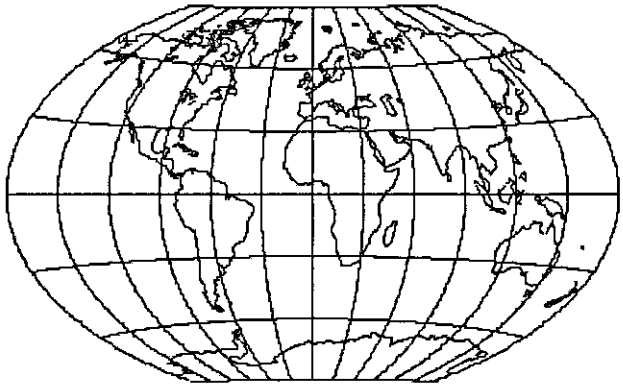


ENERGY INDUSTRIES OF OH

Purchase Order Number:
S005242-F

Part Number:
SE141-114

Part Name:
MCWF A-2

MTM Work Order Number:
65709/2.0

MTM Major Tool & Machine, Inc.

Customer: 8909 - ENERGY INDUSTRIES OF OHIO
Customer P.O.: S005242-F
Customer Part ID: SE141-114 - MCWF A-2

Customer: 8909 - ENERGY INDUSTRIES OF OHIO
Customer P.O.: S005242-F
Customer Part ID: SE141-114 - MCWF A-2

SE141-141 - BEARING PLATE DETAIL TYPE "A" SHORT

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
20	14	30		Inspection Data Checklist: 1 steps

SE141-142 - BEARING PLATE DETAIL TYPE "A" LONG

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
21	15	30		Inspection Data Checklist: 1 steps

CERTIFICATE OF CONFORMANCE

Date: 08/02/06
User ID: GRIFFIT#

TO: ENERGY INDUSTRIES OF OHIO **DATE: 06/28/2006**

ATTENTION: Receiving Department

Seller certifies that:

Part Number: **SE141-114** Purchase Order: **S005242-F**

Part Name: **MCWF A-2** Workorder: **65709/2.0**

Part Serial Number: **A-2** Quantity: **1**

1. These materials and/or parts were produced in conformance with all contractually applicable Government and/or Customer specifications referred in, or furnished with, the above Purchase Order.
2. The materials and/or parts furnished under the above Purchase Order were produced:

   [X] From materials furnished by Customer for the production of such parts.

   [X] From materials for which the seller has available for examination chemical and/or physical test reports or other evidence of conformance to applicable specifications.
3. All processes required in the production of these part and/or materials are listed below and were performed by a facility or personnel approved or certified by the Seller and the customer when such approval or certification is required by contract.

Certifications are on file at this plant.

Other Requirements:

MANUFACTURED PER B.P. SE141-101 REV. 3 AND P.O. REQUIREMENTS.

Signature: _____ Title: Quality Mgr Date: 8/2/06

Major Tool & Machine, Inc.

COMPLETED SHOP TRAVELERS

SE141-114
MCWF A2

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
Manufacturing Planning- QA planning- Production Support	65709/2.0 -Sub:0 Op#:10	Closed	6/27/2006	840-G.Masood
PREPARE DOCUMENTATION TO PRESENT TO GOVERNMENT SOURCE INSPECTOR.	65709/2.0 -Sub:0 Op#:20	Closed	6/27/2006	840-G.Masood
REVIEW RESULTS FROM THE FOLLOWING INSEPCTIONS:-- PENETRANT INSPECTION (PT)--RADIOGRAPHIC INSPECTION (RT)-- FINAL DIMENSIONAL INSPECTION--MAG PERMEABILITY-- ELECTRICAL RESISTANCE--	65709/2.0 -Sub:0 Op#:30	Closed	6/27/2006	840-G.Masood
ORIENT PART WITH DATUM E FLANGE DOWN.---ENUSURE PART SURFACES ARE CLEAN AND FREE OF GRIT AND DEBRIS. THE PART IS NOT TO BE OILED.--THE ENTIRE PART IS TO BE WRAPPED IN PLASTIC.--PLACE FOAM ON THE 4X6 BEAMS THAT THE FLANGE WILL BE SITTING ON. LOWER THE PAR	65709/2.0 -Sub:0 Op#:40	Closed	6/29/2006	567-R.Hupp
Receive customer supplied material. ------Part Number: SE141-114 Rev: 5-- Part Description: PRODUCTION WINDING FORM TYPE-A	65709/2.0 -Sub:1 Op#:10	Closed	1/5/2006	437-J.Hiatt
SETUP 1 - MTMFX -3101 WITH DATUM E SIDE OF PART AGAINST FIXTURE.--SETUP 2 - MTMFX-3102 WITH DATUM D SIDE OF PART AGAINST FIXTURE.---SETUP AND MACHINE THE FLANGE FACES AND FLANGE PERIPHERY TO WITHIN .100- STOCK. --FINISH MACHINE THE WING SURFACES ABOVE EA	65709/2.0 -Sub:1 Op#:18	Closed	2/27/2006	535-S.Lentz
WELD A U-SHAPED BRACE ACROSS THE TOP OF THE -T-.----PLACE PART ON RISERS OR TIMBERS WITH THE SIDE FACING UP THAT HAS THREE OF THE FOUR AREAS TO BE CUT OUT. ----THE BOTTOM CUT OUT WILL BE PREFORMED FIRST- THEN PROCEED WITH THE 3 UPPER CUT OUTS- DO NOT FLIP	65709/2.0 -Sub:1 Op#:19	Closed	2/27/2006	233-G.Stupples
SET CASTING ON RISERS WITH DATUM -E- FLANGE DOWN. TAB DATUM -E- FLANGE TO THE RISER ON EITHER SIDE OF THE BREAK TO PREVENT MOVEMENT AFTER MACHINING THE BREAK THROUGH. WELD CHANNEL BRACE ACROSS THE LARGE CUTOUT ADJACENT TO THE BREAK.--FINISH MACHINE THE PO	65709/2.0 -Sub:1 Op#:20	Closed	3/7/2006	535-S.Lentz
SET UP FIXTURE PLATE MTMFX-3101 AND MACHINE LOCATING PADS AS NECESSARY.--SET UP CASTING WITH DATUM -E- AGAINST THE FIXTURE.--- FINISH MACHINE ALL AREAS BELOW THE T SECTION.--- MACHINE T SECTION TO WITHIN .030-.--- FINISH MACHINE DATUM -D- FLANGE.--	65709/2.0 -Sub:1 Op#:30	Closed	5/26/2006	345-D.Sauser

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
SET UP FIXTURE PLATE MTMFX-3102 AND MACHINE LOCATING PADS AS NECESSARY.--SET UP CASTING WITH DATUM -D- AGAINST THE FIXTURE.--- FINISH MACHINE ALL AREAS BELOW THE T SECTION.--- MACHINE T SECTION TO WITHIN .030-.--- FINISH MACHINE DATUM -E- FLANGE.--	65709/2.0 -Sub:1 Op#:35	Closed	6/7/2006	576-J.Geisinger
THIS OPERATION CONSISTS OF 3 SETUPS.--SETUP #1: ANGLE BASE AND FIXTURE MTMFX-3101-- DATUM -E- FLANGE DOWN.--SETUP #2: ANGLE BASE AND FIXTURE MTMFX-3102-- DATUM -D- FLANGE DOWN.--SETUP #3: RISERS AND FIXTURE MTMFX-3102-- DATUM -D- FLANGE DOWN.----MACHINE P	65709/2.0 -Sub:1 Op#:50	Closed	6/16/2006	274-M.Moorman
PROTECT PART FROM METAL CONTAMINATION DUE TO CONTACT WITH IRON- SPECIFICALLY WHEN RIGGING PART FOR MOVEMENT.--ALL GRINDING WHEELS AND DISKS MUST BE VIRGIN MATERIAL NOT PREVIOUSLY USED ON ANY OTHER MATERIAL TO AVOID MATERIAL CONTAMINATION.---- CAREFULLY R	65709/2.0 -Sub:1 Op#:88	Closed	6/21/2006	219-T.Laird
PROTECT PART FROM METAL CONTAMINATION DUE TO CONTACT WITH IRON- SPECIFICALLY WHEN RIGGING PART FOR MOVEMENT.--MOVE PART INTO WASH BOOTH. --THOROUGHLY CLEAN AND DRY ALL SURFACES AND HOLES PER SECTION 9 OF PS583. --PARTS TO BE WASHED USING HEATED- DE-MINERA	65709/2.0 -Sub:1 Op#:90	Closed	6/19/2006	219-T.Laird
PT 100% OF ALL MACHINED AND GROUND SURFACES. EXCLUDE THE PROCESSING OF ANY AS-CAST SURFACE.--SEE PS582 FOR PROCESSING INSTRUCTIONS. ----TAKE PHOTOS OF ALL REJECTIONS AND NUMBER THEM. IF THERE ARE SEVERAL INDICATIONS CLOSE TOGETHER- NUMBER THE GROUP AND RE	65709/2.0 -Sub:1 Op#:100	Closed	6/21/2006	053-M.Dunn
SET PART ON RISERS WITH DATUM -D- FLANGE DOWN. PLACE A RISER ON EITHER SIDE OF THE POLOIDAL BREAK TO ENABLE CLAMPING TO ENSURE THAT THE DATUMS ARE COPLANER. LAY A STRAIGHT EDGE ACROSS THE DATUM -D- FLANGE TO VERIFY ALIGNMENT. ENSURE RADIAL ALIGNMENT BY LA	65709/2.0 -Sub:1 Op#:130	Closed	6/27/2006	825-B.Jarrett

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
-CMM INSPECT DATUM E SIDE OF CASTING. ---PERFORM ALL HARD GAGING OF THE DATUM E SIDE. ---CONDUCT PERMEABILITY CHECK OF DATUM E SIDE PER OPERATION 136.---CONSULT ENGINEERING ON ANY OUT OF TOLERANCE CONDITIONS PRIOR TO FLIPPING THE PART AND STARTING INSPECT	65709/2.0 -Sub:1 Op#:132	Closed	6/27/2006	339-E.Root
THE -T- AREAS DEFINED AS -HIGH STRESS- ARE TO BE RT 100%. SEE PS581 FOR PROCESS INSTRUCTIONS.---HAND SKETCH A LAYOUT OF ALL FILM LOCATIONS ON ATTACHED RT MAP. ---ALL FILM IS TO BE DOUBLED UP IN ORDER TO SUPPLY THE CUSTOMER WITH A COMPLETE SET OF FILM.--	65709/2.0 -Sub:1 Op#:134	Closed	6/27/2006	010-R.Contractor
PERFORM A MAG PERMEABILITY CHECK OF THE MACHINED SURFACES USING A SEVERN PERMEABILITY INDICATOR GAGE. PERMEABILITY SHOULD BE NO GREATER THAN 1.02µ.---CHECK THE PERMEABILITY IN 3 PLACES ON EACH SIDE OF THE T SECTION AT LOCATIONS ADJACENT TO EVERY 5TH HOLE	65709/2.0 -Sub:1 Op#:136	Closed	6/21/2006	667-J.Bannister
THE RESISTANCE OF THE MID-PLANE ELECTRICAL INSULATION SHALL BE GREATER THAN 500 KOHMS WHEN TESTED AT 100 VDC.---TEST 1:--THE INSULATION RESISTANCE BETWEEN THE MID-PLANE POLOIDAL BREAK SHIM AND WINDING FORM SHALL BE MEASURED. DURING THIS TEST- THE BOLTS S	65709/2.0 -Sub:1 Op#:140	Closed	6/23/2006	840-G.Masood
PERFORM FINAL COSMETICS AS REQUIRED.--THOROUGHLY CLEAN CASTING WITH ISOPROPYL ALCOHOL. VERIFY THAT ALL HOLES ARE CLEAN AND FREE OF CHIPS.	65709/2.0 -Sub:1 Op#:150	Closed	6/27/2006	219-T.Laird
Receive customer supplied material. Part had been returned to vendor for rework.-----Part Number: SE141-114 Rev: 5--Part Description: PRODUCTION WINDING FORM TYPE-A	65709/2.0 -Sub:8 Op#:10	Closed	1/21/2006	437-J.Hiatt
SAW MATERIAL TO LENGTH PER MATERIAL CARD.	65709/2.0 -Sub:11 Op#:10	Closed	3/15/2006	266-R.Keith
MACHINE SLAVE HARDWARE BUSHINGS TO THE FOLLOWING:---1.620 O.D.+0/-.002--1.376 I.D. +.004/-.000--LENGTH 1.350 +/-.010---- THESE BUSHINGS ARE FOR SLAVE HARDWARE SHIM MOUNTING. DELIVERY THESE PARTS TO RON BACK WHEN COMPLETE. THEY ARE TEMPORARY BUSHINGS THAT	65709/2.0 -Sub:11 Op#:20	Closed	4/13/2006	821-J.Leggins
RECEIVE CUSTOMER SUPPLIED CASTING	65709/2.0 -Sub:2 Op#:10	Closed	1/5/2006	437-J.Hiatt

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
MACHINE THE SHIM COMPLETE PER THE DRAWING AND CNC PROGRAMS.	65709/2.0 -Sub:2 Op#:20	Closed	3/6/2006	744-P.Schumacher
PRE FIT EACH BUSHING TO MAKE SURE THEY SLIP INTO THE POLOIDAL BREAK FLANGE HOLES.--APPLY LOCTITE 411 TO THE OD OF EACH BUSHING AND INSTALL FLUSH TO ONE SIDE OF THE BREAK SHIM. GRIND THE OPPOSITE SIDE OF THE BUSHINGS FLUSH TO THE SHIM.	65709/2.0 -Sub:2 Op#:30	Closed		
SAW OFF 16- AND MOVE TO NEXT WORK CENTER.	65709/2.0 -Sub:3 Op#:10	Closed	6/1/2005	227-D.Bockover
MACHINE OD OF BUSHING .001- - .002- SMALLER THAN SIZE OF THE HOLES IN POLOIDAL BREAK SHIM. IF HOLE SIZES VARY- MARK THE SHIM AND BUSHINGS 1 THRU 7.--MACHINE THE ID OF THE BUSHING TO 1.375- - 1.376-.--MACHINE THE LENGTH TO 2.19-. BUSHINGS WILL BE GROUND FL	65709/2.0 -Sub:3 Op#:20	Closed	6/20/2006	236-M.Jennings
RECEIVE MATERIAL--NOTIFY CFT AND FORWARD MATERIAL STORES.	65709/2.0 -Sub:4 Op#:10	Closed	6/1/2005	131-W.Allen
SAW OFF 30- LENGTH AND MOVE TO NEXT WORK CENTER.	65709/2.0 -Sub:5 Op#:10	Closed	6/1/2005	227-D.Bockover
MACHINE PER THE DRAWING FOR A .001- - .002- SLIP FIT WITH THE MATING DETAIL. --MEASURE THE HOLE SIZES IN THE TWO CASTING FLANGES AND SIZE THE BUSHINGS ACCORDINGLY. IF THE HOLE SIZES VARY- MARK EACH BUSHING 1 THRU 14 AND MAP OUT THE CORRESPONDING HOLE LOCA	65709/2.0 -Sub:5 Op#:20	Closed	6/20/2006	821-J.Leggins
SAW 13- LENGTH AND MOVE TO NEXT WORK CENTER.	65709/2.0 -Sub:6 Op#:10	Closed	6/1/2005	227-D.Bockover
RECEIVE MATERIAL	65709/2.0 -Sub:7 Op#:10	Closed	4/5/2005	131-W.Allen
MACHINE THE PROFILE LEAVING STOCK PER PROGRAM.	65709/2.0 -Sub:7 Op#:20	Closed	6/1/2006	332-J.Bagwill
SAW PER MATERIAL CARD	65709/2.0 -Sub:9 Op#:10	Closed	2/6/2006	266-R.Keith
SAW PER MATERIAL CARD	65709/2.0 -Sub:10 Op#:10	Closed	2/6/2006	266-R.Keith
RECEIVE HARDWARE- SCAN CERTIFICATIONS AND COMPLETE IDC.--MOVE TO STORES--	65709/2.0 -Sub:12 Op#:10	Closed	5/26/2006	503-B.Houk
PLACE THE FOLLOWING IN STORES:--7 PCS - DS141-036 STUD--14 PCS - DS141-060 NUT	65709/2.0 -Sub:12 Op#:20	Closed	5/26/2006	419-J.Smith
MACHINE THICKNESS OF SHIM TO 2.125 +/- .001-.--REMOVE AN EVEN AMOUNT OF STOCK FROM EACH FACE OF THE SHIM. THERE IS APPROXIMATELY 1/16- PER SIDE OF STOCK ON THE PART.	65709/2.0 -Sub:13 Op#:10	Closed	6/22/2006	332-J.Bagwill

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
NO CERTIFICATIONS REQUIRED.--VERIFY QUANTITY AND FORWARD PARTS TO NEXT WORK CENTER.	65709/2.0 -Sub:14 Op#:10	Closed	5/12/2006	437-J.Hiatt
MACHINE COMPLETE PER PRINT	65709/2.0 -Sub:14 Op#:20	Closed	6/19/2006	506-R.Liston
PERFORM A MAGNETIC PERMEABILITY CHECK USING A SEVERN PERMEABILITY INDICATOR GAGE. PERMEABILITY SHOULD BE NO GREATER THAN 1.02µ.--Part Number: SE141-141--Part Description: BEARING PLATE TYPE -A- SHORT	65709/2.0 -Sub:14 Op#:30	Closed	6/20/2006	503-B.Houk
NO CERTIFICATIONS REQUIRED.--VERIFY QUANTITY AND FORWARD PARTS TO NEXT WORK CENTER.	65709/2.0 -Sub:15 Op#:10	Closed	5/12/2006	437-J.Hiatt
MACHINE COMPLETE PER PRINT	65709/2.0 -Sub:15 Op#:20	Closed	6/19/2006	234-E.Booher
PERFORM A MAGNETIC PERMEABILITY CHECK USING A SEVERN PERMEABILITY INDICATOR GAGE. PERMEABILITY SHOULD BE NO GREATER THAN 1.02µ.--Part Number: SE141-142--Part Description: BEARING PLATE TYPE -A- LONG	65709/2.0 -Sub:15 Op#:30	Closed	6/20/2006	503-B.Houk

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 20044

Date: 06/22/06
User ID: GRIFFITH

Customer: ENERGY INDUSTRIES OF OHIO
Contact: NANCY HORTON — Telephone: 216-496-2314
E-Mail: NKHFlowen@aol.com — Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE — Customer P.O.: S005242-F/Ln:2
Drawing ID: SE141-114 Revision: 6 — Serial No./Qty: A2

Reported By: MIKE GRIFFITH — Telephone: 317-636-6433
E-Mail: mGriffith@MajorTool.com — Fax: 317-634-9420

Problem: PART IS REJECTED PER ASTM A903/A903M LEVEL 1.
SEE ATTACHMENT FOR SIZES AND LOCATIONS.

Proposed Disposition:
PROPOSE TO USE AS IS.

Number of additional pages: 8 page attachment

Customer Disposition: **[X] Use As Is** **[ ] Rework** **[ ] Repair** **[ ] Scrap** **[ ] Replace**

The indications were reviewed by David Williamson (see below). Since all but one small cluster was in a low stress area, they are accepted "use as is".
From: "Williamson, David E." <williamsonde@ornl.gov>
Date: June 23, 2006 9:57:52 AM EDT
To: "Frank A. Malinowski" <fmalinow@pppl.gov>, "Nelson, Brad E." <nelsonbe@ornl.gov>, Phil Heitzenroeder <pheitzen@pppl.gov>
Cc: "Colin F. Phelps" <cphelps@pppl.gov>
Subject: RE: A2 PT rejections
Phil, Frank,
There are four PT indications on the winding surface (#2, 4, 5, 17), but only one small cluster in the high stress region (#4). I would recommend that we accept the part as-is.
Thanks,
David

Approved by:

Phil Heitzenroeder
Digitally signed by Phil Heitzenroeder
DN: cn=Phil Heitzenroeder, c=US, o=PPPL, ou=Mech. Eng. Division
Reason: I am approving this document
Date: 2006.06.27 22:44:11 -04'00'

Tech. Rep.

Brad Nelson
Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US, o=ORNL, ou=FED, email=nelsonbe@ornl.gov
Date: 2006.06.28 09:34:46 -04'00'

RLM

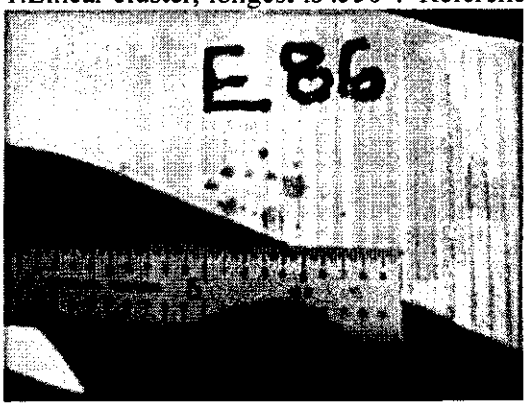
Mike Griffith
Digitally signed by Mike Griffith
DN: cn=Mike Griffith, c=US, o=Major Tool and Machine, ou=CFT - White, email=mgriffith@majortool.com
Reason: I agree to the terms defined by the placement of my signature on this document
Date: 2006.06.29 15:16:23 -04'00'

Major Tool Implemented By: _____ **Title:** _____ **Date:** _____

n:\mtmapps\Mmonc14.qrp

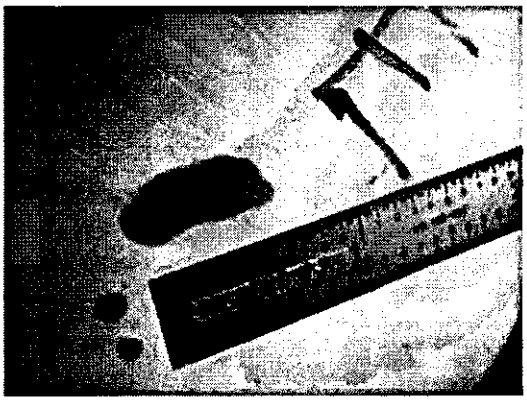
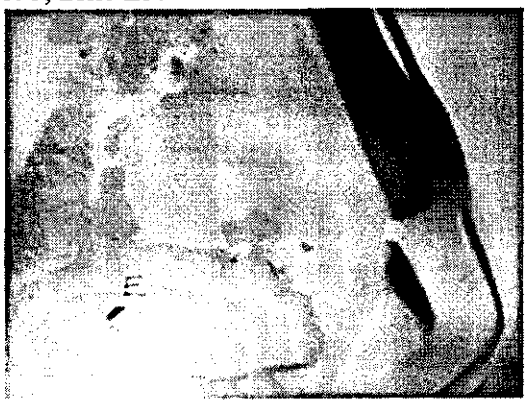
PT Inspection Results of A2 – NC20044

1.Linear cluster, longest is .550". Reference cutout on drawing sheet 5, zone C6.

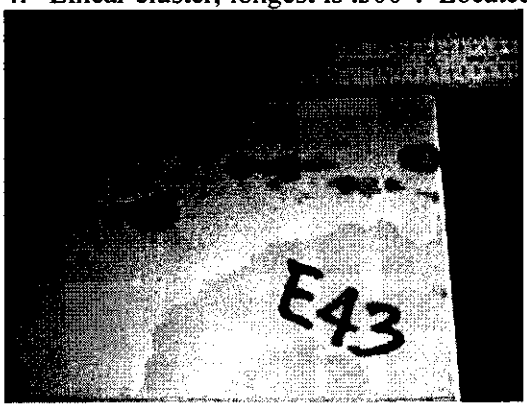


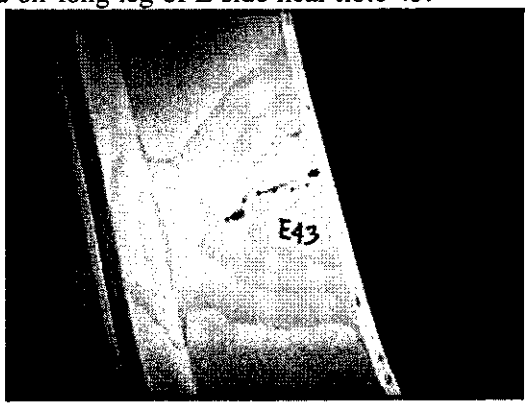
2. Linear indication, .150" long. Located on E side short leg near hole 78.


3. .600" long linear located on E side of inner cast wall. This area has been machined due to excess cast stock. Reference sheet 5, zone E5.

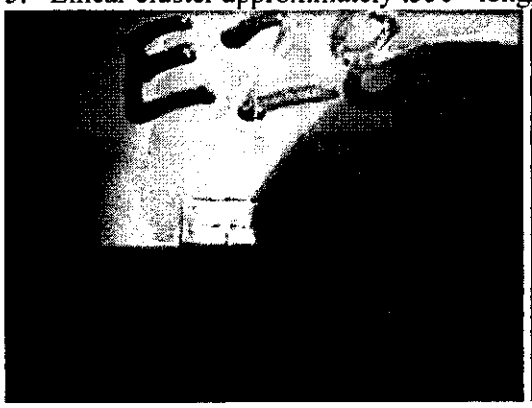



4. Linear cluster, longest is .300". Located on long leg of E side near hole 43.

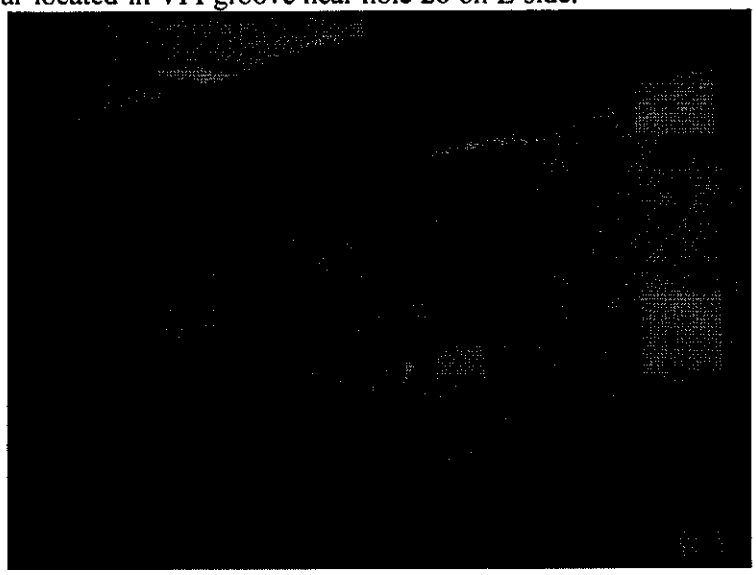




5. Linear cluster approximately .550" long, located on long leg of E side near hole 28.

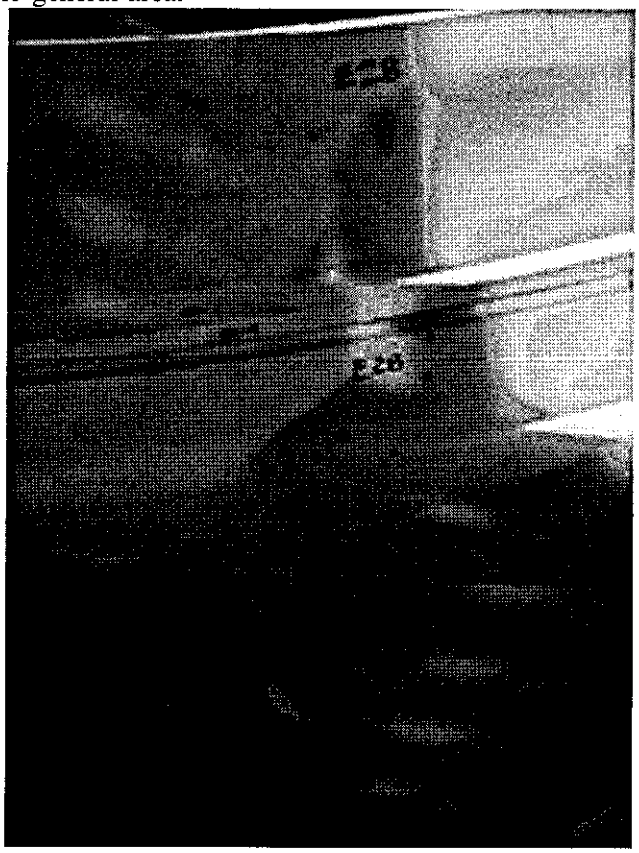


6. .350" linear located in VPI groove near hole 28 on E side.



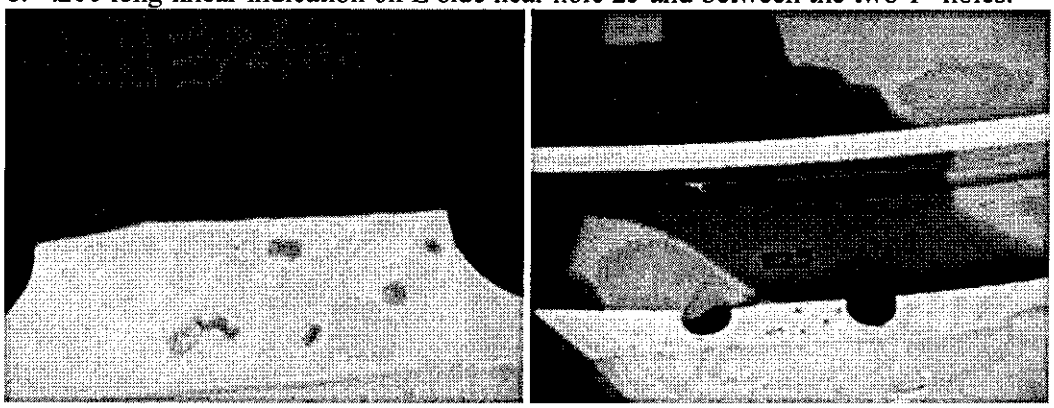
7. Linear indications in 1.885 thru hole in datum E flange. Longest is .200"

The picture below is a wide view of indications 5, 6 and 7. All of the indications are grouped in the same general area.

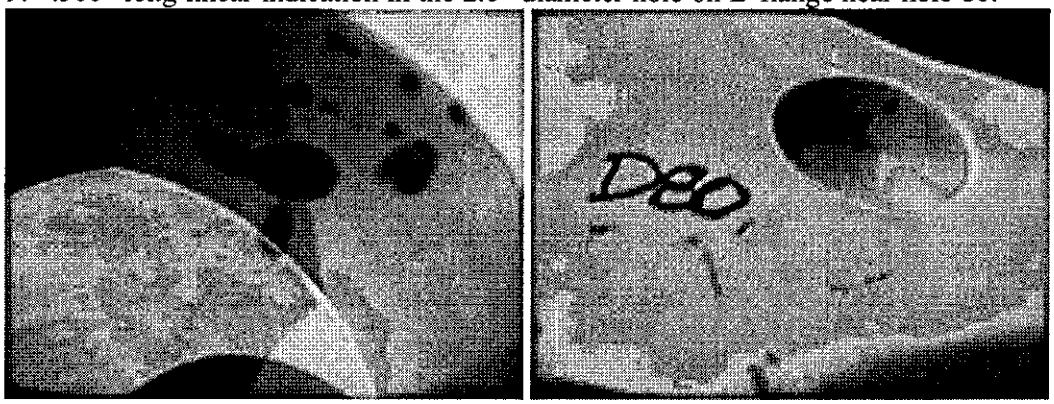


PT Inspection Results of A2 – NC20044

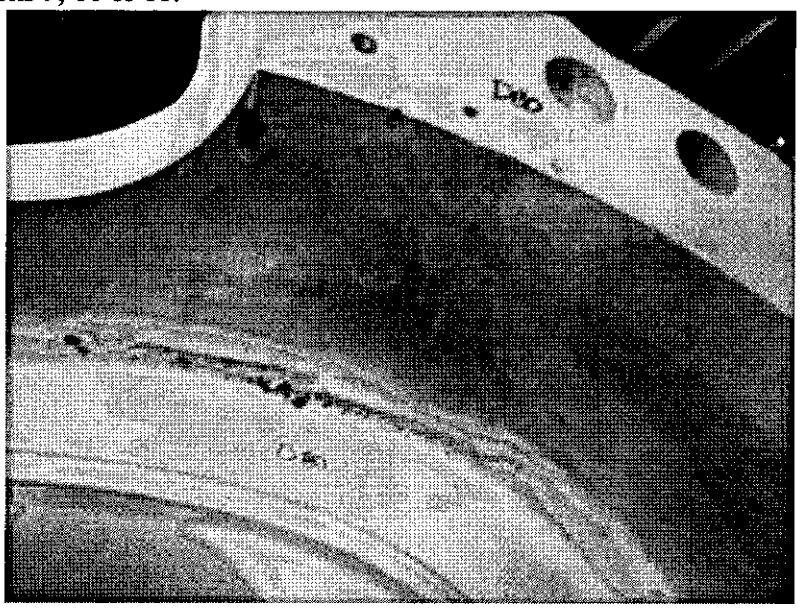
8. .200 long linear indication on E side near hole 25 and between the two 1" holes.



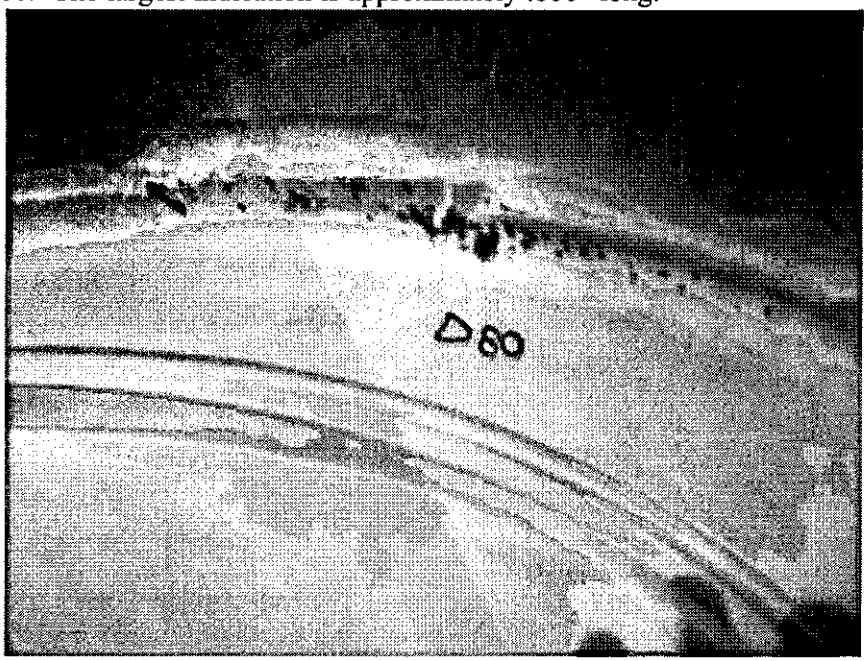
9. .500" long linear indication in the 2.0" diameter hole on D flange near hole 80.



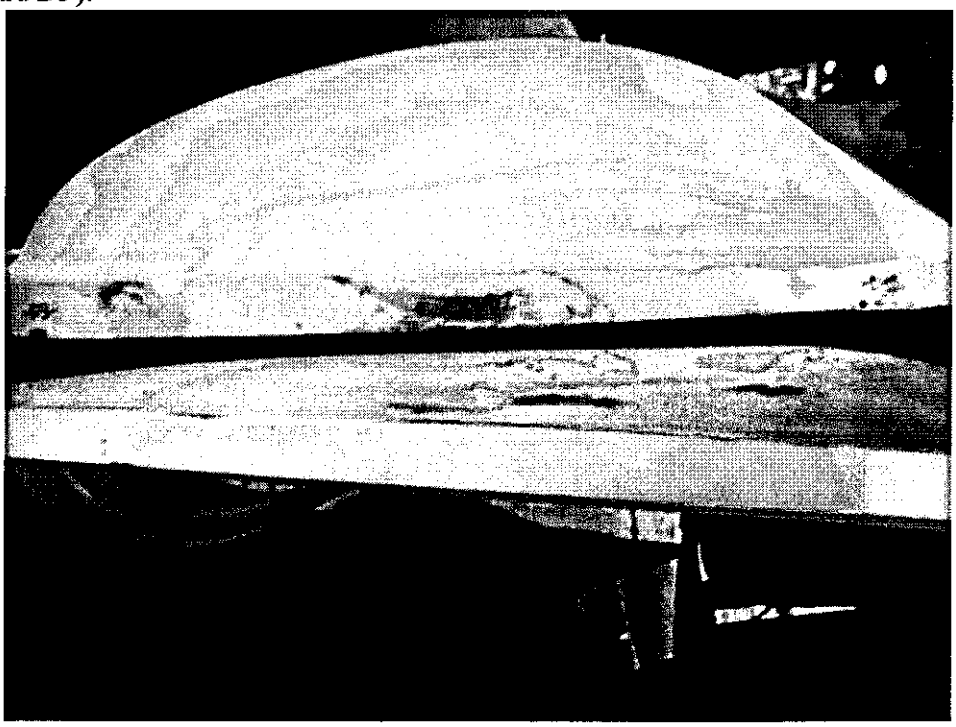
10. .200" long linear on D flange face near hole 80. This picture shows a wide view of indications 9, 10 & 11.



11. Cluster of indications below VPI groove on D side of casting. Cluster is in area near hole 80. The largest indication is approximately .800" long.

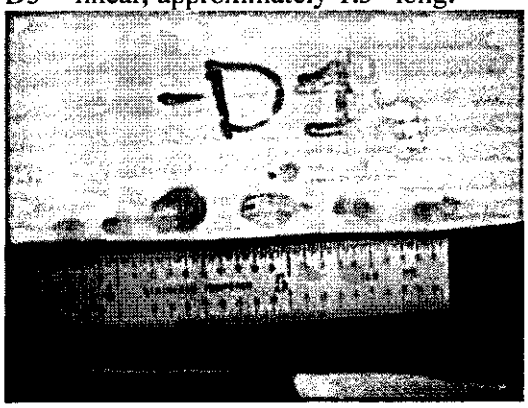


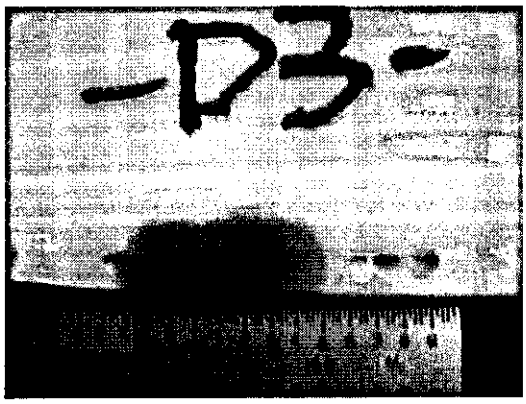
12. The following photos show indications on the outer edge of the D flange (labeled D1 thru D3).



PT Inspection Results of A2 – NC20044

D1 = linear cluster, longest is .800".
D2 = rounded indication, .100".
D3 = linear, approximately 1.3" long.

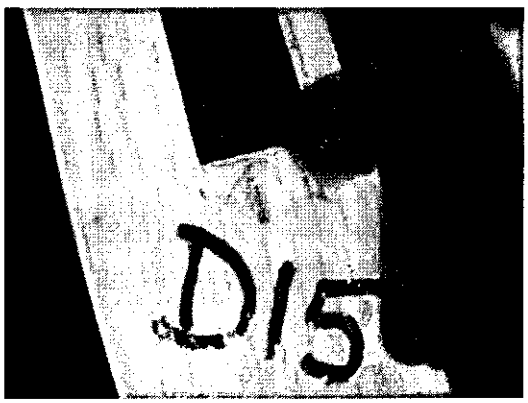


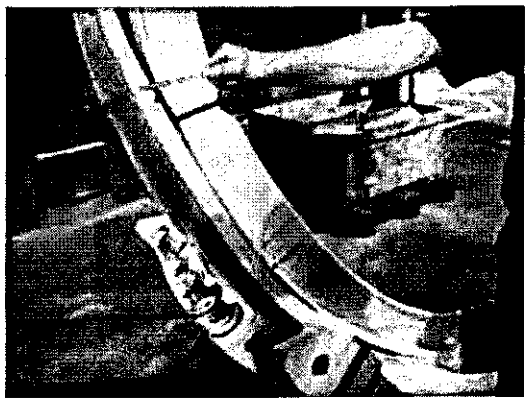


13. Rounded indication, approximately .150" located in large cut out of D flange near hole 5.

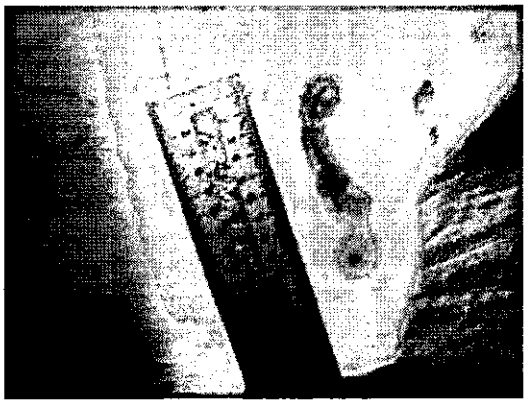
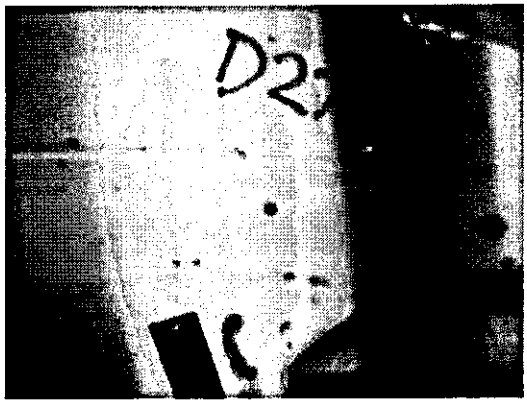
PT Inspection Results of A2 – NC20044

14. Rounded indication, approximately .125" located in large cut out of D flange near hole 15.

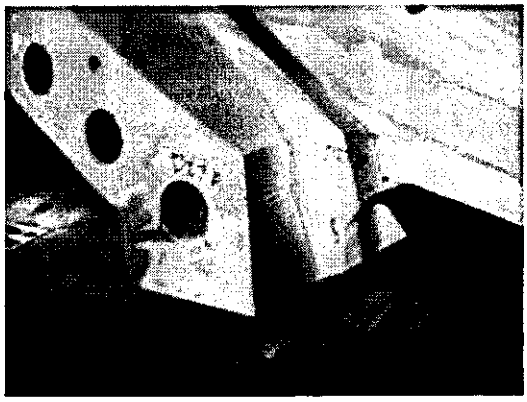




15. Cluster of linear indications in large cut out. Largest is a .600". Reference sheet 4, zone G6.

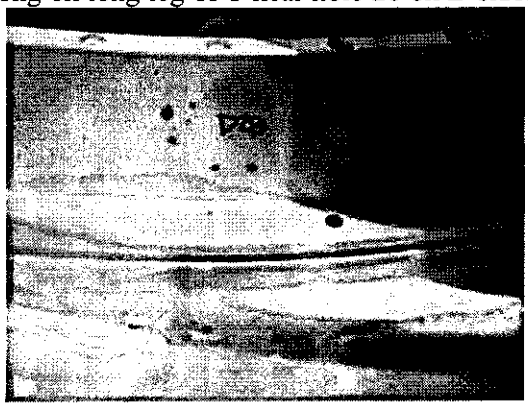



16. Cluster of linear indications near 2" diameter bore on D flange near hole 27. Picture at the bottom right shows indications for both 15 and 16.

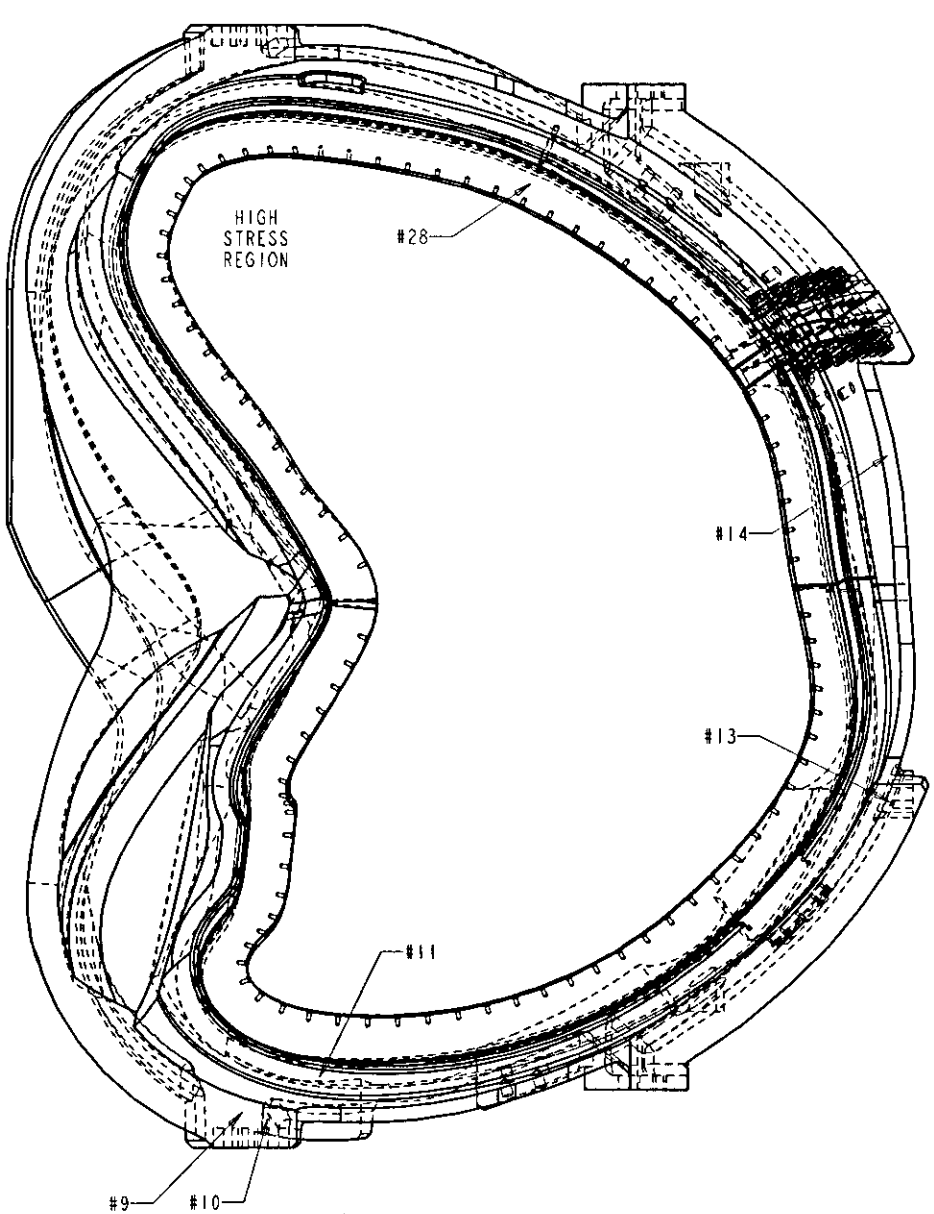


PT Inspection Results of A2 – NC20044

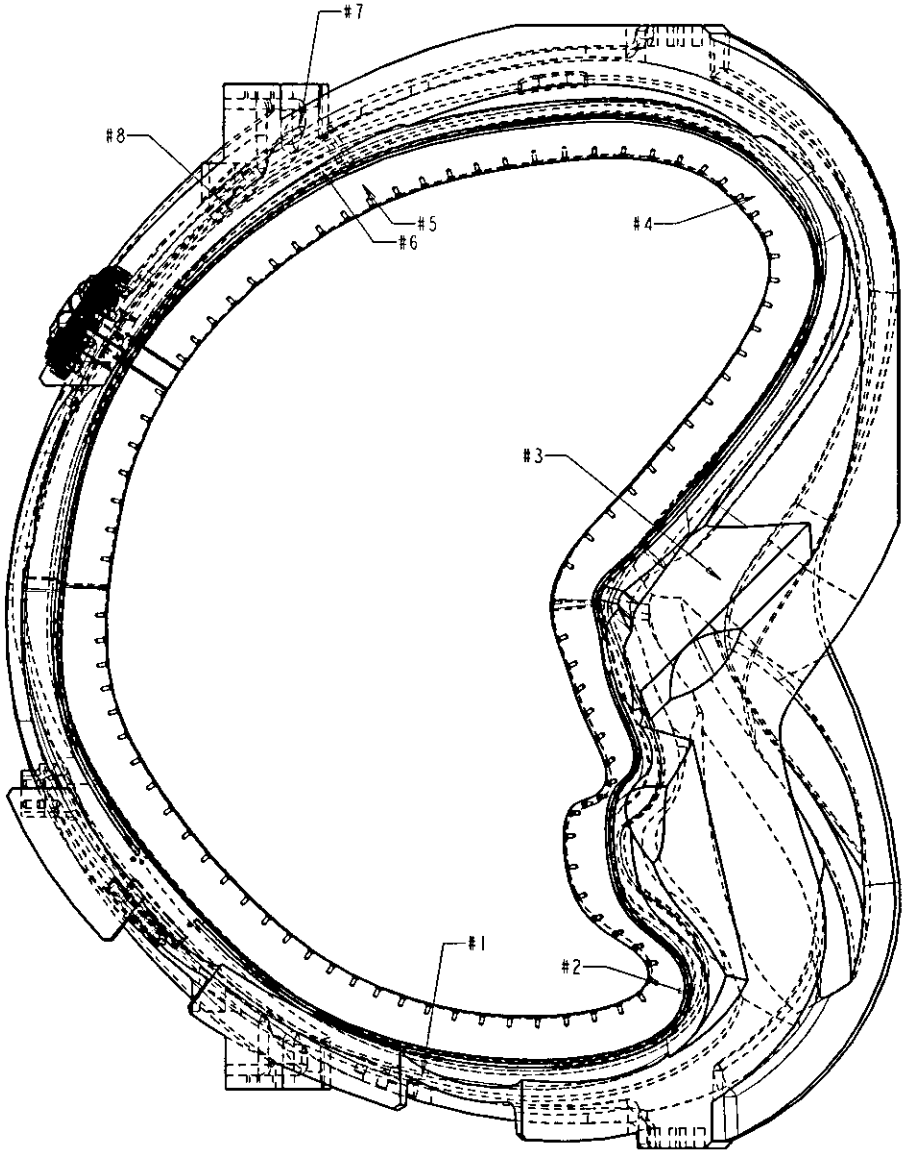
17. Linear indication approximately .140" long on long leg of T near hole 28 on D side.



A2 PT INDICATIONS



FLANGE DATUM-D



FLANGE DATUM-E

Major Tool & Machine, Inc.
1458 East 19th Street
Indianapolis, IN 46218-4289

MTM N/C: 20080

Date: 06/27/06
User ID: GRIFFITH

Customer: ENERGY INDUSTRIES OF OHIO
Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com
Telephone: 216-496-2314
Fax: 216-328-2001

Part: /
Drawing ID: SE141-114 Revision: 7
Customer P.O.: S005242-F/Ln:2
Serial No./Qty: 1

Reported By: MIKE GRIFFITH
E-Mail: mGriffith@MajorTool.com
Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Inspection Test #: 130 rejected: OUTER AS CAST SURFACES: {g|,5|A|B|C}: -.092 TO .553
Inspection Test #: 140 rejected: 2 X .40: : .395 TO .435 ON E SIDE, .355 TO .410 ON D SIDE
Inspection Test #: 150 rejected: 4 X .03 X 45: : .035 ON E SIDE, .010 TO .035 ON D SIDE
Inspection Test #: 180 rejected: DATUM D SIDE
VERIFY SHELL INTERSECT CLEARANCE WITH GAGE MTMFX-3473: : REJECT - MODEL DOES NOT ALLOW FOR CLEARANCE
Inspection Test #: 190 rejected: M TO M1: {g|,02|R|T|S}: -.021 TO .012
Inspection Test #: 230 rejected: N TO N1: {g|,02|R|T|S}: -.017 TO .027
Inspection Test #: 240 rejected: 2 X .06/.09 X 45: : .025 TO .050
Inspection Test #: 260 rejected: : bd.625 y .188: .618 TO .627 DEPTH .165 TO .193
Inspection Test #: 280 rejected: DATUM E FLANGE: {f|,01}: .015
Inspection Test #: 290 rejected: DATUM D FLANGE: {f|,01}: .032
Inspection Test #: 330 rejected: 8X Ø1-8 UNC: {#|,010|A|B|C}: .016 TO .060
Inspection Test #: 350 rejected: 8X Ø1-8 UNC: {d|,010|A|B|C}: .016 TO .066
Inspection Test #: 460 rejected: : 6X .25-20 UNC y .5
.5 X 82` CHAMFER: THE THREADS ARE ACCEPTABLE BUT THE CHAMFER IS TOO BIG .500
Inspection Test #: 480 rejected: Ø1.885: {#|d,06|N|A|E}: .003 TO .074
Inspection Test #: 540 rejected: : 6X .25 - 20 UNC y .6
d.5 X 82` CHAMFER: .375 DIA. CHAMFER
Inspection Test #: 780 rejected: INNER AS CAST SURFACES: {g|,5|A|B|C}: -.034 TO -.337 / -.341 TO .073
Inspection Test #: 790 rejected: WING SURFACES: {g|-,12;;;\,25|A|B|C}: -.164 TO -.197 / -.016 TO -.206

Additional Items:
1) Tool Gouge on top edge of T, datum D side. Gouge is approximtately .300" long and .015" in depth. See pictures.
2) G11 shim is below flush on the outer surface of the datum D flange. G11 is approximately .08" below flange surface. See pictures.
3) Tool marks did not clean up on the short leg of the D flange from holes 16 to 19. Tool marks appear to be less than .005" in depth. See pictures.

Proposed Disposition:
Propose to accept deviations As-Is.

Number of additional pages: Dimensional IDC and Final Visual Pictures

Customer Disposition: **[X] Use As Is** **[ ] Rework** **[ ] Repair** **[ ] Scrap** **[ ] Replace**

n:\mtmapps\Mtnonc14.qrp

Nonconformance Report: NC 20080
A-2 dimensional deviations and surface discontinuities.

Project Disposition:
All deviations and discontinuities were evaluated and reviewed by NCSX in a teleconference on 6/28/06. All were determined to be acceptable as-is.

Approvals:

Larry Dudek

Digitally signed by Larry Dudek
DN: cn=Larry Dudek, c=US
Date: 2006.06.28 10:45:00 -04'00'

Procurement Technical Representative

Brad Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US, o=ORNL, ou=FED, email=nelsonbe@ornl.gov
Date: 2006.06.28 13:30:32 -04'00'

Responsible Line Manager:

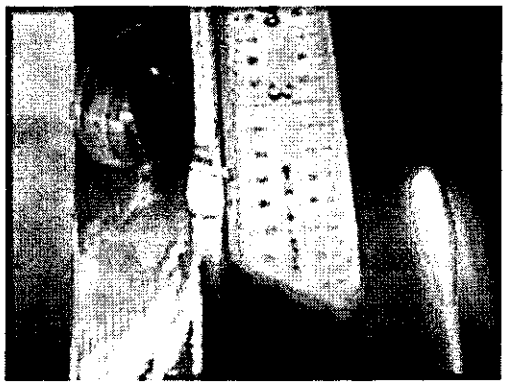
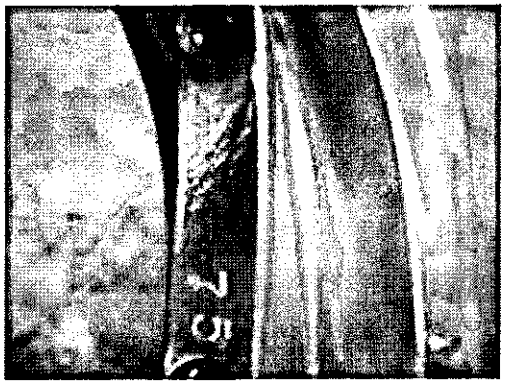
Major Tool Implemented By: Mike Griffith Digitally signed by Mike Griffith DN: cn=Mike Griffith, o=US, ou=Major Tool and Machine, ou=CFT - White, email=mgriffith@majortool.com Reason: I agree to the terms defined by the placement of my signature on this document. Date: 2006.08.02 08:23:47 -04'00' Title: _____ Date: _____

n:\mtmapps\Mtnonc14.qrp

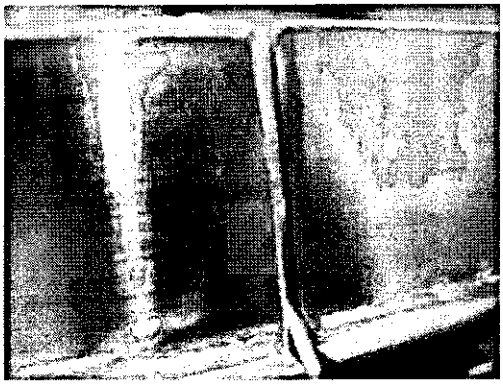
SE141-114 A2

NC20080 attachment

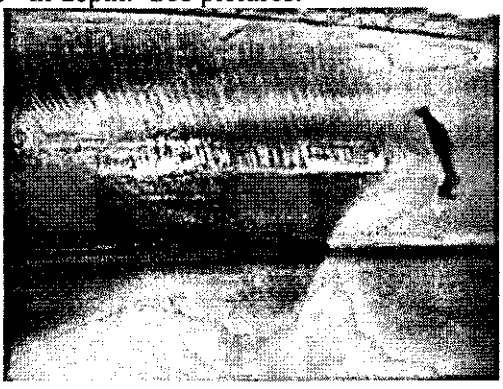
1. Tool gouge on top edge of T section on the datum D side of the part. Gouge is near hole 76.

2. G11 shim is below flush on the outer surface of the datum D flange. G11 is approximately .08" below flange surface.

3. Tool marks did not clean up on the short leg of the D flange from holes 16 to 19. Tool marks appear to be less than .005" in depth. See pictures.

Major Tool & Machine, Inc.

mc106320.tif (1751x2242x2 tiff)

MAJOR TOOL & MACHINE INC
1458 E 19TH ST
INDIANAPOLIS IN 46218

YOUR PURCHASE ORDER NUMBER
P05-01332
Today's Date:

MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2081
IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(630)833-0300

PAGE 1 (MORE)
MCM NUMBER 6241663-02

PACKING LIST

EXTRA

Warehouse Location	McMaster-Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
	74765 A86	1 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR 1	5	1 EA	1
	74765 A86	1 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR 1	6	1 EA	1
	74765 A86	1 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR 1	7	1 EA	1
	74765 A86	1 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR 1	8	1 EA	1
	74765 A86	0 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR Balance of 1 EA expected to ship by 3/9/2005	9	1 EA	0
	74765 A86	0 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR Balance of 1 EA expected to ship by 3/9/2005	10	1 EA	0
	74765 A86	0 EA	LOCTITE PRISM SUPER GLUE HZ-N TOUGHENED,NUMBER 411,1-POUND BOTTLE,CLEAR Balance of 1 EA expected to ship by 3/9/2005	11	1 EA	0

REFER TO: 6241663-02
MAJOR TOOL & MACHINE INC

3/10/05

TAG
CCP

MTM 09
3/10/05

9415
Lines 5-8

PACKER	Number of CARTONS	PTELLER

LNS: 7

WEIGHT 4

CYCLE

CERTIFICATION OF COMPLIANCE

This is to certify that, according to our records, the above item(s) furnished on your purchase order was supplied in accordance with the description and as illustrated in our catalog.

Sincerely,

Brian Hedstrom
Quality Manager

X

MCM NO. 6241663-02 04

PURCHASE ORDER
P05-01332

FROM:
MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2081 USA

SHIP TO:

MAJOR TOOL & MACHINE INC
1458 E 19TH ST
INDIANAPOLIS IN
46218

CCP

mc108545.tif (1628x2145x2 tiff)

Spaulding COMPOSITES
55 Nadeau Drive
Rochester, NH 03867
Ph: (603) 332-0555 Fax: (603) 332-5357
www.spauldingcom.com

Shipping List 072435
Customer No 101193
Sales Order Shipper

Sold to : STANDARD GRINDING & MFG CO
3721 W. CHASE AVENUE
SKOKIE, IL 60076
United States

Ship to : STANDARD GRINDING & MFG CO
3721 W. CHASE AVENUE
SKOKIE, IL 60076
United States

Ship Date	Customer PO	Sales Order	# of Boxes	Weight	Ship VIA	Bill of Lading	FOB
05/17/2005	80624	065171-00	1	0	YELLOW	072435	DE

Item	Part / Description / Details	Order Quantity	Ship Qty
000001	39G1CNT73125NMWLF U/M SHT SO Item 4 G-11 CR 48" +untrimmed X 36"+untrimmed Thickness: 3.125" +/-.110" PLEASE NOTE THAT THERE IS NO NEMA STANDARD FOR G-11 CR SHEET SPAULDING C OF C TO G -11 CR SHEET NO TESTING REQUIRED AT TIME OF ORDER Sheet Test 3.550 TC	1.00000	1.00000

RECEIVED
MAY 19 2005
By

MAY 11 2005
9650 7
Lucs 1,2
B.J.
MTM 09 5/31/05

CERTIFICATE of CONFORMANCE

WE HEREBY CERTIFY THAT THE MATERIAL SUPPLIED ON THIS ORDER WAS MADE IN ACCORDANCE WITH THE STANDARDS AND PROCESSES ESTABLISHED BY SPAULDING COMPOSITES COMPANY FOR THE REQUIREMENTS OF MATERIAL DESCIBED ABOVE.

LOT # DOM

Authorized By: Mark T Candillo Date: 05/17/2005

Customer Copy Page # 1 Form: SCSHIP Rev: 8/99

05/26/05 13:00 6047 674 1723 ATLAS FIBRE CO. 002/003

mc108545.tif (1644x2177x2 tiff) [2]

Spaulding COMPOSITES
55 Nadeau Drive
Rochester, NH 03867
Ph: (603) 332-0555 Fax: (603) 332-5357
www.spauldingcom.com

Shipping List 072434
Customer No 101193
Sales Order Shipper

Sold to : STANDARD GRINDING & MFG CO
3721 W. CHASE AVENUE
SKOKIE, IL 60076
United States

Ship to : STANDARD GRINDING & MFG CO
3721 W. CHASE AVENUE
SKOKIE, IL 60076
United States

Ship Date	Customer PO	Sales Order	# of Boxes	Weight	Ship VIA	Bill of Lading	F O B
05/17/2005	60624	065169-00	1	716	YELLOW	072434	DE

Item	Part / Description / Details	Order Quantity	Ship Qty
000001	39G1CNT71650NMWLF U/M SHT SO Item 5	1.00000	
	G-11CR 48" +UNTRIMMED X 36"+UNTRIMMED THK: 1.650" +/-.070" PLEASE NOTE THAT THERE IS NO NEMA STANDARD FOR G-11 CR SHEET SPAULDING C OF C TO G-11 CR SHEET NO TESTING REQUIRED AT TIME OF ORDER		1.00000

RECEIVED
MAY 19 2005
By

5/31/05
MTM 09

CERTIFICATE of CONFORMANCE

WE HEREBY CERTIFY THAT THE MATERIAL SUPPLIED ON THIS ORDER WAS MADE IN ACCORDANCE WITH THE STANDARDS AND PROCESSES ESTABLISHED BY SPAULDING COMPOSITES COMPANY FOR THE REQUIREMENTS OF MATERIAL DESCIBED ABOVE.

LOT # DOM.

Authorized By: Mark F Cardillo Date: 05/17/2005

Customer Copy

Form: SCSHIP Rev: 8/99

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-101 - Item: 7

Workorder: 65709/2-0 Sub:1 Op:140

Part: SE141-101 - MODULAR COIL WINDING FORM TYPE-A - PRODUCTION MODULAR COIL WINDING FORM TYPE-A

Drawing ID: SE141-101 Rev: 3			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		TEST 1 RESISTANCE TO BE >500 kohms CHECK RESISTANCE BETWEEN THE MID-PLANE POLOIDAL BREAK SHIM	MULTIMETER	QA		J-1358	MEASURED AT 2.2 GIG AOHMS	840-G.M			A
(10)		AND THE WINDING FORM.						06-23-06			
*		TEST 2 RESISTANCE TO BE >500 kohms CHECK RESISTANCE BETWEEN THE JUMPERED BOLTS AND JUMPERED MID-PLANE CASTING AND WINDING	MULTIMETER	QA		J-1358	MEASURE AT 33 TO 40 MEGA OHMS	840-G.M			A
(20)		FORM.						06-23-06			

METRODE PRODUCTS LTD
HANWORTH LANE
CHERTSEY SURREY
ENGLAND KT16 9LL
Tel +44 (0)1932 566721
Fax. +44 (0)1932 565168
Email mfo@metrode.com
Internet http/www.metrode.com

TEST CERTIFICATE

THIS PRODUCT HAS BEEN MANUFACTURED AND SUPPLIED THROUGH A SYSTEM APPROVED TO ISO 9001 & 2 OR EQUIVALENT

TEST CERTIFICATE NUMBER 194277

METRODE WELDING CONSUMABLES

BATCH No.	W020132
OUR ORDER REF.	C01708013 / 1
DATE	09/03/05
PRODUCT	ER316MNNF TIG 2.4MM
FORM	TIG WIRE

SPECIFICATION: BS EN 12072:2000 W 20 16 3 Mn L

INVOICE TO	DESPATCHED TO
EUROWELD LTD 255 ROLLING HILLS ROAD MOORESVILLE NC 28117 USA	EUROWELD LTD 255 ROLLING HILLS ROAD MOORESVILLE NC 28117 USA

IMPORTANT: Any liability arising from either reliance on this certificate, or use of our products, is strictly limited and governed by our conditions of business.

CUSTOMER ORDER No.	DELIVERY NOTE DOCUMENT No.	QUANTITY (Kg)
N. 05-39	DN0106163	17.5000

CHEMICAL ANALYSIS (WEIGHT %) TYPE — CERTIFIED MATERIAL TEST REPORT: BS EN 10204: 3.1.B

C	Mn	Si	S	P	Cr	Ni	Mo	N	Cu			
0.015	7.43	0.42	0.006	0.014	19.9	15.4	2.62	0.14	0.20			

TYPICAL ALL-WELD METAL MECH. PROPERTIES, AS WELDED:-
TS: >600 N/mm2; 0.2%PS: >400 N/mm2; EL. ON 4D: 40 %;
CVN @ -196 DEG.C: 70 J.

3/23/05 44534 Line 1 B-2

3/23/05 MTM 09

Metrode Products Ltd. certifies that the above material conforms to the indicated specifications

B. KYIET
Q A MANAGER

NOTES *Ni includes incidental Co unless otherwise specified
*Nb (Cb) includes incidental Ta unless otherwise specified
Ferrite is given as FN (Ferrite Number) and measured on all-weld pad using instrument calibrated against NBS related secondary standards (See AWS A4.2-97) unless otherwise specified

All Test certificates issued by METRODE will contain this embossed seal
Any recipient of a copy of METRODE Test Certificate without the seal should ensure from the supplier that it is a true and accurate reproduction of the original

mc106164.pdf

METRODE PRODUCTS LIMITED
HANWORTH LANE, CHERTSEY
SURREY, UK, KT16 9LL
Tel: +44 (0) 1932 566721
Fax: +44 (0) 1932 565180
Email: info@metrode.com
Website: www.metrode.com

CERTIFIED MATERIAL TEST REPORT

METRODE WELDING CONSUMABLES

THIS PRODUCT HAS BEEN MANUFACTURED AND SUPPLIED THROUGH A SYSTEM APPROVED TO ISO 9001 & 2 OR EQUIVALENT

TEST CERTIFICATE NUMBER

193695

INVOICE TO
EUROWELD LTD
255 ROLLING HILLS ROAD
MOORESVILLE
NC 28117
USA

DESPATCHED TO
EUROWELD LTD
255 ROLLING HILLS ROAD
MOORESVILLE
NC 28117
USA

CUSTOMER ORDER NUMBER	N.05-34
DELIVERY NOTE DOCUMENT NUMBER	DN0105859
QUANTITY (KG)	15.0000
OUR ORDER REFERENCE	SO1787730 / 1
DATE	02/03/05

METRODE WELDING CONSUMABLE	ER316MNNF TIG 2.4mm
FORM	TIG WIRE
BATCH NUMBER	WO20132
SPECIFICATION	BS EN 12072:2000 W 20 16 3 Mn L

Chemical Analysis (Weight %) — Type: BS EN 10204: 3.1.B / ASME SFA-5.01: Sch. H

C	Mn	Si	S	P	Cr	Ni	Mo	N	Cu		
0.015	7.43	0.42	0.006	0.014	19.9	15.4	2.62	0.14	0.20		

Mechanical Tests — Type: BS EN 10204: 2.2 / ASME SFA-5.01: Sch. G

Tensile Tests | Impact Energies

Condition	Test Temperature	$Rp_{0.2\%}$ (MPa)	Rm (MPa)	A4 (%)	Z (%)	Temperature (°C)	Impact Energy (J)	Lateral Expansion (mm)
AS-WELDED	ROOM	>400	>600	40	-	-196	70	-

Metrode Products Limited certifies that the above material conforms to the indicated specifications

This document is produced electronically and is valid without signature.

IMPORTANT Any liability arising from either reliance on this certificate, or use of our products, is strictly limited and governed by our conditions of business

Barrie Kyte – Q.A.Manager

ASME SFA-5.01: Lot classification S4

3/3/05
93911
Line 1 B.1

Notes:
% Mn includes Incidental Co unless otherwise specified.
% Ars (Cb) includes incidental Ta unless otherwise specified
Ferrite is given as FN (Ferrite number) and measured on all-weld pad using instrument calibrated against WRC-related secondary standards (See AWS A4.2-97) unless otherwise specified

MTH 09 3/7/05

Westmoreland Mechanical Testing & Research, Inc.
P.O. Box 388
Westmoreland Drive
Youngstown, Pa. 15696-0388 U.S.A.
Telephone: 724-537-3131 Fax: 724-537-3151
Website: www.wmtr.com
WMT&R is a technical leader in the material testing industry.

ACCREDITED
621-01 & 621-02

Accredited Nadcap Materials Testing Laboratory

CERTIFICATION

April 22, 2005

WMT&R Report No. 5-25008
P.O. No. P05-01764
PQR No. 434
Welder Jason Bever #465

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

Corrected Date
May 4, 2005

Attention: Josh Mayne

Subject: All processes, performed upon the material as received, were conducted at WMT&R, Inc. in accordance with the WMT&R Quality Assurance Manual, Rev. 9, dated 4/1/2000.
The following tests were performed on this order: IMPACT and TENSILE

IMPACT RESULTS: ASME Section IX and AWS B2.1, ASTM E23-02
No Requirements
MATERIAL: Metaltek CF8MNMN MOD
SAMPLE TYPE: Charpy V-Notch **DISPOSITION: Report**

Specimen ID	TestLog Number	Sample Size	Temp. °F\°C	Energy ft-lbs	Energy joules	Mils Lat Exp	A\U\R
Weld-1	B65835	Standard	68\20	173	234.6	84	Report
Weld-2	B65836	Standard	68\20	160	216.9	68	Report
Weld-3	B65837	Standard	68\20	157	212.9	81	Report

A\U\R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Richard G. Parks
Project Manager/Industrial Technology Engineer

5/4/05
May 4, 2005

Westmoreland Mechanical Testing & Research, Inc.
P.O. Box 388
Westmoreland Drive
Youngstown, Pa. 15696-0388 U.S.A.
Telephone: 724-537-3131 Fax: 724-537-3151
Website: www.wmtr.com
WMT&R is a technical leader in the material testing industry.

ACCREDITED
621-01 & 621-02

Accredited Nadcap Materials Testing Laboratory

April 20, 2005

CERTIFICATION

WMT&R Report No. 5-25008
P.O. No. P05-01764
PQR No. 434
Welder Jason Bever #465

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

Attention: Josh Mayne

Subject: All processes, performed upon the material as received, were conducted at WMT&R, Inc. In accordance with the WMT&R Quality Assurance Manual, Rev. 9, dated 4/1/2000.
The following tests were performed on this order: IMPACT and TENSILE

TENSILE RESULTS: ASME Section IX and AWS B2.1, ASTM E21-03a
SOAK TIME: 5 Minutes
SPEED OF TESTING: 0.0050 in./in./min., 0.0500 in./min./in.
MATERIAL: Metrode ER316Mnnf **DISPOSITION: Report**

Specimen ID	TestLog Number	Temp. °F/°C	UTS KSI/MPA	0.2% YS KSI/MPA	Elong %	RA %	Modulus MSI/GPA	Ult. Load LBS/NEWTONS	0.2% YLD. LBS/NEWTONS
T1	B65833	-320/-196	191.8/1320	148.7/1030	27	39	28.7/198	2630/11699	2039/9071

A/U/R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

DISPOSITION: Report

Specimen ID	TestLog Number	Orig. Width (in./mm)	Final Width (in./mm)	Orig. Thick (in./mm)	Final Thick (in./mm)	Orig. Dia. (in./mm)	4D Orig GL (in./mm)	4D Final GL (in./mm)	Orig. Area (Sq. In./Sq. mm)	Failure Location/Type	Machine Number	A/U/R
T1	B65833	0.1802/4.57708	0.1437/3.650	0.0761/1.933	0.0582/1.478	0.2511/6.378	0.70/17.78	0.89/22.61	0.04183816/26.992307	WELD/DUCTILE	M9	R

A/U/R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Roy E. Starr/Matt Wojton
____ Technical Services Manager/____ Tensile Supervisor April 20, 2005

Westmoreland Mechanical Testing & Research, Inc.
P.O. Box 388
Westmoreland Drive
Youngstown, Pa. 15696-0388 U.S.A.
Telephone: 724-537-3131 Fax: 724-537-3151
Website: www.wmtr.com
WMT&R is a technical leader in the material testing industry.

ACCREDITED
621-01 & 621-02

Accredited Nadcap Materials Testing Laboratory

April 20, 2005

CERTIFICATION

WMT&R Report No. 5-25008
P.O. No. P05-01764

Major Tool & Machine Inc.

TENSILE RESULTS: ASME Section IX and AWS B2.1, ASTM E21-03a
SOAK TIME: 5 Minutes
SPEED OF TESTING: 0.0050 In./in./min., 0.0500 in./min./in.
MATERIAL: Metrode ER316Mnnf **DISPOSITION: Report**

Specimen ID	TestLog Number	Temp. °F/°C	UTS KSI/MPA	0.2% YS KSI/MPA	Elong %	RA %	Modulus MSI/GPA	Ult. Load LBS/NEWTONS	0.2% YLD. LBS/NEWTONS
T2	B65834	-320/-196	204.7/1410	156.5/1080	29	34	29.9/206	5095/22664	3894/17323

A/U/R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

DISPOSITION: Report

Specimen ID	TestLog Number	Orig. Dia. (in./mm)	Final Dia. (in./mm)	4D Orig GL (in./mm)	4D Final GL (in./mm)	Orig. Area (Sq. In./Sq. mm)	Failure Location/Type	Machine Number	A/U/R
T2	B65834	0.1780/4.521	0.1444/3.668	0.70/17.78	0.90/22.86	0.02488456/16.054520	WELD/DUCTILE	M9	R

A/U/R: A=ACCEPTABLE, U=UNACCEPTABLE, R=REPORT

Roy E. Starr/Matt Wojton
Technical Services Manager/ Tensile Supervisor

4.20.05
April 20, 2005

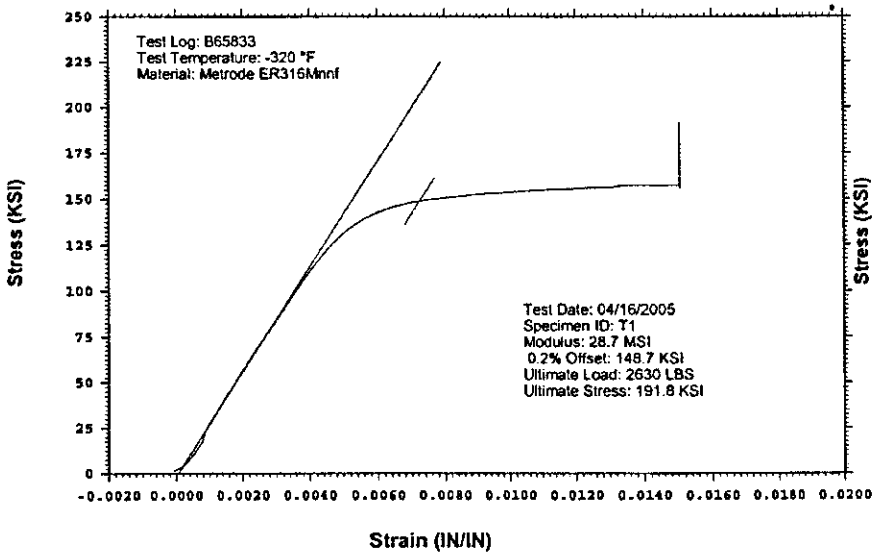
WESTMORELAND MECHANICAL TESTING & RESEARCH, Inc

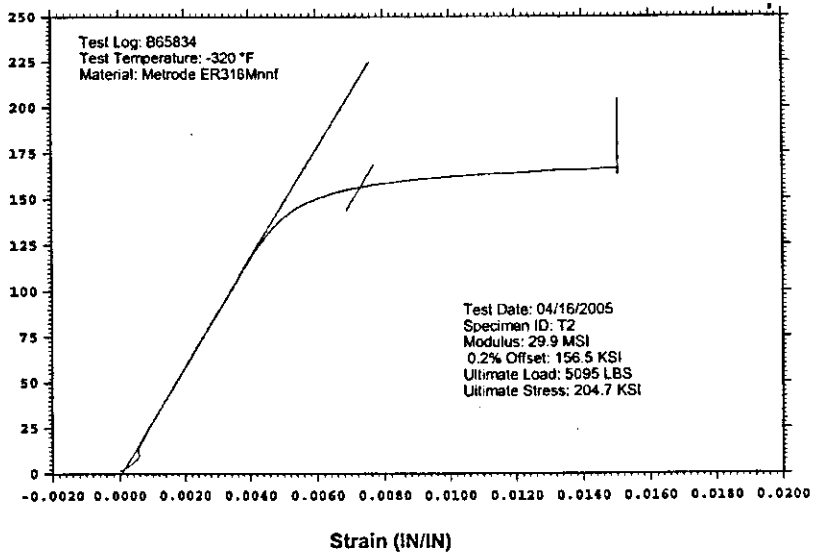
Stress vs. Strain

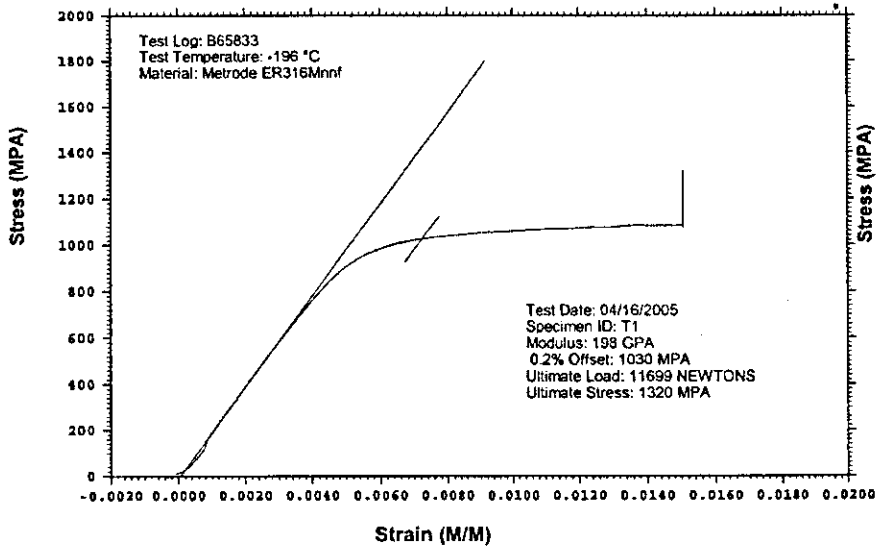
Phone: (724)537-3131

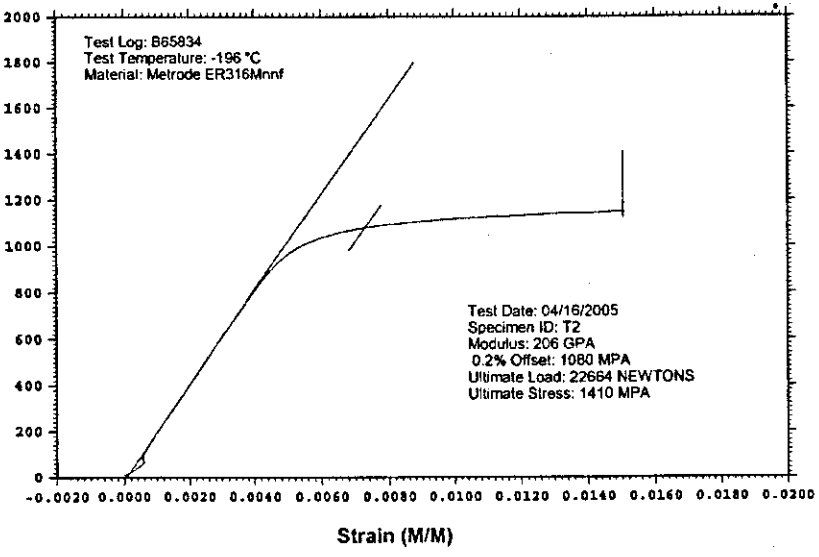
Customer: Major Tool & Machine Inc.
WMT&R Report: 5-25008

P.O. No.: P05-01764
PQR No.: 434
Welder: Jason Bever #465









mc107081.tif (1727x2247x2 tiff)

GE Advanced Materials, Polymershapes

Certificate of Conformance

Date:

Attn: Receiving Inspection
To: Major Tool + Machine
Address: 1458 E. 19th St.
Indianapolis, IN 46218

Customer P.O. Number: P05-01288
Sales Order No: 2790834

It is hereby certified that the product information provided below conforms to the corresponding information in the possession of GE Advanced Materials, Polymershapes with respect to such products. This certification and the sale of products are subject to GE Advanced Materials, Polymershapes' standard conditions of sale. This document shall not be reproduced, except in full, without prior written approval.

Quantity	Description	Lot/Specification/Standard Number
36	GILCR Plenelic sheet .062"THK X 16"X 38"	No Spec / N38.009023

APR - 5 2005
94442
1-18

MTM 09
4/5/05

GE Advanced Materials, Polymershapes

By: Ernest Evans

Title: Warehouse Worker

Nondestructive Test
Certification for Liquid Penetrant Examination

1458 E. 19th Street, Indianapolis, In 46218
TEL:(317)636-6433 FAX:(317)634-9420

Quality Assurance Documentation for Part ID: SE141-114 - Item: 12

Date of Inspection:06/21/2006 **Type of Material:**CAST STAINLESS **NDT#:17119**

Stage of Inspection:	Manufacturing Process:	Surface Condition:	Test Being Run to:	Heat Treated:
[ ] Incoming Inspection	[ ] Weldment [x] Casting	[x] Machined	[x] Router Instructions	[ ] Yes
[ ] In-Process Inspection	[ ] Bar Stock [ ] Plate	[ ] Rough	[x] Drawing	[x] No
[ ] After Repair	[ ] Forging [ ] Other	[ ] Other	[ ] Test Plan	
[x] Final Inspection		FINAL MACHINED	[ ] Technique Card	
			SEE NOTES	

Part Information:
MTM Job Number: 65709/2.0 -Sub:1 -Op:100
Resource ID: 810-LIQUID PENETRANT INSPE
Part ID: SE141-114
Part Name: MODULAR COIL WINDING FOR
Serial Number:
Customer P.O.: S005242-F
Customer Unit/Plant:

Test Results:
Quantity Inspected: 1
Quantity Accepted: 0
Quantity Rejected: 1
Run Hours: 0.0

Inspection Results:
Customer N/C #:
[ ] Accepted
[x] Rejected
[ ] N/C-Report
[ ] Rework
MTM N/C #: 19891

Customer Inspection Plan: SEE NOTES
Test Step:
Revision:
Material Test Number:

Inspection Criteria:
Customer Specification: ASTM A903/A903M
MTM Spec Number: PS582 (REF NDT-WI-09)
Acceptance Standard: ASTM A903 (SEE NOTES)

Inspection Materials Used:
Manufacturer: SHERWIN
Type of Penetrant: DP-51
Batch Number: 41-E47
Developer: D-100
Batch Number: 65-C6

Penetrant Examination Processes:
Type: II (Visible) / Dwell Time: 20 Minutes
Method: A (Water Wash)
Method of Drying: Forced Air Fan
Form: e (nonaqueous for Type II visible dye) / Dwell Time: 20 Min

Inspection Requirements:

100 % of all accessible surfaces [ ] Joint Preps [ ] Root Pass [ ] Back Gouge [ ] Cover Pass [ ] Other

Notes:
INSPECT 100% OF SURFACES ON PRODUCTION MODULAR COIL WINDING FORM TYPE-A.
SPECIFICATION: ASTM A903/A903M
METHOD: ASTM E165

ACCEPTANCE CRITERIA: ASTM A903/A903M LEVEL I FOR MACHINED SURFACES INCLUDING THE ENTIRE "T" SECTION (HIGH STRESS AREAS)

PART HAS 17 REJECTABLE INDICATIONS PER CUSTOMER REQUIREMENTS ON MACHINED SURFACES. SEE NCR-20044 AND PHOTOS FOR MORE DETAILED INFO.

This is to certify that the pieces specified have been inspected in accordance with the specifications shown.

Inspector: 581-D.EDWARDS **Date:** 06/21/2006 Douglas D. Edwards Level II MTM P-10

Quality Assurance Documentation for Part ID: SE141-114 - Item: 13

Workorder: 65709/2-0 Sub:1 Op:130

Part: SE141-114 - MODULAR COIL WINDING FORM TYPE-A - PRODUCTION MODULAR COIL WINDING FORM TYPE-A

Drawing ID: SE141-101 Rev: 3			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
2* (10)	D3	Ø.001 - Ø.002 CHECK CLEARANCE OF ITEM 5 TO ITEM 6.	FEELER GAGES	MFG		J-1203	ACCEPT	242-M.G 06-26-06			A
* (15)		THE GAP BETWEEN THE POLOIDAL BREAK BUSHINGS AND FLANGE SHAL BE LESS THAN .002"	FEELER GAGES	MFG		J-1203	ACCEPT	242-M.G 06-26-06			A
* (20)		ENSURE THAT THE CUMULATIVE GAP AT ANY SINGLE CROSS SECTION OF THE POLOIDAL FLANGE ELEMENTS IS LESS THAN .005".	FEELER GAGES	MFG		J-1203	NO GAP	242-M.G 06-26-06			A
* (30)		THE MAX. GAP AT THE POLOIDAL BREAK PERIMITER IS .015" AND CANNOT EXCEED 1/8" FROM THE EDGE	FEELER GAGES	MFG		J-1203	ACCEPT	242-M.G 06-26-06			A
1* (40)	F2	TORQUE ASSEMBLY TO 1500 +/- 30 FT-LBS PER DRAWING NOTE 15.	TORQUE MULTIPLI	MFG		J-1240	DONE	825-B.J 06-27-06			A

Quality Assurance Documentation for Part ID: SE141-114 - Item: 14

Workorder: 65709/2-0 Sub:1 Op:132

Part: SE141-114 - MODULAR COIL WINDING FORM TYPE-A - PRODUCTION MODULAR COIL WINDING FORM TYPE-A

Drawing ID: SE141-114 Rev: 7			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	F3	NOTE 14 - BACK SPOTFACE ALL THRU HOLES TO MINIMUM CLEAN UP.		QA		MTMFX3564	ACCEPT	339-E.R 06-27-06			A
1* (20)	E8	FLANGE PROFILE +/-.25 IN THIS AREA	CMM	QA		00064	-.0027 TO -.0065	339-E.R 06-27-06			A
1* (30)	D8	// .02 A	CMM	QA		00064	.006	339-E.R 06-27-06			A
1* (40)	D8	54.20 ± .03	CMM	QA		00064	54.206	339-E.R 06-27-06			A
1* (50)	C8	54.20 ± .03	CMM	QA		00064	54.205	339-E.R 06-27-06			A
1* (60)	B8	// .02 A	CMM	QA		00064	.005	339-E.R 06-27-06			A
1* (70)	D5	// .02 A	CMM	QA		00064	.002	339-E.R 06-27-06			A
1* (80)	D5	48.50 ± .03	CMM	QA		00064	48.498	339-E.R 06-27-06			A
1* (90)	C5	48.50 ± .03	CMM	QA		00064	48.494	339-E.R 06-27-06			A
1* (100)	B5	// .02 A	CMM	QA		00064	.006	339-E.R 06-27-06			A
1* (110)	D4	VERIFY PART MARKING: MAJOR TOOL SE141-114 A(casting number) (weight) LBS.		QA		VISUAL	ACCEPT	339-E.R 06-27-06			A
1* (120)	D4	RECORD WEIGHT		QA			5180	242-M.G 06-21-06			A
1* (130)	D3	⌓ .5 A B C OUTER AS CAST SURFACES	CMM	QA		00064	-.092 TO .553 [N/C: 20080-Doc:NC20080]	339-E.R 06-27-06			R
2*	F8		CALIPER	QA		P-5075	.395 TO .435 ON DAT	533-B.C			R

(140)		2 X .40					UM E SIDE, .355 TO .410 ON DATUM D SID E [N/C:20080-Doc:NC 20080]	06-23-06			
2* (150)	F8	4 X .03 X 45	CALIPER	QA		P-5075	.035 ON DATUME SIDE , .010 TO .035 ON DATUM D SIDE [N/C:2 0080-Doc:NC20080]	533-B.C 06-23-06			R
2* (160)	G6	2 X R.187 +.025 / -.005	PIN GAGE	QA		J-651-2	.187 ON DATUM E SID E, .183 TO .192 O N DATUM D SIDE	533-B.C 06-23-06			A
2* (170)	G5	⌓ .2 R T S P TO M	CMM	QA		00064	-.003 TO .081	339-E.R 06-27-06			A
2* (180)	G5	DATUM D SIDE VERIFY SHELL INTERSECT CLEARANC USING GAGE MTMFX-3473		QA		MTMFX-3473	REJECT - MODEL DOE S NOT ALLOW FOR CL ARANCE [N/C:20080-D oc:NC20080]	339-E.R 06-27-06			R
2* (190)	F5	⌓ .02 R T S M TO M1	CMM	QA		00064	-.021 TO .012 [N/C: 20080-Doc:NC20080]	339-E.R 06-27-06			R
2* (200)	E5	⌓ .1 R T S M1 TO N1	CMM	QA		00064	-.015 TO .017	339-E.R 06-27-06			A
2* (210)	G3	⌓ .2 R T S Q TO N	CMM	QA		00064	.015 TO .092	339-E.R 06-27-06			A
2* (220)	F3	DATUM E SIDE VERIFY SHELL INTERSECT CLEARANC USING GAGE MTMFX-3473		QA		MTMFX-3473	ACCEPT	339-E.R 06-27-06			A
2* (230)	F3	⌓ .02 R T S N TO N1	CMM	QA		00064	-.017 TO .027 [N/C: 20080-Doc:NC20080]	339-E.R 06-27-06			R
2* (240)	B4	2 X .06/.09 X 45	CALIPER	QA		P-5075	.025 TO .050 [N/C:2 0080-Doc:NC20080]	533-B.C 06-23-06			R
2* (250)	B5	Ø .375-16 UNC ↧ .750 +.1 -0 96 X	THREAD PLUG GA	QA	100%	A-151	ACCEPT	339-E.R 06-27-06			A
2*	B5	⌴ Ø.625 ↧ .188	PIN GAGE	QA		J-652-3	.618 TO .627 DEP TH .165 TO .193 [N/	533-B.C			R

(260)			DEPTH MICROMET			J-520	C:20080-Doc:NC20080]	06-23-06			
2* (270)	B5	⌖ .06 R T S .375-16 HOLES	CMM	QA		00064	.005 TO .055	339-E.R 06-27-06			A
3* (280)	H3	▱ .01 DATUM E FLANGE	CMM	QA		00064	.015 [N/C:20080-Doc :NC20080]	339-E.R 06-27-06			R
3* (285)	H4	√125 DATUM E FLANGE	PROFILOMETER	QA		J-1109	25 TO 81	533-B.C 06-23-06			A
3* (290)	F2	▱ .01 DATUM D FLANGE	CMM	QA		00064	.032 [N/C:20080-Doc :NC20080]	339-E.R 06-27-06			R
3* (295)	F3	√125 DATUM D FLANGE	PROFILOMETER	QA		J-1109	32 TO 78	533-B.C 06-23-06			A
3* (300)	E4	Ø2.50 THRU	DIAL BORE GAGE	QA		J-1401	2.495	533-B.C 06-23-06			A
3* (310)	F4	⌖ .060 A B C Ø2.50	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
3* (320)	C7	8X Ø1-8UNC ↧ 2	THREAD PLUG GA	QA		A-347	ACCEPT	533-B.C 06-22-06			A
3* (330)	C7	⌖ .010 A B C 8X Ø1-8 UNC	CMM	QA		00064	.016 TO .060 [N/C:2 0080-Doc:NC20080]	339-E.R 06-27-06			R
3* (340)	D5	8X Ø1-8UNC THRU	THREAD PLUG GA	QA		A-347	ACCEPT	533-B.C 06-22-06			A
3* (350)	D5	Ø .010 A B C 8X Ø1-8 UNC	CMM	QA		00064	.016 TO .066 [N/C:2 0080-Doc:NC20080]	339-E.R 06-27-06			R
3* (360)	D3	Ø2.50 THRU	DIAL BORE GAGE	QA		J-1401	2.491	533-B.C 06-23-06			A
3* (370)	D3	⌖ .060 A B C Ø2.5	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
3* (380)	D1	40.90	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
4* (390)	H6	⌴Ø2.000-2.001 ↧0.990-1.000	DIAL BORE GAGE CALIPER	QA		J-1401 P-5075	2.0005, 2.0007, 2.0 009 DEPTH .992 TO .996	533-B.C 06-24-06			A
4* (400)	F4	Ø1.375-6UNC THRU	THREAD PLUG GA	QA		A-375	ACCEPT	533-B.C 06-23-06			A
4* (410)	F4	⌖ Ø .06 M A D Ø1.375-6	CMM	QA		00064	.036	339-E.R 06-27-06			A

4* (420)	D4 &	Ø1.885 ± .003 THRU	DIAL BORE GAGE	QA		J-1400	1.883 TO 1.887	533-B.C 06-23-06			A
4* (430)	D4 &	⌖ Ø.06 M A D Ø1.885	CMM	QA		00064	.012 TO .059	339-E.R 06-27-06			A
4* (440)	B6	3X Ø1.5	CALIPER	QA		J-1103	1.500 TO 1.502	533-B.C 06-23-06			A
4* (450)	B6	⌖ .06 M A D 3X Ø1.5	CMM	QA		00064	.020 TO .058	339-E.R 06-27-06			A
4* (460)	A4	6X .25-20 UNC ↧ .5 .5 X 82° CHAMFER	THREAD PLUG GA CALIPER	QA		A-715 P-5075	THE THREADS ARE A EPTABLE BUT THE CH MFER IS TOO BIG .5 00 [N/C:20080-Doc:N C20080]	533-B.C 06-24-06			R
5* (470)	D8/D6	Ø1.885 ±.003	DIAL BORE GAGE	QA		J-1400	1.8835 TO 1.884	533-B.C 06-22-06			A
5* (480)	D8/D6	⌖ Ø.06 N A E Ø1.885	CMM	QA		00064	.003 TO .074 [N/C:2 0080-Doc:NC20080]	339-E.R 06-27-06			R
5* (490)	F8	Ø1.375-6UNC THRU	THREAD PLUG GA	QA		A-375	ACCEPT	533-B.C 06-23-06			A
5* (500)	F8	⌖ Ø.06 N A E Ø1.375-6 UNC	CMM	QA		00064	.043	339-E.R 06-27-06			A
5* (510)	F6	8X 1/4 -20 UNC-2B	THREAD PLUG GA	QA		A-715	ACCEPT	533-B.C 06-23-06			A
5* (520)	D6	3X Ø1.5 ↧ 2.33	CALIPER CALIPER	QA		J-1103 P-5075	1.498 TO 1.500 DEPTH 2.330 TO 2.34 0	533-B.C 06-22-06			A
5* (530)	D6	⌖ Ø.06 N A E 3X Ø1.5	CMM	QA		00064	.024 TO .029	339-E.R 06-27-06			A
5* (540)	B3	6X .25 - 20 UNC ↧ .6 Ø.5 X 82° CHAMFER	CALIPER	QA		P-5075	.375 DIA. CHAMFER [N/C:20080-Doc:NC200 80]	533-B.C 06-23-06			R
6* (550)	H7	6.00	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
6* (560)	H7	1.00	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
6* (570)	G8	6.70	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A

Major Tool and Machine, Inc. 1458 East 19th Street, Indianapolis, IN 46218 (317)636-6433 Fax (317)634-9420

6* (600)	F8	6.70	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
6* (610)	E7	5.75	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
6* (620)	E7	1.00	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
6* (630)	E6	4X Ø1.00	PIN GAGE	QA		J-921	.995	533-B.C 06-23-06			A
6* (640)	G5	2X .88 - 1.13	CALIPER	QA		P-5075	1.115 TO 1.130	533-B.C 06-23-06			A
6* (650)	F5	.06-.09 X 45° TYP	CALIPER	QA		P-5075	.065	533-B.C 06-22-06			A
7* (660)	G2	19.00	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
7* (670)	F2	2.00	CALIPER	QA		P-5075	2.00	533-B.C 06-22-06			A
7* (680)	F2	6.75	CMM	QA		00064	SEE IGES DATA	339-E.R 06-27-06			A
7* (690)	F2	3.75	CALIPER	QA		P-5075	3.745 TO 3.750	533-B.C 06-22-06			A
7* (700)	F1	4X Ø.75-10 UNC ↧ 1.50	THREAD PLUG GA	QA		A-167	ACCEPT	533-B.C 06-22-06			A
7* (710)	D1	2X 1.56 OPEN THRU	CALIPER	QA		P-5075	1.560	533-B.C 06-22-06			A
7* (720)	C1	.375-16 UNC-2B TAP↧ .75 .03 X 45° CHAMFER 6X	THREAD PLUG GA CALIPER	QA		A-444 P-5075	ACCEPT CHAMFE R .035	533-B.C 06-22-06			A
7* (730)	C4	VERIFY THAT HOLE LOCATIONS ARE SCRIBED ON THE PART.		QA		VISUAL	ACCEPT	533-B.C 06-22-06			A
7* (740)	B3	8.50 DISTANCE BETWEEN SCRIBE MARKINGS.	CALIPER	QA		J-1389	ACCEPT	533-B.C 06-22-06			A
9* (750)	H1	2X Ø.50	PIN GAGE	QA		J-652-3	.500	533-B.C 06-23-06			A
9*	B7		PIN GAGE	QA		J-652-3	2.570 DEEP .623 D	533-B.C			A

Major Tool and Machine, Inc. 1458 East 19th Street, Indianapolis, IN 46218 (317)636-6433 Fax (317)634-9420

(760)		TC2 HOLE TO BE .625" IN DIAMETER APPRO 2.52" DEEP AND .25" IN DIAMETER AT LEAST 1" DEEP.	CALIPER			P-5075	IA. 1 DEEP . 252 DIA.	06-23-06			
*			PIN GAGE	QA		J-652-3	.623 DIA. 1.150 D	533-B.C			A
(770)		TC1 LOCATION AND CONFIGURATION MODIFIED. HOLE TO HAVE .625 CLEARANCE AND AT LEAST 1" OF DEPTH AT THE .25" DI	CALIPER			P-5075	EEP .252 DIA.	06-23-06			
10*	F5	⌓ .5 A B C	CMM	QA		00064	-.034 TO -.337 / -.	339-E.R			R
(780)		INNER AS CAST SURFACES					341 TO .073 [N/C:20 080-Doc:NC20080]	06-27-06			
10*	D5	⌓ -.12 -.25 A B C	CMM	QA		00064	-.164 TO -.197 / -.	339-E.R			R
(790)		WING SURFACES					016 TO -.206 [N/C:2 0080-Doc:NC20080]	06-27-06			
Drawing ID: NCSX-CSPEC-141-03 Rev: 11			**INSPECTION INSTRUCTIONS**			**RESULTS**		**INSPECTED BY**			
SHEET	**ZONE**	**CHARACTERISTIC**	**GAGE/EQUIP**	**BY**	**SAMPLE**	**SER#**	**DATA/REMARKS**	**INSP**	**VERFD**	**AUDIT**	
4*	3.1.1.	√125	PROFILOMETER	QA		J-1109	15 TO 30	533-B.C			A
(800)		THE TWO "L" MACHINED SURFACES O TEE MUST HAVE A RMS OF 125.						06-23-06			

4959

10520 Chester Road
Woodlawn, Ohio 45215

COOPERHEAT MQS

CLIENT	INTERPRETER/LEVEL	RADIOGRAPHER	JOB NO	P.O. NO	DATE
Major Tool & Machine	Robert Weaver/II	Robert Weaver	13860001	N/A	6/26/06

ISOTOPE/X-RAY	DIA. X LENGTH	CURIES/MA	FOCAL SPOT SIZE	SFD	SOD	TIME	FILM PROCESSING	FILM TYPE	FILM TECHNIQUE	PB SCREENS
IR192	.118"x.089"	22	.148"	17"	16.25"	4:30	AUTO	Kodak AA	Double	.010"

WELD PROCESS	MATERIAL SPEC	MATERIAL DIAMETER	MATERIAL THICKNESS	PENETRAMETER	SHIM	ACCEPTANCE STANDARD
N/A	316 SST	N/A	.75"	ASTM 1B	N/A	NO Defects > .080"

DESCRIPTION
C5709/2.0/1/134/88
SE141-114
Page 1 of 2

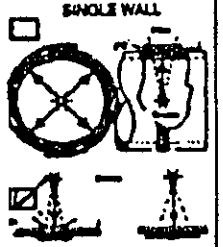
REMARKS Densitometer-12105
cal due-8-2-06

V-Shrinkage-as shown on PT-NC20044 Item 4

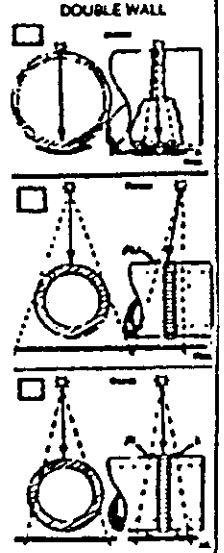
FITTING, SEAM OR FITTING	FILM INTERVAL NUMBER	WELDER IDENTIFICATION	PENETRAMETER SIZE	PENETRAMETER QUALITY LEVEL	SLAG	POROSITY	POROSITY WITH TAIL	CRACK	LACK OF PEN	LACK FUSION	INTERNAL CONVEXITY	INTERNAL CONCAVITY	TUNGSTEN	MELT-THROUGH	BURN-THROUGH	CRATER-PIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	ALIGNED INDICATIONS	WELD CONTOUR	MIS-MATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT
T	0-1	N/A	1B	.016"		✓																	✓				✓	
↓	1-2	↓	↓	↓																			✓				✓	
	2-3																						✓			✓	✓	
↓	3-4	↓	↓	↓																			✓				✓	

End View | Side View

SINGLE WALL



DOUBLE WALL



P Penetrameter
S Shim
L Location Marker
( ) OTHER

Robert Weaver 65554/II
Cooperheat-MQS Signature

Customer Representative Signature

6/26/06
Date

MCWF Type A
RT Map of High Stress Region

MTM Workorder Number: _____

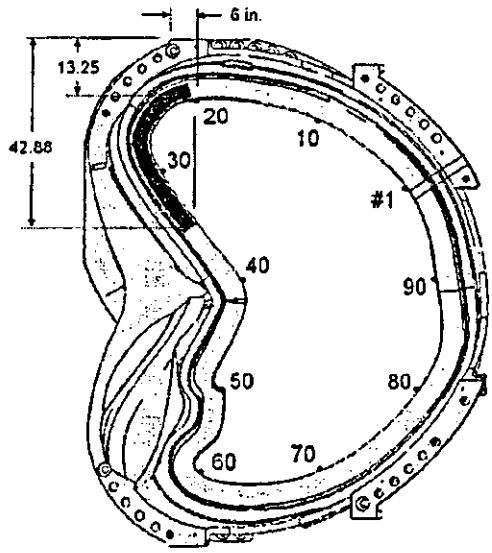
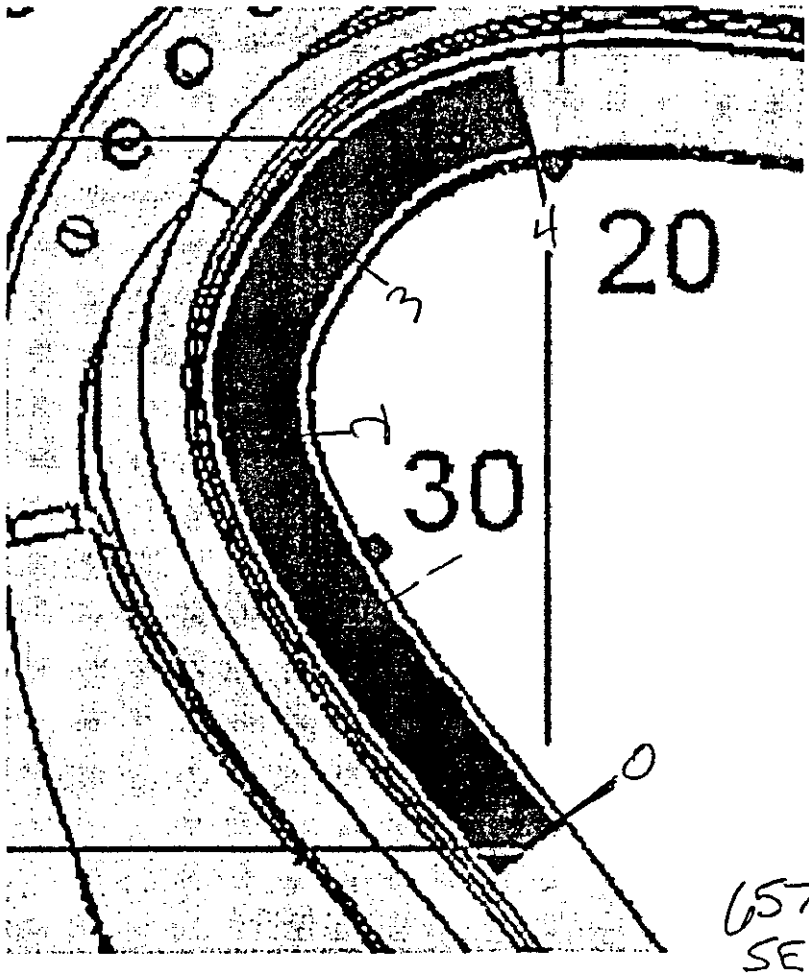


Figure 7-4– High Stress Region Identification for Type-A MCWF



65709/2.0/1/134/818
SE141-114
6/26/06
Page 2 of 2

SE141-114 TYPE A2
RT ATTACHMENT

Photo of RT film 2-3

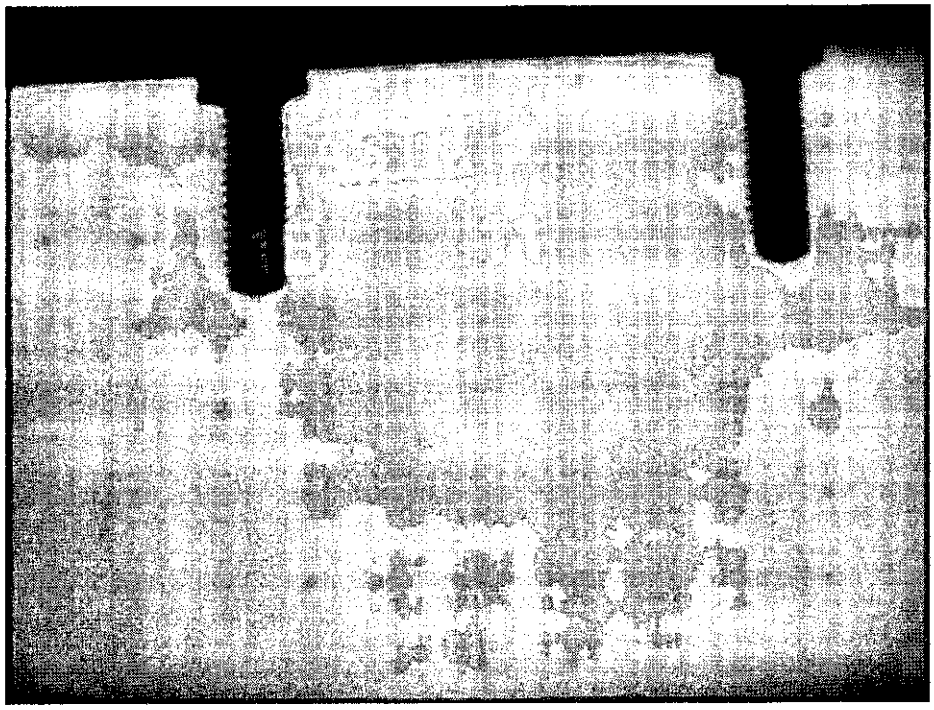
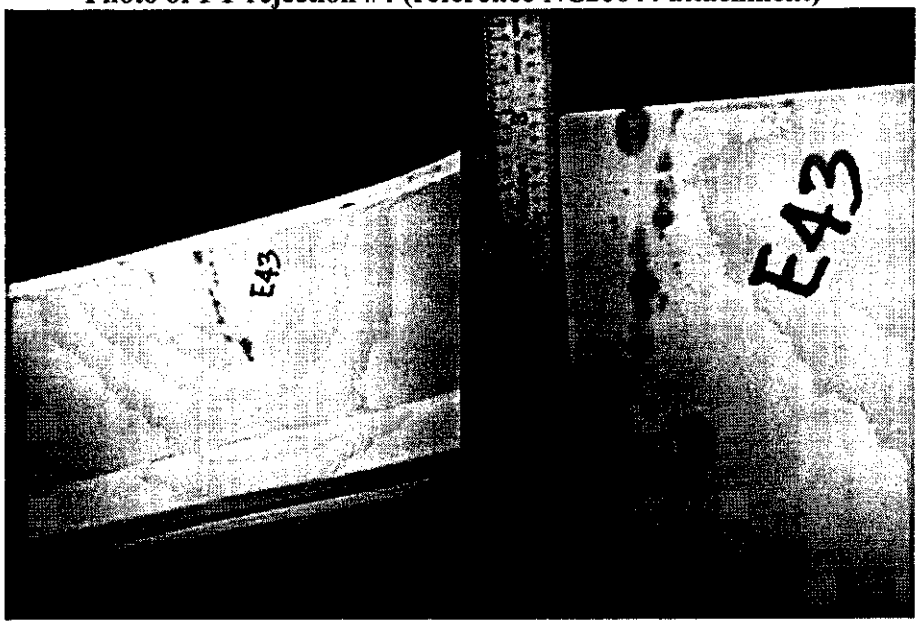


Photo of PT rejection #4 (reference NC20044 attachment)



Major Tool & Machine, Inc.

Quality Assurance Documentation for Part ID: SE141-114 - Item: 16

Workorder: 65709/2-0 Sub:1 Op:136

Part: SE141-114 - MODULAR COIL WINDING FORM TYPE-A - PRODUCTION MODULAR COIL WINDING FORM TYPE-A

Drawing ID: SE141-114 Rev: 6			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
*		DATUM -E- SIDE MAG PERMEABILITY TO BE NO GREATER THAN 1.02μ. CHECK 3 PLACES ADJACENT TO EVERY 5TH HOLE IN T SECTION.	MASTER GAGE	QA		J-1165	LESS THAN 1.02	667-J.B 06-26-06			A
(10)											
*		DATUM -D- SIDE MAG PERMEABILITY TO BE NO GREATER THAN 1.02μ. CHECK 3 PLACES ADJACENT TO EVERY 5TH HOLE IN T SECTION.	MASTER GAGE	QA		J-1165	LESS THAN 1.02	667-J.B 06-26-06			A
(20)											

SOUTH TEXAS BOLT & FITTING, INC
4845 HOMESTEAD RD #500
HOUSTON TEXAS 77028
PH # 713 673 5376
FAX# 713 673 5379

*** MATERIAL TEST REPORT ***
Date 05 17 2006

SOLD TO Major Tool & Machine INc
1458 East 19th Street
Indianapolis IN 46218

Customer P/O # P06 01393

STBF Order # 81140

ITEM	QTY	DESCRIPTION	LOT / HEAT
1	50	1 3 8 6 x 9 1 2 660B Broached Tapend Stud Silver Plated per AMS 2410	XFR / E3930

Chemical Properties

C	Mn	P	S	Si	Ni	Cr	Mo
046	26	015	001	28	25 60	14 10	1 21
Cu	**Co**	**V**	**Al**	**Ti**	**B**		
13	08	22	24	2 18	0054		

Mechanical Properties

Tensile	Yield	Elong	RA	Hardness	Temperature	Macro
163310	11090	23 10	49 90	290hb	1325 f	Pass

Remarks ASTM A453 03

Certificate of Conformance
This is to certify that the material purchased on this order was made in accordance with and to conform to the specifications and descriptions required by the American Society for Testing Materials (ASTM) and the American Society of Mechanical Engineers (ASME)

SOUTH TEXAS BOLT & FITTING

Lance Byrns
Quality Coordinator

RECEIVED
MAY 15 2006
107579 JH

MAY 17 2006

SOUTH TEXAS BOLT & FITTING, INC.
4845 HOMESTEAD RD, #500
HOUSTON, TEXAS 77028
PH # 713-673-5376
FAX# 713-673-5379

*** MATERIAL TEST REPORT ***
Date: 05-22-2006

SOLD TO: Major Tool & Machine, INc.
1458 East 19th Street
Indianapolis, IN 46218

Customer P/O # P06-01394

STBF Order # 81140-1A

ITEM	QTY	DESCRIPTION	LOT / HEAT
1	40	1 3/8-6 660B 12-Point Hex Nut Silver Plated Per AMS 2410	xfq / 5407813

Chemical Properties

C	Mn	P	S	Si	Ni	Cr	Mo
.034	1.50	.007	.0016	.54	25.00	14.70	1.22
Cu	**Co**	**V**	**Al**	**Ti**	**B**	**Pb**	
.06	.05	.26	.27	2.25	.0074	.0001	

Mechanical Properties

Tensile	Yield	Elong	RA	Hardness	Temperature	Macro
160000	109000	27.60	43.10	319hr	720°C	Pass

Remarks: ASTM A453

Certificate of Conformance
This is to certify that the material purchased on this order was made in accordance with, and to conform to, the specifications and descriptions required by the American Society for Testing Materials (ASTM) and the American Society of Mechanical Engineers (ASME).

SOUTH TEXAS BOLT & FITTING

Lance Byrns
Quality Coordinator

MTM 016

MAY 23 2006

RECEIVED
MAY 23 2006
107736 JH
lines 2-4

Material Test Report

SOUTH TEXAS BOLT & FITTING, INC.
4845 HOMESTEAD RD, #500
HOUSTON, TEXAS 77028
PH # 713-673-5376
FAX# 713-673-5379

*** MATERIAL TEST REPORT ***
Date: 05-17-2006

SOLD TO: Major Tool & Machine, INc.
1458 East 19th Street
Indianapolis, IN 46218

Customer P/O # P06-01394

STBF Order # 81140-1

ITEM	QTY	DESCRIPTION	LOT / HEAT
1	16	1 3/8"-6 660B 12 Point Hex Nut Silver Plated Per AMS 2410	XFQ / 5407813

Chemical Properties

C	Mn	P	S	Si	Ni	Cr	Mo
.034	1.50	.007	.0016	.54	25.00	14.70	1.22
Cu	**Co**	**V**	**Al**	**Ti**	**B**	**Pb**	
.06	.05	.26	.27	2.25	.0074	.0001	

Mechanical Properties

Tensile	Yield	Elong	RA	Hardness	Temperature	Macro
160000	109000	27.60	43.10	319hr	720^C	Pass

Remarks: ASTM A453

Certificate of Conformance
This is to certify that the material purchased on this order was made in accordance with, and to conform to, the specifications and descriptions required by the American Society for Testing Materials (ASTM) and the American Society of Mechanical Engineers (ASME).

SOUTH TEXAS BOLT & FITTING

Lance Byrns
Quality Coordinator

RECEIVED
MAY 16 2006
107621 JH
Lines 1-2

MAY 17 2006

Quality Assurance Documentation for Part ID: SE141-141 - Item: 20

Workorder: 65709/2-0 Sub:14 Op:30

Part: SE141-141 - BEARING PLATE DETAIL TYPE "A" SHORT -

Drawing ID: SE141-141 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1* (10)	G2	RECORD MAGNETIC PERMEABILITY. RESULTS TO BE NO GREATER THAN 1.02μ.	MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H 06-20-06			A

Quality Assurance Documentation for Part ID: SE141-142 - Item: 21

Workorder: 65709/2-0 Sub:15 Op:30

Part: SE141-142 - BEARING PLATE DETAIL TYPE "A" LONG -

Drawing ID: SE141-142 Rev: 1			INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
1*	G2		MASTER GAGE	QA		J-1270	LESS THAN 1.02	503-B.H			A
		RECORD MAGNETIC PERMEABILITY. RESULTS TO BE NO GREATER THAN 1.02μ.									
(10)								06-20-06			

Employees: 242-M.Griffith / 339-E.Root / 503-B.Houk / 533-B.Clevenger / 667-J.Bannister / 825-B.Jarrett / 840-G.Masood

Major Tool and Machine, Inc. 1458 East 19th Street, Indianapolis, IN 46218 (317)636-6433 Fax (317)634-9420