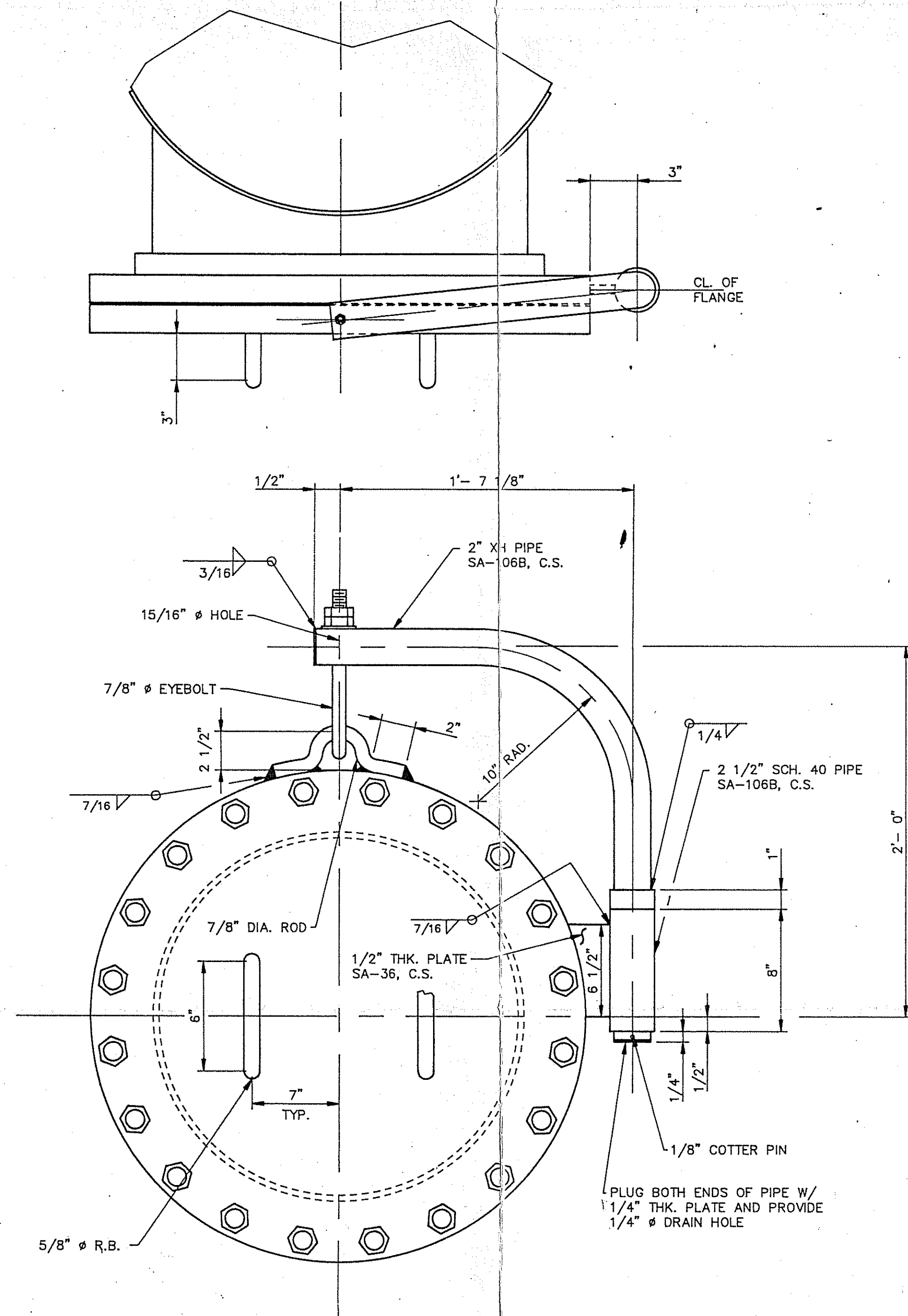
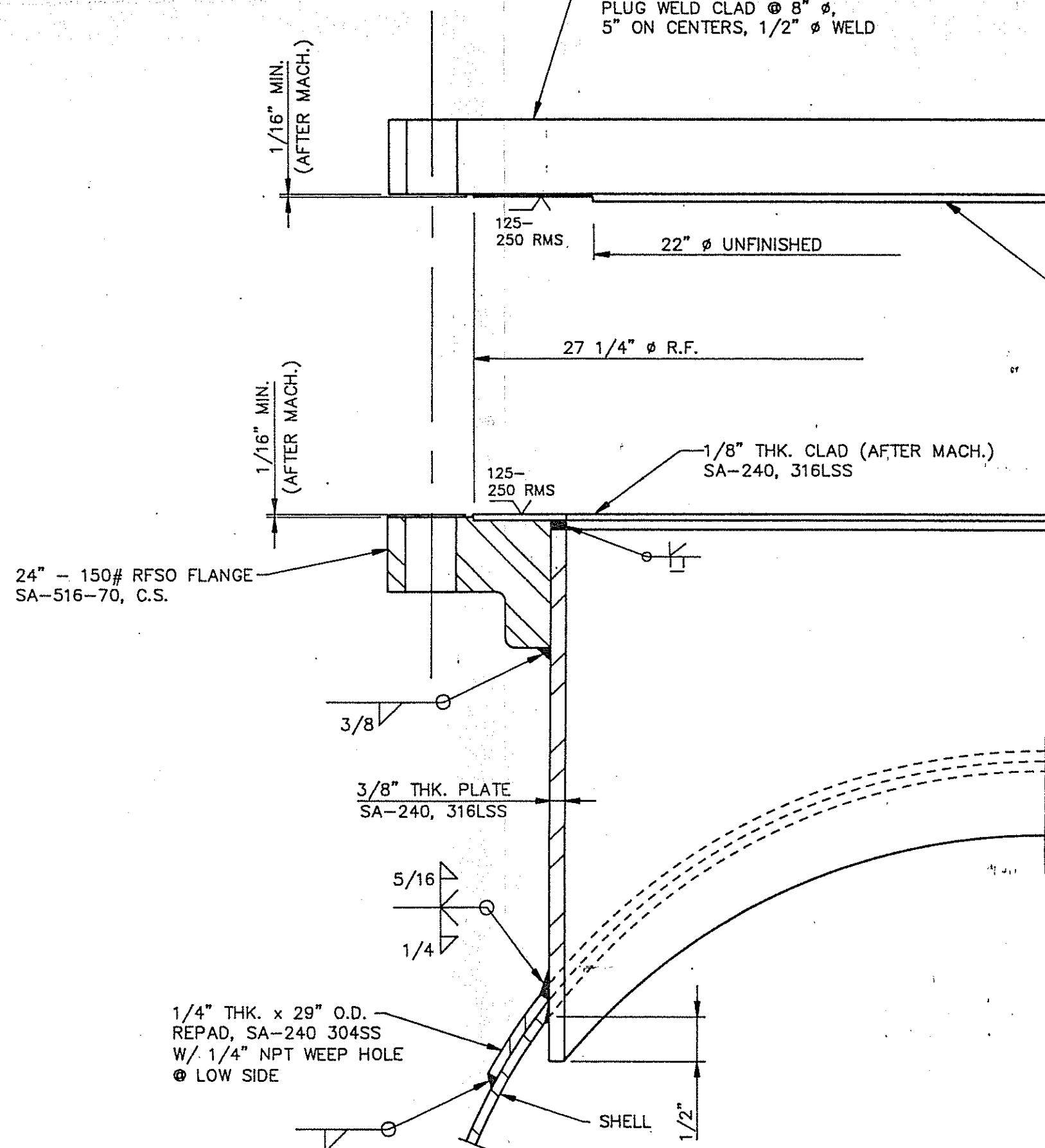
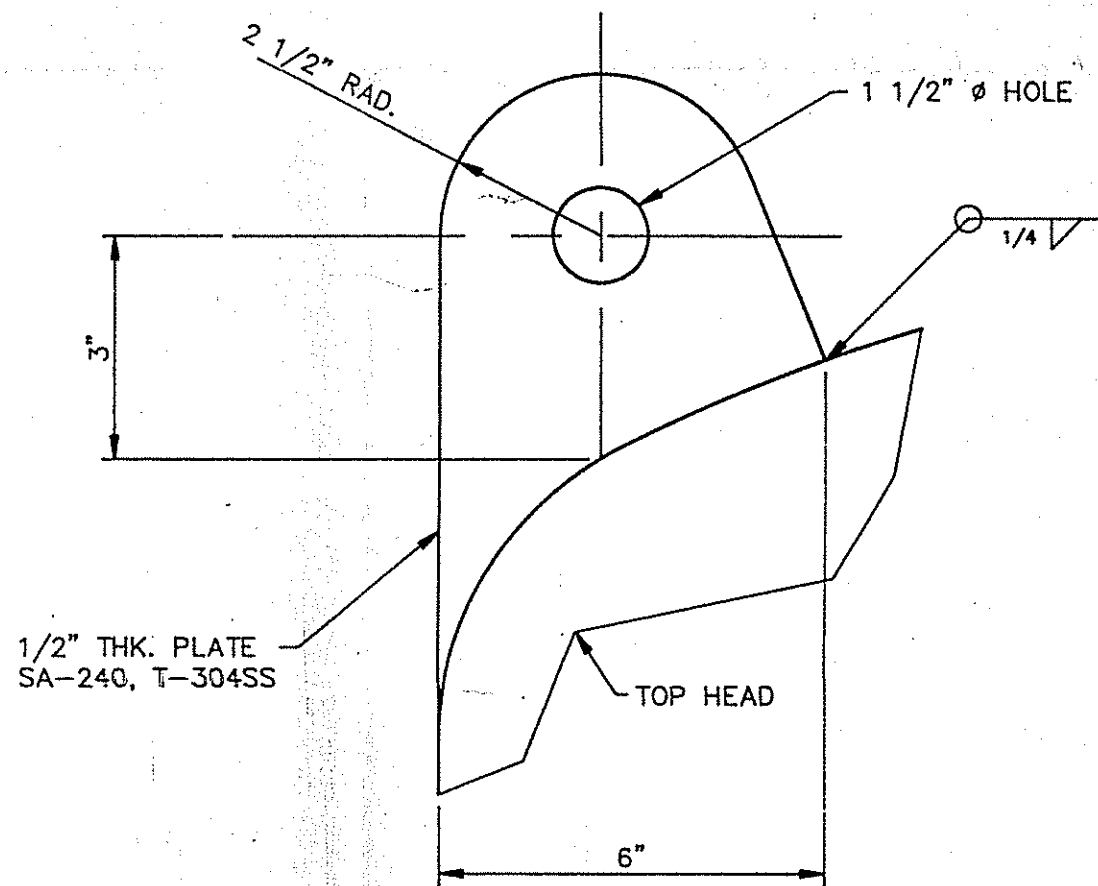




DAVIT ARM DETAIL
SCALE : NONE



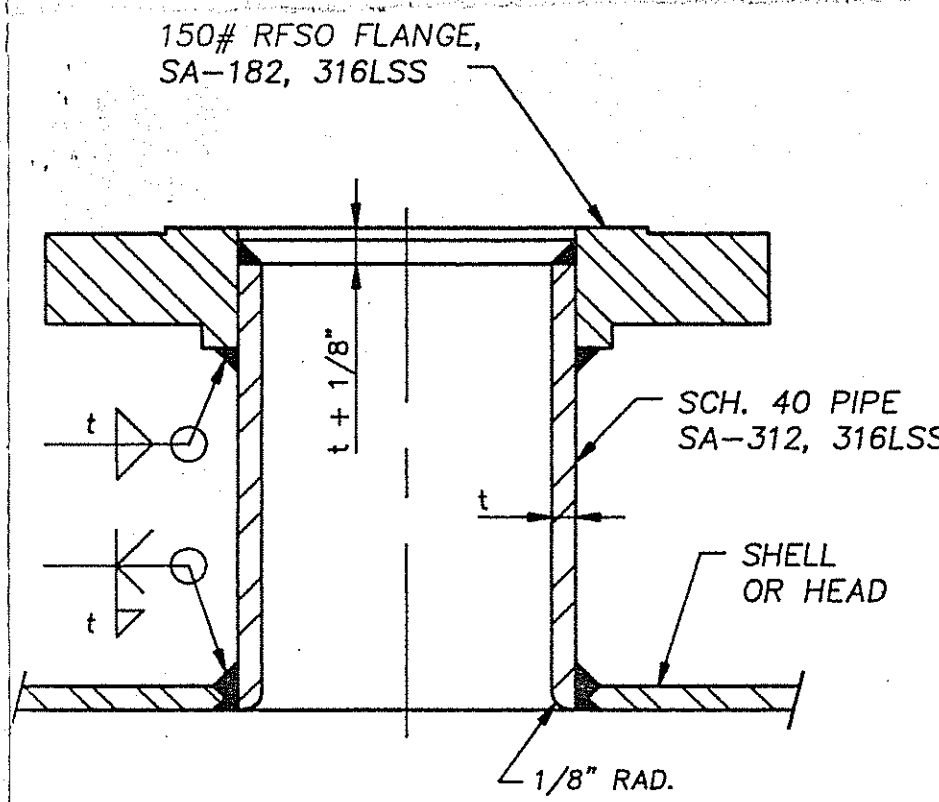
MANWAY DETAIL
SCALE : NONE



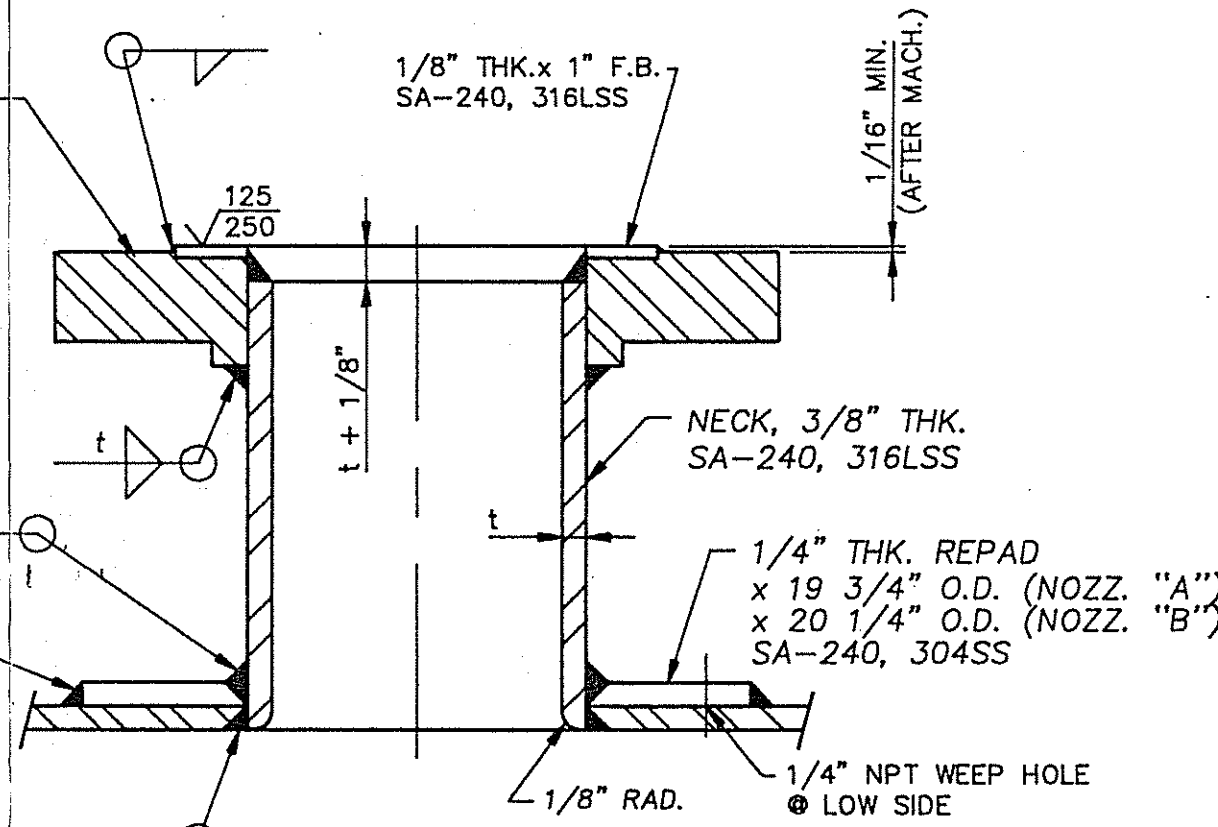
LIFTING LUG DETAIL
SCALE : NONE

REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH CONTRACT DOCUMENTS; CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; CORRELATING ALL FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMANCE OF THIS WORK IN A SAFE AND SATISFACTORY MANNER.

SUBJECT TO THE ABOVE THIS DRAWING IS:
☒ APPROVED
☐ APPROVED WITH CORRECTIONS NOTED
☐ TO BE REVISED AND RESUBMITTED
☐ REJECTED - SEE REMARKS
LOCKWOOD GREENE ENGINEERS, INC.
BY: *C. Langston*
DATE: 3/16/94



TYPICAL NOZZLE DETAIL
(SCALE: NONE)



NOZZLE "A & B" DETAIL
(SCALE: NONE)

CERTIFIED PRINT
WARD TANK CORPORATION
By: *Leo B.*
Date: MAR 2 1994



WARD TANK CORPORATION
CHARLOTTE, NORTH CAROLINA

MARK	BY	CKD.	DATE	DESCRIPTION
REVISIONS				
CUSTOMER ORDER NO.		FOR APPROVAL		CERTIFIED
1542-0741		DATE		BY: <i>K.S.</i> 3-3-94
SCALE AS SHOWN		DATE		DR. J.G.W. 1/21/94
CKD		CONTRACT NO.		DRAWING NO.
APP. TWA		3-3-94		39160-02

FITTING SCHEDULE			
MILES REFERENCE DATA			
PURCH. ORDER No.	1542-0741	PURCH. ORDER DATE	
ITEM NUMBER	230-521	ASSET NUMBER	0020200200
MANUFACTURER DATA			
MFR. NAME:	WARD TANK CORPORATION		
STREET / P.O. BOX:	P.O. BOX 560066		
CITY:	CHARLOTTE	STATE:	N.C.
ZIP:	28256-0066		
TELEPHONE NO.:	(704) 568-3001	FAX NO.:	(704) 536-3259
ENGINEERING CONTACT:	LEO BARGELT		
MFR. SERIAL NO.:	W-2427	SHOP ORDER NO.:	W-2427
MFR. DWG. NO.:	93-W-2427	REV.:	1



DMAC SCRUBBER
DETAILS

PROJ. LOC.	BUSHY PARK, S.C.	PROJ. No.	450	AREA	230
SCALE	AS SHOWN	FILE NO.	1542-741-05	REV.	1

WARD TANK DWG. NO. 93-W-2427 REV. 1
SHEET 2 OF 2

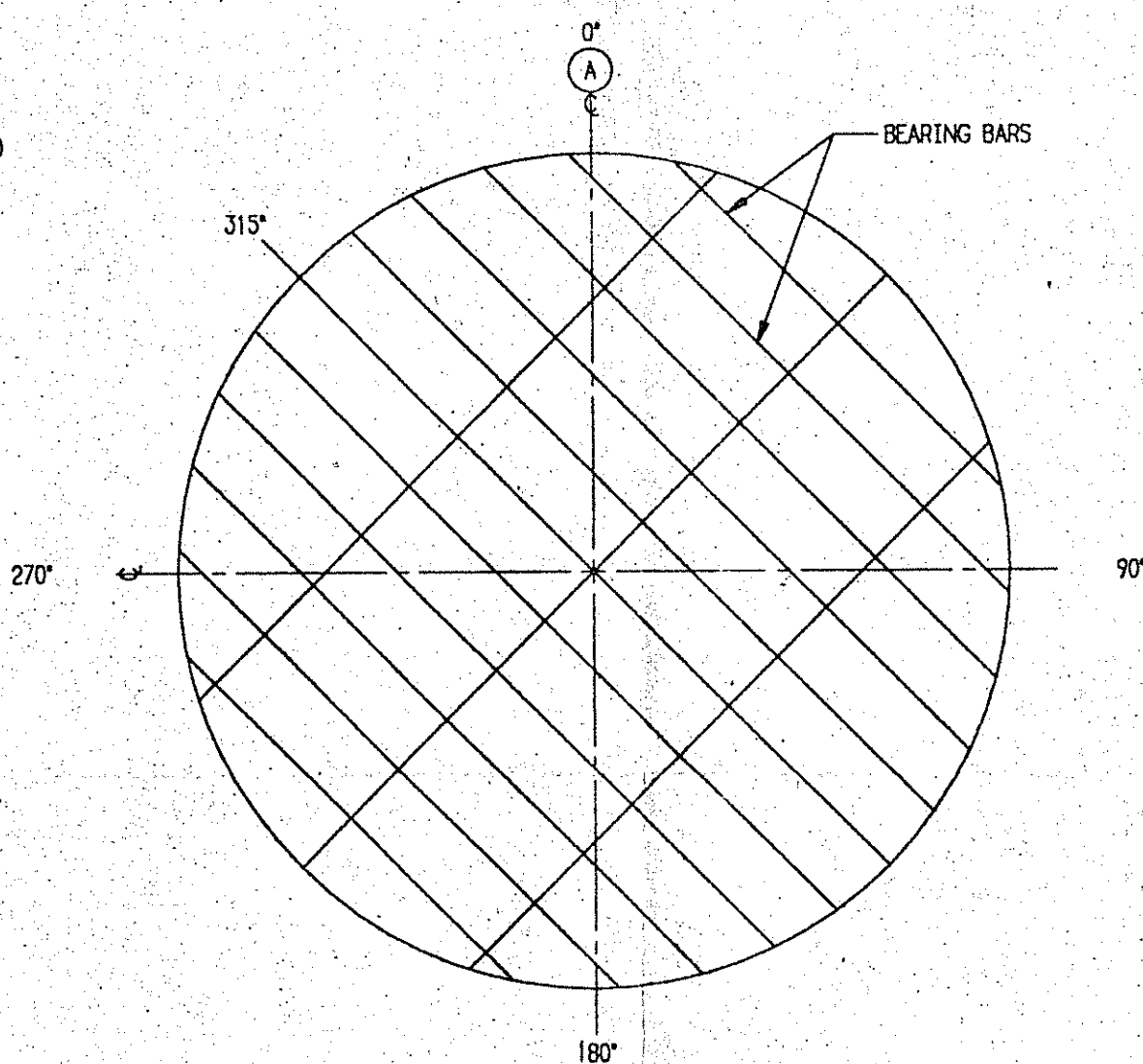
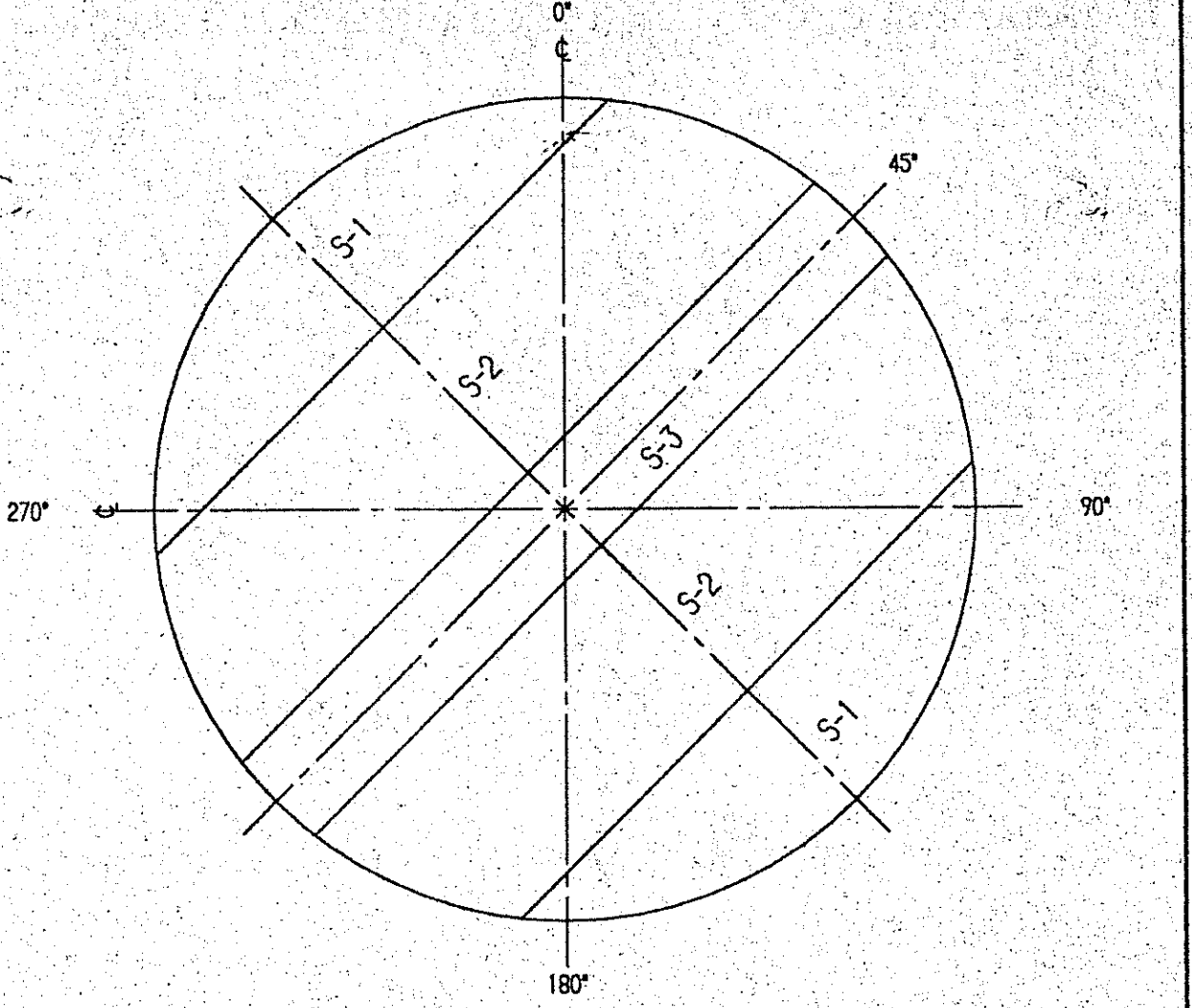
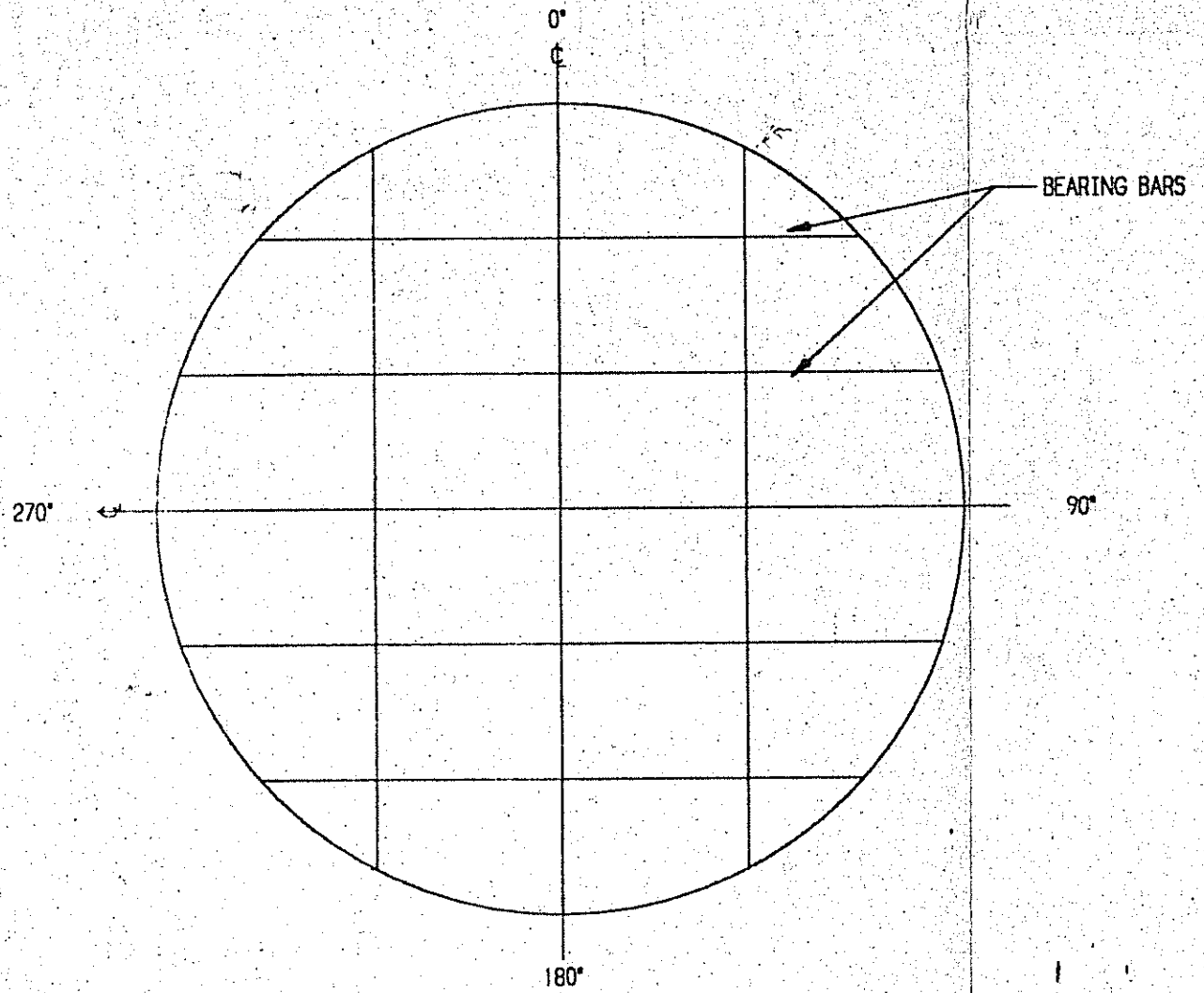
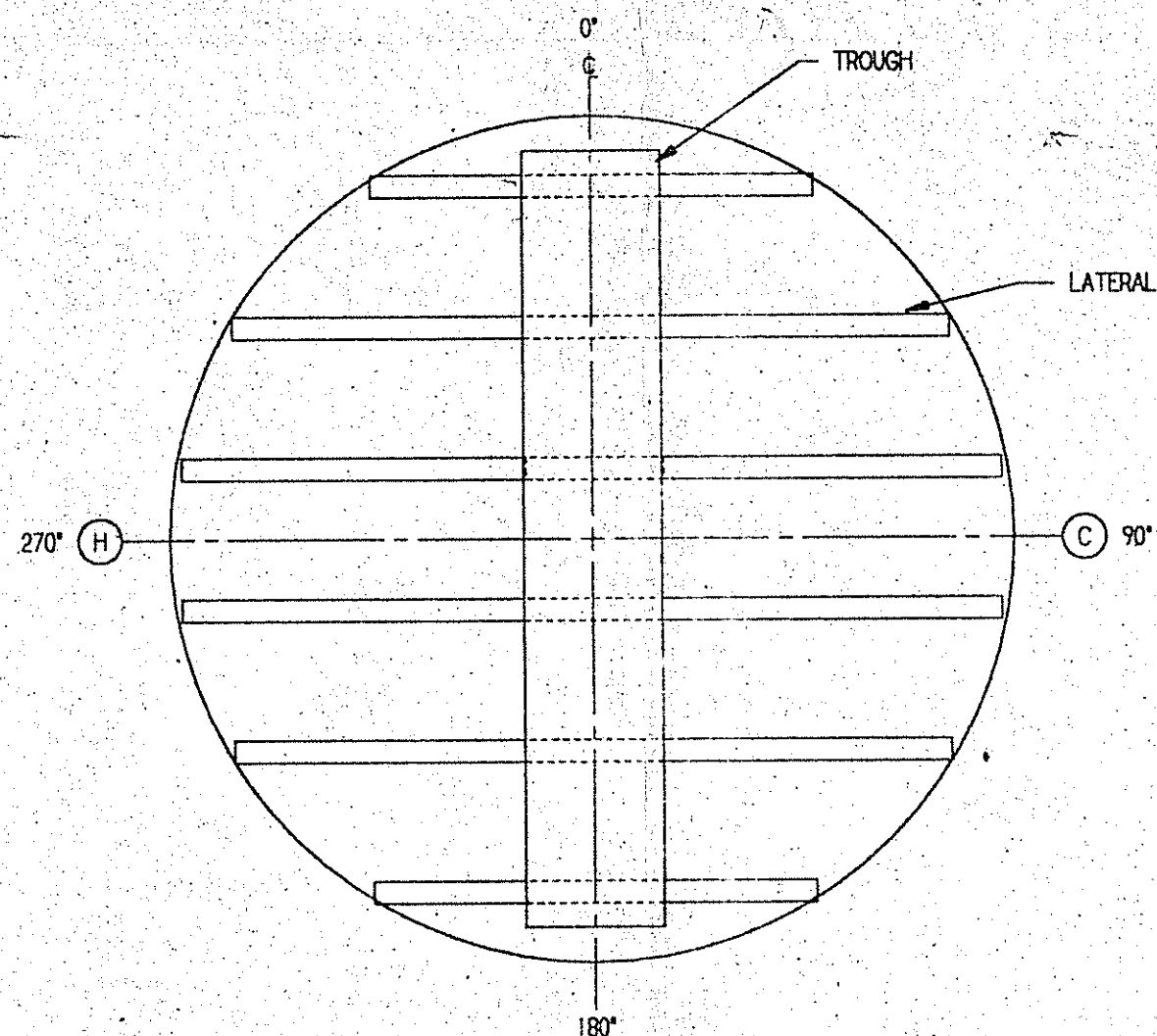
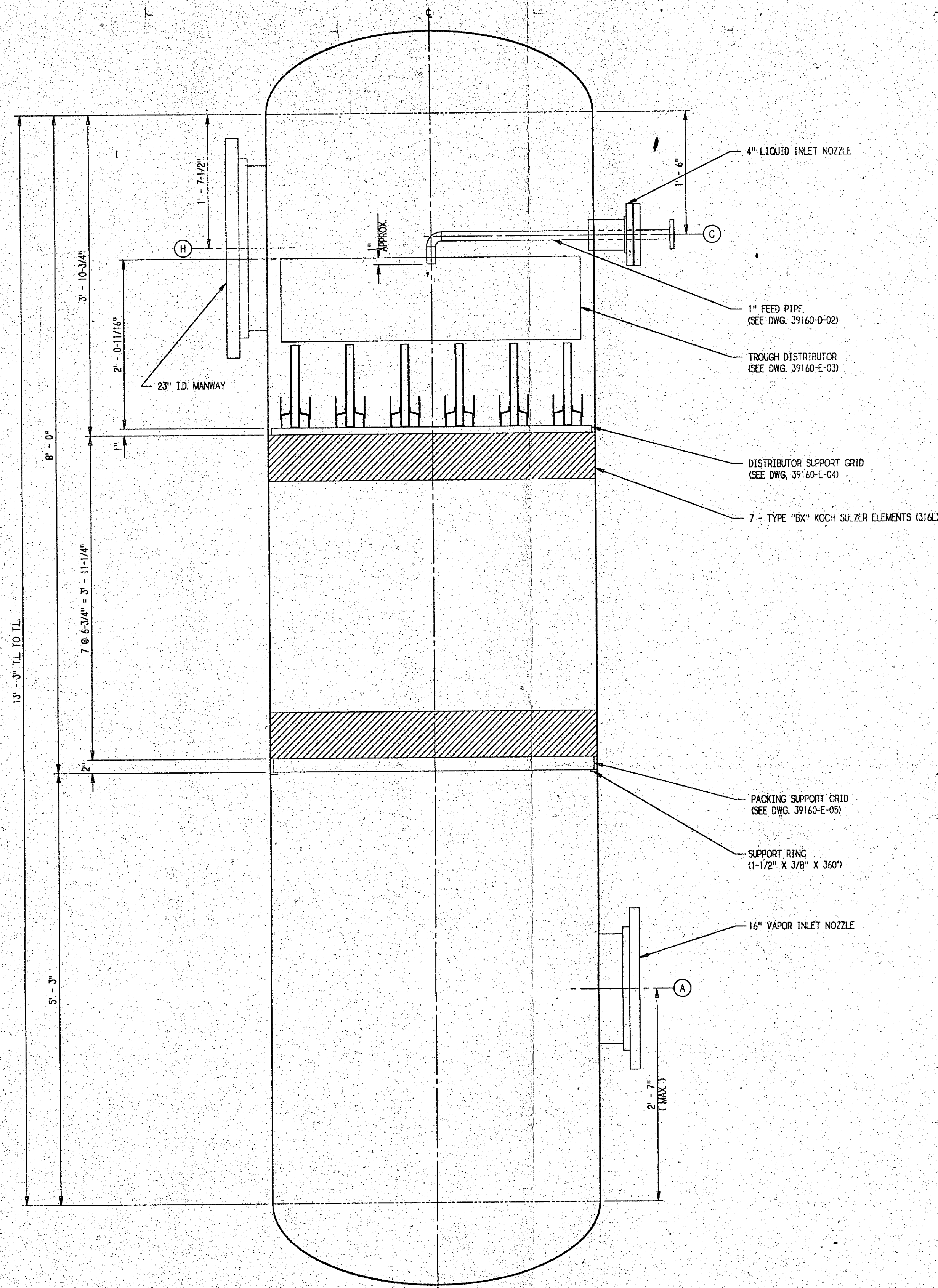
GENERAL FABRICATION TOLERANCES				
TOLERANCE	METAL EQUIPMENT		FRP OR NON METAL EQUIPMENT	DESCRIPTION OF TOLERANCE
	SHOP FABRICATED	FIELD ERRECTED		
±0 - 1/8"	±1/8"	±1/8"	±1/4"	FACE OF NOZZLE TO CENTERLINE OF EQUIPMENT.
±1/4"	±1/4"	±1/2"	±1/4"	CENTERLINE OF NOZZLE TO BASELINE OR DATUM REFERENCE.
±1/2"	1/2"	1/2"	1/2"	NOZZLE FLANGE FACE ALIGNMENT, CENTERLINE TO EDGE, IN DEGREES RISE.
±1/4"	±1/8"	±1/8"	±1/4"	PLAN LOCATION OF NOZZLES OR SUPPORT LUGS FROM EQUIP. CENTERLINE OR DATUM REFERENCE.
±1/4"	±1/4" OR 1/64" FT.	±1/4" OR 1/64" FT.	±1/4" UP TO 60"	HEIGHT OF NOZZLE, FROM BASELINE TO FACE OF TOP NOZZLE. (SET NOZZLE LAST TO HOLD TOLERANCE AND ALIGNMENT TO A MINIMUM).
±1/4"	±1/4"	±1/4"	±1/4"	FACE OF BOTTOM NOZZLE TO BASELINE OR DATUM REFERENCE.

DRAWINGS AND REVISIONS				
No.	DATE	DESCRIPTION	BY	INITIALS
0		ORIGINAL DRAWING		
1	2/20/94	REVISED PER APPROVAL PRINT	J.G.W.	

REFERENCE DRAWINGS OR SPECIFICATIONS				
DOCUMENT No.	TITLE			
KOCH DWG. NO. 39160-E-01	ARRANGEMENT OF INTERNALS IN 3"-11 1/2" ID DMAC SCRUBBER			

VESSEL	WARD TANK CORPORATION	MFR. S/N	W-2427
1542-0741	P.O. ORDER DATE	12 24 94	YEAR BUILT
0020200200	VESSEL	JACKET/COIL	
	PRESS.	TEMP.	PRESS.
	14.5	392	
	T316L SS		
	TOTAL CAPACITY		
	SPECIAL NOTES		
	PROJECT NO. 32460		
	LOCKWOOD GREENE ENGINEERS RECEIVED		
	MAR 4 1994		
	FILE NO. 1542-741-05		

CONFIDENTIAL THE INFORMATION HEREON IS CONFIDENTIAL AND MAY NOT BE USED NOR DISCLOSED WITHOUT THE WRITTEN PERMISSION OF MILES INC.



CUSTOMER NOTE:
Koch provides this drawing solely for Buyer's convenience in designing and fabricating parts to match equipment furnished by Koch. BUYER IS SOLELY RESPONSIBLE FOR PROVIDING CORROSION AND OTHER ALLOWANCES THAT MAY BE REQUIRED FOR SPECIFIC PROCESS OR MECHANICAL CONSIDERATIONS WHETHER OR NOT SUCH PROCESSES OR CONSIDERATIONS HAVE BEEN COMMUNICATED TO KOCH.

NOTES:
1. ALL PARTS MUST PASS THRU 23" I.D. MANWAY.
2. TOWER ATTACH'S FURNISHED BY OTHERS.

MATERIAL:
TWR ATTACHMENTS _____ BY OTHERS

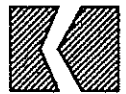
REF. DWG'S:
ASSEMBLY OF FEED PIPE & NOZZLE "C" ----- 39160-D-02
ASSEMBLY OF TROUGH DISTRIBUTOR ----- 39160-E-03
ASSEMBLY OF DISTRIBUTOR SUPPORT GRID ----- 39160-E-04
ASSEMBLY OF PACKING SUPPORT GRID ----- 39160-E-05

THE CUSTOMER SHOULD TAKE CORRECTIVE ACTION TO ELIMINATE SOLIDS ACCUMULATION IN THE PROCESS. SECONDARY FILTER SCREENS INSIDE THE TOWER AT COLLECTORS/DISTRIBUTORS HAVE NOT BEEN INCLUDED. PARALLEL FILTERS ARE RECOMMENDED IN ALL EXTERNAL FEED AND REFLUX LINES TO PROTECT AGAINST DISTRIBUTOR BLOCKAGE. KOCH SUGGESTS MAXIMUM OPENINGS TO BE USED FOR FILTER MESH, AS NOTED ON DISTRIBUTOR ASSEMBLY DRAWING (S), BUT ASSUMES NO RESPONSIBILITY FOR RECOMMENDING OR DESIGNING FILTERS. SHOULD SOLIDS ACCUMULATION IMPAIR THE PERFORMANCE OF THE DISTRIBUTOR (S), KOCH'S PERFORMANCE WARRANTY WILL BE VOIDED. REFER TO KOCH'S TERMS AND CONDITIONS CONCERNING RESPONSIBILITY FOR PROCESS CLEANLINESS.

KOCH RECOMMENDS THE USE OF A 3/8" DIA. OR SMALLER THERMOWELL WHERE IT IS INSTALLED IN THE PACKED BED. EACH THERMOWELL IN KOCH SULZER WIRE GAUZE STRUCTURED PACKING SHOULD BE INSERTED PARALLEL TO THE ELEMENT LAYERS AND AT THE ELEVATION MID-POINT OF THE ELEMENT INTO WHICH IT IS INSERTED.

KOCH ITEM NO. 01-04		S39160-01-01		PROJECT NO. 32460 REVISIONS DATE 1 1994 FILE NO. 1542-741-04 ACK	
ISSUE DATE					
FOR APPROVAL		2/7/94			
APPROVED FOR CONSTRUCTION		3/1/94			
BY <i>MLW</i>		DATE		REVID ORIENT. OF KOCH SULZER ELEMENTS, PACKING SPT. GRID, AND ORIENT. OF NOZ'S A, C, & H	
CERTIFIED		3/2/94		MARK BY CKD. DATE DESCRIPTION	
BY <i>MLW</i>		DATE		REVISIONS	
				ARRANGEMENT OF INTERNALS IN 3' - 11-1/2" I.D. DMAC SCRUBBER	
SHOP NO.		REF.		SUITT CONSTRUCTION CO. GOOSE CREEK, SC	
CUSTOMER ORDER NO. 1542-0741		SCALE NTS		MILES INC. GOOSE CREEK, SC	
REQ. NO.		DATE		WICHITA, KANS. 67208 316/832-5110 ENGINEERING COMPANY INC. WORLD LEADER IN MASS TRANSFER EQUIPMENT	
		APP. 1/26/94 3/2/94		CONT. NO. NS39160-00 DRAWING NO. 39160-E-01 REV. A	



PC. MK. "A"							
KOCH ITEM NO. 01							
ISSUE DATE							
FOR APPROVAL							
APPROVED FOR CONSTRUCTION REVISED 4/8/94 BY DLW		A	MLW	JH	4-8-94	CORRECTED DOWN-LEG BUBBLE DIMENSION OF FEED PIPE.	
CERTIFIED REVISED 4/8/94 BY DLW		MARK	BY	CKD.	DATE	DESCRIPTION	
		REVISIONS					
		ASSEMBLY OF FEED PIPE @ NOZZLE "C" IN 3' - 11-1/2" I.D. DMAC SCRUBBER (ABOVE BED)					
		SUITT CONSTRUCTION CO. GOOSE CREEK, SC				MILES INC. GOOSE CREEK, SC	
SHOP NO.	REF.	SCALE	1/4	DATE	 KOCH. WICHITA, KANS. 67208 316/832-5110 ENGINEERING COMPANY INC. WORLD LEADER IN MASS TRANSFER EQUIPMENT		
CUSTOMER ORDER NO.	ICAD	DR.	DDD	2-1-94			
1542-0741		CKD.	MLW	2-3-94			
REQ. NO.		APP. KSB/EGR	3-2-94	CONT. NO.	DRAWING NO.	REV.	
				NS39160-00	39160-D-02	A	

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