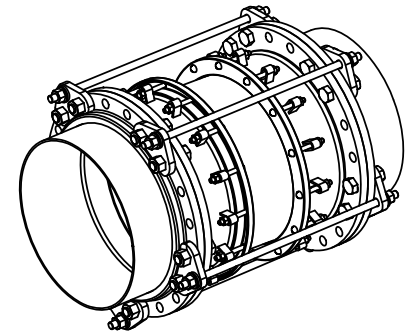


HARNES LUG SCHEDULE

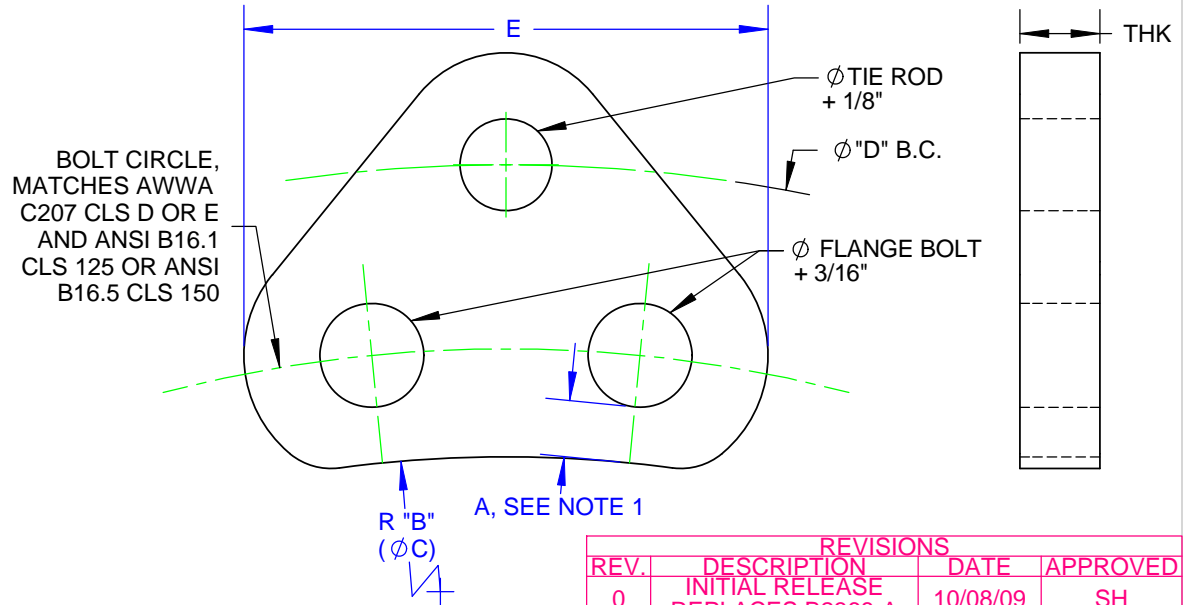
FLG SIZE	LUG THK	TIE ROD QUANTITY					TIE ROD SIZE	A	R "B"	Ø "C"	B.C. Ø "D"	E	WGT, EA. (LBS)
		50 PSI	100 PSI	150 PSI	200 PSI	275 PSI							
14	1	2	2	2	3	3	1	0.47	8.34	16.68	23.13	7.60	6.0
16	1	2	2	2	3	4	1	0.41	9.66	19.32	25.63	6.90	5.5
18	1	2	2	3	4	5	1	0.28	10.45	20.90	27.13	7.44	6.0
20	1	2	3	4	5	6	1	0.38	11.50	23.00	29.63	6.91	5.6
24	1	2	3	5	6	8	1	0.42	13.64	27.28	34.13	8.11	7.0
30	1 1/4	2	3	5	6	8	1 1/4	0.41	16.91	33.82	41.25	7.53	9.0
36	1 1/4	3	5	7	9	11	1 1/4	0.50	20.06	40.12	48.50	8.19	10.6
42	1 1/4	3	6	9	12	15	1 1/4	0.60	23.34	46.68	55.50	8.31	11.2
48	1 3/4	3	6	8	11	13	1 1/2	0.78	26.41	52.82	62.50	7.99	16.9
54	1 3/4	4	7	10	14	17	1 1/2	0.81	29.63	59.26	69.25	8.98	19.1
60	1 3/4	5	9	13	17	21	1 1/2	0.81	32.88	65.76	76.00	8.68	18.7
66	2	4	8	11	15	19	1 3/4	1.06	36.00	72.00	83.50	9.09	25.5
72	2	5	9	13	18	22	1 3/4	0.81	39.50	79.00	90.02	8.82	23.7



ASSEMBLY VIEW

NOTE:

1. ROMAC HARNES LUG WITH MAXIMUM CLEARANCE BETWEEN FLANGE HUB OD AND LUG RADIUS FOR MAJORITY OF THREADED DI FLANGES.
2. CUSTOMER TO VERIFY LUG CLEARANCE OVER FLANGE HUB FOR THREADED DI FLANGES. SEE DIAMETER C.
3. EACH TIE ROD REQUIRES 2 LUGS, ONE LOCATED ON THE OUTSIDE OF EACH FLANGED CONNECTION (SEE ASSEMBLY VIEW).
4. LUG MATERIAL: STEEL A36, STAINLESS A240 TYPE 304 OR 316
5. TIE ROD MATERIAL = ASTM A193 B7, (ALLOY STEEL), B8 (304 SS), OR B8M (316 SS)
6. COATING: BARE, SHOPCOAT PAINT, OR NSF 61 FUSION BONDED EPOXY, BLACK
7. 4 NUTS REQUIRED PER TIE ROD, (DOUBLE NUT CONFIGURATION.)
8. TIE RODS SOLD SEPERATELY, SPECIFY LENGTH WHEN ORDERING.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
0	INITIAL RELEASE REPLACES B2368-A	10/08/09	SH

<p>PROPRIETARY NOTICE</p> <p>THIS DRAWING CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION AND IS THE PROPERTY OF ROMAC IND., INC. IT IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IS WAS SUBMITTED AND SHALL NOT HAVE IT'S INFORMATION DISCLOSED OR REPRODUCED IN WHOLE OR IN PART FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF ROMAC IND., INC.</p>	<p>UNLESS OTHERWISE SPECIFIED</p> <p>DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES ARE ON: 1 PL DECIMALS ± .060 2 PL DECIMALS ± .030 3 PL DECIMALS ± .010 ANGLES ± 1° FRACTIONS ± 1/64</p>	SIGNATURES			<p>ROMAC INDUSTRIES INC., BOTHELL, WA</p>				
		DRAWN			TITLE				
		CHECKED			<p>HARNES LUGS, 14"-72" STYLE 490 CLS D & E, 125/150 HIGH HUB CLEARANCE</p>				
APPROVAL ORGANIZATIONS		DWG. NO.	SIZE	REV. NO.	SCALE	SHEET			
ENGINEERING		B3292-A	A	0	NTS	1 OF 1			