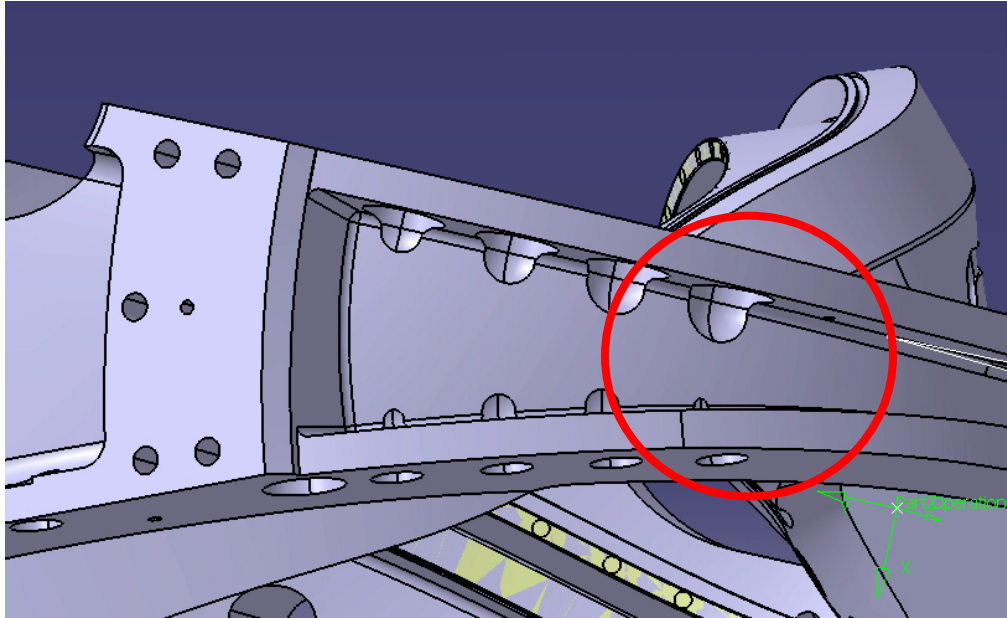


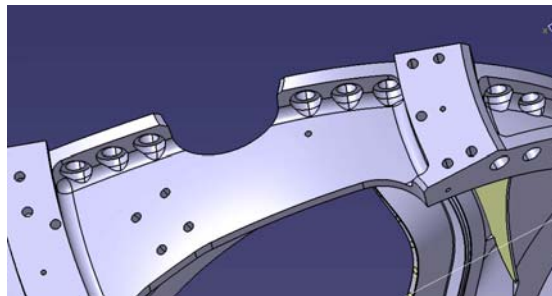
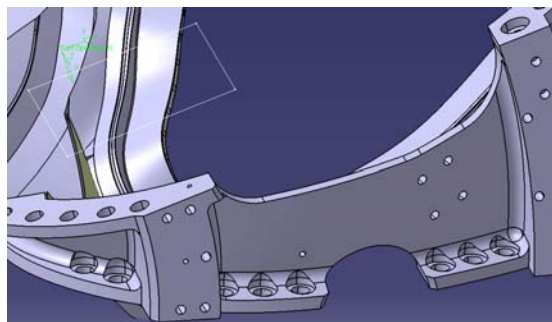
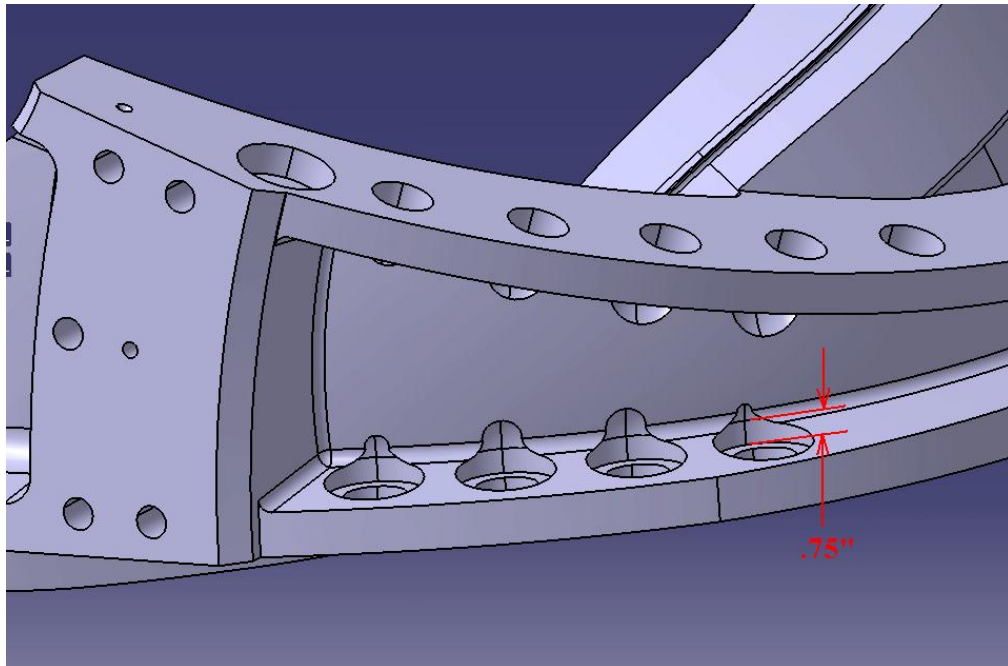
<i>NCSX RFD</i> <i>Part I</i>	Number: 14-018	RFD Description: Type A MCWF Flange Hole Modifications
Initiator: Mike Griffith		Organization: Major Tool
List of Impacted Documents: (<i>Specification, MIT/QA Plan, SOW, drawing, etc.</i>): SE141-114		
Cost Impact: (<i>If none, so state</i>): NONE		
Schedule Impact: (<i>If none, so state</i>): NONE		
Quality Impact: (<i>If none, so state</i>): NONE		
State Requirement Deviation is Requested For: (<i>Specification, MIT/QA Plan, SOW, drawing, etc.</i>): SE141-114		
<p>Full Description of the Deviation Requested: (<i>Use continuation pages, e-mails, letter, sketches, etc. as needed and include amplifying information as appropriate to support deviation request.</i>):</p> <p>Major Tool noted casting interference at the bolt locations shown in the attached figures for the Type A1 casting. For the A1 casting details shown on SE141-114, the two holes will be changed from clearance holes to tapped holes as shown n Attachment (1) in which MTM describes the areas of interference. This casting interference is similar to what was noted on the Type C winding forms, but more severe in these areas. PPPL letter (L. Sutton to N. Horton) dated April 20, 2006, authorized this change for the A1 casting as shown in Attachment (2).</p> <p>In response to this, NCSX reviewed remaining flange holes all the Type A castings and developed the concept shown on Attachment (3) in which a number of the clearance holes have been changed to tapped holes. All Type A MCWFs shall be manufactured per this.</p>		
<p>Attachments:</p> <ul style="list-style-type: none"> (1) Pictures showing interference details. (2) Annotated SE141-114 all the proposed changes to the Type A1 MCWF. (3) Proposed changes to all Type A MCWFs 		
Initiator Signature: <u>Mike Griffith/Phil Heitzenroeder</u>		

Attachment (1)
Type A MCWF Interferences



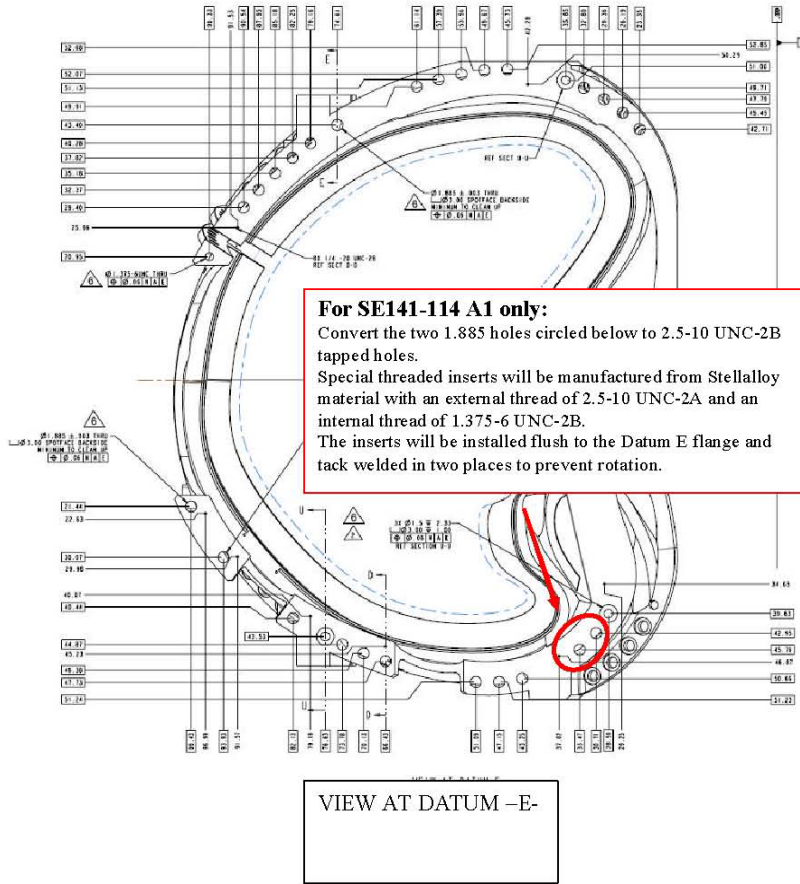
Relief area cut into cast wall

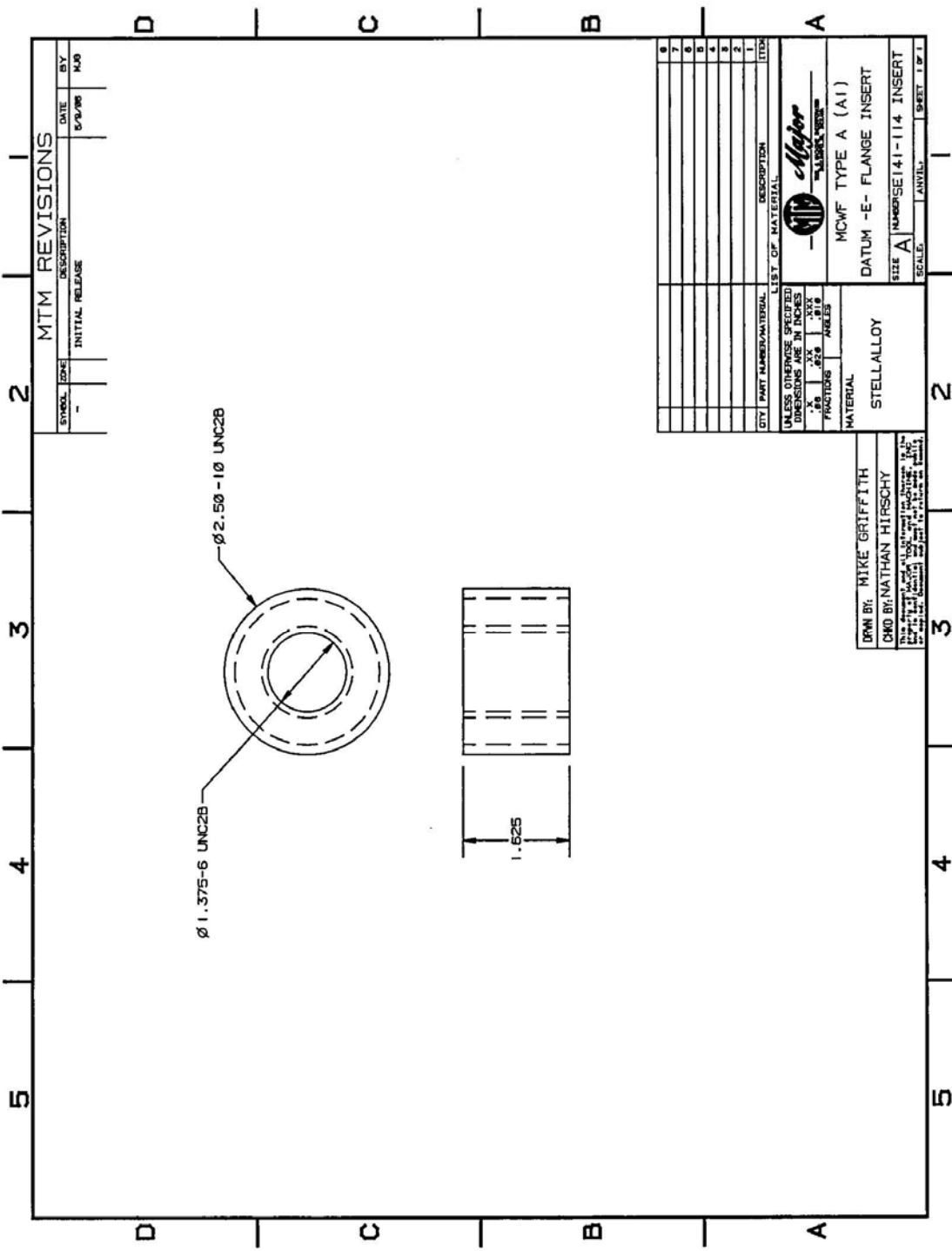
The pictures below illustrate how much casting wall interference there will be on the type A casting. The current machining models for all three winding forms have this interference problem to some degree. The models have a 3" counterbore that extends .75" from the face and the remainder of the feature is a 1.5" radius (see below). This is why Major Tool had to perform the grinding around the counterbores on C4 in order to get the 3" diameter gage to fit.



Attachment (2)
Proposed Resolution to Type A MCWFs

SE141-114 MCWF TYPE-A1
Proposed change to 1.885 thru holes





MTM REVISIONS

SYMBOL	ZONE	DESCRIPTION	DATE	BY
-		INITIAL RELEASE	5/9/98	MJD

QTY	PART NUMBER	MATERIAL	DESCRIPTION	UNIT
1		STELLALLOY	MCMF TYPE A (A1)	1
2			DATUM -E- FLANGE INSERT	2
3			SIZE A	3
4			SCALE	4
5			ANVIL	5
6			SET	6
7				7
8				8
9				9
10				10

DRW BY: MIKE GRIFFITH
 CMO BY: NATHAN HIRSCHY
FOR ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FRACTIONS ARE IN 16THS UNLESS OTHERWISE SPECIFIED.



MCMF TYPE A (A1)

DATUM -E- FLANGE INSERT

SIZE A

SCALE

ANVIL

SET

MATERIAL
STELLALLOY

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

FRACTIONS ARE IN 16THS UNLESS OTHERWISE SPECIFIED

LIST OF MATERIAL

DESCRIPTION

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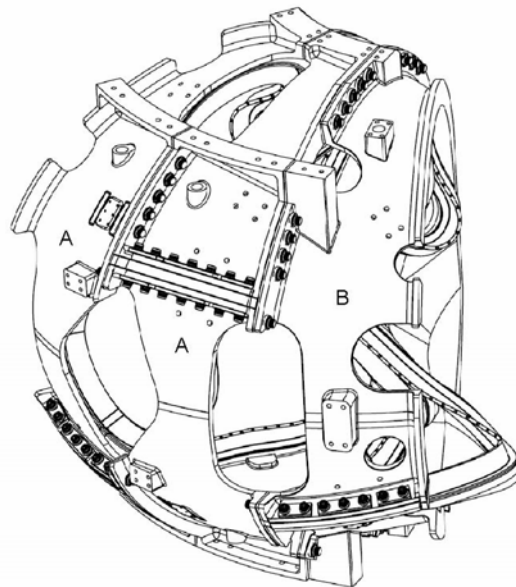
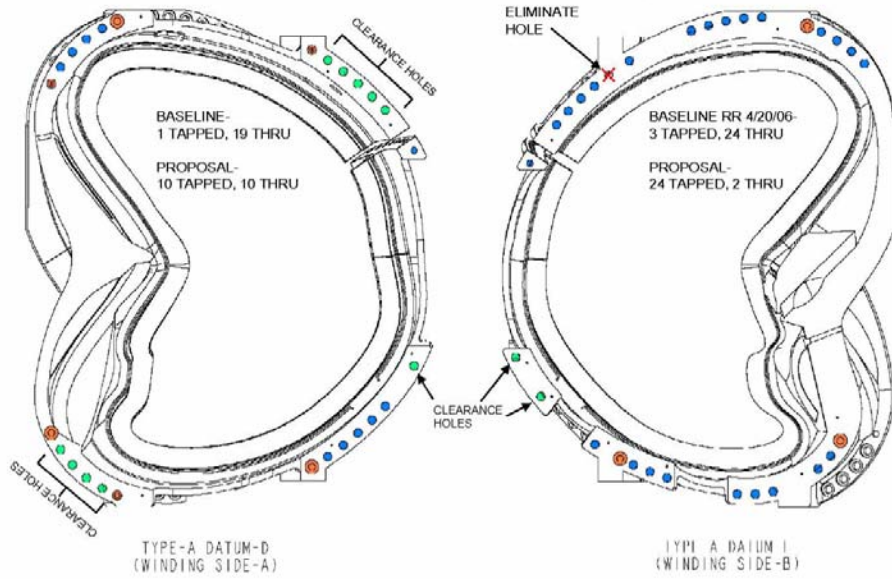
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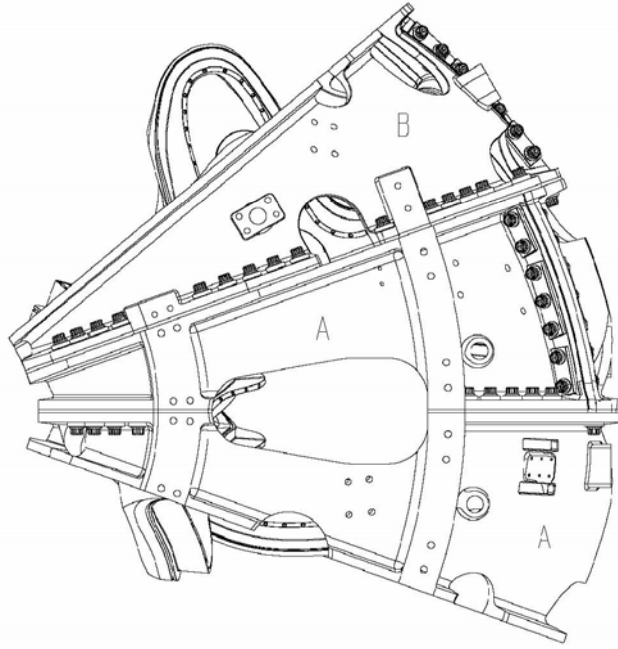
DESCRIPTION

Attachment (3)
Definition of Holes to be Modified for ALL Type A MCWFs
(Reference: D.Williamson e-mail of May 4, 2006)

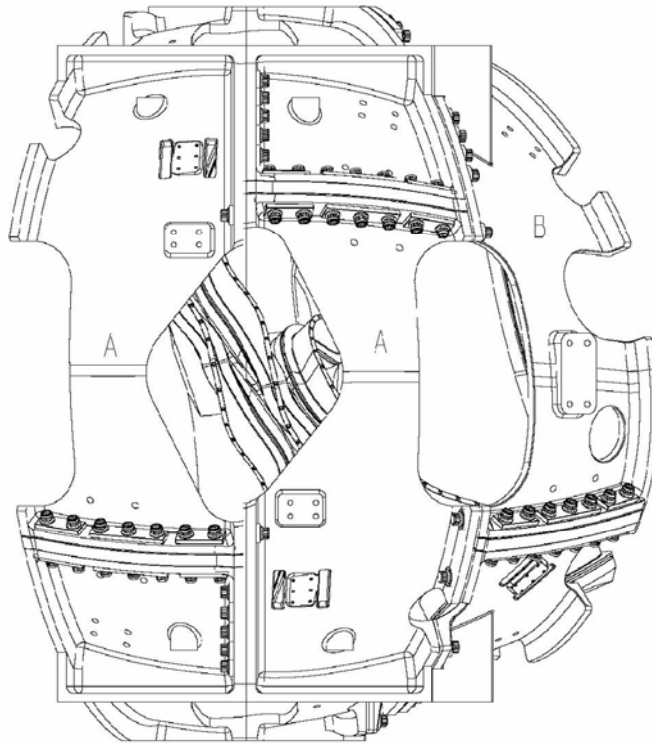
RESPONSE TO M. GRIFFITH / MTM PROPOSAL TO CONVERT THRU HOLES TO TAPPED TO MINIMIZE CUTTER INTERFERENCE WITH HEAVY STOCKED CASTING WALL

- ALIGNMENT FEATURE
- $\varnothing 1.375-6 \text{ UNC-2B THRU}$
- $\varnothing 1.885 \pm .003 \text{ THRU}$, $\perp \varnothing 3.0 \text{ BACKSIDE X MIN DEPTH}$





|



<i>NCSX RFD</i> <i>Part III</i>	Number: 14-018	RFD Description: Type A MCWF Flange Hole Modifications
RLM: Brad Nelson		Organization: ORNL
Impact on Interfaces with Other WBS Elements/Items: (If none, so state): NONE		
<p>RLM Recommendation:</p> <p><input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve</p> <p>Additional remarks:</p> <p>This RFD also includes a modification by the NCSX Project for all the Type A MCWF flange holes. <i>The minimum stud clearance required behind the tapped holes shall not be less than 1/4" to ensure full thread engagement.</i></p> <p>These modifications will be incorporated in a future revision to this drawing. In the interim that "stamp" process will be used to annotate SE141-114.</p> <p>Does this Change Impact Material Already Procured or Parts/Assemblies Already Assembled/Manufactured using this Material: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "Yes", what is the recommended disposition of this material/part/assembly? A1 Casting will be accepted "as is" with the exception of the two holes shown.</p>		
RLM Signature: _____		
<p>Project Disposition:</p> <p><input checked="" type="checkbox"/> Approved. No ECP required.</p> <p style="text-align: center;"> _____ NCSX Systems Engineering Support Manager </p> <p><input type="checkbox"/> Approved. ECP will be assigned and processed.</p> <p><input type="checkbox"/> Not Approved. Reason(s) for disapproval:</p>		

