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

MTM N/C: 21792

Date: 05/08/07
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: **SE141-116 / MODULAR COIL WINDING FORM TYPE** — Customer P.O.: S005242-F/Ln:6
Drawing ID: SE141-103 — Revision: 3 — Serial No./Qty: C6
W/O Links: 1-Type:W: 65707/6.0 Sub: 0

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

Problem: See attachment for findings during visual review of casting.

Proposed Disposition:
MTM proposes to accept deviations as is based on previous acceptance of similar conditions.

Number of additional pages: 10 page attachment

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

These findings were reviewed by J. Chrzanowski. During the initial review, he requested that the overcast adjacent to the poloidal break be ground flush to the surface to eliminate a pocket to trap impurities which might compromise the electrical integrity of the joint so this would not have to be addressed at PPPL. This has been done, and is shown in the two slides inserted after pg. 9. All others were deemed to be minor and acceptable as shown.

Accepted by:

Phil Heitzenroeder
Digitally signed by Phil Heitzenroeder
DN: cn=Phil Heitzenroeder, c=US, o=PPPL, ou=Mech. Eng. Division
Date: 2007.05.20 21:08:14 -04'00'

Brad Nelson
Digitally signed by Brad Nelson
DN: cn=Brad Nelson, c=US, o=ORNL, ou=FED, email=nelsonbe@ornl.gov
Date: 2007.05.22 18:21:17 -04'00'

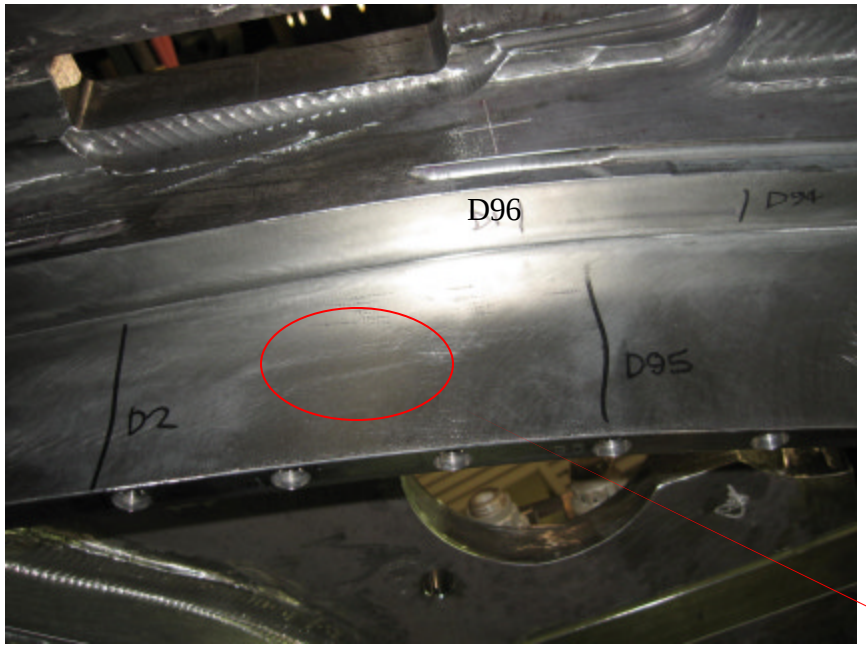
Tech. Rep. RLM

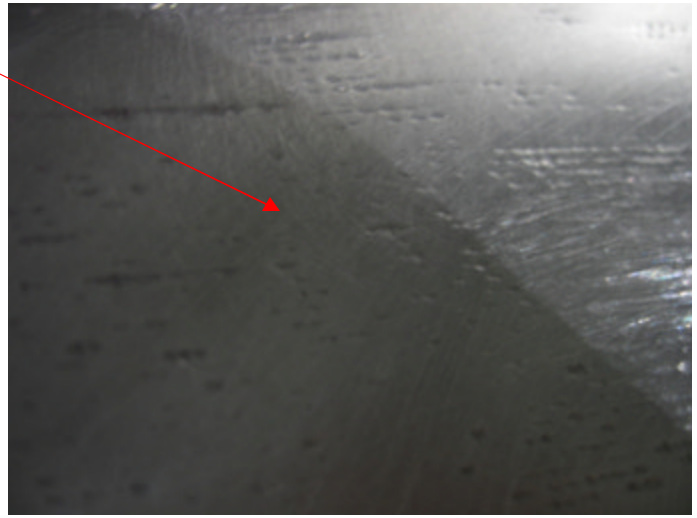
Major Tool Implemented By: _____ **Title:** _____ **Date:** _____

n:\mtmapps\Mtnonc14.qrp

Major Tool & Machine, Inc.

NC21792 – C6 Visual Review



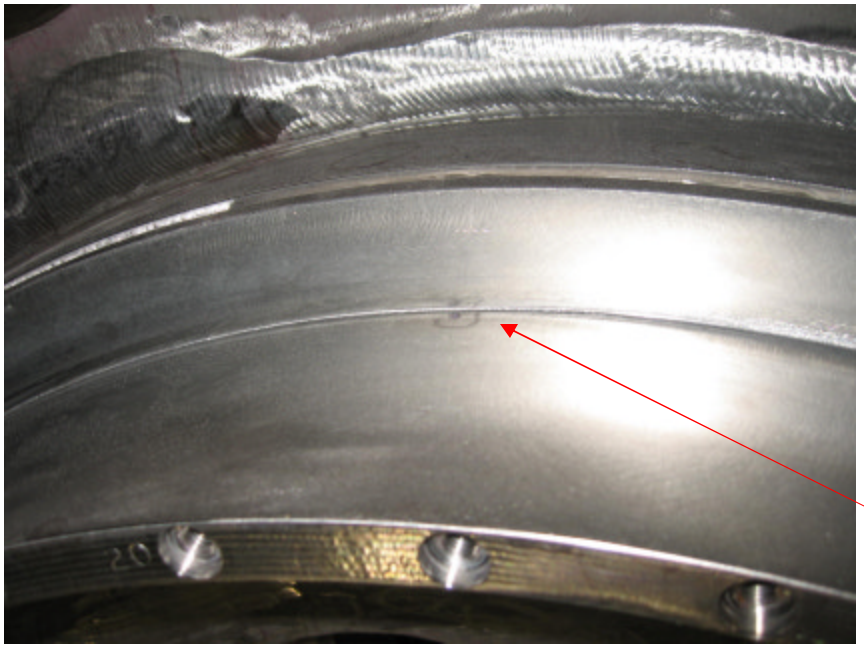


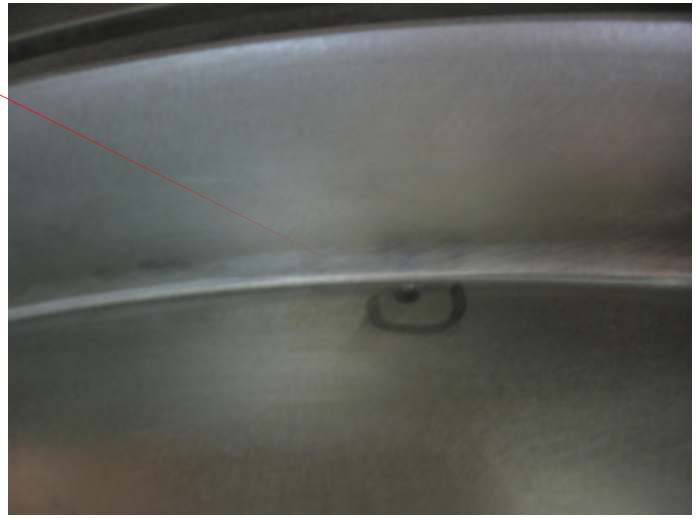
Datum D side

D2 – D95 has tool marks from ball nose machining that did not clean up a final polish (cross section of T was a .720”)

D94 – D96 has a tool gouge that did not clean up on short leg (less than .010” depth)

NC21792 – C6 Visual Review



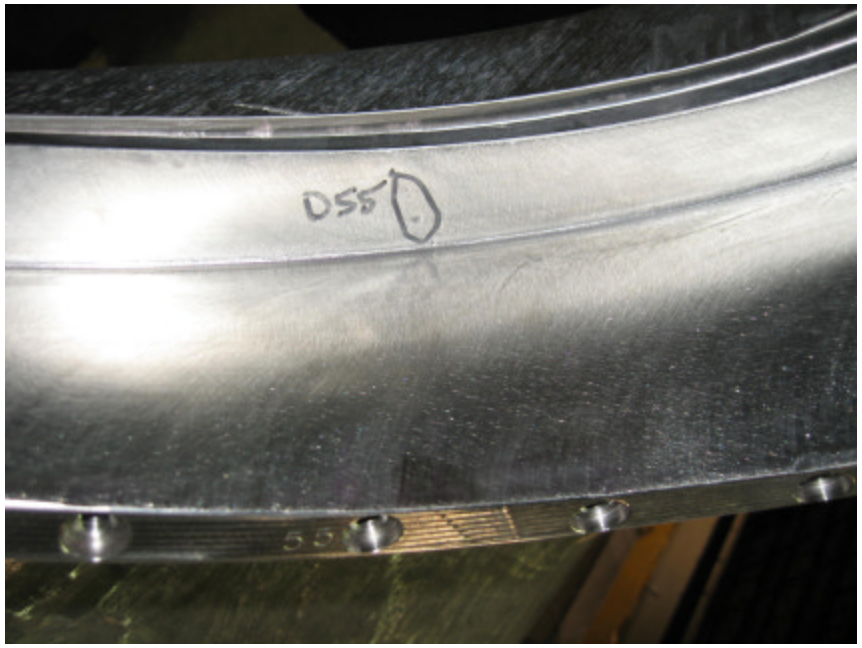


Tool gouge on D side of T near hole 19. Gouge is approximately Ø.125 x .03" deep.

NC21792 – C6 Visual Review

Tool marks on short leg of D side near hole 49. Round gouge is approximately .015" deep. The longer tool mark is less than .005" deep.

NC21792 – C6 Visual Review

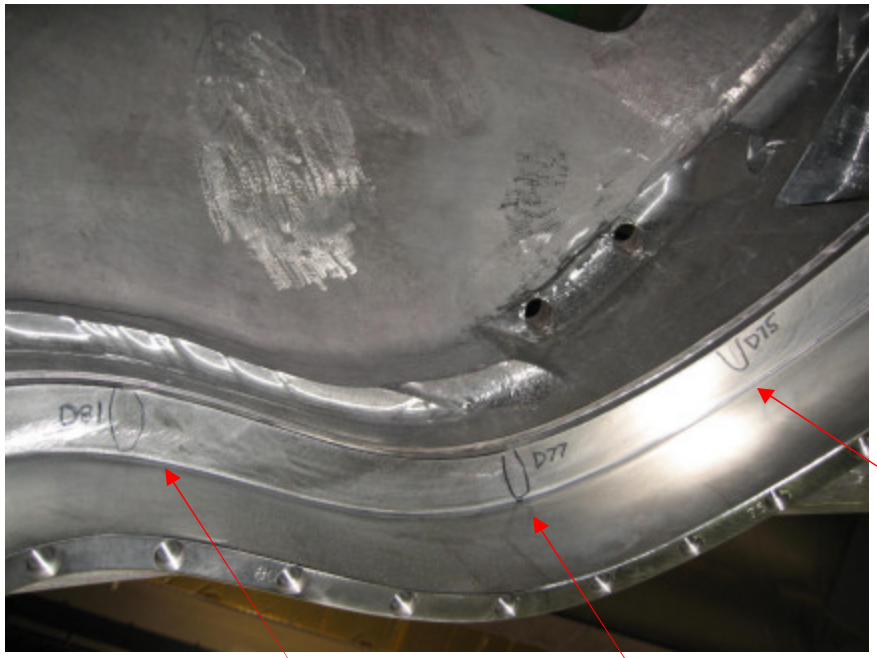


Tool marks on short leg of D side near hole 55. Tool marks are less than .005” deep.

NC21792 – C6 Visual Review

Tool marks on short leg of D side near hole 68. Tool marks are less than .005” deep.

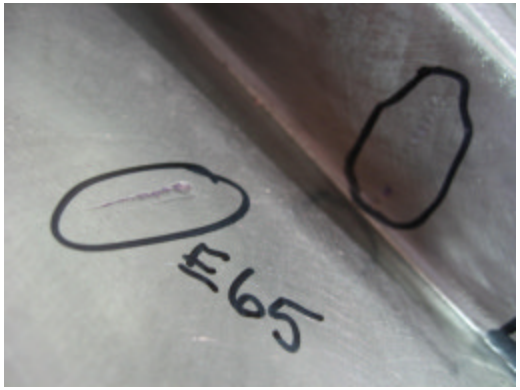
NC21792 – C6 Visual Review



Tool gouges along short leg of D side. All gouges are less than .005” in depth.

NC21792 – C6 Visual Review

Tool gouges on E side near T hole 45 and 65 approximately .005” - .010” deep.



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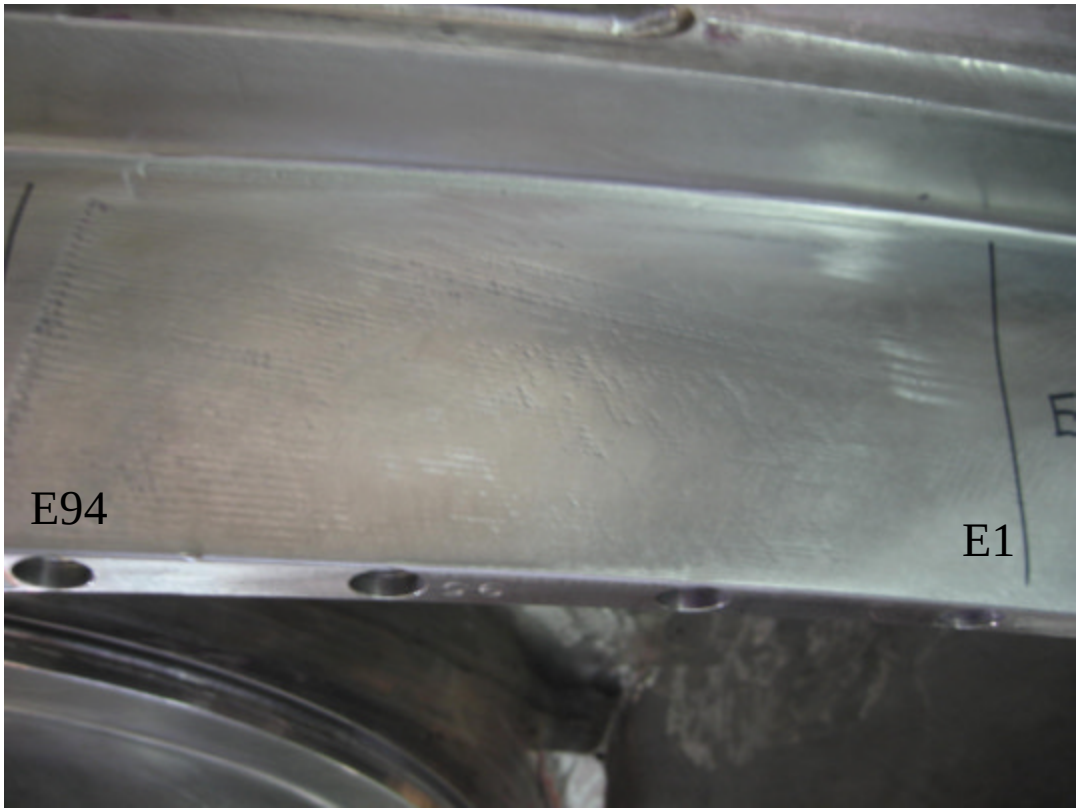
NC21792 – C6 Visual Review

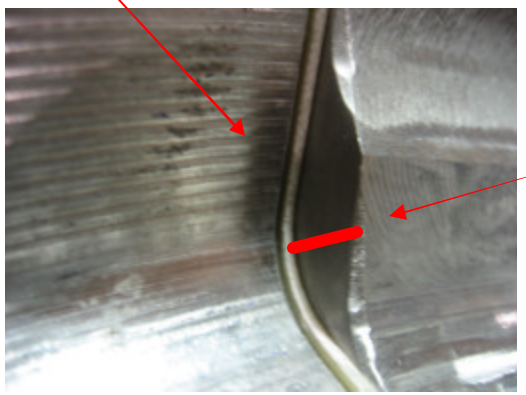


Tool marks from ball nose cutter did not clean up on E side between holes 94 and 1. This area is nearly opposite of the area described in slide 1. Tool marks are shallow (<.005”) but were not removed due to thickness concerns.

The mismatch across this area is .020” - .025”.

NC21792 – C6 Visual Review

Insulating shim is flush with the poloidal break around its periphery. The area of the casting where the cast wall intersects with the T section was not machined and therefore sticks out beyond the shim (4 places). The picture below shows the area with the maximum amount of stock. This is similar to previous C castings.



Measures approximately .450” diagonally.

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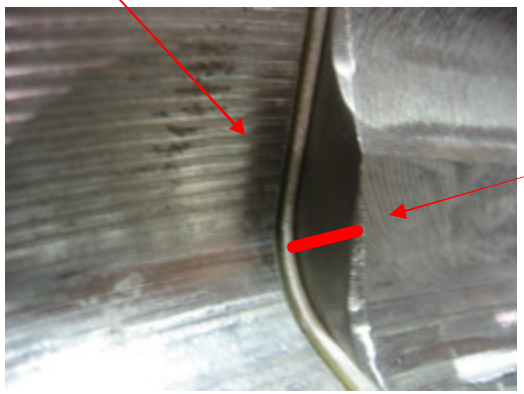
Follow up to NC21792 – C6 Visual Review Slide 9

Insulating shim is flush with the poloidal break around its periphery. The area of the casting where the cast wall intersects with the T section was not machined and therefore sticks out beyond the shim (4 places). The picture below shows the area with the maximum amount of stock. This is similar to previous C castings.



Measures approximately .450” diagonally.

Mike Griffith
05/18/2007

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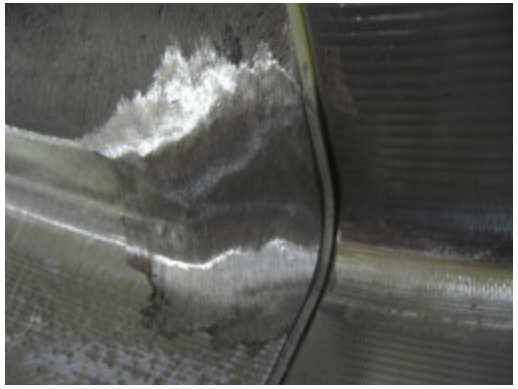
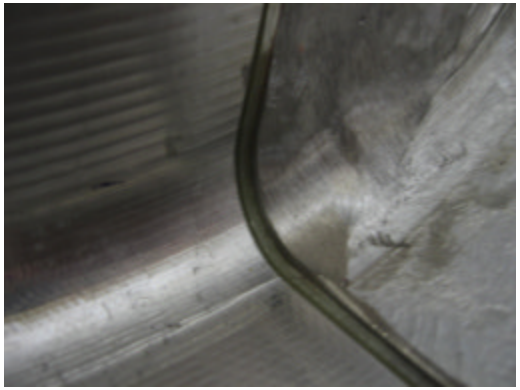
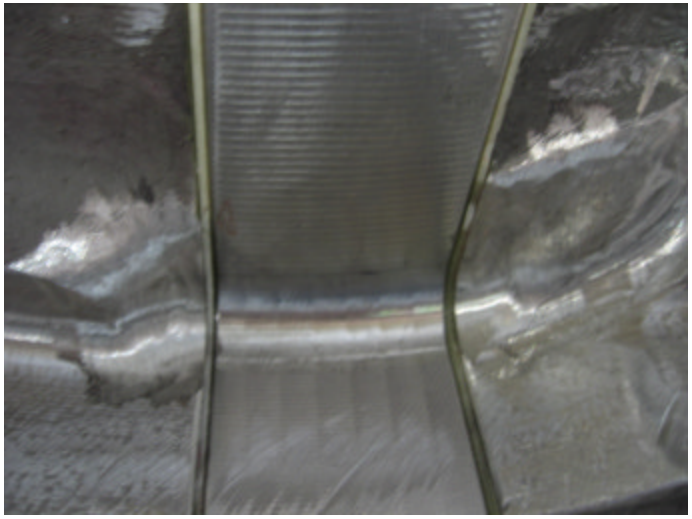
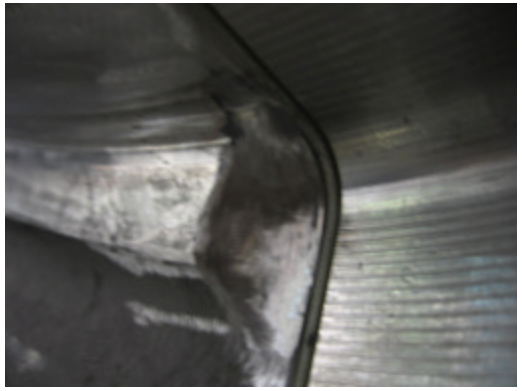
Follow up to NC21792 – C6 Visual Review Slide 9

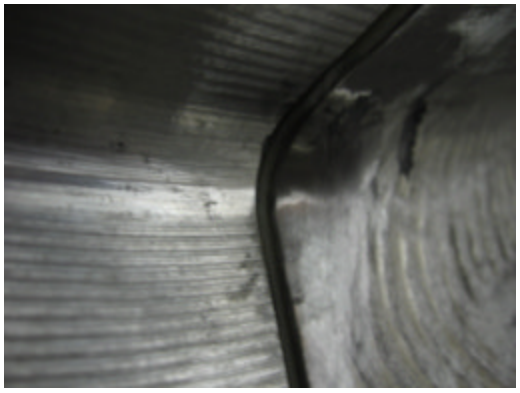


Cast radius at Poloidal Break has been ground to approx. a 45° angle flush to the surface of the break shim.









Mike Griffith
05/18/2007

Mapping of Undercuts

D Side

An area on the long leg near radius between holes 84 -87 checks from .010” - .013”

E Side

An area on the long leg near radius between holes 84 -87 checks from .010” - .012”