

(U)

Workorder Part ID Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1 NSCX PROTOTYPE VACUUM VESSEL SEGMENT Drawing ID / Rev Sub ID Part ID 0 NSCX PROTOTYPE VACUUM VESSEL SEGMENT SE121 / A Operation Resource **QtyPer** StartQty EndQty Drawing ID / Rev Sub: 0 / Seq: 10 700-BLUE TEAM, ENGINEERING 1.00 1.00 1.00 SE121 / A (U) **ENGINEERING** Piece # Part ID Qty Drawing ID / Rev Vendor **Dimensions** 1.0 10 (U) WELD WIRE QtyPer Operation Resource StartOtv EndOty Drawing ID / Rev Sub: 0 / Seq: 20 825-FINAL INSPECTION - PLANTS 1 & 1.00 1.00 1.00 SE121 / A (U) FINAL VISUAL INSPECTION (ENGINEERING CONCURRENCE REQUIRED). VERIFY CLEANLINESS PER COMPILE ELECTRONIC DATA BOOK INFORMATION PER MTM QAP. TAKE SEVERAL PHOTOGRAPHS OF PART PREPARE C OF C AND REQUEST FOR SHIPPING RELEASE (CONTACT ENGINEERING (DOUG McCORKLE) FOR RELEASE FORM IF NOT AVAILABLE ELECTRONICALLY. Operation QtyPer EndQty Drawing ID / Rev Resource StartQty Sub: 0 / Seq: 30 425-SHIPPING - PLANTS 1 & 2 1.00 SE121 / A 1.00 1.00 (Ū) SHIP PER CUSTOMER RELEASE FORM (CONTAINER MANUFACTURED IN SUB I.D. 28) SPECIAL CRATE REQUIREMENTS: CONTAINER MUST BE CLEARLY MARKED WITH THE FOLLOWING INFORMATION: SUPPLIER: MAJOR TOOL & MACHINE, INC. 1458 E. 19TH ST. INDIANAPOLIS, IN 46218 CONTENTS: SE121 NCSX PVVS Operation **QtyPer** StartQty EndQty Drawing ID / Rev Service ID Resource Sub: 0 / Seq: 9999 600-DO NOT USE - PC AUTO PROJECT 1.00 1.00 1.00 TESTNG/MISC IDC N/A Drw N/A Sub ID Part ID Drawing ID / Rev SE121 PROTOTYPE VACUUM VESSEL SE121 / A Operation Resource QtyPer StartQty EndQty Drawing ID / Rev Sub: 1 / Seq: 10 230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A * FABRICATION OPERATION # 1

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Workorder 64880/1

Part ID

ty Drawing ID / Rev SE121 / A Engineer BLUE/DOUG MCCORKLE

1. INSTALL THE DIE FORMED PANELS ONTO FABRICATION FIXTURE. TRIM, FIT, AND ALIGN EACH PANEL TO IT'S RESPECTIVE ADJACENT PANEL AND FIXTURE REST STOPS. NOTE THAT THE FIXTURE REST STOPS ARE POSITIONED AT NOMINAL (+.090") GEOMETRIC POSITION TO AVOID STARTING ANY LOWER THAN MID-TOLERANCE. GAPS BETWEEN THE PRODUCTION PANELS AND FIXTURE REST STOPS (UP TO .090") ARE PERMITTED.

ALIGN AND TACK WELD ALL FIVE PANELS TOGETHER.

ENSURE EACH PANEL IS ALIGNED SMOOTH AND CONTINUOUS TO ITS ADJACENT MEMBER AND MIS-MATCH IS MINIMIZED. CWI / ENGINEERING CONCURRENCE REQUIRED.

ASSIST Q/A WITH PROFILE VERIFICATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty 1	Drawing ID / Rev
Sub: 1 / Seq: 20	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	INSPECTION OPERATION # 1				

AFTER PART IS COMPLETELY TACK WELDED, INSPECT / VERIFY POSITIONING, FITUP, AND PROFILE OF TACK WELDED PER THE FOLLOWING:

ENSURE THE PART PROFILE IS WITHIN THE UPPER HALF OF THE APPLIED BI-LATERAL TOLERANCE AS FOLLOWS: VARIFY THAT NO INSPECTION POINT IS ABOVE THE HIGH LIMIT OF TOLERANCE (OUTWARD) OR BELOW NOMINAL (INWARD).

RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM N.C.R.

NOTIFY ENGINEERING (DOUG McCORKLE) FOR EVALUATION OF RESULTS PRIOR TO RELEASING PART.

ENSURE THE FIXTURE DATUM TARGETS ARE ADEQUATELY POSITIONED FOR THE NEXT SEQUENTIAL INSPECTION

INSPECT AND RECORD THE MAGNETIC PERMEABILITY OF THE WELD ZONES.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Rev
Sub: 1 / Seq: 30	230-FABRICATION - WEIDNER	1.00	1.00	1.00 SE121 / A
(U)	FABRICATION OPERATION # 2			

INSTALL THE EXTERIOR STIFFENER (FIXTURING) TO THE TOP OF THE VESSEL. TACK WELD THE STIFFENER TO THE PART. NOTE THAT THE STIFFENER MATERIAL IS ALSO INCO 625, NO TABS REQUIRED.

BACK PURGE THE OUTSIDE WELD JOINT SURFACES. PURGE MATERIAL MUST BE MADE FROM EITHER 625 INCONEL OR 300 SERIES STAINLESS STEEL. WELD ROOT PASSES (INCREMENTALLY, USING BACK-STEPPING METHOD TO MINIMIZE SHRINKAGE) ON ALL FIVE WELD JOINTS.



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BLUE/DOUG MCCORKLE

Engineer

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty Drawing ID / Rev
Sub: 1 / Seq: 40	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00 SE121 / A
(Ū)	INSPECTION OPERATION # 2			

AFTER THE ROOT WELDS ARE COMPLETE (FABRICATION DEPT. WILL COORDINATE); RE-INSPECT / VERIFY PART PROFILE IS WITHIN APPLIED TOLERANCE AND RECORD WELDING SHRINKAGE / DISTORTION REALIZED TO THIS POINT.

RECORD ACTUAL (INDIVIDUAL) MEASUREMENTS ON INSPECTION FORM (SE121-2MTM). RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

INSPECT AND RECORD MAGNETIC PERMEABILITY.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM NCR.

NOTIFY ENGINEERING (DOUG McCORKLE) FOR EVALUATION OF RESULTS PRIOR TO RELEASING PART.

ENSURE THE FIXTURE DATUM TARGETS ARE ADEQUATELY POSITIONED FOR THE NEXT SEQUENTIAL INSPECTION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQt	y Drawing ID / Rev
Sub: 1 / Seq: 70	230-FABRICATION - WEIDNER	1.00	1.00	1.00	SE121 / A
(Ū)	FABRICATION OPERATION # 4				

AFTER OBTAINING ENGINEERING PROFILE ACCEPTANCE, WELD THE REMAINDER OF THE STRUCTURAL WELD JOINTS (SEQUENCE WELDING TO MINIMIZE DISTORTION AND NUMBER OF INTER-PASSES).

AFTER WELDING IS COMPLETE, REMOVE THE OUTSIDE STIFFENING PLUG. BLEND / TOUCH UP ATTACHMENT WELDS AS REQUIRED.

POSITION AND WELD THE PORT SUB-ASSEMBLY IN PLACE PER DRAWING.

FINISH POLISHING AND CLEANING THE INTERIOR SURFACES OF THE PORT SUB-ASSEMBLY. RESTORE TO A 32 MICRO-INCH SURFACE FINISH. REFER TO CLEANING PROCEDURE # ??????

INSTALL THE VACUUM TEST CAP TO THE CONFLAT FLANGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON

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FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 73

(U)

Resource 450-SUBLET **QtyPer** 1.00

StartOtv 1.00

EndOty Drawing ID / Rev 1.00 SE121 / A

Service ID MISC/SUBLET

VACUUM TESTING OF PORT SUB-ASSEMBLY TO PER THE FOLLOWING:

THE PORT UNDER TEST SHALL BE EVACUATED USING A TURBO MOLECULAR PUMP TO AN INTERNAL PRESSURE OF LESS THAN OR EQUAL TO 1 X 10(-7) TORR. THE TOTAL HELIUM LEAK RATE FOR THE PORT EXTENSION SHALL BE LESS THAN OR EQUAL TO 1.7 X 10(-9) TORR-L/S.

Part Number: SE121-1

Part Description: PROTOTYPE VACUUM VESSEL SEG.

Customer: PPPL

Test Certification: VACUUM TEST CERTIFICATE Rev:

Operation Sub: 1 / Seq: 80 (U)

Resource 805-INPROCESS INSPECTION - PLANT INSPECTION OPERATION #3

QtyPer 1.00

StartOtv 1.00

EndQty Drawing ID / Rev

1.00 SE121 / A

AFTER THE STRUTURAL WELDS AND VACUUM TESTING ARE COMPLETE (FABRICATION DEPT. WILL COORDINATE); RE-INSPECT / VERIFY PART PROFILE IS WITHIN APPLIED TOLERANCE AND RECORD WELDING SHRINKAGE / DISTORTION.

RECORD ACTUAL (HIGH/LOW RANGE) ON MTM I.D.C.

REPORT ANY OUT OF TOLERANCE READINGS VIA MTM NCR.

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 90 (U)

Resource 230-FABRICATION - WEIDNER FABRICATION OPERATION #5 OtvPer 1.00

StartOtv 1.00

EndOty Drawing ID / Rev 1.00 SE121-003P / 0

LAYOUT AND CUT THE PORT EXTENSION TUBE PER DRAWING. CUT THE PORT OPENING PER DRAWING. PREP EDGES OF TUBE FOR RE-INSTALLATION AND WELDING.

POSITION AND WELD THE WELD BACKING RING (SE121-003P-4) IN PLACE PER DRAWING. RE-INSTALL THE PORT EXTENSION TUBE AND WELD IN PLACE PER DRAWING.

GRIND AND POLISH THE INSIDE WELD PROFILE SMOOTH TO BASE MATERIAL (NOTE SURFACE FINISH REQUIREMENTS).

GRIND AND POLISH THE STIFFENING RING FILLET WELDS SMOOTH.

GRIND / POLISH THE PORT SUB-ASSEMBLY INTERIOR WELD SMOOTH AND CUT THE OPENING PER DRAWING.

ASSIST O/A WITH PROFILE VERIFICATION.

AFTER INSPECTION IS COMPLETE, REMOVE PART FROM FIXTURE.

PERFORM FINAL COSMETIC UPGRADE. PREPARE PART FOR FINAL BLAST AND FINAL VISUAL INSPECTION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO



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AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Seq: 100 (U)

Resource 805-INPROCESS INSPECTION - PLANT FINAL PROFILE VERIFICATION. VERIFY MAGNETIC PERMEABILITY.

EndQty Drawing ID / Rev OtvPer StartOtv 1.00 1.00 1.00 SE121 / A

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 1 / Sea: 110

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Resource 260-SANDBLAST QtyPer StartOtv EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

MASK THE INTERIOR SURFACES AND FLANGE FACE. BLAST THE OUTSIDE SURFACE 100% USING 220 GRIT VIRGIN ALUMINUM OXIDE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

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Operation Sub: 1 / Seq: 115

Operation

Sub: 1 / Seq: 120

(U)

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Resource 230-FABRICATION - WEIDNER OtvPer StartOtv 1.00 1.00

EndOty Drawing ID / Rev 1.00 SE121 / A

REMOVE MASKING AND PROTECTIVE PLASTIC

CLEAN PART PER

Resource

QtyPer StartQty EndQty Drawing ID / Rev 1.00 SE121 / A 1.00 1.00

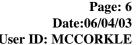
FINAL MAGNETIC PERMEABLITY VERIFICATION.

805-INPROCESS INSPECTION - PLANT

VERIFY MAGNETIC PERMEABILITY OF THE STRUCTURAL WELDS, VESSEL WALL, PORT EXTENSION TUBE, CONFLAT FLANGE, FLANGE TO TUBE WELD.

RECORD I.D.C. DATA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:



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Sub ID Part ID Drawing ID / Rev 3 LEAVE UNRELEASED!!!! SE121-00

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev Sub: 3 / Seq: 10 410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A

NEST AND PROGRAM. (U) BURNOUT AND CLEANUP STIFFENER SEGMENTS PER NESTING / PROGRAM. ENSURE ALL DROSS IS REMOVED AND CORNERS ARE SLIGHTLY RADIUSED.

Piece # Part ID Drawing ID / Rev Vendor **Dimensions** 1.0 1810

INCONEL 625_6-PLATE, NICKEL ALLOY .5" THK Vendor Part ID: INCONEL 625_6

INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

(U)

(U)

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification: Part Number: SE121-3 & -4

Part Description: PROTOTYPE RIB # 1 & 2

OtvPer StartOtv EndOty Drawing ID / Rev Operation Resource

Sub: 3 / Seq: 20 230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A

ASSEMBLE AND WELD STIFFENER SUB-ASSEMBLIES COMPLETE PER DRAWING, MYLAR TEMPLATE, AND WPS.....

ENSURE ADEQUATE MACHINING STOCK EXISTS ON INSIDE AND OUTSIDE CONTOUR.

Operation Resource **QtyPer** StartOtv EndQty Drawing ID / Rev Sub: 3 / Seq: 30 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

(U) VERIFY / RECORD MAGNETIC PERMEABILITY OF STIFFENERS. RECORD I.D.C. DATA.

Part ID Sub ID Qty Drawing ID / Rev 14 SE121-001P-2 PANEL # 1

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev

Sub: 14 / Seq: 10 410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A (U)

1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

2. NEST AND PROGRAM PER PROVIDED GEOMETRY.

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.qrp



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Date:06/04/03
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Workorder
64880/1Part IDQtyDrawing ID / RevEngineer1SE121 / ABLUE/DOUG MCCORKLE

- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK1.01810Vendor Part ID: INCONEL 625_5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

(U)

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 15805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Customer: PPPL Serial Number: SE121-1

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 14 / Seq: 20	341-PACIFIC 750	1.00	1.00	1.00	SE121 / A



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Date:06/04/03
User ID: MCCORKLE

WorkorderPart IDQtyDrawing ID / RevEngineer64880/11SE121 / ABLUE/DOUG MCCORKLE

(U) FORM PANEL IN DIE #____.

VERIFY PROFILE TO INSPECTION GAGE # GAI

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 25260-SANDBLAST1.001.001.00SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev
Sub: 14 / Seq: 30 520-SUBLET, EXOTIC HEAT TREAT 1.00 1.00 1.00 SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING: EndQty Drawing ID / Rev
1.00 SE121 / A THRML TR/NA SA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Customer: PPPL

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 14 / Seq: 35805-INPROCESS INSPECTION - PLANT1.001.001.005E121 / A(U)VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC.....



Date: 06/04/03 **User ID: MCCORKLE**

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

BLUE/DOUG MCCORKLE

Engineer

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Sub: 14 / Seq: 40 (U)

Resource **QtyPer** StartQty 341-PACIFIC 750 1.00

EndQty Drawing ID / Rev 1.00 SE121 / A 1.00

RE-STRIKE PANEL

GAP TOLERANCE: .08" MAX.

VERIFY PROFILE TO INSPECTION GAGE #

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 14 / Seq: 50

(U)

Resource 260-SANDBLAST OtvPer

StartOtv EndOty Drawing ID / Rev

1.00 1.00 SE121 / A 1.00

SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

Sub: 14 / Seq: 60

(U)

Resource

QtyPer

StartOtv EndQty Drawing ID / Rev

230-FABRICATION - WEIDNER

1.00 1.00 1.00 SE121 / A

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REOUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.



(U)

Page: 10 Date: 06/04/03

User ID: MCCORKLE

Workorder Part ID Otv Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1

Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 14 / Seq: 70 805-INPROCESS INSPECTION - PLANT 1.00 SE121 / A 1.00 1.00

> GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER. VERIFY PROFILE TO INSPECTION GAGE #

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS. BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2A

Part Description: DIE FORMED PANEL # 1

Sub ID Part ID Drawing ID / Rev 15 SE121-001P-2 PANEL # 2

Operation Resource **QtyPer** StartOtv EndOty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

Sub: 15 / Seq: 10 (U)

410-BURNOUT TABLE

- 1. PRIOR TO BEGINNING WORK. CONTACT O/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.
- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Vendor Dimensions Part ID Drawing ID / Rev INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 1810

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

Vendor Part ID: INCONEL 625 5

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification:



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Workorder 64880/1

Part ID

Oty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Operation Sub: 15 / Seq: 15 (U) ResourceQtyPerStartQtyEndQtyDrawing ID / Rev805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Customer: PPPL Serial Number: SE121-2

Operation Sub: 15 / Seq: 20 (U)
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

FORM PANEL IN DIE #

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 15 / Seq: 25 ResourceQtyPerStartQtyEndQtyDrawing ID / Rev260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON



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User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 15 / Seq: 30520-SUBLET, EXOTIC HEAT TREAT1.001.0052121 / ATHRML TR/NA SA(U)SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:1.0052121 / ATHRML TR/NA SA

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Customer: PPPL

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 15 / Seq: 35805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC.....

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Sub: 15 / Seq: 40

(U)

 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

(U) RE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE # . GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 Sub: 15 / Seq: 50
 260-SANDBLAST
 1.00
 1.00
 1.00
 SE121 / A

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 15 / Seq: 60

(U)

Resource 230-FABRICATION - WEIDNER

QtyPer 1.00

EndOty Drawing ID / Rev StartOtv

1.00 1.00 SE121 / A

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

(U)

Resource Sub: 15 / Seq: 70 805-INPROCESS INSPECTION - PLANT

StartOtv

EndOty Drawing ID / Rev

1.00 1.00 1.00 SE121 / A

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

OtvPer

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2B

Part Description: DIE FORMED PANEL # 2

Sub ID 16

Part ID

SE121-001P-2 PANEL # 3

Drawing ID / Rev

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.qrp

(U)

(U)

Page: 14
Date:06/04/03
User ID: MCCORKLE

WorkorderPart IDQtyDrawing ID / RevEngineer64880/11SE121 / ABLUE/DOUG MCCORKLE

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 16 / Seq: 10410-BURNOUT TABLE1.001.001.00SE121 / A

1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK1.01810

Vendor Part ID: INCONEL 625_5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REO'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 16 / Seq: 15805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Customer: PPPL

Page: 15
Date:06/04/03
User ID: MCCORKLE

WorkorderPart IDQtyDrawing ID / RevEngineer64880/11SE121 / ABLUE/DOUG MCCORKLE

Serial Number: SE121-3

 Operation
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 Sub: 16 / Seq: 20
 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

(U) FORM PANEL IN DIE #

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 16 / Seq: 25260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevService IDSub: 16 / Seq: 30520-SUBLET, EXOTIC HEAT TREAT1.001.001.00\$E121 / ATHRML TR/NA SA

SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

(U)

Certification: H/T CERTIFICATE

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Customer: PPPL



Date: 06/04/03 **User ID: MCCORKLE**

Workorder 64880/1

(U)

(U)

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

QtyPer StartOtv EndOty Drawing ID / Rev Operation Resource 1.00 1.00 SE121 / A Sub: 16 / Seq: 35 805-INPROCESS INSPECTION - PLANT 1.00

VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Resource OtvPer StartOtv EndQty Drawing ID / Rev 1.00 1.00 SE121 / A Sub: 16 / Seq: 40 341-PACIFIC 750 1.00

RE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Resource **QtyPer StartOty** EndOty Drawing ID / Rev Sub: 16 / Seq: 50 1.00 SE121 / A 260-SANDBLAST 1.00 1.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

QtyPer StartOtv EndQty Drawing ID / Rev Operation Resource

230-FABRICATION - WEIDNER 1.00 1.00 1.00 SE121 / A TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REOUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING

MTTRAVLR.arp W:64880/1-0 /Inc Matl /Inc Legs

Sub: 16 / Seq: 60

(U)



Date: 06/04/03 **User ID: MCCORKLE**

Workorder 64880/1

(U)

Part ID

Drawing ID / Rev Otv SE121 / A

Engineer BLUE/DOUG MCCORKLE

CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

EndOty Drawing ID / Rev Operation OtvPer StartOtv Resource Sub: 16 / Seq: 70

805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2C

Part Description: DIE FORMED PANEL #3

Drawing ID / Rev Sub ID Part ID Qty

17 SE121-001P-2 PANEL # 4

Resource

OtvPer StartOtv EndOty Drawing ID / Rev

Operation Sub: 17 / Seq: 10 (U)

410-BURNOUT TABLE

- 1.00 1.00 1.00 SE121 / A
- 1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.
- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Otv Drawing ID / Rev Vendor **Dimensions** INCONEL 625_5-PLATE, NICKEL ALLOY .375" THK 1.0 1810 10

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

Vendor Part ID: INCONEL 625 5

ANNEALED



Page: 18 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID Qty Drawing ID / Rev

Engineer BLUE/DOUG MCCORKLE

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Operation Sub: 17 / Seq: 15

Resource QtyPer StartQty EndQty Drawing ID / Rev

Seq: 15 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A
(U) VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATE

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Customer: PPPL Serial Number: SE121-4

Operation Sub: 17 / Seq: 20

 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

(U) FORM PANEL IN DIE # .

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 17 / Seq: 25260-SANDBLAST1.001.001.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.



Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING. SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev	Service ID
Sub: 17 / Seq: 30	520-SUBLET, EXOTIC HEAT TREAT	1.00	1.00	1.00	SE121 / A	THRML TR/NA SA
(U)	SOLUTION ANNEAL FORMED PANEL PER THE FOLL	OWING:				

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Specification: TBD

Certification: H/T CERTIFICATE

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

Customer: PPPL

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev	
Sub: 17 / Seq: 35	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A	
(U)	VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC					
	VEDIEV MACNETIC DEDME A DILITEV AND DECORD LD C. DATTA					

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 17 / Seq: 40	341-PACIFIC 750	1.00	1.00	1.00	SE121 / A
(U)	RE-STRIKE PANEL				
	VERIFY PROFILE TO INSPECTION GAGE #	. GAP TO	LERANCE:	.08" MAX	

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.grp



Date: 06/04/03 **User ID: MCCORKLE**

Workorder Part ID Drawing ID / Rev Engineer SE121 / A BLUE/DOUG MCCORKLE 64880/1

Operation Resource **QtyPer** StartOtv EndQty Drawing ID / Rev Sub: 17 / Seq: 50 260-SANDBLAST 1.00 1.00 1.00 SE121 / A

SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Resource OtvPer StartOtv EndOty Drawing ID / Rev Operation 1.00 1.00 1.00 SE121 / A

Sub: 17 / Seq: 60 230-FABRICATION - WEIDNER (U)

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

EndQty Drawing ID / Rev Operation Resource **QtyPer** StartQty Sub: 17 / Seq: 70

1.00 1.00 1.00 SE121 / A 805-INPROCESS INSPECTION - PLANT

VERIFY PROFILE TO INSPECTION GAGE # GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2D

Part Description: DIE FORMED PANEL # 4

MTTRAVLR.arp W:64880/1-0 /Inc Matl /Inc Legs

(U)

(U)



Page: 21 Date:06/04/03 User ID: MCCORKLE

WorkorderPart IDQtyDrawing ID / RevEngineer64880/11SE121 / ABLUE/DOUG MCCORKLE

 Sub ID
 Part ID
 Qty
 Drawing ID / Rev

 18
 SE121-001P-2 PANEL # 5
 1
 /

Operation Resource Sub: 18 / Seq: 10 410-BURNOUT TABLE QtyPer StartQty EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

(U)

(U)

1. PRIOR TO BEGINNING WORK, CONTACT Q/A TO PERFORM A SERIES OF MATERIAL THICKNESS AND MAGNETIC PERMEABILITY TESTS ON THE RAW MATEIRAL (PRIOR TO MATERIAL PROCESSING AND HANDLING BY MTM). FILL OUT I.D.C. DATA ACCORDINGLY.

- 2. NEST AND PROGRAM PER PROVIDED GEOMETRY.
- 3. BURNOUT AND CLEANUP PANEL PER NESTING / PROGRAM.
- 4. CLEANUP EDGES. ENSURE ALL DROSS AND RE-CAST LAYER IS REMOVED, BLENDED SMOOTH, AND CORNERS ARE SLIGHTLY RADIUSED.
- 5. REPEAT MAGNETIC PERMEABILITY INSPECTION AFTER PANELS ARE CUT, CLEAN, AND READY FOR NEXT OPERATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK1.01810Vendor Part ID: INCONEL 625_5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Operation Resource QtyPer StartQty EndQty Drawing ID / Rev

Sub: 18 / Seq: 15 805-INPROCESS INSPECTION - PLANT 1.00 1.00 SE121 / A

VISUAL INSPECT SURFACE FINISH / VERIFY MAGNETIC PERMEABILITY OF THE RAW MATERIAL PRIOR TO CUTTING (MATERIALS DEPT. WILL COORDINATE) AND EACH PANEL AFTER CUTTING / CLEANING PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.



Page: 22 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

y Drawing ID / Rev SE121 / A

BLUE/DOUG MCCORKLE

Engineer

Test Certification: MAG. PERMEABILITY CERT Rev:

Specification: ASTM A800 Rev:

Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Customer: PPPL Serial Number: SE121-5

Operation Sub: 18 / Seq: 20 (U)
 Resource
 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 341-PACIFIC 750
 1.00
 1.00
 1.00
 SE121 / A

FORM PANEL IN DIE # _____

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX.

VERIFY THE PANEL MATERIAL EXTENDS BEYOND THE PERIMETER OF THE TRIM-LINES OF THE GAGE BY AT LEAST 1".

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 18 / Seq: 25 Resource QtyPer StartQty EndQty Drawing ID / Rev 260-SANDBLAST 1.00 1.00 1.00

(U) SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 18 / Seq: 30

(U)

ResourceQtyPerStartQtyEndQtyDrawing ID / RevService ID520-SUBLET, EXOTIC HEAT TREAT1.001.005E121 / ATHRML TR/NA SA

SOLUTION ANNEAL FORMED PANEL PER THE FOLLOWING:

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.



Page: 23 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

D Qty Drawing ID / Rev

Engineer
BLUE/DOUG MCCORKLE

Specification: TBD

Certification: H/T CERTIFICATE Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Customer: PPPL

Operation Resource

 QtyPer
 StartQty
 EndQty
 Drawing ID / Rev

 1.00
 1.00
 1.00
 SE121 / A

Sub: 18 / Seq: 35 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 1.00 VISUAL INSPECT SURFACE FOR DAMAGE, PITTING, GOUGES, SCRAPES ETC.....

VERIFY MAGNETIC PERMEABILITY AND RECORD I.D.C. DATA

Operation Sub: 18 / Seq: 40

(U)

ResourceQtyPerStartQtyEndQtyDrawing ID / Rev341-PACIFIC 7501.001.001.00SE121 / ARE-STRIKE PANEL

VERIFY PROFILE TO INSPECTION GAGE # . GAP TOLERANCE: .08" MAX.

LAYOUT TRIM-LINES ON THE PANEL ESTABLISHED FROM THE MACHINED PERIMETER OF THE INSPECTION GAGE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 18 / Seq: 50

(U)

Resource QtyPer StartQty EndQty Drawing ID / Rev 260-SANDBLAST 1.00 1.00 1.00 SE121 / A

SHOT BLAST WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE MEDIA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

ResourceQtyPerStartQtyEndQtyDrawing ID / Rev230-FABRICATION - WEIDNER1.001.001.00SE121 / A

Sub: 18 / Seq: 60 230-FABRICATION - WEIDNER
(U) TRIM PERIMETER TO PROVIDED TRIM-LINI

TRIM PERIMETER TO PROVIDED TRIM-LINES. NOTE THAT INSTALLING THE WELD PREP IS NOT REQUIRED AT THIS STAGE (ADDITIONAL FITTING / TRIMMING MAY BE REQUIRED AT INSTALLATION)

SAND AND POLISH THE INSIDE SURFACE 100% TO ACHIEVE A 32 MICRO SURFACE FINISH.

INSTALL PROTECTIVE COVERING OVER THE MAJORITY OF THE POLISHED SURFACE (STAYING CLEAR OF THE WELD JOINTS)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:



Page: 24
Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

(U)

Operation

Sub: 24 / Seq: 10

Part ID

Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 18 / Seq: 70805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

SUS-INFROCESS INSPECTION - FLANT 1.00 1.00 SEL21 / A
VIEDIEV DROCH E TO INSPECTION CACE # CAD TOLED ANCE, AND MAY DEDIMETED CHOILD EAT WITH

VERIFY PROFILE TO INSPECTION GAGE #_____. GAP TOLERANCE: .08" MAX. PERIMETER SHOULD FALL WITHIN .03" OF GAGE PERIMETER.

INSPECT AND RECORD INTERIOR SIDE SURFACE FINISH.

INSPECT AND RECORD MAGNETIC PERMEABILY.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Test Certification: MTM INSPECTION MAP Rev:

Part Number: SE121-2E

Part Description: DIE FORMED PANEL # 5

Sub ID Part ID Qty Drawing ID / Rev 24 SURFACE FINISH TESTING TEST P 1 /

24 SOM ACETHABITESTING TEST

Resource QtyPer StartQty EndQty Drawing ID / Rev 410-BURNOUT TABLE 1.00 1.00 1.00 SE121 / A

(C) BURNOUT TEST PLATES PER MATERIAL CARD.

DEBURR AND SAND EDGES SMOOTH (WITH UNCONTAMINATED GRINDING WHEEL ONLY).

FORWARD ONE PLATE TO ENGINEERING (DOUG McCORKLE) AND PROCESS THE OTHER PER THE FOLLOWING ROUTING STEPS.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece #Part IDQtyDrawing ID / RevVendorDimensions10INCONEL 625_670-SHEET,NICKEL ALLOY .25" THK480.0480.0480

(C) INCONEL 625 SHEET, .25" THICK PER



Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

AMS 5599.

CERT AND MILL TEST REPORT REO'D WITH SHIPMENT.

Material Certification: NONE REO'D TEST SAMPLE

Operation Resource Sub: 24 / Seq: 20

(R)

230-FABRICATION - WEIDNER

QtyPer 1.00

StartOty EndOty Drawing ID / Rev 1.00 1.00 SE121 / A

SAND AND POLISH THE TEST PIECE (ONE SIDE) TO A 32 MICRO SURFACE FINISH

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 24 / Seq: 25

(R)

Resource 260-SANDBLAST **QtyPer** 1.00

StartOtv EndQty Drawing ID / Rev 1.00 1.00 SE121 / A

MASK THE POLISHED SIDE AND BLAST THE OTHER SIDE WITH 180-220 GRIT VIRGIN ALUMINUM OXIDE.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

Operation

Sub: 24 / Seq: 28 (R)

Resource 230-FABRICATION - WEIDNER **QtyPer** 1.00

StartOtv EndOty Drawing ID / Rev 1.00

1.00 SE121 / A CLEAN SAMPLE MATERIAL SURFACES PER THE FOLLOWING.....(cleaning specification being developed)

WRAP THE PART IN PLASTIC FOAM.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

Operation

Resource

QtyPer StartOtv EndOty Drawing ID / Rev



(U)

Page: 26
Date:06/04/03

User ID: MCCORKLE

Workorder Part ID Qty Drawing ID / Rev Engineer

64880/1 SE121 / A BLUE/DOUG MCCORKLE

Sub: 24 / Seq: 30 805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

(R) VERIFY THE FOLLOWING TEST SAMPLE ATTIBUTES: SURFACE FINISH (PER ASME B46.1-1995)

CLEANLINESS (PER PROCEDURE ???? BEING DEVELOPED)
MAGNETIC PERMEABILITY (1.01 MAX)

REPORT RESULTS TO ENGINEERING (DOUG McCORKLE).

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub IDPart IDQtyDrawing ID / Rev26WELD DISTORTION TESTING1/

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 26 / Seq: 10410-BURNOUT TABLE1.001.001.00SE121 / A

NOTIFY O/A FOR PERMEABILITY TESTING PRIOR TO BURING

BURNOUT TEST BLANK PER PROVIDED GEOMETRY (PANEL BLANK NUMBER 5)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Qty Drawing ID / Rev Vendor Dimensions
10 INCONEL 625 5-PLATE.NICKEL ALLOY .375" THK 1.0 1810

INCONEL 625_5-PLATE,NICKEL ALLOY .375" THK Vendor Part ID: INCONEL 625 5

(U) INCONEL 625 (UNS N06625) PER ASTM B 443-00

ANNEALED

MAGNETIC PERMEABILITY SHALL NOT EXCEED 1.00 (REF. ASTM A800).

SURFACE MUST BE PROTECTED FROM CONTACT WITH IRON AND IRON ALLOY MATERIALS

CERTS & MILL TEST REPORTS REQ'D WITH SHIPMENT.

Material Certification: Part Number: SE121-2E

Part Description: DIE FORMED PANEL

OperationResourceQtyPerStartQtyEndQtyDrawing ID / RevSub: 26 / Seq: 15805-INPROCESS INSPECTION - PLANT1.001.001.00SE121 / A

(U) VERIFY MAGNETIC PERMEABILITY OF PLATE MATERIAL PRIOR TO BURNING SHAPE AND AGAIN AFTERWARD. RECORD I.D.C. DATA



Page: 27 Date:06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A

BLUE/DOUG MCCORKLE

Engineer

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation						
Sub: 26 / Seq:	18					

(U)

Resource 415-ROLLING/SHEAR/BRAKE PRESS ROLL CONE PER THE FOLLOWING: QtyPer StartQty EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

(INFORMATION BEING DEVELOPED, PENDING RECEIPT OF FINAL CUSTOMER ELECTRONIC MODEL DATA)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	
Sub: 26 / Seq: 19	
(U)	

Onemation

Resource 805-INPROCESS INSPECTION - PLANT VERIFY MAGNETIC PERMEABILITY...... **QtyPer** StartQty EndQty Drawing ID / Rev 1.00 1.00 1.00 SE121 / A

Operation Sub: 26 / Seq: 20

(U)

Resource 341-PACIFIC 750

QtyPerStartQtyEndQtyDrawing ID / Rev1.001.001.00SE121 / A

FORM WELD TEST PANEL WITH THE CORRESPONDING DIE FORMED DETAIL (INFORMATION BEING DEVELOPED, DIE SET / PANEL # DECISION REQUIRED)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation

Resource

QtyPer 1.00 StartQty EndQty Drawing ID / Rev

Sub: 26 / Seq: 30 (U) 230-FABRICATION - WEIDNER

1.00 1.00 SE121 / A

SPLIT THE PANEL TO SIMULATE PRODUCTION WELD JOINT(S).

PREP, FIT AND WELD JOINTS TO DEVELOP WELDING SEQUENCES AND MINIMIZE WELDING DISTORTION.

MTTRAVLR.qrp

W:64880/1-0 /Inc Matl /Inc Legs



Date: 06/04/03

User ID: MCCORKLE

Workorder 64880/1

Part ID

Drawing ID / Rev SE121 / A

BLUE/DOUG MCCORKLE

Engineer

REVIEW WITH ENGINEERING (DOUG McCORKLE)

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 26 / Seq: 40

(U)

Resource

QtyPer

StartOtv EndQty Drawing ID / Rev

805-INPROCESS INSPECTION - PLANT 1.00 1.00 1.00 SE121 / A

VERIFY MAGNETIC PERMEABILITY OF THE WELD JOINT(S) AND HEAT AFFECTED ZONES. RECORD I.D.C. DATA.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 19

Part ID SE121 PORT SUB-ASSEMBLY **Qty** Drawing ID / Rev

Operation Sub: 19 / Seq: 10

(F)

Resource

OtvPer StartOtv EndOty Drawing ID / Rev 1.00 1.00 1.00

230-FABRICATION - WEIDNER

SE121 / A

INSTALL AND WELD CONFLAT FLANGE TO TUBE PER DRAWING AND WPS....

FIT AND TRIM THE LENGTH FOR INSTALLATION (USE REFERENCE SCRIBE LINES ON BUILD FIXTURE). PREP FOR WELDING IN PLACE.

GRIND / BLEND THE INTERIOR WELD SMOOTH.

POLISH THE ENTIRE INSIDE SURFACE SMOOTH TO ACHIEVE A 32 MICRO SURFACE FINISH. CLEAN THE INTERIOR SURFACES PER......

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS. OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation Sub: 19 / Seq: 20 (U)

Resource 805-INPROCESS INSPECTION - PLANT **QtyPer** StartQty **EndQty Drawing ID / Rev** 1.00 1.00 1.00 SE121 / A

INSPECT INTERIOR SURFACE FINISH OF THE PORT SUB-ASSEMBLY. RECORD ACTUAL ON MTM IDC.

MTTRAVLR.qrp

W:64880/1-0 /Inc Matl /Inc Legs



Page: 29 Date:06/04/03 **User ID: MCCORKLE**

Workorder 64880/1

Part ID Qty Drawing ID / Rev SE121 / A

Engineer BLUE/DOUG MCCORKLE

INSPECT THE MAGNETIC PERMEABILITY OF THE FLANGE TO TUBE WELD AND SURROUNDING AREA. RECORD ACTUAL RANGE ON I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 20	Part ID CONFLAT FLANGE		Qty 1	Drawing ID / Rev			
Operation Sub: 20 / Seq: 10 (R)	Resource 820-RECEIVING INSPECTION RECEIVING INSPECTION RECEIVE AND INSPECT THE FOLLOWING PARTS: (THEY SHOULD ALL ARRIVE TOGETHER) F10000000NC4 FG1000CI FG1000VU FB1000C12S GC0275S CONTACT ENGINEERING (DOUG McCORKLE) WHEN PARTS A	StartQty 1.00		Drawing ID / Rev SE121 / A	IDC N/A		
Piece # 10 (R)	Part ID F100000000NC4-FLANGE, CONFLAT, NON-ROTATE, 10.00" FLANGE, CONFLAT, NON-ROTATABLE 10.00 X BLANK X 0.97", CLEAR BOLT HOLES, 304L Material Certification:		Qty 1.0	Drawing ID / Rev	IDC N/A Vendor	Dimensions	
Piece # 20 (R)	Part Number: F10000000NC4 Part ID FG1000CI-GASKET KIT (10/PK), COPPER, FOR 10" CFF GASKET KIT (10/PACK), COPPER, INDIVIDUAL SEAL, FOR 10" C VARIAN VACUUM TECHNOLOGIES	CONFLAT F	Qty 1.0 LANGE	Drawing ID / Rev	Vendor	Dimensions	
Piece # 30 (R)	Material Certification: Part Number: FG1000CI Part ID FG1000VU-GASKET, VITON, FOR 10" CFF GASKET, VITON, FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES		Qty 1.0	Drawing ID / Rev	Vendor	Dimensions	
	Material Certification: Part Number: FG1000VU						



Page: 30 Date:06/04/03

User ID: MCCORKLE

Workorder Part ID Drawing ID / Rev Engineer BLUE/DOUG MCCORKLE 64880/1 SE121 / A Piece # Part ID Otv Drawing ID / Rev Vendor **Dimensions** 40 FB1000C12S-BOLT AND NUT KIT, 12 PT, SILVER PLATED 1.0 (R) BOLT AND NUT KIT (25/PACK), 12 POINT, ASTM A193 GR. B8 SILVER PLATED, FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES Material Certification: Part Number: FB1000C12S Drawing ID / Rev Piece # Part ID Otv Vendor **Dimensions** 50 GC0275S-GASKET CLIP KIT (10/PK), FOR 10" CFF 1.0 (R) GASKET CLIP KIT (10/PACK) FOR 10" CONFLAT FLANGE VARIAN VACUUM TECHNOLOGIES Material Certification: Part Number: GC0275S Operation Resource OtvPer StartOtv EndOty Drawing ID / Rev Sub: 20 / Seq: 20 108-TOOL ROOM - PLANT 1 1.00 1.00 1.00 (U) BORE THE I.D. PER SKETCH PROVIDED BY ENGINEERING. CONTACT DOUG McCORKLE IF UNCLEAR. ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING: THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR. Drw N/A IDC N/A Sub ID Part ID Qty Drawing ID / Rev 21 PORT EXTENSION TUBE Operation **QtyPer** StartQty EndQty Drawing ID / Rev Resource Sub: 21 / Seq: 10 820-RECEIVING INSPECTION 1.00 1.00 1.00 SE121 / A (R) RECEIVE AND INSPECT TUBE PER MTM P.O. NOTIFY ENGINEERING (DOUG McCORKLE) WHEN PART ARRIVES.

VISUAL INSPECT SURFACE FINISH FOR PITS, NICKS, GOUGES, SCRAPES, SCRATCHES, ETC....

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Piece # Part ID Qty Drawing ID / Rev Vendor Dimensions

W:64880/1-0/Inc Matl /Inc Legs



(R)

Date: 06/04/03 **User ID: MCCORKLE**

Workorder	Part ID	Qty	Drawing ID / Rev	Engineer
64880/1		1	SE121 / A	BLUE/DOUG MCCORKLE

10 SE121-001P-5-INCO 625 TUBE 8.0" OD X .12" WA. X 18.0" 1.0

5647

Vendor Part ID: SE121-001P-5

TUBE, ROUND, INCONEL 625, SEAMLESS OR WELDED. ASTM B444 OR ASTM B705

MTM AUTHORIZATION OF WELDING PROCEDURE REQUIRED PRIOR TO STARTING WORK.

NOTE THAT THE FOLLOWING REQUIREMENTS WILL BE PERFORMED / TESTED BY MAJOR TOOL & MACHINE AFTER DELIVERY. ALL EFFORTS TO ACCOMODATE / ENSURE SUCESS MUST BE MAINTAINED:

MAGNETIC PERMEABILITY REQUIREMENT: 1.01 MAX.

VACUUM INTEGRITY REQUIREMENT: TOTAL HELIUM LEAK RATE FOR THE TUBE SHALL BE LESS THAN OR EQUAL TO 1.7 X 10(-9) TORR-L/S

INTERIOR SURFACE FINISH REQUIREMENT: INTERIOR WELD BEADS WILL BE GROUND FLUSH. THE ENTIRE INTERIOR SURFACE WILL BE POLISHED TO A 32 MICRO

SURFACE FINISH AND VERIFIED PER ASME B46.1.

EXTERIOR SURFACE FINISH: MILL SURFACE ACCEPTABLE. NO PITS, SCRAPES OR GOUGES.

MATERIAL CERTIFICATION AND TEST REPORTS REO'D WITH SHIPMENT.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 21 / Seq: 20	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	VERIFY MAGNETIC PERMEABILITY OF THE PORT E	XTENTION	TUBE (AS	RECEIVE	D). RECORD ACTUAL I.D.C.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Drw N/A

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 21 / Seq: 30	405-SAWS- PLANT 2	1.00	1.00	1.00	SE121 / A
(U)	SAW ONE END SQUARE REM	OVING NO MORE THAN 1/2" OF M	IATERIAL.		

SAW ONE END SQUARE REMOVING NO MORE THAN 1/2" OF MATERIAL.

DEBURR SAWED EDGE

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 21 / Seq: 40	230-FABRICATION - WEIDNER	1.00	1.00	1.00	SE121 / A
(U)	BLEND THE INSIDE WELD FLUSH.				

POLISH THE ENTIRE INTERIOR SURFACE TO A 32 MICRO-INCH SURFACE FINISH.

PREP FOR FLANGE INSTALLATION.

ATTENTION: PRIOR TO HANDLING THE PARTS OR COMENSING ANY WORK, READ AND UNDERSTAND THE FOLLOWING:

W:64880/1-0 /Inc Matl /Inc Legs MTTRAVLR.grp



Page: 32 Date:06/04/03 User ID: MCCORKLE

Workorder 64880/1

Part ID

Qty Drawing ID / Rev 1 SE121 / A Engineer BLUE/DOUG MCCORKLE

THE MAGNETIC PERMEABILITY, VACUUM INTEGRITY, AND SURFACE FINISH REQUIREMENTS FOR THIS VESSEL ARE VERY STRINGENT. ALL EFFORTS MUST BE MADE TO AVOID SURFACE CONTAMINATION AND DAMAGE WHILE PROCESSING / HANDLING THIS MATERIAL. IT MUST NOT COME IN DIRECT CONTACT WITH IRON OR IRON BASED MATERIALS (EG CHAINS, CLAMPS, LIFT TRUCK FORKS, STEEL RACKS, TABLES, HAND TOOLS, ETC...) IT MUST NOT BE STORED, STACKED, OR STAGED DIRECTLY ONTO IRON OR STEEL FIXTURING. DO NOT USE ANY TOOLS (EG BRUSHES / GRINDING WHEELS) THAT ARE EITHER FERROUS, OR MAY HAVE BEEN PREVIOUSLY USED ON FERROUS ALLOYS. WELDING OF TOOLING AND/OR FIXTURING (EG HALF CLAMPS, BRACING, ETC...) TO THE COMPONENT PART MUST BE MINIMIZED (ENGINEERING CONCURRENCE REQUIRED FOR ALL CERCUMSTANCES). IN ALL SUCH CASES INCONEL 625 TABS MUST BE ATTACHED TO THE TOOL / FIXTURE TO AVOID CONTAMINATION TO THE PRODUCTION MATERIAL. EXTREME CARE MUST BE TAKEN TO ENSURE THE SURFACES ARE PROTECTED FROM GOUGING, SCRATCHING, AND ANY CONTACT WITH FORIGN MATERIAL. CONTACT ENGINEERING (DOUG McCORKLE) IF UNCLEAR.

Sub ID 23	Part ID VACUUM TEST CAP			Qty 1	Drawing ID / Rev		
Operation Sub: 23 / Seq: 10 (U)	Resource 410-BURNOUT TABLE BURNOUT A 10.0" DIAMETER DISK AND CLEANUP. SAND THE BURNED EDGES SMOOTH.	QtyPer 1.00	StartQty 1.00	EndQty 1.00	Drawing ID / Rev		
Piece # 10 (U)	Part ID 304L_8-PLATE,SST .75" THK Vendor Part ID: 304L_8 Mfg Part ID: 304L MATERIAL PLATE, 304L STAINLESS STEEL .75" THK			Qty 100.0	Drawing ID / Rev	Vendor 1810	Dimensions 100
Operation Sub: 23 / Seq: 20 (U)	Resource 108-TOOL ROOM - PLANT 1 MACHINE PER DRAWING (DRAWING NEEDED!!!!) (GRIND ONE FACE AND DRILL BOLT CIRCLE, DRILL DRILL AND REAM A CENTER HOLE FOR TOOLING E VERIFY POSITION OF THE PORT. REF CONFLAT FLANGE DRAWING FOR BOLT CIRCL GRIND 32 SURFACE FINISH ON ONE SIDE APPLY A WOOD OR CARDBOARD PROTECTOR ONT	QtyPer 1.00 L TAP VAC BALL (.2500)", TOLERA	1.00 (1/2" NPT NCE TBD		.S A TARGET FOR SI	MX INSPECTION AFTER INSTALLATION TO
Sub ID	Part ID PORT EXTENSION WELD BACKING RI			Qty 1	Drawing ID / Rev		
Operation Sub: 25 / Seq: 10 (U)	Resource 415-ROLLING/SHEAR/BRAKE PRESS SHEAR STRIP PER MATERIAL CARD AND DEBURR. ROLL THE EASY WAY TO A 8.093" I.D. OBJ (0.031" W.	QtyPer 1.00 ELD SHRIN	StartQty 1.00 NKAGE ALL	1.00	Drawing ID / Rev SE121-003P / 0		
Piece # 10 (U)	Part ID INCONEL 625_660-SHEET,NICKEL ALLOY .125" THK INCONEL 625 SHEET, .125" THICK PER AMS 5599 / ASTM B443 (UNS N06625).			Qty 72.0	Drawing ID / Rev	Vendor	Dimensions 2*36

MTTRAVLR.qrp
W:64880/1-0 /Inc Matl /Inc Legs

CERT AND MILL TEST REPORT REQ'D WITH SHIPMENT.







WorkorderPart IDQtyDrawing ID / RevEngineer64880/115E121/ABLUE/DOUG MCCORKLE

Material Certification: Part Number: SE121-003P-4

Part Description: WELD BACKING RING

	ı				
Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 25 / Seq: 20	230-FABRICATION - WEIDNER	1.00	1.00	1.00	SE121-003P / 0
(U)	PREP AND WELD PER DRAWING (SIZE TO EXI	ISTING PORT TUE	BE)		
(-)	BLEND WELD FLUSH TO BASE METAL		/		
	DELIVE WEED LEGGH TO BUSE WELLE				
Onemation	Resource	OtrrDon	StantOtr.	EndOtr	Duorring ID / Dov
Operation 20		QtyPer	StartQty		Drawing ID / Rev
Sub: 25 / Seq: 30	415-ROLLING/SHEAR/BRAKE PRESS	1.00	1.00	1.00	SE121 / A
(U)	RE-ROLL / ROUND UP BAND				
Operation	Resource	QtyPer	StartQty	EndQty	Drawing ID / Rev
Sub: 25 / Seq: 40	805-INPROCESS INSPECTION - PLANT	1.00	1.00	1.00	SE121 / A
(U)	VERIFY MAGNETIC PERMEABILITY. RECORD	D I.D.C. DATA			
. ,					
Sub ID	Part ID			Qty	Drawing ID / Rev
28	STORAGE / SHIPPING CRATE			1	/
				_	,
Operation	Resource	QtyPer	StartQty	EndOtv	Drawing ID / Rev
Sub: 28 / Seq: 10	425-SHIPPING - PLANTS 1 & 2	1.00	1.00	1.00	SE121 / A
	BUILD STORAGE / SHIPPING CRATE PER ENG			1.00	SEIZI / II
(U)	DUILD STOKAGE / SHIFFING CRATE FER ENG.	INCERTING DRAW	INO		