

- 8. FOR SPECIFIC INFORMATION CONTACT SALES.
- 7. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 55LBS/ 25K.
- 6. DOGGING PRESSURE FULLY ADJUSTABLE.
- 5. ALUMINUM ALLOY MECHANISM SHOWN.
- 4. FLUSH, WATERTIGHT CONSTRUCTION.
- 3. CAST ALUMINUM ALLOY FLANGE, FLANGE CAN BE DRILLED FOR BOLTED INSTALLATIONS OR WELDED TO ALUMINUM.
- 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.

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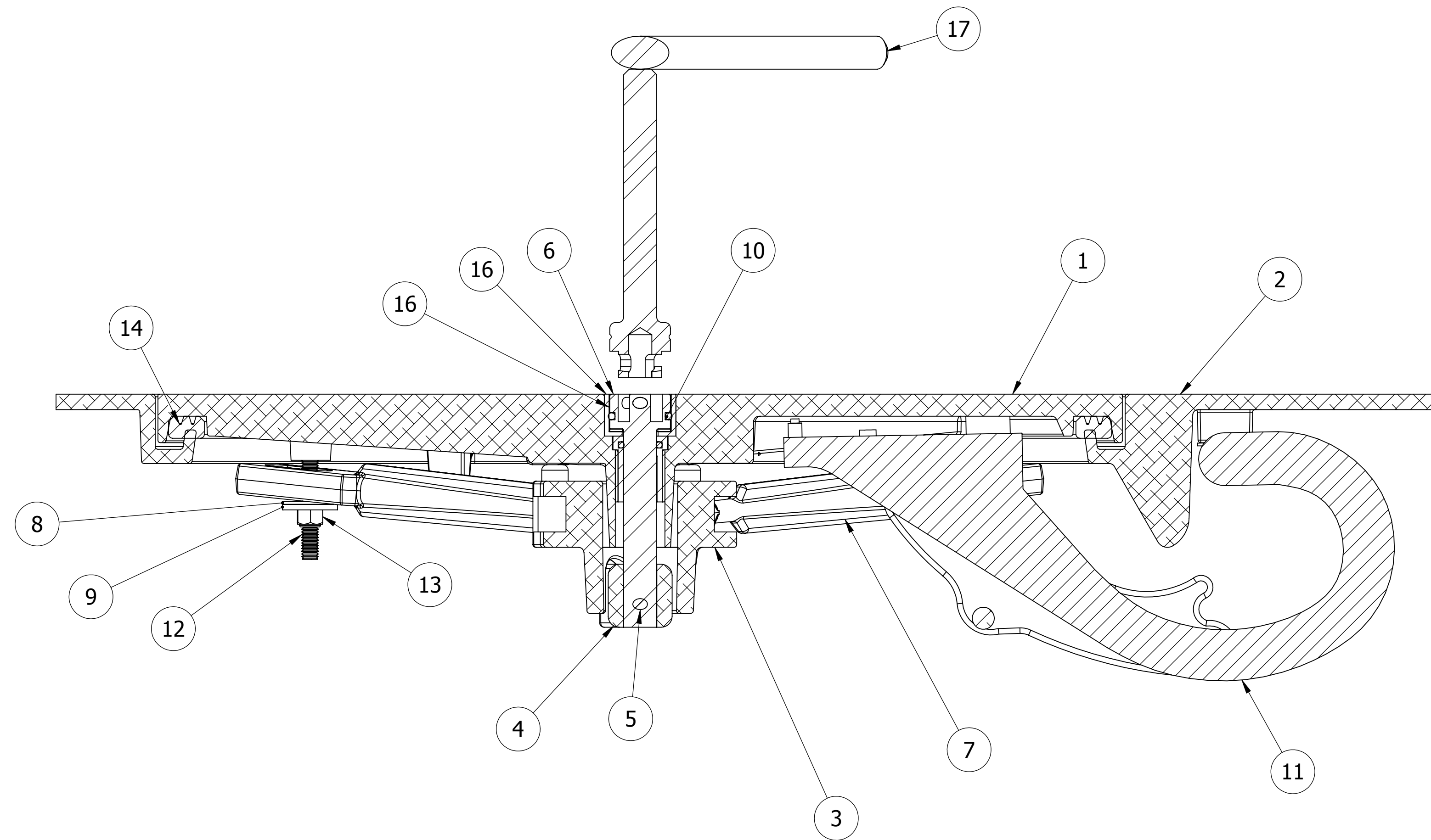
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.		FREEMAN MARINE EQUIPMENT, INC. 28336 HUNTER CREEK ROAD GOLD BEACH, OR 97444 U.S.A. PHONE: 541-247-7078 FAX: 541-247-2114 www.freemanmarine.com	
PROJECTION		CLIENT: FREEMAN MARINE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES FOR ROUGH AND CLEAR OPENING ± .125 INCH. ALL OTHERS ARE:		TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, ALUMINUM DECK RING	
.X .XX .XXX ANGLES ±.1 ±.03 ±.010 ±2°		SIZE CAGE CODE DRAWING NUMBER REV. D 64747 2493-0062 A	
DO NOT SCALE DRAWING		SCALE: 1:4 CALC. WT. ACT. WT. SHEET 1 OF 3	
REV. DESCRIPTION:	DATE:	DRAWN:	CONTRACT NO.:
- INITIAL RELEASE 18FEB09 GJM	18FEB09 GJM	DRAWN: G MACEACHERN DATE: 18FEB09	DESIGN ACTIVITY:
A UPDATE COAMING HINGE COVER PER NEW MATCH PLATE 15APR10 GJM	15APR10 GJM	CHECKED: P. CANCELLIERI DATE: 15APR10	ENGR:

D

C

B

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SECTION A-A
SCALE 1 : 2

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
18	1	0413-2049	WASHER, SHIM CAST HATCH BI-SQ	ACETAL, BLACK
17	1	0031-2264	HANDLE INTERLOCKING REMOVABLE	STAINLESS STEEL
16	1	0441-2341	CUP, INTERLOCKING SPINDLE, FLUSH TO 1/4	ACETRON GP, BLACK
15	1	0031-2001	BUSHING ASSY, STD HATCH, W/SLEEVE	REF. S/A - B.O.M.
14	1	9813-2002	GASKET, 2020 (5.94" OF 0631-9813)	NEOPRENE
13	4	0411-2032	LOCKNUT, NYLON INSERT, 3/8-16, 316 S/S	STAINLESS STEEL, 316
12	4	0411-2098	STUD, ALL THREAD, 3/8-16 X 3	STAINLESS STEEL, 316
11	1	0461-2077	HINGE ASSY, YOKE, CAST HATCH W/HOLD OPEN	ALUM W/ VARIOUS COMPONENTS
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	0031-2107	SPINDLE, INTERLOCKING, FLUSH TO 1/4 TEAK	STAINLESS STEEL, 316L
5	1	0411-2004	PIN, KNURLED, 1/4 X 2-1/4, 316 S/S	STAINLESS STEEL, 316L
4	1	0112-2001	ACTUATOR, AL	ALUMINUM, 535
3	1	0011-2006	HUB, 4 HOLE - SHORT	ALUMINUM, 535.2
2	1	2422-1002	RING: 2020 ALUM W/FLANGE, BOSS, YOKE HINGE	535 AL MAG
1	1	2422-3041	COVER: 2020 FLAT TOP AL, FINISH CASTING	ALUMINUM, A356.0-F

NOTES: UNLESS OTHERWISE SPECIFIED.

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A	UPDATE COAMING HINGE COVER PER NEW MATCH PLATE	15APR10	GJM

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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

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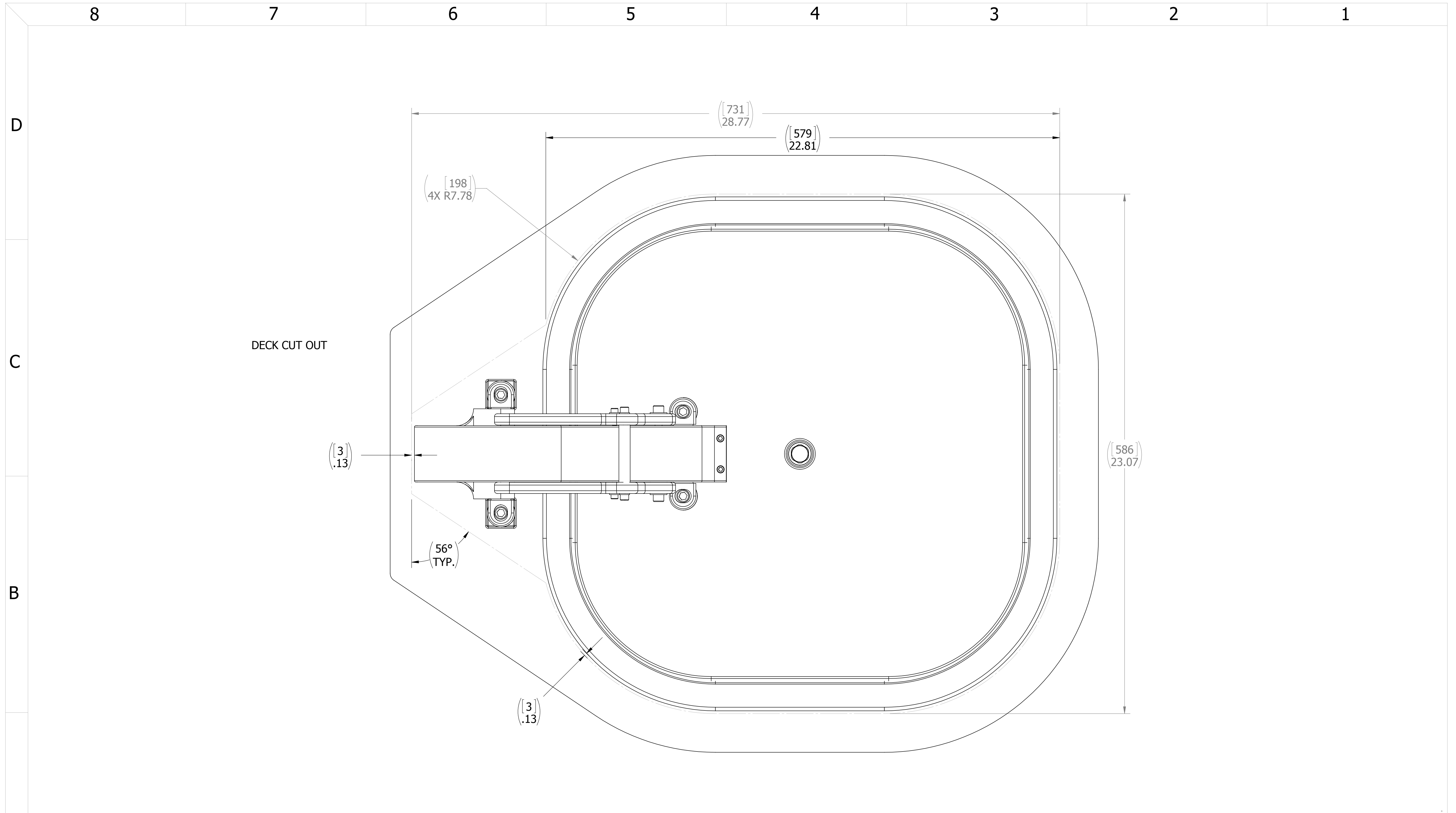
DRAWN: G MACEACHERN DATE: 18FEB09
CHECKED: P. CANCELLIERI DATE: 15APR10
ENGR: DATE:
DESIGN ACTIVITY: DATE:
CONTRACT NO.:

CLIENT: FREEMAN MARINE

TITLE: MODEL 2493 2020-H (K) INTEGRAL YOKE CAST HATCH, ALUMINUM DECK RING

SIZE	CAGE CODE	DRAWING NUMBER	REV.
D	64747	2493-0062	A

SCALE: 1:4 CALC. WT. ACT. WT. SHEET 2 OF 3



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- 3. FINISH: 125 RMS MAX.
 - 2. BREAK SHARP EDGES AND DEBURR.
 - 1. MATERIAL: ALUMINUM
- 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
-	INITIAL RELEASE	18FEB09	GJM
A	UPDATE COAMING HINGE COVER PER NEW MATCH PLATE	15APR10	GJM

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		CLIENT:	FREEMAN MARINE
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DRAWN: G MACEACHERN CHECKED: P. CANCELLIERI ENGR: DESIGN ACTIVITY: CONTRACT NO.:	DATE: 18FEB09 DATE: 15APR10 DATE:	SIZE: D CAGE CODE: 64747 DRAWING NUMBER: 2493-0062 SCALE: 1/2	REV. A ACT. WT. SHEET 3 OF 3