

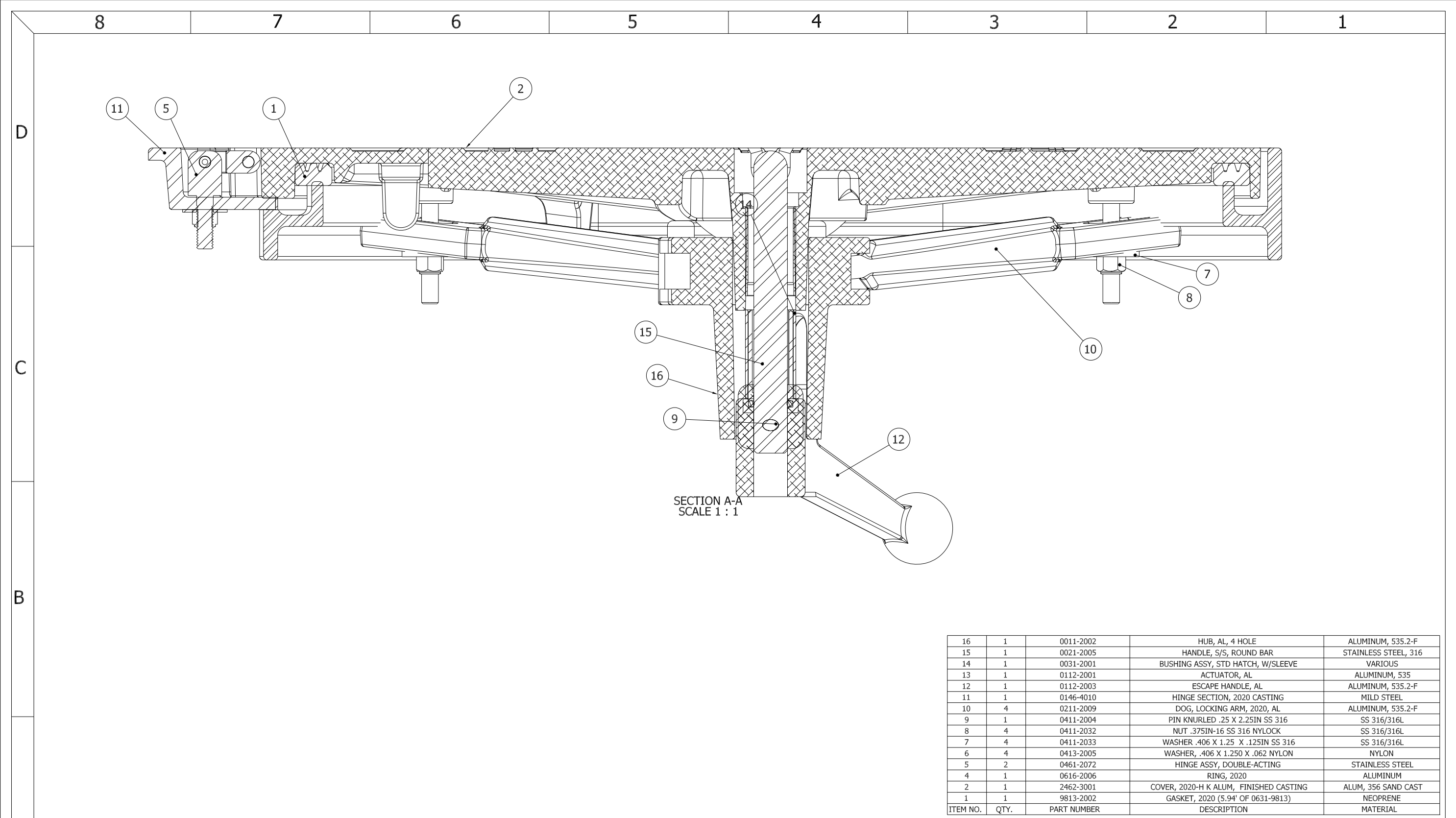
- 10. FOR SPECIFIC INFORMATION CONTACT SALES.
- 9. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 47.LBS
- 8. DOGGING PRESSURE FULLY ADJUSTABLE.
- 7. HANDLE POSITION TOPSIDE INDICATES WHETHER DOGGING MECHANISM IS IN OPEN OR CLOSED POSITION.
- 6. ALUMINUM ALLOY MECHANISM SHOWN.
- 5. FLUSH, WATERTIGHT CONSTRUCTION.
- 4. INTEGRAL TOPSIDE "T" HANDLE STANDARD, OTHER TOPSIDE ACTUATION AVAILABLE.
- 3. MILD STEEL COAMING FOR DECK DECK WELD IN APPLICATION.
- 2. QUICK-ACTING, MECHANISM ENGAGES OR DISENGAGES IN QUARTER-TURN OF CENTER SPINDLE.
- 1. 22.2" X 22.2" CLEAR OPENING, ALL DIMENSIONS SHOWN SUBJECT TO CASTING VARIATION AND ARE REFERENCE ONLY.

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.

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		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES FOR ROUGH AND CLEAR OPENINGS: .125 INCH. ALL OTHERS ARE:		CLIENT: FREEMAN MARINE	
.X .XX .XXX ANGLES ±.1 ±.03 ±.010 ±2°		DRAWN: Z. CARPENTER DATE: 01MAY13 CHECKED: D. YOE DATE: 01MAY13 ENGR: _____ DATE: _____ DESIGN ACTIVITY: _____ DATE: _____ CONTRACT NO.: _____		TITLE: HATCH: 2020-H K, AL COVER, MS RING	
A PRODUCTION RELEASE 01MAY13 ZAC		DO NOT SCALE DRAWING		SIZE: D CAGE CODE: 64747 DRAWING NUMBER: 2462-0003 SCALE: 1:4 ACT. WT. _____ SHEET 1 OF 3	



SECTION A-A
SCALE 1 : 1

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
16	1	0011-2002	HUB, AL, 4 HOLE	ALUMINUM, 535.2-F
15	1	0021-2005	HANDLE, S/S, ROUND BAR	STAINLESS STEEL, 316
14	1	0031-2001	BUSHING ASSY, STD HATCH, W/SLEEVE	VARIOUS
13	1	0112-2001	ACTUATOR, AL	ALUMINUM, 535
12	1	0112-2003	ESCAPE HANDLE, AL	ALUMINUM, 535.2-F
11	1	0146-4010	HINGE SECTION, 2020 CASTING	MILD STEEL
10	4	0211-2009	DOG, LOCKING ARM, 2020, AL	ALUMINUM, 535.2-F
9	1	0411-2004	PIN KNURLED .25 X 2.25IN SS 316	SS 316/316L
8	4	0411-2032	NUT .375IN-16 SS 316 NYLOCK	SS 316/316L
7	4	0411-2033	WASHER .406 X 1.25 X .125IN SS 316	SS 316/316L
6	4	0413-2005	WASHER .406 X 1.250 X .062 NYLON	NYLON
5	2	0461-2072	HINGE ASSY, DOUBLE-ACTING	STAINLESS STEEL
4	1	0616-2006	RING, 2020	ALUMINUM
2	1	2462-3001	COVER, 2020-H K ALUM, FINISHED CASTING	ALUM, 356 SAND CAST
1	1	9813-2002	GASKET, 2020 (5.94' OF 0631-9813)	NEOPRENE

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	01MAY13	ZIC

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

PROJECTION

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

CONFIDENTIAL PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO BE TAKEN FROM THE UNFINISHED SURFACE OF THE PARTS. ALL RIGHTS RESERVED 2012, FREEMAN MARINE EQUIPMENT, INC.

CLIENT: **FREEMAN MARINE**

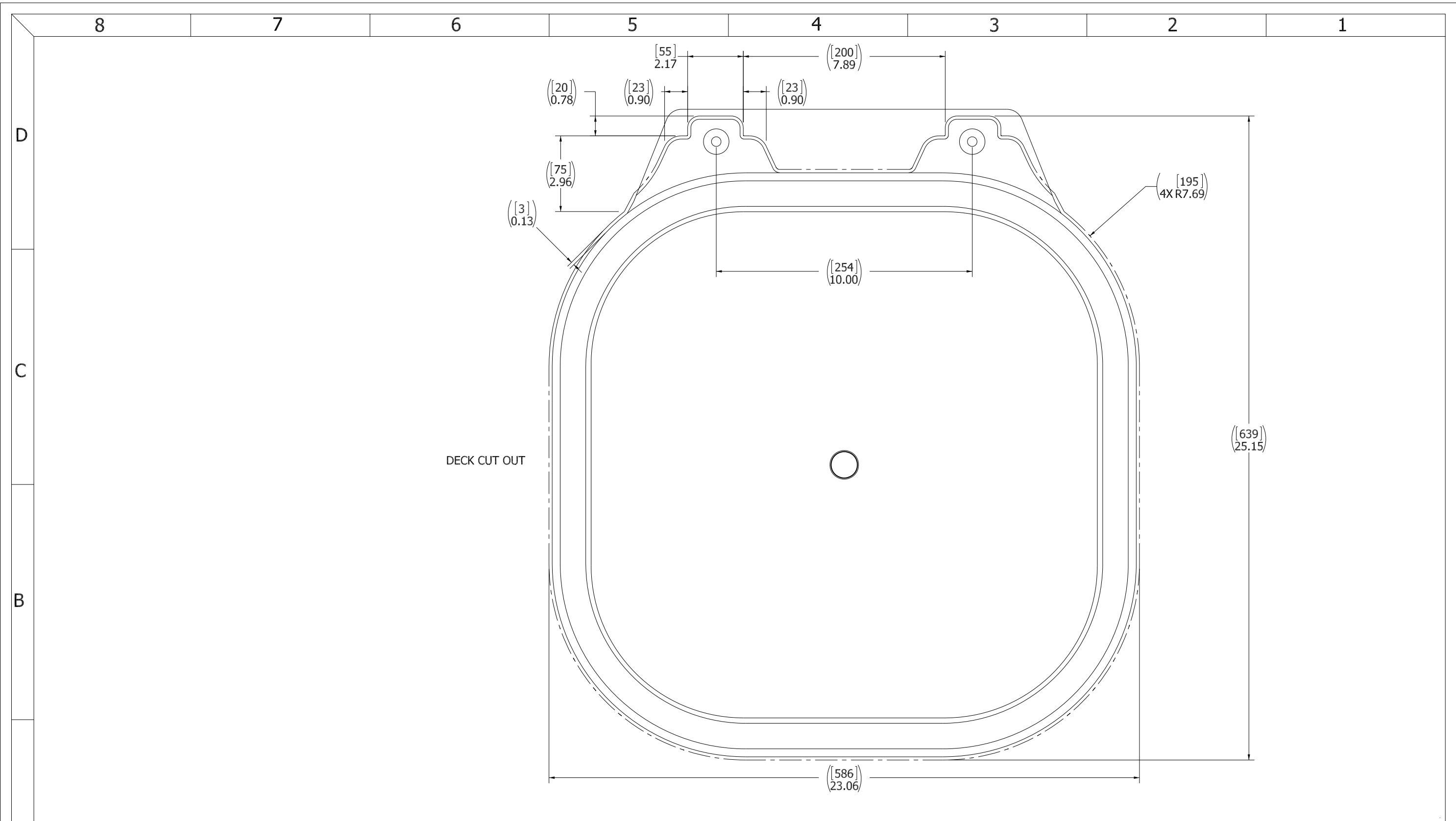
TITLE: **HATCH: 2020-H K, AL COVER, MS RING**

DRAWN: Z. CARPENTER DATE: 01MAY13
 CHECKED: D. YOES DATE: 01MAY13
 ENGR: DATE: _____
 DESIGN ACTIVITY: DATE: _____

CONTRACT NO.: _____

SIZE: **D** CAGE CODE: **64747** DRAWING NUMBER: **2462-0003** REV. **A**

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



- 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.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.			
PROJECTION			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES FOR ROUGH AND CLEAR OPENINGS: .125 INCH. ALL OTHERS ARE:			
.X	.XX	.XXX	ANGLES
±.1	±.03	±.010	±2°
DO NOT SCALE DRAWING			
REV.	DESCRIPTION:	DATE:	DRAWN
A	PRODUCTION RELEASE	01MAY13	ZIC

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	
CONFIDENTIAL PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. UNLESS OTHERWISE SPECIFIED. ALL RIGHTS RESERVED. THIS DRAWING IS THE PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. AND SHALL BE RETURNED UPON REQUEST.		© ALL RIGHTS RESERVED 2012, FREEMAN MARINE EQUIPMENT, INC.	
CLIENT:	FREEMAN MARINE		
TITLE:	HATCH: 2020-H K, AL COVER, MS RING		
SIZE	CAGE CODE	DRAWING NUMBER	REV.
D	64747	2462-0003	A
SCALE:	CALC. WT.	ACT. WT.	SHEET 3 OF 3
1:1.75			