

ENERGY INDUSTRIES OF OH

Purchase Order Number:

S005242-F

Part Number:

SE141-114

Part Name:

MCWF A-1

MTM Work Order Number:

65709/1.0



Major

Tool & Machine, Inc.

Customer: 8909 - ENERGY INDUSTRIES OF OHIO
 Customer P.O.: S005242-F
 Customer Part ID: SE141-114 - MCWF A-1

Item#	Document Description / Material Description / File Name / Heat Lot
1	CERTIFICATE OF CONFORMANCE
2	COMPLETED SHOP TRAVELERS: - 65709-1 completed shop travelers.pdf
3	NC19709 - TOOL GOUGE: - NC19709_Welded_A1Gouge_w-Atts.pdf
4	NC19783 - COUNTERBORE DEPTHS: - NC19783 S5242_A1Bushings_050806.pdf
5	NC19891 - PT REJECTIONS: - NC19891 rev 1S5242_A1DP.pdf
6	NC19916 - RT REJECTIONS: - NC19916 S5242_A1RTRej.pdf
7	NC19933 - MISC. ITEMS: - NC19933 S5242_A1MiscDefects.pdf
8	NC19942 - FINAL DIMENSIONAL: - NC19942 S5242_idc_A1.pdf

SE141-048 - POLOIDAL BREAK SHIM ASSEMBLY

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
9	2	30	20	Certificate of Conformance: FROM SUPPLIER / LOCTITE 411 - LOCKING COMPOUND - mc106320.tif / CERTIFIED

SE141-048-03 - INSULATING SLEEVE

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
10	3	10	10	Certificate of Conformance: / G11CR_1 - ROUND, BAR, 1.75 DIA - mc108545.tif / CERTIFIED

SE141-101

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
11	1	140		Inspection Data Checklist: 2 steps

SE141-101-1 - MOD COIL WINDING FORM ASSEMBLY TYPE-A

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
12	0	10	10	Material Certification: Trace ID: 113686 / ER316MNNF_093_GTAW - WELD WIRE,GTAW .093 DIA - mc106164.pdf / W020132 / W020132
13	0	10	10	Material Certification: Trace ID: 116252 / ER316MNNF_093_GTAW - WELD WIRE,GTAW .093 DIA - mc106579.tif / W020132 / W020132

SE141-101-4 - INSULATING SHEET

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
14	7	10	10	Certificate of Conformance: G11CR / G11CR_3 - SHEET, FLAT - mc107081.tif / CERTIFIED

SE141-101-5 - INSULATING SLEEVE

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
15	5	10	10	Certificate of Conformance: / G11CR_1 - ROUND, BAR, 1.75 DIA - Same as Item #10 / CERTIFIED

SE141-114 - MODULAR COIL WINDING FORM TYPE-A

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
16	1	100		Nondestructive Liquid Penetrant Test Certification #16747
17	1	110		Map(s): RT MAP AND READER SHEET - MC119140.PDF



Customer: 8909 - ENERGY INDUSTRIES OF OHIO
Customer P.O.: S005242-F
Customer Part ID: SE141-114 - MCWF A-1

18	1	120		Inspection Data Checklist: 2 steps
19	1	130		Inspection Data Checklist: 4 steps
20	1	132		Inspection Data Checklist: 80 steps
21	15	10	10	Material Certification: / DS141-036 - STUD - mc118607.tif / XFR/E3930
22	15	10	20	Material Certification: / DS141-060 - NUT - mc118608.tif / XFQ/5407813
23	17	40		NC19709 - Penetrant Test Certification #16858
24	17	50		NC19709 - IDC 1 step

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

Item#	Sub	Op	Pc	Document Description / Material Description / File Name / Heat Lot
25	18	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
26	19	30		Inspection Data Checklist: 1 steps

CERTIFICATE OF CONFORMANCE

TO: ENERGY INDUSTRIES OF OHIO

DATE: 06/12/2006

ATTENTION: Receiving Department

Seller certifies that:

Part Number: **SE141-114**

Purchase Order: **S005242-F**

Part Name: **MCWF A-1**

Workorder: **65709/1.0**

Part Serial Number: **A1**

Quantity: **1**

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

Certifications are on file at this plant.

Other Requirements:

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

Signature: 

Title: Quality Mgr

Date: 8/2/06



Majors

Tool & Machine, Inc.

COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
Manufacturing Planning- QA planning- Production Support	65709/1.0 -Sub:0 Op#:10	Closed	3/3/2006	965-T.Hayden
Final Inspection----Prepare part for source inspection.----Review and complete QA data package per QAP and the requirements of the product specification NCSX-CSPEC-141-03-05 September 23- 2004.--Contact CFT to review data package prior to notifying source	65709/1.0 -Sub:0 Op#:20	Closed	6/1/2006	840-G.Masood
Source Inspection	65709/1.0 -Sub:0 Op#:30	Closed	6/1/2006	840-G.Masood
ORIENT PART WITH DATUM E FLANGE DOWN.----ENSURE 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	65709/1.0 -Sub:0 Op#:40	Closed	6/3/2006	567-R.Hupp
Receive customer supplied material. ----Customer material data package will not be received with the part. This record will be obtained and linked later.----Part Number: SE141-114 Rev: 6--Part Description: PRODUCTION WINDING FORM TYPE-C	65709/1.0 -Sub:1 Op#:10	Closed	5/9/2006	219-T.Laird
SETUP AND MACHINE THE FLANGE FACES AND FLANGE PERIPHERY TO WITHIN .100- STOCK. USE SCRIBING PROGRAM TO LAY OUT AREAS OF CASTING TO BE BURN OUT.	65709/1.0 -Sub:1 Op#:18	Closed	2/21/2006	631-J.Pond
WELD BRACES OVER THE PRE-CUT POLOIDAL BREAK IN THE -T-. SEE RON BACK FOR LOCATION OF BRACES.----MARK INSIDE EACH AREA TO BE REMOVED USING A METAL STAMP WITH THE SERIAL NUMBER FOR EACH PART AS APPLICABLE-A1- A2- A3- ETC...LOCATION OF STAMPING IS OPTIONAL.	65709/1.0 -Sub:1 Op#:19	Closed	2/22/2006	374-J.Connell
SET CASTING ON RISERS WITH DATUM -E- FLANGE DOWN. ROUGH MACHINE OUTSIDE POLOIDAL BREAK FLANGES TO WITHIN .030- OF FINISH. MACHINE POLOIDAL BREAK THROUGH THE FLANGES AND CASTING WALL TO 2.050- LEAVING THE T SECTION TO BE CUT AT A LATER TIME.	65709/1.0 -Sub:1 Op#:20	Closed	3/3/2006	493-J.Walker
USING TABS CUT FROM CUSTOMER SUPPLIED MATERIAL- WELD TEMPORARY SHIM IN PLACE. WELD TABS TO SHIM AND TABS TO CASTING. (DO NOT WELD SHIM DIRECTLY TO CASTING)--USE MACHINED QUALIFIERS TO HELP POSITION THE SHIM.	65709/1.0 -Sub:1 Op#:25	Closed	3/8/2006	713-M.Smith



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COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
SET UP FIXTURE PLATE MTMF3-3101 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.--	65709/1.0 -Sub:1 Op#:30	Closed	4/7/2006	493-J.Walker
SET UP FIXTURE PLATE MTMF3-3102 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.--	65709/1.0 -Sub:1 Op#:35	Closed	4/22/2006	744-P.Schumacher
U5 FINAL MACHINING OPERATION	65709/1.0 -Sub:1 Op#:50	Closed	5/12/2006	313-R.Bachek
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	65709/1.0 -Sub:1 Op#:85	Closed	5/16/2006	219-T.Laird
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.--- WEIGH PART AN	65709/1.0 -Sub:1 Op#:88	Closed	6/2/2006	524-G.Davis
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	65709/1.0 -Sub:1 Op#:90	Closed	5/18/2006	219-T.Laird
PT 100% OF FINISHED MACHINED SURFACES ONLY. SEE PS582 FOR PROCESSING INSTRUCTIONS. --- TAKE PHOTOS OF ALL REJECTIONS AND NUMBER THEM. IF THERE ARE SEVERAL INDICATIONS CLOSE TOGETHER- NUMBER THE GROUP AND RECORD THE LARGEST INDICATION.--MAKE A LIST OF THE GOVERNMENT SOURCE INSPECTOR TO WITNESS PT RESULTS.	65709/1.0 -Sub:1 Op#:100	Closed	5/20/2006	581-D.Edwards
	65709/1.0 -Sub:1 Op#:101	Closed	6/1/2006	840-G.Masood



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COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
THE -T- AREAS DEFINED AS -HIGH STRESS- ARE TO BE RT 100%. SEE PS81 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.---	65709/1.0 -Sub:1 Op#:110	Closed	5/25/2006	010-R.Contractor
GOVERNMENT SOURCE INSPECTOR TO WITNESS RT RESULTS. 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	65709/1.0 -Sub:1 Op#:111	Closed	6/1/2006	840-G.Masood
SOURCE FOR MAG PERMEABILITY	65709/1.0 -Sub:1 Op#:120	Closed	5/31/2006	854-R.Upchurch
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	65709/1.0 -Sub:1 Op#:121	Closed	6/1/2006	840-G.Masood
CMM INSPECT AND COMPLETE IDC. OUTPUT INSPECTION RESULTS FOR VERIFICATION USING VERISURF SOFTWARE.---Part Number: SE141-114---Part Description: PRODUCTION WINDING FORM TYPE-A	65709/1.0 -Sub:1 Op#:130	Closed	5/22/2006	825-B.Jarrett
SOURCE FOR DIMENSIONAL	65709/1.0 -Sub:1 Op#:132	Closed	6/1/2006	339-E.Root
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	65709/1.0 -Sub:1 Op#:133	Closed	6/1/2006	840-G.Masood
SOURCE FOR ELECTRICAL TEST	65709/1.0 -Sub:1 Op#:140	Closed	5/25/2006	840-G.Masood
Receive customer supplied material. Part had been returned to vendor for rework. ---Part Number: SE141-114 Rev: 5---Part Description: PRODUCTION WINDING FORM TYPE-C	65709/1.0 -Sub:1 Op#:150	Closed	5/25/2006	840-G.Masood
SAW MATERIAL TO LENGTH PER MATERIAL CARD.	65709/1.0 -Sub:9 Op#:10	Closed	1/21/2006	085-D.Gregory
	65709/1.0 -Sub:12 Op#:10	Closed	2/28/2006	266-R.Keith



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COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
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	65709/1.0 -Sub:12 Op#:20	Closed	3/2/2006	821-J.Leggins
DOCUMENT THE LOCATION OF THE TOOLING BALLS PRIOR TO REMOVING THE PART.--REMOVE PART FROM THE U5 AND SETUP FOR WELDING.	65709/1.0 -Sub:17 Op#:10	Closed	4/25/2006	231-B.Blankenberger
WELD REPAIR TOOLING GOUGE.--PLACE INDICATORS ON AND AROUND THE T SECTION TO MONITOR MOVEMENT DURING WELDING. ALTER WELD PROCESS AS REQUIRED TO PREVENT ANY PART MOVEMENT GREATER THAN .01-. IF REQUIRED- WELD ON THE OPPOSITE SIDE OF THE T TO COMPENSATE FOR A	65709/1.0 -Sub:17 Op#:20	Closed	5/1/2006	509-S.Roberts
REPEAT SETUP #1 ON U5. RE-ESTABLISH TOOLING BALL LOCATIONS FROM PREVIOUS SETUP.--RE MACHINE THE AREA THAT WAS WELD REPAIRED.	65709/1.0 -Sub:17 Op#:30	Closed	5/1/2006	315-C.Land
PENETRANT INSPECT WELD REPAIR.--REFERENCE NC19709 ON PT CERTIFICATION.--Specification: ASTM A903/A903M LEVEL 1--MTM NDT Cert: REPAIR OF DEFECTS	65709/1.0 -Sub:17 Op#:40	Closed	5/26/2006	581-D.Edwards
PERFORM A RELATIVE MAGNETIC PERMEABILITY CHECK OF THE REPAIRED AREA. VERIFY PERMEABILITY IS LESS THAN 1.02. PERMEABILITY TO BE CHECKED AT A MINIMUM OF 1 POINT EVERY 2				
SQR. INCHES IN THE REPAIRED REGION.--	65709/1.0 -Sub:17 Op#:50	Closed	6/1/2006	840-G.Masood
MACHINE INSERTS COMPLETE PER DRAWING.--STELLALLOY MATERIAL FROM BURN OUT DROPS MUST BE USED TO MANUFACTURE THE INSERTS.				
THREAD MILL THE TWO HOLES TO ACCEPT A 2.5-10 UNC-2B PLUG. (SEE TEAM LEADER FOR CLARIFICATION)--INSTALL THE PLUGS .010- TO .020- ABOVE THE DATUM -E- FACE TO ALLOW STOCK TO MACHINE FLUSH.--TACK WELD PLUGS IN PLACE TO PREVENT ROTATION. TACK IN TWO PLACES PER	65709/1.0 -Sub:20 Op#:10	Closed	5/12/2006	236-M.Jennings
RECEIVE CUSTOMER SUPPLIED CASTING				
MACHINE THE SHIM COMPLETE PER THE DRAWING AND CNC PROGRAMS.	65709/1.0 -Sub:20 Op#:20	Closed	5/26/2006	891-T.Gilliland
	65709/1.0 -Sub:2 Op#:10	Closed	2/24/2006	854-R.Upchurch
	65709/1.0 -Sub:2 Op#:20	Closed	2/24/2006	234-E.Booher

Mike Griffith
6/13/2006



Major

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COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
ASSEMBLE ALL OF THE INSULATING SLEEVES INTO THE SHIM AND BOND USING LOCTITE 411.	65709/1.0 -Sub:2 Op#:30	Closed	5/19/2006	825-B.Jarrett
SAW OFF 16- AND MOVE TO NEXT WORK CENTER.	65709/1.0 -Sub:3 Op#:10	Closed	6/1/2005	227-D.Bockover
MACHINE PER THE DRAWING FOR A SLIP FIT WITH MATING DETAILS. --MACHINE ID TO 1.376- / 1.377--MEASURE THRU HOLES IN PART AND MATCH BUSHING OD FOR A .001- - .002- SLIP FIT.-- RECEIVE MATERIAL--NOTIFY CFT AND FORWARD MATERIAL STORES.	65709/1.0 -Sub:3 Op#:20	Closed	5/16/2006	236-M.Jennings
SAW OFF 30- LENGTH AND MOVE TO NEXT WORK CENTER.	65709/1.0 -Sub:4 Op#:10	Closed	6/1/2005	131-W.Allen
MACHINE PER THE DRAWING FOR A SLIP FIT WITH MATING DETAILS. --MACHINE ID TO 1.376- / 1.377--MEASURE THRU HOLES IN PART AND MATCH BUSHING OD FOR A .001- - .002- SLIP FIT.-- SAW 13- LENGTH AND MOVE TO NEXT WORK CENTER.	65709/1.0 -Sub:5 Op#:20	Closed	5/17/2006	821-J.Leggins
RECEIVE MATERIAL	65709/1.0 -Sub:6 Op#:10	Closed	6/1/2005	227-D.Bockover
MACHINE THE G-11 SHIM PIECES.--THERE ARE TWO PROGRAMS- ONE FOR EACH SIDE OF THE BREAK SHIM.--EACH PROGRAM WILL GENERATE 3 SHIM PIECES FOR A TOTAL OF 6 PIECES FOR THIS OPERATION.	65709/1.0 -Sub:7 Op#:10	Closed	4/5/2005	131-W.Allen
CHECK AND RECORD PERMEABILITY OF PLATES PRIOR TO GRIND.	65709/1.0 -Sub:7 Op#:20	Closed	5/12/2006	129-E.Taina
VERIFY THICKNESS OF PLATES AND DETERMINE HOW MUCH STOCK REMAINS.--GRIND EACH SIDE OF PLATES TO A CLEAN UP WHILE KEEPING THE THICKNESS OF THE PLATES IN TOLERANCE.	65709/1.0 -Sub:14 Op#:10	Closed	3/6/2006	176-J.Denney
CHECK PERMEABILITY OF PLATES AGAINST PREVIOUSLY RECORDED VALUES TO SEE IF GRINDING REDUCED THE READINGS.	65709/1.0 -Sub:14 Op#:20	Closed	3/6/2006	552-D.Lee
RECEIVE HARDWARE- SCAN CERTIFICATIONS AND COMPLETE IDC.-- MOVE TO STORES--	65709/1.0 -Sub:14 Op#:30	Closed	3/6/2006	503-B.Hauk
PLACE THE FOLLOWING IN STORES:--7 PCS - DS141-036 STUD--14 PCS - DS141-060 NUT	65709/1.0 -Sub:15 Op#:10	Closed	5/15/2006	261-T.Dunn
	65709/1.0 -Sub:15 Op#:20	Closed	5/17/2006	490-J.Smith



Major

Tool & Machine, Inc.

COMPLETED SHOP TRAVELERS

SE141-114
MCWF A1

Activity	Visual Mfg Ref.	Op Status	Close Date	Emp ID
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.--DRILL / TAP FOR A 3/8-16 LIFTING HOLE 1- DEEP IN EACH END OF THE SHIM. CENTER THE HOLES	65709/1.0 -Sub:16 Op#:10	Closed	5/26/2006	891-T.Gilliland
NO CERTIFICATIONS REQUIRED.--VERIFY QUANTITY AND FORWARD PARTS TO NEXT WORK CENTER.	65709/1.0 -Sub:18 Op#:10	Closed	5/12/2006	437-J.Hiatt
MACHINE COMPLETE PER PRINT	65709/1.0 -Sub:18 Op#:20	Closed	5/15/2006	129-E.Taina
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	65709/1.0 -Sub:18 Op#:30	Closed	5/16/2006	261-T.Dunn
NO CERTIFICATIONS REQUIRED.--VERIFY QUANTITY AND FORWARD PARTS TO NEXT WORK CENTER.	65709/1.0 -Sub:19 Op#:10	Closed	5/12/2006	437-J.Hiatt
MACHINE COMPLETE PER PRINT	65709/1.0 -Sub:19 Op#:20	Closed	5/16/2006	129-E.Taina
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	65709/1.0 -Sub:19 Op#:30	Closed	5/18/2006	503-B.Houk

Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
 E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
 Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE

Drawing ID: SE141-114 Revision: 6
 Links: 1-Type:W: 65709/1.0 Sub: 1 Op: 50

Customer P.O.: S005242-F/Ln:1
 Serial No./Qty: A1

Reported By: MIKE GRIFFITH
 E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433
 Fax: 317-634-9420

Problem: Reference sheet 4, zone G7.

There is a tool gouge along the short leg of the T section on the Datum -D- side. The gouge is approximately 13.5" long, .900" wide and .200 deep. See attachments for clarification.

Proposed Disposition:

Propose to weld repair the tool gouge. Indicators would be applied on and around the T section to monitor any part movement caused by welding. The welding process would altered as needed to minimize movement. A local mag permeability and PT inspection would be performed. This gouge is located on the short leg in the area designated as "High Stress". During the RT of the High Stress area an additional shot would be taken of the repaired area. It is likely that this RT shot would prove inconclusive due to it's location.

Number of additional pages: _____

Customer Disposition: Use As Is Rework Repair Scrap Replace

NCSX agrees with MTM's recommended disposition to weld repair, followed by local mag. perm. inspection, PT inspection, and RT during the RT of the high stress area. MTM is requested to provide documentation after the repair is completed.

Tech. Rep.: Phil Heitzenroeder
Digitally signed by Phil Heitzenroeder
 DN: CN = Phil Heitzenroeder, C = US, O = PPPL, OU = Mech. Eng. Division
 Reason: I signed to "certify" portions of this document
 Date: 2006.04.25 16:08:41 -0400

Title: _____ **Date:** _____

RLM: Hutch Neilson
Digitally signed by Hutch Neilson
 DN: CN = Hutch Neilson, C = US, O = PPPL
 Date: 2006.04.25 17:08:22 -0500

Title: _____ **Date:** _____

Major Tool Implemented By: Mike Griffith
Digitally signed by Mike Griffith
 DN: CN = Mike Griffith, OU = Machine Tool and Methods, O = MTM
 Reason: I signed to the terms defined by the placement of my signature on this document
 Date: 2006.04.25 14:37:36 -0400

Title: _____ **Date:** _____

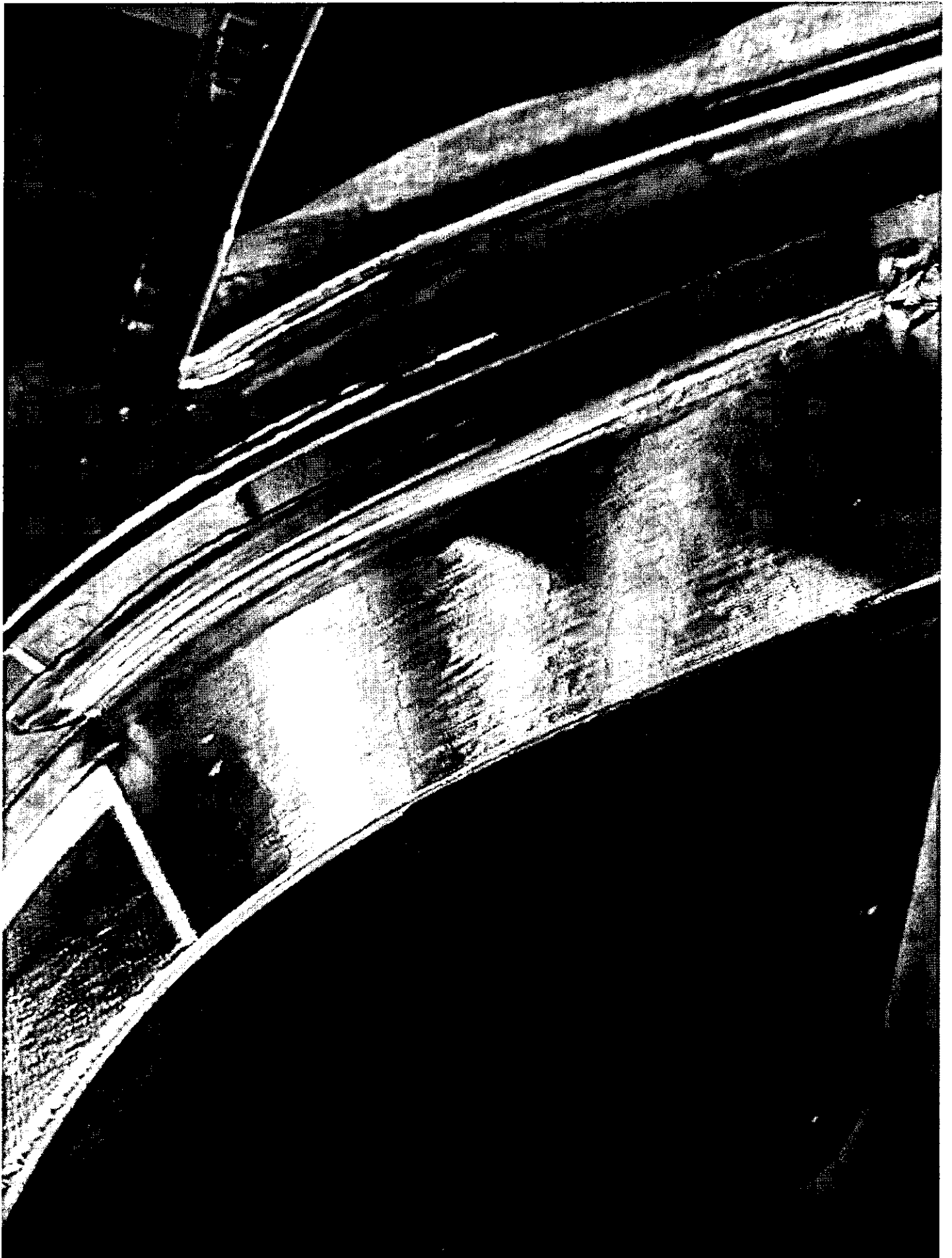
Root Cause 1: 816-PROGRAMMING ERROR

Resource: CAD/CAM - MEDIUM MILLING Equipment:

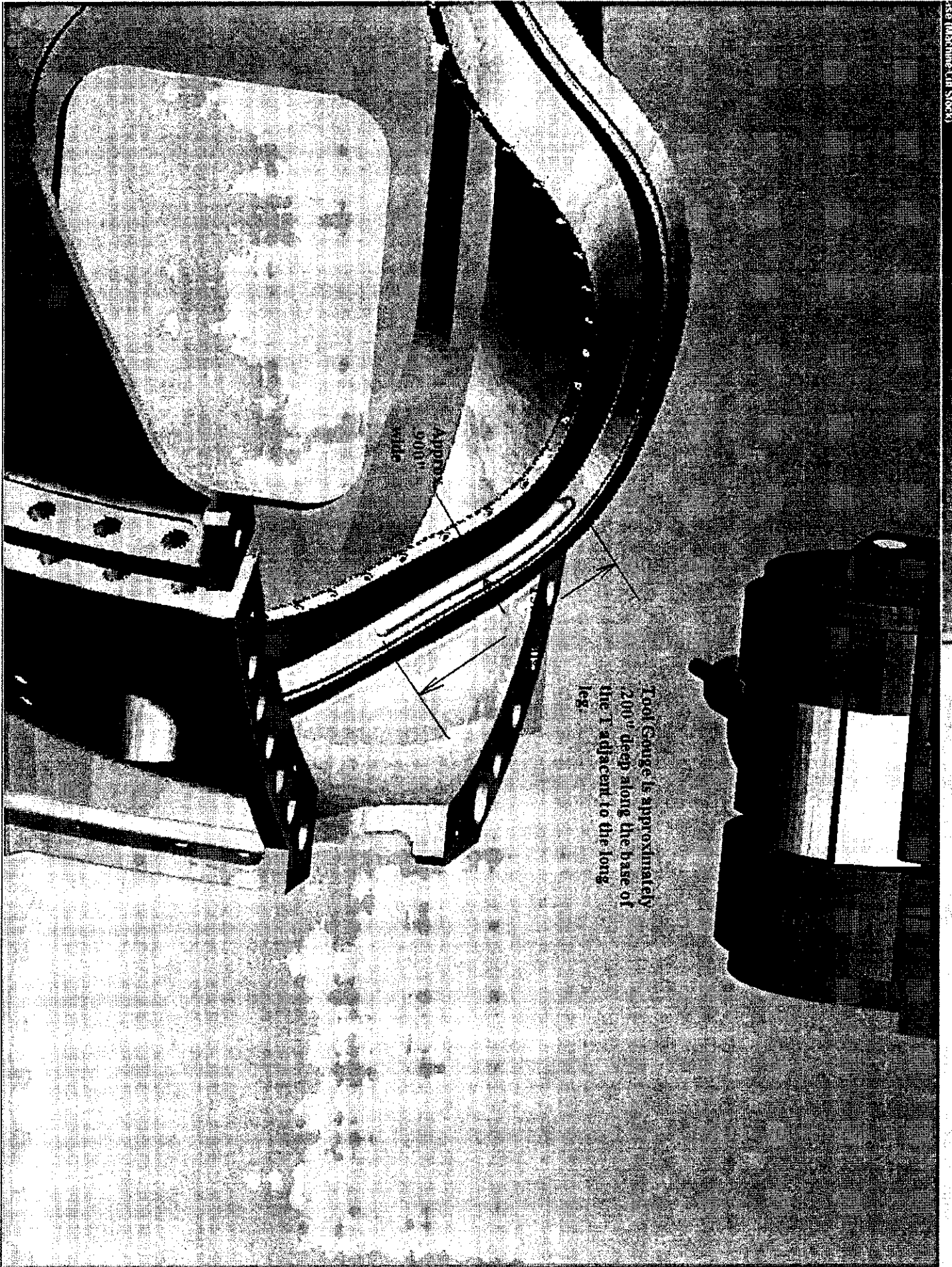
Description: There are 2 root causes here.

- 1) The tool gouged the wall because the toolpath was generated incorrectly. The check surface (back wall) was not selected and therefore the toolpath gouged the back wall.
- 2) The toolpath (n/c program 31501) was released as a good program because the verification did not show / flag an error of the toolpath violating the design model.

Corr Actn: 1: _____ **Action:** _____ **By:** _____
 Description: _____







Tool Gauge is approximately 2000" deep along the base of the T adjacent to the long leg.

Frank A. Malinowski

From: Nelson, Brad E. [nelsonbe@ornl.gov]
Sent: Friday, June 02, 2006 1:36 PM
To: Frank A. Malinowski
Cc: Phil Heitzenroeder
Subject: FW: NC19709 completed Corrective Action
Attachments: NC19709_Signed_Off_A1Gouge.pdf; NC19709 PT and MAG Perm.pdf

Frank

I understand there was a positioning problem with the RT of the weld repair for this tool gouge. However, the location of this weld should not pose any structural issues and I agree with Phil's disposition.

Bra

Brad Nelson
Oak Ridge National Laboratory
P.O. Box 2008
Oak Ridge, TN 37831-6169
nelsonbe@ornl.gov
voice: 865-574-1507
fax: 865-576-7926

From: Phil Heitzenroeder [mailto:pheitzen@pppl.gov]
Sent: Thursday, June 01, 2006 4:55 PM
To: Nelson, Brad E.
Subject: FW: NC19709 completed Corrective Action

Brad,
This NC was already signed, but it did not include Mike's note below that the RT could not be performed was not included. Frank would like to include this to the NCR with our noted acceptance. If you're in agreement, please add your statement of agreement and return to Frank. Thanks
Phil

Waiver of RT noted below for NC19709 Accepted by:

P. Heitzenroeder, Tech. Rep.

From: Griffith, Mike [mailto:mgriffith@majortool.com]
Sent: Thursday, June 01, 2006 2:41 PM
To: NKHFlowen@aol.com; royjratc-aol-com-offsite; pdjord@sbcglobal.net
Cc: Phil Heitzenroeder; Frank A. Malinowski
Subject: NC19709 completed Corrective Action

Attached is the signed off corrective action for NC19709 and the PT/MAG Perm checks. During the RT process the technician was not able to position the film and source in order to get a clean shot of the repair area.

Mike Griffith
Major Tool and Machine, Inc

6/2/2006

Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE
Drawing ID: SE141-114 Revision: 6

Customer P.O.: S005242-F/Ln:1
Serial No./Qty: A1

Reported By: MIKE GRIFFITH
E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Sheet 2, Zone B5; 96X .625 diameter counterbore, .188" +/- .005 deep.
31 counterbores plus the 1 hole in poloidal break (total of 32) check from .210" to .310".
34 counterbores are under the low limit of the tolerance.
(see attachment for details)

Proposed Disposition:

Propose to machine all of the discrepant deep holes (32 places) to a depth of .310". The holes that are currently shallow will be machined to meet the drawing requirements.
Major Tool will provide PPPL with 14 bushings to compensate for the machining error in the holes that require clamps.

Number of additional pages: 1 attachment

Customer Disposition: Use As Is Rework Repair Scrap Replace

NCSX agrees with MTM's proposed disposition. The bushings shall be made per dwg. SE 142C-294. It is recommended that MTM consider increasing the quantity of bushings being made as contingency if needed in the future..

Approved by:

Phil
Heitzenroeder

Digitally signed by Phil Heitzenroeder
DN: cn=Phil Heitzenroeder, c=US,
o=PPPL, ou=Mech. Eng. Division
Reason: I agree to specified portions
of this document
Date: 2006.05.08 17:50:47 -04'00'

Brad
Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.05.08 18:30:29 -04'00'

Tech. Rep.

RLM

Mike Griffith

Digitally signed by Mike Griffith
DN: cn=Mike Griffith, ou=US, o=Major Tool and
Machine, ou=CFF - White,
email=mgriffith@majortool.com
Reason: I agree to the terms defined by the
placement of my signature on this document
Date: 2006.06.01 11:29:57 -04'00'

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

SE141-114 TYPE A1

NC19783 Attachment

Holes are numbered from center of Lead Block Slot toward the Poloidal Break.

Hole #	Depth
1	0.242
2	0.242
3	0.242
4	0.244 C
5	0.247
6	0.26 C
7	0.27
8	0.275 C
9	0.29
10	0.295 C
11	0.3
12	0.31 C
13	0.31
14	0.31 C
15	0.31
16	0.298 C
17	0.295
18	0.295 C
19	0.286
20	ACCEPT
21	ACCEPT
22	ACCEPT
23	ACCEPT
24	ACCEPT
25	ACCEPT
26	ACCEPT
27	ACCEPT
28	ACCEPT
29	ACCEPT
30	ACCEPT
31	ACCEPT
32	ACCEPT
33	ACCEPT

Hole #	Depth
34	ACCEPT
35	S
36	S
37	N/M
38	N/M
39	N/M
40	N/M
41	N/M
42	N/M
43	N/M
44	S
45	S
46	S
47	S
48	S
49	S
50	S
51	S
52	S
53	S
54	S
55	S
56	S
57	S
58	ACCEPT
59	0.215 C
60	ACCEPT
61	ACCEPT
62	ACCEPT
63	0.21 C
64	0.225
65	S
66	S

Hole #	Depth
67	S
68	S
69	N/M
70	N/M
71	N/M
72	N/M
73	N/M
74	S
75	S
76	S
77	S
78	S
79	S
80	S
81	S
82	S
83	S
84	S
85	S
86	S
87	S
88	0.26 C
89	0.262 C
90	0.258 C
91	0.253 C
92	0.25 C
93	0.25
94	0.246 C
95	0.245
96	0.245
Break	0.282

S = Shallow

N/M = Not Machined

ACCEPT = Within Tolerance

C = designates clamp hole which will require special bushing per DWG SE142C-294 Rev. 0

Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE
Drawing ID: SE141-114 Revision: 6
Links: I-Type:W: 65709/1.0 Sub: 1 Op: 100

Customer P.O.: S005242-F/Ln:1
Serial No./Qty: A1

Reported By: MIKE GRIFFITH
E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

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

Rev. 1
5-31-06 Attachment revised to include additional photo of item 15.

Proposed Disposition:

Propose to Use As Is.

Number of additional pages: 12 page attachment

Customer Disposition: Use As Is Rework Repair Scrap Replace

The attached group of indications were reviewed during a conference call between F. Malinowski, R. Sheppard, M. Griffith, (who were all at MTM) and D. Williamson and P. Heitzenroeder on 5/24/06. After consideration of each, it was determined that all are accepted as is based on an assessment of the stress in these regions (which were acceptably low).

Accepted 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: 2006.06.01 17:12:50 -04'00'

**Brad
Nelson**

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.06.02 13:28:27
-04'00'

Tech. Rep.

RLM

**Mike
Griffith**

Digitally signed by Mike Griffith
DN: cn=Mike Griffith, c=US, o=Major Tool
and Machine, ou=CFE - Whisp,
email=mgriffith@majortool.com
Reason: I agree to the terms defined by the
placement of my signature on the
document.
Date: 2006.06.06 07:06:06 -04'00'

Major Tool Implemented By: _____

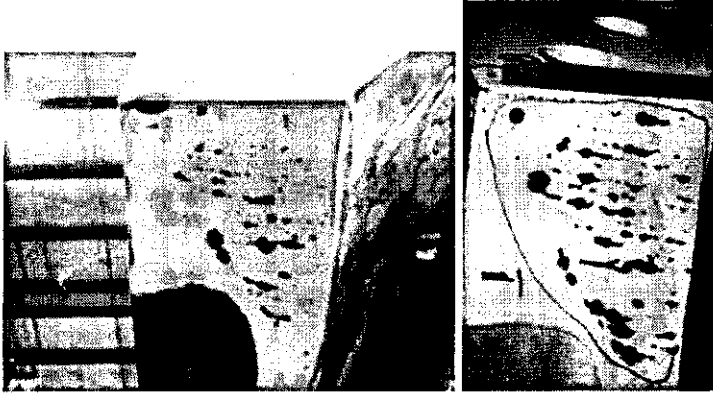
Title: _____

Date: _____

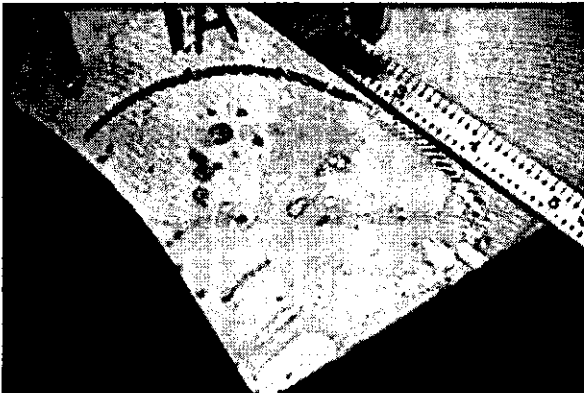
PT Inspection Results of A1 – NC19891

Rev. 1 – revised to include addition photo of item 15.

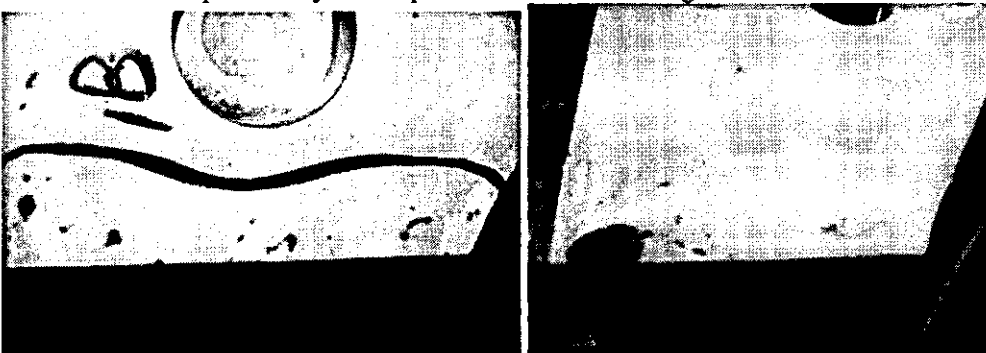
1. Cluster of linear indications – longest is 2". Reference dwg. Sheet 4, zone G6. The indications are on the edge of the large cutout. These indications were previously reported (see the picture to the left). The photo on the right is of the final PT inspection.



- 1a. Cluster of linear indications. Longest is .600". These indications are adjacent to the area shown in #1 but are on the face of the foot. See dwg. Sheet 3, zone F4.

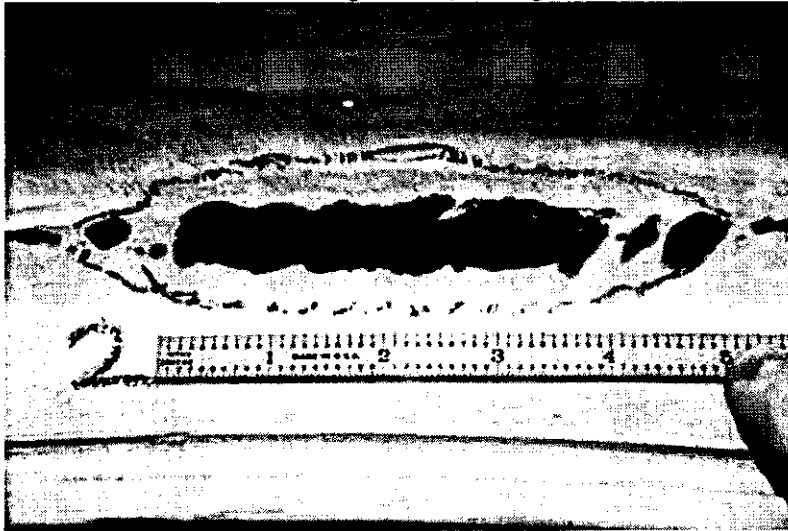


- 1b. Rounded and linear indications. Longest is .400". These indications are also adjacent to #1 but are on the Datum D flange face. The picture on the right is of the indication when previously noted prior to final machining.

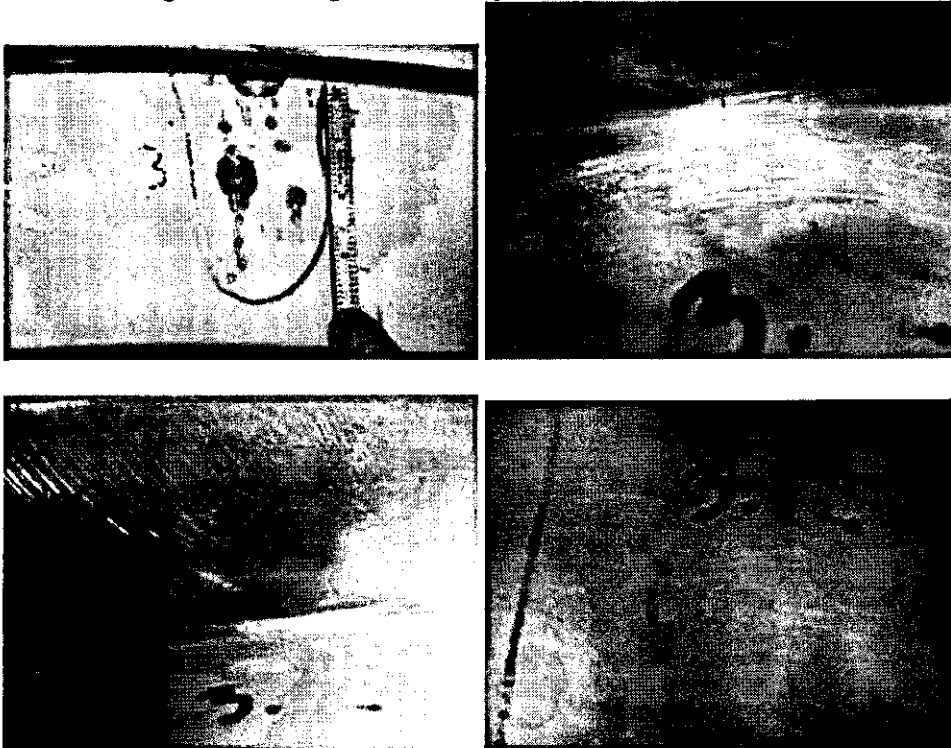


PT Inspection Results of A1 – NC19891

2. Linear indication, 3.6" in length. Indication is beneath the VPI groove in the radius of the inner casting wall. (D flange side close to hole 30).

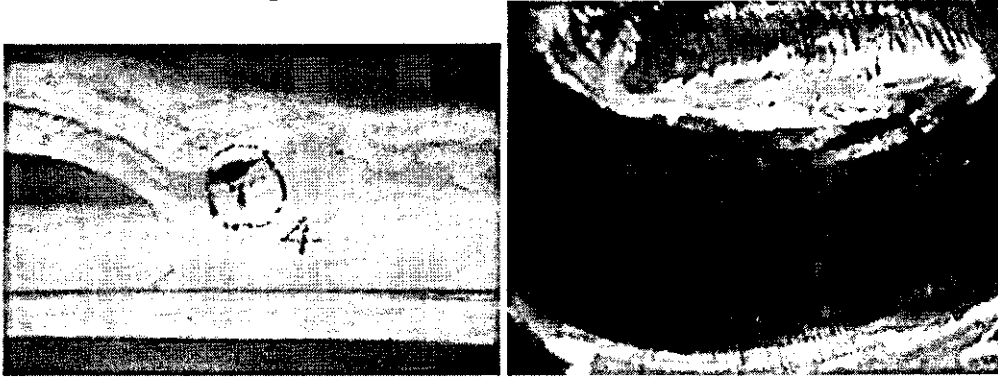


3. Linear and rounded cluster, longest is 2". Located on D flange side close to hole 30. Along both the long and short legs.

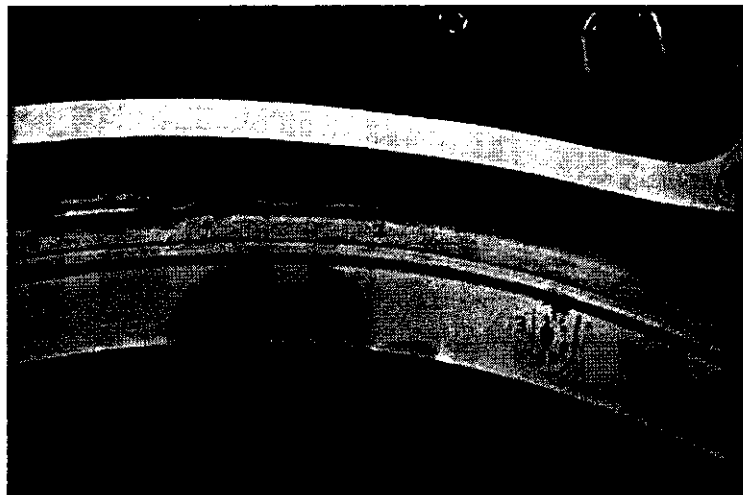
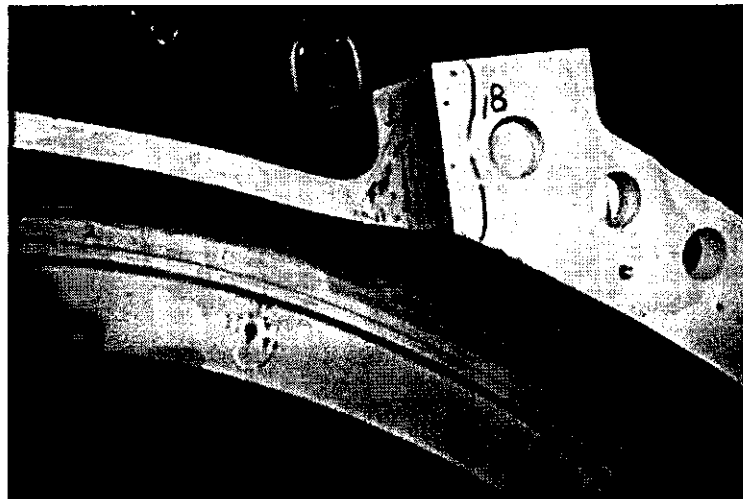


PT Inspection Results of A1 – NC19891

4. Linear cluster, longest is .400". Located on D side close to hole 34. Beneath VPI.

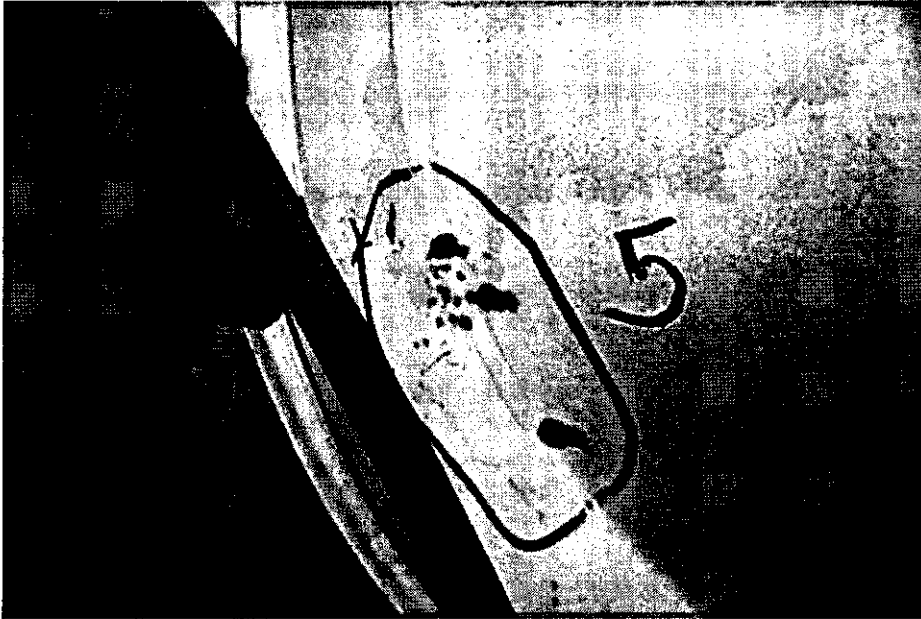


Pictures of Indications 1 – 4.

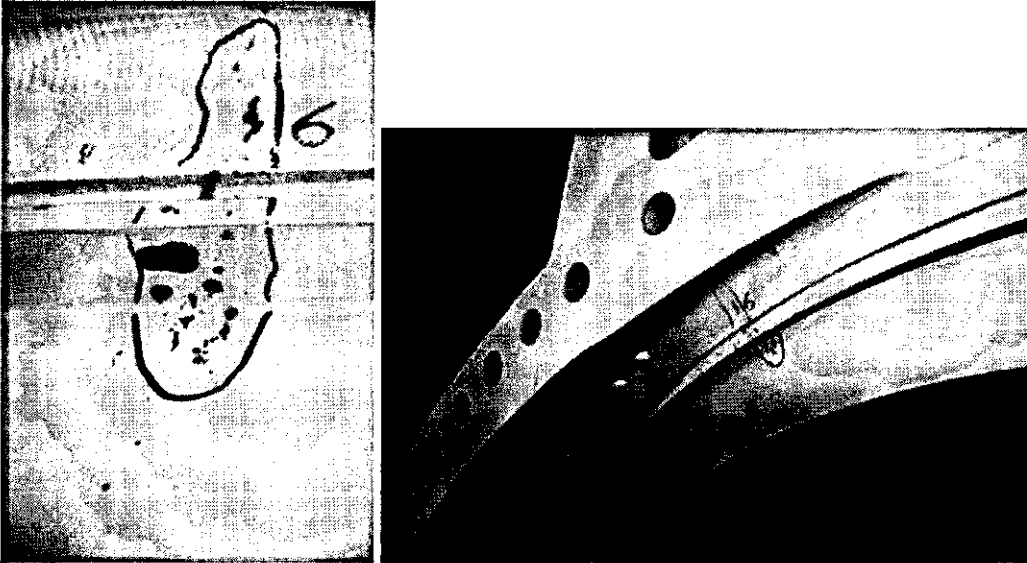


PT Inspection Results of A1 – NC19891

5. Rounded and linear cluster, longest is .400". Located on D side close to hole 77.



6. Rounded and linear cluster, longest is .750". Located on E side close to hole 28.



PT Inspection Results of A1 – NC19891

7. Rounded and linear cluster, longest is .500". Located on E flange side close to hole 43.

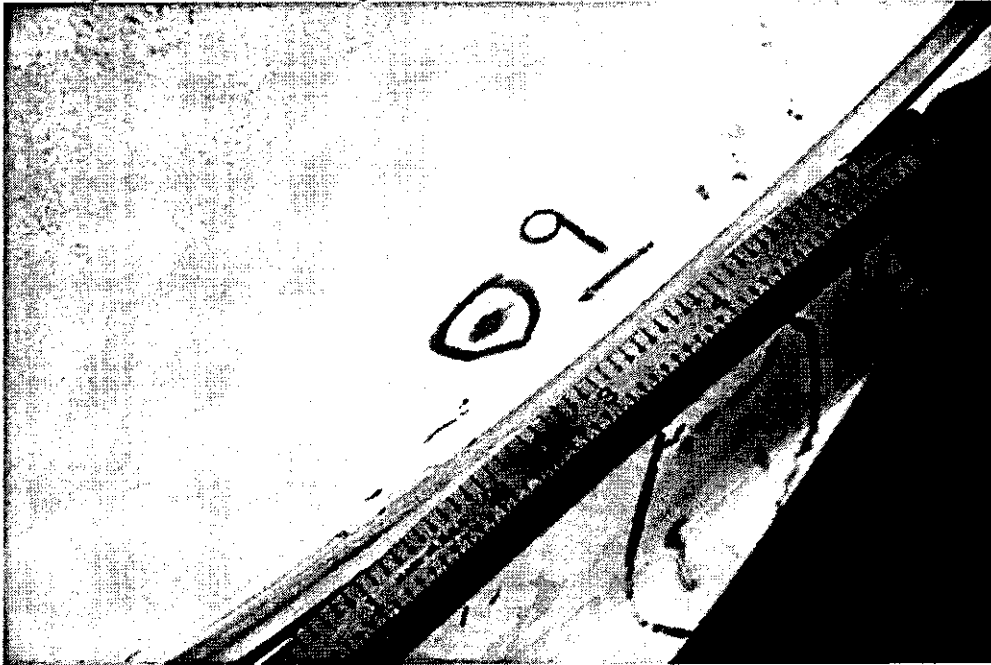


8. Rounded and linear cluster, longest is .300". Located on E flange side close to hole 76.

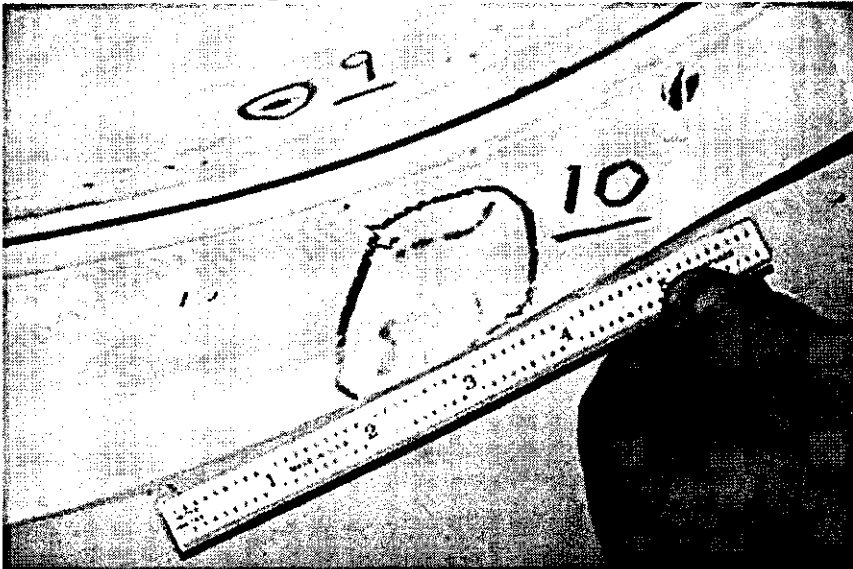


PT Inspection Results of A1 – NC19891

9. Single linear, .350" in length. Located on E side close to hole 80.

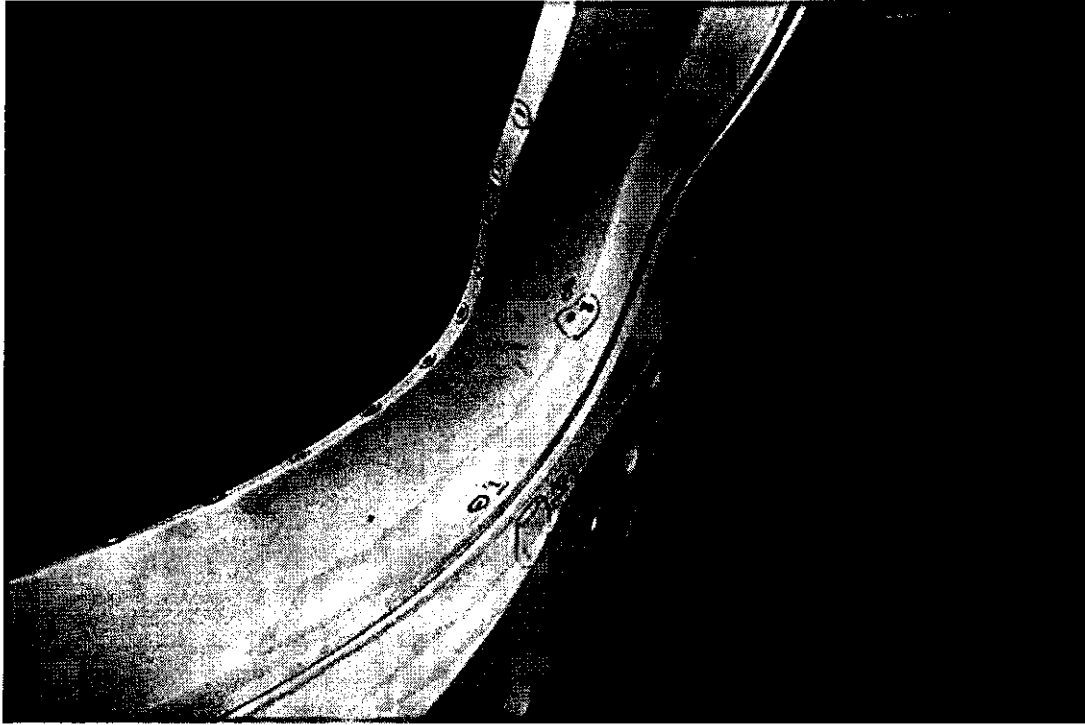


10. Linear cluster, longest is 1". Located on E side close to hole 80.

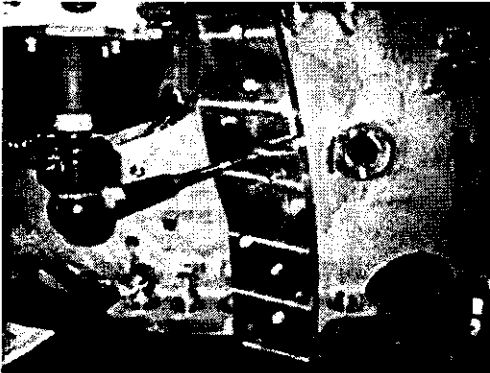
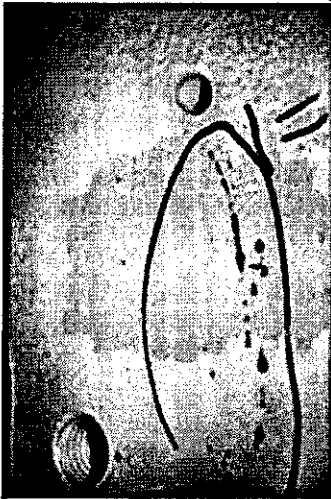


PT Inspection Results of A1 – NC19891

Pictures of Indications 8-10.

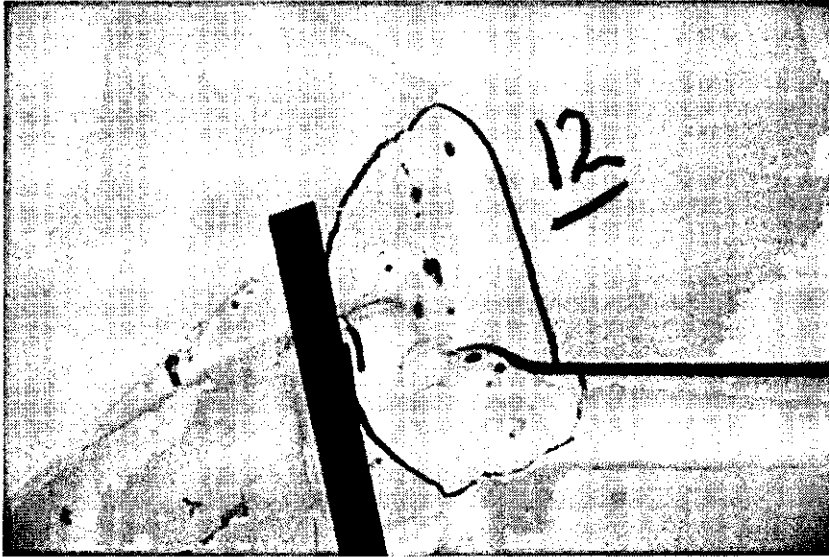


11. Linear cluster, longest is 1.9". See sheet 3, zone C4. On face of foot, located closest to datum D flange.



PT Inspection Results of A1 – NC19891

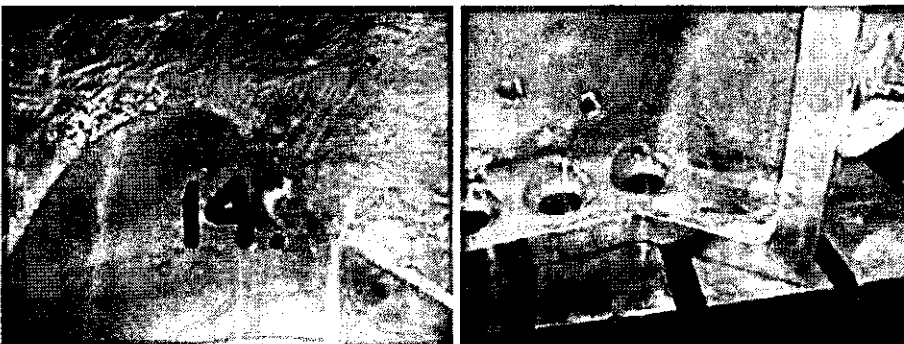
12. Linear and rounded cluster, longest is .300". See sheet 5, zone D5.



13. Linear cluster in wall of counterbore relief. Longest is .500". Located on sheet 5, zone C6, 44.87" from Datum A.

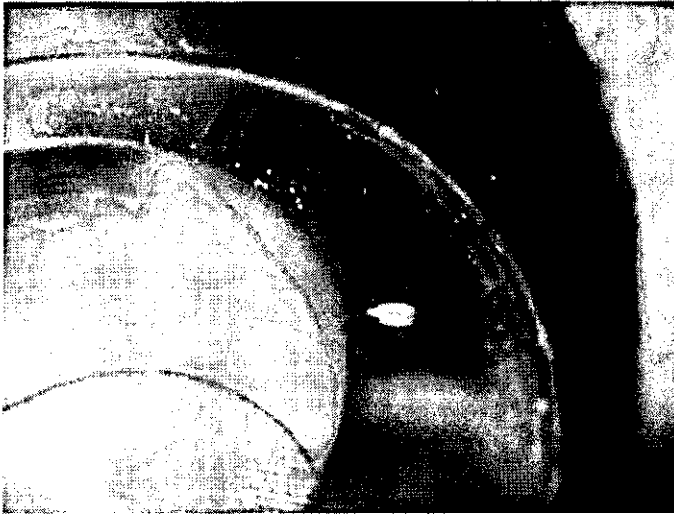


14. .700" long linear in counterbore relief. Located on sheet 5, zone G6, 40.28" from Datum A.



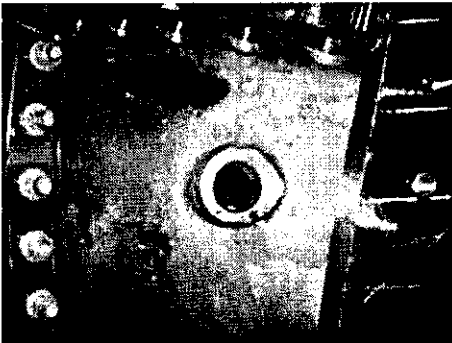
PT Inspection Results of A1 – NC19891

15. Indication with a total length of approx. 1.700". Indication starts at edge of relief, travels down the side approx. .700", along the face approx. .5" and down the wall of the hole approx. .500". Located on sheet 5, zone G6, 43.40" from Datum A.



PT Inspection Results of A1 – NC19891

16. Linear cluster on 4.0" diameter boss, longest is .600". Located on Sheet 3, zone F4.



17. Rounded cluster, largest is .130". Located on sheet 4, zone D5, 32.35 from datum A.

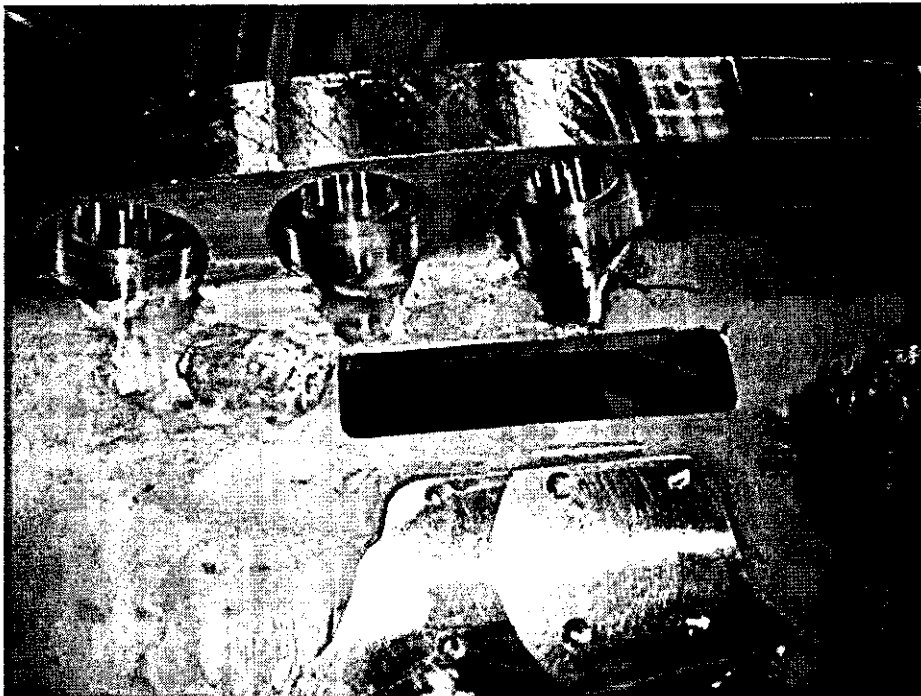


PT Inspection Results of A1 – NC19891

18. .200" rounded indication. Located on sheet 4, zone C5, 35.37 from datum A.

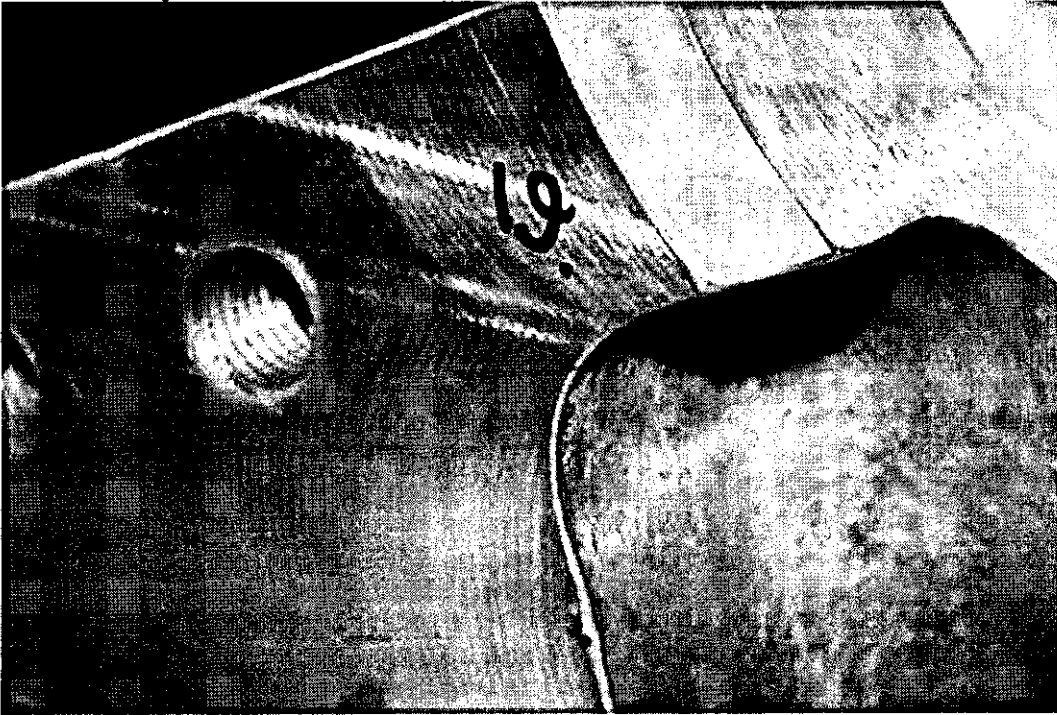


Pictures of Indications 17-18.



PT Inspection Results of A1 – NC19891

19. .750" long linear located on sheet 3, zone C6.



Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE

Drawing ID: MCWF TYPE-A XRAY MA Revision:

Customer P.O.: S005242-F/Ln:1
Serial No./Qty: A1

Reported By: MIKE GRIFFITH
E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: Radiograph View Number 2-3 reveals three separate indications:

- 1 linear @ .375",
- 1 linear @ .250",
- 4 rounded from .090" to 120"

Proposed Disposition:

RT REJECTS ARE THE SAME REJECTS AS REPORTED ON THE PT REPORT, REJECTION #7.
PROPOSE TO USE AS IS.

Number of additional pages: RT attachment

Customer Disposition: Use As Is Rework Repair Scrap Replace

Please refer to NC19891, since as noted in the Proposed Disposition above, these rejections are the same as reported in that NCR based on the die penetrant inspections. As noted in the disposition of that NCR, the defects were reviewed and accepted as is.

Accepted 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: 2006.05.31 16:52:14 -04'00'

Brad
Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.06.01 15:29:20
-04'00'

Tech. Rep.

RLM

Mike Griffith

Digitally signed by Mike Griffith
DN: cn=Mike Griffith, c=US, o=Major Tool and
Machine, ou=CFI, email=
mike-griffith@majortool.com
Reason: I agree to the terms defined by the
placement of my signature on this document
Date: 2006.06.02 13:04:46 -04'00'

Major Tool Implemented By: _____

Title: _____

Date: _____

SE141-114 TYPE A1
NC19916 RT ATTACHMENT

Photo of RT film 2-3

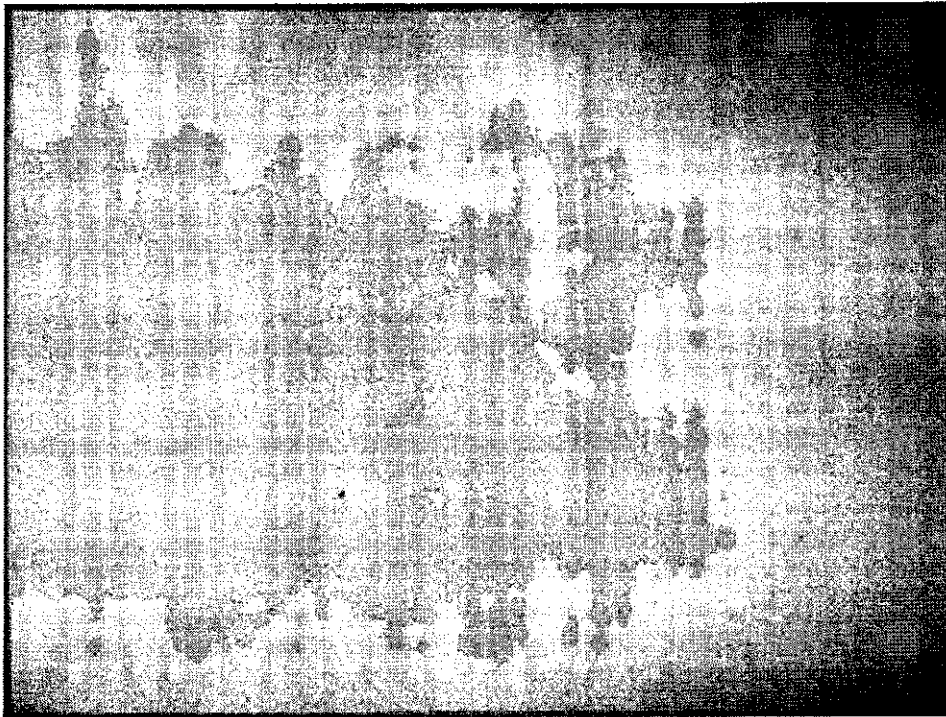
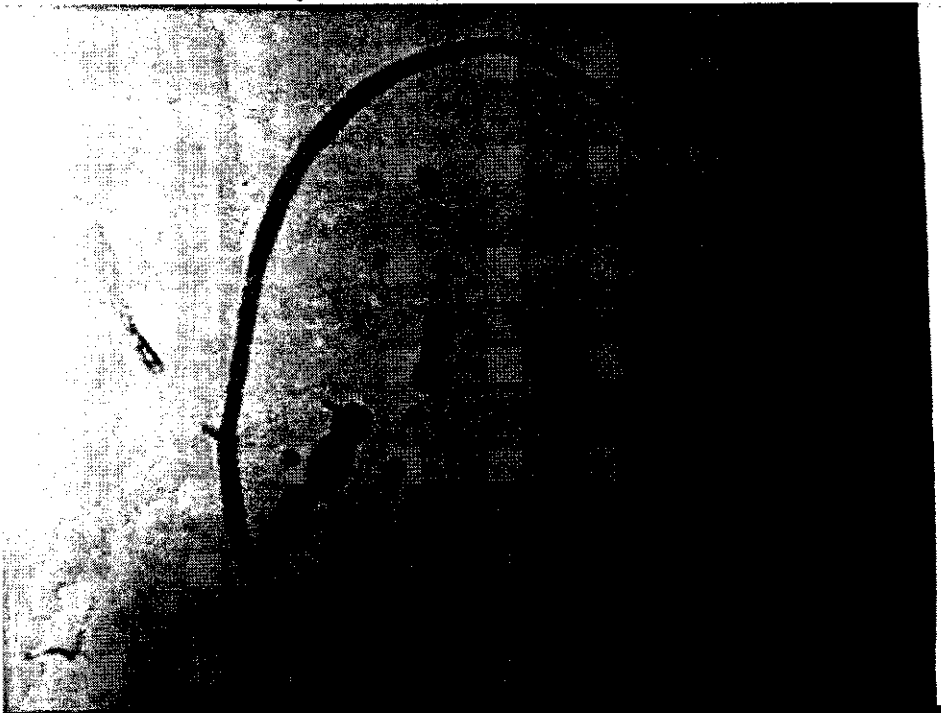


Photo of PT rejection #7 (reference NC19891 attachment)



Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE

Drawing ID: SE141-114 Revision: 6

Customer P.O.: S005242-F/Ln:1
Serial No./Qty: A1

Reported By: MIKE GRIFFITH
E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433
Fax: 317-634-9420

Problem: SEVERAL MISCELLANEOUS ITEMS WERE FOUND DURING THE FINAL VISUAL INSPECTION OF THE PART. SEE ATTACHMENT FOR DETAILS.

Proposed Disposition:

PROPOSE TO USE AS IS.

Number of additional pages: 10 page attachment

Customer Disposition: Use As Is Rework Repair Scrap Replace

The list was reviewed during a conference call attended by J. Chrzanowski, F. Malinowski, D. Williamson, L. Sutton, and P. Heitzenroeder. M. Griffith was added to the call to discuss the "short" G-10 insulators which are mostly due to the stocking on the casting. He agreed that all remaining insulators will be extended as required. The list of miscellaneous defects was dispositioned as indicated below:

#1-Accept as is; PPPL will install GI/Ep in the gaps after VPI is completed. MTM agreed to make remaining insulators extend to the edge of the parts.

#2-Accept as is.

#3-Accept as is; PPPL will install GI/Ep in the gaps after VPI is completed. MTM agreed to make remaining insulators extend to the edge of the parts.

#4-

#5-Accept as is. PPPL will verify that dye will not degrade G-10.

#6-Accept as is.

#7-Accept as is.

#8-Accept as is.

#9-Accept as is.

#10-Accept as is.

#11-Accept as is.

#12-Accept as is.

#13-Accept as is.

#14-Accept as is.

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: 2006.05.31 16:20:10 -04'00'

Brad
Nelson

Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US,
o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.06.01 07:50:21
-04'00'

Tech. Rep.

RLM

Mike Griffith

Digitally signed by Mike Griffith
DN: cn=Mike Griffith, ou=Major Tool and
Machine, o=MTM - White, email=mgriffith@major
tool.com
Reason: I agree to the terms defined by the
placement of my signature on this document
Date: 2006.06.02 13:37:06 -04'00'

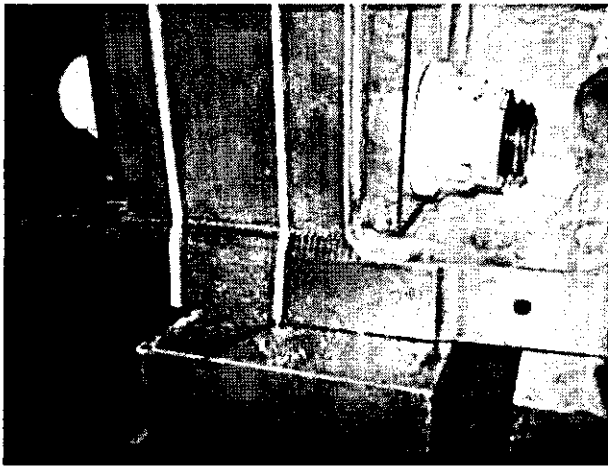
Major Tool Implemented By: _____

Title: _____

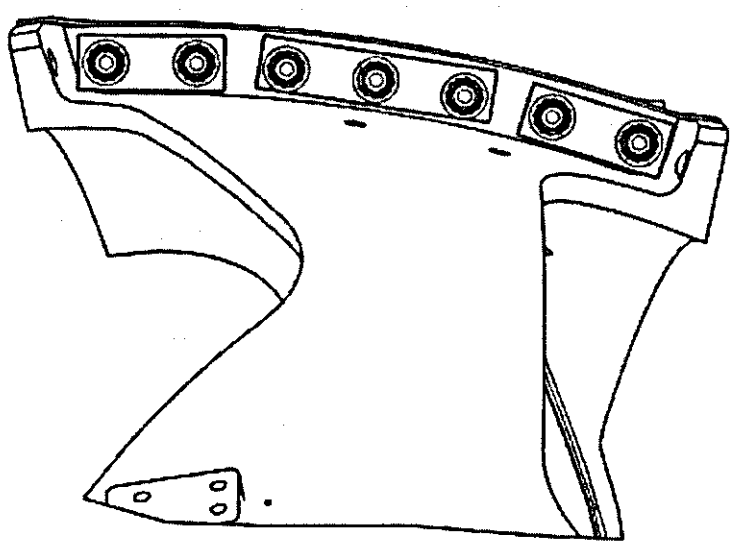
Date: _____

SE141-114 A1
NC19933 attachment

1. G11 shim between break flanges and bearing plates.

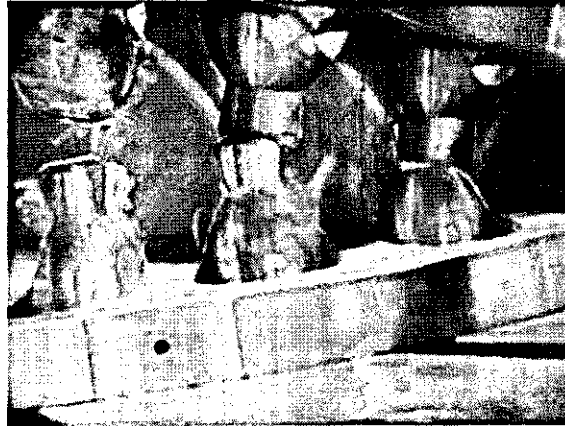


G11 shim has a full radius on both ends. The drawing shown below shows only the radius toward the inside cast wall.

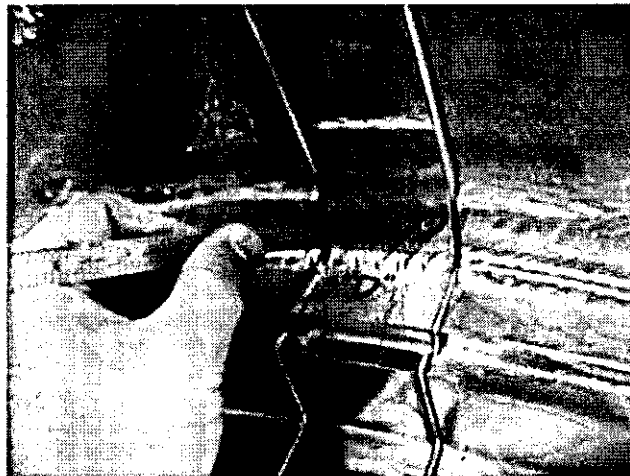
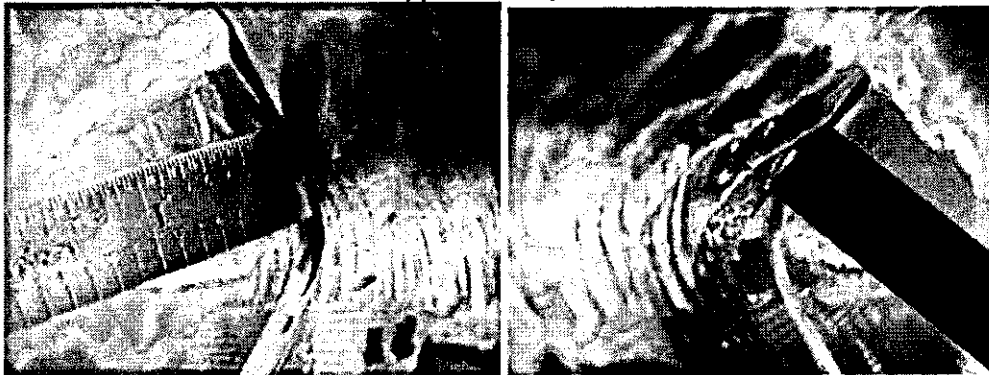


SE141-114 A1
NC19933 attachment

2. Photo below shows areas where counterbore clearances were cut heavy into the casting wall. These areas will not accept the 3" diameter clearance gage. These areas and others were identified and reported on RFD 14-020.

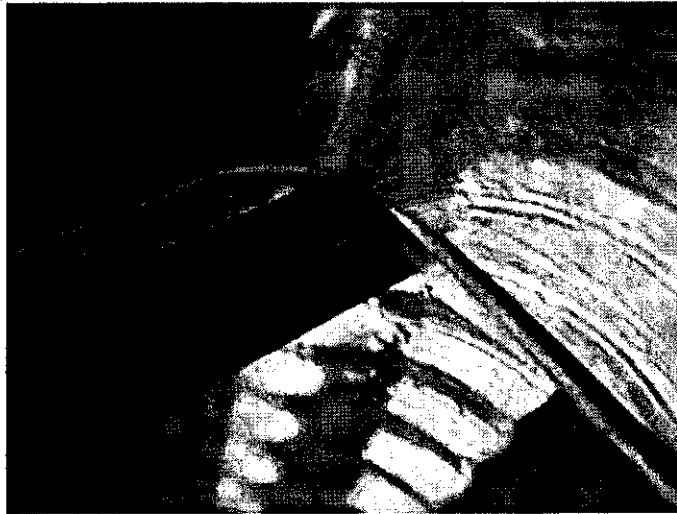


3. Poloidal Break, Datum D side. Casting radius between T section and inner wall extends beyond the G11 shim approximately .300" on each side.

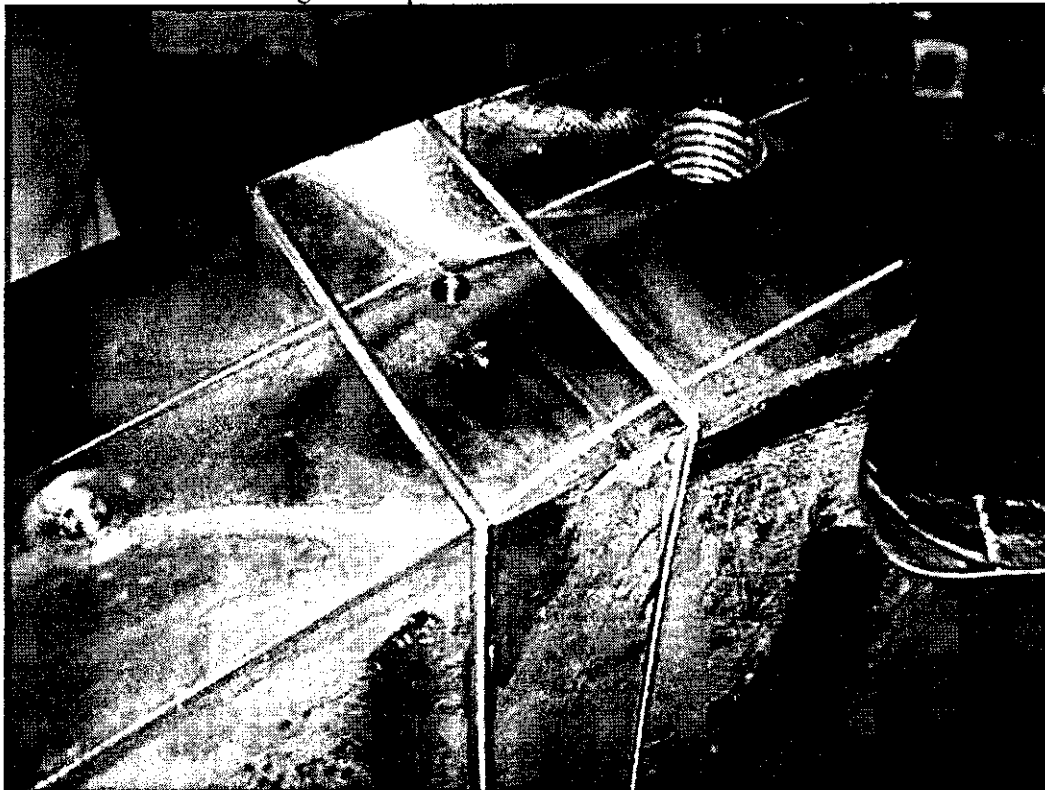


SE141-114 A1
NC19933 attachment

4. Poloidal Break, Datum E side. Casting radius between T section and inner wall extends beyond the G11 shim .050" on each side.

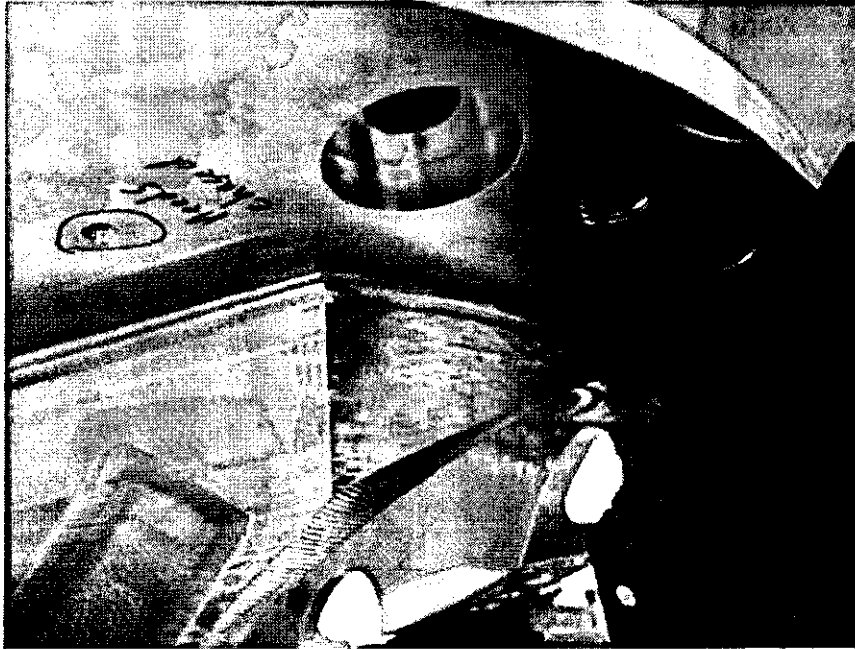


5. One of the G11 shims from the Datum D view is contaminated with the Liquid Penetrant used during the PT process.



SE141-114 A1
NC19933 attachment

6. Tool gouge on datum E flange. Gouge measures .038" deep by 3.25" long by .50" at its widest point. Radial gouge from 6" face. The gouge is located on the datum E flange in section C5 on sheet 5 of the drawing.



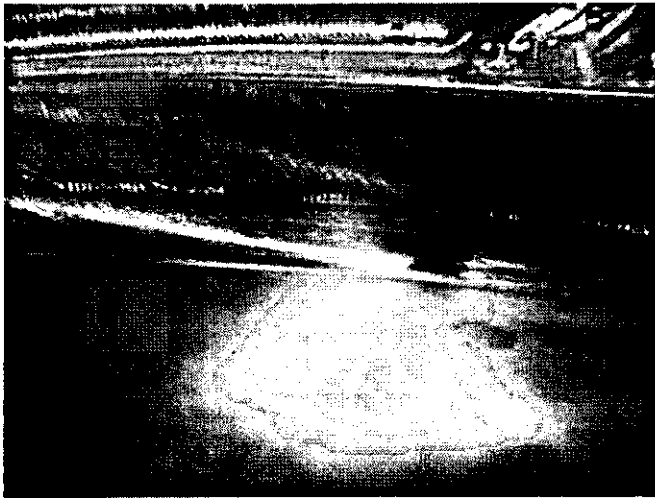
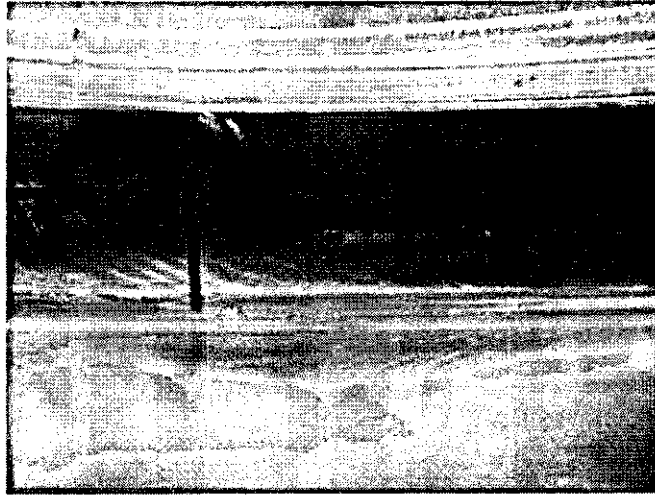
7. Various tool cutter marks on the D side short leg between holes 34 and 42. Cutter marks are no deeper than .010".



Cont. on next page.



SE141-114 A1
NC19933 attachment



Mike Griffith

Page 5 of 10

5/31/2006

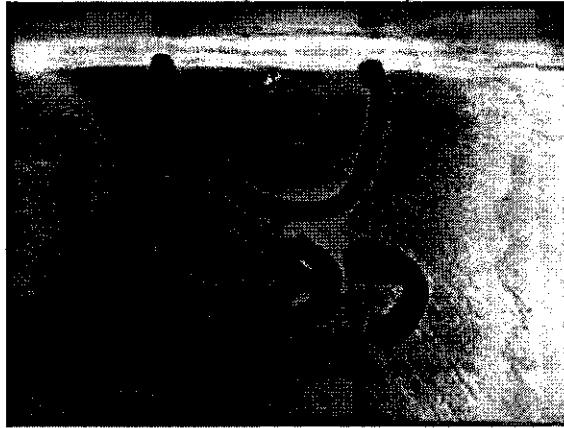
SE141-114 A1
NC19933 attachment

8. Various cutter marks on the E side of the T section. Cutter marks are no more than .010" deep.

Short leg of T near hole 79.



In radius between long and short legs near hole 89.

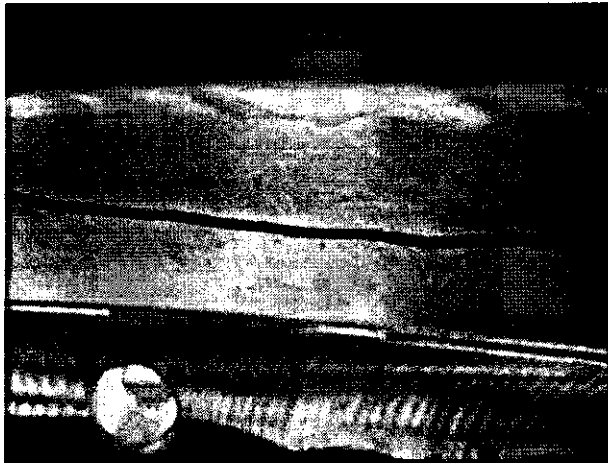
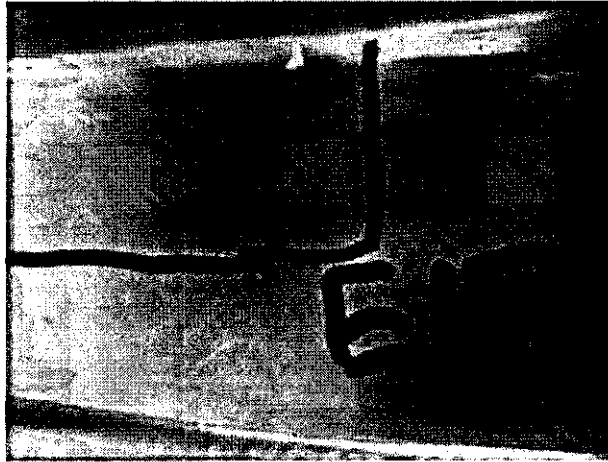


In radius between long and short legs near hole 87.



SE141-114 A1
NC19933 attachment

The following photos are of the short leg of T between holes 15 and 19.



Mike Griffith

Page 7 of 10

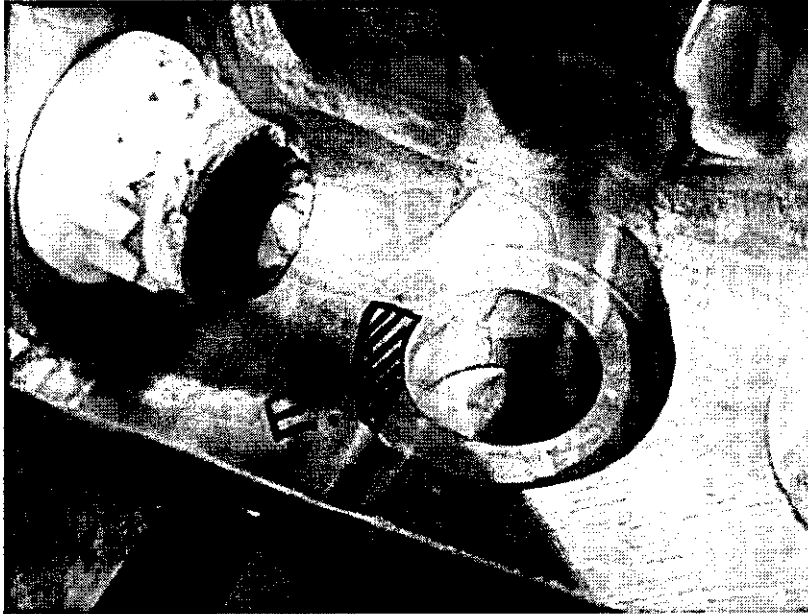
5/31/2006



Major
Tool & Machine, Inc.

SE141-114 A1
NC19933 attachment

9. Approx. 20% of counterbore did not clean up to 100%. Hole is located on the datum E flange next to the poloidal break. (area shaded in photo below).

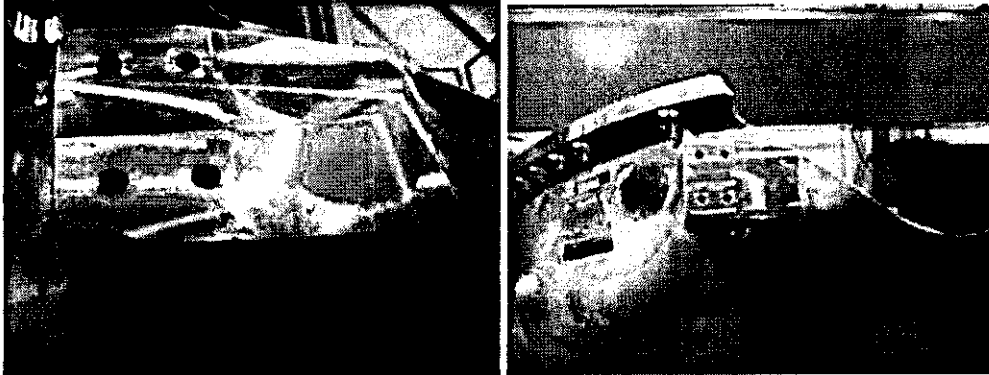


10. There is also an oversized area in this same 1.885 hole. The hole checks $\text{Ø}1.884''$ from the datum E face to a depth of .950". The oversized area extends approximately 1/3 around the diameter (the oversized area is offset to the centerline of the bore). At its largest point, the bore checks $\text{Ø}1.948''$.

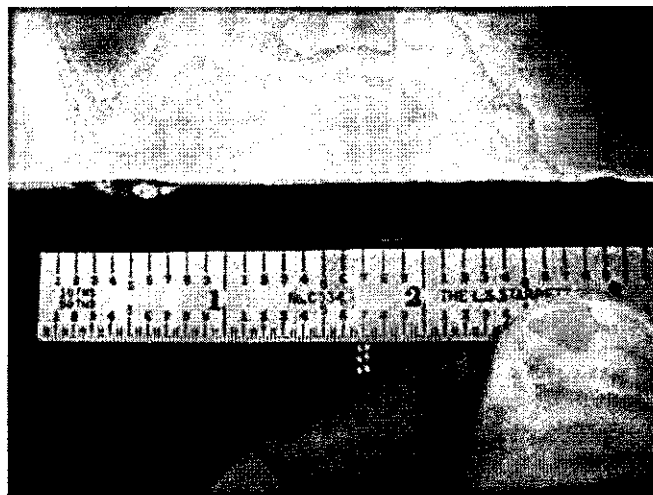
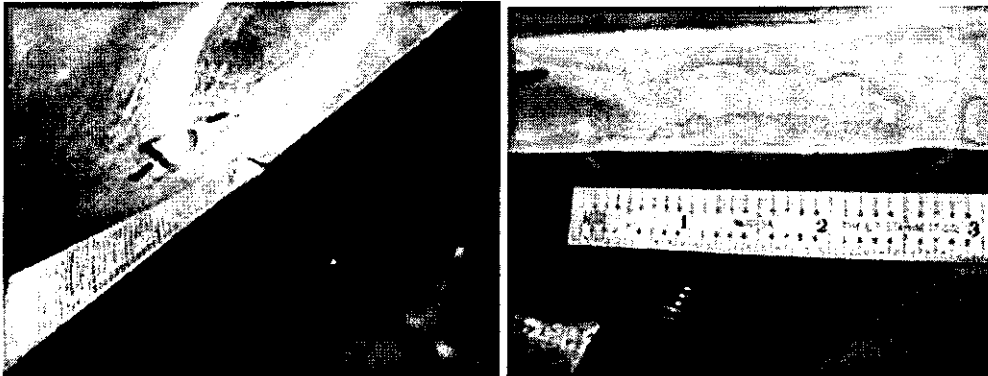


SE141-114 A1
NC19933 attachment

11. The pad shown below has excess casting stock which was machined flush with the pad face. See detail J in section F2 on sheet 7.

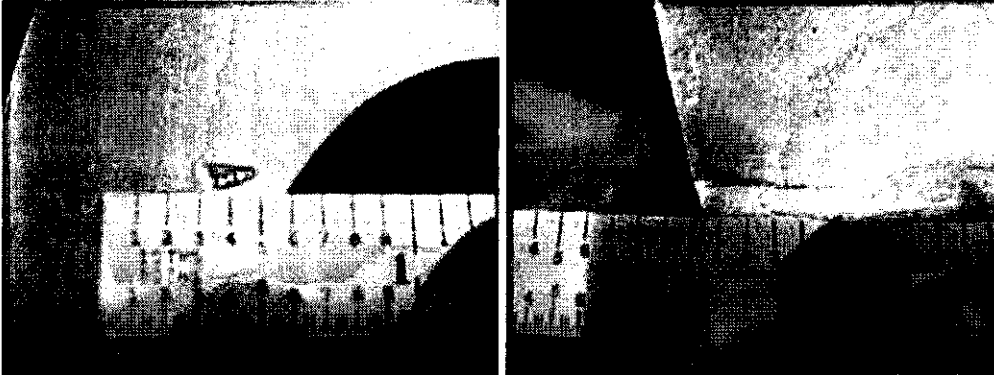


12. Various dings on the datum flange edges. Dings are being caused by swivel hoist rings when lifting the parts. Any raised metal around the areas have been polished flush to the surrounding surfaces.

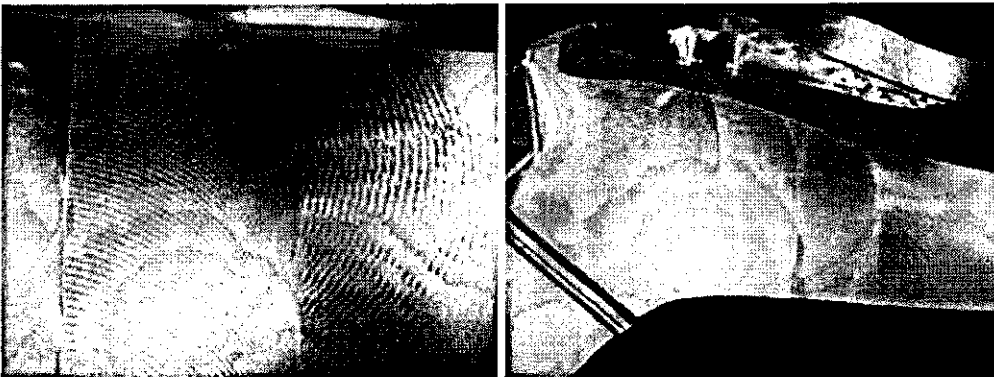


SE141-114 A1
NC19933 attachment

13. There are two impressions on the datum E flange face that were caused by handling damage. Any raised metal around the areas have been polished flush to the surrounding surfaces.



14. The area shown below on the datum E flange exceeds the v^{125} surface finish requirement. Area checks approximately v^{250} . This area is located on sheet 5, zone D5.



Customer: ENERGY INDUSTRIES OF OHIO

Contact: NANCY HORTON
E-Mail: NKHFlowen@aol.com

Telephone: 216-496-2314
Fax: 216-328-2001

Part: SE141-114 / MODULAR COIL WINDING FORM TYPE

Drawing ID: SE141-114

Revision: 6

Customer P.O.: S005242-F/Ln:1
Serial No./Qty: A1

Reported By: MIKE GRIFFITH

E-Mail: mGriffith@MajorTool.com

Telephone: 317-636-6433

Fax: 317-634-9420

Problem: Workorder: 65709/1.0 Sub:1 Op:132

Inspection Test #: 70 rejected: {h|,02|A}: .046
Inspection Test #: 80 rejected: 48.50 ± .03: : 48.454
Inspection Test #: 130 rejected: OUTER AS CAST SURFACES: {g|,5|A|B|C}: -0.165 TO 0.288
Inspection Test #: 140 rejected: 2 X .40: : .350 TO .420
Inspection Test #: 150 rejected: 4 X .03 X 45: : .010 TO .040
Inspection Test #: 170 rejected: P TO M: {g|,2|R|T|S}: POINTS NOT COLLECTED
Inspection Test #: 180 rejected: DATUM D SIDE
VERIFY SHELL INTERSECT CLEARANCE USING GAGE MTMFX-3473: : AREAS BY T HOLES 5-10,
15 - 42, 84 - 94 WILL NOT ACCEPT GAGE
Inspection Test #: 190 rejected: M TO M1: {g|,02|R|T|S}: -.0287 TO .268
Inspection Test #: 210 rejected: Q TO N: {g|,2|R|T|S}: POINTS NOT COLLECTED
Inspection Test #: 230 rejected: N TO N1: {g|,02|R|T|S}: -.0297 TO .0321
Inspection Test #: 240 rejected: 2 X .06/.09 X 45: : .030 TO .060
Inspection Test #: 270 rejected: .375-16 HOLES: {#|,06|R|T|S}: .002 TO .066
Inspection Test #: 280 rejected: DATUM E FLANGE: {f|,01}: .029
Inspection Test #: 285 rejected: surface 250
Inspection Test #: 290 rejected: DATUM D FLANGE: {f|,01}: .028
Inspection Test #: 410 rejected: Ø1.375-6: {#|d,06|M|A|D}: .062
Inspection Test #: 480 rejected: Ø1.885: {#|d,06|N|A|E}: .007 TO .076
Inspection Test #: 640 rejected: 2X .88 - 1.13: : 1.13 TO 1.14
Inspection Test #: 780 rejected: INNER AS CAST SURFACES: {g|,5|A|B|C}: -.321 TO .149
Inspection Test #: 790 rejected: WING SURFACES: {g|-,12;;;,25|A|B|C}: .009 TO -.150

Workorder: 65709/1.0 Sub:1 Op:130

Inspection Test #: 10 rejected: CHECK CLEARANCE OF ITEM 5 TO
ITEM 6.
: d.001 - d.002: .004 TO .005

Proposed Disposition:

PROPOSE TO USE AS IS.

Number of additional pages: 9 Page IDC Attachment

Customer Disposition: Use As Is Rework Repair Scrap Replace

The list was reviewed during a conference call held on 6/1/06 at 4 pm. Tom Brown and Dave Williamson spent the morning reviewing the dimensional documentation and discrepancies. D. Williamson used the attached slide set while discussing some of the points, and went item by item through the remainder of the list. It was agreed that all will be accepted "as is". Attendees included M. Griffith, T. Brown, D. Williamson, L. Sutton, F. Malinowski, N. Horton, P. Heitzenroeder, and (part time) S. Raftopoulos and A. Brooks.

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: 2006.06.01 17:38:52 -04'00'

Brad
Nelson

Digitally signed by Brad
Nelson
DN: cn=Brad Nelson,
c=US, o=ORNL, ou=FED,
email=nelsonbe@ornl.gov
Date: 2006.06.02 11:27:19
-04'00'

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: 2006.06.05 07:04:44 -04'00'

Major Tool Implemented By: _____

Title: _____

Date: _____

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

**YOUR PURCHASE
ORDER NUMBER**
P05-01332

MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2001
IF THERE ARE ANY QUESTIONS ABOUT THIS
SHIPMENT CONTACT OUR SALES DEPARTMENT
(630)633-0300

PAGE
1 (MORE)
MCM NUMBER
6241663-02

Warehouse Location	McMaster Carr Part Number	FRI Quantity	Item Description	Your Line	Your Order	This Shipment
P A C K I N G L I S T E X T R A	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

**TAG
CCP**



3/10/05

3/10/05

9115

Lines 5-8

PACKER	Number of CARTONS	FILLER

LNS: 7

CYCLE

CERTIFICATION OF COMPLIANCE

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

Sincerely,

B. Hedstrom
Brian Hedstrom
Quality Manager

MCM NO. 6241663-02 04

PURCHASE ORDER
P05-01332

FROM:
MCMASTER-CARR
600 COUNTY LINE ROAD
ELMHURST IL 60126-2001 USA

SHIP TO:

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

46218

CCP

X



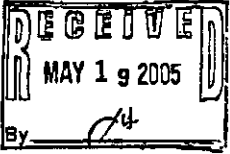
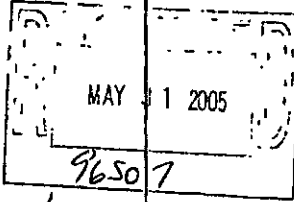
Spaulding
COMPOSITES

55 Nadeau Drive
Rochester, NH 03867
Ph: (603) 332-4555 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	60624	065171-06	1	0	YELLOW	072435	DE
Item	Part / Description / Details				Order Quantity	Ship Qty	
000001	39G1CNT73125NMWLF U/M SHY SO Item 4				1.00000		
	G-11-CR 48" x untrimmed X 36" x 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 <i>Sheet lead 3.5000</i>					1.00000	
					 L11CS 1,2 B-1 (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 DESCRIBED ABOVE.

LOT # _____ DOM _____
 Authorized By: Mark A. Candillo Date: 05/17/2005

Customer Copy

Page # 1

Form: SCSHIP Rev: 8/99



Spaulding
COMPOSITES

55 Nadeau Drive
Rochester, NH 03867
Ph: (603) 332-0552 Fax: (603) 332-5357
www.spauldingcom.com

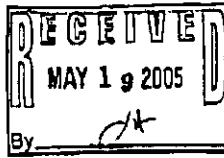
Shipping List 072434

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	FOB
05/17/2005	60624	063169-00	1	716	YELLOW	072434	DE
Item	Part / Description / Details				Order Quantity	Ship Qty	
000001	39G1CNT71850NMWLF U/M SHT SO Item 5				1.00000		
	G-11-CR 48" *UNTRIMMED X 36" *UNTRIMMED THK: 1.850" +/- .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	



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 DESCRIBED ABOVE.

LOT #

DOM.

Authorized By:

Mark L. Cardillo

Date: 05/17/2005

Customer Copy

Page # 1

Form: SCSHIP Rev: 8/99

000/000

ATLAS FIBRE CO.

0047 674 1723

05/26/05 13:00

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-101 - Item: 11

Workorder: 65709/1-0 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
*		<u>T E S T 1</u> RESISTANCE TO BE >500 kohms CHECK RESISTANCE BETWEEN THE MID-PLANE POLOIDAL BREAK SHIM AND THE WINDING FORM.	MULTIMETER	QA	J-1358	218 TO 225 MEGA OHM S	840-G.M		A
(10)							06-01-06		
*		<u>T E S T 2</u> RESISTANCE TO BE >500 kohms CHECK RESISTANCE BETWEEN THE JUMPERED BOLTS AND JUMPERED MID-PLANE CASTING AND WINDING FORM.	MULTIMETER	QA	J-1358	280 TO 330 MEGA OHM S	840-G.M		A
(20)							06-01-06		

METRODE PRODUCTS LIMITED
HANWORTH LANE, CHERTSEY

SURREY, UK, KT16 9LL

Tel: +44 (0) 1832 586721

Fax: +44 (0) 1832 585188

Email: info@metrode.com

Website: www.metrode.com

**CERTIFIED MATERIAL
TEST REPORT**

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



TEST CERTIFICATE NUMBER

183695

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	W020132
SPECIFICATION	BS EN 12072:2000 W 20 18 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		
0.016	7.43	0.42	0.008	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	R _{p0.2} (MPa)	R _m (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 included specifications

This document is produced electronically and is valid without signature.

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

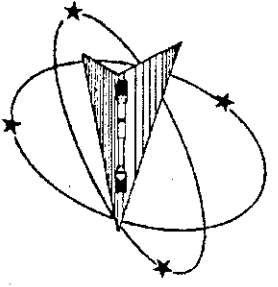
Barrie Kyiel - Q.A. Manager

ASME SFA-5.01; Lot classification S4

3/3/05
93911
Line 1 B.1

Notes:
% Mn includes incidental Co unless otherwise specified.
% Ni (Co) includes incidental Fe unless otherwise specified.
Porosity is given as FN (p porosity number) and measured on 20-mesh pad using instrument calibrated against NBS-related secondary standards (see AWS A5.1-97) unless otherwise specified.

META
C9
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
WMTR is a technical leader in the material testing industry.



April 22, 2005

CERTIFICATION

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

Corrected Date
May 4, 2005

Page 1M1 of 1
WMTR Report No. 5-25008
P.O. No. P05-01764
PQR No. 434
Welder Jason Bever #465

Attention: Josh Mayne

Subject: All processes, performed upon the material as received, were conducted at WMTR & R, Inc. in accordance with the WMTR & 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: Metalek 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	AIUR
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

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

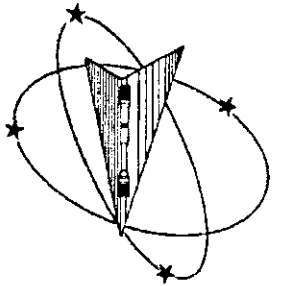
KNOWING YOUR MATERIAL BY PASSING OR CONCEALING A MATERIAL FACT ON THE FORM OR MAKING FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR REPRESENTATIONS WHICH COULD CONSTITUTE A FELONY PUNISHABLE UNDER FEDERAL LAWS, THIS CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED OR REPRINTED WITHOUT THE WRITTEN APPROVAL OF WMTR, INC.

Testing Specialists for Aerospace, Automotive, and Material Testing Fields
Locations in Youngstown, PA U.S.A. ~ Tel. (724) 537-3131 and
Banbury U.K. ~ Tel. +44 (0) 1295 261211

Richard G. Parks
Project Manager/Industrial Technology Engineer

May 4, 2005


5/4/05



April 20, 2005

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 ER316Mhnt

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

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

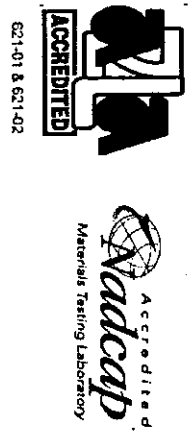
DISPOSITION: Report

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	AU/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	0.04183916/26.992307	WELD/DUCTILE	M9	R

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

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.wmttr.com
WMT&R is a technical leader in the material testing industry.

CERTIFICATION



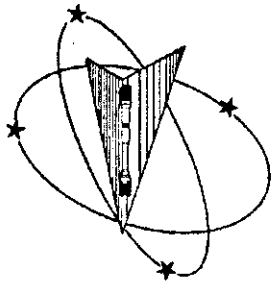
Section 1 of 2
WMT&R Report No. 5-25008
P.O. No. P05-01764
PQR No. 434
Welder: Jason Bever #465

KNOWLEDGE OF MULTIPLE FACTORS OR COMPARING MATERIAL FACTORS FROM ONE OR MORE TESTS, METHODS OR PROCEDURES IS NECESSARY TO INTERPRETATION OF RESULTS. THESE RESULTS DO NOT CONSTITUTE A TECHNICAL REPORT OR RECOMMENDATION. EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF WMTA, INC.

Testing Specialists for Aerospace, Automotive, and Material Testing Fields
Locations in Youngstown, PA U.S.A. ~ Tel. (724) 537-3131 and
Granbury U.K. ~ Tel. +44 (0) 1295 261211

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

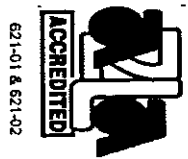
April 20, 2005



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
 WMTR is a technical leader in the material testing industry.

Section 2 of 2

WMTR Report No. 5-25008
 P.O. No. P05-01764



621-01 & 621-02



CERTIFICATION

April 20, 2005
 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: Metrotec ER316MnF

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

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

DISPOSITION: Report

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

WARNING: YOU WILL BE FINED FOR CONCEALING A MATERIAL FACT ON THIS FORM OR MAKING FALSE PROVISIONS OR FAVORABLE STATEMENTS OR REPRESENTATIONS HEREIN. YOU WILL BE FINED FOR CONCEALING A MATERIAL FACT ON THIS FORM OR MAKING FALSE PROVISIONS OR FAVORABLE STATEMENTS OR REPRESENTATIONS HEREIN. THIS CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF WMTR, INC.

Technical Services Manager

April 20, 2005

Matt E. Stanton
 Matt E. Stanton
 Tensile Supervisor

42005

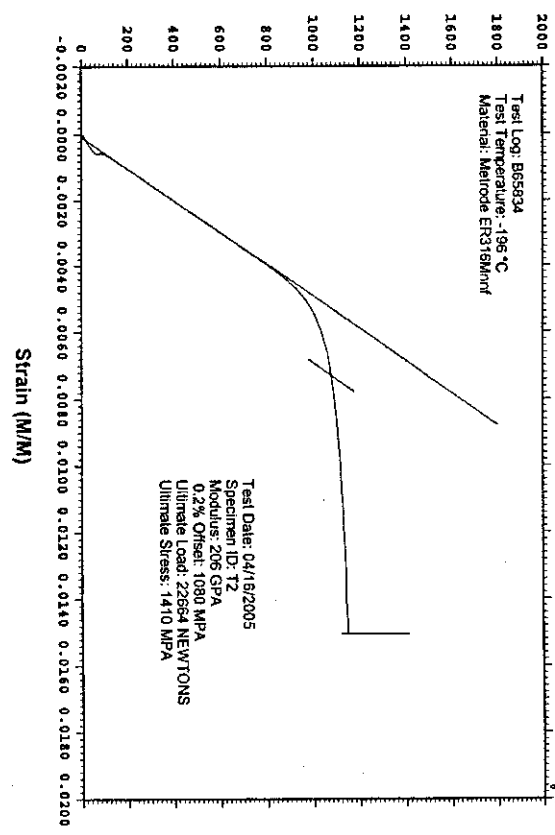
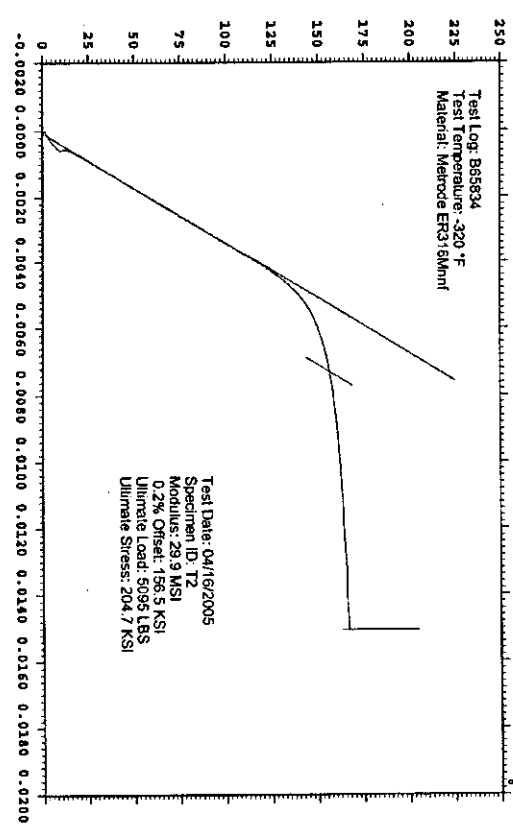
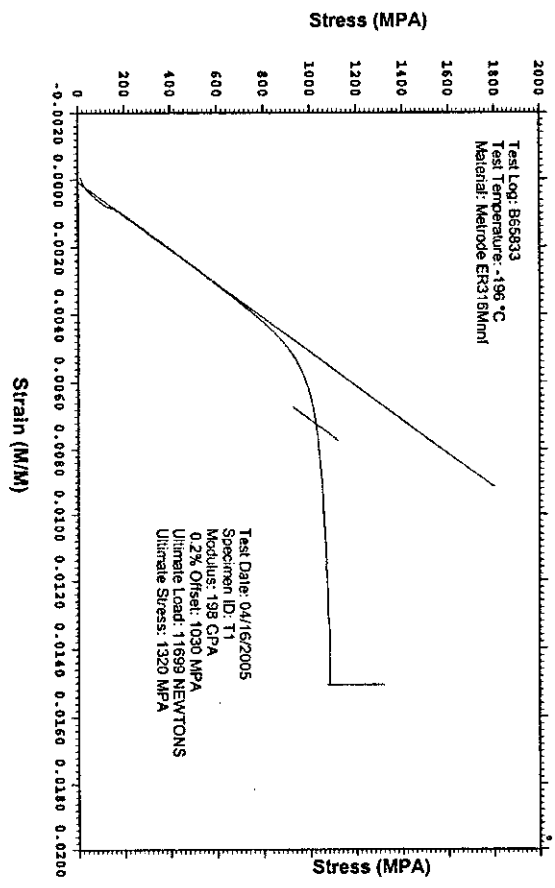
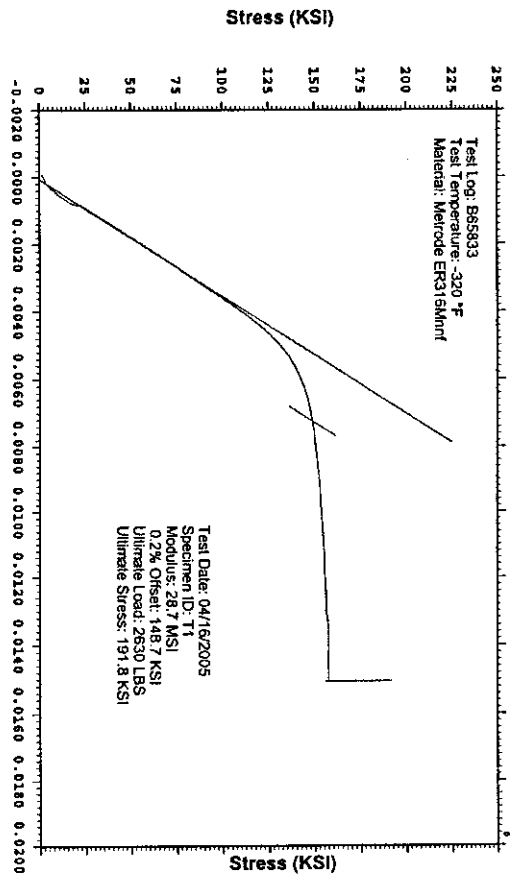
Testing Specialists for Aerospace, Automotive, and Material Testing Fields
 Locations in Youngstown, Pa. U.S.A. ~ Tel. (724) 537-3131 and
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WESTMORELAND MECHANICAL TESTING & RESEARCH, Inc

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

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

Phone: (724)537-3131



KNOWINGLY OR WILLFULLY FAULSIFYING OR CONCEALING A MATERIAL FACT ON THIS FORM OR MAKING FALSE FICTITIOUS OR FRAUDULENT STATEMENTS OR REPRESENTATIONS HEREIN COULD CONSTITUTE A FELONY PUNISHABLE UNDER FEDERAL STATUTES.



METRODE PRODUCTS LTD
 HANWORTH LANE
 CHERTSEY SURREY
 ENGLAND KT16 9LL
 Tel +44 (0)1932 366721
 Fax +44 (0)1932 365168
 Email info@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

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

DESPATCHED TO
 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.

N. 05-39

DELIVERY NOTE DOCUMENT No.

DN0106163

BATCH No.	W220192
OUR ORDER REF.	601788013 / 1
DATE	09/03/05
PRODUCT	ER916MNF-TIG
FORM	2-4MM
SPECIFICATION	TIG-MERE
BS EN 12072:2000 W 20 16 3 Mn L	

QUANTITY (Kg)	17.5000
---------------	---------

CHEMICAL ANALYSIS (WEIGHT %)		TYPE		CERTIFIED MATERIAL TEST REPORT: BS EN 10204: 3.1.B					
C	mm	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-WELDED METAL MECH. PROPERTIES, AS WELDED:-
 TS: >600 N/mm2; 0.2%PS: >400 N/mm2; EL. ON AD: 40 %;
 CVN @ -196 DEG.C: 70 J.

3/23/05
 3/23/05
 41534
 live!
 B-7

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

B. KYIET
 Q.A MANAGER

B. Kyiet

All Test certificates issued by METRODE will contain this embossed seal
 Any receipt 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

NOTES: *All includes material Co unless otherwise specified
 *All (02) includes material Th unless otherwise specified
 *Fe is given as FM (Pipette Number) and measured on air-dried pad using uncalibrated against NBS related secondary standard. (See AWS A4.2-97) unless otherwise specified

Nondestructive Test

Certification for Liquid Penetrant Examination

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

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

Date of Inspection: 05/20/2006

Type of Material: CAST STAINLESS

NDT#: 16747

Stage of Inspection:	Manufacturing Process:	Surface Condition:	Test Being Run to:	Heat Treated:
<input type="checkbox"/> Incoming Inspection <input type="checkbox"/> In-Process Inspection <input type="checkbox"/> After Repair <input checked="" type="checkbox"/> Final Inspection	<input type="checkbox"/> Weldment <input type="checkbox"/> Bar Stock <input type="checkbox"/> Forging	<input checked="" type="checkbox"/> Casting <input type="checkbox"/> Plate <input type="checkbox"/> Other FINAL MACHINED	<input checked="" type="checkbox"/> Router Instructions <input checked="" type="checkbox"/> Drawing <input type="checkbox"/> Test Plan <input type="checkbox"/> Technique Card SEE NOTES	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Part Information:	Test Results:	Inspection Results:
MTM Job Number: 65709/1.0 -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:	Quantity Inspected: 1 Quantity Accepted: 0 Quantity Rejected: 1 Run Hours: 0.0	Customer N/C #: <input type="checkbox"/> Accepted <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> N/C-Report <input type="checkbox"/> 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-W1-09) Acceptance Standard: ASTM A903 (SEE NOTES)
---	---

Inspection Materials Used:	Penetrant Examination Processes:
Manufacturer: SHERWIN Type of Penetrant: DP-51 Batch Number: 41-E47 Developer: D-100 Batch Number: 65-C6	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 REJECTABLE INDICATIONS PER CUSTOMER REQUIREMENTS ON MACHINED SURFACES. SEE NCR-19891 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: 05/20/2006

Douglas D. Edwards Level II





4959
10520 Chester Road
Woodlawn, Ohio 45215

CLIENT: Major Tool & Machine
 JOB NO: 13860001
 DATE: 5/25/06
 WELD PROCESS: ER192
 CHEMICAL: 30
 FOCAL SPOT SIZE: .148"
 WELD PROCESS: N/A
 MATERIAL SIZE: 316 SST
 MATERIAL THICKNESS: .75"
 MATERIAL DIAMETER: N/A
 MATERIAL TYPE: N/A
 FILM PROCESSING: Auto
 FILM TYPE: Kodak AA
 FILM TECHNIQUE: Double
 P.O. NO: N/A
 ACCEPTANCE STANDARD: NO Defects > .080"

INSPECTOR: Robert Weaver/II
 TIME: 3:00
 PENETRAMETER: ASTM 1B
 DENSITOMETER: 12105
 CAL due - 8/2/06
 REFERENCE: MCR-199/6

FITTING DESCRIPTION	FILM INTERVAL	WELDER IDENTIFICATION	PENETRAMETER		SLAG	POROSITY	POROSITY WITH TVAL	CRACK	LACK OF PEN	LACK OF FUSION	INTERNAL CORROSION	INTERNAL COMPLEVITY	TRANSDUCER	MELT THROUGH	BURN THROUGH	CRATER/FIT	OXIDATION	INTERNAL UNDERCUT	EXTERNAL UNDERCUT	MISSED INDICATIONS	WELD CONTOUR	MISMATCH	FILM ARTIFACT	VISUAL CONCERNS	FILM DENSITY	SEE REMARKS	ACCEPT	REJECT		
			SIZE	QUALITY LEVEL																										
T	0-1	NA	1B	.016 ^o																										
	1-2																													
	2-3																													
	3-4																													

End View | Side View
 SINGLE WALL
 DOUBLE WALL
 Penetration
 Spine
 Location Marker
 OTHER

Customer Representative Signature: Robert Weaver 655514/HF
 Date: 5/25/06

MCWF Type A
RT Map of High Stress Region

MTM Workorder Number: _____

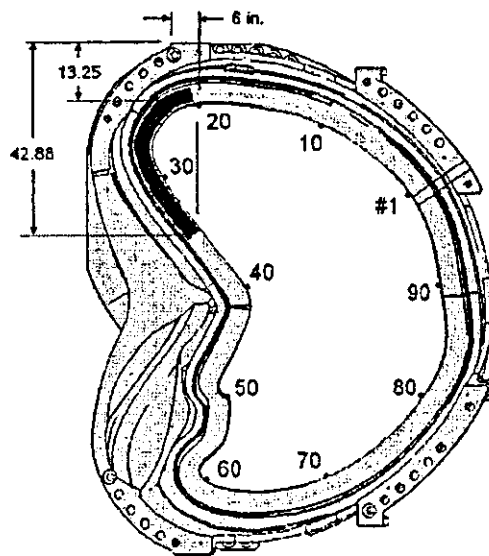
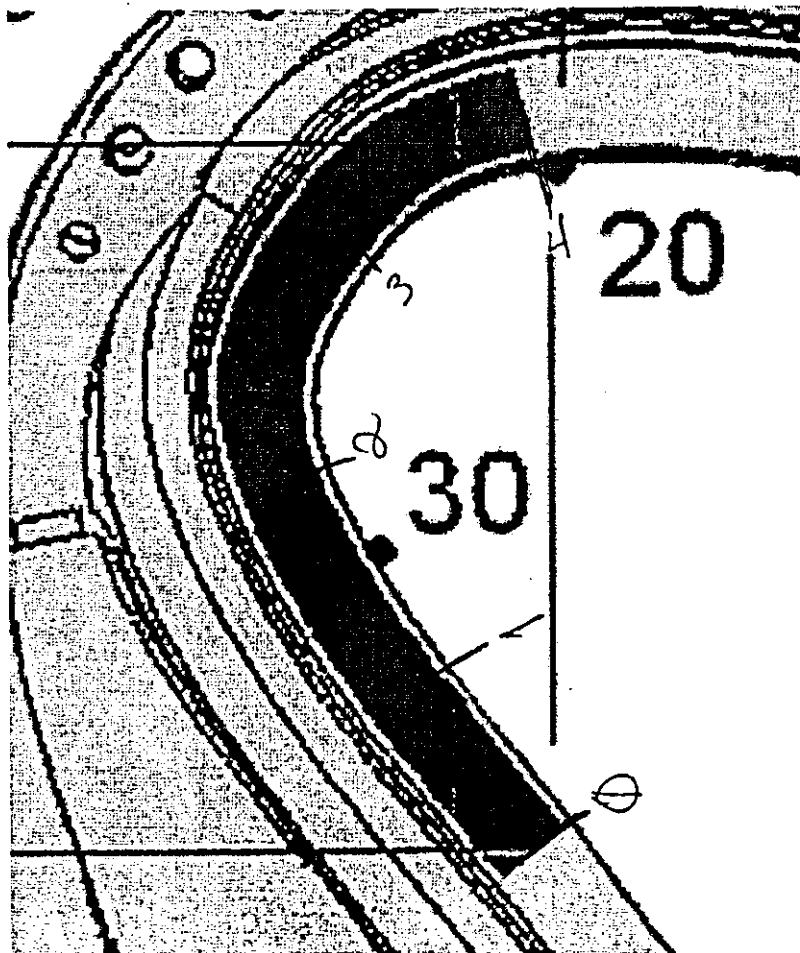


Figure 7-4- High Stress Region Identification for Type-A MCWF



65709/10/1/110/818
SE141-114
5/25/06
Page 2 of 2



INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-114 - Item: 18

Workorder: 65709/1-0 Sub:1 Op:120

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	VERIFIED AUDIT
*	D A T U M - E - S I D E 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	854-R.U	
(10)						05-31-06	
*	D A T U M - D - S I D E 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	854-R.U	
(20)						05-31-06	

INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-114 - Item: 19

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

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

SHEET	ZONE	CHARACTERISTIC	INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY			
			GAGE/EQUIP	BY	SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT	
2*	D3	Ø.001 - Ø.002		QA				242-M.G		242-M.G	R
(10)		CHECK CLEARANCE OF ITEM 5 TO ITEM 6.									
*		THE GAP BETWEEN THE POLOIDAL BREAK BUSHINGS AND FLANGE SHAL BE LESS THAN .002"		QA			.001	242-M.G			08-02-06
(15)											A
2*	F2	ENSURE THAT THE CUMULATIVE GAP AT ANY SINGLE CROSS SECTION OF THE POLOIDAL FLANGE ELEMENTS IS LESS THAN .005".		QA			LESS THAN .002	242-M.G			
(20)											A
*		THE MAX. GAP AT THE POLOIDAL BREAK PERIMETER IS .015" AND CANNOT EXCEED 1/8" FROM THE EDGE		QA			LESS THAN .002	242-M.G			
(30)											






Quality Assurance Documentation for Part ID: SE141-114 - Item: 20

Workorder: 65709/1-0 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: 6		INSPECTION INSTRUCTIONS		RESULTS		INSPECTED BY			
SHEET	ZONE	CHARACTERISTIC	GAGE/EQUIP	BY SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1*	F3	NOTE 14 - BACK SPOTFACE ALL THRU HOLES TO MINIMUM CLEAN UP.		QA		I HOLE DID NOT CLEAN UP 100% (NC19933)	242-M.G		R
1*	E8	FLANGE PROFILE +/- .25 IN THIS AREA	CMM	QA	00064	.0104	339-E.R		A
(20)							06-01-06		
1*	D8	///.02 A	CMM	QA	00064	.006	339-E.R		A
(30)							05-31-06		
1*	D8	54.20 ± .03	CMM	QA	00064	54.194	339-E.R		A
(40)							05-31-06		
1*	C8	54.20 ± .03	CMM	QA	00064	54.194	339-E.R		A
(50)							05-31-06		
1*	B8	///.02 A	CMM	QA	00064	.006	339-E.R		A
(60)							05-31-06		
1*	D5	///.02 A	CMM	QA	00064	.046 [N/C:19942-Doc :NC19942]	339-E.R		R
(70)							05-31-06		
1*	D5	48.50 ± .03	CMM	QA	00064	48.454 [N/C:19942-Doc:NC19942]	339-E.R		R
(80)							05-31-06		
1*	C5	48.50 ± .03	CMM	QA	00064	48.503	339-E.R		A
(90)							05-31-06		
1*	B5	///.02 A	CMM	QA	00064	.003	339-E.R		A
(100)							05-31-06		
1*	D4	VERIFY PART MARKING: MAJOR TOOL SE141-114 A (casting number) (weight) LBS.		QA	VISUAL	ACCEPT	242-M.G		A
(110)									
1*	D4	RECORD WEIGHT		QA	VISUAL	5280 LBS	242-M.G		A
(120)							05-31-06		
1*	D3	OUTER AS CAST SURFACES	CMM	QA	00064	-0.165 TO 0.288 [N/C:19942-Doc:NC19942]	339-E.R		R
(130)							05-31-06		

INSPECTION DATA CHECKLIST

QTY	ITEM	DESCRIPTION	UNIT	QA	QTY	DESCRIPTION	UNIT	QTY	DESCRIPTION	UNIT	QTY	DESCRIPTION	UNIT
2*	F8	2 X .40	CALIPER	QA	P-5075	.350 TO .420 [N/C:1 9942-Doc:NC19942]	533-B.C						R
2*	F8	4 X .03 X 45	CALIPER	QA	P-5075	.010 TO .040 [N/C:1 9942-Doc:NC19942]	533-B.C						R
2*	G6	2 X R.187 +.025 / -.005	PIN GAGE	QA	J-651-2	.184 TO .205	533-B.C						A
2*	G5		CMM	QA	00064	POINTS NOT COLLECT D [N/C:19942-Doc:NC 19942]	339-E.R						R
(170)		P TO M											
2*	G5	DATUM D SIDE VERIFY SHELL INTERSECT CLEARANC USING GAGE MTMFX-3473		QA	MTMFX-3473	5-10, 15 - 42, 84 - 94 OUT OF SPEC. [N /C:19942-Doc:NC1994 2]	339-E.R						R
(180)													
2*	F5		CMM	QA	00064	-.0287 TO .268 [N/C :19942-Doc:NC19942]	339-E.R						R
(190)		M TO M1											
2*	E5		CMM	QA	00064	-.0223 TO .0294	339-E.R						A
(200)		M1 TO N1											
2*	G3		CMM	QA	00064	POINTS NOT COLLECT D [N/C:19942-Doc:NC 19942]	339-E.R						R
(210)		Q TO N											
2*	F3	DATUM E SIDE VERIFY SHELL INTERSECT CLEARANC USING GAGE MTMFX-3473		QA	MTMFX-3473	ACCEPT	339-E.R						A
(220)													
2*	F3		CMM	QA	00064	-.0297 TO .0321 [N/ C:19942-Doc:NC19942]	339-E.R						R
(230)		N TO N1											
2*	B4	2 X .06/.09 X 45	CALIPER	QA	P-5075	.030 TO .060 [N/C:1 9942-Doc:NC19942]	533-B.C						R
(240)													
2*	B5	\varnothing .375-16 UNC ∇ .750 +.1 -0 96 X	THREAD PLUG GA	QA	A-444	ACCEPT	242-M.G						A
(250)													
2*	B5	\perp \varnothing .625 ∇ .188	CALIPER	QA	P-5075	.622 DEPT H .188 TO .310 (NC1 9783) [N/C:19942-Do c:NC19942]	242-M.G						R
(260)													

INSPECTION DATA CHECKLIST

4* (430)	D4 & ϕ 1.885				QA	00064	.012 TO .060	339-E.R 05-31-06	A
4* (440)	B6 3X ϕ 1.5				QA	J-1103	1.500	533-B.C 05-31-06	A
4* (450)	B6 ϕ 1.06 M A D 3X ϕ 1.5				QA	00064	.030 TO .040	339-E.R 05-31-06	A
4* (460)	A4 6X .25-20 UNC ∇ .5 .5 X 82° CHAMFER				QA	A-235	ACCEPT	533-B.C 05-30-06	A
5* (470)	D8/D6 ϕ 1.885 \pm .003				QA	J-1400	1.884 TO 1.886	533-B.C 05-31-06	A
5* (480)	D8/D6 ϕ 1.885				QA	00064	.007 TO .076 [N/C:1 9942-Doc:NC19942]	339-E.R 05-31-06	R
5* (490)	F8 ϕ 1.375-6UNC THRU				QA	A-375	ACCEPT	533-B.C 05-31-06	A
5* (500)	F8 ϕ 1.375-6 UNC				QA	00064	.044	339-E.R 05-31-06	A
5* (510)	F6 8X 1/4 -20 UNC-2B				QA	A-716	ACCEPT	533-B.C 05-31-06	A
5* (520)	D6 3X ϕ 1.5 ∇ 2.33				QA	J-1103	1.500 DEPTH 2.335 TO 2.340	533-B.C 05-31-06	A
5* (530)	D6 ϕ 1.06 N A E 3X ϕ 1.5				QA	00064	.004 TO .034	339-E.R 05-31-06	A
5* (540)	B3 6X .25 - 20 UNC ∇ .6 ϕ .5 X 82° CHAMFER				QA	A-716	ACCEPT	533-B.C 05-31-06	A
6* (550)	H7 6.00				QA	00064	SEE IGES DATA	339-E.R 05-31-06	A
6* (560)	H7 1.00				QA	00064	SEE IGES DATA	339-E.R 05-31-06	A
6* (570)	G8 6.70				QA	00064	SEE IGES DATA	339-E.R 05-31-06	A
6* (600)	F8 6.70				QA	00064	SEE IGES DATA	339-E.R 05-31-06	A
6* (610)	E7 5.75				QA	00064	SEE IGES DATA	339-E.R 05-31-06	A
6* E7					QA	00064	SEE IGES DATA	339-E.R	A



Major
Tool & Machine, Inc.

INSPECTION DATA CHECKLIST

Page: 8
Date: 08/02/06
User ID: GRIFFIT#

(620)	1.00								05-31-06	
6* (630)	E6 4X Ø1.00		PIN GAGE	QA		J-921	.999		533-B.C 05-30-06	A
6* (640)	G5 2X .88 - 1.13		CALIPER	QA		J-1389	1.13 TO 1.14 [N/C:1 9942-Doc:NC19942]		533-B.C 05-30-06	R
6* (650)	F5 .06-.09 X 45° TYP		CALIPER	QA		P-5075	ACCEPT		533-B.C 05-31-06	A
7* (660)	G2 19.00		CMM	QA		00064	SEE IGES DATA		339-E.R 05-31-06	A
7* (670)	F2 2.00		CALIPER	QA		P-5075	2.001		533-B.C 05-31-06	A
7* (680)	F2 6.75		CMM	QA		00064	SEE IGES DATA		339-E.R 05-31-06	A
7* (690)	F2 3.75		CALIPER	QA		P-5075	3.752		533-B.C 05-31-06	A
7* (700)	F1 4X Ø.75-10 UNC ∇ 1.50		THREAD PLUG GA	QA		A-232	ACCEPT		533-B.C 05-30-06	A
7* (710)	D1 2X 1.56 OPEN THRU		CALIPER	QA		P-5075	1.558 TO 1.560		533-B.C 05-30-06	A
7* (720)	C1 .375-16 UNC-2B TAP ∇ .75 .03 X 45° CHAMFER 6X		THREAD PLUG GA	QA		A-52	ACCEPT		533-B.C 05-30-06	A
7* (730)	C4	VERIFY THAT HOLE LOCATIONS ARE SCRIBED ON THE PART.		QA		VISUAL	ACCEPT		533-B.C	A
7* (740)	B3 8.50 DISTANCE BETWEEN SCRIBE MARKINGS.		CALIPER	QA		P-5075	8.500		533-B.C 05-31-06	A
9* (750)	H1 2X Ø.50		CALIPER	QA		P-5075	.502		533-B.C 05-31-06	A
9* (760)	B7 TC2 HOLE TO BE .625" IN DIAMETER APPRO 2.52" DEEP AND .25" IN DIAMETER AT LEAST 1" DEEP.		CALIPER	QA		P-5075	.625 DEPTH 2.5 30		533-B.C	A
*			CALIPER	QA		P-5075	.625		533-B.C	A



Major
Tool & Machine, Inc.

INSPECTION DATA CHECKLIST

Page: 9
Date: 08/02/06
User ID: GRIFFIT#

TC1 LOCATION AND CONFIGURATION MODIFIED. HOLE TO HAVE .625 CLEARANCE AND AT LEAST 1" OF DEPTH AT THE .25" DI													
(770)	F5	□ .5 A B C	INNER AS CAST SURFACES	CMM	QA	00064	-.321 TO .149 [N/C; 19942-Doc:NC19942]	05-31-06	339-E.R	R			
(780)	D5	□ -.12 -.25 A B C	WING SURFACES	CMM	QA	00064	.009 TO -.150 [N/C; 19942-Doc:NC19942]	05-31-06	339-E.R	R			
Drawing ID: NCSX-CSPEC-141-03 Rev: 11													
SHEET ZONE		CHARACTERISTIC		INSPECTION INSTRUCTIONS		RESULTS		INSPECTED BY					
4*	3.1.1.1	✓	THE TWO "L" MACHINED SURFACES OF TEE MUST HAVE A RMS OF 125.	GAGE/EQUIP	BY SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT			
(800)					QA	VISUAL	ACCEPT	533-B.C					
								05-31-06					

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	138 6 x 9 1 2 660B Broached Tapend Stud Silver Plated per AMS 2410	XFR / E3930				
Chemical Properties							
C 046	Mn 26	P 015	S 001	Si 28	Ni 25.60	Cr 14.10	Mo 1.21
Cu 13	Co 08	V 22	Al 24	Ti 2.18	B 0.054		
Mechanical Properties							
Tensile 163310	Yield 11090	Elong 23.10	RA 49.90	Hardness 290hb	Temperature 1325 f	Macro 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

lines 1-5


 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: 05-17-2006

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

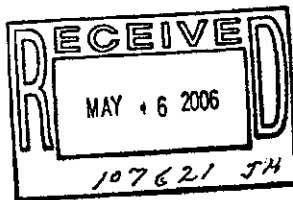
Certificate of Conformance

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



lines 1-2



MAY 17 2006



Major

Tool & Machine, Inc.

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

Nondestructive Test Certification for Liquid Penetrant Examination

Quality Assurance Documentation for Part ID: SE141-114 - Item: 23

Date of Inspection: 05/26/2006

Type of Material: CAST STAINLESS

NDT#: 16858

Stage of Inspection: <input type="checkbox"/> Incoming Inspection <input type="checkbox"/> In-Process Inspection <input checked="" type="checkbox"/> After Repair <input type="checkbox"/> Final Inspection	Manufacturing Process: <input type="checkbox"/> Weldment <input type="checkbox"/> Bar Stock <input type="checkbox"/> Forging <input checked="" type="checkbox"/> Casting <input type="checkbox"/> Plate <input type="checkbox"/> Other	Surface Condition: <input checked="" type="checkbox"/> Machined <input type="checkbox"/> Rough <input type="checkbox"/> Other FINAL MACHINED	Test Being Run to: <input checked="" type="checkbox"/> Router Instructions <input checked="" type="checkbox"/> Drawing <input type="checkbox"/> Test Plan <input type="checkbox"/> Technique Card SEE NOTES	Heat Treated: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---	---	---	--

Part Information: MTM Job Number: 65709/1.0 -Sub:17 -Op:40 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: 1 Quantity Rejected: 0 Run Hours: 0.0
--	---

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-009) 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: C (Solvent Wipe) Method of Drying: Normal Evaporation 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
OF REPAIR AREA

Notes:
INSPECT 100% OF REPAIR AREA SURFACES AS REPORTED ON NCR-19709.

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)

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

Inspector: 581-D.EDWARDS

Date: 05/26/2006

Douglas D. Edwards Level II





INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-114 - Item: 24

Workorder: 65709/1-0 Sub:17 Op:50

Part: SE141-114 - REWORK / REPAIR PER N/C - N/C #

SHEET	ZONE	DRAWING ID: SE141-116 Rev: 8	CHARACTERISTIC	INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY	
				GAGE/EQUIP	BY SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
*		N C 19709	RECORD PERMEABILITY READINGS OF THE REPAIRED AREA. MAG PERMEABILITY TO BE NO GREATER THAN 1.02µ.	MASTER GAGE	QA	J-1165	NO PERMEABILITY RESPONSE EQUAL TO OR GREATER THAN 1.02µ (ORSTEADS)	840-G.M		
(10)								06-01-06		A



INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-141 - Item: 25

Workorder: 65709/1-0 Sub:18 Op:30

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

SHEET	ZONE	CHARACTERISTIC	INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY	
			GAGE/EQUIP	BY SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1*	G2	RECORD MAGNETIC PERMEABILITY. RESULTS TO BE NO GREATER THAN 1.02μ.	MASTER GAGE	QA	J-1271	LESS THAN 1.02	261-T.D		
(10)							05-16-06		A



INSPECTION DATA CHECKLIST

Quality Assurance Documentation for Part ID: SE141-142 - Item: 26

Workorder: 65709/1-0 Sub:19 Op:30

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

SHEET ZONE	CHARACTERISTIC	INSPECTION INSTRUCTIONS			RESULTS		INSPECTED BY	
		GAGE/EQUIP	BY SAMPLE	SER#	DATA/REMARKS	INSP	VERFD	AUDIT
1*	RECORD MAGNETIC PERMEABILITY. RESULTS TO BE NO GREATER THAN 1.02μ.	MASTER GAGE	QA	J-11165	LESS THAN 1.02	503-B.H		
(10)						05-18-06		

Employees: 242-M.Griffith / 261-T.Dunn / 339-E.Root / 503-B.Houk / 533-B.Clevenger / 840-G.Masood / 854-R.Upchurch