

- 8. FOR SPECIFIC INFORMATION CONTACT SALES.
- 7. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 72LBS/ 33K.
- 6. DOGGING PRESSURE FULLY ADJUSTABLE.
- 5. ALUMINUM ALLOY MECHANISM SHOWN.
- 4. FLUSH, WATERTIGHT CONSTRUCTION.
- 3. MILD STEEL RING FOR WELD IN DECK APPLICATION.
- 2. QUICK-ACTING, MECHANISM ENGAGES OR DISENGAGES IN QUARTER-TURN OF CENTER SPINDLE.
- 1. 20.1" X 20.1" CLEAR OPENING, ALL DIMENSIONS SHOWN SUBJECT TO CASTING VARIATION AND ARE REFERENCE ONLY.

NOTES: UNLESS OTHERWISE SPECIFIED.

A

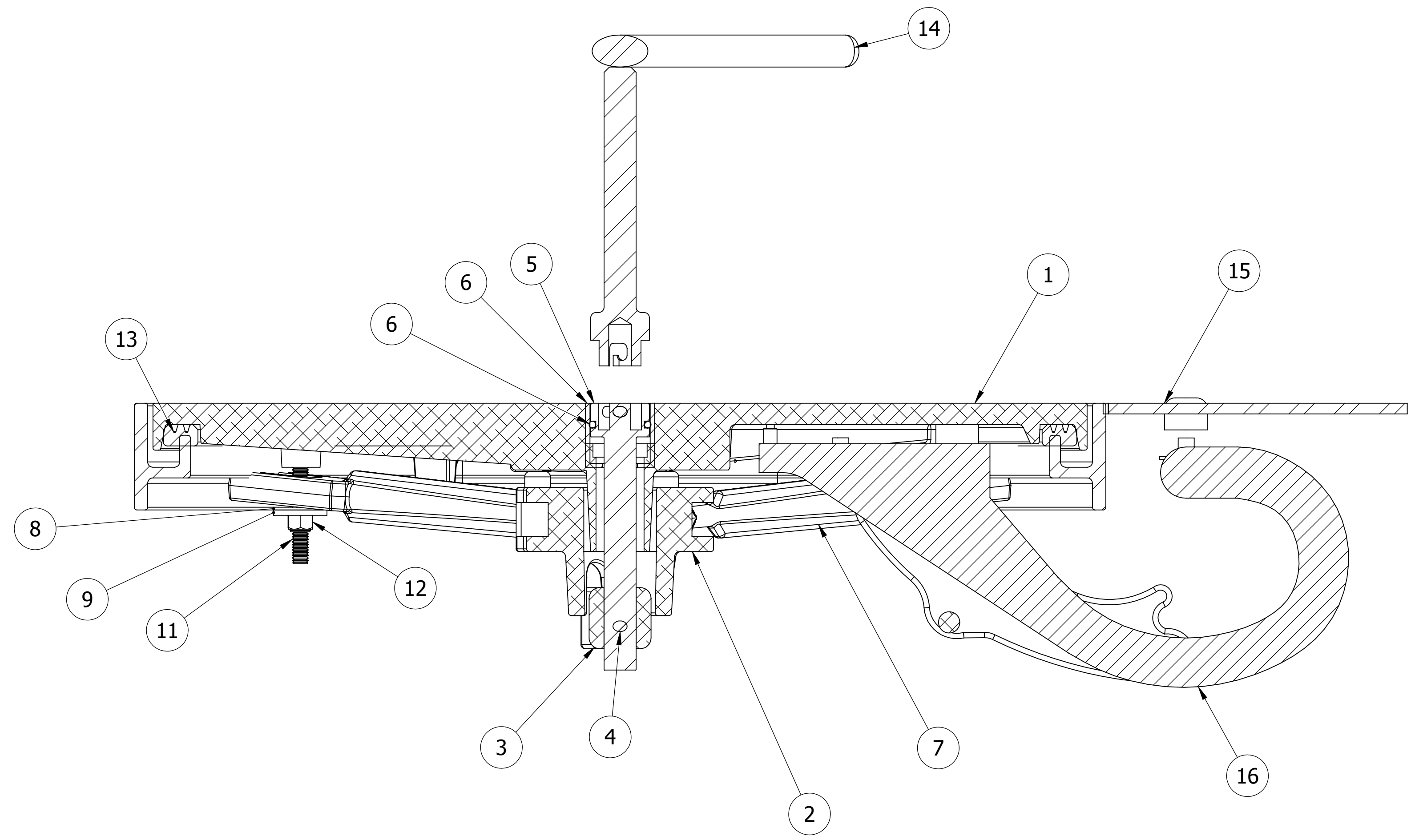
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.		FREEMAN MARINE EQUIPMENT, INC. 28336 HUNTER CREEK ROAD GOLD BEACH, OR 97444 U.S.A. PHONE: 541-247-7078 FAX: 541-247-2114 www.freemanmarine.com	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES FOR ROUGH AND CLEAR OPENING ± .125 INCH. ALL OTHERS ARE: .X .XX .XXX ANGLES ±.1 ±.03 ±.010 ±2°		CLIENT: FREEMAN MARINE TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, STEEL DECK RING	
PROJECTION		SIZE: D CAGE CODE: 64747 DRAWING NUMBER: 2493-0063 REV. -	
DO NOT SCALE DRAWING		SCALE: 1:4 CALC. WT. ACT. WT. SHEET 1 OF 3	
DRAWN: G MACEACHERN CHECKED: P. CANCELLIERI ENGR: DESIGN ACTIVITY: CONTRACT NO.:	DATE: 19FEB09 DATE: 10DEC09 DATE:	CONFIDENTIAL PROPERTY OF FREEMAN MARINE EQUIPMENT INC. UNAUTHORIZED USE, COPYING OR DISTRIBUTION IS STRICTLY PROHIBITED. POSSESSOR OF THIS DOCUMENT AGREES TO THE FOREGOING AND SHALL RETURN THIS DOCUMENT UPON REQUEST. © ALL RIGHTS RESERVED 2004	

D

C

B

A

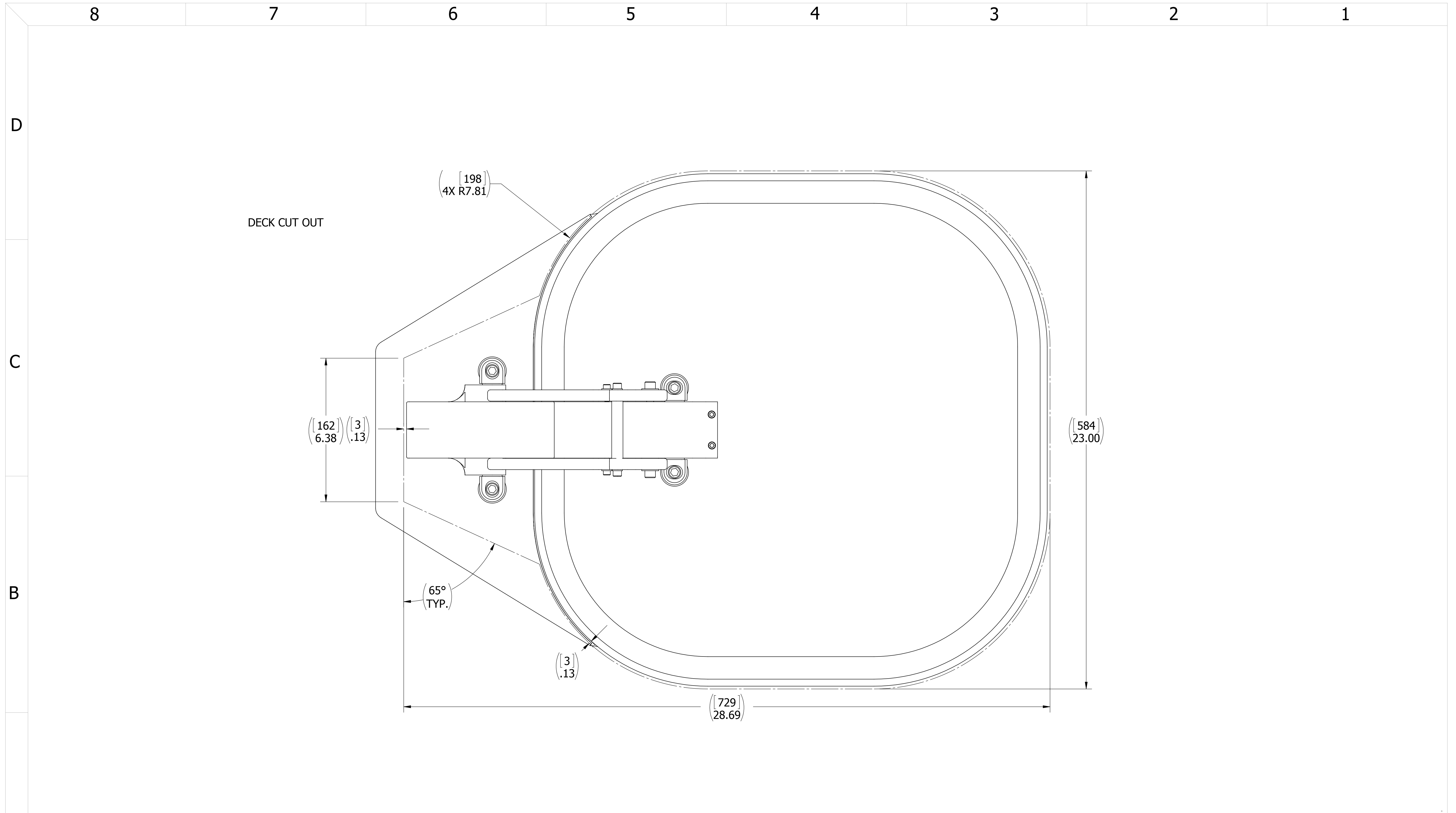


SECTION A-A
SCALE 1 : 2

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
16	1	0461-2077	HINGE ASSY, YOKE, CAST HATCH, W/HOLD OPEN	REF S/A B.O.M.
15	1	2493-1003	RING, 2020 W/ FLANGE	MILD STEEL
14	1	0031-2028	HANDLE INTERLOCKING REMOVABLE	STAINLESS STEEL
13	1	9813-2002	GASKET, 2020 (5.94" OF 0631-9813)	NEOPRENE
12	4	0411-2032	LOCKNUT, NYLON INSERT, 3/8-16, 316 S/S	STAINLESS STEEL, 316
11	4	0411-2098	STUD, ALL THREAD, 3/8-16 X 3	STAINLESS STEEL, 316
10	1	0441-2045	O-RING, 27MM X 4MM	BUNA-N
9	4	0411-2033	WASHER, .406 X 1.25 X .125, 316 S/S	STAINLESS STEEL, 316
8	4	0413-2005	WASHER, .406 X 1.250 X .062 NYLON	NYLON
7	4	0211-2009	DOG, LOCKING ARM, 2020, AL	ALUMINUM, 535.2-F
6	1	0441-2135	CUP, INTERLOCKING SPINDLE, 9/16 TO 3/4	ACETAL
5	1	0031-2107	SPINDLE, INTERLOCKING, FLUSH TO 1/4 TEAK	STAINLESS STEEL, 316L
4	1	0411-2004	PIN, KNURLED, 1/4 X 2-1/4, 316 S/S	STAINLESS STEEL, 316L
3	1	0112-2001	ACTUATOR, AL	ALUMINUM, 535
2	1	0011-2006	HUB, 4 HOLE - SHORT	ALUMINUM, 535.2
1	1	2422-3041	COVER: 2020 FLAT TOP AL, FINISH CASTING	ALUMINUM, A356.0-F

NOTES: UNLESS OTHERWISE SPECIFIED.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.		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	
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°		CLIENT: FREEMAN MARINE TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, STEEL DECK RING	
PROJECTION		CONTRACT NO.:	
DO NOT SCALE DRAWING		SIZE: D CAGE CODE: 64747 DRAWING NUMBER: 2493-0063 REV. -	
INITIAL RELEASE: 19FEB09 GJM		SCALE: 1:4 CALC. WT. ACT. WT. SHEET 2 OF 3	



<p>3. FINISH: 125 RMS MAX.</p> <p>2. BREAK SHARP EDGES AND DEBURR.</p> <p>1. MATERIAL: ALUMINUM / STEEL RING</p> <p>NOTES: UNLESS OTHERWISE SPECIFIED.</p>	<p style="text-align: center;">CUSTOMER APPROVAL</p> <p>Signature: _____</p> <p>Date: _____</p> <p><small>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.</small></p>	<p style="text-align: center;">SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.</p> <p style="text-align: center;">PROJECTION </p> <p><small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES FOR ROUGH AND CLEAR OPENING ± .125 INCH. ALL OTHERS ARE:</small></p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>.X</td> <td>.XX</td> <td>.XXX</td> <td>ANGLES</td> </tr> <tr> <td>±.1</td> <td>±.03</td> <td>±.010</td> <td>±2°</td> </tr> </table> <p style="text-align: center;">DO NOT SCALE DRAWING</p>	.X	.XX	.XXX	ANGLES	±.1	±.03	±.010	±2°	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>FREEMAN MARINE EQUIPMENT, INC.</p> <p><small>CONFIDENTIAL PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. UNAUTHORIZED USE, REPRODUCTION OR DISTRIBUTION IS STRICTLY PROHIBITED. ALL CODES REMAIN THE PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. AND MUST BE RETURNED UPON REQUEST.</small></p> <p><small>© ALL RIGHTS RESERVED 2012, FREEMAN MARINE EQUIPMENT, INC.</small></p> </div> <div style="width: 45%; text-align: right;"> <p>28336 HUNTER CREEK ROAD GOLD BEACH, OR 97444 U.S.A. PHONE: 541-247-7078 FAX: 541-247-2114 www.freemanmarine.com</p> </div> </div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">CLIENT: FREEMAN MARINE</td> </tr> <tr> <td colspan="2">TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, STEEL DECK RING</td> </tr> <tr> <td>SIZE: D</td> <td>CAGE CODE: 64747</td> </tr> <tr> <td>DRAWING NUMBER: 2493-0063</td> <td>REV: -</td> </tr> <tr> <td>SCALE: 1:2</td> <td>CALC. WT. ACT. WT. SHEET 3 OF 3</td> </tr> </table>	CLIENT: FREEMAN MARINE		TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, STEEL DECK RING		SIZE: D	CAGE CODE: 64747	DRAWING NUMBER: 2493-0063	REV: -	SCALE: 1:2	CALC. WT. ACT. WT. SHEET 3 OF 3
.X	.XX	.XXX	ANGLES																		
±.1	±.03	±.010	±2°																		
CLIENT: FREEMAN MARINE																					
TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, STEEL DECK RING																					
SIZE: D	CAGE CODE: 64747																				
DRAWING NUMBER: 2493-0063	REV: -																				
SCALE: 1:2	CALC. WT. ACT. WT. SHEET 3 OF 3																				