strain/gauge	% Elong In % Allong EN % Deform.	% RA	Test Temp.	Min. Yield Zugfestigkeit	0.2% Yield Lim. Elast. A 1% 0.2% Strain/gauge	0.2% Yield Lim. Elast. A 0.2% 0.2% Strain/gauge	% Elong In % Allong EN % Deform.	% RA	Test Temp.	Stress Concurrence Spannung	Hours Heure Stunden	% Elong In % Allong EN % Deform.	% RA
133000 PSI		66000 PSI	45 %		(1)(A)										

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre
 Certification Technician

Amanda Aguirre

MIM 016 JUN 16 2005

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Invoice No. No. de Facture Rechnungs Nr 43000001-0	Date Entered Date de Commande Bestelldatum 04/04/05	Customer Reference Référence Client Kundenbestellnummer P05-01379	Report No. Rapport No Zeugnis Nr 20050526076	Page of Pages Page de Pages Anzahl der Seiten 3 Of 4
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Sold To • Client • Bestellauschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Bezeichnung 0.500 x 12 x 50 SE120-004-4M REV:1A HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
--	---	--

Specification • Spécification • Spezifikation FS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
---	---	---

Annealed Hardness Dureté Recuit Gehtzeit Härte	Aged Hardness Dureté Vieilli Gehtzeit Härte	Grain Size Cristaux de Grain Korngröße						IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test				Creep Rupture														
		Grain Size	Prevalence	Area	Grain	Uniformity	ALA					IGA	Corrosion	Test Method	Toughness Avg	Toughness 1	Toughness 2	Toughness 3	Test Load Versuch	Stress Concentration PSI	Heat Hours	% Elong in 2" Déform	% Elong in 1/2" Déform							
98 HRB	(1)(A)	7.5																												

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
5/26/2005 (1) 2043612691

Amanda Aguirre
NTH 016 JUN 16 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THIS SUBJECT SHIPMENT. THIS MATERIAL NOTICE IS SUBORDINATE TO THE LATEST SPECIFICATIONS APPLICABLE TO ANY DIMENSIONS OR PRODUCT ORDER REQUIREMENTS. THE INFORMATION ON THESE TESTS OR PROCEDURES MAY BE DIFFERENT FROM OTHER PROCEDURES MAY BE PROVIDED BY A SUPPLIER UNDER DIFFERENT PROCEDURES. THIS DOCUMENT SHALL NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION AND/OR REQUIREMENTS MAY BE FOUND IN ORDER REQUIREMENTS AND THE FACTORIAL SPECIFICATIONS.

MC118207.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS				
Invoice No. No. de Facture Rechnungs Nr. 43800001-0	Date Entered Date de Commande Bestelldatum 04/04/05	Customer Reference Reference Client Kundenbestelldaten POS-01379	Report No. Rapport No. Zeugnis Nr. 20030526076	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4

HAYNES
International

FILE COPY 2

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellername/It MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.500 x 12 x 50 SE120-004-4MTM REV:1A HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation PS-489, E		Quantity Ordered Quantité Commandée Bestelldmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC	

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
MIL Orders Used: 2043612691 (6 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician 5/26/2005

Amanda Aguirre

MTM
016
111N 16 2005

THIS DATA COPY/PRINTED HEREON WAS OBTAINED FROM SAMPLES THAT WERE REPRESENTATIVE OF THE PRODUCTS BY THE MANUFACTURER. THIS MANUFACTURER ACCEPTS THE RESPONSIBILITY OF THE LIMITED WARRANTY AND DOES NOT ASSUME ANY RESPONSIBILITY FOR THE PRODUCT OR THE REQUIREMENTS OF THE LIMITED WARRANTY. THE MANUFACTURER DOES NOT ASSUME ANY RESPONSIBILITY FOR THE PRODUCT OR THE REQUIREMENTS OF THE LIMITED WARRANTY. THE MANUFACTURER DOES NOT ASSUME ANY RESPONSIBILITY FOR THE PRODUCT OR THE REQUIREMENTS OF THE LIMITED WARRANTY. THE MANUFACTURER DOES NOT ASSUME ANY RESPONSIBILITY FOR THE PRODUCT OR THE REQUIREMENTS OF THE LIMITED WARRANTY.

MC118207.TIF4



4119 FULTON / 77022
 P.O. BOX 120630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250675

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: P05-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS IN 46218 SHIP VIA: ABF F.O.B.: OUR PLANT
 BUYER: BOB FREIGHT BILL NUMBER:
 SHIP TO: MAJOR TOOL & MACHINE INC. PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 1458 E. 19TH. STREET TERMS: SEE BELOW
 INDIANAPOLIS IN 46218
 ATTENTION: WILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AW PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: 3PCS PART# SE120-004 PORT 15 TAG: 3PCS PART# SE120-004 PORT FJ6	EA 132793	81404C
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AW PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT 17	EA 132793	81404C
				99721	

Re: 08.17.05 wx



6119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 495-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 9/04/05
 INDIANAPOLIS SHIP VIA: AEF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 pcs. 52"lg	4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 S8443 NO LONG SEAM BEVEL TAG: <u>1PC</u> PART# SE120-004 PORT 17 <u>5PC</u> PART# SE120-004 PORT 18 <u>1PC</u> PART# SE120-004 PORT 2 <u>4PC</u> PART# SE120-004 PORT 8	EA 132793	81404C
4	1		CONTACT MAJOR TOOL TRANS. LT DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #0E-AC02-74-CH03073		
5	1		BAND PIPE TO WOODEN PALLETS LT & SHRINK WRAP COMPLETELY		

*9976A see last page for customer/
 vendor revision.*

*99720
 99723
 99724*

VIN

VIN



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRSN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS IN 46218 BUYER: BOB
 SHIP VIA: ABF FREIGHT BILL NUMBER:
 F.O.B.: OUR PLANT

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET
 PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 TERMS: SEE BELOW

INDIANAPOLIS IN 46218
 ATTENTION:
 TAG #:
 TAG #:
 MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QUANTITY	S/O	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
6	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT	
				FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM		
				BALANCE OF FUNDS DUE NET 30 DAYS.		

RECV. 31,500 8/9/05
CHK# 60160

RECEIVED BY *Frank Smith*
 DATE *8-9-05* DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in black ink that reads "Denise Hernandez". The signature is written in a cursive style.

Denise Hernandez
Sales Department

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 2 - Item: 83

Workorder: 65678/7-0 Sub:180 Op:20

Part: SE120-004 PORT 2 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATION REQUI EMENTS.	933-D.L	933-D.L	
(20)		VWI - COMPLETED WELD		CWI				09-09-05	09-09-05	

A

4959

10520 Chester Road
Woodlawn, Ohio 45215

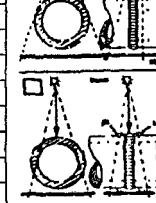
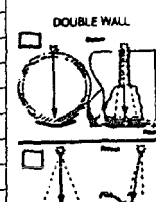
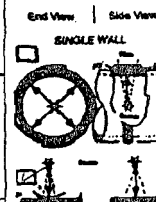


CLIENT Major Tool & Machine		INTERPRETER LEVEL Robert Weaver II		RADIOGRAPHER Robert Weaver		JOB NO 13550291	P.O. NO N/A	DATE 9/10/05		
ISOTOPE XRAY IR192	DA. X LENS 1/18" x .034"	CURIESMA 33	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.8125"	TIME 4:30	FILM PROCESSING Auto	FILM TYPE Kodak AA Double	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS PAW	MATERIAL SPEC. C25 Inconel	MATERIAL DIAMETER 3.5"	MATERIAL THICKNESS .1875"	PENETRATOR ASTM 1A	SHIM N/A	ACCEPTANCE STANDARD ASME VIII, UW-51				

DESCRIPTION
65678/7.0/180/30/818
SE120-004 part 2

REMARKS

FITTING, SEAM OR FITTING	FILM INTERNAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURST THROUGH	CHATTER PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
long	0-1	J.S.	1A	.028"																									



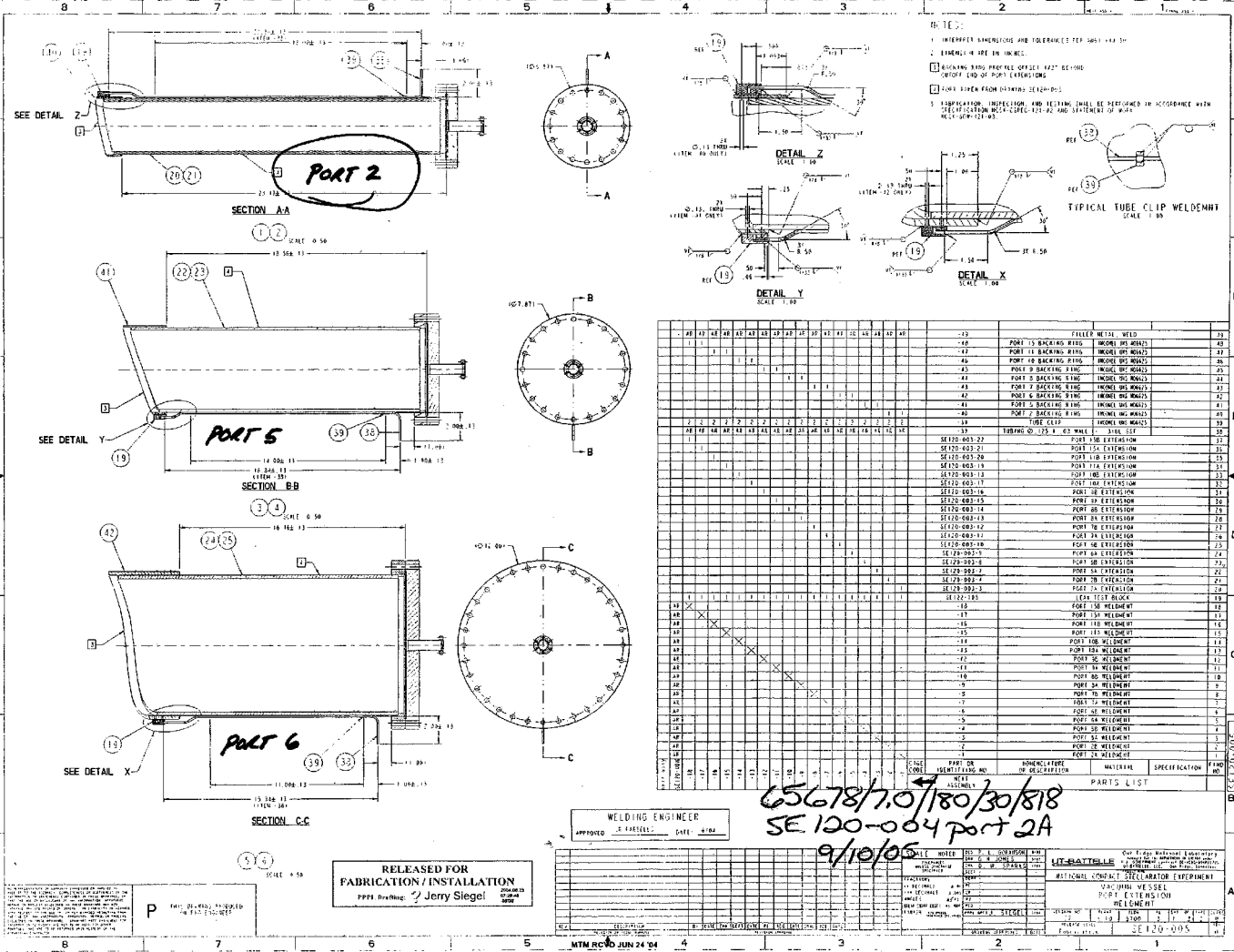
P Penetrator
S Shim
L Location Marker
() OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature

Dwight D. Edwards
Customer Representative Signature

9/10/05
Date

MC111796.TIF1



- NOTE:**
- 1. DIMENSIONS AND TOLERANCES PER ASME Y14.5
 - 2. DIMENSIONS ARE IN INCHES
 - 3. FINISHES: RND, PROFILE, OFFICE #27, 62-1000
 - 4. EXCEPT AS NOTED, ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
 - 5. FABRICATION, INSPECTION, AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATION AND DRAWING

ITEM NO.	DESCRIPTION	QTY	UNIT	MATERIAL SPECIFICATION
1	FILLER METAL WELD	30		
2	PORT 13 BACKING RING	1		INCONEL 600 WELD
3	PORT 14 BACKING RING	1		INCONEL 600 WELD
4	PORT 15 BACKING RING	1		INCONEL 600 WELD
5	PORT 16 BACKING RING	1		INCONEL 600 WELD
6	PORT 17 BACKING RING	1		INCONEL 600 WELD
7	PORT 18 BACKING RING	1		INCONEL 600 WELD
8	PORT 19 BACKING RING	1		INCONEL 600 WELD
9	PORT 20 BACKING RING	1		INCONEL 600 WELD
10	PORT 21 BACKING RING	1		INCONEL 600 WELD
11	PORT 22 BACKING RING	1		INCONEL 600 WELD
12	PORT 23 BACKING RING	1		INCONEL 600 WELD
13	PORT 24 BACKING RING	1		INCONEL 600 WELD
14	PORT 25 BACKING RING	1		INCONEL 600 WELD
15	PORT 26 BACKING RING	1		INCONEL 600 WELD
16	PORT 27 BACKING RING	1		INCONEL 600 WELD
17	PORT 28 BACKING RING	1		INCONEL 600 WELD
18	PORT 29 BACKING RING	1		INCONEL 600 WELD
19	PORT 30 BACKING RING	1		INCONEL 600 WELD
20	PORT 31 BACKING RING	1		INCONEL 600 WELD
21	PORT 32 BACKING RING	1		INCONEL 600 WELD
22	PORT 33 BACKING RING	1		INCONEL 600 WELD
23	PORT 34 BACKING RING	1		INCONEL 600 WELD
24	PORT 35 BACKING RING	1		INCONEL 600 WELD
25	PORT 36 BACKING RING	1		INCONEL 600 WELD
26	PORT 37 BACKING RING	1		INCONEL 600 WELD
27	PORT 38 BACKING RING	1		INCONEL 600 WELD
28	PORT 39 BACKING RING	1		INCONEL 600 WELD
29	PORT 40 BACKING RING	1		INCONEL 600 WELD
30	PORT 41 BACKING RING	1		INCONEL 600 WELD
31	PORT 42 BACKING RING	1		INCONEL 600 WELD
32	PORT 43 BACKING RING	1		INCONEL 600 WELD
33	PORT 44 BACKING RING	1		INCONEL 600 WELD
34	PORT 45 BACKING RING	1		INCONEL 600 WELD
35	PORT 46 BACKING RING	1		INCONEL 600 WELD
36	PORT 47 BACKING RING	1		INCONEL 600 WELD
37	PORT 48 BACKING RING	1		INCONEL 600 WELD
38	PORT 49 BACKING RING	1		INCONEL 600 WELD
39	PORT 50 BACKING RING	1		INCONEL 600 WELD
40	PORT 51 BACKING RING	1		INCONEL 600 WELD
41	PORT 52 BACKING RING	1		INCONEL 600 WELD
42	PORT 53 BACKING RING	1		INCONEL 600 WELD
43	PORT 54 BACKING RING	1		INCONEL 600 WELD
44	PORT 55 BACKING RING	1		INCONEL 600 WELD
45	PORT 56 BACKING RING	1		INCONEL 600 WELD
46	PORT 57 BACKING RING	1		INCONEL 600 WELD
47	PORT 58 BACKING RING	1		INCONEL 600 WELD
48	PORT 59 BACKING RING	1		INCONEL 600 WELD
49	PORT 60 BACKING RING	1		INCONEL 600 WELD
50	PORT 61 BACKING RING	1		INCONEL 600 WELD
51	PORT 62 BACKING RING	1		INCONEL 600 WELD
52	PORT 63 BACKING RING	1		INCONEL 600 WELD
53	PORT 64 BACKING RING	1		INCONEL 600 WELD
54	PORT 65 BACKING RING	1		INCONEL 600 WELD
55	PORT 66 BACKING RING	1		INCONEL 600 WELD
56	PORT 67 BACKING RING	1		INCONEL 600 WELD
57	PORT 68 BACKING RING	1		INCONEL 600 WELD
58	PORT 69 BACKING RING	1		INCONEL 600 WELD
59	PORT 70 BACKING RING	1		INCONEL 600 WELD
60	PORT 71 BACKING RING	1		INCONEL 600 WELD
61	PORT 72 BACKING RING	1		INCONEL 600 WELD
62	PORT 73 BACKING RING	1		INCONEL 600 WELD
63	PORT 74 BACKING RING	1		INCONEL 600 WELD
64	PORT 75 BACKING RING	1		INCONEL 600 WELD
65	PORT 76 BACKING RING	1		INCONEL 600 WELD
66	PORT 77 BACKING RING	1		INCONEL 600 WELD
67	PORT 78 BACKING RING	1		INCONEL 600 WELD
68	PORT 79 BACKING RING	1		INCONEL 600 WELD
69	PORT 80 BACKING RING	1		INCONEL 600 WELD
70	PORT 81 BACKING RING	1		INCONEL 600 WELD
71	PORT 82 BACKING RING	1		INCONEL 600 WELD
72	PORT 83 BACKING RING	1		INCONEL 600 WELD
73	PORT 84 BACKING RING	1		INCONEL 600 WELD
74	PORT 85 BACKING RING	1		INCONEL 600 WELD
75	PORT 86 BACKING RING	1		INCONEL 600 WELD
76	PORT 87 BACKING RING	1		INCONEL 600 WELD
77	PORT 88 BACKING RING	1		INCONEL 600 WELD
78	PORT 89 BACKING RING	1		INCONEL 600 WELD
79	PORT 90 BACKING RING	1		INCONEL 600 WELD
80	PORT 91 BACKING RING	1		INCONEL 600 WELD
81	PORT 92 BACKING RING	1		INCONEL 600 WELD
82	PORT 93 BACKING RING	1		INCONEL 600 WELD
83	PORT 94 BACKING RING	1		INCONEL 600 WELD
84	PORT 95 BACKING RING	1		INCONEL 600 WELD
85	PORT 96 BACKING RING	1		INCONEL 600 WELD
86	PORT 97 BACKING RING	1		INCONEL 600 WELD
87	PORT 98 BACKING RING	1		INCONEL 600 WELD
88	PORT 99 BACKING RING	1		INCONEL 600 WELD
89	PORT 100 BACKING RING	1		INCONEL 600 WELD

65678/1.0/180/30/818
SE 120-004 Part 2A
9/10/05

WELDING ENGINEER
APPROVED: [Signature] DATE: 9/10/05

RELEASED FOR FABRICATION/INSTALLATION
PP99 Drawing: Jerry Siegel

MTM RC NO JUN 24 '04


ITEM NO.	DESCRIPTION	QTY	UNIT	MATERIAL SPECIFICATION
1	VACUUM VESSEL	1		SE 120-005

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 2 - Item: 86

Workorder: 65678/7-0 Sub:180 Op:50

Part: SE120-004 PORT 2 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.052	854-R.U 10-20-05		

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INSPECTION DATA CHECKLIST

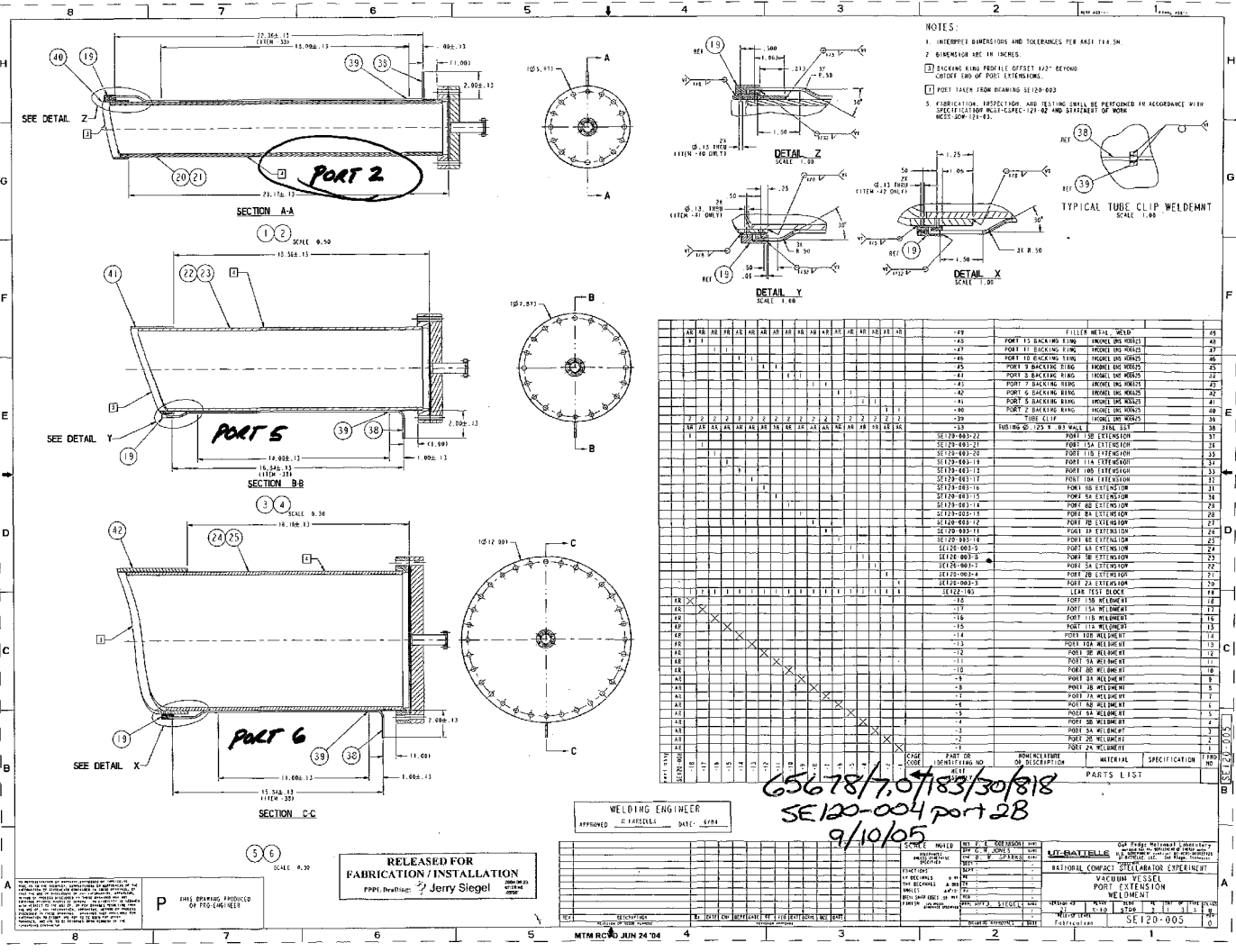
Quality Assurance Documentation for Part ID: SE120-004 PORT 2 - Item: 88

Workorder: 65678/7-0 Sub:183 Op:20

Part: SE120-004 PORT 2 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATION REQUI EMENTS.	933-D.L	933-D.L	
(20)		VWI - COMPLETED WELD		CWI				09-09-05	09-09-05	

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- NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M.
 2. DIMENSIONS ARE IN INCHES.
 3. BACKGAWN RADIUS PROFILE OF PORTS BEYOND CHORD END OF PORT EXTENSION.
 4. PORT TAKEN FROM DRAWING SE-120-003.
 5. FABRICATION, INSPECTION AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION MULTI-SPEC-121-02 AND STATEMENT OF WORK MULTI-SOW-141-02.

NO.	REV.	DATE	DESCRIPTION	BY	CHKD.
49			FILLER METAL WELD		
48			PORT 13 BACKING RING		
47			PORT 11 BACKING RING		
46			PORT 10 BACKING RING		
45			PORT 9 BACKING RING		
44			PORT 8 BACKING RING		
43			PORT 7 BACKING RING		
42			PORT 6 BACKING RING		
41			PORT 5 BACKING RING		
40			PORT 4 BACKING RING		
39			TUBE CLIP		
38			TUBING 1/2" X .03 WALL		
37			PORT 13A EXTENSION		
36			PORT 13B EXTENSION		
35			PORT 13C EXTENSION		
34			PORT 11A EXTENSION		
33			PORT 11B EXTENSION		
32			PORT 11C EXTENSION		
31			PORT 10A EXTENSION		
30			PORT 10B EXTENSION		
29			PORT 10C EXTENSION		
28			PORT 9A EXTENSION		
27			PORT 9B EXTENSION		
26			PORT 9C EXTENSION		
25			PORT 8A EXTENSION		
24			PORT 8B EXTENSION		
23			PORT 8C EXTENSION		
22			PORT 7A EXTENSION		
21			PORT 7B EXTENSION		
20			PORT 7C EXTENSION		
19			PORT 6A EXTENSION		
18			PORT 6B EXTENSION		
17			PORT 6C EXTENSION		
16			PORT 5A EXTENSION		
15			PORT 5B EXTENSION		
14			PORT 5C EXTENSION		
13			PORT 4A EXTENSION		
12			PORT 4B EXTENSION		
11			PORT 4C EXTENSION		
10			PORT 3A EXTENSION		
9			PORT 3B EXTENSION		
8			PORT 3C EXTENSION		
7			PORT 2A EXTENSION		
6			PORT 2B EXTENSION		
5			PORT 2C EXTENSION		
4			PORT 1A EXTENSION		
3			PORT 1B EXTENSION		
2			PORT 1C EXTENSION		
1			PORT 0A EXTENSION		

WELDING ENGINEER
 APPROVED: J. PARDELLI DATE: 6/8/85

RELEASED FOR FABRICATION / INSTALLATION
 PPLI Drafter: Jerry Siegel

65678/7.07/83/30/818
 SE 120-004 part 2B
 9/10/05

REV.	DESCRIPTION	DATE	BY	CHKD.
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MC115231.TIF

4959

10520 Chester Road
Woodlawn, Ohio 45216



CLIENT	Major Tool & Machine		INTERPRETER LEVEL	Robert Weaver II		RADIOGRAPHER	Robert Weaver		JOB NO	13850291	P.O. NO	N/A	DATE	9/10/05																				
ISO/FILM-RAY	DIA. X LENGTH	CURIES/MA	FOCAL SPOT SIZE	SFD	SOD	TIME	FILM PROCESSING	FILM TYPE	FILM TECHNIQUE	PS SCREENS																								
IR192	118" x 074"	33	.151"	15"	14,8125"	4:30	Auto	Kodak AA Double		.010"																								
WELD PROCESS	MATERIAL SPEC		MATERIAL DIAMETER	MATERIAL THICKNESS	PENETRANT	SHAW	ACCEPTANCE STANDARD																											
PAW	625 Inconel		3.5"	.1875"	ASTM IA	N/A	ASME VIII, UW-51																											
DESCRIPTION														REMARKS																				
65678/7.0/183/30/818																																		
SE/20-004 port 2																																		
FITTING, SEAM OR FITTING	FILM INTERNAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CORROSION	INTERNAL CONDUCTIVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	COATED PART	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERN	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	<input type="checkbox"/> End View <input type="checkbox"/> Side View SINGLE WALL DOUBLE WALL <input type="checkbox"/> P Penetrant <input type="checkbox"/> S Spill <input type="checkbox"/> L Location Marker <input type="checkbox"/> OTHER					
			SIZE	QUALITY LEVEL																														
long	0-1	J.S.	IA	.008"																														

Robert Weaver 655514/II
CooperheatMQS Signature

Debra D. Edwards
Customer Representative Signature


9/10/05
Date

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 2 - Item: 91

Workorder: 65678/7-0 Sub:183 Op:50

Part: SE120-004 PORT 2 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.08 (ACCEPT PER NC 18427)	854-R.U 05-03-06		

A

Quality Assurance Documentation for Part ID: SE120-004 PORT 2A - Item: 92

Workorder: 65678/7-0 Sub:6 Op:10

Part: SE120-004 PORT 2A - PORT 2A SUB-ASSEMBLY - PORT 2A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P2AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P2AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 2B - Item: 93

Workorder: 65678/7-0 Sub:7 Op:10

Part: SE120-004 PORT 2B - PORT 2B SUB-ASSEMBLY - PORT 2B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P2BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P2BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 4A - Item: 94

Workorder: 65678/7-0 Sub:8 Op:30

Part: SE120-004 PORT 4A - PORT 4A SUB-ASSEMBLY - PORT 4A SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(10)		VWI ROOT PASS WELD 4A1-4A5		CWI				10-09-05	10-09-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(50)		VWI COVER PASS WELD 4A1-4A5		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(60)		VWI ROOT PASS WELD 4A2-4A5		CWI				10-09-05	10-09-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(100)		VWI COVER PASS WELD 4A2-4A5		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(110)		VWI ROOT PASS WELD 4A1-4A6		CWI				10-09-05	10-09-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(150)		VWI COVER PASS WELD 4A1-4A6		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(160)		VWI ROOT PASS WELD 4A2-4A6		CWI				10-09-05	10-09-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(200)		VWI COVER PASS WELD 4A2-4A6		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(210)		VWI ROOT PASS WELD 4A3-4A5		CWI				10-09-05	10-09-05	A
*				MFG		VISUAL	O.K. PER CUSTOMER	771-B.S	581-D.E	
(250)		VWI COVER PASS WELD 4A3-4A5		CWI			EQUIREMENTS	10-12-05	10-19-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(260)		VWI ROOT PASS WELD 4A4-4A5		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	O.K. PER CUSTOMER	771-B.S	581-D.E	
(300)		VWI COVER PASS WELD 4A4-4A5		CWI			EQUIREMENTS	10-12-05	10-19-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(310)		VWI ROOT PASS WELD 4A3-4A6		CWI				10-10-05	10-11-05	A
*				MFG		VISUAL	O.K. PER CUSTOMER	771-B.S	581-D.E	
(350)		VWI COVER PASS WELD 4A3-4A6		CWI			EQUIREMENTS	10-12-05	10-19-05	A
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(360)		VWI ROOT PASS WELD 4A4-4A6		CWI				10-10-05	10-11-05	A

INSPECTION DATA CHECKLIST

*	(400)	VWI COVER PASS WELD 4A4-4A6	MFG CWI	VISUAL	O.K. PER CUSTOMER EQUIREMENTS	771-B.S 10-12-05	581-D.E 10-19-05		A
*	(410)	VWI ROOT PASS WELD 4A CIRCUMFER	MFG CWI	VISUAL	OK	093-M.S 10-13-05	933-D.L 10-13-05		A
*	(450)	VWI COVER PASS WELD 4A CIRCUMFE	MFG CWI	VISUAL	OK	093-M.S 10-17-05	581-D.E 10-19-05		A
*	(460)	VWI ROOT PASS WELD 4A1X	MFG CWI	VISUAL	OK	093-M.S 10-17-05	581-D.E 10-19-05		A
*	(500)	VWI COVER PASS WELD 4A1X	MFG CWI	VISUAL	OK	093-M.S 10-17-05	581-D.E 10-19-05		A
*	(510)	VWI ROOT PASS WELD 4A4X	MFG CWI	VISUAL	OK	093-M.S 10-17-05	581-D.E 10-19-05		A
*	(550)	VWI COVER PASS WELD 4A4X	MFG CWI	VISUAL	OK	093-M.S 10-17-05	581-D.E 10-19-05		A

Quality Assurance Documentation for Part ID: SE120-004 PORT 4A - Item: 95

Workorder: 65678/7-0 Sub:8 Op:40

Part: SE120-004 PORT 4A - PORT 4A SUB-ASSEMBLY - PORT 4A SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK	093-M.S	581-D.E	
(20)		VWI - ROOT PASS P4AF		CWI				10-17-05	10-17-05	A
*				MFG		10 X VISUAL	ACCEPTABLE PER CU	771-B.S	581-D.E	
(50)		VWI - COVER PASS P4AF		CWI			OMER REQUIREMENT	10-21-05	10-21-05	A
*				MFG		VISUAL	ACCEPTABLE PER CU	771-B.S	581-D.E	
(60)		VWI - FILLET WELDS P4AF		CWI			OMER REQUIREMENT	10-21-05	10-21-05	A

4959

10520 Chester Road
Woodlawn, Ohio 45215



CLIENT Major Tool + Machine	INTERPRETER/LEVEL Robert Weaver/II	RADIOGRAPHER Robert Weaver	JOB NO. 13850291	P.O. NO. NA	DATE 10/20/05					
SOURCE/RAY IR192	DIA. X LEAD 1/8" x .075"	CURIES/M 85	FOCAL SPOT SIZE .142"	SFD 15"	SOD 14.5"	TIME 3:00	FILM PROCESSING Auto	FILM TYPE Kodak MX125	FILM TECHNIQUE Double	PH SCREENS .010"
WELD PROCESS GTAW	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER NA	MATERIAL THICKNESS 5"	PENETRANT ASTM 1B	SHIM NA	ACCEPTANCE STANDARD ASME VIII, Div. 1, UW-51	REMARKS			

DESCRIPTION
65678/70/8/70/818
SE 120-004 port 4A
page 1 of 2

FITTING, SEAM OR FITTING	FILM INTERNAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONTAMINANT	INTERNAL CAVITY	TUNGSTEN	MELT THROUGH	BURR THROUGH	CRATER PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT								
			SIZE	QUALITY LEVEL																																
1	0-14	M.S.	18	.016		✓																														
2						✓																														
3						✓																														
4																																				
5						✓																														
6						✓																														
7						✓																														
8						✓																														
9						✓																														

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrant
 S Seam
 L Location Marker
 t OTHER

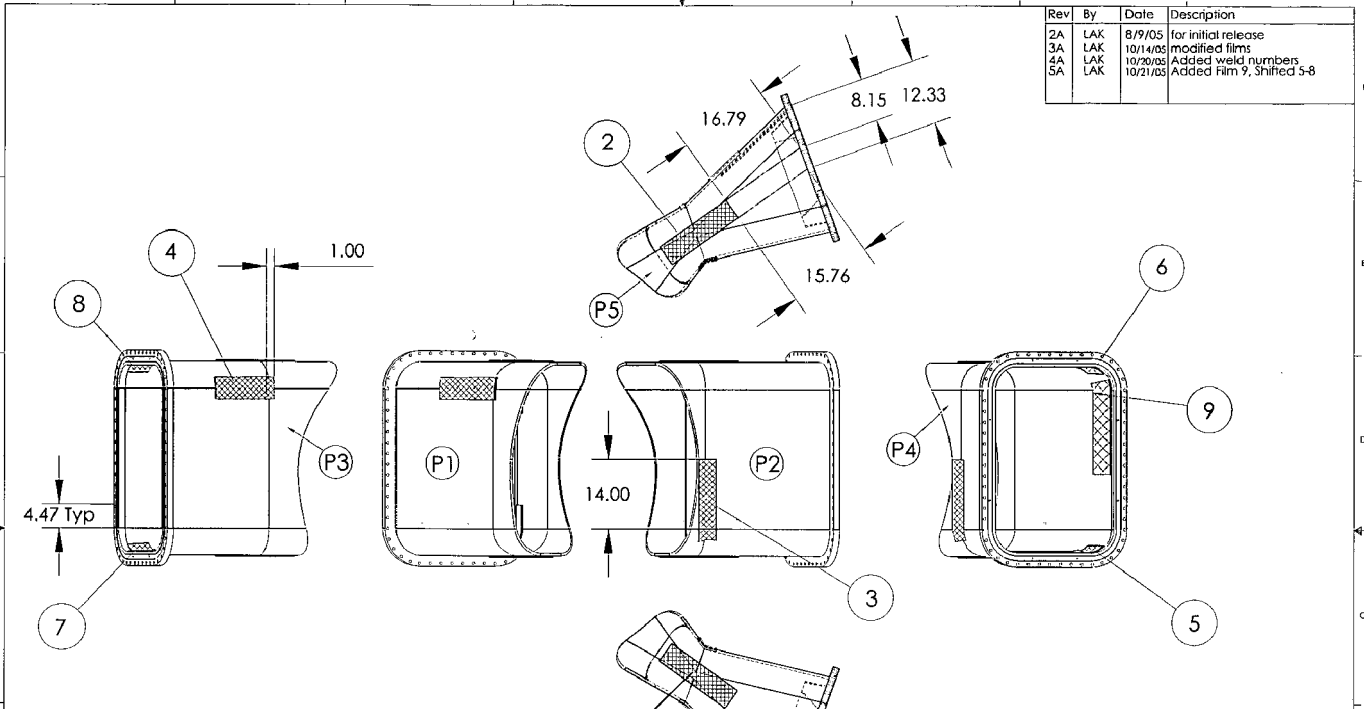
Robert Weaver 655514/II
Cooperheat-MQS Signature

[Signature]
Customer Representative Signature

10/20/05
Date

MC113146.TIF1

Rev	By	Date	Description
2A	LAK	8/9/05	for initial release
3A	LAK	10/14/05	modified films
4A	LAK	10/20/05	Added weld numbers
5A	LAK	10/21/05	Added Film 9, Shifted 5-8



Item No.	Film Number	Comment
1	4A6 - 4A2&4A4 - 4A1&4A3	
	4B6 - 4B2&4B4 - 4B1&4B3	
2	4A5 - 4A2&4A4 - 4A1&4A3	
	4B5 - 4B2&4B4 - 4B1&4B3	
3	4A2 - 4A4X	
	4B2 - 4B4X	
4	4A1X	
	4B1X	
5	4A1 - 4A6	
	4B1 - 4B6	
6	4A1 - 4A5	
	4B1 - 4B5	
7	4A2 - 4A6	
	4B2 - 4B6	
8	4A2 - 4A5	
	4B2 - 4B5	
9	4A1X - FLG	
	4B1X - FLG	

65678/7.0/8/70/818
 SE120-004 part 4A
 Page 2 of 2
 10/20/05

(Unless Otherwise Specified) Dimensions are in inches Tolerances are as follows: Angles: ±0.05 True Position: 0.005 True Profile: 0.005 True Face: 0.005		Rev: [] Date: [] Drawn: [] Checked: [] Inset: [] Approved: [] Comments: []
The information contained on this drawing is the property of CDCDC, Inc. It is to be used only for the purpose intended and without the written consent of CDCDC, Inc.		Title: Port 4 X-Ray Film Layout Size: C Dwg. No.: SE120-004-22-MTM Rev: 5A

MC113146.TIF2

Quality Assurance Documentation for Part ID: SE120-004 PORT 4A - Item: 98

Workorder: 65678/7-0 Sub:8 Op:80


Part: SE120-004 PORT 4A - PORT 4A SUB-ASSEMBLY - PORT 4A SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE122-049 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	E5	\varnothing .030 A B C DIA. 0.531 THRU +/- 0.005" (60X)		MFG QA		J-669 / P-1170	.531 / .535 W/IN .0 05	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (20)	C7	1.18 +/- 0.010" (2x)	CALIPER	MFG QA		P-424	1.195 / 1.200 (ACCE PT PER NC 18525)	854-R.U 05-03-06	503-B.H 10-31-05	A
1* (30)	H5	\sphericalangle 0.015"	INDICATOR	MFG QA		P-3891	W/IN .003	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (40)	C6	26.63 +/- 0.010"		MFG QA		EDGE FINDER	26.635	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (50)	D7	37.63 +/- 0.010"		MFG QA		EDGE FINDER	37.633	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (60)	B6	\varnothing 0.012 A B C 8-32 UNC .250DP	THREAD PLUG GA	MFG QA		A-112	W/IN .005 ACCEPT	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (70)	G5	.94 +/-0.010" ALL AROUND	PIN GAGE	MFG QA		J-921	.939 / .940	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (80)	H5	0.151 - 0.149 (0.153 +0/-0.003" on dwg) (leaves aprx 0.002" for polishing)	DEPTH MICROMET	MFG QA		P-4276	.149 / .151	535-S.L 10-31-05	503-B.H 10-31-05	A
1* (90)	H5	1.25 +/- .010"	OD MICROMETER	MFG QA		P-422	1.248 / 1.259	535-S.L 10-31-05	503-B.H 10-31-05	A

Quality Assurance Documentation for Part ID: SE120-004 PORT 4A - Item: 99

Workorder: 65678/7-0 Sub:8 Op:120

Part: SE120-004 PORT 4A - PORT 4A SUB-ASSEMBLY - PORT 4A SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		 0.375 PROFILE VERIFICATION	INDICATOR	QA		J-843	.269	854-R.U 11-09-05			A
*		Magnetic Permeability 1.02 Max	MASTER GAGE	QA		J-1165	GREATER THAN 1.1 B T LESS THAN 1.15 (A CCEPT PER NC 18590)	854-R.U 05-03-06			A
*		Interior Surface Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-825	25-30	854-R.U 11-09-05			A
*		Material Thickness: .500 +.04 / -.01"	CALIPER	QA		J-96	.516	854-R.U 11-09-05			A
*		CLEANLINESS PER PS483		QA		VISUAL	ACCEPTABLE	854-R.U 11-09-05			A
*		Magnetic Permeability 1.2 Max (at flange we	MASTER GAGE	QA		J-1165	LESS THAN 1.2	854-R.U 11-09-05			A

Quality Assurance Documentation for Part ID: SE120-004 PORT 4B - Item: 100

Workorder: 65678/7-0 Sub:9 Op:30

Part: SE120-004 PORT 4B - PORT 4B SUB-ASSEMBLY - PORT 4B SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK WELDED BY 28	358-D.M	581-D.E	
(10)		VWI ROOT PASS WELD 4B1-4B5		CWI			0	10-21-05	10-21-05	A
*				MFG		VISUAL	O.K. PER CUSTOMER	771-B.S	933-D.L	
(50)		VWI COVER PASS WELD 4B1-4B5		CWI			EQUIREMENTS	10-21-05	10-25-05	A
*				MFG		VISUAL	OK WELDED BY 280	358-D.M	581-D.E	
(60)		VWI ROOT PASS WELD 4B2-4B5		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	O.K. PER CUSTOMER	771-B.S	933-D.L	
(100)		VWI COVER PASS WELD 4B2-4B5		CWI			EQUIREMENTS	10-21-05	10-25-05	A
*				MFG		VISUAL	OK WELDED BY 28	093-M.S	581-D.E	
(110)		VWI ROOT PASS WELD 4B1-4B6		CWI		MAGLIGHT & 10	0	10-20-05	10-20-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(150)		VWI COVER PASS WELD 4B1-4B6		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	OK WELDED BY	093-M.S	581-D.E	
(160)		VWI ROOT PASS WELD 4B2-4B6		CWI		MAGLIGHT & 10	280	10-20-05	10-20-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(200)		VWI COVER PASS WELD 4B2-4B6		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(210)		VWI ROOT PASS WELD 4B3-4B5		CWI		MAGLIGHT & 10		10-20-05	10-20-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(250)		VWI COVER PASS WELD 4B3-4B5		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(260)		VWI ROOT PASS WELD 4B4-4B5		CWI		MAGLIGHT & 10		10-20-05	10-20-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(300)		VWI COVER PASS WELD 4B4-4B5		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(310)		VWI ROOT PASS WELD 4B3-4B6		CWI		MAGLIGHT & 10		10-20-05	10-20-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(350)		VWI COVER PASS WELD 4B3-4B6		CWI				10-21-05	10-21-05	A
*				MFG		VISUAL	OK	358-D.M	581-D.E	
(360)		VWI ROOT PASS WELD 4B4-4B6		CWI		MAGLIGHT & 10		10-20-05	10-20-05	A

INSPECTION DATA CHECKLIST

*	(400)	VWI COVER PASS WELD 4B4-4B6	MFG CWI	VISUAL	OK	358-D.M 10-21-05	581-D.E 10-21-05		A
*	(410)	VWI ROOT PASS WELD 4B CIRCUMFER	MFG CWI	VISUAL	OK WELD BY 093	280-K.S 10-22-05	581-D.E 10-22-05		A
*	(450)	VWI COVER PASS WELD 4B CIRCUMFE	MFG CWI	VISUAL	OK WELDED BY 093	093-M.S 10-25-05	933-D.L 10-25-05		A
*	(460)	VWI ROOT PASS WELD 4B1X	MFG CWI		WELD SEAM NOT NEE D	771-B.S 10-25-05	933-D.L 10-25-05		A
*	(500)	VWI COVER PASS WELD 4B1X	MFG CWI		WELD SEAM NOT NEE D	771-B.S 10-25-05	933-D.L 10-25-05		A
*	(510)	VWI ROOT PASS WELD 4B4X	MFG CWI	VISUAL MAGLIGHT & 10	OK	358-D.M 10-20-05	581-D.E 10-20-05		A
*	(550)	VWI COVER PASS WELD 4B4X	MFG CWI	VISUAL	OK	358-D.M 10-21-05	581-D.E 10-21-05		A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 4B - Item: 101

Workorder: 65678/7-0 Sub:9 Op:40

Part: SE120-004 PORT 4B - PORT 4B SUB-ASSEMBLY - PORT 4B SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK WELDED BY 093	358-D.M	933-D.L	
(20)		VWI - ROOT PASS P4BF		CWI				10-25-05	10-25-05	A
*				MFG		VISUAL	ACCEPT	837-J.D	933-D.L	
(50)		VWI - COVER PASS P4BF		CWI				10-27-05	10-28-05	A
*				MFG		VISUAL	ACCEPT	837-J.D	840-G.M	
(60)		VWI - FILLET WELDS P4BF		CWI				10-27-05	10-28-05	A

4959

10520 Chester Road
Woodlawn, Ohio 45215



CLIENT <i>Major Tank & Machine</i>		INTERPRETER LEVEL <i>John Ballard Jr</i>	RADIOGRAPHER <i>John Ballard</i>	JOB NO. <i>13850291</i>	P.D. NO.	DATE <i>10/27/05</i>
ISOTOPE X-RAY <i>TR-192</i>	DIA. X LENS <i>.118 x .079"</i>	CURIESMA <i>80-1</i>	FOCAL SPOT SIZE <i>.142x</i>	SFD <i>16"</i>	SOD <i>15.5</i>	TIME <i>3:00 min</i>
WELD PROCESS	MATERIAL SPEC. <i>Inconel 625</i>	MATERIAL DIAMETER <i>N/A</i>	MATERIAL THICKNESS <i>1/2"</i>	PENETRATOR <i>ASTM 1B</i>	FILM PROCESSING <i>Auto</i>	FILM TYPE <i>Kodak T</i>
					SHIM	FILM TECHNIQUE <i>Double</i>
DESCRIPTION <i>65678/7.0/9/70/818 SE120-004 Port 4B</i>		REMARKS		ACCEPTANCE STANDARD <i>ASME VIII Div. 1, UW-51</i>		

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
<i>Shot 1</i>	<i>0-14</i>		<i>1B</i>	<i>.013</i>																									
<i>Shot 2</i>	<i>0-14</i>																												
<i>Shot 3</i>	<i>0-14</i>																												
<i>Shot 5</i>	<i>0-1</i>																												
<i>Shot 6</i>	<i>0-1</i>																												
<i>Shot 7</i>	<i>0-1</i>																												
<i>Shot 8</i>	<i>0-1</i>																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
 S Shim
 L Location Marker
 () OTHER

J. Ballard Jr
Cooperheat-MQS Signature

[Signature]
Customer Representative Signature

10/27/05
Date

MC113142.TIF1

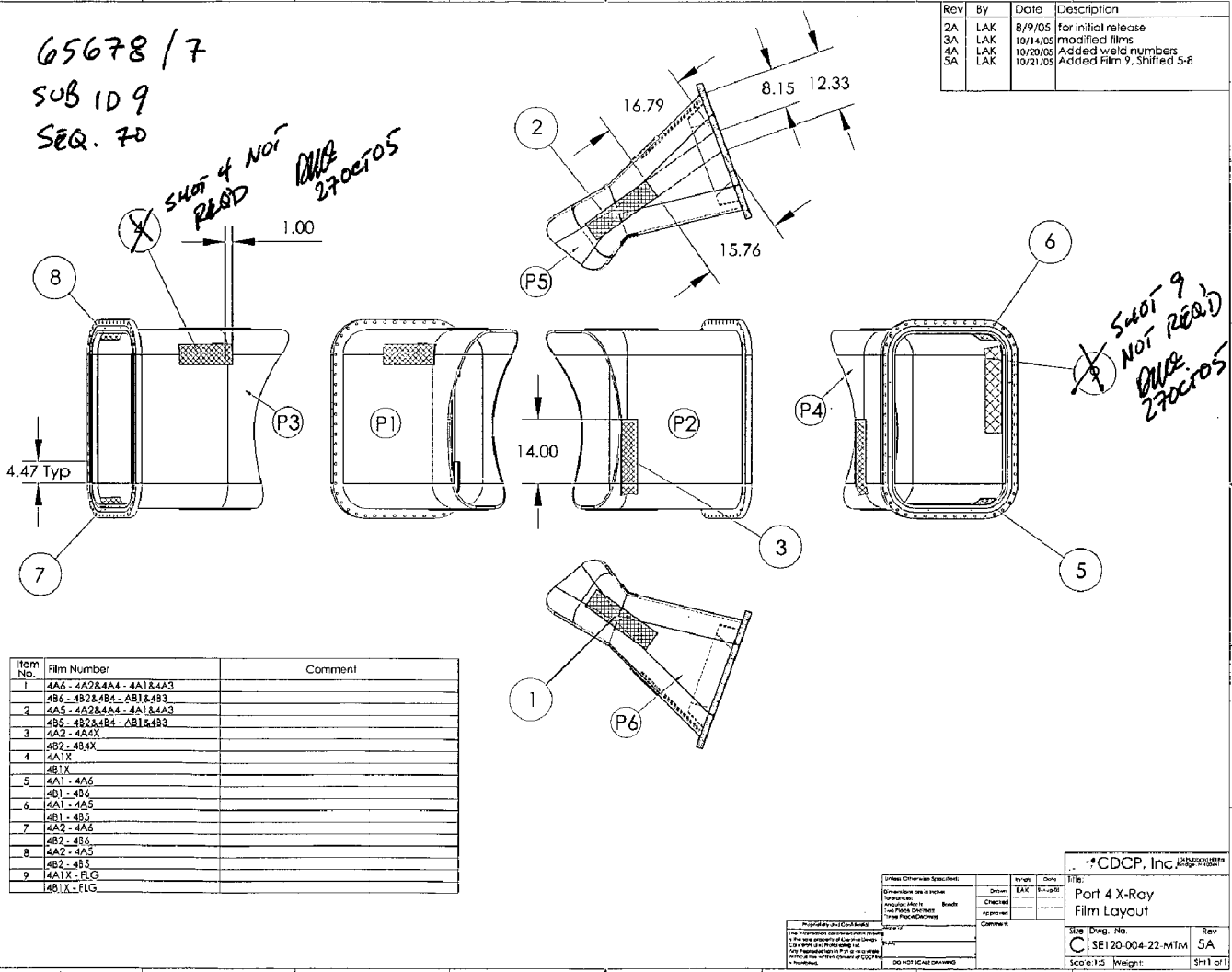
65678 / 7

SUB ID 9

SEQ. 70

*SHOT 4 NOT READ
DUE 2700105*

Rev	By	Date	Description
2A	LAK	8/9/05	for initial release
3A	LAK	10/14/05	modified films
4A	LAK	10/20/05	Added weld numbers
5A	LAK	10/21/05	Added Film 9, Shifted 5-8



Item No.	Film Number	Comment
1	4A6 - 4A2&4A4 - 4A1&4A3	
	4B6 - 4B2&4B4 - 4B1&4B3	
2	4A5 - 4A2&4A4 - 4A1&4A3	
	4B5 - 4B2&4B4 - 4B1&4B3	
3	4A2 - 4A5	
	4B2 - 4B5	
4	4A1X	
	4B1X	
5	4A1 - 4A6	
	4B1 - 4B6	
6	4A1 - 4A5	
	4B1 - 4B5	
7	4A2 - 4A6	
	4B2 - 4B6	
8	4A2 - 4A5	
	4B2 - 4B5	
9	4A1X - FLG	
	4B1X - FLG	

Checked: _____		Drawn: _____	Scale: 1:3
Reviewed: _____		Checked: _____	Weight: _____
Approved: _____		Comments: _____	Sheet: 1 of 1

© CDCP, Inc.

Port 4 X-Ray Film Layout

Sheet No. 5A
 C: SEI20-004-22-MTM
 Scale: 1:3

Quality Assurance Documentation for Part ID: SE120-004 PORT 4B - Item: 104

Workorder: 65678/7-0 Sub:9 Op:80


Part: SE120-004 PORT 4B - PORT 4B SUB-ASSEMBLY - PORT 4B SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE122-049 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	E5	\varnothing .030 A B C DIA. 0.531 THRU +/- 0.005" (60X)	PIN GAGE	MFG QA		J-669	.531 / .535 DIA. W/ IN. .005	182-J.LE 11-01-05	854-R.U 11-01-05	A
1* (20)	C7	1.18 +/- 0.010" (2x)	CALIPER	MFG QA		P-4364	1.183/1.200 (ACCEP T PER REF NC 18525)	854-R.U 05-03-06	854-R.U 11-01-05	A
1* (30)	H5	\sphericalangle 0.015"	INDICATOR	MFG QA		P-1170	W/IN .003	182-J.LE 11-01-05	854-R.U 11-01-05	A
1* (40)	C6	26.63 +/- 0.010"	CALIPER	MFG QA		J-1297	26.633	182-J.LE 11-01-05	854-R.U 11-01-05	A
1* (50)	D7	37.63 +/- 0.010"	CALIPER	MFG QA		J-1297	37.628	182-J.LE 11-01-05	854-R.U 11-01-05	A
1* (60)	B6	\varnothing 0.012 A B C 8-32 UNC .250DP	THREAD PLUG GA	MFG QA		A-112	ACCEPT--.005	182-J.LE 11-01-05	854-R.U 11-01-05	A
1* (70)	G5	.94 +/-0.010" ALL AROUND		MFG QA		GAGE PIN	ACCEPT	535-S.L 11-01-05	854-R.U 11-01-05	A
1* (80)	H5	0.151 - 0.149 (0.153 +0/-0.003" on dwg) (leaves aprx 0.002" for polishing)	DEPTH MICROMET	MFG QA		P-4363	.149/.151	535-S.L 11-01-05	854-R.U 11-01-05	A
1* (90)	H5	1.25 +/- .010"	OD MICROMETER	MFG QA		P-4362	1.248/1.256	535-S.L 11-01-05	854-R.U 11-01-05	A

Quality Assurance Documentation for Part ID: SE120-004 PORT 4B - Item: 105

Workorder: 65678/7-0 Sub:9 Op:120

Part: SE120-004 PORT 4B - PORT 4B SUB-ASSEMBLY - PORT 4B SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		 0.375 PROFILE VERIFICATION	INDICATOR	QA		J-843	.360	854-R.U 11-11-05			A
*		Magnetic Permeability 1.02 Max	MASTER GAGE	QA		J-1165	GREATER THAN 1.1 B T LESS THAN 1.15 (A CCEPT PER NC 18609)	854-R.U 05-03-06			A
*		Interior Surface Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-825	25-30	854-R.U 11-11-05			A
*		Material Thickness: 0.500 +.04 / -.01"	CALIPER	QA		J-96	.514	854-R.U 11-11-05			A
*		CLEANLINESS PER PS483		QA		VISUAL	ACCEPTABLE PER PS4 3	854-R.U 11-11-05			A
*		Magnetic Permeability 1.2 Max (at flange we	MASTER GAGE	QA		J-1165	LESS THAN 1.2	854-R.U 11-11-05			A



6119 FULTON
P.O. BOX 120430
HOUSTON, TEXAS 77219
713/695-6000
FAX 713/695-6725
S/O NUMBER 250332

SOLD TO: HAYNES INTERNATIONAL
NORTHWOODS IND. PARK
12241 FM 529
HOUSTON,
TX 77041
P.O. NUMBER 1552

DRIP TO: HAYNES INTERNATIONAL
12241 FM 529
HOUSTON,
TX 77041
TAG #:

METALLURGICA
TEST REPORT
DATE 3/28/0
PAGE

ITEM	DESCRIPTION	MATERIAL	SPEC	BASE SPEC	PIECES
001	8"OD, 188AW PIPE X 28"LG	FORM & TACK ENDS SQUARE &	625	S443	S8443
004	4"OD, 188AW PIPE X 28"LG	FORM & TACK ENDS SQ & DEBURRED	625	S443	S8443
005	4"OD, 188AW PIPE X 34"LG FORM	& TACK ENDS SQ & DEBURRED	625	S443	S8443

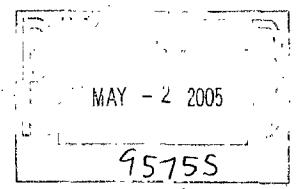
ITEM	HEAT #	C	MN	P	S	SI	CR	NI	MO	CU	CO	CBATA	N	FE	V	W
001	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		
004	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		
005	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		

ITEM	AL	TI	SM	PR	ZN	AS	MG	ALATI	O	BASE MATERIAL MANUFACTURER	M.S.N.
001	.210	.290								HAYNES INTERNATIONAL	
004	.210	.290								HAYNES INTERNATIONAL	
005	.210	.290								HAYNES INTERNATIONAL	

ITEM	YIELD	TENSILE	ELONG		R/A	BHM	HEAT TREAT		IMPACT	SIZE	TEMP	RESULTS			LATERAL			% DUCTIL	
			2	8			TEMP	TIME				QVCH	TEST	(10mm X)	DEG-F	1	2		3
001	60,500	121,000	51.0			235													
004	60,500	121,000	51.0			235													
005	60,500	121,000	51.0			235													

HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5
HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5
HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5

LABOR ONLY TO MANUFACTURE FROM CUSTOMER'S MATERIAL
***** MADE IN THE USA *****



5/2/05
MTM 09

1-12
B.J.

NOTARIZED MILL TEST REPORTS AVAILABLE UPON REQUEST.

*N-WATER
A-AIR
FC-FURNACE COOL
Q-OIL
QT-AIR QUENCH
AND 1250F TEMPER

WE CERTIFY THAT ALL CHEMICAL ANALYSIS, MECHANICAL PROPERTIES, TEST RESULTS AND STATEMENTS OF PERFORMANCE RECORDED HEREIN, ARE ACCORDING TO THE RECORDS OF MACH INTERNATIONAL. MATERIALS HEREIN ST ARE IN COMPLIANCE WITH ALL SPECIFICATIONS LISTED ABOVE.

DATE 5/28/05 SIGNATURE *[Signature]*

INSPECTION DATA CHECKLIST

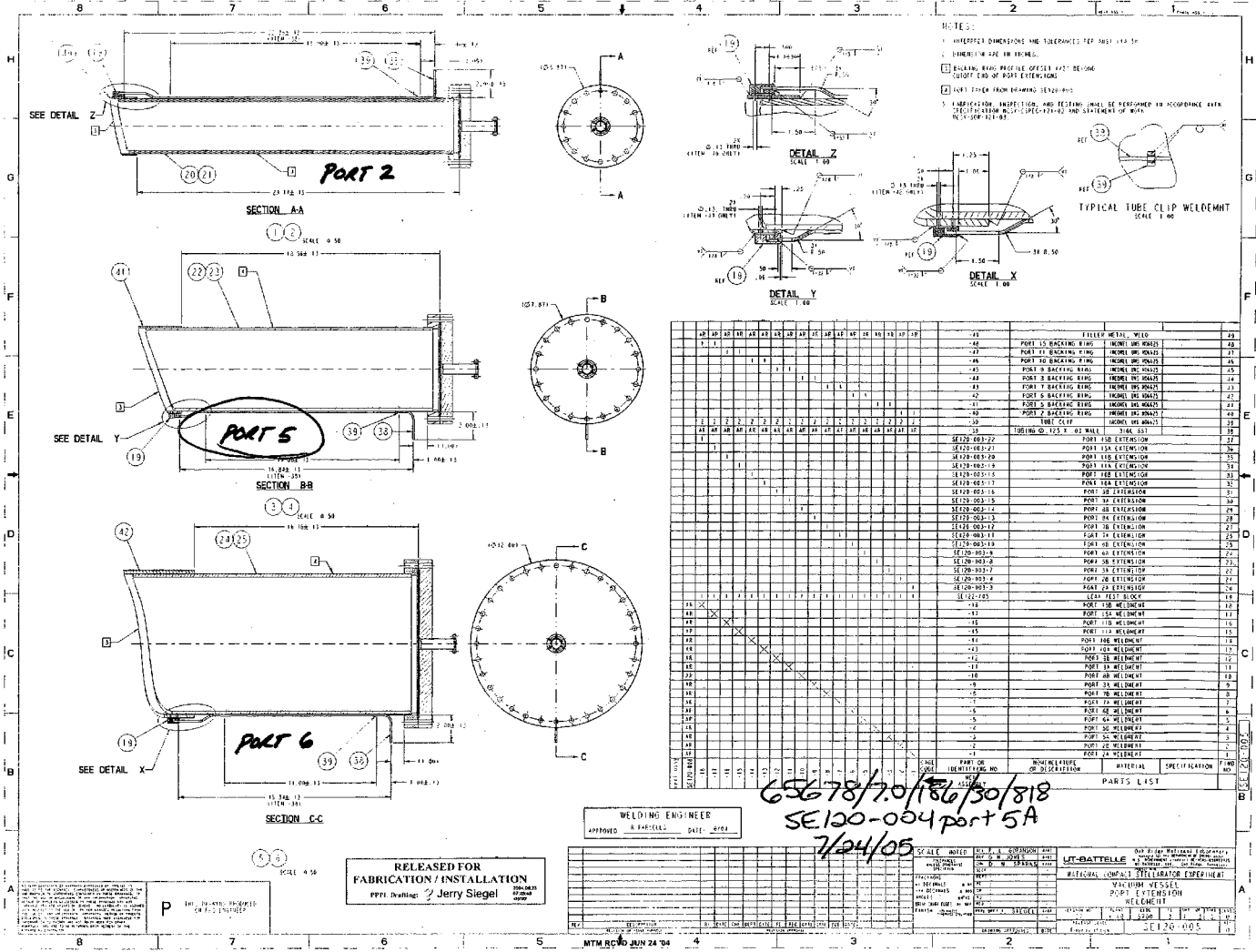
Quality Assurance Documentation for Part ID: SE120-004 PORT 5 - Item: 107

Workorder: 65678/7-0 Sub:186 Op:20

Part: SE120-004 PORT 5 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			VISUAL INSPECTION	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		AWI			F COMPLETED WELD	06-22-05	06-22-05	

A



MC115230.TIF1



4959
 10520 Chester Road
 Woodlawn, Ohio 45215

James Berg

CLIENT Major Tool + Machine				INTERPRETER/LEVEL Robert Weaver/II				RADIOGRAPHER Robert Weaver				JOB NO 13850052-4		P.O. NO		DATE 7-24-05																		
ISOTOPE X-RAY IR 92		DIA. X LEN/KV .118" X .094"		CURIES/MA 5/19		FOCAL SPOT SIZE .151"		SFD 15"		SOD 14.81		TIME 1:50		FILM PROCESSING Auto		FILM TYPE Kodak T Double		PS SCREENS .010"																
WELD PROCESS PAW-MAC				MATERIAL SPEC 625 Inconel				MATERIAL DIAMETER 6"		MATERIAL THICKNESS .187"		PENETRATOR ASTM 1A		SIRM N/A		ACCEPTANCE STANDARD ASME VIII Div 1 UW-51																		
DESCRIPTION 65678/90/186) 30/Ø18 SE120-004 part 5																																		
FITTING SEAM OR FITTING	FILM INTERNAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	FOG/STAIN/WRIT/TAIL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURNT THROUGH	CORNER FIT	CORROSION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	End View Side View <input type="checkbox"/> SINGLE WALL <input type="checkbox"/> DOUBLE WALL P Penetrator S Seam L Location Marker () OTHER					
			SIZE	QUALITY LEVEL																														
Seam	0-1	J.S.	1A	100B																														
	1-2																																	

Robert Weaver 655514/II
 Cooperheat-MQS Signature
 Ch Box 655506/II

Donogh D. Edward
 Customer Representative Signature

7-24-05
 Date

MC110343.TIF1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 5 - Item: 110

Workorder: 65678/7-0 Sub:186 Op:34

Part: SE120-004 PORT 5 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		Mag. Perm: 1.02 Mu Max	MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)								08-16-05			
*		ROUNDNESS WITHIN .030"	CALIPER	QA		J-1103	.030	840-G.M			A
(20)									08-16-05		

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 5 - Item: 112

Workorder: 65678/7-0 Sub:189 Op:20

Part: SE120-004 PORT 5 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	A

4959

10520 Chester Road
Woodlawn, Ohio 45215



JAMES BELL

CLIENT Major Tool + Machine		INTEGRITY LEVEL Robert Weaver/II		RADIOGRAPHER Robert Weaver		JOB NO. 13950052-4	P.O. NO.	DATE 7-24-05		
ISOTOPE/RAY IR 192	DIA. X LENNY .118" x .054"	CURIES/MA 51.9	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.81"	TIME 1:50	FILM PROCESSING AUTO	FILM TYPE Kodak T	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS PAW-MAC		MATERIAL SPEC. 625 Inconel		MATERIAL DIAMETER 6"		MATERIAL THICKNESS .187"		PENETRATOR ASTM 1A	SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51

DESCRIPTION
65678/9.0/189/30/818
SE120-004 parts

FITTING, SEAM OR FITTING	FILM INTERNAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER PIT	CORROSION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNING	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT
			SIZE	QUALITY LEVEL																								
SEAM	0-1	J.S.	1A	.008																								
	1-2																											

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrometer
 S Seam
 L Location Marker
 OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature

Douglas D. Edwards
Customer Representative Signature

7-24-05
Date

MC110341.TIF

RELEASED FOR FABRICATION / INSTALLATION
JERRY SIEGEL
WELDING ENGINEER

SECTION CC
SEE DETAIL X
PART 6

SECTION BB
SEE DETAIL Y
PART 5

SECTION AA
SEE DETAIL Z
PART 2

DETAIL X
DETAIL Y
DETAIL Z

PARTS LIST

NO.	DESCRIPTION	QTY	UNIT	REMARKS
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NOTES:
1. DIMENSIONS AND TOLERANCES TO BE SHOWN ON DRAWINGS.
2. DIMENSIONS TO BE SHOWN ON DRAWINGS.
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48. DIMENSIONS TO BE SHOWN ON DRAWINGS.
49. DIMENSIONS TO BE SHOWN ON DRAWINGS.
50. DIMENSIONS TO BE SHOWN ON DRAWINGS.

DATE: 1/11/58
BY: JERRY SIEGEL

REVISIONS:
1. REVISED FOR FABRICATION / INSTALLATION

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 5 - Item: 115

Workorder: 65678/7-0 Sub:189 Op:34

Part: SE120-004 PORT 5 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-16-05			
*			CALIPER	QA		J-707	.011	840-G.M			A
(20)		ROUNDNESS WITHIN .030"						08-16-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 5A - Item: 116

Workorder: 65678/7-0 Sub:10 Op:10

Part: SE120-004 PORT 5A - PORT 5A SUB-ASSEMBLY - PORT 5A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P5AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-21-05		
*		VWI - EXTERIOR FILLETS P5AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-21-05	

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Frank Malinowski

E-Mail: fmalinowski@pppl.gov

Telephone: 609-243-2441

Fax: 609-243-2021

Part: /SE120-004-23 (CF 6" Flange)

Drawing ID: SE120-004

Revision: 1

Customer P.O.: S005243-F

Serial No./Qty: N/A

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433

Fax: 317-634-9420

Problem: Magnetic Permeability required to be 1.02 Max

Parts Check >1.05 but < 1.1

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED

Number of additional pages: 0

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Princeton University Plasma Physics Laboratory
James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

26 August 2005

Ms. Teresa L. Hubbard
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Subcontract S005243-F
Approved Disposition of Major Tool, Inc. Non-Conformance Reports
17157, 17167, 17233, 17237, 17240, 17286, 17287, 17288, 17314,
and 17342

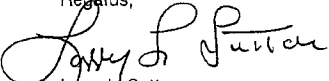
Dear Ms. Hubbard:

Attached are ten Major Tool & Machine, Inc. submitted Non-Conformance Reports (NCRs) and their disposition approved by the National Compact Stellarator Experiment (NCSX) Procurement Technical Representative and the Responsible Line Manager for the Vacuum Vessel Sub-Assembly.

Please note the one signed Project Disposition form applies to all ten of the NCRs.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441 and by e-mail lsutton@pppl.gov.

Regards,


Larry L. Sutton
Senior Subcontract Administrator

Attachments: As stated

cc: M. Viola

Quality Assurance Documentation for Part ID: SE120-004 PORT 5B - Item: 118

Workorder: 65678/7-0 Sub:11 Op:10

Part: SE120-004 PORT 5B - PORT 5B SUB-ASSEMBLY - PORT 5B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P5BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-21-05		
*		VWI - EXTERIOR FILLETS P5BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-21-05	

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

ORIGINAL

Haynes International
1020 West Park Avenue
PO Box 5013
Kokomo, Indiana, 46902

HAYNES
International

Invoice No. No. de l'ordre Bestellungs Nr. 436027001-1		Date Entered Date de commande Bestelldatum 03/11/05		Customer's Reference Référence Client Kundenreferenz P0500904		Report No. Rapport No. Zeichens Nr. 20050425106		Pages of Pages Page de Pages Anzahl der Seiten 1 OF 4																																																																																																																																																																																																																							
Sold To • Client • Bestellanwieschiff MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA				Ship To • Destinataire • Bestellunge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA				Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VYSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100																																																																																																																																																																																																																							
Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-D-443, 00c1, UNS# N06625, Gr. 1; PS-489, E						Quantity Ordered Quantité Commandée Bestellmenge 6 PC		Quantity Shipped Quantité Expédiée Liefermenge 6 PC																																																																																																																																																																																																																							
<table border="1"> <thead> <tr> <th rowspan="2">Heat Number N° de la Caisse Charge Nr.</th> <th colspan="17">Chemical Analysis • Analyse Chimique • Chemische Analyse</th> </tr> <tr> <th>Al</th> <th>B</th> <th>C</th> <th>Cr-Ta (Sb-Ti)</th> <th>Cu</th> <th>Cr</th> <th>Cu</th> <th>Fe</th> <th>Mn</th> <th>Mp</th> <th>Ni</th> <th>P</th> <th>S</th> <th>Si</th> <th>Ti</th> <th>V</th> <th>W</th> </tr> </thead> <tbody> <tr> <td>2650 4 6730</td> <td>0.21</td> <td></td> <td>0.03</td> <td>3.61</td> <td>0.24</td> <td>21.69</td> <td>0.07</td> <td>4.07</td> <td>0.3</td> <td>8.49</td> <td>60.78</td> <td>0.007</td> <td>0.002</td> <td>0.16</td> <td>0.27</td> <td></td> <td></td> <td>BUTT END *03</td> </tr> <tr> <td>2650 4 6731</td> <td>0.21</td> <td></td> <td>0.02</td> <td>3.54</td> <td>0.23</td> <td>21.51</td> <td>0.08</td> <td>4.68</td> <td>0.26</td> <td>8.59</td> <td>59.88</td> <td>0.008</td> <td><0.002</td> <td>0.1</td> <td>0.29</td> <td></td> <td></td> <td>BUTT END *03</td> </tr> <tr> <td>2650 4 6769</td> <td>0.13</td> <td></td> <td>0.026</td> <td></td> <td>0.2535</td> <td>22.32</td> <td>0.0631</td> <td>4.499</td> <td>0.2755</td> <td>8.75</td> <td>59.77</td> <td>0.0072</td> <td>0.004</td> <td>0.146</td> <td>0.2595</td> <td></td> <td></td> <td>BUTT END *01</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2650 4 6730</td> <td>3.56</td> <td><0.05</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>BUTT END *03</td> </tr> <tr> <td>2650 4 6731</td> <td>3.43</td> <td><0.05</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>BUTT END *03</td> </tr> <tr> <td>2650 4 6769</td> <td>3.5399</td> <td><0.05</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>BUTT END *01</td> </tr> </tbody> </table>																		Heat Number N° de la Caisse Charge Nr.	Chemical Analysis • Analyse Chimique • Chemische Analyse																	Al	B	C	Cr-Ta (Sb-Ti)	Cu	Cr	Cu	Fe	Mn	Mp	Ni	P	S	Si	Ti	V	W	2650 4 6730	0.21		0.03	3.61	0.24	21.69	0.07	4.07	0.3	8.49	60.78	0.007	0.002	0.16	0.27			BUTT END *03	2650 4 6731	0.21		0.02	3.54	0.23	21.51	0.08	4.68	0.26	8.59	59.88	0.008	<0.002	0.1	0.29			BUTT END *03	2650 4 6769	0.13		0.026		0.2535	22.32	0.0631	4.499	0.2755	8.75	59.77	0.0072	0.004	0.146	0.2595			BUTT END *01																																																										2650 4 6730	3.56	<0.05																BUTT END *03	2650 4 6731	3.43	<0.05																BUTT END *03	2650 4 6769	3.5399	<0.05																BUTT END *01
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Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds Certification Technician										4/29/2005																																																																																																																																																																																																																					

Troy Reynolds

MTM 09
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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr. 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenspezifika P0500964	Report No. Rapport No. Zeugnis Nr. 26050429106	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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1029 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellausschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestelleunge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00c1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
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Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte. Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zelsandversuch						
Ultimate Zugfestigkeit	Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. in 5" Längung	RA		Temp.	Ultimate Zugfestigkeit	Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. in 5" Along 50% % Dehnung	RA		Temp.	Stress Rupture Spannung	Stress Rupture Spannung	% Elong. in 5" Along 50% % Dehnung	RA	
123000 PSI		63000 PSI	51 %		(1)(A)													
126000 PSI		64000 PSI	49 %		(2)(A)													
132000 PSI		64000 PSI	45 %		(3)(A)													

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4/29/2005 (1) 2741306701 (2) 2741680501 (3) 2911844501

Troy Reynolds

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

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PO Box 9013
Kokomo, Indiana, 46902

Invoice No No. De Facture Rechnungs Nr 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestellnr 205U0964	Report No. Rapport No Zeugnis Nr 20050429106	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4																	
Sold To • Client • Beneficiario/ff MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Bezeichnung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100																	
Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00e1, UNS# N06625, Gr 1; PS-489, E			Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC																	
Annealed Hardness Durete Recuit Gezuht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grossor De Grain Korngrosse							IGA	Uniformity	Carbonyl Ratio	Oxidation Rate	Charpy Impact Test				Creep Rupture				
		Units/Size	Preparation Grain Size	Very Fine	Coarse Ultra Fin	4:1	Fig/W Figure Number	Attack Dept.					Condition	Test Method	Temper Avg	Temper 1	Temper 2	Temper 3	Test Elev Velocity	Stress Constatant Spannung	Time Hours Seconde
97 HRB 100 HRB 93 HRB	(1)(A) (2)(A) (3)(A)	5 5 6																			

Certified By • Certifie Par • Bescheinigt Durch: Troy Reynolds
Certification Technician

4/29/2005

(1) 2741306701 (2) 2741680801 (3) 2941844501

Troy Reynolds



5/2/05

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CERTIFICATION OF TESTS - RAPPORT D'ESSAIS CERTIFIEE - WERKSZEUGNIS

Invoice No. No. De facture Rechnungs Nr 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenshaft/daten PO560964	Report No. Rapport No. Zeugnis Nr 29050429106	Pages of Pages Page de Pages Anzahl der Seite 4 Of 4
Sold To • Client • Bestellanrnschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestelldatng MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Spécification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-442, 00e1, UNS# N06625, Gr. 1; PS-489, E		Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC	

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All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-485 Revision H as applicable.
Mill Orders Used: 2741306701 (1 PC), 2741680501 (3 PC), 2941844501 (2 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician

4/20/2005

Troy Reynolds

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS			
Invoice No. No. De Facture Rechnung Nr 436027002-1	Date Entered Date De Commande Bestelldatum 03-11-05	Customer Reference Référence Client Kundenbestellnr P0500964	Report No. Rapport No Zeugnis Nr 20050429108
Pages of Pages Page(s) Page(s) Anzahl der Seiten 1 Of 4			

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1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestelleranzuhr MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Spécification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00el, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
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Heat Number Numero de Casin Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																		
	Al	B	C	Co (Ni+Ti)	Cu	Cr	Ni	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W		
2650 4 6730	0.21		0.03	3.61	0.24	21.69	0.07	4.07	0.3	8.49	60.78	0.007	0.002	0.16	0.27				BUTT END *03
2650 4 6731	0.21		0.02	3.54	0.23	21.51	0.08	4.68	0.26	8.59	59.88	0.008	<0.002	0.2	0.29				BUTT END *03
2650 4 6769	0.13		0.026		0.2535	22.32	0.0631	4.499	0.2755	8.75	59.77	0.0072	0.004	0.246	0.2595				BUTT END *01
	Ta	Zr	Bi	Se	La	Nb+Ta	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				
2650 4 6730	3.56	<0.05																	BUTT END *03
2650 4 6731	3.43	<0.05																	BUTT END *03
2650 4 6769	3.5399	<0.05																	BUTT END *01

Certified By • Certifié Par • Bescheinigt Durch: **Troy Reynolds**
Certification Technician
4/29/2005

Troy Reynolds

MTH
09
5/2/05

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZUEUGNIS				
Invoice No. No. De Facture Rechnungs Nr. 436027602-1	Date Entered Date De Commande Beschuldigung 03/11/05	Customer Reference Reference Client Kundenbestellnummer P0500964	Report No. Rapport No. Zeugnis-Nr. 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4

Sold To • Client • Bestellanachricht	Ship To • Destinataire • Bestimmung
MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA

Product Description • Description Produit • Material Beschreibung
0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400F,S1000E, EN 10204 3.1.B, AS9100

Specification • Specification • Spezifikation	Quantity Ordered Quantite Commande Bestellmenge	Quantity Shipped Quantite Expediee Liefermenge
ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 60el, UNS# N06625, Gr. 1; PS-489, E	6 PC	6 PC

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeistandversuch					
Ultimate Zugfestigkeit	% Yield Tens. A 1% % Streckgrenze	0.2% Yield Tens. A 0.2% 0.2% Streckgrenze	% Elong In % Abzug EN % Dehnung	%RA		Temp. Temp.	Ultimate Zugfestigkeit	% Yield Tens. A 1% % Streckgrenze	0.2% Yield Tens. A 0.2% 0.2% Streckgrenze	% Elong In % Abzug EN % Dehnung	%RA		Temp. Temp.	Stress Charge Spannung	Time Heure Dauer	% Elong In % Abzug EN % Dehnung	%RA
123000 PSI		63000 PSI	51 %		(1)(A)												
126000 PSI		64000 PSI	49 %		(2)(A)												
132000 PSI		64000 PSI	45 %		(3)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Troy Reynolds
4/29/2005 (1) 2741306701 (2) 2741680501 (3) 2941864501
Certification Technician

Troy Reynolds

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Invoice No. No. de Facture Rechnungs Nr. 436027002-1	Date Entered Date de Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestelldaten 70500964	Report No. Rapport No. Zeugnis Nr. 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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Sold To • Client • Bestellanachrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellempfänger MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
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Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
---	--	--

Annuité Hardness Dureté Certeigete Härte	Agut Hardness Dureté Vicielle Gesteirte Härte	Grain Size Graineur De Grains Korngrösse						IGA	Uniformity	Corrosion Rate		Oxidation Rate	Charpy Impact Test				Creep Rapture			
		Grain Size	Position	Grain Size	Grain Size	Grain Size	Grain Size			Corrosion	Test Method		Toughness Avg.	Toughness 1	Toughness 2	Toughness 3	Test Elast Yield	Strain Controlled Spacing	Heav Items Standard	% Elong In 5. Dithalge
97 HRB	(1)(A)	5								MPV										
100 HRB	(2)(A)	5																		
93 HRB	(3)(A)	6																		

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds Certification Technician 4-29/2005 (1) 2741306701 (2) 2741680501 (3) 2941844501

Troy Reynolds

MTM 09 5/2/05

THE BUYER AGREES TO HOLD THE SELLER HARMLESS FOR ANY LOSS OR DAMAGE TO THE MATERIALS PURCHASED FROM THE SELLER, WHETHER CAUSED BY THE SELLER'S NEGLIGENCE OR OTHERWISE, UNLESS SUCH LOSS OR DAMAGE IS CAUSED BY THE SELLER'S NEGLIGENCE OR OTHERWISE. THE SELLER'S LIABILITY IS LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE MATERIALS PURCHASED FROM THE SELLER. THE SELLER'S LIABILITY IS LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE MATERIALS PURCHASED FROM THE SELLER. THE SELLER'S LIABILITY IS LIMITED TO THE AMOUNT PAID BY THE BUYER FOR THE MATERIALS PURCHASED FROM THE SELLER.

MC107793.TIF7

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

ORIGINAL

Invoice No. No. De Facture Rechnungs Nr 436627062-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestellnummer P0500964	Report No. Rapport No. Zeugnis Nr 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellausschreib MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VYSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr 1; ASTM-B-443, 00el, UNS# N06625, Gr 1; PS-489, E			Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2741306701 (1 PC), 2741680501 (3 PC), 2941644501 (2 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Besehneigt Durch: Troy Reynolds 4/29/2005
Certification Technician

Troy Reynolds



5/2/05

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE BATCHES SHOWN. THIS MATERIAL MEETS THE REQUIREMENTS OF THE HAYNES CERTIFICATION PROGRAM. THE HAYNES CERTIFICATION PROGRAM IS A QUALITY ASSURANCE PROGRAM FOR THE HAYNES INTERNATIONAL. THE HAYNES CERTIFICATION PROGRAM IS A QUALITY ASSURANCE PROGRAM FOR THE HAYNES INTERNATIONAL. THE HAYNES CERTIFICATION PROGRAM IS A QUALITY ASSURANCE PROGRAM FOR THE HAYNES INTERNATIONAL.

MC107793.TIF8

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 6 - Item: 120

Workorder: 65678/7-0 Sub:192 Op:20

Part: SE120-004 PORT 6 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	

A



4959
10520 Chester Road
Woodlawn, Ohio 46215

JAMES BELL

CLIENT Major Tool + Machine			INTERPRETER/LEVEL Robert Weaver/II			RADIOGRAPHER Robert Weaver			JOB NO. 158502524		P.O. NO.		DATE 7-23-05								
ISOTOPE/RAY IR192		DIA. X LENS/V .118" x .054"		CURIES/MA 52.4		FOCAL SPOT SIZE .151"		SFD 15"		SOD 14.75"		TIME 2:00 min		FILM PROCESSING Auto		FILM TYPE Kodak T		FILM TECHNIQUE Double		PB SCREENS .010"	
WELD PROCESS PAW-MAC			MATERIAL SPEC. 625 Inconel			MATERIAL DIAMETER 10"			MATERIAL THICKNESS .250			PENETRANT ASTM IA		SHN N/A		ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51					

DESCRIPTION
65678/9.0/192/30/818
SE120-004 port 6

REMARKS

FITTING SEAM/FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRACKER PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
Seam	0-1	J.S.	1A	.008																									
	1-2																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrant
 B Shim
 L Location Marker
 I OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature

Ch. Bell 655506/II

Raymond D. Edwards
Customer Representative Signature

7-23-05
Date

MC110334.TIF1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 6 - Item: 123

Workorder: 65678/7-0 Sub:192 Op:34

Part: SE120-004 PORT 6 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-16-05			
*			CALIPER	QA		J-1103	.060	840-G.M			A
(20)		ROUNDNESS WITHIN .060"						08-16-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 6 - Item: 125

Workorder: 65678/7-0 Sub:197 Op:20

Part: SE120-004 PORT 6 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	A



4959
10520 Chester Road
Woodlawn, Ohio 45215

James Boels

CLIENT Major Tool + Machine		INTERPRETER LEVEL Robert Weaver/II		RADIOGRAPHER Robert Weaver		JOB NO. 13850252.4	P.O. NO.	DATE 7-23-05
ISO/FILM RAY IR 192	DIA. X LEN/IN .118" x .094"	CURIES/MA 52.4	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.75"	TIME 2:00 min	FILM PROCESSING Auto	FILM TYPE Kodak T
WELD PROCESS PAW-MAC	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER 10"	MATERIAL THICKNESS .250"	PENETRANT ASTM 1A	SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51		

DESCRIPTION
65678/90/191/30/818
SE 120-004 part 6

REMARKS

FITTING SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER/PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	AGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT
			SIZE	QUALITY LEVEL																								
Seam	0-1	J.S.	1A	.008																								
↓	1-2	↓	↓	↓																								

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrant
 S Shim
 L Location Marker
 | OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature
Ch Boels 655506/II

Daughter D. Edwards
Customer Representative Signature

7-23-05
Date

MC110333.TIF1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 6 - Item: 128

Workorder: 65678/7-0 Sub:197 Op:34

Part: SE120-004 PORT 6 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		Mag. Perm: 1.02 Mu Max	MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M 08-16-05			A
(10)											
*		ROUNDNESS WITHIN .060"	CALIPER	QA		J-1103	.054	840-G.M 08-16-05			A
(20)											

Quality Assurance Documentation for Part ID: SE120-004 PORT 6A - Item: 129

Workorder: 65678/7-0 Sub:12 Op:10

Part: SE120-004 PORT 6A - PORT 6A SUB-ASSEMBLY - PORT 6A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P6AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-26-05		
*		VWI - EXTERIOR FILLETS P6AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-26-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 6B - Item: 130

Workorder: 65678/7-0 Sub:13 Op:10

Part: SE120-004 PORT 6B - PORT 6B SUB-ASSEMBLY - PORT 6B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P6BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-26-05		
*		VWI - EXTERIOR FILLETS P6BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-26-05	



2119 FULTON
P.O. BOX 130630
HOUSTON, TEXAS 77215
713/55-4000
FAX 713/56-4725
S/O NUMBER 250352

BUILD TO: HAYNES INTERNATIONAL
WORTHWOODS IND PARK
12241 FM 529
HOUSTON,
TX 77041
P.O. NUMBER 1552

DRIF TO: HAYNES INTERNATIONAL
12241 FM 529
HOUSTON,
TX 77041
LAB #:

METALLURGICAL
TEST REPORT
DATE 3/22/05
PAGE

ITEM	DESCRIPTION	MATERIAL	SPEC	BASE SPEC	PIECES
001	8"OD, 1894W PIPE X 28" LG FORM & TACK ENDS SQUARE &	825	B443	88443	
004	8"OD, 1894W PIPE X 26" LG FORM & TACK ENDS SQ & DEBURRED	825	B443	88443	
005	8"OD, 1894W PIPE X 24" LG FORM & TACK ENDS SQ & DEBURRED	825	B443	88443	

ITEM	HEAT #	C	MM	P	S	SI	CR	NI	MO	CU	CO	CBATA	N	FE	V	W
001	2450-4-6731	.020	.240	.008		.200	21.510	59.880	8.890		.220	3.430		4.650		
004	2450-4-6731	.020	.240	.008		.200	21.510	59.880	8.890		.220	3.430		4.650		
005	2450-4-6731	.020	.240	.008		.200	21.510	59.880	8.890		.220	3.430		4.650		

ITEM	ØL	TI	SM	PS	ZN	AS	MG	ALATI	G	BASE MATERIAL MANUFACTURER	M.S.N.
001	.210	.290								HAYNES INTERNATIONAL	
004	.210	.290								HAYNES INTERNATIONAL	
005	.210	.290								HAYNES INTERNATIONAL	

ITEM	YIELD	TENSILE	ELONG		R/A	R/M	HEAT TREAT		IMPACT	SIZE	TEMP	RESULTS			LATERAL			K DUCTILE	
			%	%			TEMP	TIME				QUENCH	TEST	TYPE	(10mm X)	DEG F	1	2	3
001	60,500	121,000	51.0																
004	60,500	121,000	51.0																
005	60,500	121,000	51.0																

HT# 2450-4-6731 (TA) = 0.05
GRAIN SIZE = 4.5
HT# 2450-4-6731 (TA) = 0.05
GRAIN SIZE = 4.5
HT# 2450-4-6731 (TA) = 0.05
GRAIN SIZE = 4.5

LABOR ONLY TO MANUFACTURE FROM CUSTOMER'S MATERIAL
***** MADE IN THE USA *****

MAY - 2 2005
95756



5/2/05

NOTARIZED WILL TEST REPORTS AVAILABLE UPON REQUEST.

WATER
A-AIR
FURNACE COOL
O-OIL
O-AIR QUENCH
AND 1250F TEMPER

WE CERTIFY THAT ALL CHEMICAL ANALYSIS, MECHANICAL PROPERTIES, TEST RESULTS AND STATEMENTS OF PERFORMED OPERATIONS RECORDED HEREIN, ARE ACCORDING TO THE RECORDS OF MACH INTERNATIONAL. MATERIALS HEREIN STAY ARE IN COMPLIANCE WITH ALL SPECIFICATIONS LISTED ABOVE.

DATE 5/2/05 SIGNATURE *[Signature]*

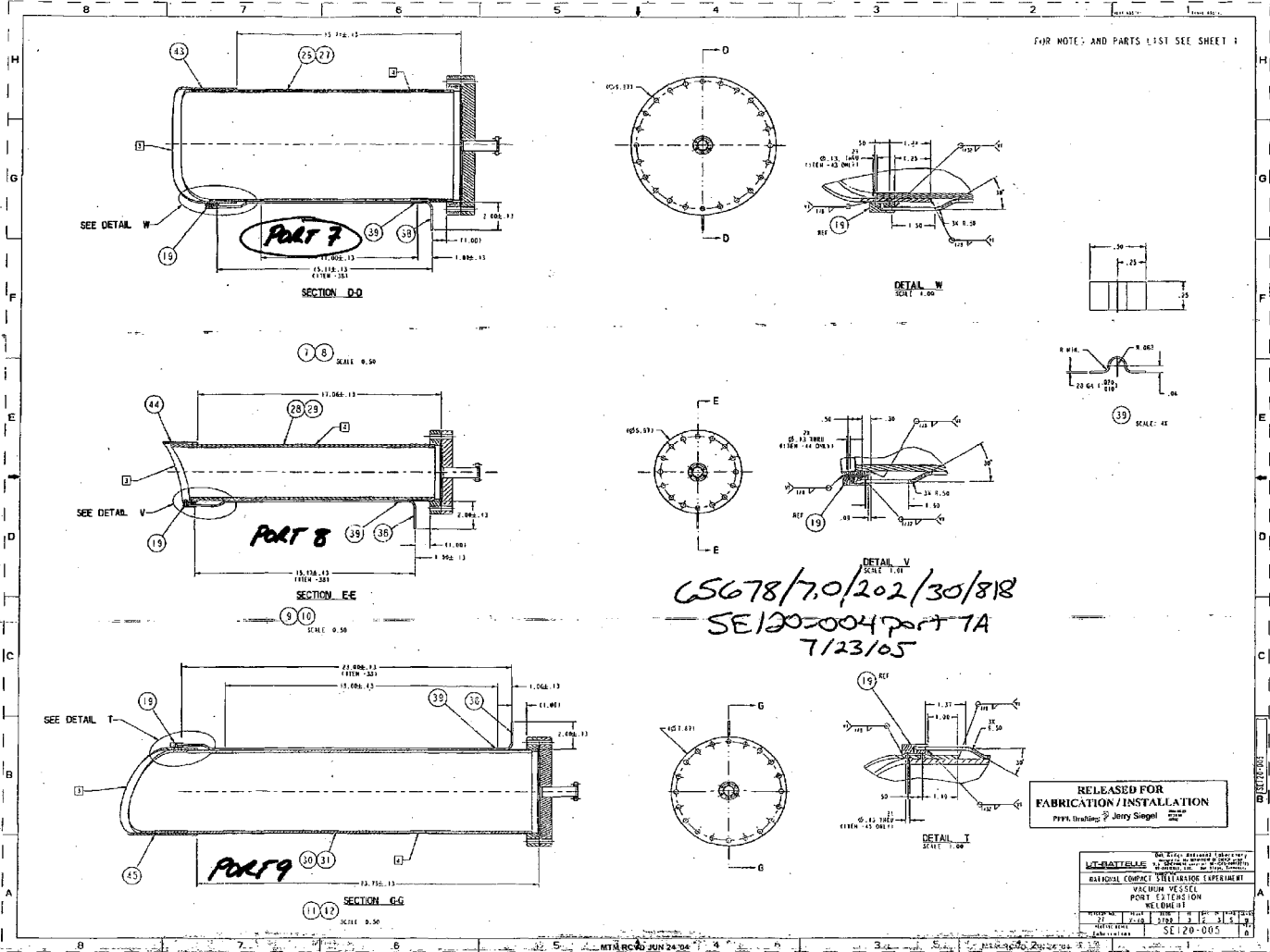
INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 7 - Item: 132

Workorder: 65678/7-0 Sub:202 Op:20

Part: SE120-004 PORT 7 - TUBE, 8.0 OD X 0.188 WALL - SE120-004-18 TUBE, 8.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	A



FOR NOTE, AND PARTS LIST SEE SHEET 1

65678/7.0/202/30/818
 SE 120-004 Part 7A
 7/23/05

RELEASED FOR
 FABRICATION/INSTALLATION
 PPR, Drawing: Jerry Siegel

NATIONAL BUREAU OF STANDARDS NATIONAL COMPACT VIBRATION LABORATORY POINT ESTENSION WELDON ST GAITHERSBURG, MD 20899-1001 PHONE: (301) 975-2000 FAX: (301) 975-2800 WWW: NIST.GOV	
PROJECT NO. 20	DATE 1/2002
DRAWING NO. SE 120-005	SHEET NO. 1

MC115423.TIF

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 7 - Item: 135

Workorder: 65678/7-0 Sub:202 Op:34

Part: SE120-004 PORT 7 - TUBE, 8.0 OD X 0.188 WALL - SE120-004-18 TUBE, 8.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-16-05			
*			CALIPER	QA		J-1103	.049	840-G.M			A
(20)		ROUNDNESS WITHIN .060"						08-16-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 7 - Item: 137

Workorder: 65678/7-0 Sub:208 Op:20

Part: SE120-004 PORT 7 - TUBE, 8.0 OD X 0.188 WALL - SE120-004-18 TUBE, 8.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			VISUAL INSPECTION	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		AWI			F COMPLETED WELD	06-22-05	06-22-05	

A



4959
10520 Chester Road
Woodlawn, Ohio 45216

James Berg

CLIENT Major Tool & Machine	INTERPRETER/LEVEL Robert Weaver/II	MAGNIFICATION Robert Weaver	JOB NO 138502544	P.O. NO	DATE 7-23-05					
ISOTOPE/RAY IR192	DIA. X LENS/XY .118" X .054"	CURIES/MA 52.4	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.81"	TIME 1:45	FILM PROCESSING Auto	FILM TYPE Kodak T	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS PAW-MAC	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER 8"	MATERIAL THICKNESS .187"	PENETRATOR ASTM 1A	SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51				

DESCRIPTION
65678/9.0/208/30/818
SE120-004 port 7

REMARKS

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CORROSION	INTERNAL CAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER/PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATORS	WELD CONTOUR	MS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT		
			SIZE	QUALITY LEVEL																										
Seam	0-1	J.S.	1A	.008																										
↓	1-2	↓	↓	↓																										

End View | Side View

SINGLE WALL

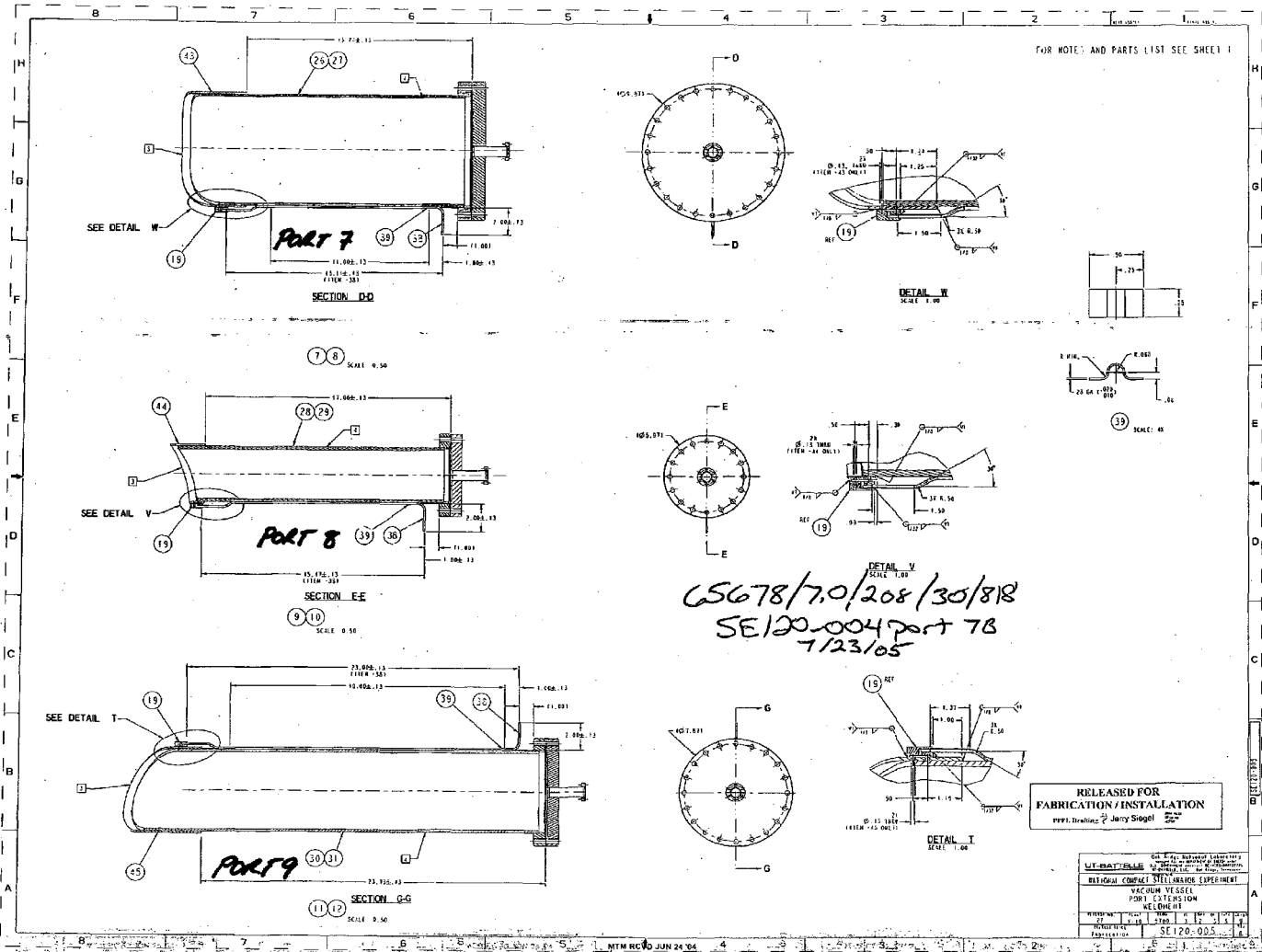
DOUBLE WALL

P Penetrator
S Shim
L Location Marker
() OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature
De Boy 655506/II

Douglas P. Edwards
Customer Representative Signature

7-23-05
Date



INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 7 - Item: 140

Workorder: 65678/7-0 Sub:208 Op:34

Part: SE120-004 PORT 7 - TUBE, 8.0 OD X 0.188 WALL - SE120-004-18 TUBE, 8.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		Mag. Perm: 1.02 Mu Max	MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M 08-16-05			A
(10)											
*		ROUNDNESS WITHIN .060"	CALIPER	QA		J-1103	.040	840-G.M 08-16-05			A
(20)											

Quality Assurance Documentation for Part ID: SE120-004 PORT 7A - Item: 141

Workorder: 65678/7-0 Sub:14 Op:10

Part: SE120-004 PORT 7A - PORT 7A SUB-ASSEMBLY - PORT 7A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P7AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-21-05		
*		VWI - EXTERIOR FILLETS P7AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-21-05	

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Frank Malinowski

E-Mail: fmalinowski@pppl.gov

Telephone: 609-243-2441

Fax: 609-243-2021

Part: / SE122-112-3 (CF BLANK FLANGE)

Drawing ID: SE122-113

Revision: 0

Customer P.O.: S005243-F

Serial No./Qty: N/A

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433

Fax: 317-634-9420

Problem: Magnetic Permeability requirement 1.02 Max
Checks >1.05, but < 1.1

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Princeton University Plasma Physics Laboratory
James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

26 August 2005

Ms. Teresa L. Hubbard
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Subcontract S005243-F
Approved Disposition of Major Tool, Inc. Non-Conformance Reports
17157, 17167, 17233, 17237, 17240, 17286, 17287, 17288, 17314,
and 17342

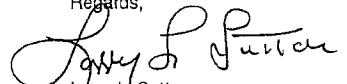
Dear Ms. Hubbard:

Attached are ten Major Tool & Machine, Inc. submitted Non-Conformance Reports (NCRs) and their disposition approved by the National Compact Stellarator Experiment (NCSX) Procurement Technical Representative and the Responsible Line Manager for the Vacuum Vessel Sub-Assembly.

Please note the one signed Project Disposition form applies to all ten of the NCRs.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441 and by e-mail lsutton@pppl.gov.

Regards,


Larry L. Sutton
Senior Subcontract Administrator

Attachments: As stated

cc: M. Viola

Quality Assurance Documentation for Part ID: SE120-004 PORT 7B - Item: 144

Workorder: 65678/7-0 Sub:15 Op:10

Part: SE120-004 PORT 7B - PORT 7B SUB-ASSEMBLY - PORT 7B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P7BF		MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPE FICATIONS	709-K.A	933-D.L		A
(30)				CWI				09-19-05	09-19-05		
*		VWI - EXTERIOR FILLETS P7BF		MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPE FICATIONS	709-K.A	933-D.L		A
(40)				CWI				09-19-05	09-19-05		



4119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 695-6000
 (713) 596-6725 FAX NUMBER

ORDER DATE: 7/21/05
 MACH S/O NUMBER: 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 28800000
 SOLD TO: MAJOR TOOL & MACHINE INC.
 1450 E. 19TH STREET
 INDIANAPOLIS, IN 46218
 BUYER: BOB

SHIP TO: MAJOR TOOL & MACHINE INC.
 1450 E 19TH STREET
 INDIANAPOLIS, IN 46218
 ATTENTION:
 TAG #:
 TAG #:

SLIPSRN #: 10000
 CUSTOMER ORDER NUMBER: P05-03984
 OFL ALI: DEL. LST: 9/04/05
 SHIP VIA: AFB F.O.B.: OUR PLANT
 FREIGHT BILL NUMBER:
 PREPAID/CRS: PREPAID/MIAM: COLLECT: X
 TERMS: SEE BELOW
 MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	MAT U/P NUMBER	MACH P.O. #
			FORM & TACK PER APPLI. SECTIONS OF PS-489 REV# E BEST EFFORT ON DIM TOL AIM FOR A530 TACK USING EPNJCPRMO-3 (625). USE FEWEST TACKS POSSIBLE DEBUR EDGES PRIOR TO FURN		
1		9 <i>9pc. 34"lg</i>	4"OD .2500W PIPE X 34"LG (-0 +1/4) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: <i>6PCS</i> PART# SE120-004 ——— <i>99716</i> PORT 17 TAG: <i>3PCS</i> PART# SE120-004 ——— <i>99715</i> PORT 17	EA 132793	814040
2		6 <i>6pc 42"lg</i>	4"OD .2500W PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: PART# SE120-004 ——— <i>99721</i> PORT 17	EA 132793	814040

Rev: 08.17.05 wx



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH B/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 9/04/05
 INDIANAPOLIS SHIP VIA: AEF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: WILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	B/O	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 pcs. 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 60443 NO LONG SEAM BEVEL TAG: <u>(LPC)</u> PART# SE120-004 PORT 17 <u>(SP)</u> PART# SE120-004 PORT 18 <u>(LPC)</u> PART# SE120-004 PORT 2 <u>(LPC)</u> PART# SE120-004 PORT B	EA 132793	01404C
4	1			CONTACT MAJOR TOOL TRANS. LT DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #DE-AC02-76-CH03073		
5	1			BAND PIPE TO WOODEN PALLETS LT & SHRINK WRAP COMPLETELY		

99720 see last page for customer / vendor revision.

99720

99723

99724

VJW

VJW



4119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

SOLD TO: CUSTOMER #: 38900000
 MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET

SLSPRSN #: 10000
 CUSTOMER ORDER NUMBER: POS-02984
 DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS
 IN 46218
 BUYER: BOB

SHIP VIA: ABF F.O.B.: OUR PLANT
 FREIGHT BILL NUMBER:

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET

PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 TERMS: SEE BELOW

INDIANAPOLIS
 IN 46218
 ATTENTION:
 TAG #:
 TAG #:

MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
6	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT	
				FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM; BALANCE OF FUNDS DUE NET 30 DAYS.	RECV. 31,500 8/9/05 CIC# 60160	

RECEIVED BY Frank L. Smith

DATE 8-9-05

DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in cursive script that reads "Denise Hernandez".

Denise Hernandez
Sales Department

INSPECTION DATA CHECKLIST

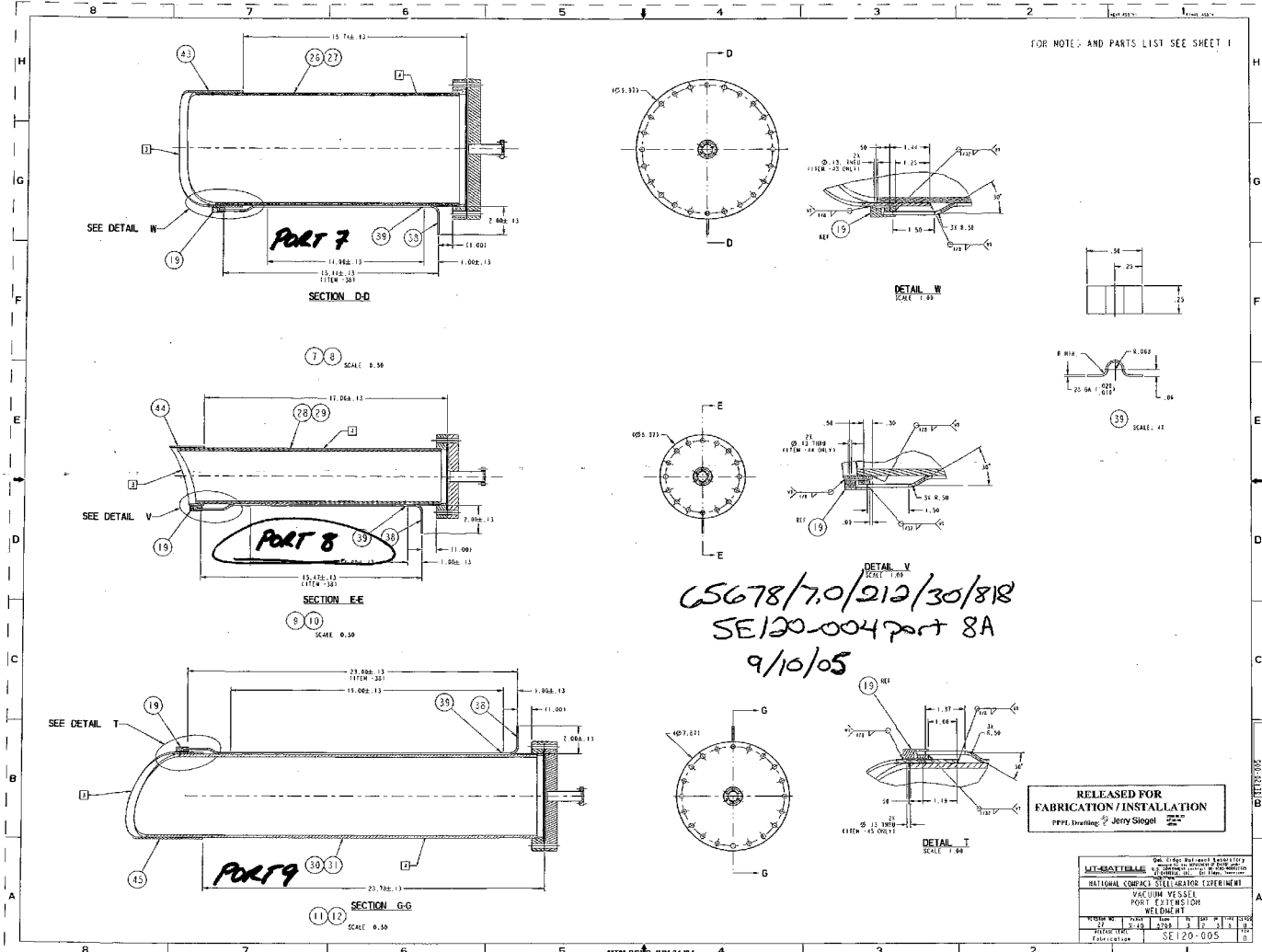
Quality Assurance Documentation for Part ID: SE120-004 PORT 8 - Item: 148

Workorder: 65678/7-0 Sub:212 Op:20

Part: SE120-004 PORT 8 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATION REQUI EMENTS.	933-D.L	933-D.L	
(20)		VWI - COMPLETED WELD		CWI				09-09-05	09-09-05	

A



4959

10520 Chester Road
Woodlawn, Ohio 45216



CLIENT: Major Tool & Machine
 INTERPRETER LEVEL: Robert Weaver II
 RADIOGRAPHER: Robert Weaver
 JOB NO: 13850291
 P.O. NO: N/A
 DATE: 9/10/05
 ISOTOPE/RAY: IR192
 DIA. X LENS: 1.18" x 0.54"
 CURIES/MA: 33
 FOCAL SPOT SIZE: .151"
 SFD: 15"
 SOD: 14.8125"
 TIME: 4:30
 FILM PROCESSING: Auto
 FILM TYPE: Kodak AA
 FILM TECHNIQUE: Double
 PB SCREENS: .010"
 WELD PROCESS: PAW
 MATERIAL SPEC: 625 Inconel
 MATERIAL DIAMETER: 3.5"
 MATERIAL THICKNESS: .1875"
 PENETRATOR: ASTM 1A
 SHIM: N/A
 ACCEPTANCE STANDARD: ASME VIII, LW-51

DESCRIPTION: 65678/7.0/212/30/818
SE 120-004 part 8

FITTING EQUIPMENT	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FLOW	INTERNAL CAVITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURNT THROUGH	CRATER/LAP	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ADDED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT
			SIZE	QUALITY LEVEL																								
long	0-1	J.S.	1A	.008"																								

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
 S Shim
 L Location Marker
 () OTHER

Robert Weaver 65514/II
Cooperheat-MQS Signature

Douglas D. Edwards
Customer Representative Signature

9/10/05
Date


MC111790.TIF1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 8 - Item: 151

Workorder: 65678/7-0 Sub:212 Op:50

Part: SE120-004 PORT 8 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.040	854-R.U 10-20-05		

A

INSPECTION DATA CHECKLIST

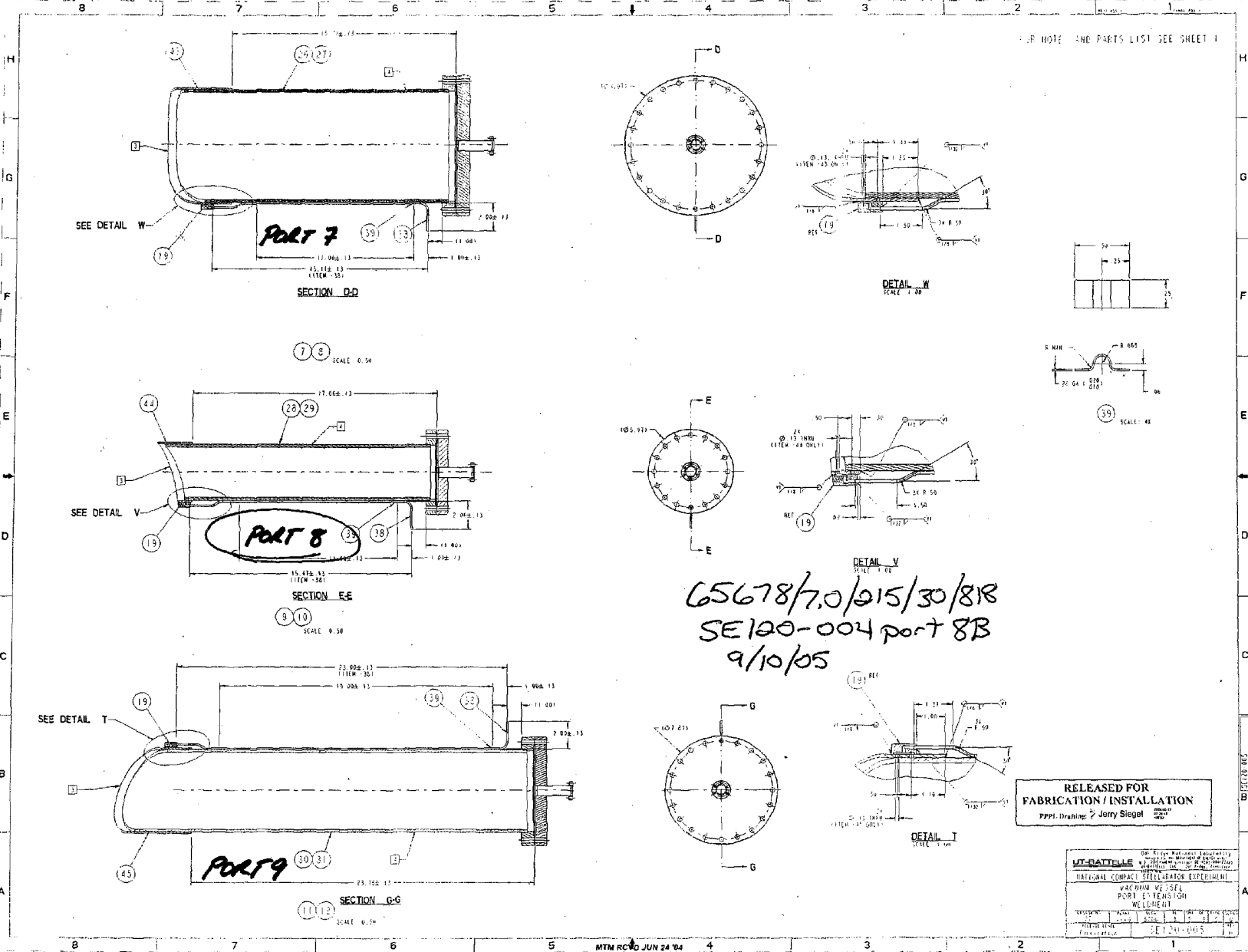
Quality Assurance Documentation for Part ID: SE120-004 PORT 8 - Item: 153

Workorder: 65678/7-0 Sub:215 Op:20

Part: SE120-004 PORT 8 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				09-02-05	09-02-05	

A



FOR NOTE AND PARTS LIST SEE SHEET 1

RELEASED FOR FABRICATION / INSTALLATION
Pppl. Drafting: Jerry Siegel


WT-BATTELLE		801 Fifth National Parkway Bethesda, Maryland 20814	
NATIONAL COMPACT STIMULATOR EXPERIMENT		REVISION NO. 0561	
PART EXTENSION		WELDMENT	
DATE	SCALE	BY	CHK'D BY
9/10/05	0.50	JERRY SIEGEL	
DRAWING NO. SE 100-004-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 8 - Item: 156

Workorder: 65678/7-0 Sub:215 Op:50

Part: SE120-004 PORT 8 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.022	131-W.A 10-20-05		

A

Quality Assurance Documentation for Part ID: SE120-004 PORT 8A - Item: 157

Workorder: 65678/7-0 Sub:16 Op:10

Part: SE120-004 PORT 8A - PORT 8A SUB-ASSEMBLY - PORT 8A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P8AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P8AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Date: 5/3/2005

CERTIFICATE OF CONFORMANCEI hereby certify that the products provided to **MAJOR TOOL & MACH.**on Purchase Order **P05-00920**and Varian Sales Order **319315350**

have been manufactured in accordance with all applicable Varian drawings and Varian specifications.

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
001	31	fa06000133	6.00" ADAPTER

27
05.06.05
95987 wx
line 2-33



5.9.05

Varian, Inc.

Mark L. Baribeault
Quality Manager

Quality Assurance Documentation for Part ID: SE120-004 PORT 8B - Item: 159

Workorder: 65678/7-0 Sub:17 Op:10

Part: SE120-004 PORT 8B - PORT 8B SUB-ASSEMBLY - PORT 8B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P8BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P8BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	



6119 FULTON
P.O. BOX 120430
HOUSTON, TEXAS 77219
713/695-6000
FAX 713/695-6725
S/O NUMBER 250332

SOLD TO: HAYNES INTERNATIONAL
NORTHWOODS IND. PARK
12241 FM 529
HOUSTON,
TX 77041
P.O. NUMBER 1552

DRIP TO: HAYNES INTERNATIONAL
12241 FM 529
HOUSTON,
TX 77041
TAG #:

METALLURGICA
TEST REPORT
DATE 3/28/0
PAGE

ITEM	DESCRIPTION	MATERIAL	SPEC	BASE SPEC	PIECES
001	8"OD, 188AW PIPE X 28"LG	FORM & TACK ENDS SQUARE &	625	S443	S8443
004	4"OD, 188AW PIPE X 28"LG	FORM & TACK ENDS SQ & DEBURRED	625	S443	S8443
005	4"OD, 188AW PIPE X 34"LG FORM	& TACK ENDS SQ & DEBURRED	625	S443	S8443

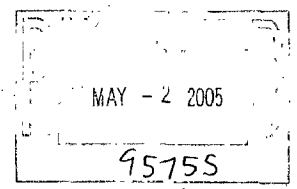
ITEM	HEAT #	C	MN	P	S	SI	CR	NI	MO	CU	CO	CBATA	N	FE	V	W
001	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		
004	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		
005	2650-4-6731	.020	.260	.008		.200	21.510	59.880	8.590		.230	3.430		4.680		

ITEM	AL	TI	SM	PR	ZN	AS	MG	ALATI	O	BASE MATERIAL MANUFACTURER	M.S.N.
001	.210	.290								HAYNES INTERNATIONAL	
004	.210	.290								HAYNES INTERNATIONAL	
005	.210	.290								HAYNES INTERNATIONAL	

ITEM	YIELD	TENSILE	ELONG		R/A	BHM	HEAT TREAT		QWCH	IMPACT TEST	SIZE (10mm X)	TEMP DEG-F	RESULTS (FT/LBS)			LATERAL EXPANSION			% DUCTIL FRACTUR
			2	8			TEMP	TIME					1	2	3	1	2	3	
001	60,500	121,000	51.0			235													
004	60,500	121,000	51.0			235													
005	60,500	121,000	51.0			235													

HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5
HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5
HT# 2650-4-6731 (TA) = <.05
GRAIN SIZE = 4.5

LABOR ONLY TO MANUFACTURE FROM CUSTOMER'S MATERIAL
***** MADE IN THE USA *****



5/2/05
MTM 09

1-12
B.J.

NOTARIZED MILL TEST REPORTS AVAILABLE UPON REQUEST.

*N-WATER
A-AIR
FC-FURNACE COOL
Q-OIL
QT-AIR QUENCH
AND 1250F TEMPER

WE CERTIFY THAT ALL CHEMICAL ANALYSIS, MECHANICAL PROPERTIES, TEST RESULTS AND STATEMENTS OF PERFORMANCE RECORDED HEREIN, ARE ACCORDING TO THE RECORDS OF MACH INTERNATIONAL. MATERIALS HEREIN ST ARE IN COMPLIANCE WITH ALL SPECIFICATIONS LISTED ABOVE.

DATE 5/28/05 SIGNATURE *[Signature]*

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 9 - Item: 162

Workorder: 65678/7-0 Sub:218 Op:20

Part: SE120-004 PORT 9 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			VISUAL INSPECTION	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		AWI			F COMPLETED WELD	06-22-05	06-22-05	

A

4959

10520 Chester Road
Woodlawn, Ohio 45215



James Berg

CLIENT Major Tool + Machine		INTERPRETER/LEVEL Robert Weaver/II		RADIOGRAPHER Robert Weaver		JOB NO. 13850252-4	P.O. NO.	DATE 7-24-05			
ISOTOPE/RAY IR 192	DIA. X LENS/V .118" x .094"	CURIES/MA 51.9	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.81"	TIME 1:50	FILM PROCESSING Auto	FILM TYPE Kodak T	FILM TECHNIQUE Double	PS SCREENS .010"	
WELD PROCESS PAW-MAC		MATERIAL SPEC. 625 Inconel		MATERIAL DIAMETER 6"		MATERIAL THICKNESS .187"		PENETRANT ASTM IA		SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51

DESCRIPTION
65678/9.0/2B/30/818
SE120-004 port 9

FITTING SEALING/TITING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF FEN	LACK FUSION	INTERNAL CORROSION	INTERNAL CAVITY	TUNGSTEN	MELT-THROUGH	BURN-THROUGH	CRATER/PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INCLUSIONS	WELD CONTOUR	IR-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
SEAM	0-1	J.S.	IA	.08																									
	1-2																												
	2-3																												

End View | Side View

SINGLE WALL

DOUBLE WALL

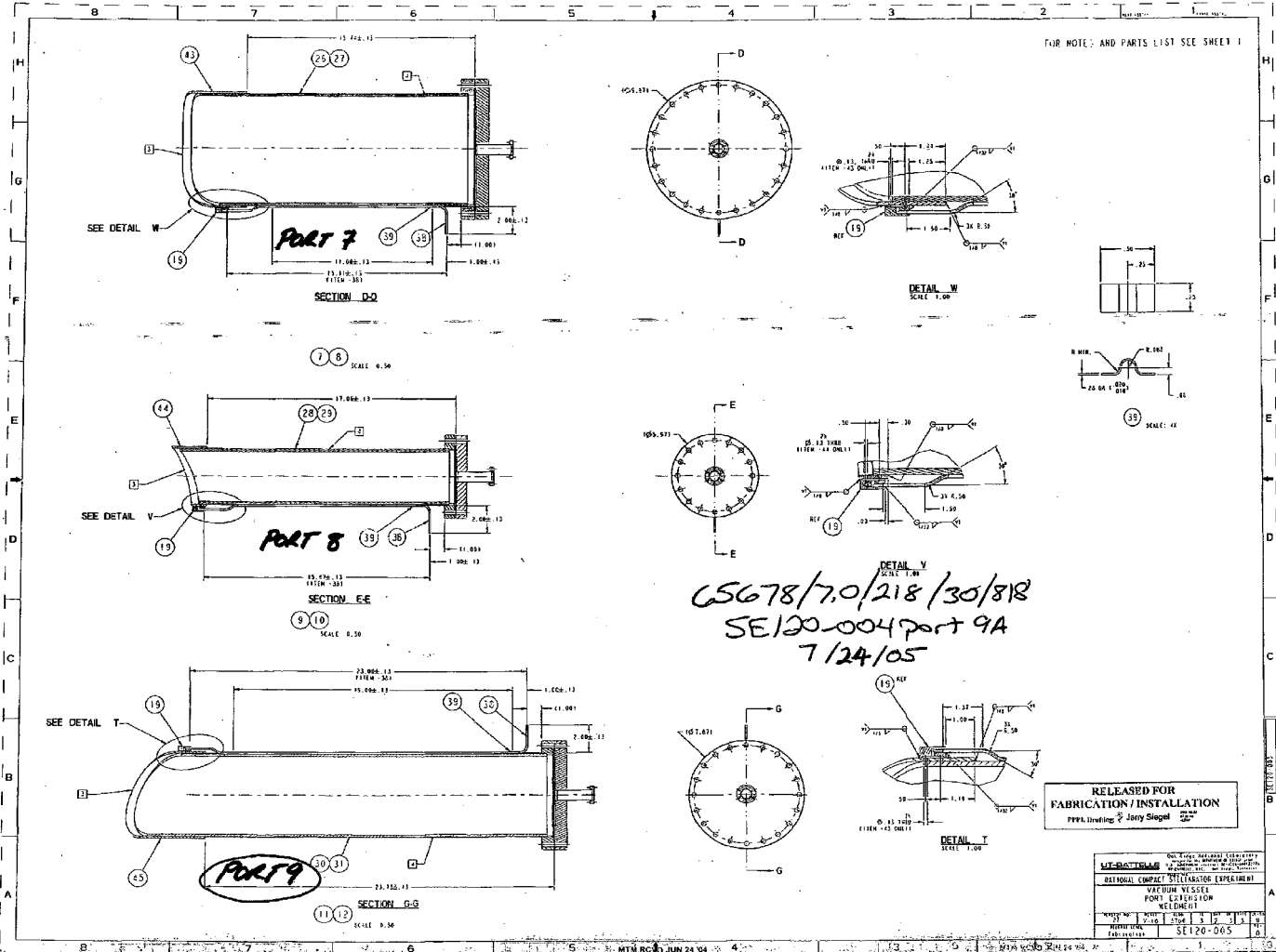
P Penetrant
S Shim
L Location Marker
I OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature
V Berg 655506/IA

Prugh D. Edwards
Customer Representative Signature

7-24-05
Date

MC110337.TIF1



MTM REV 10 JUN 24 04

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 9 - Item: 165

Workorder: 65678/7-0 Sub:218 Op:34

Part: SE120-004 PORT 9 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		Mag. Perm: 1.02 Mu Max	MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)								08-16-05			
*		ROUNDNESS WITHIN .030"	CALIPER	QA		J-707	.030	840-G.M			A
(20)									08-16-05		

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 9 - Item: 167

Workorder: 65678/7-0 Sub:221 Op:20

Part: SE120-004 PORT 9 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	A



4959
10620 Chester Road
Woodlawn, Ohio 45215

JAMES BERG

CLIENT Major Tool + Machine	INTERPRETER LEVEL Robert Weaver/II	RADIOGRAPHER Robert Weaver	JOB NO. 1385052-4	P.O. NO.	DATE 7-24-05
ISOTOPE RAY IR 192	DIAPHRAGM .118" x .094"	CURIES/HR 51.9	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.81"
WELD PROCESS PAW-MAC	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER 6"	MATERIAL THICKNESS 1.87"	PENETRANT ASTM IA	SHR N/A
DESCRIPTION 65678/9.0/221/30/818 SE120-004 part 9		REMARKS		FILM PROCESSING Auto	FILM TYPE Kodak T Double
			ACCEPTANCE STANDARD ASME VIII Div. 1		FB SCREENS .010"

FITTING SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CORROSION	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURR THROUGH	CRATER PIT	CORROSION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERN	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT
			SIZE	QUALITY LEVEL																								
seam	0-1	J.S.	IA	100B																								
	1-2																											
	2-3																											

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrant
S Emulsion
L Location Marker
O OTHER

Robert Weaver 655514/II
Cooperheat/MQS Signature

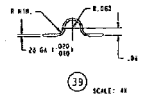
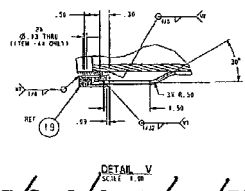
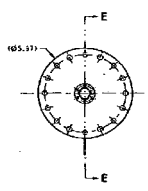
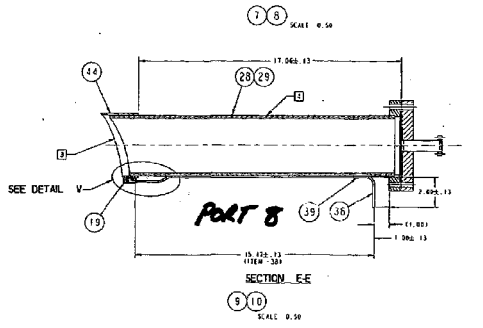
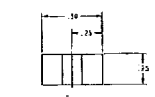
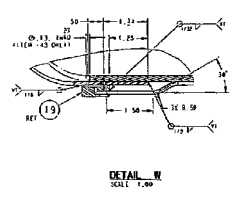
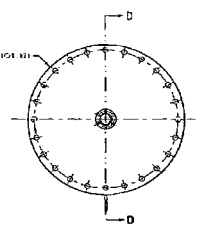
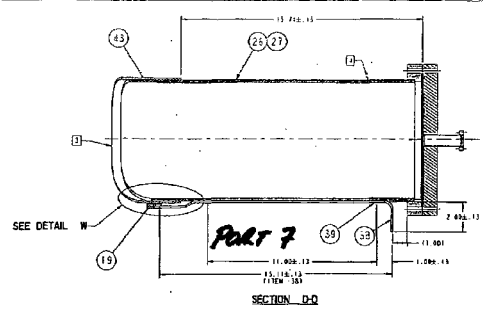
Jim Berg 655506/II

Daryl D. Edwards
Customer Representative Signature

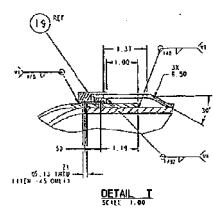
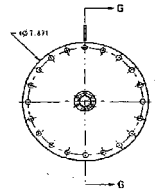
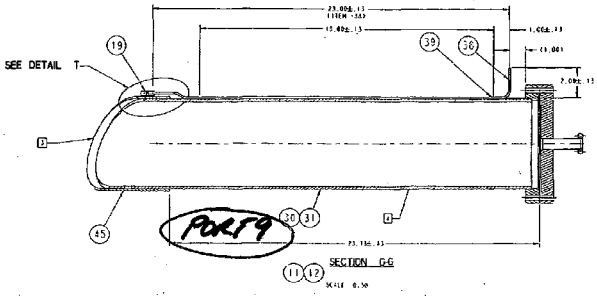
7-24-05
Date

MC110338.TIF

FOR NOTES AND PARTS LIST SEE SHEET 1



65678/7.0/221/30/818
SE120-004 part 9B
7/24/65



RELEASED FOR
FABRICATION / INSTALLATION
PPPL Drawing by Jerry Siegel

GENERAL INFORMATION			
PROJECT	GENERAL ATOMIC CORPORATION		
CONTRACT	AT(40-1071) CONTRACT 100-1000000		
ORDER NO.	AT(40-1071) CONTRACT 100-1000000		
WORK ORDER	AT(40-1071) CONTRACT 100-1000000		
DATE	7/24/65		
BY	JERRY SIEGEL		
CHECKED	JERRY SIEGEL		
APPROVED	JERRY SIEGEL		
SCALE	AS SHOWN		
REVISIONS			
NO.	DATE	BY	REASON
1	7/24/65	JERRY SIEGEL	ISSUE FOR FABRICATION
2	7/24/65	JERRY SIEGEL	ISSUE FOR INSTALLATION

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 9 - Item: 170

Workorder: 65678/7-0 Sub:221 Op:34

Part: SE120-004 PORT 9 - TUBE, 6.0 OD X 0.188 WALL - SE120-004-17 TUBE, 6.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-16-05			
*			CALIPER	QA		J-707	.030	840-G.M			A
(20)		ROUNDNESS WITHIN .030"						08-16-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 9A - Item: 171

Workorder: 65678/7-0 Sub:18 Op:10

Part: SE120-004 PORT 9A - PORT 9A SUB-ASSEMBLY - PORT 9A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P9AF		MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPE FICTIONS	709-K.A	933-D.L		A
(30)				CWI					09-20-05	09-20-05	
*		VWI - EXTERIOR FILLETS P9AF		MFG		VISUAL	ACCEPT PER CUSTOM DRAWINGS AND SPE FICTIONS	709-K.A	933-D.L		A
(40)					CWI				09-20-05	09-20-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 9B - Item: 173

Workorder: 65678/7-0 Sub:19 Op:10

Part: SE120-004 PORT 9B - PORT 9B SUB-ASSEMBLY - PORT 9B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P9BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-21-05		
*		VWI - EXTERIOR FILLETS P9BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-21-05	09-21-05	

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS																				
Invoice No. No. de l'avis Rechnungs Nr. 436027001-1				Date Entered Date de l'annonce Rechnungsdatum 03/11/05				Customer's Reference Reference Client Kundenreferenz P0500904				Report No. Rapport No. Zeichens Nr. 20050425106				Pages of Pages Page de Pages Anzahl der Seiten 1 OF 4				
Sold To • Client • Bestellanr.schrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA								Ship To • Destinataire • Bestelldatung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA								Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100				
Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00c1, UNS# N06625, Gr. 1; PS-489, E												Quantity Ordered Quantite Commandee Bestellmenge 6 PC				Quantity Shipped Quantite Expediee Liefermenge 6 PC				
Chemical Analysis • Analyse Chimique • Chemische Analyse																				
Heat Number N° de la Caisse Charge No.	Al	B	C	Cr (S+T)	Cu	Cr	Cu	Fe	Mn	Mp	Ni	P	S	Si	Ti	V	W			
2650 4 6730	0.21		0.03	3.61	0.24	21.69	0.07	4.07	0.3	8.49	60.78	0.007	0.002	0.16	0.27					BUTT END *03
2650 4 6731	0.21		0.02	3.54	0.23	21.51	0.08	4.68	0.26	8.59	59.88	0.008	<0.002	0.1	0.29					BUTT END *03
2650 4 6769	0.13		0.026		0.2535	22.32	0.0631	4.499	0.2755	8.75	59.77	0.0072	0.004	0.146	0.2595					BUTT END *01
	Ta	Zr	Bi	Se	La	Other	PO	Mg	Y	Al	N	Co	Al+Ti	Ni+Co	Ni+Mo					
2650 4 6730	3.56	<0.05																		BUTT END *03
2650 4 6731	3.43	<0.05																		BUTT END *03
2650 4 6769	3.5399	<0.05																		BUTT END *01

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4/29/2005

Troy Reynolds

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5/2/05
5/2/05
95764
1-12
B.A

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr. 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenspezifika P0500964	Report No. Rapport No. Zeugnis Nr. 26050429106	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Sold To • Client • Bestellauschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA
---	---

Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
--

Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00c1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
---	--	--

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte. Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeltstansversuch					
Ultimate Zugfestigkeit	Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. % Dehnung	RA		Temp. Temp.	Ultimate Zugfestigkeit	Yield Lim. Elong. A 1% 1% Streckgrenze	0.2% Yield Lim. Elong. A 0.2% 0.2% Streckgrenze	% Elong. % Dehnung	RA		Temp. Temp.	Stress Charge De Rupture	Stress Elong. Rupture	% Elong. % Dehnung	RA
123000 PSI		63000 PSI	51 %		(1)(A)												
126000 PSI		64000 PSI	49 %		(2)(A)												
132000 PSI		64000 PSI	45 %		(3)(A)												

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4/29/2005 (1) 2741306701 (2) 2741680501 (3) 2911844501

Troy Reynolds

MTM 09 5/2/05

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestellnr 205U0964	Report No. Rapport No. Zeugnis Nr 20050429106	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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Sold To • Client • Beneficiario/ff MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Bezeichnung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	---

Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00e1, UNS# N06625, Gr 1; PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
--	--	--

Annealed Hardness Durete Recuit Gezucht Haerte	Aged Hardness Durete Vieilli Gealtert Haerte	Grain Size Grossor De Grain Korngrosse						IGA	Uniformity	Carbonyl Rate	Oxidation Rate	Charpy Impact Test				Creep Rupture				
		Units/Size	Preparation Grain Size	Very Fine	Coarse Upper 75	4.5	Fig/W Figure Number					Attack Dept.	Condition	Test Method	Temper Avg	Temper 1	Temper 2	Temper 3	Test Evalu Veeuch	Stress Constatat Spannung
97 HRB 100 HRB 93 HRB	(1)(A) (2)(A) (3)(A)	5 5 6																		

Certified By • Certifie Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4/29/2005 (1) 2741306701 (2) 2741680301 (3) 2941844501

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CERTIFICATION OF TESTS - RAPPORT D'ESSAIS CERTIFIEE - WERKSZEUGNIS

Invoice No. No. De facture Rechnungs Nr 436027001-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenshaft/daten PO560964	Report No. Rapport No. Zeugnis Nr 29050429106	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellanrnschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 28.500 VVSA PORT 6 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Spécification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-442, 00e1, UNS# N06625, Gr. 1; PS-489, E			Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC

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All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-485 Revision H as applicable.
Mill Orders Used: 2741306701 (1 PC), 2741680501 (3 PC), 2941844501 (2 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician

4/20/2005

Troy Reynolds

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CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS				
Invoice No. No. De Facture Rechnung Nr. 436027002-1	Date Entered Date De Commande Bestelldatum 03-11-05	Customer Reference Référence Client Kundenbestellnr. P0500964	Report No. Rapport No. Zeugnis Nr. 20050429108	Pages of Pages Page(s) Page(s) Anzahl der Seiten 1 OF 4

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Sold To • Client • Bestelleranzuhr MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestimmung MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	---

Specification • Spécification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00el, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantité Commandée Bestellmenge 6 PC	Quantity Shipped Quantité Expédiée Liefermenge 6 PC
---	--	--

Heat Number Numero de Casin Charge No.	Chemical Analysis • Analyse Chimique • Chemische Analyse																		
	Al	B	C	Co (Ni+Ti)	Cu	Cr	Ni	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W		
2650 4 6730	0.21		0.03	3.61	0.24	21.69	0.07	4.07	0.3	8.49	60.78	0.007	0.002	0.16	0.27				BUTT END *03
2650 4 6731	0.21		0.02	3.54	0.23	21.51	0.08	4.68	0.26	8.59	59.88	0.008	<0.002	0.2	0.29				BUTT END *03
2650 4 6769	0.13		0.026		0.2535	22.32	0.0631	4.499	0.2755	8.75	59.77	0.0072	0.004	0.246	0.2595				BUTT END *01
	Ta	Zr	Bi	Se	La	Nb+Ta	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				
2650 4 6730	3.56	<0.05																	BUTT END *03
2650 4 6731	3.43	<0.05																	BUTT END *03
2650 4 6769	3.5399	<0.05																	BUTT END *01

Certified By • Certifié Par • Bescheinigt Durch: **Troy Reynolds** 4/29/2005
Certification Technician

Troy Reynolds

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Invoice No. No. De Facture Rechnungs Nr. 436027602-1	Date Entered Date De Commande Beschuldigung 03/11/05	Customer Reference Reference Client Kundenbestellnummer P0500964	Report No. Rapport No. Zeugnis Nr. 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4

Sold To • Client • Bestellanachricht	Ship To • Destinataire • Bestimmung
MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA

Product Description • Description Produit • Material Beschreibung
0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400F,S1000E, EN 10204 3.1.B, AS9100

Specification • Specification • Spezifikation	Quantity Ordered Quantite Commande Bestellmenge	Quantity Shipped Quantite Expedie Liefermenge
ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 60el, UNS# N06625, Gr. 1; PS-489, E	6 PC	6 PC

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bei Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zeistandversuch					
Ultimate Zugfestigkeit	% Yield Tens. A 1% % Streckgrenze	0.2% Yield Tens. A 0.2% 0.2% Streckgrenze	% Elong In % Abzug EN % Dehnung	%RA %		Temp. Temp.	Ultimate Zugfestigkeit	% Yield Tens. A 1% % Streckgrenze	0.2% Yield Tens. A 0.2% 0.2% Streckgrenze	% Elong In % Abzug EN % Dehnung	%RA %		Temp. Temp.	Stress Charge Spannung	% Elong In % Abzug EN % Dehnung	%RA %	
123000 PSI		63000 PSI	51 %		(1)(A)												
126000 PSI		64000 PSI	49 %		(2)(A)												
132000 PSI		64000 PSI	45 %		(3)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4/29/2005 (1) 2741306701 (2) 2741680501 (3) 2941864501

Troy Reynolds

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Invoice No. No. De Facture Rechnungs Nr 436027002-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestelldaten 70500964	Report No. Rapport No Zeugnis Nr 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellanachriff MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VVSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	---	---

Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr. 1; ASTM-B-443, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expedite Liefermenge 6 PC
---	--	--

Annexes Hardness Durete Result Geprüfte Härte	Agar Hardness Durete Vickers Geprüfte Härte	Grain Size Tailleur De Grains Korngrösse	IGA				Corrosion Rate Corrosion	Oxidation Rate	Charpy Impact Test				Creep Rupture					
			Grain Size	Position	Grain Size	Grain Size			Attack Depth	Temp	Temp	Temp	Temp	Temp	Temp	Temp		
97 HRB 100 HRB 93 HRB	(1)(A) (2)(A) (3)(A)	5 5 6																

Certified by • Certifié Par • Bescheinigt Durch: Troy Reynolds
Certification Technician
4-29/2005 (1) 2741306701 (2) 2741680501 (3) 2941844501

Troy Reynolds

MTM 09 5/2/05

THE BUYER AGREES TO HOLD THE SUPPLIER HARMLESS FOR ANY AND ALL DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE INCURRED BY THE BUYER AS A RESULT OF THE BUYER'S USE OF THE PRODUCT. THE BUYER'S USE OF THE PRODUCT SHALL BE LIMITED TO THE ORIGINAL INTENT OF THE SUPPLIER AND SHALL NOT BE USED FOR ANY OTHER PURPOSES. THE BUYER'S USE OF THE PRODUCT SHALL BE LIMITED TO THE ORIGINAL INTENT OF THE SUPPLIER AND SHALL NOT BE USED FOR ANY OTHER PURPOSES. THE BUYER'S USE OF THE PRODUCT SHALL BE LIMITED TO THE ORIGINAL INTENT OF THE SUPPLIER AND SHALL NOT BE USED FOR ANY OTHER PURPOSES.

MC107793.T1F7

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIÉ • WERKSZEUGNIS

ORIGINAL

Invoice No. No. De Facture Rechnungs Nr 436627062-1	Date Entered Date De Commande Bestelldatum 03/11/05	Customer Reference Reference Client Kundenbestellnummer P0500964	Report No. Rapport No. Zeugnis Nr 20050429108	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellausschreib. MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.250 x 31.375 x 32.500 VYSA PORT 10 TUBE HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation ASME-SB-443, 04, UNS# N06625, Gr 1; ASTM-B-443, 00el, UNS# N06625, Gr 1; PS-489, E			Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM AND ALPHA SOURCE CONTAMINATION.
Material conforms to PS-483 Revision H as applicable.
Mill Orders Used: 2741306701 (1 PC), 2741680501 (3 PC), 2941644501 (2 PC)
(A) 1750 °F to 1950 °F

Certified By • Certifié Par • Beseheint Durch: Troy Reynolds 4/29/2005
Certification Technician

Troy Reynolds



5/2/05

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE BATCHES SHOWN. THIS MATERIAL MEETS THE REQUIREMENTS OF THE TESTS LISTED HEREIN ONLY AS LONG AS THE MANUFACTURING PROCESS REMAINS UNCHANGED. THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THIS MATERIAL. THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THIS MATERIAL. THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THIS MATERIAL.

MC107793.TIF8

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 10 - Item: 176

Workorder: 65678/7-0 Sub:225 Op:20

Part: SE120-004 PORT 10 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				06-27-05	06-27-05	

A



4959
10520 Chester Road
Woodlawn, Ohio 45215

CLIENT Major Tool + Machine	INTERMETER LEVEL Robert Weaver/II	RADIOGRAPHER Robert Weaver	JOB NO 13850052-2	P.O. NO	DATE 7/16/05					
ISOTOPE/RAY IR 192	CLIA X LENS/CL .118" x .054"	CURIES/MA 56	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.75"	TIME 1:45	FILM PROCESSING Auto	FILM TYPE Kodak T	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS PAW-MAC	MATERIAL SPEC 625 Inconel	MATERIAL DIAMETER 10"	MATERIAL THICKNESS .25"	PENETRIMETER ASTM 1A	SHIM N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51				

DESCRIPTION
65678/1.0/225/30/818
SE120-004 part 10

REMARKS

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRIMETER		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT-THROUGH	BURN-THROUGH	CRATER/FIT	CORROSION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	YIELD CONTOUR	RE-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
Seam	0-1	J.S.	1A	.008																									
	1-2																												
	2-3																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrimeter
 S Shm
 L Location Marker
 () OTHER

Robert Weaver 655514/H
Cooperheat-MQS Signature

Douglas D. Edwards
Customer Representative Signature

7/16/05
Date

MC110324.TIF1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 10 - Item: 179

Workorder: 65678/7-0 Sub:225 Op:34

Part: SE120-004 PORT 10 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY				
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-16-05			
*			CALIPER	QA		J-1103	.060	840-G.M			A
(20)		ROUNDNESS WITHIN .060"						08-16-05			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 10 - Item: 181

Workorder: 65678/7-0 Sub:230 Op:20

Part: SE120-004 PORT 10 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			VISUAL INSPECTION	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		AWI			F COMPLETED WELD	06-22-05	06-22-05	

A

4959
 10520 Chester Road
 Woodlawn, Ohio 45215

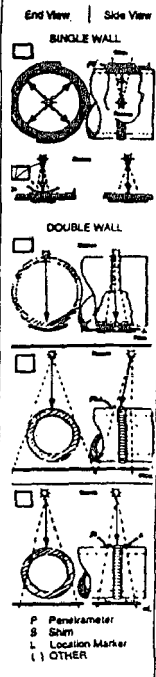


CLIENT Major Tool + Machine	INTERPRETER/LEVEL Robert Weaver/II	RADIOGRAPHER Robert Weaver	JOB NO. 13850252-2	P.O. NO.	DATE 7/16/05					
ISOTOPE/RAY IR192	DIA. X LENS/V .118" x .094"	CURIES/MA 56	FOCAL SPOT SIZE .151"	SFD 15"	SOD 14.75"	TIME 1:45	FILM PROCESSING Auto	FILM TYPE Kodak T	FILM TECHNIQUE Double	PS SCREENS .010"
WELD PROCESS PAW-MAC	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER 10"	MATERIAL THICKNESS .25"	PENETRANT ASTM IA	SPIN N/A	ACCEPTANCE STANDARD ASME VIII Div. 1 UW-51				

DESCRIPTION
 65678/7.0/230/30/818
 SE 120-004 port 10

REMARKS

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRANT		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF FEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNISTEN	MELTHROUGH	BURN-THROUGH	CRATER/PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
Seam	0-1	J.S.	IA	.008"																									
	1-2																												
	2-3																												

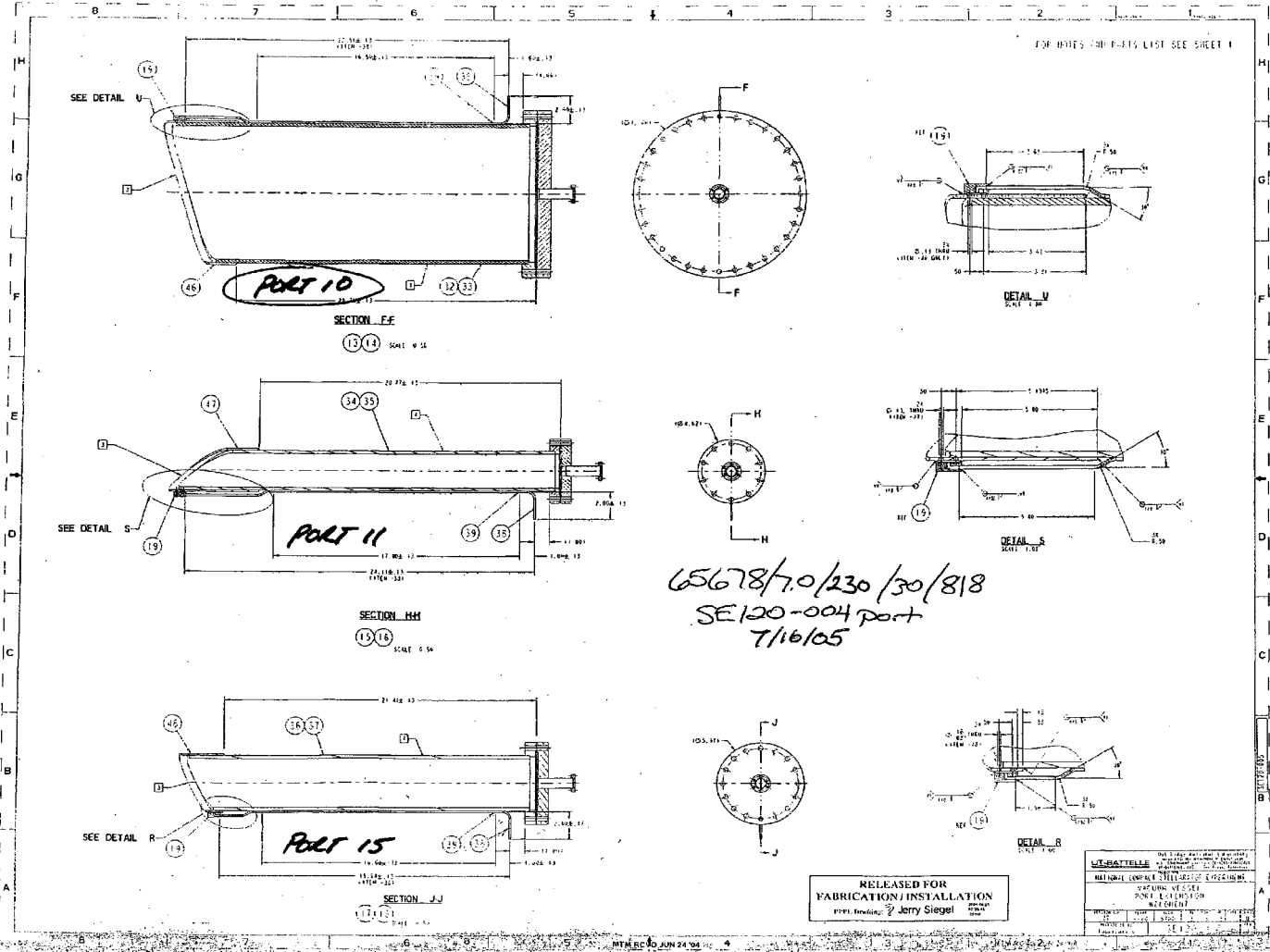


Robert Weaver 655514/II
 Cooperheat/MQS Signature

Douglas P. Edwards
 Customer Representative Signature

7/16/05
 Date

MC110323.TIF1



MC115436.T1F1

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 10 - Item: 184

Workorder: 65678/7-0 Sub:230 Op:34

Part: SE120-004 PORT 10 - TUBE, 10.0 OD X 0.188 WALL - SE120-004-19 TUBE, 10.0 OD X 0.188 WALL

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*			MASTER GAGE	QA		J-1270	LESS THAN 1.01	840-G.M			A
(10)		Mag. Perm: 1.02 Mu Max						08-17-05			
*			CALIPER	QA		J-1103	.060	840-G.M			A
(20)		ROUNDNESS WITHIN .060"						08-17-05			

Quality Assurance Documentation for Part ID: SE120-004 PORT 10A - Item: 185

Workorder: 65678/7-0 Sub:20 Op:10

Part: SE120-004 PORT 10A - PORT 10A SUB-ASSEMBLY - PORT 10A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P10AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-21-05	09-26-05		
*		VWI - EXTERIOR FILLETS P10AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)				CWI				09-21-05	09-26-05		

Quality Assurance Documentation for Part ID: SE120-004 PORT 10B - Item: 189

Workorder: 65678/7-0 Sub:21 Op:10

Part: SE120-004 PORT 10B - PORT 10B SUB-ASSEMBLY - PORT 10B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P10BF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-22-05	09-27-05		
*		VWI - EXTERIOR FILLETS P1B0F		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-22-05	09-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 11A - Item: 193

Workorder: 65678/7-0 Sub:22 Op:10

Part: SE120-004 PORT 11A - PORT 11A SUB-ASSEMBLY - PORT 11A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P11AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(30)				CWI				09-22-05	09-22-05		
*		VWI - EXTERIOR FILLETS P11AF		MFG		VISUAL	OK	358-D.M	933-D.L		A
(40)					CWI				09-22-05	09-22-05	



Eagle Alloys Corporation

117 West Park Ct. Talbott, TN 37877
Ph: (423) 586-8738 Fx: (423) 586-7456
E-Mail: eaglealloys@aol.com

CERTIFICATE OF COMPLIANCE

CUSTOMER
Major Tool & Machine, Inc.

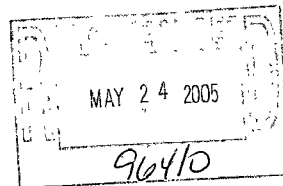
DATE
5-23-05

PURCHASE ORDER NUMBER
P05-02476

OUR ORDER NUMBER
5-1337

MATERIAL	SIZE	QTY	CONFORMS TO:
Alloy 625 welded pipe	2-1/2" sch 10	20 ft	ASTM-B-705, PS483, PS 489

RM ID: A8519



Line 1
B-7

Certified By:
Rodney Bowlin

5/24/05

BRISTOL METALS L.P.
BRISTOL TN. U.S.A.
MILL TEST REPORTTO: EAGLE ALLOYS CORPORATION
117 WEST PARK CT
TALBOTT, TN 37877CUST NO: 557512
ORDER NO: 14762
PO NO: 8294
DATE: 01/21/2005HEAT NO.: 26504674 2.5" WELDED PIPE SCH. 10S ALLOY 1625 UNS#N06625 ASTM
RM ID: A8219 B705-03 / ASME SB705-01, 03 ADD. CLASS 2, FULL FINISHED.

ALUMINUM	.2	CARBON	.033
CHROMIUM	22.0024	COPALT	.1849
IRON	4.5278	MANGANESE	.2605
MOLYBDENUM	8.8153	NB+TA	3.5003
NICKEL	59.3567	PHOSPHORUS	.007
SILICON	.19	SULFUR	.002
TITANIUM	.2644		
ELONG %	47	HARD RB	93
TENSILE	131000	YIELD	64000
ANNEALED	YES	EDDY CURRENT	OK
FLATTENING	OK	TENSION	OK
HYDRO PRESSURE	1000 PSI		

Annealed at 1925 Deg. F. and water quenched to
below 800 Deg. F. in less than 3 minutesBristol Metals has a Quality Management System that is in
compliance with ISO 9001:2000Hardness in accordance with NACE MR0175
Bristol Metals does not add Mercury during any manufacturing process.
Chemical content is % by weight.
Mechanical test results are in English units (inches and pounds).
Certification is in accordance with EN10204 (DIN 50049) 3.1.B.
We certify this report to be true and accurate, according to our records on file
No weld repairs have been performed on the base material.

Bristol Metals L.P.

Daniel Singleton
Representative

MIBR



Quality Assurance Documentation for Part ID: SE120-004 PORT 11B - Item: 195

Workorder: 65678/7-0 Sub:23 Op:10

Part: SE120-004 PORT 11B - PORT 11B SUB-ASSEMBLY - PORT 11B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*		VWI - INTERIOR COVER PASS / FILLET P11BF		MFG		VISUAL	WELD ACCEPTABLE PER CUSTOMER DRAWING SPECIFICATION REQUIREMENTS.	933-D.L	933-D.L	A
(30)				CWI				09-22-05	09-22-05	
*		VWI - EXTERIOR FILLETS P11BF		MFG		VISUAL	WELDS ACCEPTABLE PER CUSTOMER DRAWING SPECIFICATION REQUIREMENTS.	933-D.L	933-D.L	A
(40)				CWI				09-22-05	09-22-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 12A - Item: 197

Workorder: 65678/7-0 Sub:2 Op:30

Part: SE120-004 PORT 12A - PORT 12A SUB-ASSEMBLY - PORT 12A SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				MFG		VISUAL	OK	197-T.FI	933-D.L		A
(10)		VWI ROOT PASS WELD P12A1		CWI				10-04-05	10-04-05		
*				MFG		VISUAL	COVER PASS WELD O	933-D.L	933-D.L		A
(50)		VWI COVER PASS WELD P12A1		CWI				10-14-05	10-14-05		
*				MFG		VISUAL	OK	197-T.FI	933-D.L		A
(60)		VWI ROOT PASS WELD P12A2		CWI				10-04-05	10-04-05		
*				MFG		VISUAL	COVER PASS WELD O	933-D.L	933-D.L		A
(100)		VWI COVER PASS WELD P12A2		CWI				10-14-05	10-14-05		

Quality Assurance Documentation for Part ID: SE120-004 PORT 12A - Item: 198

Workorder: 65678/7-0 Sub:2 Op:40

Part: SE120-004 PORT 12A - PORT 12A SUB-ASSEMBLY - PORT 12A SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL 10X	ACCEPT	683-K.M	933-D.L	
(20)		VWI - ROOT PASS P12AF		CWI				10-12-05	10-12-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(50)		VWI - COVER PASS P12AF		CWI			DRAWINGS AND SPE FICATIONS	10-14-05	10-14-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(60)		VWI - FILLET WELDS P12AF		CWI			DRAWINGS AND SPE FICATIONS	10-14-05	10-14-05	A



COOPERHEAT

MQS

4959

10520 Chester Road
Woodlawn, Ohio 45215

CLIENT Major Tool + Machine		INTERPRETER/LEVEL Robert Weaver/II		RADIOGRAPHER Robert Weaver		JOB NO 13850291	P.O. NO N/A	DATE 10/14/05		
ISO/PEX-RAY IR192	DIA. X LENNY .118" x .079"	CURIES/MA 90	FOCAL SPOT SIZE .142"	SFD 15"	SOD 14.5"	TIME 3:20	FILM PROCESSING Auto	FILM TYPE Kodak MX125	FILM TECHNIQUE Double	PB SCREENS .010"
WELD PROCESS GTAW	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER N/A	MATERIAL THICKNESS .5"	PENETRATOR ASTM 1B	SHIM N/A	ACCEPTANCE STANDARD ASME VIII, Div. 1, UW-51				

DESCRIPTION
65678/70/2/70/818
SE120-004 Port 12A
Page 1 of 2

FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER/PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
1	0-14	D.M.	1B	.013"		✓																							
2	0-14					✓																							
	0-1					✓																							
	1-2																												
	2-3																												

End View | Side View

SINGLE WALL

DOUBLE WALL

OTHER

Legend:
P Penetrator
S Shim
L Location Marker
() OTHER

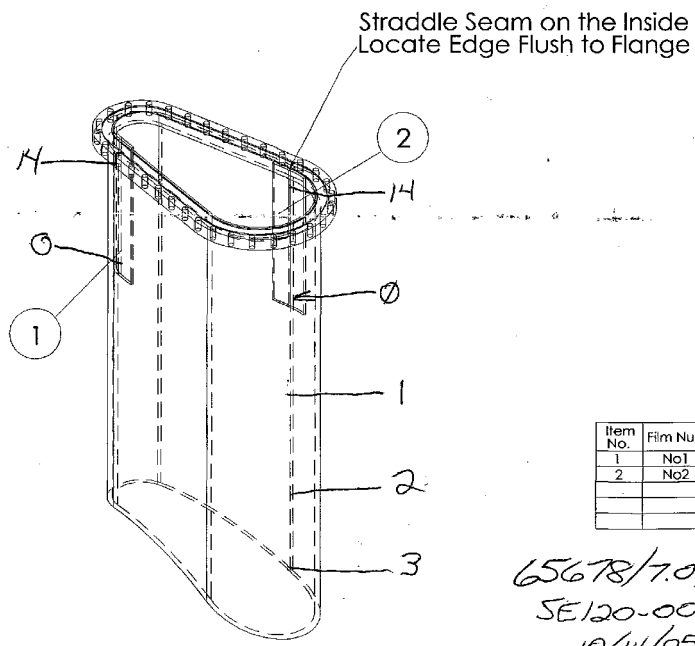
Robert Weaver 655514/II
Cooperheat-MQS Signature
Robert weaver 655514/II 1/9/06

Customer Representative Signature

10/14/05
Date

MC115223.TIF1

Rev:	By	Date	Description
1A	LAK	8/9/05	initial release
2A	LAK	10/14/05	moved films



Item No.	Film Number	Center Point	Location	Comment
1	No1			
2	No2			

65678/7.0/2/70/38 W
SE120-004 port 12A
10/14/05
Page 2 of 2

Checked	Drawn	Scale	Date
Checked	Drawn	LAK	10/14/05
Approved	Checked		
	Approved		

*CDCP, Inc. (or address as appropriate)

Port 12 X-Ray
Film Layout

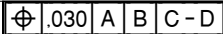

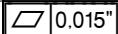
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Scale: 1:1 Weight: 1 Sh1 of 1

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Quality Assurance Documentation for Part ID: SE120-004 PORT 12A - Item: 201

Workorder: 65678/7-0 Sub:2 Op:80


Part: SE120-004 PORT 12A - PORT 12A SUB-ASSEMBLY - PORT 12A SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE122-018 Rev: 1				INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC		GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	G6	 DIA. 0.531 THRU +/- 0.005" (32X)		INDICATOR	MFG		P-4101	.531---.534; 0.010 POSITION MAX	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (20)	G7	 DIA. .136 +/- .005 X .38 DP +/- .010" 8-32 UNC .25 DP +/- .010" (8X)		THREAD PLUG GA	MFG		A-74	.136--.138 DIA.X.37 5 DP. 8-32 ACCEPT; 0.002 POSITION MAX	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (30)	D2			INDICATOR	MFG		P-4101	.002	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (40)	D3	.149 +.000/-.008"		DEPTH MICROMET	MFG		P-200	.143---.144	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (50)	D3	1.25 +/- .010"		OD MICROMETER	MFG		P-196	1.254--1.255	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (60)	C3	R .03 (tool radius) (2X)		RADIUS GAGE	MFG		P-4511	.0319	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (70)	D3	.94 +/- .010"		CALIPER	MFG		P-193	.940--.941	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (90)	G7	.471 +/- .005" (2X)		CALIPER	MFG		P-193	0.472	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (100)	G8	R 2.875 (verify tool path)			MFG		PGRM. #29203	ACCEPT	506-R.LI	295-C.W	A
					QA				10-20-05	10-20-05	
1* (150)	E3	BREAK CORNERS R .005 MIN (2X) (visual verification)			MFG		VISUAL	ACCEPT	506-R.LI		A
									10-20-05		
1* (160)	G5	R 5.563 (verify tool path)					PGRM # 29203	ACCEPT			A

Quality Assurance Documentation for Part ID: SE120-004 PORT 12A - Item: 202

Workorder: 65678/7-0 Sub:2 Op:120

Part: SE120-004 PORT 12A - PORT 12A SUB-ASSEMBLY - PORT 12A SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		 0.375	CMM	QA		00064	+/-0.1875 CHECKS - 0.100 TO +0.300 OR 0.113 OHL (ACCEPT PER NC 18487)	854-R.U			A
(10)		PROFILE VERIFICATION						05-03-06			
*		Magnetic Permeability 1.02 Max	MASTER GAGE	QA		J-1165	LESS THAN 1.02	212-J.LE			A
(20)								10-26-05			
*		Interior Surface Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-825	25-30 (ACCEPT PER NC 18486)	854-R.U			A
(30)								05-03-06			
*		Material Thickness: .500 +.04 / -.01"	OD MICROMETER	QA		J-722	.521-.528	854-R.U			A
(40)								10-26-05			
*		CLEANLINESS PER PS483		QA		VISUAL	CLEANLINESS ACCEPTABLE PER PS483	854-R.U			A
(50)								10-26-05			
*		Flange face Finish 125 Micro-Inch RA	PROFILOMETER	QA		J-825	80-100	854-R.U			A
(60)								10-26-05			
*		Magnetic Permeability 1.2 Max (at flange we	MASTER GAGE	QA		J-1165	LESS THAN 1.02	854-R.U			A
(70)								10-26-05			

4959

10520 Chester Road
Woodlawn, Ohio 45215



COOPERHEAT

MQS

CLIENT Major Tool & Machine				INTERPRETER LEVEL Robert Weaver/II				RADIOGRAPHER Robert Weaver				JOB NO. 13850291		P.O. NO. N/A		DATE 10/15/05																
ISOTOPE/RAY IR 152		DIA. X LENS/V .118" x .079"		CURIES/MA 90		FOCAL SPOT SIZE .142"		SFD 15"		SOD 14.5"		TIME 3:20		FILM PROCESSING AUTO		FILM TYPE Kodak AA		FILM TECHNIQUE Double		PB SCREENS .010"												
WELD PROCESS GTAW				MATERIAL SPEC. 625 INCONEL				MATERIAL DIAMETER N/A				MATERIAL THICKNESS .5"		PENETRATOR ASTM IB		SHIM N/A		ACCEPTANCE STANDARD ASME VIII, Div. 1, UW-51														
DESCRIPTION 65678/7.0/30/30/818 SE 120-004 port 12 BA hr										REMARKS																						
FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH FILL	CRACK	LACK OF FEN	LACK FINISH	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT-THROUGH	BURN-THROUGH	CRATER/FIT	ORIENTATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	End View Side View			
			SIZE	QUALITY LEVEL																									<input type="checkbox"/>	<input type="checkbox"/>		
2	0-14	J.D.	18	.016"																								<input checked="" type="checkbox"/>	<input type="checkbox"/>			
																													<input type="checkbox"/>	<input type="checkbox"/>		
																													<input type="checkbox"/>	<input type="checkbox"/>		
																													<input type="checkbox"/>	<input type="checkbox"/>		

Robert Weaver 655514/II
 Cooperheat-MQS Signature
 Robert Weaver 655514/II 1/9/06

Customer Representative Signature

10/15/05
 Date

MC115225.TIF1

Quality Assurance Documentation for Part ID: SE120-004 PORT 12B - Item: 205

Workorder: 65678/7-0 Sub:3 Op:30

Part: SE120-004 PORT 12B - PORT 12B SUB-ASSEMBLY - PORT 12B SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(10)		VWI ROOT PASS WELD P12B1		CWI				10-12-05	10-12-05	A
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(50)		VWI COVER PASS WELD P12B1		CWI				10-13-05	10-13-05	A
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(60)		VWI ROOT PASS WELD P12B2		CWI				10-12-05	10-12-05	A
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(100)		VWI COVER PASS WELD P12B2		CWI				10-13-05	10-13-05	A

Quality Assurance Documentation for Part ID: SE120-004 PORT 12B - Item: 206

Workorder: 65678/7-0 Sub:3 Op:40

Part: SE120-004 PORT 12B - PORT 12B SUB-ASSEMBLY - PORT 12B SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				MFG		VISUAL	ACCEPTABLE	219-T.L	581-D.E		A
(20)		VWI - ROOT PASS P12BF		CWI				10-22-05	10-20-05		
*				MFG		VISUAL	ACCEPTABLE	837-J.D	581-D.E		
(50)		VWI - COVER PASS P12BF		CWI				10-20-05	10-20-05		A
*				MFG		VISUAL	ACCEPTABLE PER CU	581-D.E	581-D.E		A
(60)		VWI - FILLET WELDS P12BF		CWI			OMER REQUIREMENT	10-21-05	10-21-05		



4959
10520 Chester Road
Woodlawn, Ohio 45215

CLIENT Major Tool + Machine	INTERPRETER/LEVEL Robert Weaver/II	RADIOGRAPHER Robert Weaver	JOB NO 13850291	P.O. NO N/A	DATE 10/14/05
ISOTOPE/RAY JR192	DIAPHRAGM .118" x .079"	CURIES/HR 90	FOCAL SPOT SIZE .140"	SFD 15"	SOD 14.5"
WELD PROCESS GTAW	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER N/A	MATERIAL THICKNESS .5"	PENETRATOR ASTM 1B	SHIM N/A
FILM PROCESSING Auto				FILM TYPE Kodak MX125	FILM TECHNIQUE Double
ACCEPTANCE STANDARD ASME VIII, Div. 1, UW-51				PB SCREENS .010"	

DESCRIPTION
65678/70/3/70/818
SE120-004 part 12B
Page 1 of 2

REMARKS

FITTING SCM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK FUSION	# INTERNAL CONVECTY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER/PT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT	
			SIZE	QUALITY LEVEL																									
1	0-14	D.M.	1B	.013"		✓																							
2	0-14					✓																							
	0-1					✓																							
	1-2																												
	2-3																												

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
S Shim
L Location Marker
() OTHER

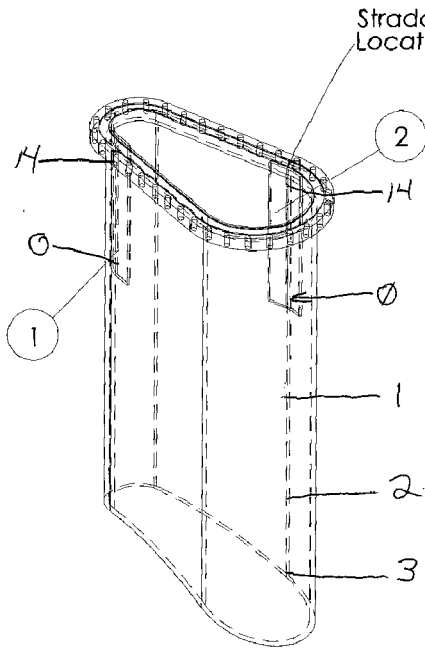
Robert Weaver 65514/II
Cooperheat-MQS Signature

Customer Representative Signature

10/14/05
Date

MC112734.TIF1

Rev	By	Date	Description
1A	LAK	8/9/05	initial release
2A	LAK	10/14/05	moved films



Straddle Seam on the Inside
Locate Edge Flush to Flange

Item No.	Film Number	Center Point	Location	Comment
1	No1			
2	No2			

65678/7.0/3/70/88
SE120-004 port 12B
10/14/05
Page 2 of 2


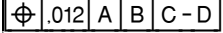
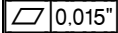
UNIT	DATE	TIME	DATE
Operator	LAK	10/14/05	
Operator			
Operator			
Operator			

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Port 12 X-Ray Film Layout	
SE120-004-39-MIM	REV 2A
Scale: 1:1	Sheet: 1 of 1

Quality Assurance Documentation for Part ID: SE120-004 PORT 12B - Item: 209

Workorder: 65678/7-0 Sub:3 Op:80

Part: SE120-004 PORT 12B - PORT 12B SUB-ASSEMBLY - PORT 12B SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE122-018 Rev: 1				INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC		GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	G6	 DIA. 0.531 THRU +/- 0.005" (32X)		CALIPER	MFG		P-193	.531---.533---.008 TIR.	506-R.LI	667-J.B	A
					QA		P4101		10-24-05	10-24-05	
1* (20)	G7	 DIA. .136 +/- .005 X .38 DP +/- .010" 8-32 UNC .25 DP +/- .010" (8X)		THREAD PLUG GA	MFG		A-74	.136 X.375 DP. 8-3 2 X .25 DP ACCEPT	506-R.LI	667-J.B	A
				CALIPER	QA		P-193		10-23-05	10-24-05	
1* (30)	D2	 0.015"		INDICATOR	MFG		P-4101	.006	506-R.LI	667-J.B	A
					QA				10-24-05	10-24-05	
1* (40)	D3	.149 +.000/-.008"		DEPTH MICROMET	MFG		P-200	.145---.147	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (50)	D3	1.25 +/- .010"		OD MICROMETER	MFG		P-196	1.253	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (60)	C3	R .03 (tool radius) (2X)		RADIUS GAGE	MFG		P-4511	.032	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (70)	D3	.94 +/- .010"		CALIPER	MFG		P-193	.940--.941	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (90)	G7	.471 +/- .005" (2X)		CALIPER	MFG		P-193	.471--.472	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (100)	G8	R 2.875 (verify tool path)			MFG		PGRM. #2903	ACCEPT	506-R.LI	667-J.B	A
					QA				10-23-05	10-24-05	
1* (150)	E3	BREAK CORNERS R .005 MIN (2X) (visual verification)			MFG		VISUAL	ACCEPT	506-R.LI		A
									10-23-05		
1* (160)	G5	R 5.563 (verify tool path)			MFG		PGRM. # 2903	ACCEPT	506-R.LI		A
									10-24-05		



4119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 695-6725 FAX NUMBER

ORDER DATE MACH B/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

SOLD TO: CUSTOMER #: 28900000 SLSPRSN #: 10000
 MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: P05-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS- SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	B/O	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AW PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: 6PCS PART# SE120-004 PORT 17 TAG: 6PCS PART# SE120-004 PORT FJS	EA 132793	81404C
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AW PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT '17	EA 132793	81404C
				99721	

Re: 08.17.05 wx



6119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 495-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38800000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	U/M	HEAT NUMBER	MACH P.O. #
3	18	18 Pcs. 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 S8443 NO LONG SEAM BEVEL TAG: (LPC) PART# SE120-004 PORT 17 (SP) PART# SE120-004 PORT 18 (LPC) PART# SE120-004 PORT 2 (LPC) PART# SE120-004 PORT 8	EA	132793	81404C
						9976A	
						<i>See last page for customer/ vendor revision.</i>	
						99720	
						99723	
						99724	
4	1			CONTACT MAJOR TOOL TRANS. REPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #0E-AC02-76-CH03073			LT
							<i>JW</i>
5	1			BAND PIPE TO WOODEN PALLETS & SHRINK WRAP COMPLETELY			LT
							<i>JW</i>



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 495-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000
 SOLD TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET

SLSPRN #: 10000
 CUSTOMER ORDER NUMBER: POS-03984
 DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS
 IN 46218
 BUYER: BOB

SHIP VIA: ABF F.O.B.: OUR PLANT
 FREIGHT BILL NUMBER:

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET

PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 TERMS: SEE BELOW

INDIANAPOLIS
 IN 46218
 ATTENTION:
 TAG #:
 TAG \$:

MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QUANTITY	B/O	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
5	1			MIN TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT RECV. 31,500 8/9/05 CHK# 60160	
FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM BALANCE OF FUNDS DUE NET 30 DAYS.						

RECEIVED BY *Frank J. Smith*
 DATE 8-9-05 DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-8823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in black ink that reads "Denise Hernandez". The signature is written in a cursive style.

Denise Hernandez
Sales Department

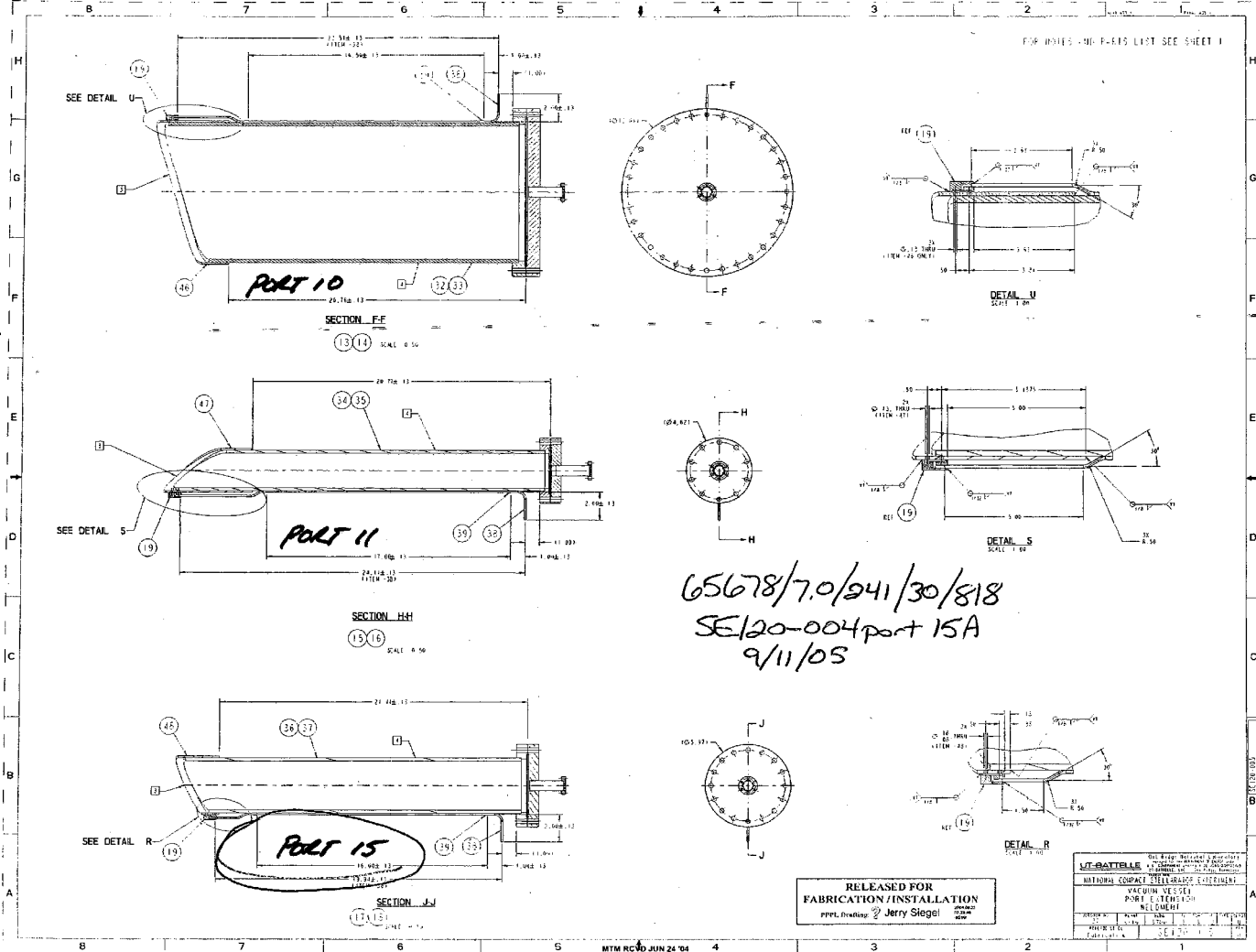
INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 15 - Item: 211

Workorder: 65678/7-0 Sub:241 Op:20

Part: SE120-004 PORT 15 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				08-30-05	08-30-05	A



65678/7.0/241/30/818
SE/20-004 part 15A
9/11/05


UT-GATTELE		REV. 001	
MATERIAL: 304L STAINLESS STEEL		REV. 002	
PART: PORT ELEMENT		REV. 003	
WELDING: WELDED		REV. 004	
DATE: 09/11/05	SCALE: 0.50	DESIGNER: JERRY SIEGEL	DRAWN: JERRY SIEGEL

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 15 - Item: 214

Workorder: 65678/7-0 Sub:241 Op:50

Part: SE120-004 PORT 15 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	INDICATOR	QA		J-1294	.025	085-D.G 10-15-05		

A

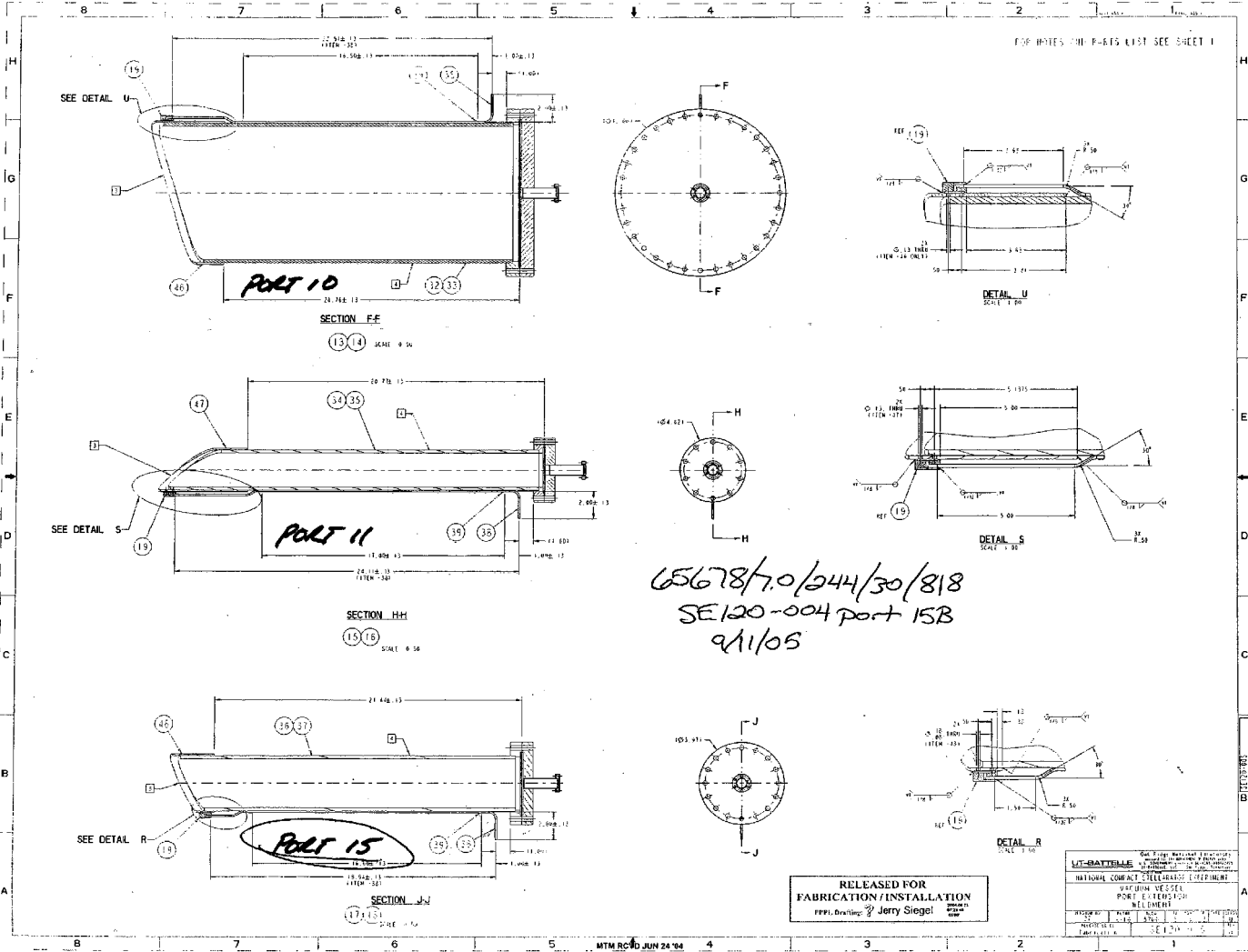
INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 15 - Item: 216

Workorder: 65678/7-0 Sub:244 Op:20

Part: SE120-004 PORT 15 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				08-30-05	08-30-05	A



65678/7.0/244/30/818
 SE 120-004 port 15B
 9/1/05


LIT-BATTOLLE	
NATIONAL CONTACT CELLULARS (EQUIPMENT)	
SECTION VESSEL	
PORT 15 (PORT 15B)	
WELDMENT	
PROJECT	SE 120-004
DESIGNER	JERRY SIEGEL
CHECKED	
DATE	9/1/05
SCALE	AS SHOWN

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 15 - Item: 219

Workorder: 65678/7-0 Sub:244 Op:50

Part: SE120-004 PORT 15 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	INDICATOR	QA		J-1294	.02	085-D.G 10-15-05		

A

Quality Assurance Documentation for Part ID: SE120-004 PORT 15A - Item: 220

Workorder: 65678/7-0 Sub:24 Op:10

Part: SE120-004 PORT 15A - PORT 15A SUB-ASSEMBLY - PORT 15A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY				
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P15AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P15AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 15B - Item: 222

Workorder: 65678/7-0 Sub:25 Op:10

Part: SE120-004 PORT 15B - PORT 15B SUB-ASSEMBLY - PORT 15B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY				
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P15BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P15BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	



6119 FULTON / 77022
 P.O. BOX 190630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 28900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS- SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC. PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 1458 E. 19TH. STREET TERMS: SEE BELOW
 INDIANAPOLIS
 IN 46218
 ATTENTION: WILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AM PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: 4PCS PART# SE120-004 PORT 17 TAG: 3PCS PART# SE120-004 PORT FJS	EA 132793	81404C
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AM PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT 17	EA 132793	81404C
				99721	

Re: 08.17.05 WX



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 696-4000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

SOLD TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET
 INDIANAPOLIS IN 46218
 BUYER: BOB

CUSTOMER #: 38800000
 SLSPRN #: 10000
 CUSTOMER ORDER NUMBER: POS-03984
 DEL ACT: DEL EST: 8/04/05

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET
 INDIANAPOLIS IN 46218
 ATTENTION:
 TAG #:
 TAG #:

SHIP VIA: AFB F.O.B.: OUR PLANT
 FREIGHT BILL NUMBER:

PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 TERMS: SEE BELOW

MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 PCS. 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 425 SQ443 NO LONG SEAM BEVEL TAG: <u>4PC</u> PART# SE120-004 PART 17 <u>4PC</u> PART# SE120-004 PART 18 <u>4PC</u> PART# SE120-004 PART 2 <u>4PC</u> PART# SE120-004 PART 8	EA 132793	81404C
4	1			CONTACT MAJOR TOOL TRANS. DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #0E-AC02-74-CH03073	LT	
5	1			BAND PIPE TO WOODEN PALLETS & SHRINK WRAP COMPLETELY	LT	

9976A see last page for customer/vendor revision.

99726

99723

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JTW



6119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 495-6000
 (713) 496-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 28900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS IN 46218 SHIP VIA: ABF F.O.B.: OUR PLANT
 BUYER: BOB FREIGHT BILL NUMBER:
 SHIP TO: MAJOR TOOL & MACHINE INC. PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 1458 E. 19TH. STREET TERMS: SEE BELOW
 INDIANAPOLIS IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
6	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT	
				FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM; BALANCE OF FUNDS DUE NET 30 DAYS.	RECV. 31,500 8/19/05 CIC# 60160	

RECEIVED BY Frank Smith
 DATE 8-9-05 DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in cursive script that reads "Denise Hernandez".

Denise Hernandez
Sales Department

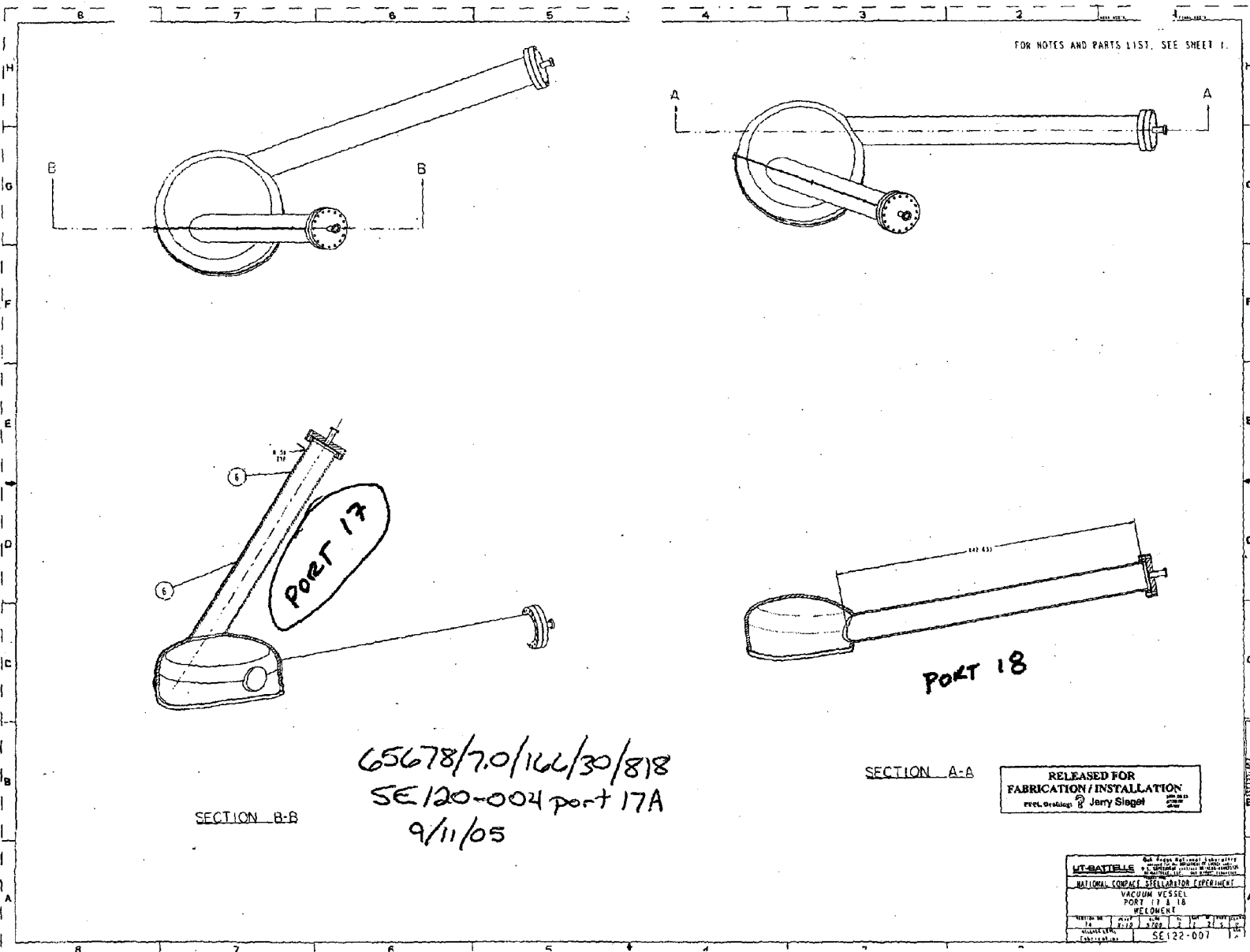
INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 17 - Item: 225

Workorder: 65678/7-0 Sub:166 Op:20

Part: SE120-004 PORT 17 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				08-30-05	08-30-05	A



SECTION B-B

65678/7.0/166/30/818
SE 120-004 port 17A
9/11/05

SECTION A-A

RELEASED FOR
FABRICATION / INSTALLATION
Prepared by Jerry Siegel

NATIONAL COMPACT RESEARCH CENTER NATIONAL COMPACT RESEARCH CENTER VACUUM VESSEL PORT 17 & 18 WELDMENT	
DATE: 9/11/05 DRAWN BY: JERRY SIEGEL CHECKED BY: JERRY SIEGEL	PROJECT NO: SE 120-007

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 17 - Item: 228

Workorder: 65678/7-0 Sub:166 Op:50

Part: SE120-004 PORT 17 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*		○ 0.06	HEIGHT GAGE	QA		J-530	.038	131-W.A		
(40)								10-17-05		

A

INSPECTION DATA CHECKLIST

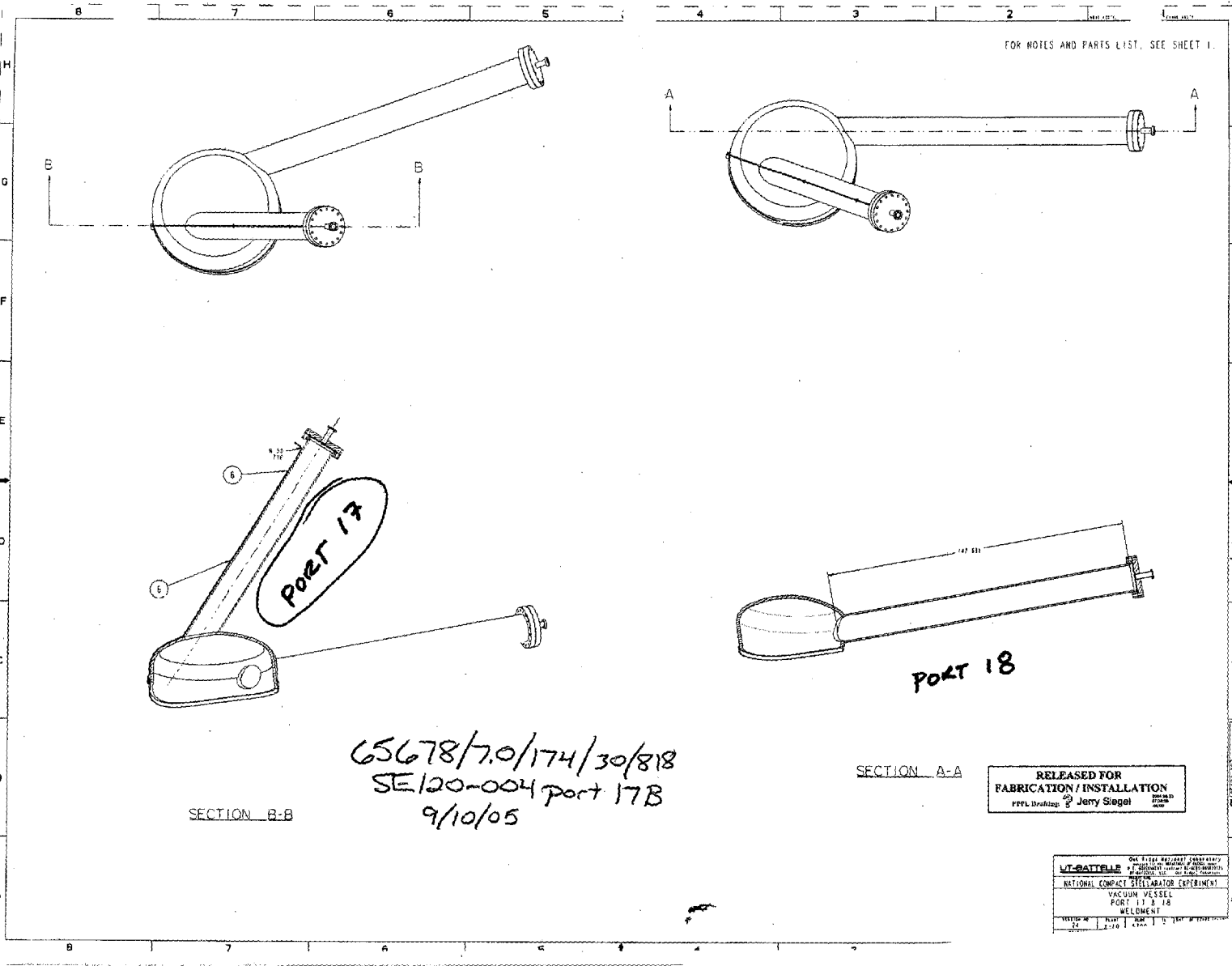
Quality Assurance Documentation for Part ID: SE120-004 PORT 17 - Item: 230

Workorder: 65678/7-0 Sub:174 Op:20

Part: SE120-004 PORT 17 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				08-31-05	08-31-05	

A



FOR NOTES AND PARTS LIST, SEE SHEET 1.

SECTION B-B

65678/7.0/174/30/818
SE 120-004 port 17B
9/10/05

SECTION A-A

RELEASED FOR
FABRICATION / INSTALLATION
PPPL Drafting Jerry Siegel


THE MITRE CORPORATION
 17 BRIDGE STREET, WILMINGTON, MASSACHUSETTS 01890
 NATIONAL CONTACT SENSATION EXPERIMENT
 VACUUM VESSEL
 PORT 17 & 18
 WELDMENT
 DATE: 9/10/05
 DRAWN BY: JERRY SIEGEL

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 17 - Item: 233

Workorder: 65678/7-0 Sub:174 Op:50

Part: SE120-004 PORT 17 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.038	131-W.A 10-17-05		

A

Quality Assurance Documentation for Part ID: SE120-004 PORT 17A - Item: 234

Workorder: 65678/7-0 Sub:162 Op:10

Part: SE120-004 PORT 17A - PORT 17A SUB-ASSEMBLY - PORT 17A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P17AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P17AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 17B - Item: 235

Workorder: 65678/7-0 Sub:164 Op:10

Part: SE120-004 PORT 17B - PORT 17B SUB-ASSEMBLY - PORT 17B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P17BF		MFG		VISUAL	OK	093-M.S	933-D.L		A
(30)				CWI				11-01-05	11-01-05		
*		VWI - EXTERIOR FILLETS P17BF		MFG		VISUAL	OK	093-M.S	933-D.L		A
(40)					CWI				11-01-05	11-01-05	



4119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

SOLD TO: CUSTOMER #: 38800000 SLSPRSN #: 10000
 MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: P05-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS: SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 IN 46218 TERMS: SEE BELOW

INDIANAPOLIS ATTENTION: MILL TEST REPORTS:
 IN 46218 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AW PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB442 NO LONG SEAM BEVEL TAG: 4PCS PART# SE120-004 PORT 17 TAG: 3PCS PART# SE120-004 PORT 17	EA 132793	814040
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AW PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB442 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT 17	EA 132793	814040
				99721	

Rec: 08.17.05 wx



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 495-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 88900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL EST: 9/04/05
 INDIANAPOLIS SHIP VIA: AFB F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 pcs. 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 58443 NO LONG SEAM BEVEL TAG: (1PC) PART# SE120-004 PORT 17 (5PC) PART# SE120-004 PORT 18 (4PC) PART# SE120-004 PORT 2 (2PC) PART# SE120-004 PORT 8	EA 132793	81404C
4	1			CONTACT MAJOR TOOL TRANS. LT DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #05-AC02-76-CH03073		
5	1			BAND PIPE TO WOODEN PALLETS LT & SHRINK WRAP COMPLETELY		

9976A see last page for customer/vendor revision.

99726
99723
99724

VJW.

VJW.



4119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRSN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

 INDIANAPOLIS SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB

 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION:
 TAG #:
 TAG \$:

 MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
6	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT RECV. 31,500 8/19/05 CIC# 60160	
FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM BALANCE OF FUNDS DUE NET 30 DAYS						

RECEIVED BY *Frank J. Smith*
 DATE 8-9-05 DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in black ink that reads "Denise Hernandez". The signature is written in a cursive style with a large, looping "D" and "H".

Denise Hernandez
Sales Department

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 18 - Item: 237

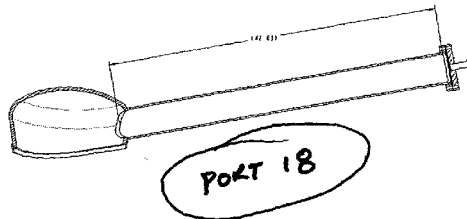
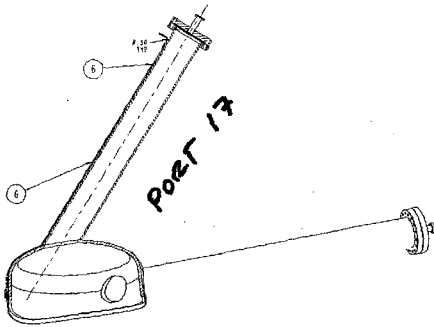
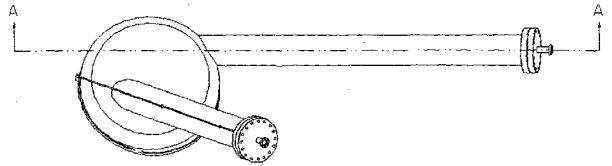
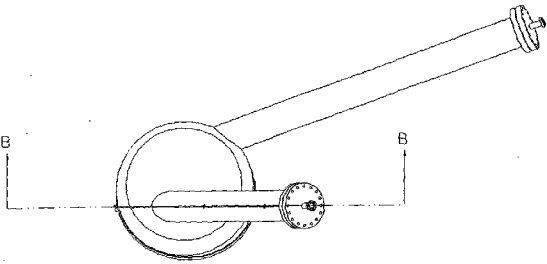
Workorder: 65678/7-0 Sub:171 Op:20

Part: SE120-004 PORT 18 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATION REQUI EMENTS.	933-D.L	933-D.L	
(20)		VWI - COMPLETED WELD		CWI				09-09-05	09-09-05	

A

FOR NOTES AND PARTS LIST, SEE SHEET 1.



65678/7.0/171/30/818
 SE120-004 port 18A
 9/10/05

SECTION B-B

SECTION A-A

RELEASED FOR
 FABRICATION / INSTALLATION
 PPL: Dr. Jerry Siegel

UT-BATTELLE		OAK RIDGE NATIONAL LABORATORY	
NATIONAL COMPACT STELLARATOR EXPERIMENT		VACUUM VESSEL	
PORT 17 & 18		WELDMENT	
DATE	BY	DATE	BY
9/10/05	Jerry Siegel	9/10/05	Jerry Siegel
Fabrication		SE122-007	

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 18 - Item: 240

Workorder: 65678/7-0 Sub:171 Op:50

Part: SE120-004 PORT 18 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		○ 0.06	HEIGHT GAGE	QA		J-530	.036	854-R.U 10-20-05		

A



4119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

SOLD TO: CUSTOMER #: 38800000 SLSPRSN #: 10000
 MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: P05-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS: SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 IN 46218 TERMS: SEE BELOW

INDIANAPOLIS ATTENTION: MILL TEST REPORTS:
 IN 46218 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AW PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB442 NO LONG SEAM BEVEL TAG: 4PCS PART# SE120-004 PORT 17 TAG: 3PCS PART# SE120-004 PORT 17	EA 132793	814040
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AW PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB442 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT 17	EA 132793	814040
				99721	

Rec: 08.17.05 wx



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 495-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE 7/21/05 MACH S/O NUMBER 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 88900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL EST: 9/04/05
 INDIANAPOLIS SHIP VIA: AFB F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 pcs. 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 58443 NO LONG SEAM BEVEL TAG: (1PC) PART# SE120-004 PORT 17 (5PC) PART# SE120-004 PORT 18 (4PC) PART# SE120-004 PORT 2 (2PC) PART# SE120-004 PORT 8	EA 132793	81404C
4	1			CONTACT MAJOR TOOL TRANS. LT DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #05-AC02-76-CH03073		
5	1			BAND PIPE TO WOODEN PALLETS LT & SHRINK WRAP COMPLETELY		

9976A see last page for customer/vendor revision.

99726
99723
99724

VJW.

VJW.



4119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 695-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRSN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS SHIP VIA: ABF F.O.B. :OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:

BUYER: BOB

SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 TERMS: SEE BELOW

INDIANAPOLIS
 IN 46218
 ATTENTION:
 TAG #:
 TAG \$:

MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
6	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT	
				FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM		
				BALANCE OF FUNDS DUE NET 30 DAYS.		

RECV. 31,500 8/9/05
CHK# 60160

RECEIVED BY *Frank J. Smith*
 DATE *8-9-05* DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in black ink that reads "Denise Hernandez". The signature is written in a cursive style with a large, looping "D" and "H".

Denise Hernandez
Sales Department

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 18 - Item: 242

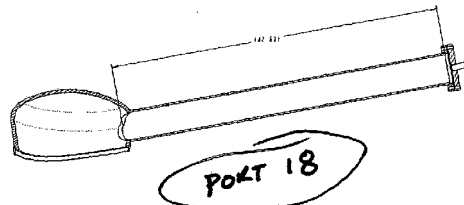
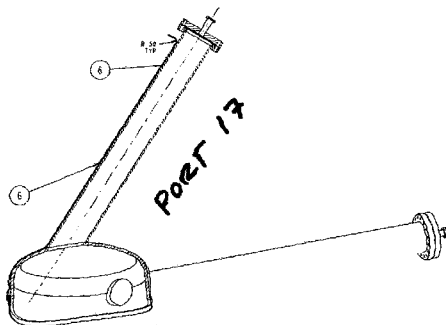
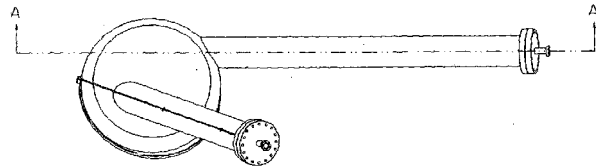
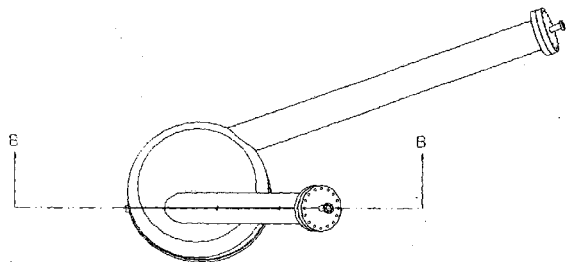
Workorder: 65678/7-0 Sub:177 Op:20

Part: SE120-004 PORT 18 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	WELD ACCEPTABLE P CUSTOMER DRAWIN PECIFICATION REQUI EMENTS.	933-D.L	933-D.L	
(20)		VWI - COMPLETED WELD		CWI				09-09-05	09-09-05	

A

FOR NOTES AND PARTS LIST, SEE SHEET 1.



SECTION B-B

SECTION A-A

RELEASED FOR
FABRICATION / INSTALLATION
VPPS Drawing: Jerry Siegel

65678/70/177/30/818
SE120-004 port 18B
9/10/05


MILITARY		NATIONAL CENTER FOR SPACE RESEARCH	
VACUUM VESSEL		PORT 17 & 18	
WELDMENT		SE122-007 13	

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT 18 - Item: 245

Workorder: 65678/7-0 Sub:177 Op:50

Part: SE120-004 PORT 18 - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*		 0.06	HEIGHT GAGE	QA		J-530	.055	854-R.U		
(40)								10-20-05		

A

Quality Assurance Documentation for Part ID: SE120-004 PORT 18A - Item: 246

Workorder: 65678/7-0 Sub:163 Op:10

Part: SE120-004 PORT 18A - PORT 18A SUB-ASSEMBLY - PORT 18A SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P18AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P18AF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT 18B - Item: 247

Workorder: 65678/7-0 Sub:165 Op:10

Part: SE120-004 PORT 18B - PORT 18B SUB-ASSEMBLY - PORT 18B SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET P18BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS P18BF		MFG		VISUAL	OK	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	

Quality Assurance Documentation for Part ID: SE120-004 PORT FJS - Item: 248

Workorder: 65678/7-0 Sub:224 Op:10

Part: SE120-004 PORT FJS - PORT FJS SUB-ASSEMBLY - PORT FJS SUB-ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		VWI - INTERIOR COVER PASS / FILLET PFJF		MFG		VISUAL	GOOD	197-T.FI	933-D.L		A
(30)				CWI				10-27-05	10-27-05		
*		VWI - EXTERIOR FILLETS PFJF		MFG		VISUAL	ALL RIGHT	197-T.FI	933-D.L		A
(40)					CWI				10-27-05	10-27-05	



4119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 493-6000
 (713) 596-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250675

 *** SHIPPING DEPT ***

CUSTOMER #: 28800000 SLSFRSN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: P05-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS. SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 TAG #: X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
1	9	9pc. 34"lg	4"OD .250AW PIPE X 34"LG (-0+1/4) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: EPC PART# SE120-004 PORT 15 TAG: EPC PART# SE120-004 PORT FJE	EA 132793	81404C
				99716	
				99715	
2	6	6pc. 42"lg	4"OD .250AW PIPE X 42"LG (-0 +1/2) FORM & TACK 625 SB443 NO LONG SEAM BEVEL TAG: PART# SE120-004 PORT 17	EA 132793	81404C
				99721	

Re: 08-17-05 wx



5119 FULTON / 77022
 P.O. BOX 130430
 HOUSTON, TEXAS 77219-0430
 (713) 696-6000
 (713) 696-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05
 INDIANAPOLIS SHIP VIA: ARF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB
 SHIP TO: MAJOR TOOL & MACHINE INC.
 1458 E. 19TH. STREET PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 INDIANAPOLIS TERMS: SEE BELOW
 IN 46218
 ATTENTION:
 TAG #: MILL TEST REPORTS:
 TAG #: X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QTY	SHIP	DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
3	18	18 pcs 52"lg		4"OD .250AW PIPE X 52"LG (-0,+1/2) FORM & TACK 625 60443 NO LONG SEAM BEVEL TAG: (1PC) PART# SE120-004 PORT 17 (5PC) PART# SE120-004 PORT 18 (4PC) PART# SE120-004 PORT 2 (3PC) PART# SE120-004 PORT 8	EA 132793	814040
4	1			CONTACT MAJOR TOOL TRANS. DEPT FOR SHIPPING INSTRUCTIONS 317-917-2404. REFERENCE PRIME CONTACT #0E-AC02-76-CH08073	LT	
5	1			BAND PIPE TO WOODEN PALLETS & SHRINK WRAP COMPLETELY	LT	

*9976A see last page for customer/
 vendor revision.*
99726
99723
99724
VJW
VJW



6119 FULTON / 77022
 P.O. BOX 130630
 HOUSTON, TEXAS 77219-0630
 (713) 495-6000
 (713) 496-6725 FAX NUMBER

ORDER DATE MACH S/O NUMBER
 7/21/05 250875

 *** SHIPPING DEPT ***

CUSTOMER #: 38900000 SLSPRN #: 10000
 SOLD TO: MAJOR TOOL & MACHINE INC. CUSTOMER ORDER NUMBER: POS-03984
 1458 E. 19TH. STREET DEL ACT: DEL EST: 8/04/05

INDIANAPOLIS SHIP VIA: ABF F.O.B.: OUR PLANT
 IN 46218 FREIGHT BILL NUMBER:
 BUYER: BOB

SHIP TO: MAJOR TOOL & MACHINE INC. PREPAID/CHG: PREPAID/ALLOW: COLLECT: X
 1458 E. 19TH. STREET TERMS: SEE BELOW

INDIANAPOLIS
 IN 46218
 ATTENTION:
 TAG #:
 TAG #:

MILL TEST REPORTS:
 X WITH SHIPMENT
 X WITH INVOICE
 NOT REQUIRED

ITEM	ORDER	QUANTITY	S/O	SHIP DESCRIPTION	HEAT U/M NUMBER	MACH P.O. #
4	1			MTM TO PAY \$31,500.00 PRIOR TO SHIPMENT	LT	
				FORWARD INVOICE TO BOB JOACHIM @ BJOACHIM@MAJORTOOL.COM; BALANCE OF FUNDS DUE NET 30 DAYS.	RECV. 31,500 8/9/05 CK# 60160	

RECEIVED BY *Paul F. Smith*
 DATE 8-9-05 DECLARED VALUE IS ----- \$48,400.00



6119 Fulton Street
P. O. Box 130630
Houston, Texas 77219
(713) 695-6000
(800) 231-6823
(713) 696-6725 Fax

August 18, 2005

To: Major Tool & Machine

Attn: Dave Wilkinson

Re: **Marking Authorization**
Major Tool Po# P05-03984
Mach S/O# 250875

Dear Dave,

The Quality Control Department at Mach Industrial Group states the following material 4"OD .250AW Pipe x 52"LG Port 17, needs to be marked as follows:

4"OD .250AW Pipe x 52"LG Port 18 HT#132793

Let me know if we can help in any other way.

Sincerely,

A handwritten signature in cursive script that reads "Denise Hernandez".

Denise Hernandez
Sales Department

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT FJS - Item: 250

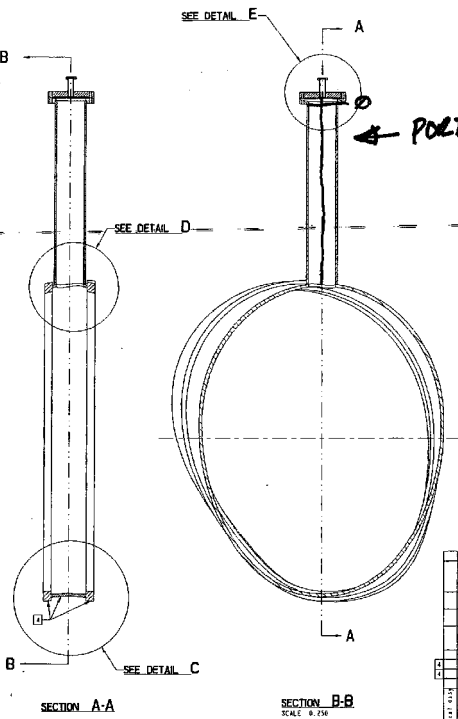
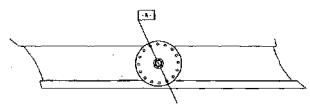
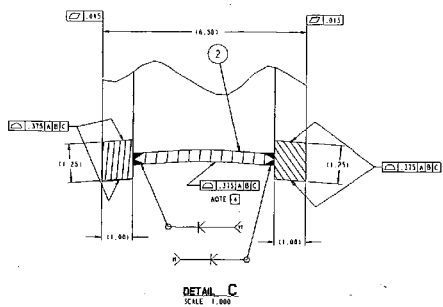
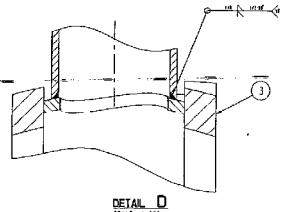
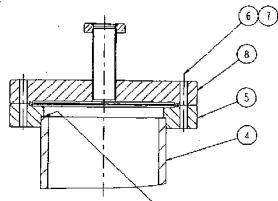
Workorder: 65678/7-0 Sub:247 Op:20

Part: SE120-004 PORT FJS - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG			ACCEPT	733-J.ST	712-W.	
(20)		VWI - COMPLETED WELD		CWI				09-02-05	09-02-05	

A

- NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M
 2. DIMENSIONS ARE IN INCHES.
 3. FABRICATION, INSPECTION, AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION MIL-STD-129-92 AND STATEMENT OF WORK ACS150M(21-83)
 4. PROFILE TOLERANCE IS BILATERAL $\pm .01$ UNLESS OTHERWISE SPECIFIED.



65678/7.0/247/30/88
9/11/05
SE121-014 port FJS

RELEASED FOR
FABRICATION / INSTALLATION
PPPL Div/Office: Jerry Sloger

QTY	ALL	9	WELD FILLER METAL	3
1	1	FAB000123	6 INCH REDUCING WAPLE	VARIAN VACUUM TECHNOLOGIES 10 INDUSTRIAL AVE LEWISTON, NH 02524 OR CONTACT
		151013	GASKET COPPER AL. B. PNC 1/4 1/4" X 1/2" O.D.	
		150056	WAL. SET 4.42 O.D. X 0.125 1/8" ST. 304 STAINL. PNC. 1/2"	HDC VACUUM PRODUCTS CORP 27001 GARDEN DRIVE MAYWOOD, CA 94554-1511 OR CONTACT
		130026	CONCRETE 4.00 O.D. TAPPED	
		1	PIPE 3/16" O.D. 1/8" THK	
		2	SPACER FLANGES	URS WAREHO
		2	SPACER	SPACER WAREHO
		1	WELDING ENGINEER	
		1	WELDING ENGINEER	
		1	WELDING ENGINEER	

WELDING ENGINEER
APPROVED: R. PARSELLS DATE: 2/24

REV	DESCRIPTION	BY	DATE	APPROVED
1	ISSUED FOR FABRICATION	JERRY SLOGER	9/11/05	


P THIS DRAWING PRODUCED
ON PRO-ENGINEER

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT FJS - Item: 253

Workorder: 65678/7-0 Sub:247 Op:50

Part: SE120-004 PORT FJS - PIPE, 3.5" SCH. 40 - SE120-004-15 PIPE, 3.5" SCH. 40

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
* (40)		 0.06	HEIGHT GAGE	QA		J-530	.023	131-W.A 10-17-05		

A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004 PORT NB - Item: 255

Workorder: 65678/7-0 Sub:1 Op:30

Part: SE120-004 PORT NB - NEUTRAL BEAM PORT EXTENSION SUB-ASSY - PORT NB SUB-ASSEMBLY PPPL NCSX VVSA NEUTRAL BEAM PORT EXT

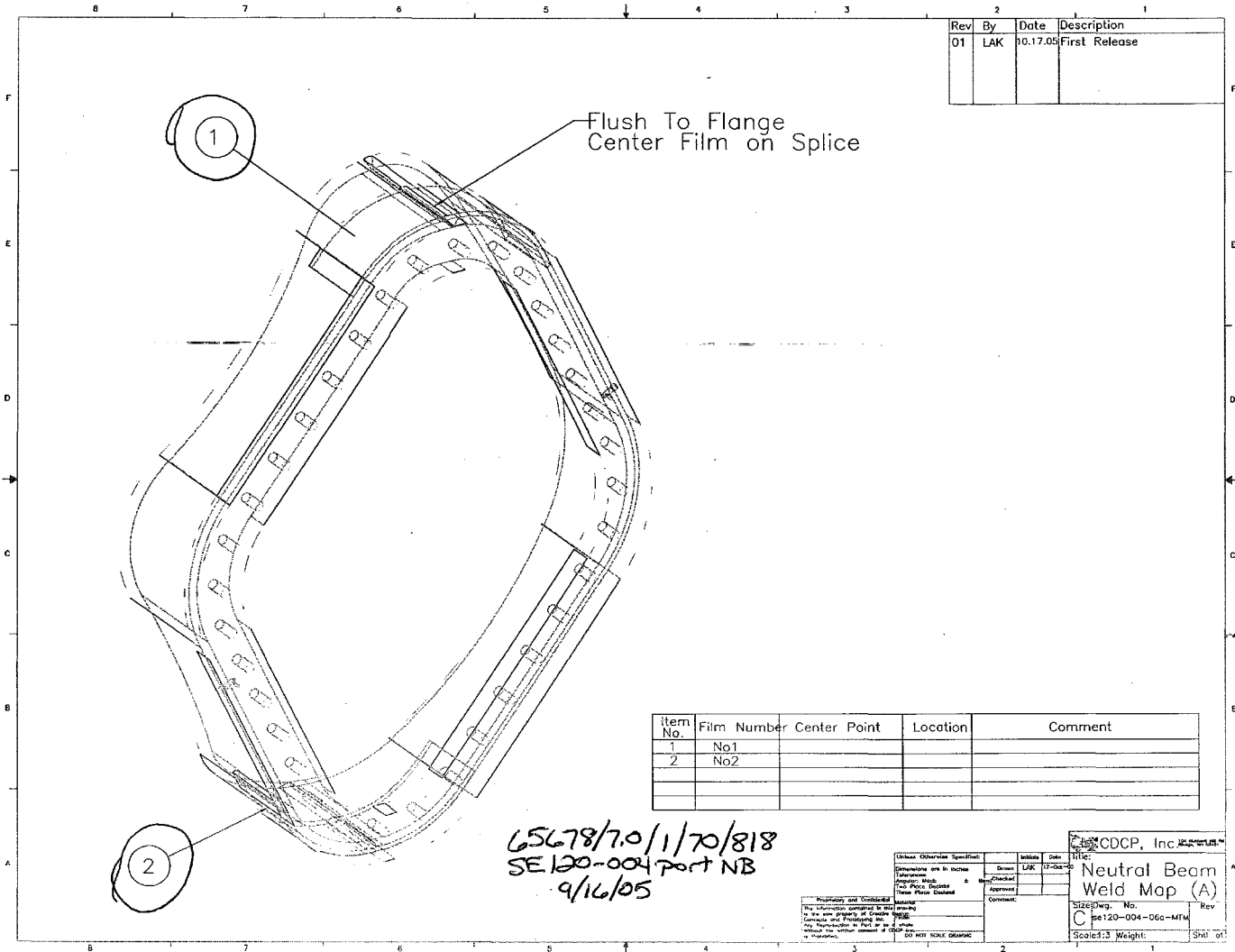
Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(10)		VWI ROOT PASS WELD PNB-1		CWI				09-09-05	09-09-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(50)		VWI COVER PASS WELD PNB-1		CWI			DRAWINGS AND SPE	09-10-05	09-15-05	A
							FICATIONS			
*				MFG		VISUAL	OK	358-D.M	933-D.L	
(60)		VWI ROOT PASS WELD PNB-2		CWI				09-09-05	09-15-05	A
*				MFG		VISUAL	ACCEPT PER CUSTOM	709-K.A	933-D.L	
(100)		VWI COVER PASS WELD PNB-2		CWI			DRAWINGS AND SPE	09-10-05	09-15-05	A
							FICATIONS			

Quality Assurance Documentation for Part ID: SE120-004 PORT NB - Item: 256

Workorder: 65678/7-0 Sub:1 Op:40

Part: SE120-004 PORT NB - NEUTRAL BEAM PORT EXTENSION SUB-ASSY - PORT NB SUB-ASSEMBLY PPPL NCSX VVSA NEUTRAL BEAM PORT EXT

Drawing ID: SE120-004 Rev: 2		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*				MFG		VISUAL	ACCEPT	358-D.M	933-D.L	
(20)		VWI - ROOT PASS WELD PNBFB		CWI				09-15-05	09-15-05	A
*				MFG		VISUAL	ACCEPT	358-D.M	933-D.L	
(50)		VWI - COVER PASS WELD PNBFB		CWI				09-15-05	09-15-05	A



Rev	By	Date	Description
01	LAK	10.17.05	First Release

Flush To Flange
Center Film on Splice

Item No.	Film Number	Center Point	Location	Comment
1	No1			
2	No2			

65678/7.0/1/70/818
SE120-004 Port NB
9/16/05

CDSCP, Inc.

Neutral Beam
Weld Map (A)

Size: Dwg. No. C
Se120-004-060-MTW

Scale: 1:3 Weight: 1

Rev: 1

Sheet of: 1

Properties and Credentials:
The information contained in this drawing is the sole property of CDSCP, Inc. and shall remain confidential. No part of this drawing shall be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of CDSCP, Inc.

Dimensions are in inches
Tolerances:
FRACTIONS: 1/16, 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8
DECIMALS: .0005, .001, .002, .005, .010, .015, .030, .060, .125, .250, .500, 1.000, 1.500, 2.000, 3.000, 4.000, 5.000, 6.000, 8.000, 10.000, 12.000, 15.000, 20.000, 25.000, 30.000, 40.000, 50.000, 60.000, 70.000, 80.000, 100.000, 125.000, 150.000, 200.000, 250.000, 300.000, 400.000, 500.000, 600.000, 800.000, 1000.000
ANGLES: 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180
THREADS: UN, UNF, UNR, 2-60, 3-48, 4-40, 5-40, 6-32, 8-32, 10-32, 12-24, 14-22, 16-20, 18-18, 20-16, 24-14, 28-14, 32-14
WELDS: ASME B31.1, ASME B31.3, AWS D1.1, AWS D1.6, AWS D17.1, AWS D17.4, AWS D17.5, AWS D17.6, AWS D17.7, AWS D17.8, AWS D17.9, AWS D17.10, AWS D17.11, AWS D17.12, AWS D17.13, AWS D17.14, AWS D17.15, AWS D17.16, AWS D17.17, AWS D17.18, AWS D17.19, AWS D17.20, AWS D17.21, AWS D17.22, AWS D17.23, AWS D17.24, AWS D17.25, AWS D17.26, AWS D17.27, AWS D17.28, AWS D17.29, AWS D17.30, AWS D17.31, AWS D17.32, AWS D17.33, AWS D17.34, AWS D17.35, AWS D17.36, AWS D17.37, AWS D17.38, AWS D17.39, AWS D17.40, AWS D17.41, AWS D17.42, AWS D17.43, AWS D17.44, AWS D17.45, AWS D17.46, AWS D17.47, AWS D17.48, AWS D17.49, AWS D17.50, AWS D17.51, AWS D17.52, AWS D17.53, AWS D17.54, AWS D17.55, AWS D17.56, AWS D17.57, AWS D17.58, AWS D17.59, AWS D17.60, AWS D17.61, AWS D17.62, AWS D17.63, AWS D17.64, AWS D17.65, AWS D17.66, AWS D17.67, AWS D17.68, AWS D17.69, AWS D17.70, AWS D17.71, AWS D17.72, AWS D17.73, AWS D17.74, AWS D17.75, AWS D17.76, AWS D17.77, AWS D17.78, AWS D17.79, AWS D17.80, AWS D17.81, AWS D17.82, AWS D17.83, AWS D17.84, AWS D17.85, AWS D17.86, AWS D17.87, AWS D17.88, AWS D17.89, AWS D17.90, AWS D17.91, AWS D17.92, AWS D17.93, AWS D17.94, AWS D17.95, AWS D17.96, AWS D17.97, AWS D17.98, AWS D17.99, AWS D17.100

4959

10520 Chester Road
Woodlawn, Ohio 45215



CLIENT Major Tool & Machine		INTERPRETER LEVEL Robert Weaver / II		RADIOGRAPHER Robert Weaver		JOB NO. 13850291	P.O. NO. NA	DATE 9/16/05
ISOTOPE/RAY IR192	DIA. X LENGTH .18" x .094"	CURISSMA 31	FOCAL SPOT SIZE .151"	SFO 15"	SOD 14.5"	TIME 7:30	FILM PROCESSING Auto	FILM TYPE Kodak MX162 Double
WELD PROCESS GTAW	MATERIAL SPEC. 625 Inconel	MATERIAL DIAMETER NA	MATERIAL THICKNESS .5"	PENETRATOR ASTM IB	SHIM NA	ACCEPTANCE STANDARD ASME VIII, Div. 1, UW-51		

DESCRIPTION
65678/7011/70/818
SE 100-004 port NB

REMARKS

FITTING SEAM OR WELDING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRATOR		SLAG	POROSITY	POROSITY WITH TRAIL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT THROUGH	BURN THROUGH	CRATER PIT	CORROSION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	RE-HATCH	FILM ARTIFACT	VISUAL CONCERN	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT		
			SIZE	QUALITY LEVEL																										
1	0-10	NA	IB	.013"																										
2	0-10	↓	↓	↓																										

End View | Side View

SINGLE WALL

DOUBLE WALL

P Penetrator
 S Shim
 L Location Marker
 () OTHER

Robert Weaver 655514/II
Cooperheat-MQS Signature

Douglas D. Edwards
Customer Representative Signature

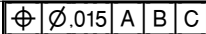
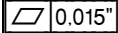
9/16/05
Date

MC111824.TIF

Quality Assurance Documentation for Part ID: SE120-004 PORT NB - Item: 259

Workorder: 65678/7-0 Sub:1 Op:75


Part: SE120-004 PORT NB - NEUTRAL BEAM PORT EXTENSION SUB-ASSY - PORT NB SUB-ASSEMBLY PPPL NCSX VVSA NEUTRAL BEAM PORT EXT

Drawing ID: SE122-072 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	G8	 DIA. 0.531 THRU +/- 0.005" (34X)	PIN GAGE	MFG QA		J-669	RANGE .528 / .53 0	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (20)	D7	0.125 +/- 0.005" Dia. THROUGH TO ADJACENT HOLE (2X)	PIN GAGE	MFG QA		J-667	.125 2X	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (30)	G6	 0.015"	INDICATOR	MFG QA		P-3886	.002	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (40)	C6	0.750 +/- 0.005" (2X)	CALIPER	MFG QA		P-4478	.765 2X (ACCEPT P ER NC 18288)	854-R.U 05-03-06	591-C.P 09-28-05	A
1* (50)	B6	0.88 +/- 0.01" (2X)	CALIPER PIN GAGE	MFG QA		P-4478 J-667	.882	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (60)	B5	0.625 +/- 0.005" (2X)	CALIPER	MFG QA		P-4478	.626 2X	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (70)	B5	DIA. 0.250 +/- 0.005" (2X)	PIN GAGE	MFG QA		J-667	.250 2X	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (80)	B5	1/8" NPT THREAD (2X)	THREAD PLUG GA	MFG QA		A-281	ACCEPT PER GAGE	184-T.HI 09-27-05	591-C.P 09-28-05	A
1* (90)	F8	26.5 DEG. +/- 0 DEG. 15' (2X)		MFG QA		PROGRAM	ACCEPT PER ENG.	591-C.P 09-28-05	591-C.P 09-28-05	A

Quality Assurance Documentation for Part ID: SE120-004 PORT NB - Item: 260

Workorder: 65678/7-0 Sub:1 Op:90

Part: SE120-004 PORT NB - NEUTRAL BEAM PORT EXTENSION SUB-ASSY - PORT NB SUB-ASSEMBLY PPPL NCSX VVSA NEUTRAL BEAM PORT EXT

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		 0.375 PROFILE VERIFICATION	LASER	QA		1444	-0.035 / +0.098	522-R.D 10-11-05			A
*		Magnetic Permeability 1.02 Max	MASTER GAGE	QA		J-1271	LESS THAN 1.02	522-R.D 10-11-05			A
*		Interior Surface Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-1258	ACCEPT	522-R.D 10-11-05			A
*		Material Thickness: .500 +.04 / -.01"	UT THICKNESS GA UT CAL BLOCK	QA		J-1009-NDT J-1157	0.505 / 0.524	522-R.D 10-11-05			A
*		CLEANLINESS PER PS483		QA		VISUAL	ACCEPT	522-R.D 10-11-05			A
*		Flange face Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-1258	ACCEPT	522-R.D 10-11-05			A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004-16 - Item: 261

Workorder: 65678/7-0 Sub:235 Op:30

Part: SE120-004-16 - PIPE, 2.5" SCH. 10 - SE120-004-16 PIPE, 2.5" SCH. 10

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		Interior Surface Finish: 32 Micro-Inch Ra M	PROFILOMETER	QA		J-1152	6/31	503-B.H			A
(10)								09-13-05			
*		Mag. Perm: 1.02 Mu Max	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H			A
(20)								09-13-05			
*		Mtl. Thk: 0.120 +/- 0.015"	OD MICROMETER	QA		J-722	111/115	503-B.H			A
(30)								09-13-05			

JUL 29 2005 10:12AM BRIGHTON TRU EDGE 513 771 2404 No.4876 P. 1/3

BRIGHTON TRU-EDGE HEADS
 DIV OF ENERFAB
 11861 MOSTELLER RD * CINCINNATI OH 45241 * (513)-771-2300
 MTR COVER LETTER

MAJOR TOOL AND MACHINE
 1458 E 19TH ST
 INDIANAPOLIS IN 46218

ATTN : DOUG MCCORKLE
 REFERENCE : CUSTOMER P/O P05-01008
 BRIGHTON S/O 256223

TO WHOM IT MAY CONCERN:

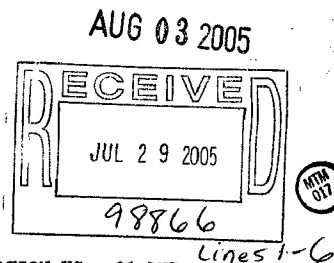
ATTACHED ARE COPIES OF MILL TEST REPORTS FOR THE FOLLOWING MATERIALS PROVIDED ON YOUR REFERENCED PURCHASE ORDER.

FORM ONLY

6-SB443-625 Style:2:1 Ellip Head Diam:18" OD 2:1 Ellip Head Diam:18" OD
 18" OD .3750"-NOM WITH 2" OAH:6.19" SP.

Qty	Heat Number
6	2650-4-6771

CERTIFICATE OF COMPLIANCE



ALL HEADS WERE COLD FORMED AND ARE IN COMPLIANCE WITH REGULATION UG - 81 AND UG - 79 AS STATED IN SECTION VIII DIVISION I OF THE ASME BOILER AND PRESSURE VESSEL CODE. HEADS WERE FORMED WITHOUT COMING IN CONTACT WITH MERCURY OR ANY OF ITS COMPOUNDS.

IF YOU HAVE ANY FURTHER QUESTIONS CONCERNING MILL TEST REPORTS ONLY, PLEASE CONTACT ME IN CINCINNATI, OHIO AT 1-800-543-1644.

VERY TRULY YOURS,

Rick Seiter

BRIGHTON TRU-EDGE HEADS
 DIV. OF ENERFAB

No. 4876 P. 2/3

BRIGHTON TRU EDGE 513 771 2404

Jul. 29. 2005 10:13AM

(4.846)
4.8.5488

6.19

18-20. 4/2nd 30 inside

NO.	CIRCUMFERENCE	O.A.H.	SF THK.	ICR THK.	ICR	SF			TEMP	OUT OF ROUND	LAND	BEVEL	FLANGER STAMP	REMARKS
						TOE	STRT	TOTAL						
1		6 1/8					2"				20°	S		
2	4' 8 1/2	6 7/8	9/8	9/8					1"	18" 00	1/16	30° RN	OK	
3														
4														
5														
6	4' 8 1/2	6 1/4	9/8	9/8			2"		1"	18" 00	1/16	30° IS	OK	
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														

DATE _____

RELEASED FOR SHIPMENT BY _____

INSPECTED BY _____

DATE _____

FILE COPY 2

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS																				
Invoice No No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4																
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 .SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100														
Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E						Quantity Ordered Quantite Commandee Bestellmenge 6 PC			Quantity Shipped Quantite Expediee Liefermenge 6 PC											
Heat Number Numero De Coudre Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																			
	Al	B	C	Ch+Ta (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W			
2650 4 6771	0.213		0.021	3.4	0.2638	21.67	0.0581	4.8419	0.2641	8.53	59.82	0.0072	0.003	0.137	0.3317				BUTT END *02	
	CHNB	Ta	Zr	Bi	Se	La	C-Nb	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				
2650 4 6771	3.3944	<0.05																	BUTT END *02	

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/27/2005

Amanda Aguirre

MTM 016 JUN 09 2005

JUN 9 2005
96892
Leis 1-6

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS AS REQUIRED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE REVISION OF FALSE, FRAUDULOUS OR FRAUGHTENING STATEMENTS OR OMISSIONS ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUESTING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestelleranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	---

Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
---	---	--

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bel Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte.Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zelstandversuch					
Ultimate Lim. Elast. A 1% Zugfestigkeit	1% Yield Lim. Elast. A 0.2% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EM % Dehnung	%RA		Test Essai Versuch	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EM % Dehnung	%RA		Test Essai Versuch	Stress Constitute Spannung	Hours Heures Stunden	% Elong In % Allong EM % Dehnung	% RA
125000 PSI		60500 PSI	54 %		(1)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
5/27/2005 (1) 2742656901

Amanda Aguirre

MTM 016 JUN 09 2005

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MC108864.TTF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 3 Of 4
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**HAYNES
International**

FILE COPY 2

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 .SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	---	--

Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantite Commandee Bestellmenge 6 PC	Quantity Shipped Quantite Expeditee Liefermenge 6 PC
---	--	---

Annealed Hardness Durete Recuit Gealtert Haerte	Agee Hardness Durete Vieilli Gealtert Haerte	Grain Size Grosueur De Grain Korngrösse	IGA	Uniformity	Corrosion Rate	Oxidation Rate	Charpy Impact Test				Creep Rupture									
							Toughness Avg	Toughness I	Toughness II	Toughness 3	Test Eval Versuch	Stress Constraine Spannung	Hours Heures Stunden	% Elong In % Allong EN % Dehnung	% Elong @ 15 Hrs					
		Grain Size Proportion Grain Size	Reorg. Grain	Unrecry. Grain %	ALA	F&W Figure Number	Attack Depth	Corrosion	Test Method	MPY	Fl. Lbs.	Fl. Lbs.	Fl. Lbs.	Fl. Lbs.	Temp.	PSI				
96 HRB	(J)(A)	5.5																		

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician 5/27/2005 (1) 2742656901

Amanda Aguirre

**MIM
016** JUN 09 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS ON THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, AS REQUIRED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE REWORKING OF FALSE, FICTITIOUS OR PARALLEL STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A VIOLATION UNDER FEDERAL STATUTES VIOLATING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REGARDING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TIF3

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinaire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 .SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E			Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC

HAYNES
International

FILE COPY 2

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
 THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
 Material conforms to PS-483 Revision H as applicable.
 Mill Orders Used: 2742656901 (6 PC)
 (A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
 Certification Technician 5/27/2005

Amanda Aguirre



JUN 09 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, UNLESS BY ANY EXCEPTION OR PURCHASE ORDER REQUIREMENTS. THE RISK OF LOSS OF FIDELITY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TIF4

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on April 19, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Heats Tested

2650-4-6771
2650-5-6797
2650-5-6804

Purchase Order Numbers

P05-00965 – Panel 1
P05-00966 – Panel 10
P05-00967 – Panel 2
P05-00994 – Panel 3
P05-00996 – Panel 4
P05-00997 – Panel 5
P05-00999 – Panel 6
P05-01001 – Panel 7
P05-01002 – Panel 8
P05-01003 – Panel 9
P05-01004 – 25" dia discs



JUN 09 2005

Best Regards,

A handwritten signature in black ink, appearing to read "Marlin C. Losch III".

Marlin C. Losch III

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Frank Malinowski

E-Mail: fmalinowski@pppl.gov

Telephone: 609-243-2441

Fax: 609-243-2021

Part: / SE122-112-3 (CF BLANK FLANGE)

Drawing ID: SE122-113

Revision: 0

Customer P.O.: S005243-F

Serial No./Qty: N/A

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433

Fax: 317-634-9420

Problem: Magnetic Permeability requirement 1.02 Max
Checks >1.05, but < 1.1

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Princeton University Plasma Physics Laboratory
James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

26 August 2005

Ms. Teresa L. Hubbard
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Subcontract S005243-F
Approved Disposition of Major Tool, Inc. Non-Conformance Reports
17157, 17167, 17233, 17237, 17240, 17286, 17287, 17288, 17314,
and 17342

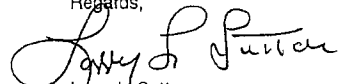
Dear Ms. Hubbard:

Attached are ten Major Tool & Machine, Inc. submitted Non-Conformance Reports (NCRs) and their disposition approved by the National Compact Stellarator Experiment (NCSX) Procurement Technical Representative and the Responsible Line Manager for the Vacuum Vessel Sub-Assembly.

Please note the one signed Project Disposition form applies to all ten of the NCRs.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441 and by e-mail lsutton@pppl.gov.

Regards,


Larry L. Sutton
Senior Subcontract Administrator

Attachments: As stated

cc: M. Viola



Date: 03/22/2005

CERTIFICATE OF CONFORMANCE

I hereby certify that the products provided to **MAJOR TOOL & MACHINE**
 on Purchase Order **PO5-00920**
 and Varian Sales Order **319315350**

have been manufactured in accordance with all applicable Varian drawings and
 Varian specifications.

<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
001	1	fa06000133	ADPT,CF,6.00-1.33, 2.5"

Varian, Inc.

Mark L. Baribeault
 Quality Manager



3/28/05

03-28-05 WA
 94652
 line 1



Date: 04/15/2005

CERTIFICATE OF CONFORMANCE

I hereby certify that the products provided to **MAJOR TOOL & MACHINE**
on Purchase Order **PO5-00920**

and Varian Sales Order **319315350**

have been manufactured in accordance with all applicable Varian drawings and
Varian specifications.

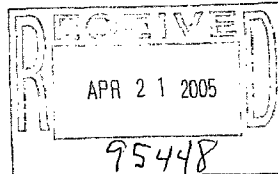
<u>ITEM</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
001	1	fa06000133	ADAPTER,6-1.33"

04.20.05
95448 wx
line 2



4/21/05

Varian, Inc.
Mark L. Baribeault
Mark L. Baribeault
Quality Manager



EASTWOOD MANUFACTURING
CERTIFICATION OF COMPLIANCE

CUSTOMER : MAJOR TOOL AND MACHINE
ORDER # : P05-03373

DATE : 8-11-05
OUR NUMBER 33676

WE CERTIFY THAT THE MATERIALS SUPPLIED ON YOUR ORDER
LISTED ABOVE COMPLIES WITH THE REQUIREMENTS OF YOUR ORDER
AND OF THE SPECIFICATIONS LISTED BELOW

DESCRIPTION :

Lot No.:	Part :	Heat No.:	
33676-1 552 PIECES	SE120-004-32 1/2-13 x 3 1/2 12-point screw ASTM A453 Grade 660	062313725	1/2" Round forged Heat treated per ASTM A453 Gr. 660 Tensile : WH #05-0809-05

08.12.05
99477 WZ



DALE STARK
EASTWOOD MANUFACTURING

Aug 11 05 04:23P



ap alloys, inc.

100 West Street Bridgewater, MA 02324-1095
 (508) 580-1200 Outside Mass. 1-800-221-0786
 FAX (508) 588-4726

CERTIFICATE OF ANALYSIS

TO EASTWOOD MANUFACTURING
 6825 BREEN STREET
 HOUSTON, TX 77086

Date JUNE 30, 2005

SHIPPED TO

Your Order 33541 Our Order 132634

1 BDL. 178# 1/2" DIA. X 12' R/L A-286 LAB NO. 062313725

Chemical Composition (When called for by specification)

LAB/ Heat No.	C.	Mn.	P.	S.	SI.	NI.	Cr.	Cu.	Mo.	TI.	CB.
062313725	.036	1.00	.030	.004	.55	26.69	14.11	.25	1.33	1.95	.03
				AL	V	CO	B				
				.10	.11	.08	.005				

Heat No. Yield Strength lbs. per sq. in. Rockwell Tensile Strength lbs. per sq. in. Elong. % in 2" Red. of Area

I certify the above material to conform with A-286

Declared to under oath before me this

_____ day of _____ 20__

ap alloys, inc.

By *John J. Patis Jr.*

Tensile Test Report

Company: Eastwood Mfg. Date: 8/10/2005
 Attention: Dale Stark Lab Report #: 05-0809-05
 P.O. #: 33676
 Material: ASTM A286
 Identification: 1/2"x3-1/2"-12-Point

TENSILE TEST

Lab ID	Dimensions	Area	Yield Lbs.	Ultimate Load Lbs.	Yield P.S.I.	Tensile P.S.I.
R	.257 round	.0519	5,540	8,620	106,900	166,100

Elongation	Reduction of Area	Fracture	Comments
27.5%	52.6%	Ductile	

Tests performed in accordance with ASTM A370, E8, and WH Laboratories Quality Assurance Manual.
 0.2% Offset Yield. Testing performed in accordance with ASTM A370.
 Test specimens retained for one (1) week maximum; unused material is retained for one (1) month.

33676

33676



Approved by: Robert French
 Robert French



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>

HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: fcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05
95029
94,95
B.A.





MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
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e-mail: tcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

WIN 05 4/6/05

4/6/05
95026
88-90
B.A.



MDC VACUUM PRODUCTS CORP
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MDC Vacuum Product Corporation
e-mail: lcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05 4/6/05
95027
91-93
B.7

Dedicated to Quality and Service



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>

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COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

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MIKE SCHULTZ
Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: tcasarav@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05
M/TM
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4/6/05
95032
97-99
B.A.



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>

HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

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MIKE SCHULTZ

Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: tcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05
95035
100-102
B.7



4/6/05

Dedicated to Quality and Service



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
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HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ

Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: icasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522

4/6/05
95036
103-105
BJ.

Dedicated to Quality and Service



MDC VACUUM PRODUCTS CORP
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Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>

HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

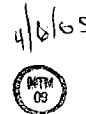
DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# Po5-00919

This is to certify that the items shipped on the above referenced purchase order number comply with all standards in our MDC catalog.

MIKE SCHULTZ

Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: icasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522



4/6/05
95039
106-108
B.A.

Dedicated to Quality and Service



MDC VACUUM PRODUCTS CORP
23842 Cabot Blvd., Hayward CA 94545-1651
Phone: 510.265.3500 - Fax: 510.887.0626 - Toll Free: 800.443.8817
E-Mail: sales@mdcvacuum.com - Web: <http://www.mdcvacuum.com>

HIGH VACUUM COMPONENTS from one source...

Certification of Conformance Catalog Products

COMPANY: MAJOR TOOL & MACHINE

ATTENTION: KATY DEBERNARDI

DATE: April 4, 2005

SUBJECT: CERTIFICATION OF PO# P05-00919

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MIKE SCHULTZ

Shipping/Receiving Supervisor
MDC Vacuum Product Corporation
e-mail: tcasaray@mdcvacuum.com
Phone: (510) 265-3500 x 3522



4/6/05 4/6/05
95043
109-111
B.J.



Hanna Rubber Company
 1511 Baltimore Avenue
 Kansas City, MO 64108-1301
 (816) 221-9600
 (816) 421-0583 Fax
 (800) 591-3035
 www.hanna-kc.com

Certification of Conformance

MAJOR TOOL & MACHINE, INC.
 1458 EAST 19TH STREET
 INDIANAPOLIS, INDIANA 46218

Phone Number	317-636-6433
Fax Number	317-634-9420

Sales Order	231887
Purchase Order	P05-00998
Date	3/21/2005

Cure Date	4Q04
Shelf Life	4Q14
Batch Number	186407
Cage Code	99739

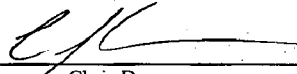
To Whom it May Concern:

This letter serves as certification that the materials in the parts stated below are in compliance with applicable specification requirements

Part Number	Quantity	Description
12Z-19.88X.210V	9 EA	VITON O-RING

Thank you,
 Hanna Rubber Company

MAR 22 2005


 Chris Donovan
 Government Contract Administrator

94447 RDY
 Lines 1-6

MTM
 09
 3/30/05



Hanna Rubber Company
 1511 Baltimore Avenue
 Kansas City, MO 64108-1301
 (816) 221-9600
 (816) 421-0583 Fax
 (800) 591-3035
 www.hanna-kc.com

Certification of Conformance

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 INDIANAPOLIS, INDIANA 46218

Phone Number	317-636-6433
Fax Number	317-634-9420

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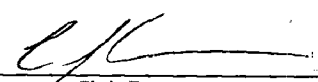
To Whom it May Concern:

This letter serves as certification that the materials in the parts stated below are in compliance with applicable specification requirements

Part Number	Quantity	Description
12Z-37.29X.210V	12 EA	VITON O-RING

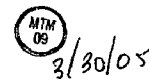
Thank you,
 Hanna Rubber Company

MAR 22 2005


 Chris Donovan
 Government Contract Administrator

94451 R21

lines 7.12



Mar 21 2005 16:15 P.01

Fax: 8164210583

HANNA RUBBER

MAJOR TOOL & MACHINE INC
1458 E 19TH ST
INDIANAPOLIS IN 46218

**YOUR PURCHASE
ORDER NUMBER**
P05-00869

MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2002
IF THERE ARE ANY QUESTIONS ABOUT THIS
SHIPMENT CONTACT OUR SALES DEPARTMENT
(630)833-0300

PAGE
1 (MORE)
MCM NUMBER
5473894-01

Today's Date:

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
P A C K I N G L I S T E X T R A	91259 A141	4 EA	ALLOY STEEL STANDARD SHOULDER SCREW 1" SHOULDER DIA, 4" SHOULDER LENGTH, 3/4"-10 THRD 65737-67/1	1	4 EA	4
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-101/7	2	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-112/7	3	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-123/7	4	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-134/7	5	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-155/7	6	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-101/8	7	1 PK	1

REFER TO: 5473894-01
MAJOR TOOL & MACHINE INC

TAG
CCP



2/14/05
93238
2/14/05 1-18.9

PACKER	NUMBER OF CARTONS	FILLER

LNS
7

CYCLE

**CERTIFICATION OF
COMPLIANCE**

This is to certify that, according to our records, the above item(s) furnished on your purchase order was supplied in accordance with the description and as illustrated in our catalog.

Sincerely,

Brian Hedstrom
Brian Hedstrom
Quality Manager

MCM NO. 5473894-01 04

PURCHASE ORDER
P05-00869

FROM:
MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2002 USA

SHIP TO:

MAJOR TOOL & MACHINE INC
1458 E 19TH ST
INDIANAPOLIS IN 46218

CCP

MAJOR TOOL & MACHINE INC
1458 E 19TH ST
INDIANAPOLIS IN 46218

**YOUR PURCHASE
ORDER NUMBER**
P05-00869

MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2081
IF THERE ARE ANY QUESTIONS ABOUT THIS
SHIPMENT CONTACT OUR SALES DEPARTMENT
(630)833-0300

2
MCM NUMBER
5473894-01

Today's Date:

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
PACKING LIST EXTRA	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-112/8	8	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-123/8	9	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-134/8	10	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-153/8	11	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-101/9	12	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-112/9	13	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-123/9	14	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-134/9	15	1 PK	1
	98164 A133	1 PK	TYPE 316 SS BUTTON HEAD SOCKET CAP SCREW 8-32 THREAD, 1/4" LENGTH PKG = 100 EA/PK 65678-153/9	16	1 PK	1


 2/14/05

WEIGHT
5

16 5473894-01
MAJOR TOOL & MACHINE INC

MCMASTER-CARR
WAREHOUSE INSTRUCTIONS

PURCHASE ORDER
P05-00869

CYCLE

T



Where Quality Isn't Expensive....It's Priceless!

DIVERSIFIED METALS

INCORPORATED

TOLL FREE: 800-628-3035
 EMAIL: SALES@DIVERSIFIEDMETALS.COM
 WEBSITE: WWW.DIVERSIFIEDMETALS.NET
 49 MAIN STREET MONSON, MA 01057-0065

FAX: 413-267-3151
 PHONE: 413-267-5101
 CAGE CODE: 57067
 PO BOX 65

TEST CERTIFICATE

Customer: Major Tool & Machine 1458 East 19 th St Indianapolis, IN 46218 Ship To Address: Same	Customer Order: P05-05133 Item No.: 1 P/N: N/A Dimensions: 2.000" DIA X 148.250" LONG Alloy/Grade: NICKEL 625
--	--

Specification/Grade: ASTM-B-446

No. Of Cradles	No of Pieces	Length	Weight	Packing Slip No.	Heat No.	Lot No
1	1	148.250 INCHES	144.0 LBS	48278	900257	NONE

MILL TEST REPORT ATTACHED


MATERIAL HAS NOT BEEN EXPOSED TO MERCURY WHILE IN DIVERSIFIED METALS INC. FACILITY.

This is to certify that the material covered by this report and shipped on the above order has been inspected in accordance with, and has been found to meet the applicable requirements described herewith, involving any specifications forming a part of this description.

We certify that the Chemical Analysis and Physical Test Results applying on the above order number are correct and true.

QUALITY APPROVAL:

LeeAnn Goyette
 Quality Control Administrator
 Date: September 8, 2005

SEP 13 2005 

RECEIVED

SEP 12 2005

100481 JA

Scanned

Seite 1 1
Page

Zeugnis-Nr. 200001
Certificate no.
No. du certificat

Beschreibung über Werkstoffprüfung nach EN 10204 3.1
Certificate of material tests according to EN 10204
Certificat des essais des matériaux selon EN 10204

Die Lieferung entspricht den vereinbarten Lieferbedingungen.
The above mentioned material has been delivered in accordance with the terms of the order.
La livraison correspond aux conditions de livraison convenues.

BGH Edelstahl Freital GmbH, Postfach 10 15 66, D-01691 Freital

BGH Speciality Steel Inc.

5430 Brystone Drive
77041 Houston, Tx
USA



EDELSTAHL FREITAL

Kunden-/Bestell-Nr. 39127DIV. Metals
Customer order no.
Cde. no. du client BGH SO 1924

BGH-Werke-Nr. 58459301/61492
BGH reference

Zeichen des Lieferwerkes Stempel des Werkstoffversuchsdienstes
Trade mark Inspector's stamp
Signé du fournisseur Poisson de l'inspecteur



APPROVED BY CTR
DATE 5/10/05
CAROL RALPH
Q.C. MANAGER

Erzeugnisform Product		Stab, rund, geschält Round bars, peeled		DIVERSIFIED METALS, INC. 49 MAIN STREET, MONSON, MA 01057 PH 413-267-5101/FAX 413-267-3151	
Materialbezeichnung Material designation		UNSN06625		SOLD TO: CUSTOMER: <i>MARCO TOOL & MACHINE</i> P.O.# <i>POS-05133</i> ITEM# <i>1</i>	
Anforderungen Requirements		ASTM B446 2000 / ASTM B446 2003 SAE AMS 5666 E 03/00 Nickel 625 - UNS N06625 HOT FINISHED AND ANNEALED DMJ ordering data UNS N06625, Rev. 8/11/98 ASTM B446 / ASME SB446, SAE AMS 5666 E 03/00 Level 1 / subsafe			
Beschreibung und Maßkontrolle Inspection and dimensional control Inspection et contrôle de dimension ohne Beanstandung without objection		Erweiterung/Angebotbehandlung Metallprozess/secondary refining Métal d'élaboration/traitement ultérieur VIM		Verwechslungsprüfung (spektralanalytisch) (identification test (spectroanalytical)) examination of identification (analyse spectrale) ohne Beanstandung without objection	
Pos. Item	Anzahl Quantity	Abmessung Dimension	Gewicht kg Weight kg		Schmelz-Nr. Heat No.
1	10	2,00" dia	866 1468 lb		900257
Schmelze Heat %	C ✓	Si ✓ Mn / P / S / Cr / Mo / Ni / Nb ✓	Ti / Al / Co ✓		
	900257	0,028 0,19 0,21 0,004 0,003 21,30 8,38 64,80 3,390	0,060 0,130 0,010		
		Ta Fe / Nb+Ta ✓			
		0,006 1,33 3,396			
Condition of heat treat Travail de la technique		hot finished, annealed annealed at 1616°F followed by water quenching			
Probe-Nr. Test No.	Lage Loc.	Temp. °C	Rp0,2 ksi	Rm ksi	A4 %
Soill/Req.	L RT	RT	>=60	>=120	>=30
	L RT	RT	✓	✓	✓
045BM1	L RT	89		139	44
us test : no objection		crack test (Circograph): no objection.			
Sampling for tests was done in accordance with DMJ ordering data latest revision					
Country of origin: GERMANY					
Rm ksi... Ultimate Tensile Strength		Rp0,2 ksi... Offset Yield Strength			
A4% ... Elongation on 4D					
Material no-weld repair. Material free from mercury or radium contamination.					
Each lot is sampled, tested and inspected in accordance with the specification and meets all specification requirements;					
grain size ASTM E 112: 5-6					
Anlagen Certificate of approval Fich. Annex		Freigegeben Place and date Libre et date 27.04.2005		Abnahmebeauftragter Third Party Inspector Inspecteur de réception MUELLER <i>Mueller</i>	



SEP 13 2005

Quality Assurance Documentation for Part ID: SE120-004-48 - Item: 301

Workorder: 65678/7-0 Sub:252 Op:30

Part: SE120-004-48 - VVSA CLEVIS BOSS "A" - CLEVIS BOSS "A" INTERFACING STRUCTURAL BOSS

Drawing ID: SE124-047 Rev: 0A			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		1.02 Mu MAX	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 09-30-05		

A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004-48 - Item: 303

Workorder: 65678/7-0 Sub:293 Op:30

Part: SE120-004-48 - VVSA CLEVIS BOSS "A" - CLEVIS BOSS "A" INTERFACING STRUCTURAL BOSS

Drawing ID: SE124-047 Rev: 0A			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		1.02 Mu MAX	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 09-30-05		

A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004-49 - Item: 305

Workorder: 65678/7-0 Sub:253 Op:30

Part: SE120-004-49 - VVSA CLEVIS BOSS "B" - CLEVIS BOSS "B" INTERFACING STRUCTURAL BOSS

Drawing ID: SE124-047 Rev: 0A			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		1.02 Mu MAX	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 09-30-05		

A

Quality Assurance Documentation for Part ID: SE120-004-50 - Item: 307

Workorder: 65678/7-0 Sub:254 Op:30

Part: SE120-004-50 - VVSA CLEVIS BOSS "C" - CLEVIS BOSS "C" INTERFACING STRUCTURAL BOSS

Drawing ID: SE124-047 Rev: 0A			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		1.02 Mu MAX	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 09-30-05		

A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE120-004-51 - Item: 309

Workorder: 65678/7-0 Sub:255 Op:30

Part: SE120-004-51 - VVSA CLEVIS BOSS "D" - CLEVIS BOSS "D" INTERFACING STRUCTURAL BOSS

Drawing ID: SE124-047 Rev: 0A			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		1.02 Mu MAX	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 09-30-05		

A

EASTWOOD MANUFACTURING
CERTIFICATION OF COMPLIANCE

CUSTOMER : MAJOR TOOL AND MACHINE
ORDER # : P05-03373

DATE : 7-15-05
OUR NUMBER 33541

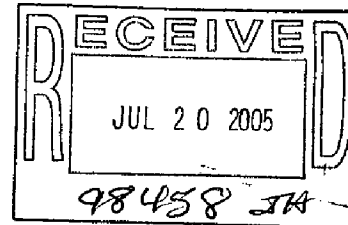
WE CERTIFY THAT THE MATERIALS SUPPLIED ON YOUR ORDER
LISTED ABOVE COMPLIES WITH THE REQUIREMENTS OF YOUR ORDER
AND OF THE SPECIFICATIONS LISTED BELOW

DESCRIPTION :

Lot No.:	Part :	Heat No.:
33541-2 552 PIECES	SE120-004-55 1/2-20 Hex nut A194 Gr 8	E28031
33541-3 654 Pieces	SE120-004-56 Washer ASTM A286	744072
33541-4 102 Pieces	SE120-004-57 1/2-20 x 2 12-point 12-point screw Inconel 718	HT9618EY



DALE STARK
EASTWOOD MANUFACTURING



Lines 4-12
4910212



JUL 22 2005

B&G Manufacturing Co., Inc
 3067 Unionville Pike, P.O. Box 904, Hatfield, PA 19440-0904
 General Telephone: 215-822-1925

EEO/AA



Customer:
 Eastwood Manufacturing
 6825 Breen Street
 HOUSTON TX 77086
 USA

Quality certificate

Date
 06/16/2005
 Purchase order item/date
 33541 / 06/16/2005
 Delivery item/date
 80274266 000010 / 06/17/2005
 Order item/date
 206301 000010 / 06/16/2005
 Page 1 of 1

We certify that the material supplied meets the requirements of the purchase order and the required material specification.

Material Number : 3692
 Batch 009438A / Quantity 600 EA
 Heat Number: E28031
 Specification / Description
 HVY HEX NUTS 304 SS
 .500-20

33541

33541

Characteristic	Unit	Value
Specifications		- ADDITIONAL SPECS MAY EXIST - AISI 304*-CHEMS ONLY - ASME SA193-92A B8A CL.1A-CHEMS - ASME SA194-92A GR.8-CHEMS ONLY - ASME SA194-92A GR.8A-CHEMS ONL - ASTM A193-94B B8A CL.1A-CHEMS - ASTM A194-94A GR.8-CHEMS ONLY - ASTM A194-94A GR.8A-CHEMS ONLY
Carbon Content	%	0.0400
Chromium Content	%	18.0600
Manganese Content	%	1.0900
Nickel Content	%	9.0900
Phosphorus Content	%	0.0310
Silicon Content	%	0.3900
Sulfur Content	%	0.0050

B & G Manufacturing Co., Inc. By

Margaretta Guillem

Certification Specialist

BAR STOCK SPECIALTIES, INC.
 11625 CHARLES STREET
 HOUSTON TEXAS 77041
 PH# 713-849-0055
 PH# 713-466-3460 EASTWOOD MANUFACTURING

TO: 6825 BREEN DR.
 HOUSTON, TX 77086-3719

* C E R T I F I C A T E *
 * O F T E S T *

Customer P/O # 32770

Our Order # 011645

ITEM QUANTITY DESCRIPTION			LOT		
2 320 LB 1.125 (1 1/8 DIA.) ROUND BAR ASTM A193 GR.B7 ASTM SPEC DATE: 01B TEMPERING TEMP: 1340 F			3298		
			CARBON	MANGANESE	
			.4	.83	
Heat No.	TENSILE (PSI)	YIELD (PSI)	PHOSPHORUS	SULFUR	SILICON
744072	146500	134400	.02	.02	.23
ELONGATION	RED. OF AREA	HARDNESS (HB)	CHROMIUM	MOLY.	
20	60	293	.86	.17	
MACRO ETCH S1/R1/C1					

ITEM QUANTITY DESCRIPTION			LOT		
3 404 LB 2.500 (2 1/2 DIA.) ROUND BAR ASTM A193 GR.B7 ASTM SPEC DATE: 01b TEMPERING TEMP: 1330 F			3025		
			CARBON	MANGANESE	
			.43	.8	
Heat No.	TENSILE (PSI)	YIELD (PSI)	PHOSPHORUS	SULFUR	SILICON
11628290	150600	135000	.012	.034	.26
ELONGATION	RED. OF AREA	HARDNESS (HB)	CHROMIUM	MOLY.	
19	56	302	.87	.19	
MACRO ETCH S1/R1/C2					

Date: 01/14/05

We hereby certify that the foregoing data is a true copy of the data furnished to us by the producing mill.

BAR STOCK SPECIALTIES, INC.

BY: *Greg Neal*

Authorized Test Clerk

011645

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS
 (THIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER
 FEDERAL LAW, TITLE 18, CHAPTER 47
STERN U. S.

HT9618EY
HUNTINGTON ALLOYS
A Special Metals Company
 HUNTINGTON, WEST VIRGINIA 25720

HT9618EY



CERTIFIED MATERIAL TEST REPORT		No. 50179	
HA ORDER NO./ITEM	DATE	PAGE	OF
100011836 1	05/13/02	1	3
QUANTITY	INSPECTED BY		
2190 LBS	HA/SMC		
CHARGE ORDER NO.	MARK ORDER NO.		
41137-5-S20062	41137-5-S20062		
DESCRIPTION OF MATERIAL SHIPPED	QUALITY CERTIFICATION REPRESENTATIVE		
INCONEL ALLOY 718 CD RND CENTERLESS GRD SOL TR	<i>W. M. [Signature]</i>		
.5160 IN 132-156 IN NOM			

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLINGS, INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATIONS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED COMPANY REQUIREMENTS.

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****
 SPECIFICATIONS: ASTM B 637-98\ASME SB-637 2001 EDITION NO ADDENDA UNS: N07718
 SAE AMS 5662L MARKING WAIVED WITH AMS 5663J CAPABILITY\
 SPS-M-275M EXCEPT SOL TRT TIME\GE C50TF13 S16 AM 1 CHEM ONLY\
 GE B50TF15 S29 CLASS D - CLASS E CAPABILITY MARKING WAIVED\
 GE B50T69A-S6 AM 1 MARKING WAIVED\RBO 170-153 REV G CHEM ONLY\
 HI SHEAR 156 REV D CHEM ONLY\GE S 400E\GE S-1000E\
 QUALITY SYSTEM CERTIFICATION: ISO 9002 (ABS-QE CERT. 30125);
 EN 10.204/DIN 50049 (CERT. 3.1.B)

CHEMICAL ANALYSIS (WT %)

HEAT#	C	MN	FE	SI	CU	NI	CR	AL
	TI	MG	CO	MO	TA	P	B	CA
	PB/PPM	BI/PPM	SE/PPM	NB+TA				
HT9618EY	0.03	0.08	17.78	0.0007	0.10	53.85	18.14	0.62
	0.92	0.001	0.20	3.13	5.07	0.008	0.003	0.001
	0.1	0.1	0.9	5.07	<0.01			

TESTED BY HUNTINGTON ALLOYS, 3200 RIVERSIDE DR., HUNTINGTON, WV 25705, ACCREDITED FOR PASTERNEK QUALITY AC
 FIA PR CERT 0029 (EXPIRES 10/31/2003).
 TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.
 MELT METHOD: DUVAC (VIM ELECTRODE; VAR INGOT)

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARDNESS	GRAIN SIZE	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	R/A	BEC
		NESS	SIZE	2XPSI	PSI	4D	%	F
				X 100	X 100			
HT9618EY 12	232 PCS							
TEMP-HRC	-CAPABILITY	43.8		1674	2105	21.7	38.4	LONG
TEMP-HRC	-CAPABILITY	42.6		1627	2096	22.2	40.7	LONG
	-CAPABILITY			1434	1712	34.2	65.6	1200 LONG
	-CAPABILITY			1378	1695	33.4	65.9	1200 LONG
	-AS SHIPPED	97.3						

MC110063.TTF4

3199

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS
ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER
FEDERAL LAW, TITLE 18, CHAPTER 47
EASTERN U.S.

FORM E D

HUNTINGTON ALLOYS
A Special Metals Company
HUNTINGTON, WEST VIRGINIA 25720

31761-2



CERTIFIED MATERIAL TEST REPORT		No. 50179	
HA ORDER NO./ITEM	DATE	PAGE	OF
100011836 1	05/13/02	2	3
QUANTITY	INSPECTED BY		
2190 LBS	HA/SMC		
CHARGE ORDER NO.	MARK ORDER NO.		
41137-5-S20062	41137-5-S20062		
DESCRIPTION OF MATERIAL SHIPPED	INCONEL ALLOY 718 CD RND CENTERLESS GRD SOL TR		
	.5160 IN 132-156 IN NOM		

THIS IS TO CERTIFY THAT ALL REQUIRED SUPPLIERS INSPECTIONS AND TESTS
HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFIC
REQUIREMENTS THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES
THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND THE
MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH
ALL ORDER AND INSPECTION REQUIREMENTS WE HEREBY CERTIFY THAT THE
BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT RESULTS
EVENTS

[Signature]
QUALITY CERTIFICATION REPRESENTATIVE

HARDNESS -HRC -CAPABILITY 43.7 HEAT TREAT #
HARDNESS -HRC -CAPABILITY 43.6 HEAT TREAT #
GRAIN SIZE-AS SHIPPED AGS ASTM NO. 10.0 TRANS
NORMAL - TRAN
STRESS RUPTURE-CAPABILITY 1200 DEG F / 105,000 PSI STRESS/ 091.5 HRS / 39.2XEL IN 4D /62.8XR
STRESS RUPTURE SPECIMEN DIAMETER - .250"
HEAT TREAT #1
STRESS RUPTURE-CAPABILITY 1200 DEG F / 105,000 PSI STRESS/ 083.7 HRS / 31.9XEL IN 4D /63.7XR
STRESS RUPTURE SPECIMEN DIAMETER - .250"
HEAT TREAT #2
YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

MACROETCH TEST(S) SATISFACTORY

MI MICROSTRUCTURE TEST(S) SATISFACTORY
MICROSTRUCTURE FREE OF LAVES PHASE AND BANDING OF ACICULAR PHASE

IT9610EX12 E50TF133 GRAIN SIZE: A) NORMAL STRUCTURE; B) AVERAGE GRAIN
SIZE ANTK #10 ; C) ALA ASTM # 9.5 ; D) N/A

NO WELD REPAIR HAS BEEN PERFORMED ON THIS MATERIAL..

MATERIAL WAS SOLUTION ANNEALED IN A CONTINUOUS FURNACE AT 1780 DEG F FOR 11.1 MINUTES THEN WATER
QUENCHED.

CAPABILITY HEAT TREAT #1: MILL ANNEALED + AGED 1325 DEG. F
8 HOURS. FURNACE COOLED 100 DEG. F PER HOUR TO 1150 DEG. F
HELD 8 HOURS. AIR COOLED.

CAPABILITY HEAT TREAT #2: MILL ANNEALED + SOLUTION TREATED
100 DEG. F 1 HOUR. AIR COOLED. AGED 1325 DEG F 8 HOURS.
COOLED 100 DEG. F PER HOUR TO 1150 DEG. F. HELD 8
COOLED.

MC110063.TIF5

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RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS
ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER
FEDERAL LAW, TITLE 18, CHAPTER 47
EASTERN U.S.

FORM D

HUNTINGTON ALLOYS
A Special Metals Company,
HUNTINGTON, WEST VIRGINIA 25720

31761-2



CERTIFIED MATERIAL TEST REPORT		No. 50179	
HA ORDER NO./ITEM	DATE	PAGE	OF
100011836 1	05/13/02	3	3
QUANTITY	INSPECTED BY		
2190 LBS	HA/SNC		
CHARGE ORDER NO.	MARK ORDER NO.		
41137-5-S20062	41137-5-S20062		

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS
HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATIONS
REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF
THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE.
THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH
ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT
ALL VALUES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT RE-
QUIREMENTS.

[Signature]
QUALITY CERTIFICATION REPRESENTATIVE

USUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.
MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA
AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:
E. BOLEN.

MC110063.TIF6

Industrial Parts & Equipment
CERTIFICATE OF CONFORMITY

SITA

No: 11206

Bill To:

Ship To:

ORIGINAL

MAJOR TOOL & MACHINE, INC. 1458-T E. 19TH STREET INDIANAPOLIS, IN 46218	MAJOR TOOL & MACHINE, INC. 1452-T E. 19TH STREET SHIPPING INDIANAPOLIS, IN 46218
---	---

Customer PO	Ship Date	Airway Bill Number
P05-04243	8/12/2005	

Part No.	Description	Cond	Qty	S/L	Control #	Cert No	PO Number
1.062 OD X .531 ID X .105 THK	WASHER, A286, ANSI B1822.1 T	NE	250	1	12931-1		P13555

AUG 16 2005
 RECEIVED
 AUG 16 2005
 99618 JH

We hereby certify that the parts in this shipment conform with applicable specifications and that documentation and/or data is on file and available for examination.

Signed: Tom Mays
 For and on behalf of Industrial Parts & Equipment

Inspectors Stamp

30518-1 198



Allegheny Ludlum Jessop Plate Products Division
An Allegheny Technologies Company

500 Green Street CERTIFIED MATERIAL TEST REPORT
Washington, Pennsylvania 15301

Page

Bill to:
PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA

Ship to:
PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA

19320

19320

PHIL CLADITIS
Quality Assurance Representa

Memo No: 260311-00

Our Order no: RW4910400
Your Order No: M E M D
Date: 09/03/2004
DUAL CERT

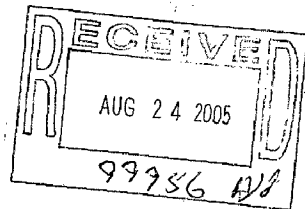
ALC 316/316L STAINLESS HRAP
ASTM A240-04a ASME SA-240-01 ASTM A480-02 ASME SA-480-01
AMS 5507F (316L) AMS 5524K (316) ASTM A666-03 COND A CHEM/PHYS TO
ASTM A312-02 ASME SA-312-01 ASTM A479-02 ASME SA-479-01 ASTM A262-02
PRACTICE E SCREEN PRAC A

Heat	Slip	Lot No	Size	Pcs	Weight
818102	34967 A	143182	1.5000 x 83.0000 x 260.0000	1	9488 GV-STOCK

Heat	C	MN	P	S	SI	NI	CR	MO	CO	CU	N
818102	.018	1.57	.027	.0004	.31	10.14	16.38	2.10	.25	.37	.069

Lot No	Gauge	Yield Strength	Tensile Strength	Elong	Red. of Area	Hardness	Bend	Corrosion	Grain Siz
143182	1.5000	33.9 KSI	81.5 KSI	61.0	81.0	BHN146		OK	

MATERIAL WAS NOT WELD REPAIRED
MATERIAL WAS PRODUCED WITHOUT KNOWN CONTACT WITH MERCURY
MATERIAL WAS SOLUTION ANNEALED (HEAT TREATED) ABOVE 1900F AND WATER QUENCHED
DIN 50049 3.1.B AND EN 10204 3.1.B CERTIFICATE
MATERIAL IS OF USA MELT AND MANUFACTURE



TRACER# 109293

MTM 016
8.25.05

Line 1.6

ROLLED AND QUALITY ASSURANCE
APPROVED *M. Rain*
DATE 9/23/04

PAGE 1 FINAL PAGE

EXCEPT AS OTHERWISE NOTED, THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATIONS AND RESULTS CONFORM TO THE SPECIFICATION AND ORDER REQUIREMENTS. THE ABOVE INFORMATION HAS BEEN REPRODUCED FROM THE ORIGINAL CERTIFIED MATERIAL TEST REPORT.

ORIGINAL



METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 269530 07 Mail To: SHIP To: Date: 6/01/2005 Page: 1
Customer: 2830 004 ROLLED ALLOYS ROLLED ALLOYS
9618 EAST HARDY ROAD 9618 EAST HARDY ROAD
HOUSTON, TX 77093 HOUSTON, TX 77093

Your Order: J07509 NAC Order: AN 0318825 01 Finish: B2NF Corrosion: ASTM A262/02a;180Bend-OK

PRODUCT DESCRIPTION:

STAINLESS STEEL PLATE, HOT ROLLED, ANNEALED AND PICKLED.
ASTM A240/04a, A480/04a, S66/03, ASME SA240/04, SA480/04, SA666/04
(X GRAIN), Q48766D-A X NO PERM, AMS 5507R/AMS 5524J X MKK
UNS S31600 / UNS S31603

REMARKS:

Material free from mercury contamination. No weld repairs.
EN 10204 3.1.B Q98763Y Cond A
* Melted & Manufactured in the USA
Minimum anneal temperature 1950 F
EN 10204 3.1.B/DIN 50049

Product ID #	Coil #	Thickness	Width	Weight	Length	Mark	Pieces
0565H7 CB	* 0565H7 CB	1.5000	48.0000	5,155 PLATE	240.00	1	1

CHEMICAL ANALYSIS

Heat	C	CO	CR	CU	FE	MO	N	NI	P	S	SI
65H7	.022	.205	16.953	.417	1.633	2.109	.050	10.110	.034	< .001	.500

MECHANICAL PROPERTIES

Product ID #	Coil #	1 d o 1 o 2	UTS KSI	.2% YS KSI	ELONG %-2"	Hard RB	TRACER#
0565H7 CB	0565H7	F T	80.35	42.09	57.50	80.00	119132

ROLLED ALLOYS QUALITY ASSURANCE
APPROVED *M. Hess*
DATE 6/1/05

QC ENGINEER *E. Hess* 6/01/2005
ERIC HESS



8.25.08

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-018-1A BLANK - Item: 315

Workorder: 65678/7-0 Sub:291 Op:20

Part: SE122-018-1A BLANK - REWORK / REPAIR PER N/C - N/C # _____

Drawing ID: SE122-018 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C8	R2.69 +/- 0.010"	CMM	MFG QA		00064	2.693	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (20)	B8	R4.69 +/- 0.010"	CMM	MFG QA		00064	4.692	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (30)	F5	20 DEGREES	CMM	MFG QA		00064	20.004	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (40)	B5	R7.38 +/- 0.010"	CMM	MFG QA		00064	7.373	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (50)	B8	R5.38 +/- 0.010"	CMM	MFG QA		00064	5.383	212-J.LE 09-01-05	212-J.LE 09-01-05	A



Certificate of Conformance

EXOTIC METAL TREATING INC.

6234 E. Hanna Avenue • Indianapolis, Indiana

Certificate # 50413

Vendor Code # 107576

P.O. # P05-05334

NADCAP

Exotic Metal Treating Inc. hereby certifies that all materials used in the manufacture of parts CONFORMS to the material and/or manufacturing specifications indicated in drawings or specifications as called for on purchase order referenced hereon. Test reports are on file with us or with our suppliers for examination and indicate conformance with the applicable requirements. The parts listed below are processed in accordance with the drawings or specifications called for on referenced purchase order that are current on the date on which the order was accepted. Pertinent details of the work performed are on file at this facility under the process heat number listed hereon.

HEAT # 05-1708

DATE SHIPPED 9-15-05

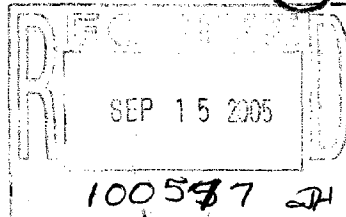
QUANTITY

DESCRIPTION

3 PCS	SE122-018-1A JOB #65678-291/7, 65678-282/8, 65678-282/9 SEQ #50
3 PCS	SE122-018-1B JOB #65678-292/7, 65678-283/8, 65678-283/9 SEQ #50
	MATERIAL: 316 SS

SOLUTION ANNEALED PER AMS-2759-4 REV: B IN VACUUM
AT 2000°F ± 25°F FOR 90 MINUTES MINIMUM & GAS FAN COOLED.

SEP 19 2005



Sworn and subscribed to before me...

on 9-15-05 *Tracy Cheryl Dinko*
Notary Public Morgan County - State of Indiana

My commission expires 06-30-09

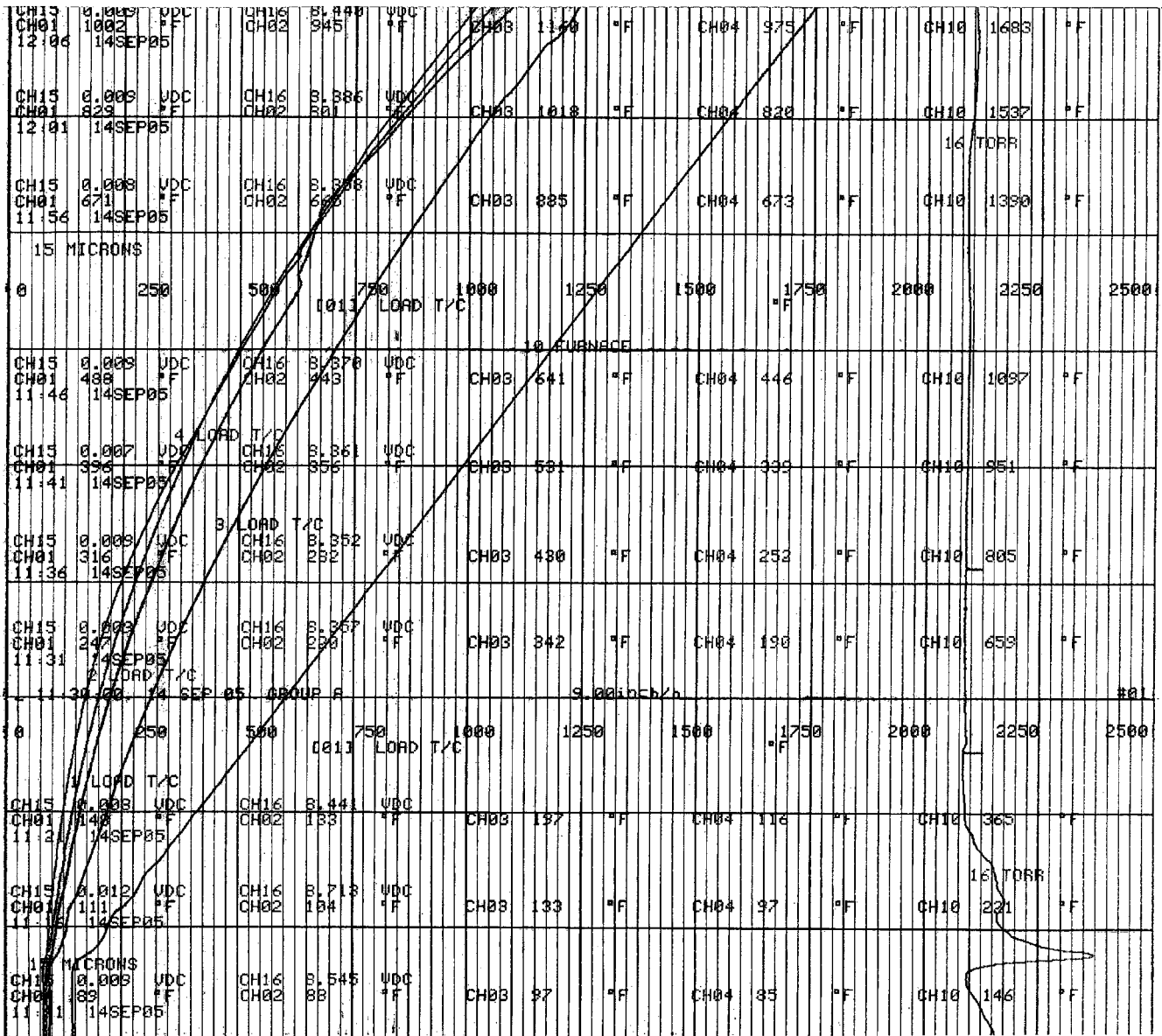
Kurt Dinko

(Name)

QA

(Title)

CH16 CH02	10.136 87	UDC *F	CH16 CH02	10.24 87	UDC *F	CH03	95	*F	CH04	84	*F	CH10	147	*F
11:06 14SEP05														
4 LOAD T/C														
250 500 750 1000 1250 1500 1750 2000 2250 2500														
CH16 CH02	10.184 85	UDC *F	CH16 CH02	10.24 85	UDC *F	CH03	92	*F	CH04	83	*F	CH10	150	*F
17:06 14SEP05														
3 LOAD T/C														
CH16 CH02	10.232 84	UDC *F	CH16 CH02	10.24 84	UDC *F	CH03	90	*F	CH04	81	*F	CH10	150	*F
10:31 14SEP05														
2 LOAD T/C														
CH16 CH02	10.334 82	UDC *F	CH16 CH02	10.24 82	UDC *F	CH03	86	*F	CH04	80	*F	CH10	149	*F
10:46 14SEP05														
1 LOAD T/C														
15:45:00 14 SEP 05 GROUP A 9.00inch/h #01														
CH16 CH02	10.367 80	UDC *F	CH16 CH02	10.24 80	UDC *F	CH03	82	*F	CH04	79	*F	CH10	143	*F
10:41 14SEP05														
* 10:36:50 14 SEP 05 9.00inch/h #01														
10:36:22 14 SEP 05 9.00inch/h #01														
10:35:49 14 SEP 05 PRINT H														
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p align="center">EXOTIC METAL TREATING, INC. 6234 EAST HANNA AVENUE • INDIANAPOLIS, IN 46203</p> <p>DATE: <u>9-14-05</u> COMPANY: <u>Major Tool</u></p> <p>LOAD #: <u>05-1708</u> MATERIAL: <u>347 SS</u></p> <p>QTY: <u>3</u> P/N: <u>SE 122-018-1A</u></p> <p><u>3</u> <u>SE 122-018-1B</u></p> </div>														
<p>FURNACE: <u>V-3</u> ATMOS: <u>VAL</u></p> <p>REF. SPEC.: <u>AMS 2759/4-B</u></p> <p>RECORDER: <u>V-3 E</u> TIME START: <u>10:36am</u></p>														
<p align="right">TOPR 16</p>														



CH15	0.000	JDC	CH16	0.343	JDC	CH03	1985	"F	CH04	1990	"F	CH10	2016	"F
CH01	1984	"F	CH02	1976	"F									
13:03	14SEP05													
CH01	1982	"F	CH02	1972	"F	CH03	1982	"F	CH04	1987	"F	CH10	2016	"F
13:01	14SEP05													
- 13:00:00 14 SEP 05 GROUP A 9.00inch/h #01														
CH15	0.000	JDC	CH16	0.370	JDC	CH03	1969	"F	CH04	1973	"F	CH10	2012	"F
CH01	1969	"F	CH02	1955	"F									
12:56	14SEP05													
2 LOAD T/C														
CH15	0.000	JDC	CH16	0.375	JDC	CH03	1951	"F	CH04	1954	"F	CH10	2012	"F
CH01	1952	"F	CH02	1930	"F									
12:51	14SEP05													
1 LOAD T/C														
CH15	0.000	JDC	CH16	0.444	JDC	CH03	1921	"F	CH04	1913	"F	CH10	2012	"F
CH01	1924	"F	CH02	1887	"F									
12:46	14SEP05													
0 250 500 750 1000 1250 1500 1750 2000 2250 2500														
15 MICRONS														
CH15	0.000	JDC	CH16	0.371	JDC	CH03	1803	"F	CH04	1771	"F	CH10	1981	"F
CH01	1811	"F	CH02	1786	"F									
12:36	14SEP05													
CH15	0.000	JDC	CH16	0.376	JDC	CH03	1726	"F	CH04	1695	"F	CH10	1969	"F
CH01	1731	"F	CH02	1625	"F									
12:31	14SEP05													
10 FURNACE														
CH15	0.000	JDC	CH16	0.319	JDC	CH03	1612	"F	CH04	1536	"F	CH10	1907	"F
CH01	1613	"F	CH02	1469	"F									
12:26	14SEP05													
4 LOAD T/C														
CH15	0.000	JDC	CH16	0.328	JDC	CH03	1512	"F	CH04	1398	"F	CH10	1878	"F
CH01	1489	"F	CH02	1386	"F									
12:21	14SEP05													
0 250 500 750 1000 1250 1500 1750 2000 2250 2500														
3 LOAD T/C														
- 12:15:00 14 SEP 05 GROUP A 9.00inch/h #01														
CH15	0.000	JDC	CH16	0.376	JDC	CH03	1823	"F	CH04	1131	"F	CH10	1829	"F
CH01	1193	"F	CH02	1095	"F									
12:11	14SEP05													
LOAD T/C														

14102 14SEP05 15 MICRONS		0	250	500	750	1000	1250	1500	1750	2000	2250	2500
					(01) LOAD T/C				"F			
CH15 0.000 UDC CH01 1987 *F 13.52 14SEP05	CH16 8.234 UDC CH02 1987 *F	CH03 1989 *F	CH04 1996 *F	CH10 2001 *F	10 FURNACE							
CH15 0.000 UDC CH01 1987 *F 13.47 14SEP05	CH16 8.244 UDC CH02 1987 *F	CH03 1989 *F	CH04 1997 *F	CH10 2001 *F	4 LOAD T/C							
- 13.45:00 14 SEP 05 GROUP A						9.00inch/h				#01		
CH15 0.000 UDC CH01 1988 *F 13.42 14SEP05	CH16 8.254 UDC CH02 1988 *F	CH03 1990 *F	CH04 1997 *F	CH10 2002 *F	3 LOAD T/C							
CH15 0.000 UDC CH01 1988 *F 13.37 14SEP05	CH16 8.257 UDC CH02 1988 *F	CH03 1990 *F	CH04 1999 *F	CH10 2002 *F	2 LOAD T/C							
		0	250	500	750	1000	1250	1500	1750	2000	2250	2500
					(01) LOAD T/C				"F			
CH15 0.000 UDC CH01 1990 *F 13.27 14SEP05	CH16 8.298 UDC CH02 1990 *F	CH03 1992 *F	CH04 2000 *F	CH10 2001 *F	1 LOAD T/C							
CH15 0.000 UDC CH01 1993 *F 13.22 14SEP05	CH16 8.329 UDC CH02 1992 *F	CH03 1995 *F	CH04 2002 *F	CH10 2003 *F	16 TORR							
15 MICRONS												
CH15 0.000 UDC CH01 1993 *F 13.17 14SEP05	CH16 8.348 UDC CH02 1991 *F	CH03 1995 *F	CH04 2002 *F	CH10 2012 *F								
CH15 0.000 UDC CH01 1991 *F 13.12 14SEP05	CH16 8.344 UDC CH02 1987 *F	CH03 1993 *F	CH04 1999 *F	CH10 2012 *F	15 FURNACE							
		0	250	500	750	1000	1250	1500	1750	2000	2250	2500
					(01) LOAD T/C				"F			
										4 LOAD T/C		

CH01	396	FF	CH02	1145	FF	CH03	1019	°F	CH04	1036	°F	CH10	416	°F
14:57	14SEP05													
CH15	10.25	U/C	CH16	10.25	U/C	CH03	1188	°F	CH04	1207	°F	CH10	536	°F
CH01	1163	°F	CH02	1308	°F	CH03	1188	°F	CH04	1207	°F	CH10	536	°F
14:52	14SEP05													
0	250		500	750	1000	1250	1500	1750	2000	2250	2500	TORR	16	
CH15	10.25	U/C	CH16	10.25	U/C	CH03	1623	°F	CH04	1647	°F	CH10	1020	°F
CH01	1598	°F	CH02	1720	°F	CH03	1623	°F	CH04	1647	°F	CH10	1020	°F
14:42	14SEP05													
CH15	10.25	U/C	CH16	10.25	U/C	CH03	1935	°F	CH04	1946	°F	CH10	1769	°F
CH01	1928	°F	CH02	1954	°F	CH03	1935	°F	CH04	1946	°F	CH10	1769	°F
14:37	14SEP05													
CH15	0.010	U/C	CH16	7.692	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:35	14SEP05													
CH15	0.009	U/C	CH16	7.726	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:32	14SEP05													
14:30:00	14 SEP 05	GROUP A				9.00 inch/h								
CH15	0.009	U/C	CH16	7.777	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:27	14SEP05													
0	250		500	750	1000	1250	1500	1750	2000	2250	2500	LOAD T/C	#01	
CH15	0.009	U/C	CH16	7.855	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:17	14SEP05													
CH15	0.009	U/C	CH16	7.884	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:12	14SEP05													
CH15	0.009	U/C	CH16	7.921	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:07	14SEP05													
CH15	0.009	U/C	CH16	7.954	U/C	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
CH01	1987	°F	CH02	1987	°F	CH03	1988	°F	CH04	1996	°F	CH10	2001	°F
14:03	14SEP05													

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15:37	14 SEP 05													
	4 LOAD T/C													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	265	"F	CH04	277	"F	CH10	156	"F
CH01	272	"F	CH02	345	"F									
15:52	14 SEP 05													
	3 LOAD T/C													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	293	"F	CH04	307	"F	CH10	162	"F
CH01	300	"F	CH02	382	"F									
15:47	14 SEP 05													
	2 LOAD T/C													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	325	"F	CH04	339	"F	CH10	169	"F
CH01	331	"F	CH02	422	"F									
15:42	14 SEP 05													
	1 LOAD T/C													
0	250	500	750	1000	1250	1500	1750	2000	2250	2500				
	LOAD T/C													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	408	"F	CH04	423	"F	CH10	187	"F
CH01	411	"F	CH02	518	"F									
15:32	14 SEP 05													
	10 FURNACE													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	461	"F	CH04	477	"F	CH10	200	"F
CH01	443	"F	CH02	577	"F									
15:27	14 SEP 05													
	9 FURNACE													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	526	"F	CH04	542	"F	CH10	218	"F
CH01	526	"F	CH02	648	"F									
15:22	14 SEP 05													
	8 FURNACE													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	594	"F	CH04	611	"F	CH10	237	"F
CH01	590	"F	CH02	721	"F									
15:17	14 SEP 05													
15:00	14 SEP 05	GROUP A												
	250	500	750	1000	1250	1500	1750	2000	2250	2500	9.00 inch/h #01			
	LOAD T/C													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	770	"F	CH04	787	"F	CH10	298	"F
CH01	758	"F	CH02	902	"F									
15:07	14 SEP 05													
	7 FURNACE													
CH15	18.25	UDC	CH16	18.25	UDC	CH03	886	"F	CH04	903	"F	CH10	347	"F
CH01	869	"F	CH02	1015	"F									
15:02	14 SEP 05													
	6 FURNACE													
	LOAD T/C													

4275 M

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Quality Assurance Documentation for Part ID: SE122-018-1A - Item: 317

Workorder: 65678/7-0 Sub:2 Op:118

Part: SE122-018-1A - PORT 12A SUB-ASSEMBLY - PORT 12A SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE122-018 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	D3	0.94 +/- 0.010"	CALIPER	QA		J-708	.943	854-R.U 10-26-05			A
1* (20)	D3	R.005 MIN. (2X)	RADIUS GAGE	QA		R-21 VISUAL	.005 (2X)	854-R.U 10-26-05			A
1* (30)	D2	.149 + .000/- .008"	CALIPER	QA		J-708	.146	854-R.U 10-26-05			A
1* (40)	D3	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	8	854-R.U 10-26-05			A
1* (50)	D3	63 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	40	854-R.U 10-26-05			A
1* (60)		32 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	TOOL MARKS ON END WITHOUT FLANGE--100 (ACCEPT PER NC 1848 6)	854-R.U 05-03-06			A



Commercial Heat Treating
512 South Harding Street
Indianapolis, IN 46221
Phone: 317-636-2421 Fax: 317-636-4902



Certification

Order Number
275191

Customer: 00001026
MAJOR TOOL & MACHINE INC.
1458 E.. 19TH STREET
INDPLS, IN 46218

Shipped To:
MAJOR TOOL & MACHINE INC.
1458 E.. 19TH STREET
INDPLS, IN 46218

Customer Purchase Order No.	Customer Shipper No.	Material Type	Mat'l Heat Code	Lot Number
P05-05721		316		

Process: ANNEAL
PROCESSING SPECIFICATIONS

Requirement	Specified	Qty Tested	Test Results

Line#	Quantity	Weight	Part Number/Description	Revision
1	3		TEST SAMPLES & SE122-018	
2			316SS SOLUTION ANNEAL & WATER QUENCH	
3			PER AMS 2759/4	

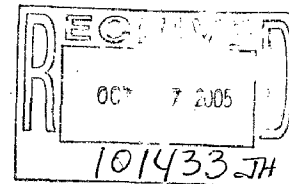
COMMENTS

PARTS WERE SOLUTIONED ANNEALED AND WATER QUENCHED PER AMS 2759/4.

KARRIE AMMERMAN 10-7-05
Karrie Ammerman Date Signed



OCT 10 2005



Line 5 1-2



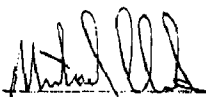
104 ENTERPRISE DRIVE
P.O. BOX 419
READING, MICHIGAN 49274
(517) 283-3811
FAX (517) 283-3698

CERTIFICATE OF CONFORMANCE

DATE: November 1, 2005
TO: Major Tool & Machine, Inc.
ATTN: Dave Wilkinson

Part Number: 65678-37
Purchase Order #: P05-05958
Part Name: Vessel Detail
Work Order #: RI. 10101
Quantity: One (1)

This is to certify that the above order was processed in accordance with accepted industry standards; polished bottom and sides of groove to a 16 micro-inch surface finish.

Signature:  Title: President Date: 11-2-05

1101-05
102211
line 1 at



NOV 09 2005

Quality Assurance Documentation for Part ID: SE122-018-1B - Item: 322

Workorder: 65678/7-0 Sub:3 Op:118

Part: SE122-018-1B - PORT 12B SUB-ASSEMBLY - PORT 12B SUB-ASSEMBLY (VERTICAL FABRICATED PORT)

Drawing ID: SE122-018 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	D3	0.94 +/- 0.010"	CALIPER	QA		P-2056	.939/.940	503-B.H 11-02-05			A
1* (20)	D3	R.005 MIN. (2X)		QA		VISUAL	ACCEPT	503-B.H 11-02-05			A
1* (30)	D2	.149 + .000/- .008"	DEPTH MICROMET	QA		P-5018	.146/.148	503-B.H 11-02-05			A
1* (40)	D3	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	4	503-B.H 11-02-05			A
1* (50)	D3	63 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	6	503-B.H 11-02-05			A
* (60)		Flange face Finish 32 Micro-Inch RA	PROFILOMETER	QA		J-1152	24	503-B.H 11-02-05			A

Quality Assurance Documentation for Part ID: SE122-018-1B - Item: 323

Workorder: 65678/7-0 Sub:292 Op:20

Part: SE122-018-1B - -

Drawing ID: SE122-018 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C8	R2.69 +/- 0.010"	CMM	MFG QA		00064	2.687	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (20)	B8	R4.69 +/- 0.010"	CMM	MFG QA		00064	4.689	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (30)	F5	20 DEGREES	CMM	MFG QA		00064	20.03	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (40)	B5	R7.38 +/- 0.010"	CMM	MFG QA		00064	7.372	212-J.LE 09-01-05	212-J.LE 09-01-05	A
1* (50)	B8	R5.38 +/- 0.010"	CMM	MFG QA		00064	5.379	212-J.LE 09-01-05	212-J.LE 09-01-05	A

Outokumpu Stainless Plate, Inc.



Certificate of Analysis and Tests

OUR ORDER 0244161 - 01 HEAT & PIECE 604254-2B 03/28/05

SOLD TO: ROLLED ALLOYS SHIP TO: ROLLED ALLOYS
 P O BOX 310 125 WEST STERNS ROAD
 TEMPERANCE MI 48182 734-847-0561 MI 48182
 TEMPERANCE MI 48182

----- YOUR ORDER & DATE -----
 T51463 2/03/05 TAG# 3003-2599-00-1

----- ITEM DESCRIPTION -----
 HEAT & PIECE 604254 - 2B
 WEIGHT 1516
 FINISH 1
 GRADE 316L / 316 UNS-S31603 / UNS-S31600
 DIMENSIONS .187 X 96.000 X 265.000 EXACT

----- SPECIFICATIONS -----
 *** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM SWEDEN
 AMS 5507F EXCEPT LINE MARK AMS 5524R EXCEPT LINE MARK
 ASTM A240-04A ASMESA240 04 ED ASTM A480-04 ASME SA480 04ED
 ROLLED ALLOYS SPECS 316L/316 NAFTA CTRY ORIGIN = SLB CTRY
 NO GRIPPER MARKS NO WELD REPAIRS
 ASTM A262-02A PRACTICE A ASTM A262-02A PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1950 DEGREES FAHRENHEIT MINIMUM.
 THEN WATER COOLED OR RAPIDLY COOLED BY AIR
 FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
 HOT ROLLED, ANNEALED & PICKLED (HRAP)

----- MECHANICAL & OTHER TESTS -----
 HARDNESS RB 76
 GRAIN SIZE 5
 YIELD STRENGTH (PSI) 37198
 TENSILE STRENGTH (PSI) 83880
 BEND OK
 INTERGRANULAR CORROSION OK
 ELONGATION % IN 2" 50.1
 REDUCTION OF AREA % 64.7

----- CHEMICAL COMPOSITION -----
 CARBON (C) .016
 MANGANESE (MN) 1.72
 PHOSPHORUS (P) .032
 SULFUR (S) .001
 SILICON (SI) .35
 CHROMIUM (CR) 16.44
 NICKEL (NI) 10.16
 COBALT (CO) .19
 COPPER (CU) .47
 MOLY (MO) 2.04
 NITROGEN (N) .04
 COLUMBIUM (CB) .013
 TITANIUM (TI) .004
 ALUMINIUM (AL) .007
 TIN (SN) .008

AUG 03 2005
 RECEIVED
 JUL 29 2005
 98873
 1-12
 NITM 017

ROLLED ALLOYS QUALITY ASSURANCE
 APPROVED James Douberman
 DATE 3-29-05

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL TESTS ARE ACCEPTABLE.

JAMES DOUBERMAN, QUALITY ASSURANCE MANAGER
 CERTIFICATE IN CONFORMANCE WITH DIN50049 3.1.B/EN10204 3.1.B

James Douberman
 Outokumpu Stainless Plate, Inc.
 P.O. Box 370
 New Castle, Indiana 47362

Quality Assurance Documentation for Part ID: SE122-019-1A - Item: 325

Workorder: 65678/7-0 Sub:107 Op:20

Part: SE122-019-1A - PORT 12A SEAL RETAINER - SE120-004-3 / SE122-019-1A PORT 12A SEAL RETAINER

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 + 0 / - 0.008"	OD MICROMETER	MFG QA		P-3743	.146 - .1485	445-J.PU 10-27-05	591-C.P 10-27-05	A
1* (20)	G4	0.54 +/- 0.010" (CONSTANT)	CALIPER	MFG QA		P-5041	.540-.543	601-K.R 10-26-05	591-C.P 10-27-05	A
1* (30)	G3	75.0 deg. +/- 0 deg. 15' (2X)	PROTRACTOR	MFG QA		P-5043	75.	601-K.R 10-26-05	591-C.P 10-27-05	A
1* (40)	F4	63 MICRO-INCH SURFACE FINISH (2X)	PROFILOMETER	MFG QA		J-1181	14.8	445-J.PU 10-27-05	591-C.P 10-27-05	A
1* (50)	D6	DIA. 0.187 (+/- 0.005") (8X)	PIN GAGE	MFG QA		J-667	OK TO GAGE PINS	601-K.R 10-26-05	591-C.P 10-27-05	A
1* (60)	D6	0.094 +/- 0.005 (8X)	DEPTH MICROMET	MFG QA		P-5045	.093-.095	601-K.R 10-26-05	591-C.P 10-27-05	A
1* (70)	D6	DIA. 0.343 +/- 0.005" (8X)	PIN GAGE	MFG QA		J-668	OK TO GAGE PINS	601-K.R 10-26-05	591-C.P 10-27-05	A
1* (80)	D6	⊕ ∅0.012 A B C - D (8X)	INDICATOR MACHINE	MFG QA		P-5046 571	W/IN .002	601-K.R 10-26-05	591-C.P 10-27-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-019-1A - Item: 326

Workorder: 65678/7-0 Sub:107 Op:30

Part: SE122-019-1A - PORT 12A SEAL RETAINER - SE120-004-3 / SE122-019-1A PORT 12A SEAL RETAINER

Drawing ID: SE122-019 Rev: 1		INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*			MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H		
(10)		Magnetic Permeability 1.02 Max						11-01-05		

A

Quality Assurance Documentation for Part ID: SE122-019-1B - Item: 328

Workorder: 65678/7-0 Sub:120 Op:20

Part: SE122-019-1B - PORT 12B SEAL RETAINER - SE120-004-3 / SE122-019-1B PORT 12B SEAL RETAINER

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 + 0 / - 0.008"	OD MICROMETER	MFG QA		P-5034	.145-.148	601-K.R 10-27-05	591-C.P 10-27-05	A
1* (20)	G4	0.54 +/- 0.010" (CONSTANT)	CALIPER	MFG QA		P-5041	.540-.548	601-K.R 10-25-05	591-C.P 10-27-05	A
1* (30)	G3	75.0 deg. +/- 0 deg. 15' (2X)	PROTRACTOR	MFG QA		P-5043	75.0 DEG	601-K.R 10-25-05	591-C.P 10-27-05	A
1* (40)	F4	63 MICRO-INCH SURFACE FINISH (2X)	PROFILOMETER	MFG QA		J-1181	34.8	601-K.R 10-27-05	591-C.P 10-27-05	A
1* (50)	D6	DIA. 0.187 (+/- 0.005") (8X)	CALIPER	MFG QA		P-5041	.188	601-K.R 10-25-05	591-C.P 10-27-05	A
1* (60)		0.094 +/- 0.005 (8X)	CALIPER	MFG QA	D6	P-5041	.096-.098	601-K.R 10-25-05	591-C.P 10-27-05	A
1* (70)	D6	DIA. 0.343 +/- 0.005" (8X)	PIN GAGE	MFG QA		J-668	OK TO GAGE PINS	601-K.R 10-27-05	591-C.P 10-27-05	A
1* (80)	D6	⊕ ∅0.012 A B C - D (8X)	INDICATOR MACHINE	MFG QA		P-5046 571	W/IN .002	601-K.R 10-27-05	591-C.P 10-27-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-019-1B - Item: 329

Workorder: 65678/7-0 Sub:120 Op:30

Part: SE122-019-1B - PORT 12B SEAL RETAINER - SE120-004-3 / SE122-019-1B PORT 12B SEAL RETAINER

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*			MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H		
(10)		Magnetic Permeability 1.02 Max						11-01-05		

A

Quality Assurance Documentation for Part ID: SE122-049-1A - Item: 330

Workorder: 65678/7-0 Sub:8 Op:118

Part: SE122-049-1A - PORT 4A SUB-ASSEMBLY - PORT 4A SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

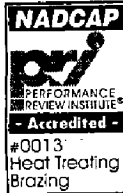
Drawing ID: SE122-049 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	D3	0.94 +/- 0.010"	CALIPER	QA		J-96	.940-.944	854-R.U 11-09-05			A
1* (20)	D3	R.005 MIN. (2X)	RADIUS GAGE	QA		R-21	GREATER THAN .005	854-R.U 11-09-05			A
1* (30)	D2	.149 + .000/- .008"	CALIPER	QA		J-96	.143-.146	854-R.U 11-09-05			A
1* (40)	D3	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	8-10	854-R.U 11-09-05			A
1* (50)	D3	63 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	10-20	854-R.U 11-09-05			A
1* (60)		32 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	28-30	854-R.U 11-09-05			A

Quality Assurance Documentation for Part ID: SE122-049-1A - Item: 331

Workorder: 65678/7-0 Sub:126 Op:20

Part: SE122-049-1A - NCSX VVSA PORT 4A FLANGE - SE120-004-5 / SE122-049A NCSX VVSA PORT 4A FLANGE

Drawing ID: SE122-049 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		R4.33 +/- 0.010" (4x)	CMM	MFG QA		00064	4.327	688-S.A 08-15-05	591-C.P 08-15-05	A
1* (20)		23.66 +/- 0.010"	CALIPER	MFG QA		J-549	23.657	688-S.A 08-15-05	591-C.P 08-15-05	A
1* (30)		34.66 +/-0.010"	CALIPER	MFG QA		J-549	34.655	688-S.A 08-15-05	591-C.P 08-15-05	A
1* (40)		40.00 +/- 0.010"	CALIPER	MFG QA		J-549	39.997	688-S.A 08-15-05	591-C.P 08-15-05	A
1* (50)		29.00 +/- 0.010"	CALIPER	MFG QA		J-549	29.00	688-S.A 08-15-05	591-C.P 08-15-05	A
1* (60)		R7.00 +/- 0.010" (4x)	CMM	MFG QA		00064	6.997	688-S.A 08-15-05	591-C.P 08-15-05	A



Certificate of Conformance

EXOTIC METAL TREATING INC.

Certificate # 50308

Vendor Code # 107576

6234 E. Hanna Avenue • Indianapolis, Indiana

P.O. # P05-04921

NADCAP

Exotic Metal Treating Inc. hereby certifies that all materials used in the manufacture of parts CONFORMS to the material and/or manufacturing specifications indicated in drawings or specifications as called for on purchase order referenced hereon. Test reports are on file with us or with our suppliers for examination and indicate conformance with the applicable requirements. The parts listed below are processed in accordance with the drawings or specifications called for on referenced purchase order that are current on the date on which the order was accepted. Pertinent details of the work performed are on file at this facility under the process heat number listed hereon.

HEAT # 05-1580

DATE SHIPPED 8-25-05

QUANTITY

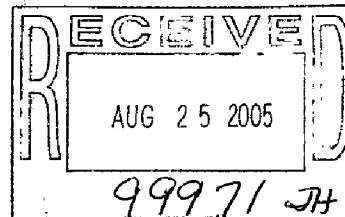
DESCRIPTION

1 PC	SE122-049-1B	JOB #65678-145/7 SEQ #50
1 PC	SE122-049-1A	JOB #65678-126/7 SEQ #50
	MATERIAL: 316 SS	



8.25.05


SOLUTION ANNEALED PER AMS-2759-4 REV: B IN VACUUM AT 2000°F ± 25°F FOR 90 MINUTES MINIMUM & GAS FAN COOLED.

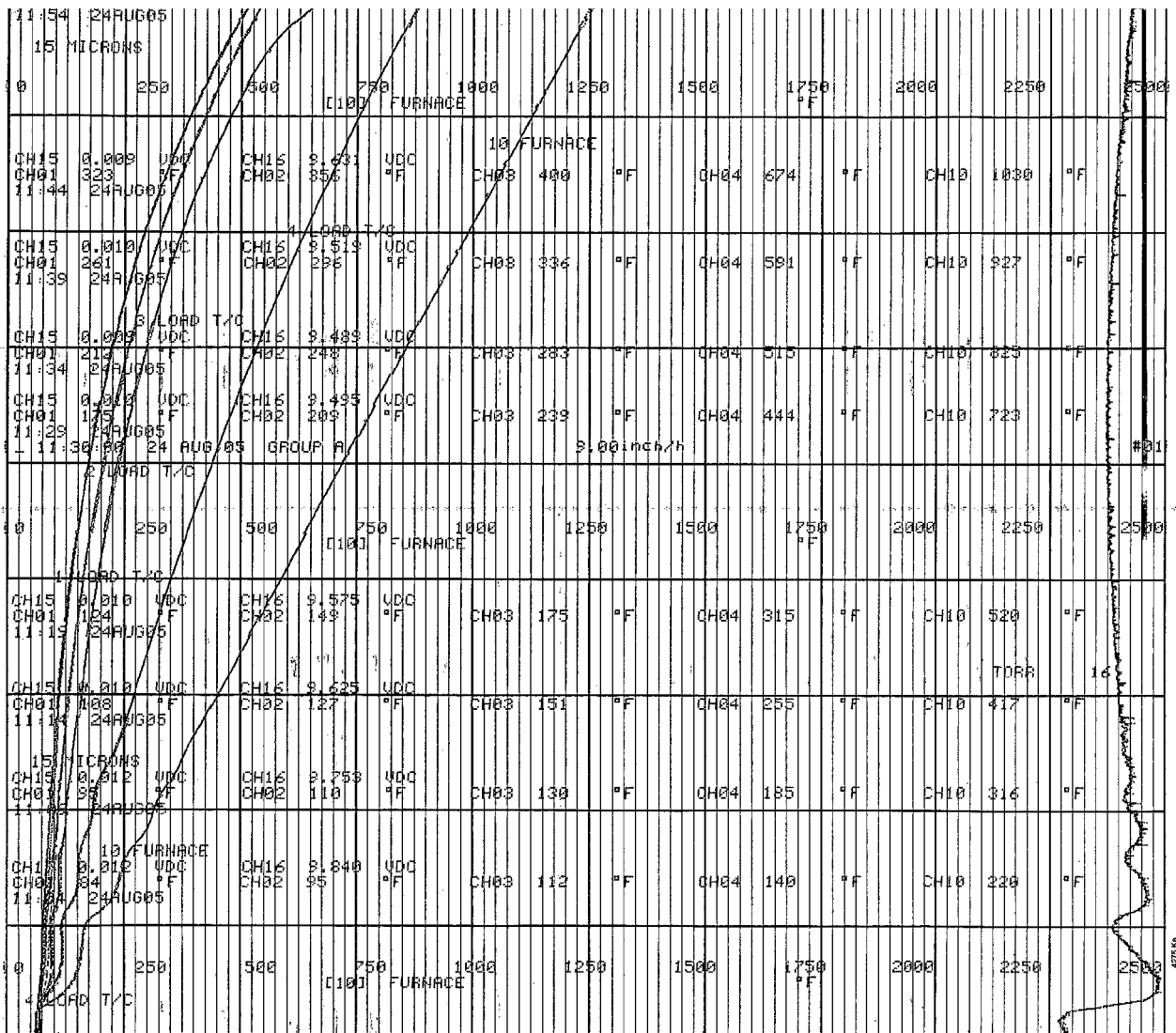


Sworn and subscribed to before me...
 on 8-25-05
 Notary Public Morgan County - State of Indiana
 My commission expires: 9-30-09

[Signature]
 (Name)
SA
 (Title)

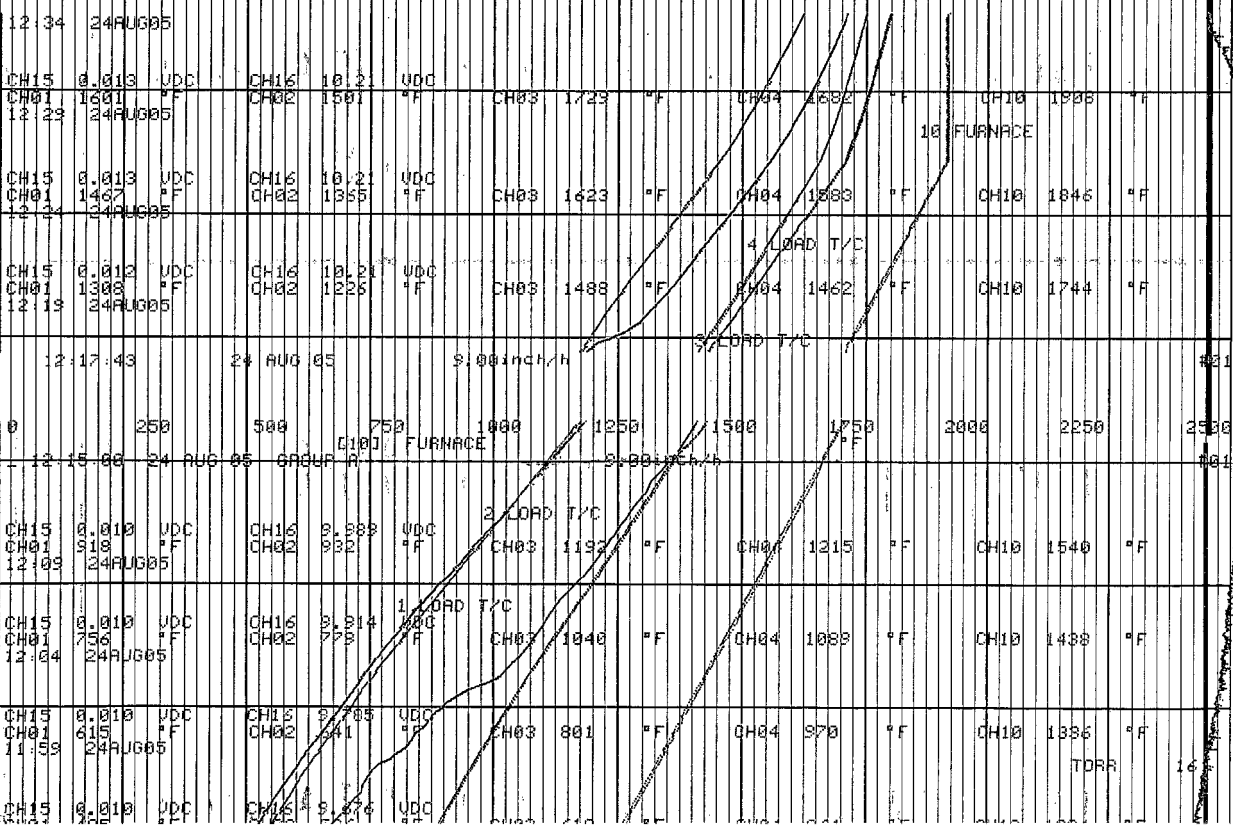
CH01 72 °F	CH02 74 °F	CH03 73 °F	CH04 73 °F	CH10 67 °F	
10:54 24AUG05					
3 LOAD T/C					
CH05 0.212 UDC	CH16 10.17 UDC	CH03 72 °F	CH04 73 °F	CH10 66 °F	
CH01 72 °F	CH02 74 °F				
10:43 24AUG05					
2 LOAD T/C					
CH05 0.398 UDC	CH16 10.20 UDC	CH03 72 °F	CH04 73 °F	CH10 65 °F	
CH01 72 °F	CH02 74 °F				
10:44 24AUG05					
10:45:00 24 AUG 05	GROUP A		9.00inch/h		#01
LOAD T/C					
CH05 0.255 UDC	CH16 10.20 UDC	CH03 72 °F	CH04 73 °F	CH10 63 °F	
CH01 72 °F	CH02 74 °F				
10:39 24AUG05					
10:34:23	24 AUG 05		9.00inch/h		#01
					CAL 100%
					CAL 100%
CH01 72 °F	CH02 74 °F	CH03 72 °F	CH04 73 °F	CH10 59 °F	
10:33 24AUG05					
LOAD T/C					
CH05 0.200 UDC	CH16 10.20 UDC				
10:30:00 24 AUG 05	GROUP A				#01
CH01 72 °F	CH02 74 °F	CH03			
10:27 24AUG05					
10:23:14	24 AUG 05		9.00inch/h		#01
09:40:15 24 AUG 05	PAINT INHIBIT				#01
09:35:40	24 AUG 05		9.00inch/h		#01
12:58:26 15 AUG 05	PAINT INHIBIT				#01
12:58:08	15 AUG 05		9.00inch/h		#01

 8-25-05
EXOTIC METAL TREATING, INC.
 6234 EAST HANNA AVENUE • INDIANAPOLIS, IN 46203
 DATE: 8-24-05 COMPANY: Major Tool
 LOAD #: 05-1580 MATERIAL: 316SS
 QTY: 1 P/N: SE 122-049-1A
 SE 122-049-1B
 65678-145/7 65678-126/7
 FURNACE: V-4 ATMOS: VAC
 REF. SPEC.: AMS 2759/4 B
 RECORDER: V-4 C TIME START: 10:34 AM



CAL 100%

CAL 0%



MC111762.TIF4

FURNACE														
CH15	0.010	UQC	CH16	9.074	UQC	CH03	1996	"F	CH04	1976	"F	CH10	2002	"F
CH01	1982	"F	CH02	1976	"F									
13:01	24AUG05		<i>START SOAK</i>											
CH15	0.010	UQC	CH16	9.323	UQC	CH03	1986	"F	CH04	1958	"F	CH10	2002	"F
CH01	1967	"F	CH02	1958	"F									
12:56	24AUG05		<i>4 LOAD T/C</i>											
CH15	0.010	UQC	CH16	9.610	UQC	CH03	1967	"F	CH04	1933	"F	CH10	2005	"F
CH01	1940	"F	CH02	1929	"F									
12:51	24AUG05		<i>5 LOAD T/C</i>											
CH15	0.010	UQC	CH16	9.852	UQC	CH03	1938	"F	CH04	1904	"F	CH10	2003	"F
CH01	1899	"F	CH02	1875	"F									
12:46	24AUG05		<i>2 LOAD T/C</i>											
12:45:00	24 AUG 05	GROUP A				9.00inch/h								#01
CH15	0.010	UQC	CH16	10.21	UQC	CH03	1901	"F	CH04	1852	"F	CH10	2004	"F
CH01	1829	"F	CH02	1765	"F									
12:41	24AUG05		<i>4 LOAD T/C</i>											
12:35:21	24 AUG 05		9.00inch/h											#01
<i>NEW CHART ROLL INSTALLED</i>														
* 12:36:43	24 AUG 05		9.00inch/h											#01
													CAL 100%	
													CAL 100%	

CH15 CH01 13:43	0.010 2003 24AUG05	VDC °F	CH16 CH02 0.493 2003	VDC °F	CH03 2004	°F	CH04 2007	°F	CH10 2000	°F
CH15 CH01 13:38	0.010 2004 24AUG05	VDC °F	CH16 CH02 0.493 2004	VDC °F	CH03 2004	°F	CH04 2008	°F	CH10 2000	°F
CH15 CH01 13:33	0.010 2006 24AUG05	VDC °F	CH16 CH02 0.518 2005	VDC °F	CH03 2006	°F	CH04 2010	°F	CH10 2000	°F
- 13:30:00	24 AUG 05	GROUP A					9.00inch/h			#01
* 13:28:02	24 AUG 05						9.00inch/h			#01
CAL 0%										
GAL 100%										
CH15 CH01 13:21	0.010 2007 24AUG05	VDC °F	CH16 CH02 0.626 2005	VDC °F	CH03 2010	°F	CH04 2010	°F	CH10 2000	°F
CH15 CH01 13:16	0.010 2005 24AUG05	VDC °F	CH16 CH02 0.753 2003	VDC °F	CH03 2003	°F	CH04 2007	°F	CH10 2000	°F
15 MICRONS CH15 CH01 13:11	0.010 2001 24AUG05	VDC °F	CH16 CH02 0.806 1999	VDC °F	CH03 2007	°F	CH04 2002	°F	CH10 2000	°F
CH15 CH01 13:06	0.011 1994 24AUG05	VDC °F	CH16 CH02 0.901 1991	VDC °F	CH03 2004	°F	CH04 1992	°F	CH10 2000	°F

0	250	500	750	1000	1250	1500	1750	2000	2250	2500	TORR	16	
FURNACE												MICRONS	15
CH15 10.21 UDC	CH16 10.21 UDC	CH01 383 *F	CH02 392 *F	CH03 394 *F	CH04 357 *F	CH10 182 *F							
15:28 24AUG05													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 438 *F	CH02 448 *F	CH03 377 *F	CH04 410 *F	CH10 195 *F							
15:23 24AUG05													
10 FURNACE													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 505 *F	CH02 517 *F	CH03 439 *F	CH04 475 *F	CH10 214 *F							
15:18 24AUG05													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 581 *F	CH02 594 *F	CH03 510 *F	CH04 553 *F	CH10 236 *F							
15:13 24AUG05													
3 LOAD T/C													
0	250	500	750	1000	1250	1500	1750	2000	2250	2500	TORR	16	
FURNACE													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 782 *F	CH02 797 *F	CH03 672 *F	CH04 758 *F	CH10 308 *F							
15:03 24AUG05													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 912 *F	CH02 927 *F	CH03 885 *F	CH04 898 *F	CH10 374 *F						#01	
15:00:00 24 AUG 05 GROUP A					9.00inch/h								
14:58 24AUG05													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 1066 *F	CH02 1082 *F	CH03 946 *F	CH04 1060 *F	CH10 458 *F							
14:53 24AUG05													
CH15 10.21 UDC	CH16 10.21 UDC	CH01 1261 *F	CH02 1278 *F	CH03 1135 *F	CH04 1264 *F	CH10 603 *F							
14:48 24AUG05													
FURNACE													
0	250	500	750	1000	1250	1500	1750	2000	2250	2500	TORR	16	
FURNACE												MICRONS	15
CH15 10.21 UDC	CH16 10.21 UDC	CH01 1801 *F	CH02 1819 *F	CH03 1657 *F	CH04 1794 *F	CH10 1213 *F							
14:38 24AUG05													



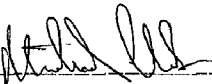
104 ENTERPRISE DRIVE
P.O. BOX 419
READING, MICHIGAN 49274
(517) 283-3811
FAX (517) 283-3696

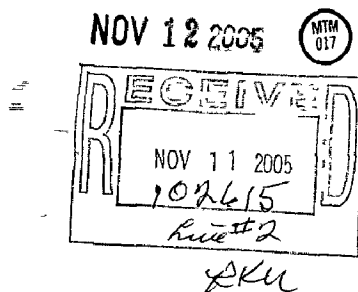
CERTIFICATE OF CONFORMANCE

DATE: November 11, 2005
TO: Major Tool & Machine, Inc.
ATTN: Dave Wilkinson

Part Number: SE1220-049-1B
Purchase Order #: P05-06194
Part Name: Port 4B Flange
Work Order #: RL 10101
Quantity: One (1)

This is to certify that the above order was processed in accordance with accepted industry standards; polished bottom and sides of groove to a 16 micro-inch surface finish.

Signature:  Title: President Date: 11-11-05



INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-049-1B - Item: 334

Workorder: 65678/7-0 Sub:9 Op:118

Part: SE122-049-1B - PORT 4B SUB-ASSEMBLY - PORT 4B SUB-ASSEMBLY (PERSONNEL ACCESS PORT)

Drawing ID: SE122-018 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	D3	0.94 +/- 0.010"	CALIPER	QA		J-96	940-.943	854-R.U 11-11-05			A
1* (20)	D3	R.005 MIN. (2X)	RADIUS GAGE	QA		R-21	GREATER THAN .005	854-R.U 11-11-05			A
1* (30)	D2	.149 + .000/- .008"	CALIPER	QA		J-96	.143-.146	854-R.U 11-11-05			A
1* (40)	D3	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	8-10	854-R.U 11-11-05			A
1* (50)	D3	63 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	10-20	854-R.U 11-11-05			A
1* (60)		32 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	28-30	854-R.U 11-11-05			A

Quality Assurance Documentation for Part ID: SE122-049-1B - Item: 335

Workorder: 65678/7-0 Sub:145 Op:20

Part: SE122-049-1B - NCSX VVSA PORT 4B FLANGE -

Drawing ID: SE122-049 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		R4.33 +/- 0.010" (4x)	CMM	MFG QA		00064	4.327	184-T.HI 08-15-05	212-J.LE 08-15-05	A
1* (20)		23.66 +/- 0.010"	CALIPER	MFG QA		J-483	23.664	184-T.HI 08-15-05	212-J.LE 08-15-05	A
1* (30)		34.66 +/-0.010"	CALIPER	MFG QA		J-483	34.662	184-T.HI 08-15-05	212-J.LE 08-15-05	A
1* (40)		40.00 +/- 0.010"	CALIPER	MFG QA		J-483	39.996	184-T.HI 08-15-05	212-J.LE 08-15-05	A
1* (50)		29.00 +/- 0.010"	CALIPER	MFG QA		J-483	28.997	184-T.HI 08-15-05	212-J.LE 08-15-05	A
1* (60)		R7.00 +/- 0.010" (4x)	CMM	MFG QA		00064	6.997	184-T.HI 08-15-05	212-J.LE 08-15-05	A

Quality Assurance Documentation for Part ID: SE122-057-1A - Item: 338

Workorder: 65678/7-0 Sub:131 Op:20

Part: SE122-057-1A - PORT 4A SEAL RETAINER - SE122-057-1A PORT 4A SEAL RETAINER

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 + 0 / - 0.008"	OD MICROMETER	MFG QA		P-89	.148-.150 (ACCEPT PER NC 18322 AFTER REWORK)	854-R.U 05-03-06	591-C.P 10-03-05	A
1* (20)	G4	0.54 +/- 0.010" (CONSTANT)	CALIPER	MFG QA		P-1237	.539-.541	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (30)	G3	75.0 deg. +/- 0 deg. 15' (2X)		MFG QA		PROTRACTOR	75 DEG.	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (40)	F4	63 MICRO-INCH SURFACE FINISH (2X)		MFG QA			40	591-C.P 10-03-05	591-C.P 10-03-05	A
1* (50)	D6	DIA. 0.187 (+/- 0.005") (8X)	CALIPER	MFG QA		P-1237	.186	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (60)	D6	0.094 +/- 0.005 (8X)	DEPTH MICROMET	MFG QA		P-76	.095	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (70)	D6	DIA. 0.343 +/- 0.005" (8X)	CALIPER	MFG QA		P-1237	.342	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (80)	D6	⊕ ∅0.012 A B C - D (8X)	INDICATOR	MFG QA		P-237	.005	688-S.A 09-29-05	591-C.P 09-29-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-057-1A - Item: 339

Workorder: 65678/7-0 Sub:131 Op:30

Part: SE122-057-1A - PORT 4A SEAL RETAINER - SE122-057-1A PORT 4A SEAL RETAINER

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*			MASTER GAGE	QA		J-1165	LESS THAN 1.02	854-R.U		
(10)		Magnetic Permeability 1.02 Max						11-14-05		

A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-057-1A - Item: 340

Workorder: 65678/7-0 Sub:296 Op:10

Part: SE122-057-1A - REWORK / REPAIR PER N/C - N/C # _____

Drawing ID: SE122-057 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 +0/-0.008"	OD MICROMETER	MFG QA		P-4957	.144-.146	274-M. 10-25-05	591-C.P 10-25-05	

A

Quality Assurance Documentation for Part ID: SE122-057-1B - Item: 341

Workorder: 65678/7-0 Sub:150 Op:20

Part: SE122-057-1B - PORT 4B SEAL RETAINER -

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 + 0 / - 0.008"	OD MICROMETER	MFG QA		P-89	.1485 -.1505 (ACCEPT PER NC 13825 AFTER REWORK)	854-R.U 05-03-06	591-C.P 09-29-05	A
1* (20)	G4	0.54 +/- 0.010" (CONSTANT)	CALIPER	MFG QA		P-1237	.539-.541	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (30)	G3	75.0 deg. +/- 0 deg. 15' (2X)		MFG QA		PROTRACTOR	75 DEG.	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (40)	F4	63 MICRO-INCH SURFACE FINISH (2X)		MFG QA		VISUAL	40	445-J.PU 10-03-05	591-C.P 10-03-05	A
1* (50)	D6	DIA. 0.187 (+/- 0.005") (8X)	CALIPER	MFG QA		P-1237	.186	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (60)	D6	0.094 +/- 0.005 (8X)	DEPTH MICROMET	MFG QA		P-76	.095	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (70)	D6	DIA. 0.343 +/- 0.005" (8X)	CALIPER	MFG QA		P-1237	.342	688-S.A 09-29-05	591-C.P 09-29-05	A
1* (80)	D6	⊕ ∅0.012 A B C - D (8X)	INDICATOR	MFG QA		P-237	.005	688-S.A 09-29-05	591-C.P 09-29-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-057-1B - Item: 342

Workorder: 65678/7-0 Sub:150 Op:30

Part: SE122-057-1B - PORT 4B SEAL RETAINER -

Drawing ID: SE122-019 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*			MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H		
(10)		Magnetic Permeability 1.02 Max						11-15-05		

A

Quality Assurance Documentation for Part ID: SE122-057-1B - Item: 343

Workorder: 65678/7-0 Sub:297 Op:10

Part: SE122-057-1B - REWORK / REPAIR PER N/C - N/C # _____

Drawing ID: SE122-057 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	F3	0.149 +0/-0.008"	DEPTH MICROMET	MFG QA		P-4759	.144-.146	274-M. 10-25-05	591-C.P 10-25-05	

A

Quality Assurance Documentation for Part ID: SE122-072-1 - Item: 344

Workorder: 65678/7-0 Sub:82 Op:20

Part: SE122-072-1 - PORT NB FLANGE - SE120-004-8 / SE122-072-1 PORT NB FLANGE

Drawing ID: SE122-072 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	G8	R3.53 +/- 0.01"	CMM	MFG QA		00064	3.535	212-J.LE 08-22-05	212-J.LE 08-22-05	A
1* (20)	G7	R3.53 +/- 0.01"	CMM	MFG QA		00064	3.534	212-J.LE 08-22-05	212-J.LE 08-22-05	A
1* (30)	G7	2.75 +/- 0.01" CONSTANT	CALIPER	MFG QA		P-1237	2.746-2.751	688-S.A 08-19-05	212-J.LE 08-22-05	A
1* (40)	F7	R5.53 +/- 0.01"	CMM	MFG QA		00064	5.532	212-J.LE 08-22-05	212-J.LE 08-22-05	A
1* (60)	E8	R3.53 +/- 0.01"	CMM	MFG QA		00064	3.532	212-J.LE 08-22-05	212-J.LE 08-22-05	A
1* (70)	E7	R3.53 +/- 0.01"	CMM	MFG QA		00064	3.528	212-J.LE 08-22-05	212-J.LE 08-22-05	A
1* (80)		125 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	MFG QA		J-775	24-33	688-S.A 08-19-05	212-J.LE 08-22-05	A
1* (90)	F8	R5.53 +/- 0.01"	CMM	MFG QA		00064	5.531	212-J.LE 08-22-05	212-J.LE 08-22-05	A

JS0296A-1200



Jessop Speciality Products
500 Green Street
Washington, PA 15301

CERTIFIED MATERIAL
TEST REPORT

OUR ORDER NO.
YOUR ORDER NO. 0P5081340
MEMO NO. T51457
DATE 274320-01 LCS
SALESMAN NO. 05/20/2005
584

P. M. Claditis
P. M. Claditis - Product Quality Engineer

Ship ROLLED ALLOYS
To 125 W STERNS RD
TEMPERANCE MI

ROLLED ALLOYS INC
125 W STERNS RD
P O BOX 310

48182 TEMPERANCE MI 48182



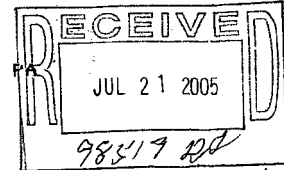
TRACER# 119068

JESSOP UNS N06625 ALLOY HRAP
ASTM B443-00 GRADE 1 ASME SB-443-04 GRADE 1 AMS 5599F
S400E S1000E

Heat	Slip	Lot No	Size	Pcs	Weight										
512120L04	19006 A	154296	1.5000 x 72.0000 x 160.0000	1	5414										
Heat	C	MN	P	S	SI	NI	CR	MO	CD	CU	TI	CB	N	AL	FE
512120L04	.073	.080	.009	.0003	.17	60.80	22.08	8.56	.07	.090	.16	3.41	.014	.05	4.39
Heat	TA														
512120L04	.003														
Lot No	Gauge	Yield Strength	Tensile Strength	Elong	Red. of Area	Hardness	Bend	Corrosion	Grain Size						
154296	1.5000	65.5 KSI	124.0 KSI	40.0	37.0	BHN207			7						

MATERIAL IS OF USA MELT AND MANUFACTURE
MATERIAL WAS PRODUCED WITHOUT KNOWN CONTACT WITH MERCURY
MATERIAL WAS NOT WELD REPAIRED
MATERIAL WAS ANNEALED ABOVE 1600F AND AIR COOLED
NADCAP CERT #106684 ALLEGHENY LUDLUM BRACKENRIDGE, PA EXPIRES 4/30 YEARLY
NADCAP: CHEMICAL LAB-TECHNICAL CENTER, NATRONA HEIGHTS, PA; MECHANICAL LAB-LEECHBURG,
DIN 50049 3.1.B AND EN 10204 3.1.B CERTIFICATE

JUL 22 2005



ROLLED ALLOYS

Certification of Conformance: We certify that the above material meets all requirements of the purchase order and applicable specifications.

Customer: MAJOR TOOLING MACHINE
P.O. # P85-03834 TN
1-1/2" PLATE 625
Tracer No. [119068]

Shpr-W41125
58 X 71"
Heat No. [512120L04]

Date 07/19/2005
1 PC

ROLLED ALLOYS QUALITY ASSURANCE

APPROVED *[Signature]*

DATE 6-8-05

Lines 1-4



PAGE 1 FINAL PAGE

EXCEPT AS OTHERWISE NOTED, THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATIONS AND RESULTS CONFORM TO THE SPECIFICATION AND ORDER REQUIREMENTS.

MC110077.TIF1

3 0516-1 196



Allegheny Ludlum Jessop Plate Products Division
An Allegheny Technologies Company

500 Green Street
Washington, Pennsylvania 15301

CERTIFIED MATERIAL TEST REPORT

Page

Bill to:
PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA

19320

Ship to:
PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA

19320

PHIL CLADITIS
Quality Assurance Representa

Memo No: 260311-00

Our Order no: RW4910400
Your Order No: M E M O
Date: 09/03/2004
DUAL CERT

ALC 316/316L STAINLESS HRAP
ASTM A240-04a ASME SA-240-01 ASTM A480-02 ASME SA-480-01
AMS 5507F (316L) AMS 5524K (316) ASTM A666-03 COND A CHEM/PHYS TO
ASTM A312-02 ASME SA-312-01 ASTM A479-02 ASME SA-479-01 ASTM A262-02
PRACTICE E SCREEN PRAC A

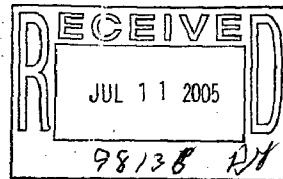
Heat Slip Lot No Size Pcs Weight
818102 34967 A 143182 1.5000 x 83.0000 x 260.0000 1 9488 GV-STOCK

Heat C MN P S SI NI CR MO CO CU N
818102 .018 1.57 .027 .0004 .31 10.14 16.38 2.10 .25 .37 .069

Lot No Gauge Yield Tensile Red. of Grain
Strength Strength Elong Area Hardness Bend Corrosion Siz
143182 1.5000 33.9 KSI 81.5 KSI 61.0 81.0 BHN146 OK

MATERIAL WAS NOT WELD REPAIRED
MATERIAL WAS PRODUCED WITHOUT KNOWN CONTACT WITH MERCURY
MATERIAL WAS SOLUTION ANNEALED (HEAT TREATED) ABOVE 1900F AND WATER QUENCHED
DIN 50049 3.1.B AND EN 10204 3.1.B CERTIFICATE
MATERIAL IS OF USA MELT AND MANUFACTURE

JUL 11 2005



lines ~~13-18~~
13-18

98142

lines 25, 30



TRACER# 109293

ROLLED AN ISO'S QUALITY ASSURANCE
APPROVED *M. Bair*
DATE 9/23/04

PAGE 1 FINAL PAGE

EXCEPT AS OTHERWISE NOTED, THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATIONS AND RESULTS CONFORM TO THE SPECIFICATION AND ORDER REQUIREMENTS. THE ABOVE INFORMATION HAS BEEN REPRODUCED FROM THE ORIGINAL CERTIFIED MATERIAL TEST REPORT.

ORIGINAL

0518-1198



Allegheny Ludlum Jessop Plate Products Division
An Allegheny Technologies Company

1201 Valley Road
Cootesville, Pennsylvania 19320

CERTIFICATE OF CONFORMANCE

Page 1

Our Order no: GV-098284
Your Order No: J06587
Memo No: 4261130-00
Date: 09/15/2004
516

Bill to:
ROLLED ALLOYS INC
125 W STERNS RD
P O BOX 310
TEMPERANCE MI

48182

Shipto:
ROLLED ALLOYS INC
9818 EAST HARDY ROAD
HOUSTON TX

77093

Robert Campagna
Quality Assurance Representat:

ALC T-316/316L DUAL CERT HRAP STAINLESS
ASTM A240-02 ASME SA240-01
79" WIDE ROUGHING MILL EDGE PLATE

Item	Grade	Heat No	Slip	Size	Weight	Mill Cert	Ord
001	316L			1.5000 79.0000	WID 235.0000	LEN	1
				PN:530034299001			
		818102	34967	A	1.5000 79.0000	235.0000	1
						8166 260311-00	Shi
						8166	
					ITEM TOTAL:		1
					TOTAL ORDER:		1
						8166	



JUL 11 2005



TRACER# 109293

CMTR (MANUFACTURER)
 ULTRASONIC REPORT
 OTHER

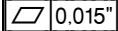
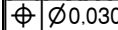
THE MATERIAL LISTED ABOVE IS SUPPLIED IN ACCORDANCE WITH THE ABOVE LISTED SPECIFICATIONS BASED ON THE REVIEW OF THE MATERIAL MANUFACTURER'S CERTIFIED MATERIAL TEST REPORT (ELECTRONICALLY EXCERPTED COPY ATTACHED) AND THE REQUIREMENTS OF THE PURCHASE ORDER.

ORIGINAL

Quality Assurance Documentation for Part ID: SE122-104-1A - Item: 347

Workorder: 65678/7-0 Sub:106 Op:20

Part: SE122-104-1A - NCSX VVSA PORT 12A COVER ASSEMBLY - SE120-004-4 / SE122-104-1A NCSX VVSA PORT 12A COVER ASSEMBLY

Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C8	 0.015" DATUM -A- FLATNESS	CMM	MFG QA		194	0.0015	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (20)	G5	 0.030 A B C-D 0.531 +/-0.005" THRU (32X)	CMM	MFG QA		194	0.0137 MAX POSITION ; 0.531-0.532 DIA.	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (30)	G7	9.80 +/- 0.01" (2X)	CMM	MFG QA		194	9.790-9.798	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (40)	F8	R 4.69 +/- 0.01"	CMM	MFG QA		194	4.6859	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (50)	F5	20 DEG. +/- 0 DEG. 15 MIN.	CMM	MFG QA		194	19 DEG. 59'49.92"	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (60)	F5	R 7.38 +/- 0.01"	CMM	MFG QA		194	7.3739	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (80)	G4	1.25 +/- 0.01"	CALIPER	MFG QA		J-707	1.256	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (90)	G3	0.63 +/- 0.01" (2X)	INDICATOR	MFG QA		P-3749	.630	274-M. 12-15-05	591-C.P 12-15-05	A
1* (100)	G3	DIA. 0.25 +/- 0.01" X 1.50 +/- 0.01" (2X)	PIN GAGE	MFG QA		J-667	GOOD	274-M. 12-15-05	591-C.P 12-15-05	A
1* (110)	F3	1.34 +/- 0.01" (2X)	CMM	MFG QA		194	1.3392-1.3413	295-C.W 09-10-05	295-C.W 09-10-05	A
1* (120)	G4	1/8" NPT	THREAD PLUG GA	MFG QA		A-220	GOOD	274-M. 12-15-05	591-C.P 12-15-05	A
1* (130)	F3	DIA. 0.125 +/- 0.01" THRU TO 0.25 DIA (2X)	CMM	MFG QA		194	0.1250-0.1261	295-C.W 09-10-05	295-C.W 09-10-05	A

Quality Assurance Documentation for Part ID: SE122-104-1A - Item: 348

Workorder: 65678/7-0 Sub:106 Op:30

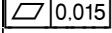
Part: SE122-104-1A - NCSX VVSA PORT 12A COVER ASSEMBLY - SE120-004-4 / SE122-104-1A NCSX VVSA PORT 12A COVER ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				QA		VISUAL	ACCEPT	854-R.U			A
(20)		VWI - INTERIOR FILLET 12AC						05-03-06			
*				QA		VISUAL	ACCEPT	854-R.U			A
(30)		VWI - EXTERIOR FILLET WELDS 12AC						05-03-06			

Quality Assurance Documentation for Part ID: SE122-104-1A - Item: 349

Workorder: 65678/7-0 Sub:106 Op:50

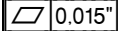
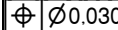
Part: SE122-104-1A - NCSX VVSA PORT 12A COVER ASSEMBLY - SE120-004-4 / SE122-104-1A NCSX VVSA PORT 12A COVER ASSEMBLY

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	C7	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	4-9	503-B.H 12-30-05			A
Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
* (20)		Magnetic Permeability 1.02 MAX	50	QA			LESS THAN 1.2 SEE N C 17664	503-B.H 12-30-05			A
* (30)		 0.015 Datum -A- Flatness	INDICATOR	QA		J-622	.008	503-B.H 12-30-05			A

Quality Assurance Documentation for Part ID: SE122-104-1B - Item: 350

Workorder: 65678/7-0 Sub:117 Op:20

Part: SE122-104-1B - NCSX VVSA PORT 12B COVER ASSEMBLY - SE120-004-4 / SE122-104-1B NCSX VVSA PORT 12B COVER ASSEMBLY

Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C8	 0.015" DATUM -A- FLATNESS	INDICATOR	MFG QA		P-3873	WITH IN .005	688-S.A 09-08-05	212-J.LE 09-09-05	A
1* (20)	G5	 0.030 A B C-D 0.531 +/-0.005" THRU (32X)	CALIPER	MFG QA		P-1237	.532 ,0.013 TP	212-J.LE 09-09-05	212-J.LE 09-09-05	A
1* (30)	G7	9.80 +/- 0.01" (2X)	INDICATOR	MFG QA		P-4964	9.800	274-M. 12-15-05	591-C.P 12-15-05	A
1* (40)	F8	R 4.69 +/- 0.01"	CMM	MFG QA		00064	4.6874	212-J.LE 09-09-05	212-J.LE 09-09-05	A
1* (50)	F5	20 DEG. +/- 0 DEG. 15 MIN.	CMM	MFG QA		00064	20.020	212-J.LE 09-09-05	212-J.LE 09-09-05	A
1* (60)	F5	R 7.38 +/- 0.01"	CMM	MFG QA		00064	7.374	212-J.LE 09-09-05	212-J.LE 09-09-05	A
1* (80)	G4	1.25 +/- 0.01"	CALIPER	MFG QA		P-1237	1.252-1.255	688-S.A 09-08-05	212-J.LE 09-09-05	A
1* (90)	G3	0.63 +/- 0.01" (2X)	INDICATOR	MFG QA		P-3749	.630	274-M. 12-15-05	591-C.P 12-15-05	A
1* (100)	G3	DIA. 0.25 +/- 0.01" X 1.50 +/- 0.01" (2X)	PIN GAGE	MFG QA		J-667	GOOD	274-M. 12-15-05	591-C.P 12-15-05	A
1* (110)	F3	1.34 +/- 0.01" (2X)	CALIPER	MFG QA		P-1237	1.334	688-S.A 09-08-05	212-J.LE 09-09-05	A
1* (120)	G4	1/8" NPT	THREAD PLUG GA	MFG QA		A-220	GOOD	274-M. 12-15-05	591-C.P 12-15-05	A
1* (130)	F3	DIA. 0.125 +/- 0.01" THRU TO 0.25 DIA (2X)	CALIPER	MFG QA		P-1237	.126-.130	688-S.A 09-08-05	212-J.LE 09-09-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-104-1B - Item: 351

Workorder: 65678/7-0 Sub:117 Op:30

Part: SE122-104-1B - NCSX VVSA PORT 12B COVER ASSEMBLY - SE120-004-4 / SE122-104-1B NCSX VVSA PORT 12B COVER ASSEMBLY

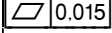
Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				QA		VISUAL	ACCEPT	854-R.U			A
(20)		VWI - INTERIOR FILLET 12BC						05-03-06			
*				QA		VISUAL	ACCEPT	854-R.U			A
(30)		VWI - EXTERIOR FILLET WELDS 12BC						05-03-06			

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-104-1B - Item: 352

Workorder: 65678/7-0 Sub:117 Op:50

Part: SE122-104-1B - NCSX VVSA PORT 12B COVER ASSEMBLY - SE120-004-4 / SE122-104-1B NCSX VVSA PORT 12B COVER ASSEMBLY

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	C7	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	4-8	503-B.H 12-30-05			A
Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
* (20)		Magnetic Permeability 1.02 MAX	50	QA			LESS THAN 1.2 SEE N C17664	503-B.H 12-30-05			A
* (30)		 0.015 Datum -A- Flatness	INDICATOR	QA		J-622	.008	503-B.H 12-30-05			A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-112-1 - Item: 353

Workorder: 65678/7-0 Sub:232 Op:10

Part: SE122-112-1 - 12" OD CF COVER - SE120-004-12 12" OD CF COVER

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				QA		VISUAL	ACCEPT	854-R.U			A
(20)		VWI - INTERIOR FILLET 10BC						05-03-06			
*				QA		VISUAL	ACCEPT	854-R.U			A
(30)		VWI - EXTERIOR FILLET WELDS 10BC						05-03-06			



METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 266390 01 Mail To: Ship To: Date: 5/05/2005 Page: 1
 ROLLED ALLOYS ROLLED ALLOYS
 Customer: 2830 004 9818 EAST HARDY ROAD 9818 EAST HARDY ROAD Steel: 316/316L
 HOUSTON, TX 77093 HOUSTON, TX 77093 Finish: 2BAP

Your Order: JO7342 NAS Order: AN 0316945 01 Corrosion: ASTM A262/02a; 180Bend-Cx

PRODUCT DESCRIPTION:

STAINLESS STEEL PLATE, HOT ROLLED, ANNEALED AND PICKLED.
 ASTM A240/04a, 480/04a, 666/03, A368SA240/04, SA480/04, SA666/04
 (X GRAIN), Q08766D-A X MG PERM, AMS5507E/AMS5524J X MRR
 UNS S31600 / UNS S31603

REMARKS:

Material free from mercury contamination. No weld repairs.
 EN 10204 3.1.B Q08763F Cond A
 * Melted & Manufactured in the USA
 Minimum anneal temperature 1950 F
 EN 10204 3.1.B/DIN 50049

Product ID #	Coil #	Thickness	Width	Weight	-----Length-----	Mark	Pieces
0565X9 BB	* 0565X9 BB	1.5000	60.0000	6,260 PLATE	240.00	1	1

CHEMICAL ANALYSIS

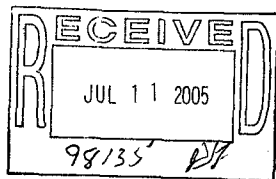
Heat	C	CO	CR	CU	MB	MO	N	NI	P	S	SI
65X9	.018	.211	16.770	.458	1.623	2.114	.048	10.233	.032	.002	.290

MECHANICAL PROPERTIES

Product ID #	Coil #	1 d o i c r	UTS KSI	.2% YS RSI	ELONG %-2"	Hard RB	TRACER# 118248
0565X9 BB	0565X9		77.15	40.05	66.00	81.00	

ROLLED ALLOYS QUALITY ASSURANCE
 APPROVED *M. Hess*
 DATE 5/18/05

QC ENGINEER *E. Hess* 5/05/2005
 ERIC HESS



Lewis 19-24

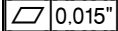


JUL 11 2005

Quality Assurance Documentation for Part ID: SE122-149-1A - Item: 355

Workorder: 65678/7-0 Sub:128 Op:20

Part: SE122-149-1A - PORT 4A COVER PLATE ASSEMBLY - SE120-004-7 / SE122-149-1A PORT 4A COVER PLATE ASSEMBLY

Drawing ID: SE122-149 Rev: 0			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	D5	 0.015" DATUM -A- FLATNESS	INDICATOR	MFG QA		P-4760	.007	315-C.L 11-30-05	576-J.G 11-30-05	A
1* (50)	E8	40.00 +/- 0.01"		MFG QA		EDGE FINDER MACHINE 570	40.0002	315-C.L 11-30-05	576-J.G 11-30-05	A
1* (60)	C7	29.00 +/- 0.01"		MFG QA		EDGE FINDER MACHINE 570	29.002	315-C.L 11-30-05	576-J.G 11-30-05	A
1* (80)	F5	1.25 +/- 0.01"	DEPTH MICROMET	MFG QA		P-4481	1.245-1.255	315-C.L 11-30-05	576-J.G 11-30-05	A

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE122-149-1A - Item: 356

Workorder: 65678/7-0 Sub:128 Op:30

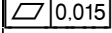
Part: SE122-149-1A - PORT 4A COVER PLATE ASSEMBLY - SE120-004-7 / SE122-149-1A PORT 4A COVER PLATE ASSEMBLY

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				QA		VISUAL	ACCEPT	854-R.U			A
(20)		VWI - INTERIOR FILLET 4AC						05-03-06			
*				QA		VISUAL	ACCEPT	854-R.U			A
(30)		VWI - EXTERIOR FILLET WELDS 4AC						05-03-06			

Quality Assurance Documentation for Part ID: SE122-149-1A - Item: 357

Workorder: 65678/7-0 Sub:128 Op:50

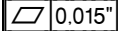
Part: SE122-149-1A - PORT 4A COVER PLATE ASSEMBLY - SE120-004-7 / SE122-149-1A PORT 4A COVER PLATE ASSEMBLY

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	C7	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	12	854-R.U 05-03-06			A
Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
* (20)		Magnetic Permeability 1.02 MAX	MASTER GAGE	QA		J-1165	<1.02	854-R.U 05-03-06			A
* (30)		 0.015 Datum -A- Flatness	INDICATOR HEIGHT GAGE	QA		J-1166 J-11	.012	854-R.U 05-03-06			A

Quality Assurance Documentation for Part ID: SE122-149-1B - Item: 359

Workorder: 65678/7-0 Sub:147 Op:20

Part: SE122-149-1B - PORT 4B COVER PLATE ASSEMBLY -

Drawing ID: SE122-149 Rev: 0			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	D5	 0.015" DATUM -A- FLATNESS	OD MICROMETER	MFG QA		P-4958	WITHIN .010	274-M. 12-19-05	591-C.P 12-19-05	A
1* (50)	E8	40.00 +/- 0.01"	CALIPER	MFG QA		J-1297	39.998	274-M. 12-19-05	591-C.P 12-19-05	A
1* (60)	C7	29.00 +/- 0.01"	CALIPER	MFG QA		J-1297	29.003	274-M. 12-19-05	591-C.P 12-19-05	A
1* (80)	F5	1.25 +/- 0.01"	OD MICROMETER	MFG QA		P-4958	1.243/1.250	274-M. 12-19-05	591-C.P 12-19-05	A

Quality Assurance Documentation for Part ID: SE122-149-1B - Item: 360

Workorder: 65678/7-0 Sub:147 Op:30

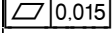
Part: SE122-149-1B - PORT 4B COVER PLATE ASSEMBLY -

Drawing ID: SE120-004 Rev: 2			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*				QA		VISUAL	ACCEPT	854-R.U			A
(20)		VWI - INTERIOR FILLET 4BC						05-03-06			
*				QA		VISUAL	ACCEPT	854-R.U			A
(30)		VWI - EXTERIOR FILLET WELDS 4BC						05-03-06			

Quality Assurance Documentation for Part ID: SE122-149-1B - Item: 361

Workorder: 65678/7-0 Sub:147 Op:50

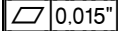




Part: SE122-149-1B - PORT 4B COVER PLATE ASSEMBLY -

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	C7	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-825	10	854-R.U 12-21-05			A
Drawing ID: SE122-104 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
* (20)		Magnetic Permeability 1.02 MAX	MASTER GAGE	QA		J-1165	>1.03 AND < 1.04	854-R.U 12-21-05			A
* (30)		 0.015 Datum -A- Flatness	HEIGHT GAGE ELEC. PROBE	QA		J-55 J-1057	.012	854-R.U 12-21-05			A

Quality Assurance Documentation for Part ID: SE122-172-1 - Item: 363

Workorder: 65678/7-0 Sub:84 Op:20

Part: SE122-172-1 - PORT NB COVER - SE120-004-10 / SE122-172-1 PORT NB COVER

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	G8	 0.015" DATUM -D- FLATNESS	INDICATOR	MFG QA		P-237	.0025	688-S.A 08-27-05	591-C.P 12-09-05	A
1* (20)	G3	 \varnothing 0.015"  D B A 0.50-20 UNF X 0.75 MIN DEPTH (34X)	THREAD PLUG GA	MFG QA		A-27	ACC. PER GAGE	688-S.A 08-29-05	591-C.P 12-09-05	A
1* (30)	G2	 \varnothing 0.012"  D B A #8-32 UNC-2B X 0.25" MIN THREAD DEP (8X)	THREAD PLUG GA	MFG QA		A-75	ACC. PER GAGE	688-S.A 08-29-05	591-C.P 12-09-05	A



104 ENTERPRISE DRIVE
 P.O. BOX 419
 READING, MICHIGAN 49274
 (517) 283-3811
 FAX (517) 283-3898

CERTIFICATE OF CONFORMANCE

DATE: December 29, 2005
 TO: Major Tool & Machine, Inc.
 ATTN: Dave Wilkinson

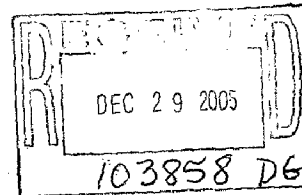
Part Number: SE122-172-1
 Purchase Order #: P05-00549
 Part Name: Port NB Cover
 Work Order #: RL 10101
 Quantity: One (1)

This is to certify that the above order was processed in accordance with accepted industry standards; polished bottom and sides of groove to a 16 micro-inch surface finish.

Signature: *[Handwritten Signature]* Title: President Date: 12-30-05



DEC 30 2005



line 3

Quality Assurance Documentation for Part ID: SE122-172-1 - Item: 365

Workorder: 65678/7-0 Sub:84 Op:50

Part: SE122-172-1 - PORT NB COVER - SE120-004-10 / SE122-172-1 PORT NB COVER

Drawing ID: SE122-172 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C7	0.941 +/- 0.010"	CALIPER	QA		P-2056	.940	503-B.H 12-30-05		A
1* (20)	C7	R.005 MIN. (2X)	RADIUS GAGE	QA		R-25	.005	503-B.H 12-30-05		A
1* (30)	C7	0.25 +/- 0.010"	CALIPER	QA		P-2056	.250/.256	503-B.H 12-30-05		A
1* (40)	C7	.153 + 0 / - 0.003"	DEPTH MICROMET	QA		P-5018	.1525	503-B.H 12-30-05		A
1* (50)	C7	R 0.030" (2X)	RADIUS GAGE	QA		R-25	.030	503-B.H 12-30-05		A
1* (60)	C7	16 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	13	503-B.H 12-30-05		A
1* (70)	C7	63 MICRO-INCH RA SURFACE FINISH	PROFILOMETER	QA		J-1152	20	503-B.H 12-30-05		A

Quality Assurance Documentation for Part ID: SE122-173-1 - Item: 366

Workorder: 65678/7-0 Sub:98 Op:20

Part: SE122-173-1 - PORT NB SEAL RETAINER - SE120-004-9 / SE122-173-1 PORT NB SEAL RETAINER (INCONEL 625 MATERIAL)

Drawing ID: SE122-173 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)	C6	0.149 + 0 / - 0.008"	OD MICROMETER	MFG QA		P-5034	.1445-.1485	601-K.R 10-28-05	591-C.P 10-31-05	A
1* (20)	D6	0.541 +/- 0.010" (CONSTANT)	CALIPER	MFG QA		P-5041	.539-.546	601-K.R 10-28-05	591-C.P 10-31-05	A
1* (30)		75.0 deg. +/- 0 deg. 15' (2X)	PROTRACTOR	MFG QA		P-5043	75.	601-K.R 10-28-05	591-C.P 10-31-05	A
1* (40)	C7	63 MICRO-INCH SURFACE FINISH	PROFILOMETER	MFG QA		J-1181	14.6 - 16.2	445-J.PU 10-31-05	591-C.P 10-31-05	A
1* (50)	C6	63 MICRO-INCH SURFACE FINISH	PROFILOMETER	MFG QA		J-1181	14.6 - 16.2	445-J.PU 10-31-05	591-C.P 10-31-05	A
1* (60)	G5	\varnothing .012 D A B DIA. 0.187 +/- 0.005" THRU (8X) DIA .343 +/- .005" .094 DP OTHER SIDE	PIN GAGE PIN GAGE	MFG QA		J-667 J-668	ACCEPT / ACCEPT / W /IN.010	601-K.R 10-28-05	212-J.LE 10-28-05	A

REV. 004

NOTE: THE RECORDING OF FALSE FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.
EASTERN U.S.

FORM D

HUNTINGTON ALLOYS
A Special Metals Company
HUNTINGTON, WEST VIRGINIA 25720



CERTIFIED MATERIAL TEST REPORT No. 97210

ROLLED ALLOYS INC
125 W STERNS RD
TEMPERANCE MI 48182-0310

HA ORDER NO./ITEM: 100023551 2
DATE: 02/10/05
PAGE OF: 1 2

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. THE HUNTINGTON ALLOYS CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

[Signature]
QUALITY CERTIFICATION REPRESENTATIVE

ROLLED ALLOYS INC
125 W STERNS RD
TEMPERANCE MI 48182-0310

QUANTITY: 3204 LBS
INSPECTED BY: HA/SMC
CHARGE ORDER NO.: T50706
MARK ORDER NO.: 138032599001-01

DESCRIPTION OF MATERIAL SHIPPED: INCONEL ALLOY 625 HR PLATE DESCALED ANN
.1875 IN 36.0000 IN 240.000 IN SHR

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****

SPECIFICATIONS: SAE AMS 5599F \ ASTM B 443-00 GRADE 1 \ UNS: N06625
ASME SB-443 2004 EDITION NO ADDENDA GRADE 1 \
GE S 400E \ GE S-1000E \
ROLLS-ROYCE RR9000: SABRE ISSUE 006 PER ROLLS-ROYCE APPROVAL NO. 82960 DTD 30 OCT 1996. \
QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125);
EN 10 204/DIN 50049 (CERT.3.1.B)

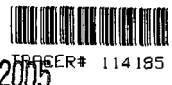
CHEMICAL ANALYSIS (WT. %)

HEAT#	C	MN	FE	S	SI	NI	CR	AL	TI
	CO	MO	NB	TA	P	NB+TA			
NX4533AG	0.02	0.10	3.67	<0.001	0.15	61.43	21.54	0.14	0.23
	0.08	9.17	3.46	<0.01	0.007	3.46			

MELT METHOD: AIR + ESR

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARDNESS	GRAIN SIZE	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	R/A	DEG
				2XPSI	PSI	2"	X	F
NX4533AG 13	6 PCS							
ROOM TEMP-HRB	-AS SHIPPED	98.5		0840	1351	41.6		
P75260 (2)	P75270 (2)	P75280 (2)						
GRAIN SIZE-AS SHIPPED	AGS ASTM NO.		7.5					
NORMAL - TRAN								



JUL 22 2005
RECEIVED
JUL 21 2005
98503



YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

COUNTRY OF ORIGIN AND MELT: UNITED STATES OF AMERICA

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

Line 1-3

MC110068.TIF

REV. 004

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

HUNTINGTON ALLOYS A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25720



EASTERN U.S.

FORM D

CERTIFIED MATERIAL TEST REPORT No. 97210

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

ROLLED ALLOYS INC
125 W STERNS RD
TEMPERANCE MI 48182-0310

HA ORDER NO/ITEM	DATE	PAGE	OF
100023551 2	02/10/05	2	2
QUANTITY	INSPECTED BY		
3204 LBS	HA/SMC		
CHARGE ORDER NO.	MARK ORDER NO.		
T50706	138032599001-01		
DESCRIPTION OF MATERIAL SHIPPED	INCONEL ALLOY 625 HR PLATE DESCALED ANN .1875 IN 36.0000 IN 240.000 IN SHR		

W. Bolen
QUALITY CERTIFICATION REPRESENTATIVE

ROLLED ALLOYS INC
125 W STERNS RD
TEMPERANCE MI 48182-0310

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :
W. E. BOLEN, P. D. CUSTER, M. A. MORRISON, D. L. SMITH, P. P. WAUGH

CERTIFIED TESTING LABORATORY DATA SOURCE IAI
AEBG VENDOR NO. 47150
M. R. B. CASE RECORD NO.: NONE
AUTHORIZED VENDOR SIGNATURE *W. Bolen*
DATE: 02/10/05



Certification of Conformance: We certify that the above material meets all requirements of the purchase order and material specifications.
TEMPERANCE, MI 48182

Customer: MAJOR TOOL & MACHINE
P.O. # P05-03069 TN
.149" GROUND SHEET 625
Tracer No. [114185]

Date: 07/20/2005
Shpr: W40459
26- 7/16 X 32-33/64 3 PC
Heat No. [HX4533A6]

ROLLED ALLOYS QUALITY ASSURANCE
APPROVED *Dan Reed*
DATE: 2-11-05

MC110068.TIF2

Quality Assurance Documentation for Part ID: SE122-174-2 - Item: 368

Workorder: 65678/7-0 Sub:290 Op:10

Part: SE122-174-2 - -

Drawing ID: SE122-174 Rev: 0			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY		
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1* (10)		Dia. 0.189 +/-0.005	CALIPER	QA		J-707	.190"	840-G.M 12-30-05		

A

Employees: 085-D.Gregory / 093-M.Stewart / 131-W.Allen / 182-J.Lewis / 184-T.Hicks / 197-T.Fischer / 212-J.Lehr / 219-T.Laird / 274-M.Moorman / 280-K.St. Henry / 295-C.Weaver / 315-C.Land / 358-D.Mcnew / 445-J.Purkhiser / 503-B.Houk / 506-R.Liston / 522-R.Durham / 535-S.Lentz / 576-J.Geisinger / 581-D.Edwards / 591-C.Pritchett / 601-K.Rowe / 667-J.Bannister / 683-K.Mcnew / 688-S.Atchison / 709-K.Appleby / 712-W.Miller / 733-J.Stone li / 771-B.Schultz / 791-D.Weidner / 837-J.Deverter / 840-G.Masood / 854-R.Upchurch / 933-D.Leapley

**INCO ALLOYS
INTERNATIONAL**
Welding Products Company
1401 Burris Road
Newton, NC 28658
704-465-0352

Certified Material Test Report

No: 74817



Date : 15-Dec-98

Purchase Order No: P9806221

Mark Order No:

Product Number: N625-035-30SS02

Description of Material: INCONEL Filler Metal 625 .035 x 30SpI

QUALITY SYSTEMS

Certificate 3.1.B as in EN 10 204

Material Manufactured in accordance with a quality management system certified to ISO 9002 by ABS-QE (Certificate No. 30125)

Chemical Analysis (Wt. %)

Heat/Lot: VX3417AK		Unit
Ni	64.66	%
Cr	21.67	%
Mo	8.94	%
NbTa	3.55	%
Fe	.58	%
Others	< .50	%
Al	.27	%
Ti	.21	%
Si	.05	%
Co	.04	%
C	.01	%
Mn	< .01	%
Cu	.01	%
P	.003	%
S	.001	%
Nb	.00	%

Order Wt.

UNS #: N06625

Specifications:

ANSI AWS A 5.14M-97 Class ERNiCrMo-3
ASME SFA 5.14 1995 Edition 96 Addenda Class ERNiCrMo-3

DEC 18
28042

Visual and dimensional examination:
Satisfactory
Material, when shipped is free from contamination by mercury, radium, alpha source, and low melting point elements.

This is to certify that all required samplings, inspections and tests have been performed in accordance with the specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and true. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the above data are in accordance with the specification requirements.

BJ Taylor

Authorized quality assurance representative: BJ Taylor

Quality Certification Representative

--The trademark and trade name 'INCO' or 'Inco' is owned by Inco Limited and is used by permission.
The Inco Alloys International group of Companies and Inco Limited are unaffiliated and independent Companies--

ARCOS INDUSTRIES, LLC
 ONE ARCOS DRIVE
 Mt. Carmel, PA 17851



DATE 06/16/05

**ACTUAL
 CERTIFICATION OF TESTS**

GRADE 625
 LOT/ALLOY NO. XB8273
 HEAT NO. 112155
 SIZE .035"
 CLASS ERNiCrMo-3
 SPECIFICATION AWS A5.14/A5.14M-97
ASME SFA 5.14, Section II, Part C

CHEMICAL ANALYSIS: ACTUAL WIRE

C	Mn	Si	S	P	Cr	Ni	Mo	Ta	Cb+Ta
0.03	0.05	0.06	0.001	0.01	22.3	64.2	9.1	0.01	3.56
	Ti	Al	Co	Cu	Fe		Total Others		
	0.21	0.14	0.05	0.00	0.3		<.50		

OK

Ferrite: N/A

UNS NO. N06625

Lot Classification - S1

Intensity of Testing - Schedule F

MATERIAL MADE IN THE USA.

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS

06.20.05
 97307 wx
 in 1



GIB GRATTI, QUALITY ASSURANCE MANAGER
 QUALITY ASSURANCE DEPARTMENT

ARCOS INDUSTRIES, LLC
 ONE ARCOS DRIVE
 Mt. Carmel, PA 17851



DATE 01/08/04

CERTIFICATION OF TESTS

SOLD TO: MAJOR TOOL & MACHINE, INC.
 1458 EAST 19TH STREET
 INDIANAPOLIS, IN 46218

SHIP TO: SAME

ARCOS S.O.	CUSTOMER ORDER NO.	CONSIGNEE ORDER NO.	DATE SHIPPED						
79533	P03-05170	N/A	1/8/04						
ITEM	SIZE	GRADE	LOT NO./ALLOY NO.	QUANTITY					
1	3/32 X 36"	ARCOS 625	CB7996	20#					
SPECIFICATION: AWS A5.14/A5.14M-97. CLASS ERNiCrMo-3 ASME SFA 5.14 ASME SECTION II, PART C, 2001 EDITION, AND ALL PARAS AND ADDENDA THRU 2003.									
CHEMICAL ANALYSIS: WIRE									
C	Mn	Si	S	P	Cr	Ni	Mo	Cb	Cb + Ta
0.04	0.03	0.08	0.004	0.01	21.9	64.9	8.7		3.64
Ta	Ti	Al	Co	Cu	Fe	V	Total Others		
	0.21	0.16	0.02	0.12	0.2		<.50		

ADDITIONAL TEST RESULTS		TENSILE As Welded		Heat Treated	
Ferrite - NB2433.1-1:	_____	Yield	_____	_____	_____
Magna Gage:	_____	Tensile	_____	_____	_____
X-Ray:	_____	Elongation	_____	_____	_____
Bends:	_____	Red. of Area	_____	_____	_____
Hardness:	_____				

OTHER INFORMATION:

LOT CLASSIFICATION - S1
 INTENSITY OF TESTING - Schedule F

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS

1-23-04

JAN 14 2004

82255
 line 2

Eileen Zerby
 Q.A. CLERK
 QUALITY ASSURANCE DEPARTMENT

ARCOS ALLOYS
 A Division of Hoskins Mfg.
 Mt. Carmel, PA 17851



DATE 01/10/00

CERTIFICATION OF TESTS

SOLD TO: MAJOR TOOL & MACHINE
 1458 EAST 19TH STREET
 INDIANAPOLIS, IN 46216

SHIP TO: SAME

ARCOS S.O.		CUSTOMER ORDER NO.		CONSIGNEE ORDER NO.		DATE SHIPPED			
69824		P0000110		N/A		1/10/00			
ITEM	SIZE	GRADE	LOT NO./ALLOY NO.		QUANTITY				
1	3/32 X 36"	ARCOS 625	CT7519		20#				
SPECIFICATION: AWS A5.14/A5.14M-97. CLASS ERNiCrMo-3 ASME SFA 5.14 ASME SECTION II, PART C, 1998 EDITION, AND ALL PARAS AND ADDENDA THRU 1999.									
CHEMICAL ANALYSIS: WIRE									
C	Mn	Si	S	P	Cr	Ni	Mo	Cb	Cb + Ta
0.0	0.01	0.01	0.002	0.00	22.4	63.9	8.8		3.68
Ta	Ti	Al	Co	Cu	Fa	V	Total Others		
	0.35	0.28	0.04	0.05	0.4		<.50		

ADDITIONAL TEST RESULTS	TENSILE	
	As Welded	Heat Treated
Ferrite - NB2433.1-1: _____	Yield _____	_____
Magna Gage: _____	Tensile _____	_____
X-Ray: _____	Elongation _____	_____
Bends: _____	Red.of Area _____	_____
Hardness: _____		

OTHER INFORMATION:

LOT CLASSIFICATION - S1
 INTENSITY OF TESTING - Schedule F

JAN 14 2000
 39771
 1-18-00 BF

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos Alloys or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS

Q.A. CLERK
 QUALITY ASSURANCE DEPARTMENT

BRANFORD WIRE & MFG
 P O BOX 677
 MOUNTAIN HOME, NC
 PHONE 828-692-3791
 FAX# 828-697-9818

NO 188 P 3

CERTIFICATE OF COMPLIANCE / TEST REPORT

4/06/05

BUYER HAYNES INTERNATIONAL
 P O BOX 9013
 1020 WEST PARK AVE
 WOKOMO, IN
 46904-9013

CUSTOMER P O NBR 1429
 ORD/LN NBR: 028988/02
 CUSTOMER PART NBR 326504200240000

27133

PROD DESC WELDING / METALLIZING WIRE
 SIZE 093X36"

TYPE INC625
 QTY LBS 772

SPECIFICATION
 AWS A5.14-97/ERNICRMO-3

CHEMICAL ANALYSIS

HEAT NBR	C	MN	P	S	SI	NI	CR	MO	CU
K48859	10 019	0 030	< 005	0006	< 0 051	0 0120	22.10	3.6	0 020

Y	TA	TI	NB	AL	N	CO	FE	W	V	B
10 020	0 019	0 03	43	0 220	10 130	0 1	91			

MECHANICAL PROPERTIES


TENSILE (LBS/SQ INCH)	YIELD (LBS/SQ INCH)	ELONGATION (%)	HARDNESS	BREAKING (%)
	HARD			

WRAP TEST	UNIFORM TEST	MANDREL TEST	GRAIN SIZE	PERMEABILITY

OTHER TEST(S) AND/OR REQUIREMENTS

(MATERIAL IS FREE OF MERCURY CONTAMINATION)
 THIS IS TO CERTIFY THAT MATERIAL SHIPPED COMPLIES WITH SPECIFICATION ON P 8

COUNTRY OF ORIGIN	BY REPRESENTATIVE	DATE SIGNED
GERMANY	<i>[Signature]</i>	4/06/05

4/8/05
 95358 Line 2 WA 

IF INITIALED AND DATED HERE THIS IS AN AMENDED CERTIFICATION

BRANFORD WIRE & MFG.
 P.O. BOX 677
 MOUNTAIN HOME, NC
 PHONE: 828-692-5791
 FAX#: 828-697-9818

CERTIFICATE OF COMPLIANCE / TEST REPORT

3/21/05

BUYER: HAYNES INTERNATIONAL
 P.O. BOX 9013
 1020 WEST PARK AVE.
 KOKOMO, IN
 46904-9013

CUSTOMER P.O. NBR: 1423
 ORD/LN NBR: 025982/02
 CUSTOMER PART NBR: 326506200240000

27038

PROD. DESC: WELDING / METALLIZING WIRE
 SIZE: .093X36"

TYPE: INC625
 QTY LBS: 550

SPECIFICATION
 AWSA5.14-97/ERNICRMO-3

CHEMICAL ANALYSIS

HEAT NBR.	C	MN	P	S	SI	NI	CR	MO	CU
K48859	0.019	0.030	<.005	0.0006	<.05	165.00	20.82	108.36	0.020

Y	TA	TI	NB	AL	N	CO	FE	W	V	B
0.020	0.019	0.43	0.220		10.130	01.91				

MECHANICAL PROPERTIES

TENSILE LBS/SQ. INCH	YIELD LBS/SQ INCH	ELONGATION %	HARDNESS	BREAK %	ROA %
1/4HRD					

WRAP TEST	UNIFORM. TEST	MANDREL TEST	GRAIN SIZE	PERMEABILITY

MAY 24 2005
 96405 Line 3 BJ

OTHER TEST(S) AND/OR REQUIREMENTS:

(MATERIAL IS FREE OF MERCURY CONTAMINATION)
 THIS IS TO CERTIFY THAT MATERIAL SHIPPED COMPLIES WITH SPECIFICATION ON P.O.

COUNTRY OF ORIGIN
 GERMANY

Q. REPRESENTATIVE
Dayle Crang

S. Miller

DATE SIGNED
 3/21/05



IF INITIALED AND DATED HERE

ARCOS INDUSTRIES, LLC
ONE ARCOS DRIVE
Mt. Carmel, PA 17851

MC094945



DATE 11/26/03

CERTIFICATION OF TESTS

SOLD TO: MAJOR TOOL & MACHINE, INC.
 1458 EAST 19TH STREET
 INDIANAPOLIS, IN 46218

SHIP TO: SAME

ARCOS S.O.		CUSTOMER ORDER NO.		CONSIGNEE ORDER NO.		DATE SHIPPED	
79388		P03-04749		N/A		11/26/03	
ITEM	SIZE	GRADE		LOT NO./ALLOY NO.		QUANTITY	
2	3/32 X 36"	ALLOY 625		CV8061		30#	

SPECIFICATION: AWS A5.14/A5.14M-97. CLASS ERNiCrMo-3
 ASME SFA 5.14 ASME SECTION II, PART C, 2001 EDITION,
 AND ALL PARAS AND ADDENDA THRU 2002.

CHEMICAL ANALYSIS: WIRE

C	Mn	Si	S	P	Cr	Ni	Mo	Cb	Cb + Ta
0.03	0.02	0.13	0.004	0.00	21.5	64.6	9.0		3.75
Ta	Ti	Al	Co	Cu	Fe	V	Total Others		
	0.29	0.24	0.02	0.11	0.2		<.50		

ADDITIONAL TEST RESULTS	TENSILE	
	As Welded	Heat Treated
Ferrite - NB2433.1-1: _____	Yield	_____
Magna Gage: _____	Tensile	_____
X-Ray: _____	Elongation	_____
Bends: _____	Red. of Area	_____
Hardness: _____		

OTHER INFORMATION:

LOT CLASSIFICATION - S1
 INTENSITY OF TESTING - Schedule F

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS



12/5/03

Eileen Zerby
 Q.A. CLERK

QUALITY ASSURANCE DEPARTMENT

81506
 Line 2 R.I.

ARCOS INDUSTRIES, LLC
ONE ARCOS DRIVE
Mt. Carmel, PA 17851

mc094944.pdf



DATE 11/26/03

CERTIFICATION OF TESTS

SOLD TO: MAJOR TOOL & MACHINE, INC.
 1458 EAST 19TH STREET
 INDIANAPOLIS, IN 46218

SHIP TO: SAME

ARCOS S.O.	CUSTOMER ORDER NO.	CONSIGNEE ORDER NO.	DATE SHIPPED
79388	P03-04749	N/A	11/26/03
ITEM	SIZE	GRADE	LOT NO./ALLOY NO.
1	1/16 X 36"	ARCOS 625	AB8051
QUANTITY			
30#			

SPECIFICATION: AWS A5.14/A5.14M-97. CLASS ERNiCrMo-3
 ASME SFA 5.14 ASME SECTION II, PART C, 2001 EDITION.
 AND ALL PARAS AND ADDENDA THRU 2002.

CHEMICAL ANALYSIS: WIRE									
C	Mn	Si	S	P	Cr	Ni	Mo	Cb	Cb + Ta
0.02	0.01	0.06	0.001	0.01	22.2	64.3	9.1		3.56
Ta	Ti	Al	Co	Cu	Fe	V	Total Others		
	0.22	0.12	0.03	0.01	0.4		<.50		

ADDITIONAL TEST RESULTS

Ferrite - NB2433.1-1: _____

Magna Gage: _____

X-Ray: _____

Bends: _____

Hardness: _____

TENSILE	As Welded	Heat Treated
Yield	_____	_____
Tensile	_____	_____
Elongation	_____	_____
Red. of Area	_____	_____

OTHER INFORMATION:

LOT CLASSIFICATION - S1
 INTENSITY OF TESTING - Schedule F

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS

Eileen Zerby Q.A. CLERK
 QUALITY ASSURANCE DEPARTMENT

81505
 Line 1
 R. 7

12/5/03

ARCOS INDUSTRIES, LLC
 ONE ARCOS DRIVE
 Mt. Carmel, PA 17851

mc095279



DATE 12/19/03

CERTIFICATION OF TESTS

SOLD TO:
 MAJOR TOOL & MACHINE, INC.
 1458 EAST 19TH STREET
 INDIANAPOLIS, IN 46218

SHIP TO:
 MAJOR TOOL & MACHINE
 1452 EAST 19th Street
 Indianapolis, IN 46218

ARCOS S.O.	CUSTOMER ORDER NO.	CONSIGNEE ORDER NO.	DATE SHIPPED
79533	P03-05170	N/A	12/19/03
ITEM	SIZE	GRADE	LOT NO./ALLOY NO.
1	1/16 X 36"	ARCOS 625	AV8128
QUANTITY			
30#			

SPECIFICATION: AWS A5.14/A5.14M-97. CLASS ERNiCrMo-3
 ASME SFA 5.14 ASME SECTION II, PART C, 2001 EDITION.
 AND ALL PARAS AND ADDENDA THRU 2003.

CHEMICAL ANALYSIS: WIRE									
C	Mn	Si	S	P	Cr	Ni	Mo	Cb	Cb + Ta
0.03	0.05	0.08	0.004	0.00	21.8	64.6	9.1		3.77
Ta	Ti	Al	Co	Cu	Fe	V	Total Others		
	0.24	0.26	0.01	0.02	0.1		<.50		

ADDITIONAL TEST RESULTS

Ferrite - NB2433.1-1: _____
 Magna Gage: _____
 X-Ray: _____
 Bends: _____
 Hardness: _____

	TENSILE	As Welded	Heat Treated
	Yield	_____	_____
	Tensile	_____	_____
	Elongation	_____	_____
	Red. of Area	_____	_____

OTHER INFORMATION:

LOT CLASSIFICATION - S1
 INTENSITY OF TESTING - Schedule F

THIS MATERIAL IS FREE FROM MERCURY, RADIUM OR ALPHA PARTICLE CONTAMINATION.

We hereby affirm that the reported results on this certification are correct and accurate. All test and results and operations performed by Arcos or its subcontractors are in compliance with the applicable material/customer specification.

ARCOS

12/23/03

81947
line 1

Q.A. MANAGER
 QUALITY ASSURANCE DEPARTMENT

JUL 29 2005 10:12AM BRIGHTON TRU EDGE 513 771 2404 No.4876 P. 1/3

BRIGHTON TRU-EDGE HEADS
 DIV OF ENERFAB
 11861 MOSTELLER RD * CINCINNATI OH 45241 * (513)-771-2300
 MTR COVER LETTER

MAJOR TOOL AND MACHINE
 1458 E 19TH ST
 INDIANAPOLIS IN 46218

ATTN : DOUG MCCORKLE
 REFERENCE : CUSTOMER P/O P05-01008
 BRIGHTON S/O 256223

TO WHOM IT MAY CONCERN:

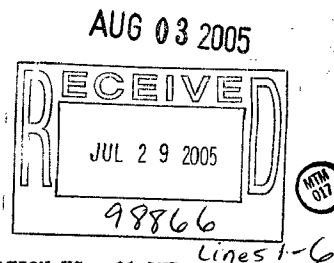
ATTACHED ARE COPIES OF MILL TEST REPORTS FOR THE FOLLOWING MATERIALS PROVIDED ON YOUR REFERENCED PURCHASE ORDER.

FORM ONLY

6-SB443-625 Style:2:1 Ellip Head Diam:18" OD 2:1 Ellip Head Diam:18" OD
 18" OD .3750"-NOM WITH 2" OAH:6.19" SP.

Qty	Heat Number
6	2650-4-6771

CERTIFICATE OF COMPLIANCE



ALL HEADS WERE COLD FORMED AND ARE IN COMPLIANCE WITH REGULATION UG - 81 AND UG - 79 AS STATED IN SECTION VIII DIVISION I OF THE ASME BOILER AND PRESSURE VESSEL CODE. HEADS WERE FORMED WITHOUT COMING IN CONTACT WITH MERCURY OR ANY OF ITS COMPOUNDS.

IF YOU HAVE ANY FURTHER QUESTIONS CONCERNING MILL TEST REPORTS ONLY, PLEASE CONTACT ME IN CINCINNATI, OHIO AT 1-800-543-1644.

VERY TRULY YOURS,

Rick Seiter

BRIGHTON TRU-EDGE HEADS
 DIV. OF ENERFAB

No. 4876 P. 2/3

BRIGHTON TRU EDGE 513 771 2404

Jul. 29. 2005 10:13AM

(4.846)
4.8.5488 6.19

18-20. 4/2nd 30 inside

NO.	CIRCUMFERENCE	O.A.H.	SF THK.	ICR THK.	ICR	SF			TEMP	OUT OF ROUND	LAND	BEVEL	FLANGER STAMP	REMARKS
						TOE	STRT	TOTAL						
1		6 1/8					2"			1/16	20°	S		
2	4' 8 1/2	6 7/8	9/8	9/8					1"	18" 00	1/16	30° RN	OK	
3														
4														
5														
6	4' 8 1/2	6 1/4	9/8	9/8			2"		1"	18" 00	1/16	30° IS	OK	
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														

DATE _____

RELEASED FOR SHIPMENT BY _____

INSPECTED BY _____

DATE _____

FILE COPY 2

HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS																				
Invoice No No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 1 Of 4																
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			Ship To • Destinaire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA			Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 .SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100														
Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E						Quantity Ordered Quantite Commandee Bestellmenge 6 PC			Quantity Shipped Quantite Expediee Liefermenge 6 PC											
Heat Number Numero De Coudre Charge Nr	Chemical Analysis • Analyse Chimique • Chemische Analyse																			
	Al	B	C	Ch+Ta (Nb+Ta)	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ti	V	W			
2650 4 6771	0.213		0.021	3.4	0.2638	21.67	0.0581	4.8419	0.2641	8.53	59.82	0.0072	0.003	0.137	0.3317				BUTT END *02	
	CHNB	Ta	Zr	Bi	Se	La	C-Nb	Pb	Mg	Y	Ag	N	Ca	Al+Ti	Ni+Co	Ni+Mo				
2650 4 6771	3.3944	<0.05																	BUTT END *02	

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician

5/27/2005

Amanda Aguirre

MTM 016 JUN 09 2005

JUN 9 2005
96892
Leis 1-6

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS AS REQUIRED BY ANY EXCEPTIONS OR PURCHASE ORDER REQUIREMENTS. THE REVISION OF FALSE, FRAUDULOUS OR FRAUGHTENING STATEMENTS OR OMISSIONS ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUESTING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TIF1

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

FILE COPY 2

Invoice No No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 2 Of 4
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HAYNES
International

Haynes International
1020 West Park Avenue
PO Box 9013
Kokomo, Indiana, 46902

Sold To • Client • Bestelleranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Ship To • Destinaataire • Bestellmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA	Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
---	--	---

Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E	Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Liefermenge 6 PC
---	---	--

Tensile Test at Room Temperature • Essai De Traction A Temp. Ambiante • Zugversuch Bel Raum Temp.						Tensile Test at Elevated Temperature • Essai De Traction A Hte.Temp. Warm Zugversuch						Stress Rupture Temperature • Essai A Charge De Rupture Zelstandversuch					
Ultimate Lim. Elast. A 1% Zugfestigkeit	1% Yield Lim. Elast. A 0.2% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EM % Dehnung	%RA		Test Essai Versuch	Ultimate Zugfestigkeit	1% Yield Lim. Elast. A 1% 1% Streckgrenze	0.2% Yield Lim. Elast. A 0.2% 0.2% Streckgrenze	% Elong In % Allong EM % Dehnung	%RA		Test Essai Versuch	Stress Constitute Spannung	Hours Heures Stunden	% Elong In % Allong EM % Dehnung	% RA
125000 PSI		60500 PSI	54 %		(1)(A)												

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
Certification Technician
5/27/2005 (1) 2742656901

Amanda Aguirre

MTM 016 JUN 09 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, PROVIDED BY ANY EXCEPTION OR PURCHASE ORDER REQUIREMENTS. THE RECORDING OF FALSE, INACCURATE OR FRAUDULENT STATEMENTS ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 49. THIS DOCUMENT SHALL NOT BE REPRODUCED, ACCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TTF2

CERTIFICATION OF TESTS • RAPPORT D'ESSAIS CERTIFIE • WERKSZEUGNIS

Invoice No. No. De Facture Rechnungs Nr 435724001-0	Date Entered Date De Commande Bestelldatum 03/09/05	Customer Reference Reference Client Kundenbestelldaten P05-01004	Report No. Rapport No Zeugnis Nr 20050527112	Pages of Pages Page de Pages Anzahl der Seiten 4 Of 4
Sold To • Client • Bestellaranschrift MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Ship To • Destinaire • Bestelmenge MAJOR TOOL AND MACHINE INC 1458 E 19TH ST INDIANAPOLIS IN 46218 USA		Product Description • Description Produit • Material Beschreibung 0.375 x 25 x 25 .SE120-004-20A REV:1 HAYNES(R) 625 ALLOY PLATE - Nadcap CERTIFICATE NUMBER 0089 S400E,S1000E, EN 10204 3.1.B, AS9100
Specification • Specification • Spezifikation ASTM-B-443 Chemistry Only, 00e1, UNS# N06625, Gr. 1; PS-489, E			Quantity Ordered Quantite Commandee Bestelmenge 6 PC	Quantity Shipped Quantite Expediee Lieferung 6 PC

HAYNES
International

FILE COPY 2
 Haynes International
 1020 West Park Avenue
 PO Box 9013
 Kokomo, Indiana, 46902

All tests and inspections have been performed and results meet specification requirements.
 THIS MATERIAL IS FREE FROM MERCURY, CADMIUM, RADIUM, AND ALPHA SOURCE CONTAMINATION.
 Material conforms to PS-483 Revision H as applicable.
 Mill Orders Used: 2742656901 (6 PC)
 (A) 1750 °F to 1950 °F

Certified By • Certifie Par • Bescheinigt Durch: Amanda Aguirre
 Certification Technician 5/27/2005

Amanda Aguirre



JUN 09 2005

THE DATA CONTAINED HEREIN WAS OBTAINED FROM SAMPLES THAT ARE REPRESENTATIVE OF THE PRODUCTS IN THE SUBJECT SHIPMENT. THIS MATERIAL MEETS THE REQUIREMENTS OF THE LISTED SPECIFICATIONS, UNLESS BY ANY EXCEPTION OR PURCHASE ORDER REQUIREMENTS. THE RISK OF INJURY OR DAMAGE TO PERSONS OR PROPERTY FROM THE USE OF THIS MATERIAL IS THE USER'S RESPONSIBILITY. THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF HAYNES INTERNATIONAL, INC. SPECIFICATION MARKING REQUIREMENTS MAY BE WAIVED ON ORDERS REQUIRING MULTIPLE MATERIAL SPECIFICATIONS.

MC108864.TIF4

Magnetic Permeability Test Witness

Haynes observed Mr. Edwards of Major Tool test the orders listed below for Magnetic Permeability on April 19, 2005, using a Severn Engineering Permeability Indicator #6763, identified as gauge J-1165 in Major Tool's calibration system. The gauge was in calibration and was due for recalibration on December 27, 2005. All items tested below were <1.01 magnetic permeability.

Heats Tested

2650-4-6771
2650-5-6797
2650-5-6804

Purchase Order Numbers

P05-00965 – Panel 1
P05-00966 – Panel 10
P05-00967 – Panel 2
P05-00994 – Panel 3
P05-00996 – Panel 4
P05-00997 – Panel 5
P05-00999 – Panel 6
P05-01001 – Panel 7
P05-01002 – Panel 8
P05-01003 – Panel 9
P05-01004 – 25" dia discs



JUN 09 2005

Best Regards,

A handwritten signature in black ink, appearing to read "Marlin C. Losch III".

Marlin C. Losch III

65678



METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 269530 07 Mail To: Ship To: Date: 6/01/2005 Page: 1
Customer: 2830 004 ROLLED ALLOYS ROLLED ALLOYS Steel: 316/316L
9818 EAST HARRY ROAD 9818 EAST HARRY ROAD
HOUSTON, TX 77093 HOUSTON, TX 77093

Your Order: JQ7509 NAS Order: AN 0318825 01 Corrosion: ASTM A262/02a;180Bend-OK

PRODUCT DESCRIPTION:
STAINLESS STEEL PLATE, HOT ROLLED, ANNEALED AND PICKLED.
ASTMA240/04a, 480/04a, 666/03, ASMEGA240/04, SA480/04, SA666/04
(X GRAIN), Q08766D-A X NO PERM, AMS5507E/AMS5524J X MRK
UNS S31600 / UNS S31603

REMARKS:
Material free from mercury contamination. No weld repairs.
EN 10204 3.1.B Q08763F Cond A
* Melted & Manufactured in the USA
Minimum anneal temperature 1950 F
EN 10204 3.1.B/DIN 50049

Product ID #	Coil #	Thickness	Width	Weight	Length	Mark	Pieces
0565H7 CB	* 0565H7 CB	1.5000	48.0000	5,155 PLATE	240.00	1	1

CHEMICAL ANALYSIS

Heat	C	CO	CR	CU	MN	MO	N	NZ	P	S	SI
65H7	.022	.205	16.953	.417	1.633	2.109	.050	10.110	.034	< .001	.500

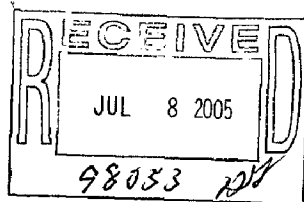
MECHANICAL PROPERTIES

Product ID #	Coil #	Id	UTS	.2% YS	ELONG	Hard
		o i	KSI	KSI	%-2"	RB
		c r				
0565H7 CB	0565H7	F T	80.35	42.09	57.50	80.00

TRACER# 119132

ROLLED ALLOYS QUALITY ASSURANCE
APPROVED *M. Hess*
DATE 6/1/05

QC ENGINEER *E.H.* 6/01/2005
ERIC HESS



lines 1-12

JUL 15 2005

Outokumpu Stainless Plate, Inc.



Certificate of Analysis and Tests

OUR ORDER 0244161 - 01

HEAT & PIECE 604254-2B 03/28/05

SOLD TO: ROLLED ALLOYS
P O BOX 310

SHIP TO: ROLLED ALLOYS
125 WEST STERNS ROAD
734-847-0561

TEMPERANCE MI 48182

MI 48182

----- YOUR ORDER & DATE -----

T51463

2/03/05

TAG# 3003-2599-00-1

----- ITEM DESCRIPTION -----

HEAT & PIECE 604254 - 2B
WEIGHT 1516
FINISH 1
GRADE 316L / 316
DIMENSIONS .187 X 96.000 X 265.000 EXACT
UNS-S31603 / UNS-S31600

----- SPECIFICATIONS -----

*** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM SWEDEN
AMS 5507F EXCEPT LINE MARK AMS 5524R EXCEPT LINE MARK
ASTMA240-04A ASMESA240 04 ED ASTM A480-04 ASME SA480 04ED
ROLLED ALLOYS SPECS 316L/316 NAFTA CTRY ORIGIN = SLB CTRY
NO GRIPPER MARKS NO WELD REPAIRS
ASTM A262-02A PRACTICE A ASTM A262-02A PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1950 DEGREES FAHRENHEIT MINIMUM.
THEN WATER COOLED OR RAPIDLY COOLED BY AIR
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
HOT ROLLED, ANNEALED & PICKLED (HRAP)

----- MECHANICAL & OTHER TESTS -----

HARDNESS RB 76
GRAIN SIZE 5
YIELD STRENGTH (PSI) 37198
TENSILE STRENGTH (PSI) 83880
BEND OK
INTERGRANULAR CORROSION OK
ELONGATION % IN 2" 50.1
REDUCTION OF AREA % 64.7

ISO 9001-2000
DIN Cert
00388

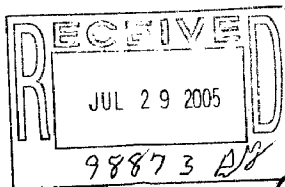


TRACER# 116158

----- CHEMICAL COMPOSITION -----

CARBON	(C)	.016
MANGANESE	(MN)	1.72
PHOSPHORUS	(P)	.032
SULFUR	(S)	.001
SILICON	(SI)	.35
CHROMIUM	(CR)	16.44
NICKEL	(NI)	10.16
COBALT	(CO)	.19
COPPER	(CU)	.47
MOLY	(MO)	2.04
NITROGEN	(N)	.04
COLUMBIUM	(CB)	.013
TITANIUM	(TI)	.004
ALUMINIUM	(AL)	.007
TIN	(SN)	.008

AUG 03 2005



ROLLED ALLOYS QUALITY ASSURANCE

APPROVED *James Douberman*

DATE 3-29-05

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL TESTS ARE ACCEPTABLE.

JAMES DOUBERMAN, QUALITY ASSURANCE MANAGER

CERTIFICATE IN CONFORMANCE WITH DIN50049 3.1.B/EN10204 3.1.B

James Douberman

Outokumpu Stainless Plate, Inc.
P.O. Box 370
New Castle, Indiana 47362

3 0516-1 196



Allegheny Ludlum Jessop Plate Products Division
An Allegheny Technologies Company

500 Green Street
Washington, Pennsylvania 15301

Page

Bill to: PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA 19320

Ship to: PLATE PROD DIV / A-L
1201 VALLEY ROAD
COATESVILLE PA 19320

PHIL CLADITIS
Quality Assurance Representa

Memo No: 260311-00

Our Order no: RW4910400
Your Order No: M E M O
Date: 09/03/2004
DUAL CERT

ALC 316/316L STAINLESS HRAP
ASTM A240-04a ASME SA-240-01 ASTM A480-02 ASME SA-480-01
AMS 5507F (316L) AMS 5524K (316) ASTM A666-03 COND A CHEM/PHYS TO
ASTM A312-02 ASME SA-312-01 ASTM A479-02 ASME SA-479-01 ASTM A262-02
PRACTICE E SCREEN PRAC A

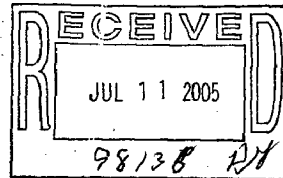
Heat	Slip	Lot No	Size	Pcs	Weight
818102	34967 A	143182	1.5000 x 83.0000 x 260.0000	1	9488 GV-STOCK

Heat	C	MN	P	S	SI	NI	CR	MO	CO	CU	N
818102	.018	1.57	.027	.0004	.31	10.14	16.38	2.10	.25	.37	.069

Lot No	Gauge	Yield Strength	Tensile Strength	Elong	Red. of Area	Hardness	Bend	Corrosion	Grain Siz
143182	1.5000	33.9 KSI	81.5 KSI	61.0	81.0	BHN146	OK	OK	OK

MATERIAL WAS NOT WELD REPAIRED
MATERIAL WAS PRODUCED WITHOUT KNOWN CONTACT WITH MERCURY
MATERIAL WAS SOLUTION ANNEALED (HEAT TREATED) ABOVE 1900F AND WATER QUENCHED
DIN 50049 3.1.B AND EN 10204 3.1.B CERTIFICATE
MATERIAL IS OF USA MELT AND MANUFACTURE

JUL 11 2005



lines
13-18



TRACER# 109293

98142

lines 25, 30

ROLLED AND QUALITY ASSURANCE
APPROVED *M. Bair*
DATE 9/23/04

PAGE 1 FINAL PAGE

EXCEPT AS OTHERWISE NOTED, THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATIONS AND RESULTS CONFORM TO THE SPECIFICATION AND ORDER REQUIREMENTS. THE ABOVE INFORMATION HAS BEEN REPRODUCED FROM THE ORIGINAL CERTIFIED MATERIAL TEST REPORT.

ORIGINAL

0518-1198



Allegheny Ludlum Jessop Plate Products Division
An Allegheny Technologies Company

1201 Valley Road
Cootesville, Pennsylvania 19320

CERTIFICATE OF CONFORMANCE

Page 1

Our Order no: GV-098284
Your Order No: J06587
Memo No: 4261130-00
Date: 09/15/2004
516

Bill to:
ROLLED ALLOYS INC
125 W STERNS RD
P O BOX 310
TEMPERANCE MI

48182

Shipto:
ROLLED ALLOYS INC
9818 EAST HARDY ROAD
HOUSTON TX

77093

Robert Campagna
Quality Assurance Representat:

ALC T-316/316L DUAL CERT HRAP STAINLESS
ASTM A240-02 ASME SA240-01
79" WIDE ROUGHING MILL EDGE PLATE

Item	Grade	Heat No	Slip	Size	Weight	Mill Cert	Ord
001	316L			1.5000 79.0000	235.0000	LEN	1
				PN:530034299001			
		818102	34967 A	1.5000 79.0000	235.0000		1
							8166 260311-00 Shij
							8166
							ITEM TOTAL: 1
							TOTAL ORDER: 1
							8166



JUL 11 2005



TRACER# 109293

CMTR (MANUFACTURER)
 ULTRASONIC REPORT
 OTHER

THE MATERIAL LISTED ABOVE IS SUPPLIED IN ACCORDANCE WITH THE ABOVE LISTED SPECIFICATIONS BASED ON THE REVIEW OF THE MATERIAL MANUFACTURER'S CERTIFIED MATERIAL TEST REPORT (ELECTRONICALLY EXCERPTED COPY ATTACHED) AND THE REQUIREMENTS OF THE PURCHASE ORDER.

ORIGINAL

Princeton University Plasma Physics Laboratory
James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

26 August 2005

Ms. Teresa L. Hubbard
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Subcontract S005243-F
Approved Disposition of Major Tool, Inc. Non-Conformance Reports
17157, 17167, 17233, 17237, 17240, 17286, 17287, 17288, 17314,
and 17342

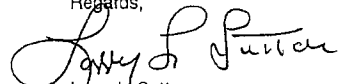
Dear Ms. Hubbard:

Attached are ten Major Tool & Machine, Inc. submitted Non-Conformance Reports (NCRs) and their disposition approved by the National Compact Stellarator Experiment (NCSX) Procurement Technical Representative and the Responsible Line Manager for the Vacuum Vessel Sub-Assembly.

Please note the one signed Project Disposition form applies to all ten of the NCRs.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441 and by e-mail lsutton@pppl.gov.

Regards,


Larry L. Sutton
Senior Subcontract Administrator

Attachments: As stated

cc: M. Viola

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 17167

Page: 1
Date: 05/12/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: 130026 / CONFLAT FLANGE, 6.0 OD TAPPED
Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 33 Pieces

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: 1.02 MAX MAGNETIC PERMEABILITY
PARTS CHECK GREATER THAN 1.05 AND LESS THAN 1.4.
I.D. OF PARTS IN AREAS CHECK 1.2

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED. Propose - Use as is.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____

Date: _____

Buyer Approval: _____

Title: _____

Date: _____

Major Tool Implemented By: _____

Title: _____

Date: _____

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: FA06000133 / CF REDUCING NIPPLE, 6.00 TO 1.

Drawing ID: SE120-004

Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 33 Pieces

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: IDC REQUIRES A MAX OF 1.02 PERMEABILITY.
THE PART WAS MEASURING OVER 1.2, BUT LESS THAN 1.4
THE BOTTOM OF THE FLANGE CHECKS 1.2
THE TOP OF THE REDUCING NIPPLE PART CHECKS 1.05
THE TOP OF FLANGE AND SIDES PART CHECKS UP TO 1.1

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 17233

Page: 1
Date: 05/12/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: 609-243-3655
Fax: 609-243-3248

Part: 130033 / CONFLAT FLANGE, 10.0 OD TAPPED
Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 6 Pieces

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: 1.02 MAX MAGNETIC PERMEABILITY
PARTS CHECK GREATER THAN 1.05. ON TOP FACE AT THE SEAL GROOVE PARTS CHECK 1.2 ALSO
AT BOTTOM BY TAPPED HOLES AND THE INSIDE DIA. PARTS ARE LESS THAN 1.4

Proposed Disposition:
CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 17237

Page: 1
Date: 05/12/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: 110058 / CONFLAT BLANK FLANGE, 12.0 DIA
Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 9 Pieces

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: 1.02 MAX MAGNETIC PERMEABILITY
PARTS CHECK GREATER THAN 1.05 AND LESS THAN 1.1

Proposed Disposition:
CUSTOMER DISPOSITION REQUIRED

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 17286

Page: 1
Date: 05/12/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: 110030 / CONFLAT BLANK FLANGE, 8.0 DIA.
Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 12 Pieces

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: 1.02 MAX ON MAGNETIC PERMEABILITY CHECKS GREATER THAN 1.2 AND LESS THAN 1.4.

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED. Propose – Use as is.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: 130093 / CONFLAT FLANGE, 12.0 OD TAPPED

Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F
Serial No./Qty: 14 Pieces.

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: 1.02 max on magnetic permeability part checks greater than 1.02
The i.d. checks greater than 1.04. and less than 1.1.

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED. Propose – use as is.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18542

Page: 1
Date: 11/28/05
User ID:
MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: /
Drawing ID: SE122-049 Revisio 1
Links: 1-Type:W: 65678/7.0 Sub: 9 Opn90

Customer S005243-F/Ln:7
SerialNo.: 9/7

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: MAGNETIC PERMEABILITY TO BE LESS THAN 1.02
FLANGE CHECKS GREATER THAN 1.05 AND LESS THAN 1.10 (after machining)

**Proposed
Disposition:**

Customer disposition required

~~Number of additional pages:0~~

Customer Disposition: Use As Is Rework Repair Scrap

Replace

Technical Contact _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented _____

Title: _____ **Date:** _____

By:

Nonconformance Report: Major Tool NC18542.

This is for SE122-049

This NCR is for a Lot 7 Port 4 Flange that checked o.k. prior to machining and was not included with the previous submittal.

Problem:

MAGNETIC PERMEABILITY TO BE LESS THAN 1.02

FLANGE CHECKS GREATER THAN 1.05 AND LESS THAN 1.10 (after machining)

Project Disposition:

Use as is

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: CN = Mike Viola, C = US
Reason: I am approving this
document
Date: 2005.12.01 15:42:59 -05'00'

Procurement Technical Representative

Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2005.12.02 01:02:08 -05'00'

Responsible Line Manager:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18590

Page: 1
Date: 11/28/05
User ID:
MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: /
Drawing ID: SE120-004 Revisio 2

Customer S005243-F/Ln:7
Serial No.: 8/7

Reported By: DOUG MCCORKLE n:
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: MAGNETIC PERMEABILITY TO BE 1.02 MAX.

AT FLANGE--OUT SIDE OF SEAL RING GROOVE CHECKS GREATER THAN 1.02 BUT
~~LESS THAN 1.1~~
SEAL RING: BOTTOM AND SIDES--PERMEABILITY CHECKS GREATER THAN 1.1
BUT LESS THAN

**Proposed
Disposition:**

Customer disposition required

~~Number of additional pages: 0~~

Customer Disposition: Use As Is Rework Repair Scrap
Replace

Technical Contact _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented _____

Title: _____ Date: _____

By:

Nonconformance Report: Major Tool NC18590.

This is for SE120-004

Please review and provided disposition. This NCR is for a Lot 7 Port 4 Flange that checked o.k. prior to machining and was not included with the previous submittal.

Problem:

MAGNETIC PERMEABILITY TO BE 1.02 MAX.

AT FLANGE--OUT SIDE OF SEAL RING GROOVE CHECKS GREATER THAN 1.02 BUT LESS THAN 1.1.

IN SEAL RING-BOTTOM AND SIDES--PERMEABILITY CHECKS GREATER THAN 1.1 BUT LESS THAN 1.15

Project Disposition:

Use as is

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: CN = Mike Viola, C = US
Reason: I am approving this
document
Date: 2005.12.01 15:45:00 -05'00'

Procurement Technical Representative

Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2005.12.02 01:02:39 -05'00'

Responsible Line Manager:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18609

Page: 1
Date: 11/28/05
User ID:
MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: /
Drawing ID: SE122-018 Revisio 1

Customer S005243-F/Ln:7
Serial No.: 9/7

Reported By: DOUG MCCORKLE n:
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: MAGNETIC PERMEABILITY TO BE LESS THAN 1.02

FLANGE OUTSIDE OF GROOVE CHECKS GREATER THAN 1.05 BUT LESS THAN 1.1

IN GROOVE MAGNETIC PERMEABILITY CHECKS GREATER THAN 1.1 BUT LESS
THAN 1.15

Proposed

Disposition: Customer disposition required. Condition is slightly worse than previously reported.

Number of additional pages:0

Customer Disposition: Use As Is Rework Repair Scrap

Replace

Technical Contact _____

Title: _____

Date: _____

Buyer Approval: _____

Title: _____

Date: _____

Major Tool Implemented _____

Title: _____

Date: _____

By:

Nonconformance Report: Major Tool NC18609.

This is for SE122-018

Please review and provided disposition. This NCR is for a Lot 7 Port 4 Flange that checked o.k. prior to machining and was not included with the previous submittal. I already submitted NCR 18452 but the condition appears to be slightly worse for this inspection so we'll need you to take a second look at this part.

Problem:

MAGNETIC PERMEABILITY TO BE LESS THAN 1.02

FLANGE OUTSIDE OF GROOVE CHECKS GREATER THAN 1.05 BUT LESS THAN 1.1

IN GROOVE MAGNETIC PERMEABILITY CHECKS GREATER THAN 1.1 BUT LESS THAN 1.15

Project Disposition:

Use as is

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: CN = Mike Viola, C = US
Reason: I am approving this
document
Date: 2005.12.01 15:47:47 -05'00'

Procurement Technical Representative

**Brad
Nelson**

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2005.12.02 01:03:14 -05'00'

Responsible Line Manager:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 19060

Page: 1
Date: 01/31/06
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB
Contact: LARRY SUTTON
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: / SE122-049-1 PORT 4B FLANGE
Drawing ID: SE122-049 Revision: 1

Customer P.O.: S005243-F/Ln:7
Serial No: 7/9

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: PER B.P. MAG. PERM. TO BE LESS THAN 1.02
MATERIAL CHECKS GREATER THAN 1.05 BUT LESS THAN 1.1

Proposed Disposition:
CUSTOMER DISPOSITION REQUIRED

Number of additional pages: 0

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Nonconformance Report: Major Tool NC19060

This is for SE122-049-1 PORT 4B FLANGE

Problem:

PER B.P. MAG. PERM. TO BE LESS THAN 1.02

MATERIAL CHECKS GREATER THAN 1.05 BUT LESS THAN 1.1

Project Disposition:

Accept as is

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: cn=Mike Viola, c=US
Reason: I am approving this document
Date: 2006.02.13 13:56:18 -05'00'

Procurement Technical Representative

Art Brooks

Digitally signed by Art Brooks
DN: cn=Art Brooks, c=US, o=PPPL,
ou=NCSX, email=abrooks@pppl.gov
Reason: I am approving this document
Date: 2006.02.13 15:45:57 -05'00'

Art Brooks, Technical Assurance

Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.02.13 16:36:10 -05'00'

Responsible Line Manager:

**F.
Malinowski**

Digitally signed by F. Malinowski
DN: CN = F. Malinowski, C =
US, O = PPPL, OU = QA
Date: 2006.02.14 11:16:41 -
05'00'

Project Quality Assurance:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 19116

Page: 1
Date: 02/27/06
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: /

Drawing ID: SE120-004

Revision: 2

Customer P.O.: S005243-F/Ln:7
Qty: (all std. CF blanks)

Reported By: DOUG MCCORKLE

E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: IT WAS REQUIRED TO OVERSIZE HOLE PATTERN ON MAJORITY OF ALL ROUND BLANK COVERS .015 DIAMETER FROM ORIGINAL HOLE SIZE TO ALLOW FOR PROPER BOLT CLEARANCE. ONLY PARTIAL QTY ON LOT 7 OR 1 HAS BEEN OVERSIZED AT THIS POINT.

Proposed Disposition:

In order to provide adequate clearance for assembling the MDC covers (original specification) to the Trinos flanges (replacements for the original specified MDC flanges), it was necessary to machine the bolt holes of the flanges oversize by approximately 0.010-0.020". Also, the O.D. of the standard copper seals obtained from MDC had to be turned smaller by approximately 0.03-0.04" (on diameter). Propose "use as is" disposition.

NC Type: Notification Only.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

See attached

Technical Contact Approval: _____

Title: _____ **Date:** _____

Buyer Approval: _____

Title: _____ **Date:** _____

Major Tool Implemented By: _____

Title: _____ **Date:** _____

Nonconformance Report: Major Tool NC19116

This is for SE120-004

Problem:

IT WAS REQUIRED TO OVERSIZE HOLE PATTERN ON MAJORITY OF ALL ROUND BLANK COVERS .015 DIAMETER FROM ORIGINAL HOLE SIZE TO ALLOW FOR PROPER BOLT CLEARANCE. ONLY PARTIAL QTY ON LOT 7 OR 1 HAS BEEN OVERSIZED AT THIS POINT.

In order to provide adequate clearance for assembling the MDC covers (original specification) to the Trinos flanges (Replacements for the original specified MDC flanges), it was necessary to machine the bolt holes of the flanges oversize by approximately 0.010-0.020". Also, the O.D. of the standard copper seals obtained from MDC had to be turned smaller by approximately 0.03-0.04" (on diameter). Propose "use as is" disposition.

Project Disposition:

Use as is.

Additional remarks:

Does this Change Impact Material Already Procured or Parts/Assemblies Already Assembled/Manufactured using this Material: Yes No

If "Yes", what is the recommended disposition of this material/part/assembly?

Return rejected MDC flanges to PPPL with the first VVSA

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: cn=Mike Viola, c=US
Reason: I have reviewed this document
Date: 2006.03.21 16:39:50 -05'00'

Procurement Technical Representative

Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.03.21 19:29:08 -05'00'

Responsible Line Manager:

Project Quality Assurance:

Nonconformance Report: Major Tool NC19286

This is for SE120-004-47 / SEAL RETAINER SCREW

Problem:

seal retainer screw locked into nb cover after thermal cycling and vacuum testing. screw had no lubricant nor was it silver plated.

fab was able to weld onto head and freely remove all 8 screws without damage to threads.

The screws were destroyed during removal but the threaded holes are o.k.

The same screws located in the port 12 and 4 flanges were removed without incident (they were not subjected to high temp).

Doug McCorkle

Project Disposition:

Accept as is. PPPL will procure silver plated screws for future assemblies.

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: cn=Mike Viola, c=US
Reason: I am approving this document
Date: 2006.02.23 11:43:39 -05'00'

Procurement Technical Representative

Brad
Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.02.23 12:26:31 -05'00'

Responsible Line Manager:

F. Malinowski

Digitally signed by F. Malinowski
DN: CN = F. Malinowski, C = US, O =
PPPL, OU = QA
Reason: I have reviewed this document
Date: 2006.02.24 10:05:51 -05'00'

Project Quality Assurance:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 19288

Page: 1
Date: 02/20/06
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: mviola@pppl.gov

Telephone: 609-243-3655
Fax: 609-243-3248

Part: SE120-004-42 / O-RING, VITON

Drawing ID: SE120-004 Revision: 1

Customer P.O.: S005243-F/Ln:1
Qty: 12

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: viton o-rings are damaged upon removal from port flanges after vacuum testing. o-rings recieved numerous cuts from the edges of retainer strips during the installation and torque of retaining strips and flanges. their are currently no extra in system,drawing shows this as a shippable item.

Proposed Disposition:

CUSTOMER DISPOSITION REQUIRED (applies to Ports 4 and 12)

Number of additional pages: 0

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Nonconformance Report: Major Tool NC19288

This is for SE120-004-42 / O-RING, VITON

Problem:

viton o-rings are damaged upon removal from port flanges after vacuum testing. O-rings received numerous cuts from the edges of retainer strips during the installation and torque of retaining strips and flanges. Their are currently no extra in system, drawing shows this as a shippable item.

Doug McCorkle

Project Disposition:

Scrap and Do not replace.

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: cn=Mike Viola, c=US
Reason: I am approving this document
Date: 2006.02.24 11:26:21 -05'00'

Procurement Technical Representative

Brad
Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.02.24 11:53:08 -05'00'

Responsible Line Manager:

F.
Malinowski

Digitally signed by F. Malinowski
DN: CN = F. Malinowski, C = US, O
= PPPL, OU = QA
Reason: I have reviewed this document
Date: 2006.02.24 11:57:42 -05'00'

Project Quality Assurance:



Non-conformance: 17342

Occurred: 05/11/05 Identified By: 702-D.EDWARDS

Reported: 05/11/05 By: 702-D.EDWARDS

Part: 130093 / CONFLAT FLANGE, 12.0 OD TAPP

Customer: PRINCETON PLASMA PHYSICS LAB

Drawing ID:

Rev

Serial Number: 1 PC.

Links: 1-Type:W: 65678/7.0 Sub: 193 Op: 10 Pc:10

Vendor:

Problem: 1.02 MAX ON THE MAGNETIC PERMEABILITY PART CHECKS 1.02 ON THE O.D AND ON THE I.D
PART CHECKS GREATER THAN 1.4 BUT LESS THAN 1.6 ..

Where Detecte 706-RECEIVING INSPECTION

Defect: 150-TESTING FAILURE

N/C Type: 2-NOTIFICATION ONLY

Target Dim:

Max Dev:

Trend N/C: 17157

Reference:

Last Edited: 06/28/05 By: 927-M.MANUEL

Document:

Disposition: 918-RETURN TO CUSTOMER

Due: 06/28/05 By: 775-D.MCCORKLE

Submitted Doc: 17342

Completed: 06/28/05 By: 775-D.MCCORKLE

Act OK Due: 07/12/05 By: 883-S.DULWORTH

Approval Due: 05/13/05 By: 596-D.KNAUB

Approved: 07/10/05 By: 596-D.KNAUB / Vp Quality

Rework: 1-Type:W Base:65678 Lot:14 Split:0 Sub: 42 Op: 30

Inspected: 12/19/05 By: 883-S.DULWORTH

Instructions: PARTS HAVE BEEN REJECTED BY PPPL FOR USE IN THE VESSEL
RETURN TO CUSTOMER PER PROVIDED MANUFACTURING REWORK LEG.
NO ROOT CAUSE OR CORRECTIVE ACTION REQUIRED

Last Edited: 12/19/05 By: 883-S.DULWORTH

Documents:

Last Edited: By:

Closure:

Completed: 09/11/06 By: 596-D.KNAUB

Comments:

Last Edited: 09/11/06 By: 596-D.KNAUB

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: fmalinowski@pppl.gov
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: / SE122-104
Drawing ID: SE122-104

Revision: 1

Customer P.O.: S005243-F/Ln:7
Serial No: 106/7

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Magnetic Permeability requirement of 1.02 max checks 1.05-1.10

Proposed Disposition:

Customer Disposition required.

Number of additional pages: 0

Customer Disposition: Use As Is Rework Repair Scrap Replace

The 5 MTM NCRs are acceptable. They flanges and covers are located far enough from the plasma and in a region of low field that their effect on error fields is estimated to be minimal (<0.1G at plasma).

PPPL Technical Approval: Mike Viola

Digitally signed by Mike Viola
DN: cn = Mike Viola, c = US
Reason: I am approving this document
Date: 2005.10.19 15:19:15 -0400

Title: _____ Date: _____

PPPL RLM Approval: Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, o=US, o=ORNL,
ou=FED, email=nelsonbe@ornl.gov
Date: 2005.10.19 15:27:37 -0400

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18175

Page: 1
Date: 10/13/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB
Contact: fmalinowski@pppl.gov
E-Mail: S-04286-F

Telephone: 609-243-2441
Fax: 609-243-2021

Part: /SE122-018
Drawing ID: SE122-018 Revision: 1

Customer P.O.: S005243-F/Ln:7
Serial No.: 292/7, 282/8, 283/8, 282/9, 283/9

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: MAGNETIC PERMEABILITY LESS THAN 1.02
FACE CHECKS LESS THAN 1.02
SIDES CHECK BETWEEN 1.05 AND 1.1

Proposed Disposition:

Customer Disposition required.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

The 5 MTM NCRs are acceptable. They flanges and covers are located far enough from the plasma and in a region of low field that their effect on error fields is estimated to be minimal (<0.1G at plasma).

PPPL Technical Approval: Mike Viola

Digitally signed by Mike Viola
DN: cn = Mike Viola, c = US
Reason: I am approving this document.
Date: 2005.10.19 15:02:45 -0400

Title: _____

Date: _____

PPPL RLM Approval: Brad Nelson

Digitally signed by Brad Nelson
DN: cn = Brad Nelson, o = US, or = ORNL,
c = US, email = brad@ornl.gov
Date: 2005.10.19 16:21:07 -0400

Title: _____

Date: _____

Major Tool Implemented By: _____

Title: _____

Date: _____

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18402

Page: 1
Date: 10/25/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: (609) 243-3655
Fax: (609) 243-3248

Part: /
Drawing ID: SE120-004

Revision: 2

Customer P.O.: S005243-F/Ln:7
Serial No.: 2/7

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Profile requirement of 0.188 (+ Unilateral) checks -0.110 / +0.258.

Proposed Disposition: This measurement represents the in-process check of Port 12B profile after welding and machining the flange (the sub-assy is structurally complete). The part is currently out of tolerance on the plus side as much as 0.087" along the straight sides. Both ends (radii) are within tolerance. This condition will likely remain to some extent after the port is installed and final inspected (without reworking the port sub-assy prior to installation).

Request "use as is" disposition if the condition will not create interference with mating components.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Nonconformance Report: Major Tool NC18402.

This is for the port 12B out of tolerance condition on the first VVSA (MTM lot 7)

Project Disposition:

Use as is:

The data was taken on two fully welded port assemblies (port 12A and port 12B) that had not yet been welded to the vacuum vessel shell. Although there are a few points that are out of tolerance, recommendation is to accept the parts as is. The vast majority of out of tolerance points are away from the modular coil which should not impose significant problems. The VV heating/cooling mounting flange (se123-167) that will be welded to the vertical ports at final assembly at PPPL will need to have its inner flange surface trimmed to match the surface of the port.

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: CN = Mike Viola, C = US
Reason: I am approving this
document
Date: 2005.11.10 15:39:46 -05'00'

Procurement Technical Representative

**Brad
Nelson**

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2005.11.10 17:09:20 -05'00'

Responsible Line Manager:

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 18459

Page: 1
Date: 10/25/05
User ID: MCCORKLE

Customer: PRINCETON PLASMA PHYSICS LAB

Contact: Mike Viola
E-Mail: S-04286-F

Telephone: (609) 243-3655
Fax: (609) 243-3248

Part: /
Drawing ID: SE120-004

Revision: 2

Customer P.O.: S005243-F/Ln:7
Serial No.: 3/7

Reported By: DOUG MCCORKLE
E-Mail: dMcCorkle@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Profile requirement of 0.188 (+ Unilateral) checks +0.275 / -0.101

Proposed Disposition: This measurement represents the in-process check of Port 12A profile after welding and machining the flange (the sub-assy is structurally complete). The part is currently out of tolerance on the plus side as much as 0.087" along the straight sides. Both ends (radii) are within tolerance. This condition will likely remain to some extent after the port is installed and final inspected (without reworking the port sub-assy prior to installation).

Request "use as is" disposition if the condition will not create interference with mating components.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

Technical Contact Approval: _____

Title: _____ Date: _____

Buyer Approval: _____

Title: _____ Date: _____

Major Tool Implemented By: _____

Title: _____ Date: _____

Nonconformance Report: Major Tool NC18459.

This is for the port 12A out of tolerance condition on the first VVSA (MTM lot 7)

Project Disposition:

Use as is:

The data was taken on two fully welded port assemblies (port 12A and port 12B) that had not yet been welded to the vacuum vessel shell. Although there are a few points that are out of tolerance, recommendation is to accept the parts as is. The vast majority of out of tolerance points are away from the modular coil which should not impose significant problems. The VV heating/cooling mounting flange (se123-167) that will be welded to the vertical ports at final assembly at PPPL will need to have its inner flange surface trimmed to match the surface of the port.

Approvals:

Mike Viola

Digitally signed by Mike Viola
DN: CN = Mike Viola, C = US
Reason: I am approving this document
Date: 2005.11.10 15:42:09 -05'00'

Procurement Technical Representative

**Brad
Nelson**

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2005.11.10 17:09:36 -05'00'

Responsible Line Manager:

