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

MTM N/C: 20920 Rev. 1

Date: 01/04/07
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: SE141-115 / MODULAR COIL, TYPE B — Customer P.O.: S005242-F/Ln:3
Drawing ID: SE141-102 Revision: 3 — Serial No./Qty: B3
W/O Links: 1-Type:W: 65708/3.0 Sub: 0

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

Problem: SEVERAL ITEMS NOTED DURING VISUAL REVIEW OF CASTING. SEE ATTACHMENT.
Rev. 1 - added pages 9 & 10 to the attachment. (1-2-07)

Proposed Disposition:
MTM PROPOSES TO ACCEPT AS IS.

Number of additional pages: 10 page attachment

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

All the visual defects were reviewed during a conference call on 1/5/07 attended by N. Horton, R. Sheppard, M. Griffith, L. Sutton, J. Chrzanowski, F. Malinowski, and P. Heitzenroeder. The notch defects shown on Pg. 9 require rework – MTM is requested to grind the sharp corners of the notch to a 0.060" (min.) radius. The others are surface defects , referred to as "tooling marks" by MTM, and are caused imperfect machining setups, especially as MTM added new milling machines to broaden the number of machines available. They were described as being very shallow – 0.002-0.010" deep. J. Chrzanowski agreed that they can be accepted as is,and will examine them when the winding form arrives and determine if some should be filled with epoxy.

Accepted by:

Phil Heitzenroeder
Digitally signed by Phil Heitzenroeder
DN: cn=Phil Heitzenroeder, c=US, o=PPPL, ou=Mech. Eng. Division
Reason: I am the author of this document
Date: 2007.01.05 16:55:38 -05'00'

Tech. Rep.

Wayne Reiersen
Digitally signed by Wayne Reiersen
DN: cn=Wayne Reiersen, c=US, o=PPPL
Reason: I am approving this document
Date: 2007.01.08 12:13:46 -05'00'

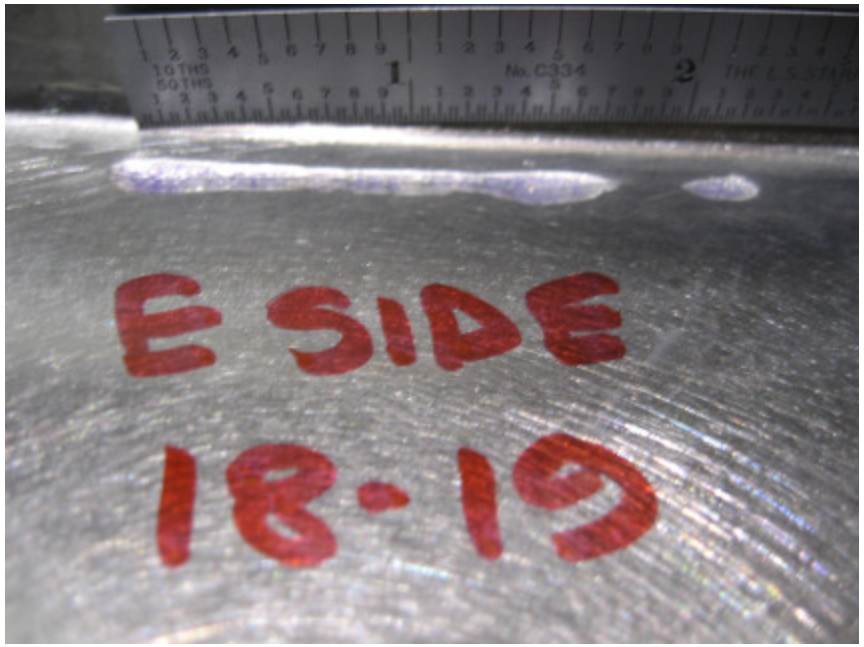
RLM

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: 2007.01.08 21:30:48 -05'00'

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

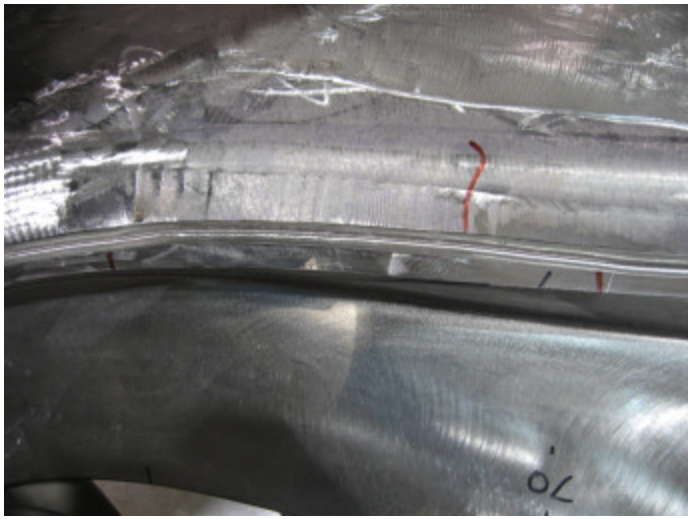
n:\mtmapps\Mtnonc14.qrp

Tool Gouges on E side Long Leg near radius



Tool Gouges on E side Long Leg near radius

NC20920 – B3 Visual Review

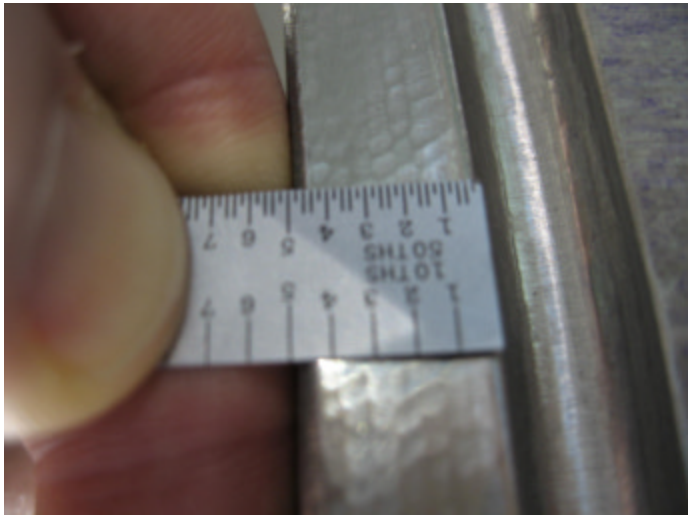


.400” distance from short leg to VPI groove (sheet 2, zone G7)

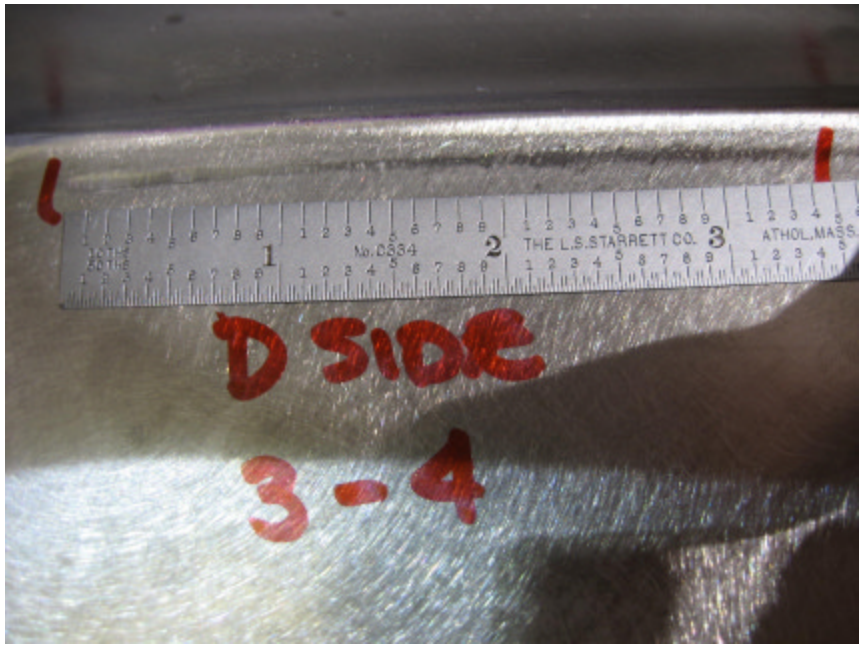
There is an area on the Datum D side from T hole 81 to 86 that checks as small as .300”. The transition has been blended smooth.

There is an area on the Datum D side from T hole 70 to 73 that checks as large as .506”.

(SEE NC20917 step 110)



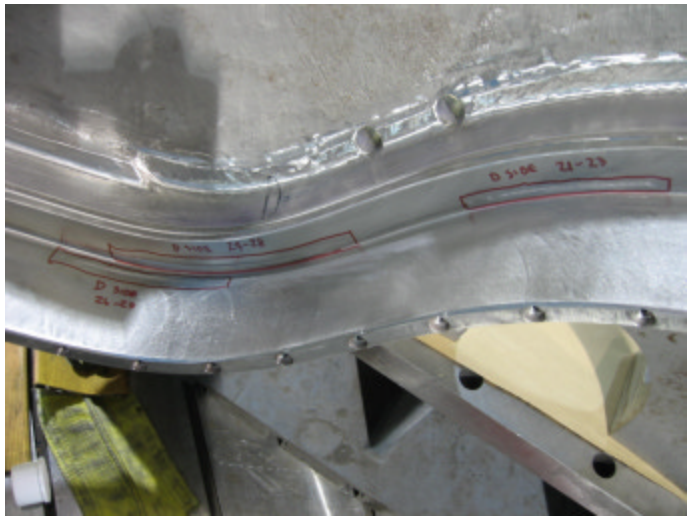
Tool Gouges on D side Long Leg near radius

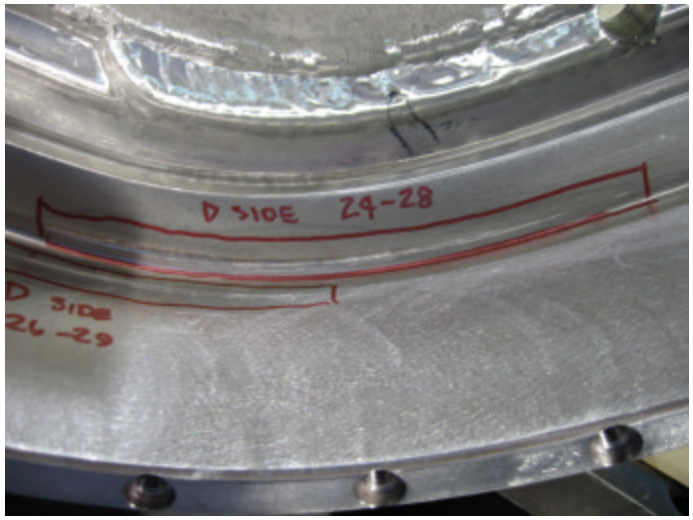


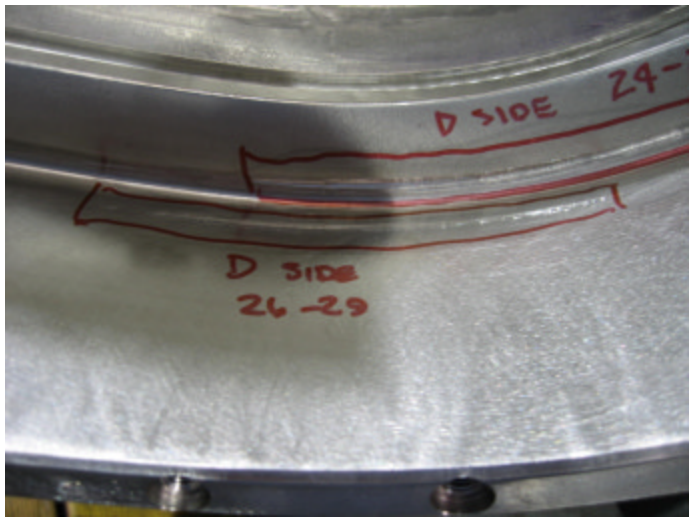
Tool Gouges on D side Long and Short Legs near radius

NC20920 – B3 Visual Review

Tool Gouges on D side Long and Short Legs near radius







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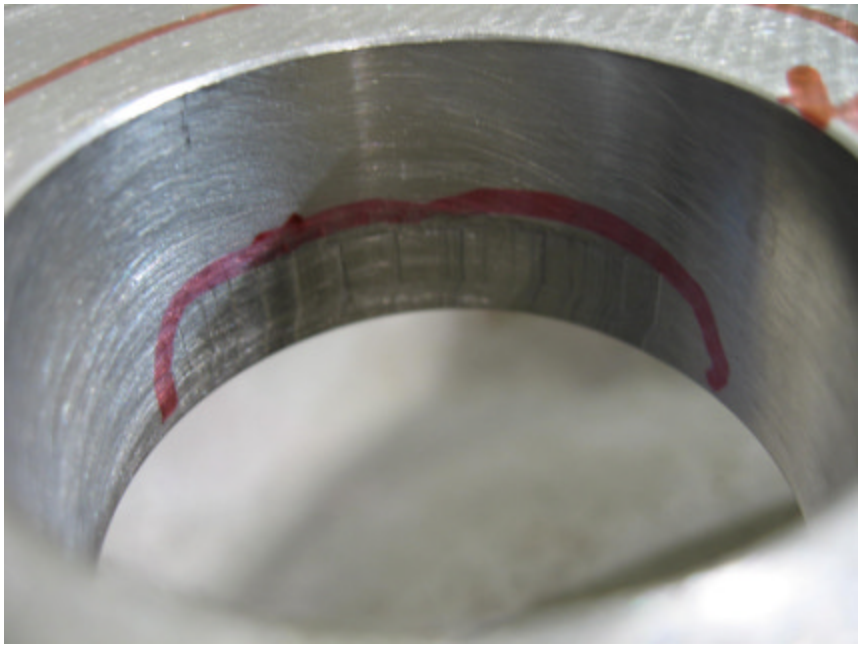


Oversize area in hole #27 in Datum E flange. (reported on NC20917 step 730)

Undercut areas adjacent to .12” radius of Long Leg

Datum E Side

E93 – E4 (.010” - .017”)

E53 – E55 (.010” - .011”)

Datum D Side

D42 – D45 (.010” - .024”)

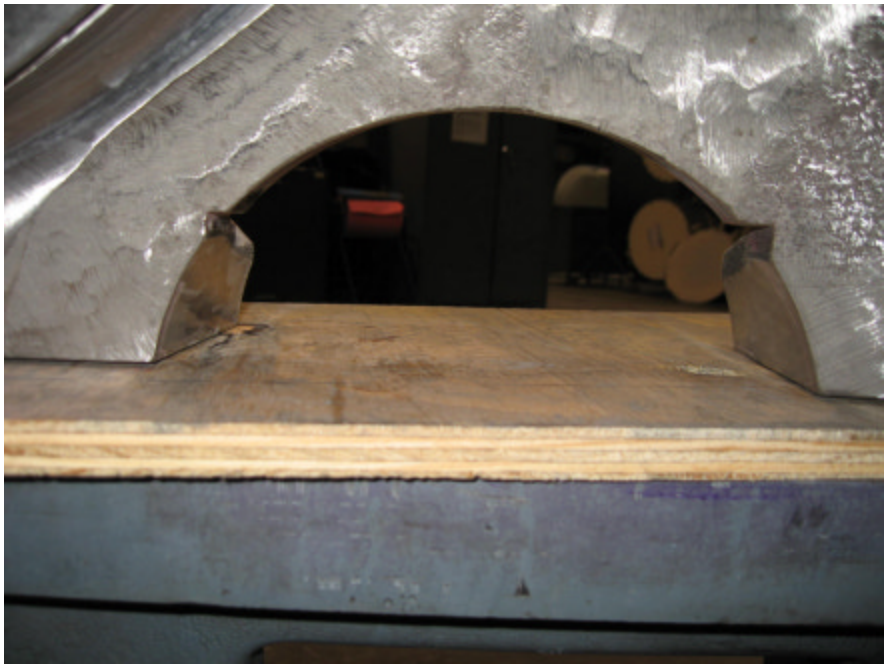
D58 – D60 (.010” - .011”)

D62 – D66 (.010” - .015”)’

D73 – D75 (.010” - .025”)

D84 – D88 (.010” - .022”)

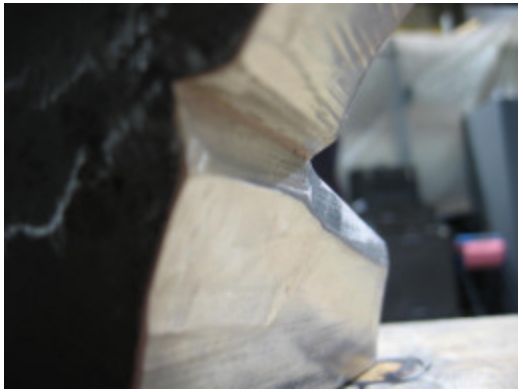
NC20920 – B3 Visual Review



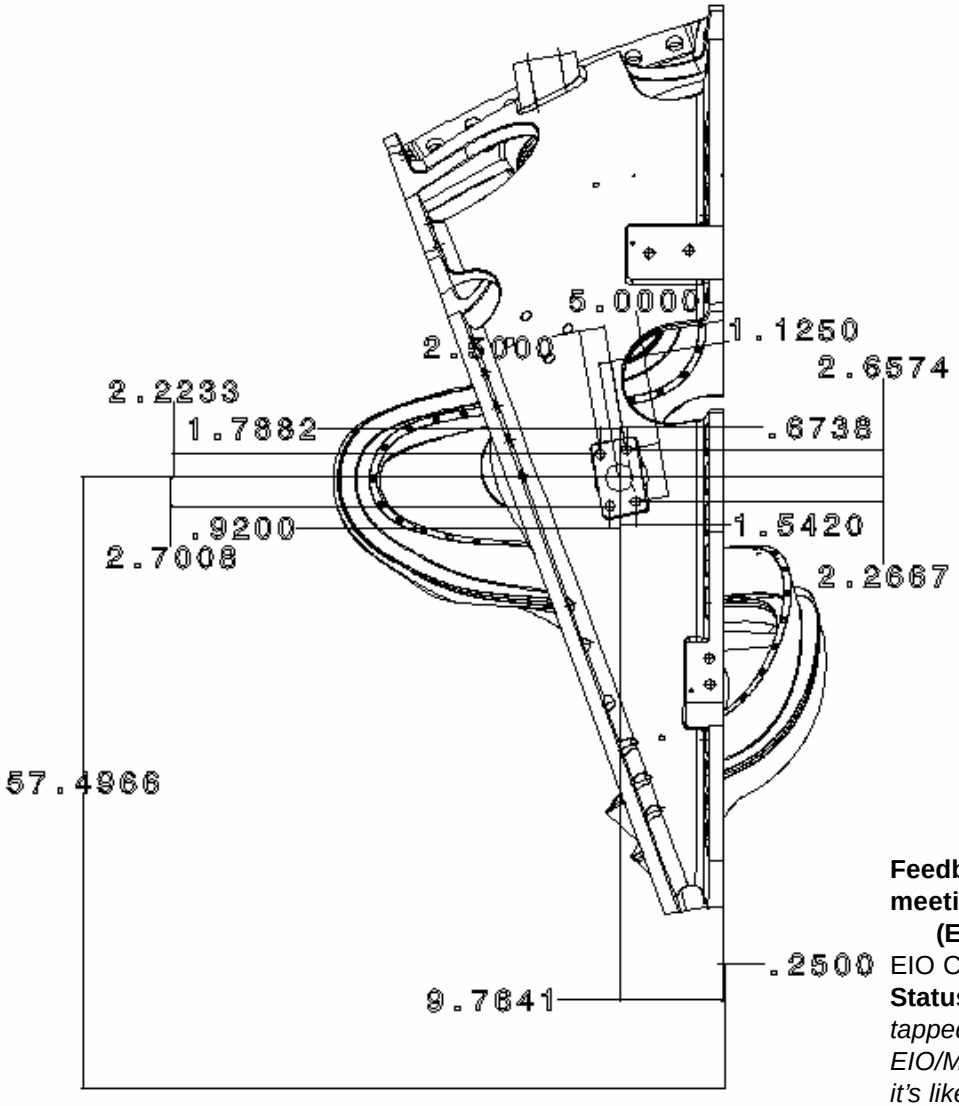
The picture to the left is of the port opening on the Datum D flange just beneath the Lead Block pad.

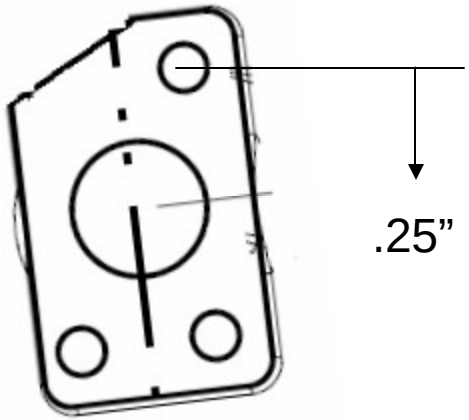
A programming error resulted in too much material being removed during the rough machining operation. An area on both sides of the port did not clean up.

One area measures approximately .25” x .25” and the other is .35” x .35”. Both cutter marks extend through the opening the thickness of the casting wall.



NC20920 – B3 Visual Review





From the orientation shown, the 1-8” hole pattern was shifted .25” down. This hole pattern, per the model, was not centered about the 2.5” hole prior to this shift.

Feedback on Vacuum Vessel support pads per request of weekly quality meeting.

(EIO, MTM) Provide documentation of completion of corrective action for EIO CA 090606(NCR) for B-3 & B-6 Vacuum Vessel support pads deviations. **Status: (Open)** *MTM confirms that the center hole position is fixed but the tapped hole pattern is being shifted as needed (applies to all Type B castings). EIO/MTM will provide proposed shifted locations prior to drilling. On B3 & B6 it’s likely that one hole cannot be drilled (corner missing). The CA will remain open until after B6 is completed.*