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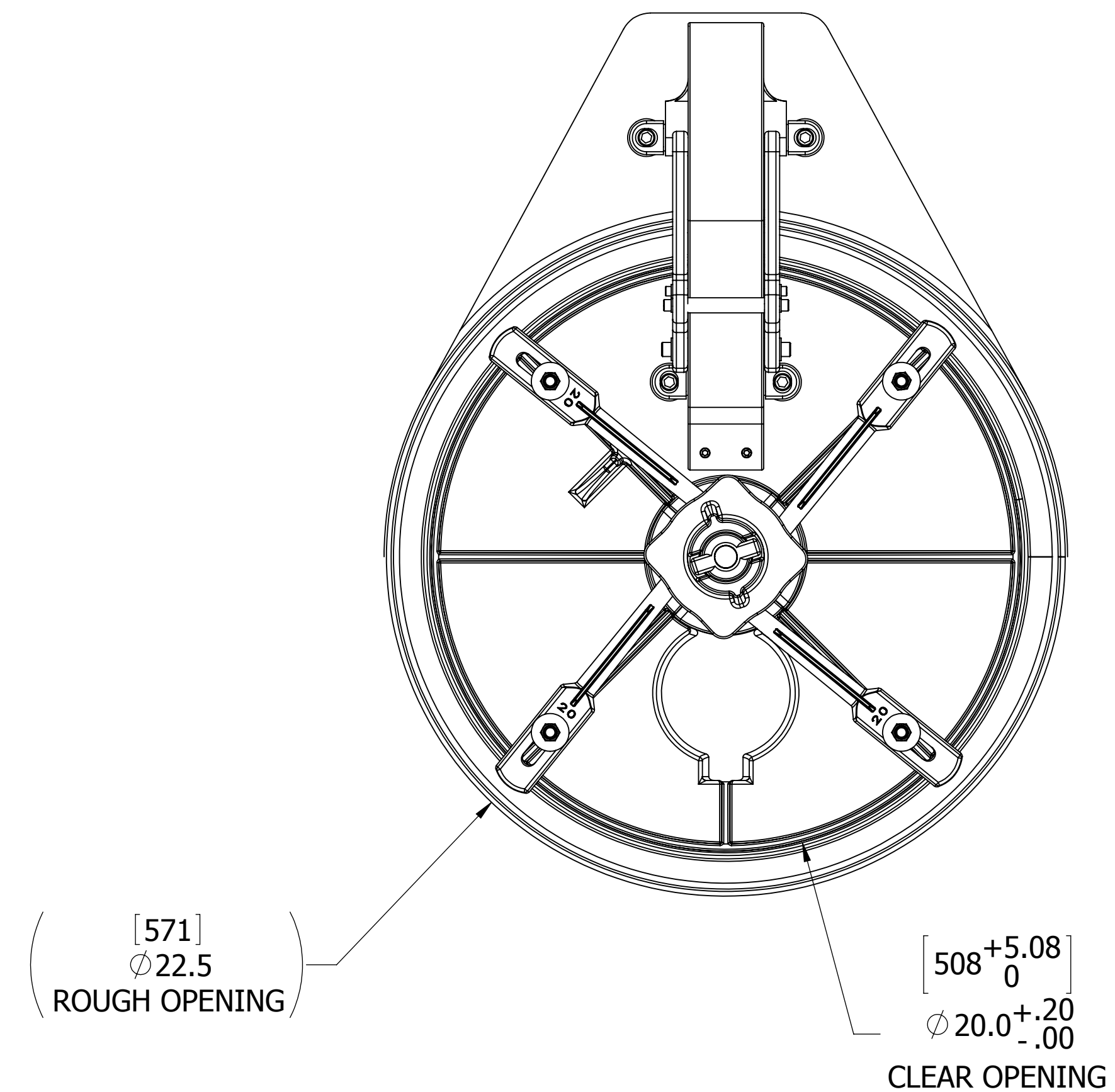
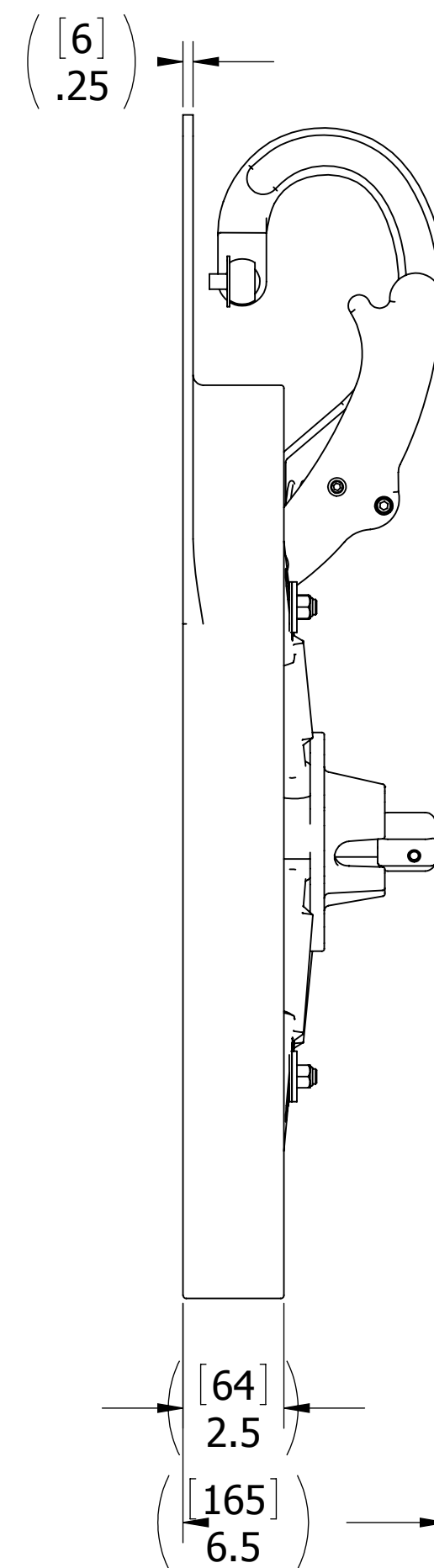
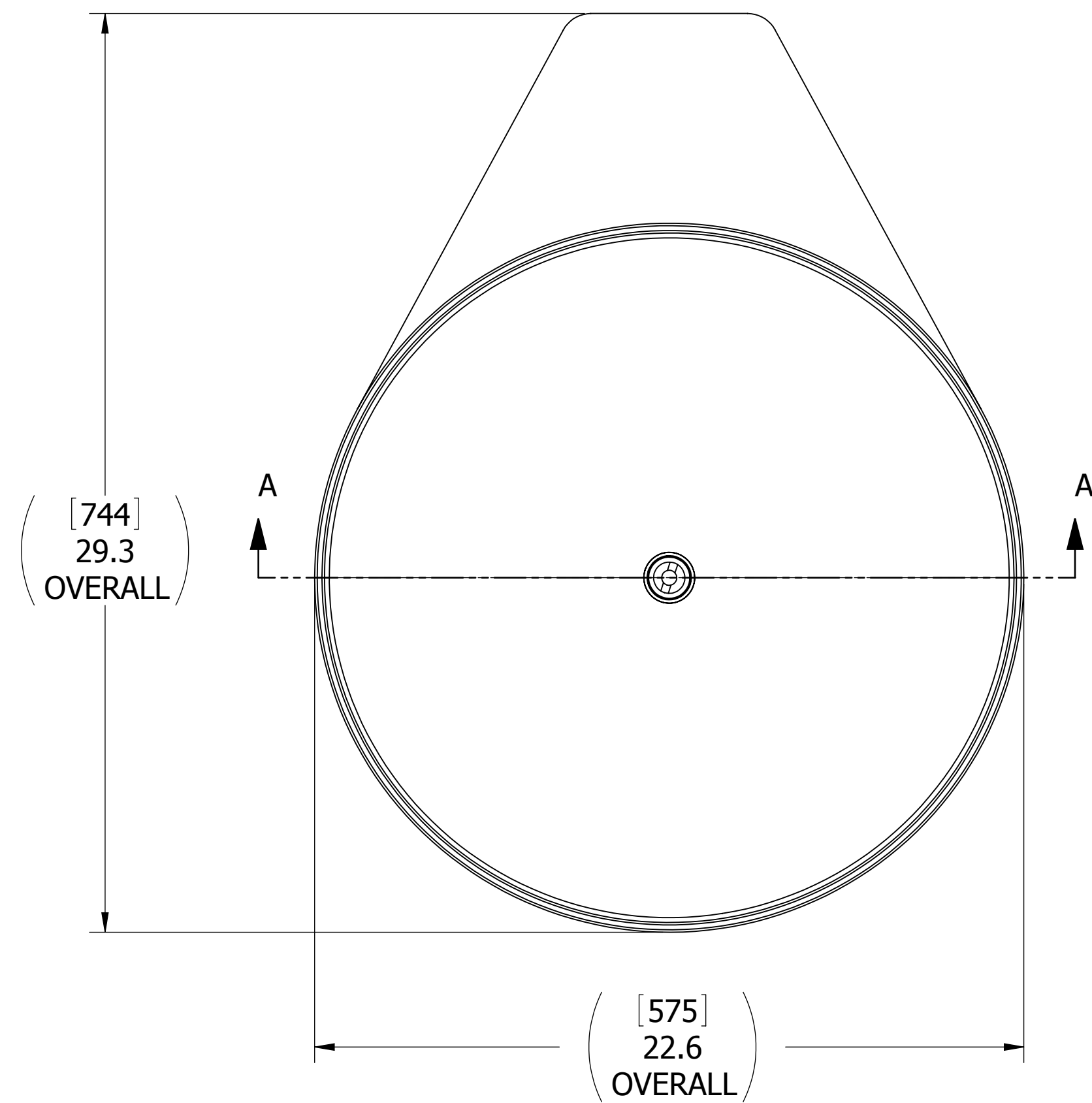
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B

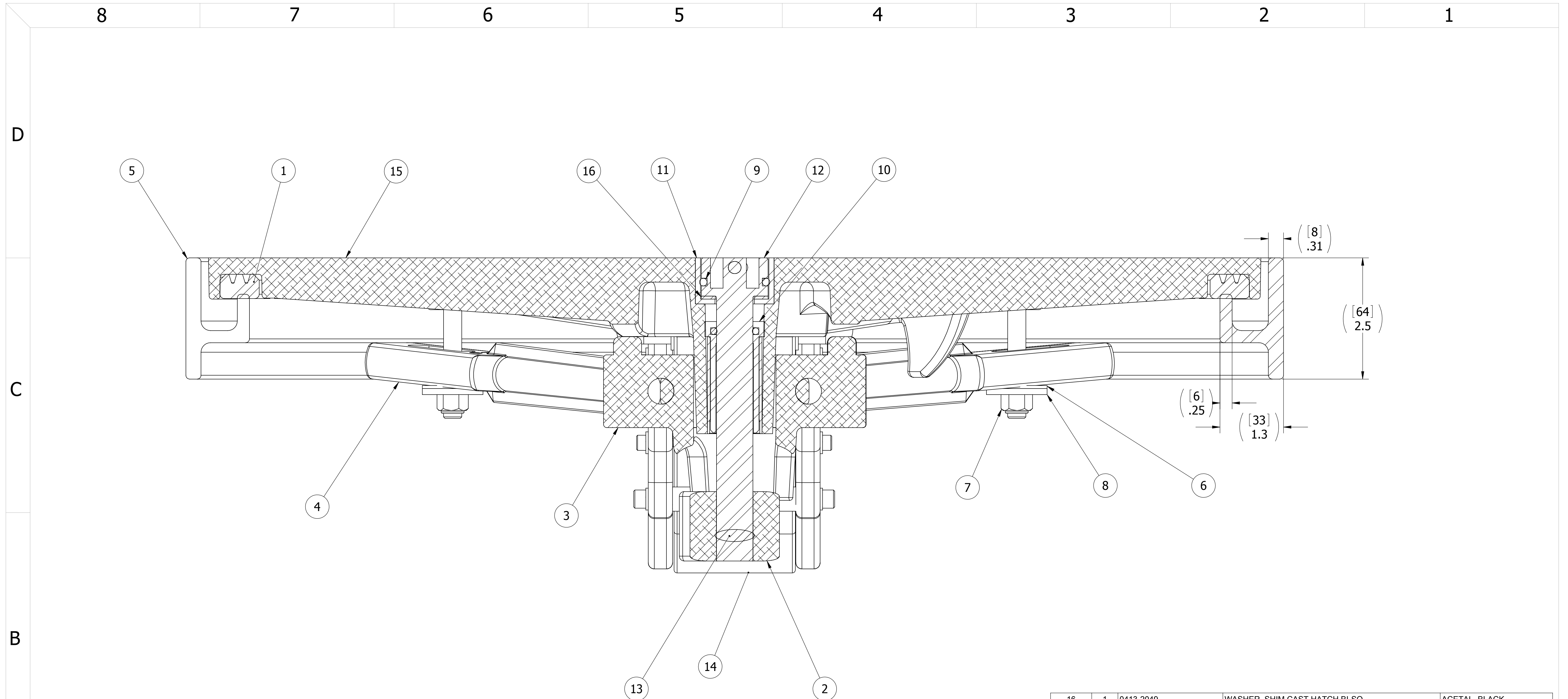
A



- 8. FOR SPECIFIC INFORMATION CONTACT SALES.
- 7. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 62LBS/ 28Kg.
- 6. DOGGING PRESSURE FULLY ADJUSTABLE.
- 5. ALUMINUM ALLOY MECHANISM SHOWN.
- 4. FLUSH, WATERTIGHT CONSTRUCTION.
- 3. MILD STEEL RING.
- 2. QUICK-ACTING, MECHANISM ENGAGES OR DISENGAGES IN QUARTER-TURN OF CENTER SPINDLE.
- 1. 20.0" /508mm DIAMETER CLEAR OPENING, ALL DIMENSIONS SHOWN SUBJECT TO CASTING VARIATION AND ARE REFERENCE ONLY.

NOTES:

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.		<b>FREEMAN MARINE EQUIPMENT, INC.</b> 28336 HUNTER CREEK ROAD GOLD BEACH, OR 97444 U.S.A. PHONE: 541-247-7078 FAX: 541-247-2114 www.freemanmarine.com	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES FOR ROUGH AND CLEAR OPENING ± .125 INCH. ALL OTHERS ARE:		CLIENT: <b>FREEMAN MARINE</b>	
PROJECTION		TITLE: <b>HATCH: 20 K AL COVER, MILD STEEL RING W/ INTERLOCKING "T" HANDLE</b>	
.X .XX .XXX ANGLES ±.1 ±.03 ±.010 ±2°		SIZE: <b>D</b> CAGE CODE: <b>64747</b> DRAWING NUMBER: <b>2485-0063</b> REV. <b>A</b>	
DO NOT SCALE DRAWING		SCALE: 1:4 CALC. WT. ACT. WT. SHEET 1 OF 3	
A PRODUCTION RELEASE	20MAY13 ZJC	CONTRACT NO.:	
REV. DESCRIPTION:	DATE: DRAWN	DESIGN ACTIVITY: DATE:	



SECTION A-A  
SCALE 1 : 2

ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
16	1	0413-2049	WASHER, SHIM CAST HATCH BI-SQ	ACETAL, BLACK
15	1	2485-3041	COVER, 20 K FLAT TOP AL, FINISHED CASTING	ALUMINUM
14	1	0461-2077	HINGE ASSY, YOKE, CAST HATCH, W/HOLD OPEN	REF S/A B.O.M.
13	1	0411-2004	PIN, KNURLED, 1/4 X 2-1/4, 316 S/S	STAINLESS STEEL, 316L
12	1	0031-2107	SPINDLE, INTERLOCKING, FLUSH TO 1/4 TEAK	STAINLESS STEEL, 316L
11	1	0441-2133	CUP, INTERLOCKING SPINDLE, FLUSH TO 1/4	STAINLESS STEEL, 316L
10	1	0031-2001	BUSHING ASSY, STD HATCH, W/SLEEVE	REF. S/A - B.O.M.
9	1	0441-2045	O-RING, 27MM X 4MM	BUNA-N
8	4	0411-2033	WASHER, .406 X 1.25 X .125, 316 S/S	STAINLESS STEEL, 316
7	4	0411-2032	LOCKNUT, NYLON INSERT, 3/8-16, 316 S/S	STAINLESS STEEL, 316
6	4	0413-2005	WASHER, .406 X 1.250 X .062 NYLON	NYLON
5	1	2485-1003	RING: 20K STEEL, 615-9001	MILD STEEL
4	4	0211-2008	DOG, LOCKING ARM 20, AL	ALUMINUM, 535.2-F
3	1	0011-2006	HUB, 4 HOLE - SHORT	ALUMINUM, 535.2
2	1	0112-2001	ACTUATOR, AL	ALUMINUM, 535
1	1	9835-2011	GASKET, 20ALK (4.93' OF 0631-9835)	NEOPRENE

REV.	DESCRIPTION	DATE	DRAWN
A	PRODUCTION RELEASE	20MAY13	ZJC

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PROJECTION

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.X	.XX	.XXX	ANGLES
±.1	±.03	±.010	±2°

DO NOT SCALE DRAWING

**FREEMAN MARINE EQUIPMENT, INC.**

28336 HUNTER CREEK ROAD  
GOLD BEACH, OR 97444 U.S.A.  
PHONE: 541-247-7078 FAX: 541-247-2114  
www.freemanmarine.com

CLIENT: **FREEMAN MARINE**

TITLE: **HATCH: 20 K AL COVER, MILD STEEL RING W/ INTERLOCKING "T" HANDLE**

SIZE	CAGE CODE	DRAWING NUMBER	REV.
<b>D</b>	64747	2485-0063	<b>A</b>

SCALE: 1:1    CALC. WT.    ACT. WT.    SHEET 2 OF 3

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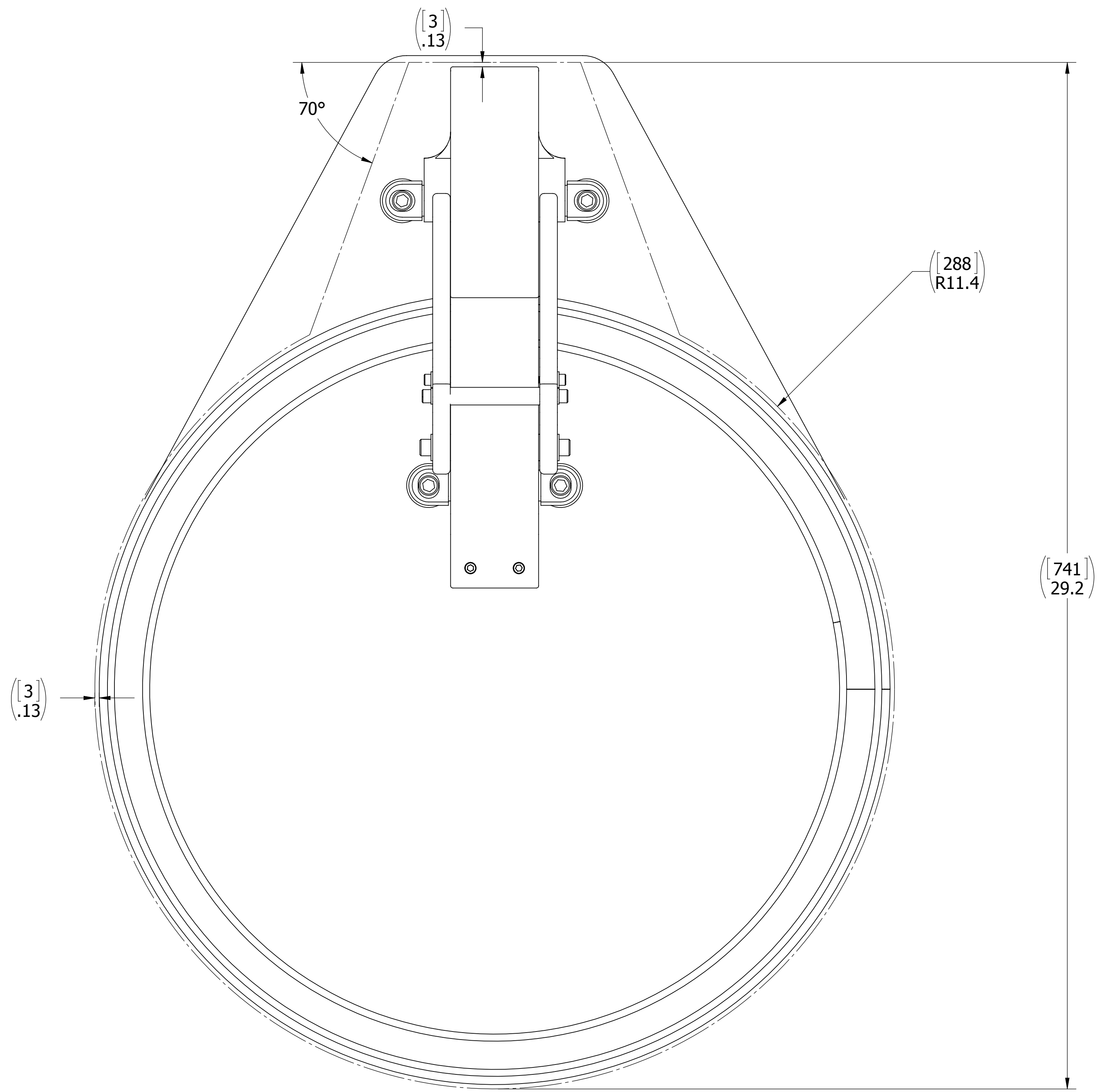
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DECK CUT OUT



- 3. FINISH: 125 RMS MAX.
- 2. BREAK SHARP EDGES AND DEBURR.
- 1. MATERIAL: REF. S/A - B.O.M.

NOTES: UNLESS OTHERWISE SPECIFIED.

CUSTOMER APPROVAL

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

IMPORTANT! THIS DRAWING SUPERSEDES ALL OTHER DOCUMENTS. By signing this approval you accept and agree that the dimensions and details shown are correct and properly fit your application, regardless of any differences between this drawing and any contract specifications. Should you see any errors in the drawing, or have any questions, please contact your Freeman Marine sales engineer for clarification.

REV.	DESCRIPTION:	DATE:	DRAWN
A	PRODUCTION RELEASE	20MAY13	ZJC

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PROJECTION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES FOR ROUGH AND CLEAR OPENING ± .125 INCH. ALL OTHERS ARE:

.X	.XX	.XXX	ANGLES
±.1	±.03	±.010	±2°

DO NOT SCALE DRAWING

		28336 HUNTER CREEK ROAD GOLD BEACH, OR 97444 U.S.A. PHONE: 541-247-7078 FAX: 541-247-2114 www.freemanmarine.com	
		CLIENT:	FREEMAN MARINE
DRAWN: Z. CARPENTER		DATE: 20MAY13	
CHECKED: D. YOES		DATE: 20MAY13	
ENGR:		DATE:	
DESIGN ACTIVITY:		DATE:	
CONTRACT NO.:		DATE:	
TITLE:		HATCH: 20 K AL COVER, MILD STEEL RING	
SIZE	CAGE CODE	DRAWING NUMBER	REV.
<b>D</b>	64747	2485-0063	<b>A</b>
SCALE: 1:2	CALC. WT.	ACT. WT.	SHEET 3 OF 3