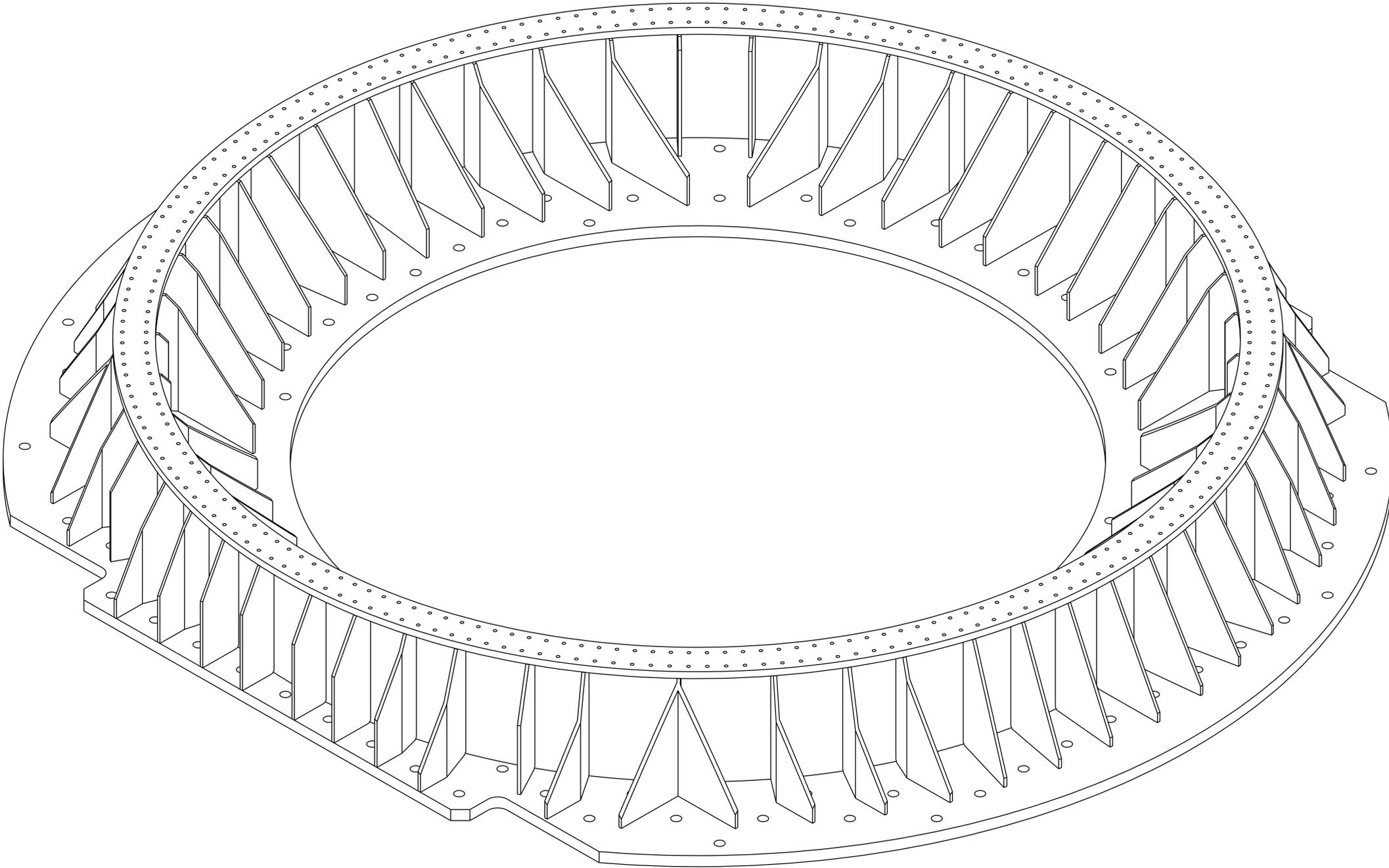


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REVISIONS			
NO.	DESCRIPTION	DATE	APPROVAL



ISOMETRIC VIEW  
FOR REFERENCE ONLY

- UNLESS OTHERWISE SPECIFIED:
- REMOVE ALL BURRS AND BREAK ALL SHARP EDGES.
  - 250/500 ALL MACHINED SURFACES.  
ALL EDGES OF CUT PLATES AND ENDS OF AISC SHAPES.
  - DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5-1994.
  - STENCIL PART NUMBER IN THE APPROXIMATE LOCATION SHOWN USING A CONTRASTING COLOR AND 2" TALL LETTERS.
  - STEEL WELDING DESIGN, PROCEDURES, AND NON-DESTRUCTIVE EVALUATION SHALL BE PER ANS/ASME B31.1/D1.1, "STRUCTURAL WELDING CODE-STEEL", AND CURRENT AS OF THE RELEASE DATE OF THIS DRAWING. UTILIZE WELDING PRACTICES AND TECHNIQUES TO MINIMIZE DISTORTION. UNLESS OTHERWISE SPECIFIED, WELDS SHALL BE 100% VISUALLY INSPECTED.
  - PAINT ALL EXPOSED SURFACES USING EITHER OF THE FOLLOWING TWO FINISHES:  
1) MIL-STD-171F, PREPARE SURFACES PER 4.1 OR 4.4 AS NECESSARY; FINISH PER 5.2 AND 24.17.  
2) PREPARE SURFACES, ABRASIVE CLEANING WHERE NECESSARY, THEN POLYURETHANE PRIME AND TOP COAT USING SHERWIN WILLIAMS POLANE F63 (OR AN EQUIVALENT PRODUCT).  
FINISH COLOR BLUE NO. 15182 OR SIMILAR SHADE PER FED-STD-595C.  
DO NOT PAINT MACHINED OR OTHER INDICATED SURFACES. DO NOT PAINT HOLES OR THREADS. AREAS DAMAGED DURING ASSEMBLY OR INSTALLATION SHALL BE TOUCHED UP AFTER DELIVERY USING BRUSH OR ROLLER ONLY. PROTECT UNPAINTED SURFACES WITH TRI-FLOW OR A SIMILAR PRODUCT DESIGNED TO PREVENT CORROSION.
  - AFTER WELDING AND PRIOR TO FINAL MACHINING, STRESS RELIEVE PER AWS D1.1, "STRUCTURAL WELDING CODE, STEEL", AND CURRENT AS OF THE RELEASE DATE OF THIS DRAWING.
  - SPOTFACE / COUNTERBORE FAR SIDE OF INDICATED HOLES AS REQ'D TO ENSURE THICKNESS OF 2.50 +.03/-.00 FOR A DEFINED FASTENER GRIP LENGTH. DIAMETER TO BE Ø3.188 +/- .030.
  - AT THREE LOCATIONS (WITHIN 0.5" FROM THE BOTTOM & TOP EDGES AND +/- 0.5" OFF THE CENTER PLANE) ALONG THE HEIGHT (41") OF THE WEB INNER DIAMETER, TAKE AT LEAST 4 DIAMETRICAL MEASUREMENTS TO DETERMINE THE AVERAGE DIAMETER AT EACH LOCATION. THE FIRST DIAMETRICAL MEASUREMENT WILL ESTABLISH THE ZERO REFERENCE FOR THE 3 SUBSEQUENT MEASUREMENTS WHICH IN TURN WILL BE TAKEN AT POINTS 45° ABOUT THE CENTER AXIS FROM EACH PREVIOUS MEASUREMENT. THE AVERAGE DIAMETER AT EACH OF THE THREE LOCATIONS MUST FALL WITHIN THE SPECIFIED LIMITS OF 329.625" TO 329.125". ADDITIONALLY, ALL MEASUREMENTS TAKEN AT ALL LOCATIONS MUST FALL WITHIN 329.875" TO 328.875" (ROUND WITHIN 1.0).

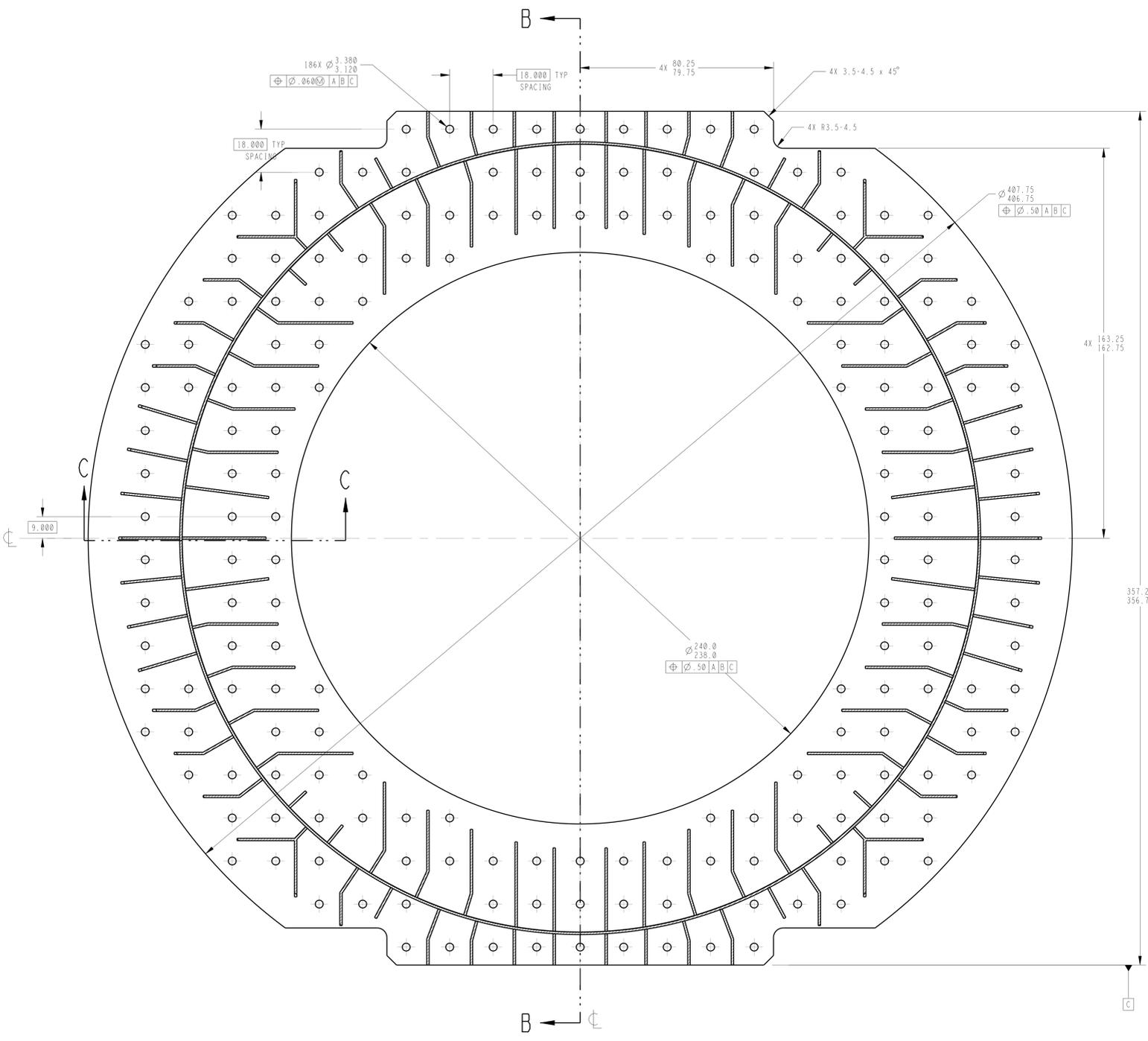
- PRELIMINARY -  
THIS DRAWING HAS NOT COMPLETED THE  
REVIEW PROCESS AND IS SUBJECT TO CHANGE.  
07-16-14  
DATE

FIND NO.	CALLOUT	DETAIL	TOT	REQ'D	PART NO.	DESCRIPTION	VENO	REMARKS
4	2	AR	P	90M14378-4	PLATE, 4.0" STOCK	ASTM A572, GRADE 50	LOWER FLANGE	
3	2	AR	P	90M14378-3	PLATE, SHEET THICKNESS AS DEEMED NECESSARY BY FABRICATOR	ASTM A572, GRADE 50	UPPER FLANGE	
2	2	AR	P	90M14378-2	PLATE, 1.0" STOCK	ASTM A572, GRADE 50	GUSSETS AND WEB	
1	2	-	A	90M14378-1	WELDMENT, REACTION RING, LOWER, SLS INTERTANK TEST			

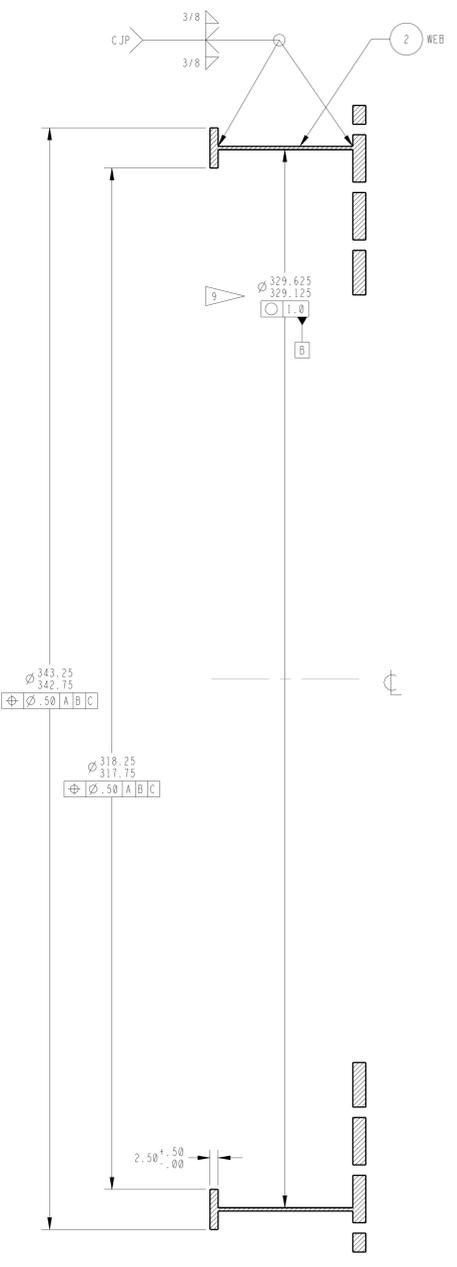
STRESS	DATE	PREPARED BY	DATE	UNLESS OTHERWISE SPECIFIED	DECIMALS	SPECIAL TEST EQUIPMENT
MATERIALS	DATE	TEST ENGINEER REQUESTED	DATE	TOLERANCES ARE:	DECIMALS	DESIGN BRANCH - E150
MANUFACTURING	DATE	CONSTRUCTION REVIEW LEAD	DATE	FRACTIONS	DECIMALS	GEORGE C. MARSHALL
SHEET AND WELDING REQUIREMENTS	DATE	CIVIL SERVICE LEAD	DATE	± 1/16 ± 1/8 ± 1/4	.XX ± .06 XXX ± .03 XXX ± .010 < ± .50"	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
DESIGN TEST CONDUCTOR	DATE	CONDUCTOR	DATE	IDIMENSIONS ARE IN INCHES, DO NOT SCALE DRAWING!		HERSCHEL, ALABAMA
PRELIMINARY CERTIFICATION NUMBER	DATE	CIVIL SERVICE LEAD	DATE	DRAWN BY	CJ NONA	90M14378
				DATE	07-16-14	1

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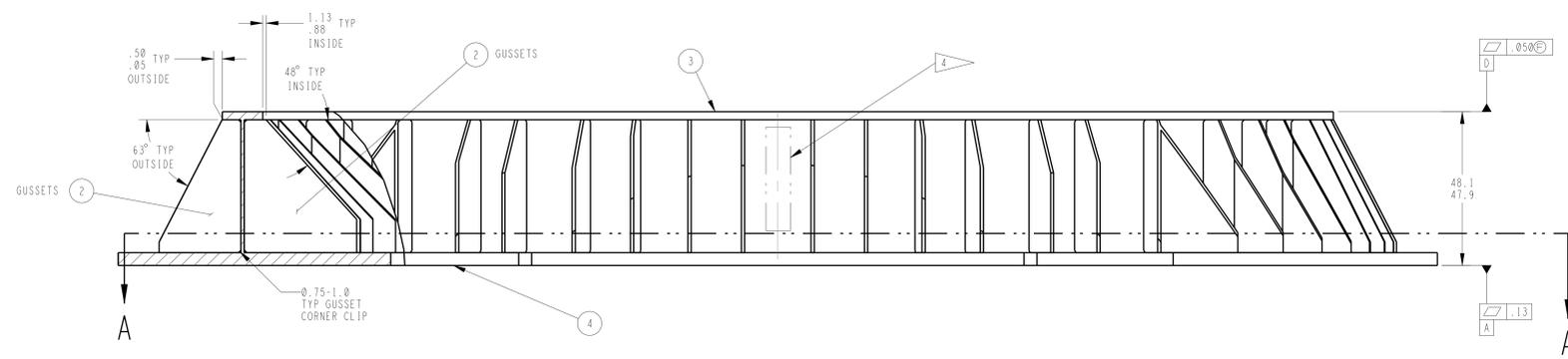
REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL



SECTION A-A



SECTION B-B



ASSEMBLY 1  
SECTION C-C  
SCALE: 1/20  
WEIGHT: 131,000 LBS

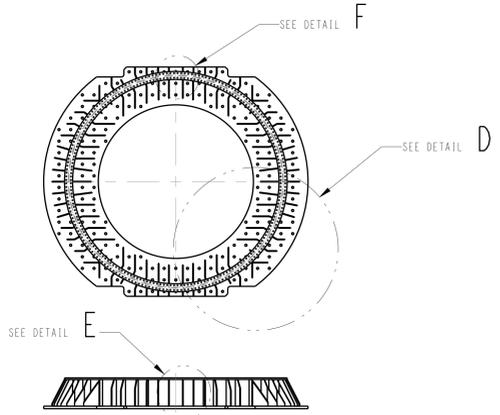
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07-16-14  
DATE

WELDMENT, REACTION RING, LOWER, SLS INTERTANK TEST		SPECIAL TEST EQUIPMENT DESIGN BRANCH - ET50 GEORGE C. MARSHALL SPACE FLIGHT CENTER NATIONAL AERONAUTICS AND SPACE ADMINISTRATION Huntsville, Alabama
90M14378		REVISION SEE SHEET 1
DATE	07-16-14	2

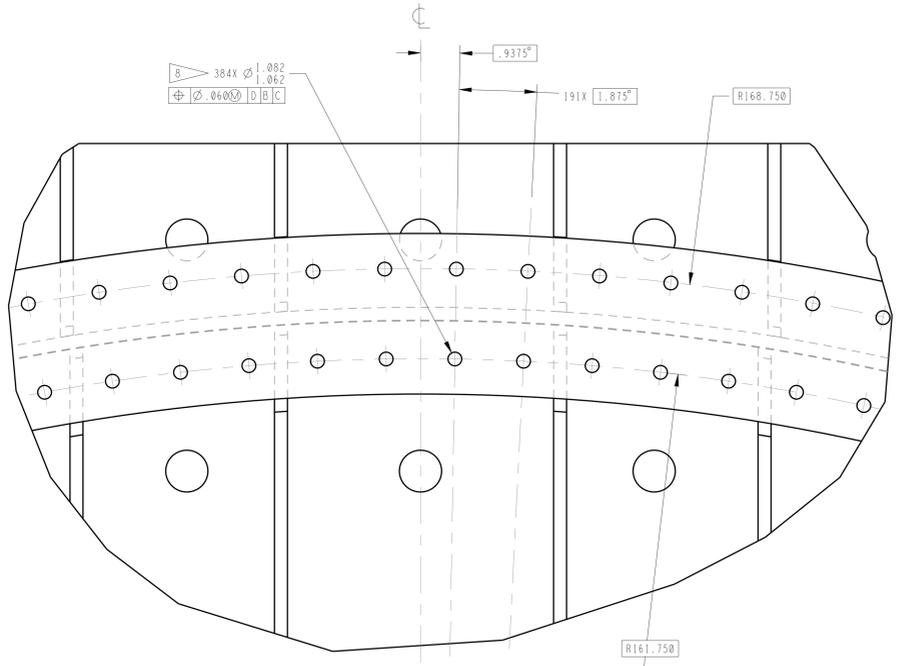
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REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL

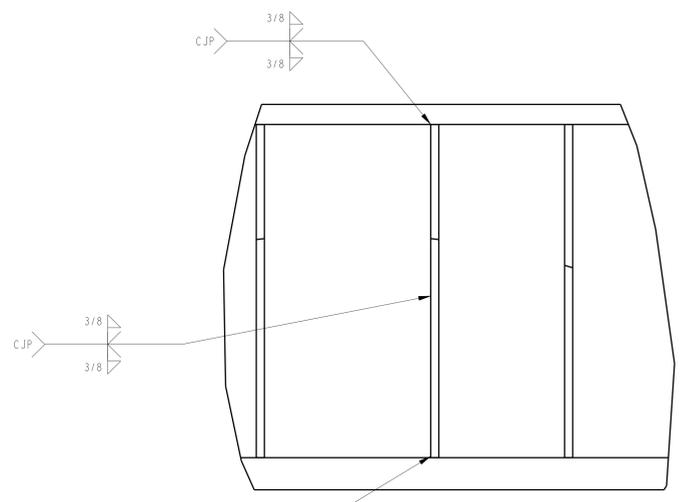
NOTE: ALL DIMENSIONED GUSSETS TO BE MIRRORED ABOUT Y-axis AND X-axis, AS SHOWN. GUSSETS TO BE POSITIONED BETWEEN CORRESPONDING  $\varnothing 1.072$  HOLES WITHIN  $3/8"$ .



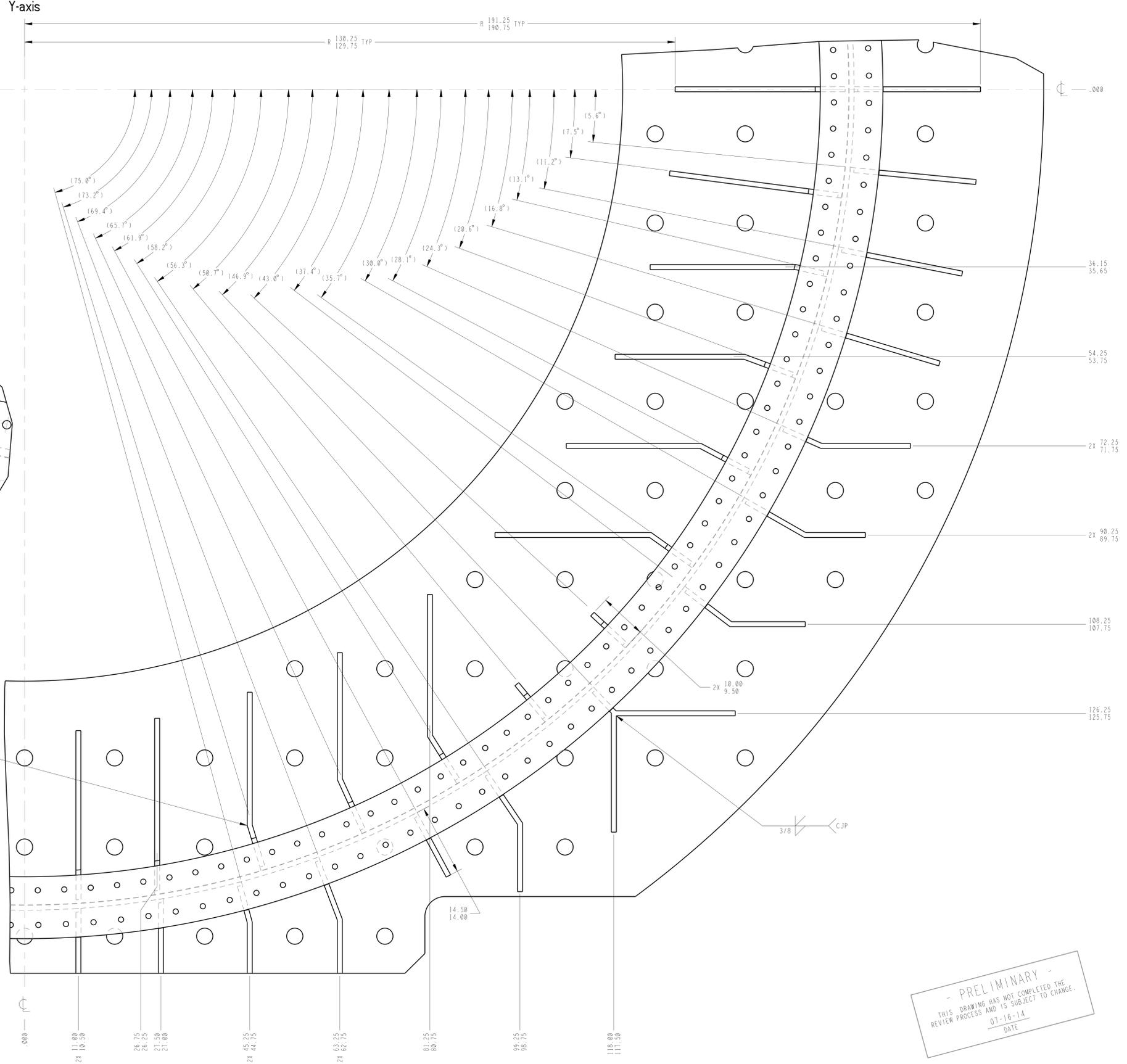
ASSEMBLY 1 REF  
SCALE 1/100



DETAIL F  
SCALE 1/5



DETAIL E  
TYPICAL FOR ALL GUSSET-TO-WEB WELDS  
BOTH INNER AND OUTER (104X)  
SCALE 1/8



DETAIL D - 4X  
SCALE 1/8

- PRELIMINARY -  
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WELDMENT, REACTION RING, LOWER, SLS INTERTANK TEST		SPECIAL TEST EQUIPMENT DESIGN BRANCH - E150 GEORGE C. MARSHALL SPACE FLIGHT CENTER NATIONAL AERONAUTICS AND SPACE ADMINISTRATION Huntsville, Alabama	
90M14378		REVISION SEE SHEET	3

APPROVED FOR FROBENIUS BASE ASSEMBLY FROM ION UNLIMITED