

- 10. FOR SPECIFIC INFORMATION CONTACT SALES.
- 9. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 56.9LBS/ 25.8K.
- 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. 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. 24.1" DIAMETER 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.	
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	
INITIAL RELEASE	18MAR09 TLK
A	UPDATE GEN. NOTES & B.O.M. 23AUG11 PPC
REV.	DESCRIPTION: DATE: DRAWN:

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

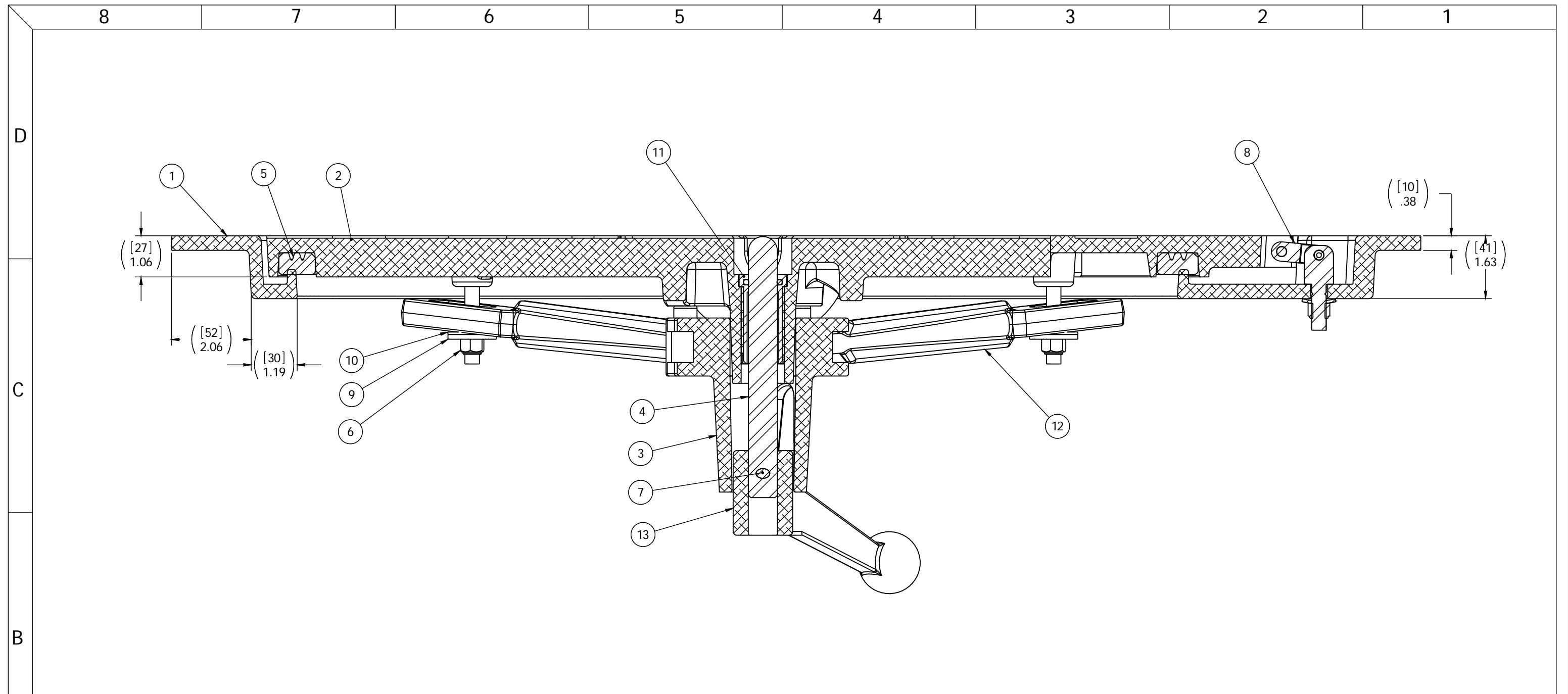
CONFIDENTIAL PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. UNAUTHORIZED USE, COPYING OR DISTRIBUTION IS STRICTLY PROHIBITED. POSSESSION OF THIS DOCUMENT AGREES TO THE FOREGOING AND SHALL BE RETURN THIS DOCUMENT UPON REQUEST. ALL RIGHTS RESERVED 2004

CLIENT: **FREEMAN MARINE**

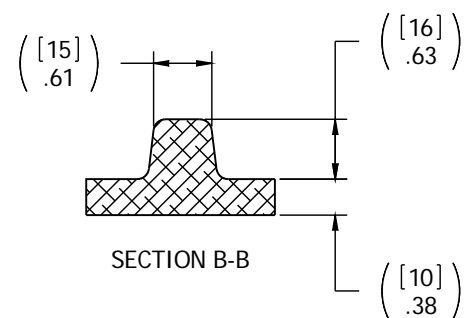
TITLE: **AL COVER, AL RING HATCH: 24-H K**

DRAWN: T. KUHNHAUSEN	DATE: 18MAR09
CHECKED:	DATE:
ENGR:	DATE:
DESIGN ACTIVITY:	DATE:
CONTRACT NO.:	

SIZE: D	CAGE CODE: 64747	DRAWING NUMBER: 2448-0002-0001	REV: A
SCALE: 1:2.75	CALC. WT.	ACT. WT.	SHEET 1 OF 3



SECTION A-A



SECTION B-B

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
13	1	0112-2003	ESCAPE HANDLE, AL	ALUMINUM, 535.2-F
12	4	0211-2012	DOG, LOCKING ARM 24, AL	ALUMINUM, 535.2-F
11	1	0031-2058	BUSHING ASSY, W/ O-RING, NO SLEEVE	ACETRON/RUBBER
10	4	0413-2005	WASHER, .406 X 1.250 X .062 NYLON	NYLON
9	4	0411-2033	WASHER, .406 X 1.25 X .125, 316 S/S	STAINLESS STEEL, 316
8	2	0461-2205	HINGE ASSY, DOUBLE-ACTING, CAST HATCH,2	REF S/A - B.O.M.
7	1	0411-2004	PIN, KNURLED, 1/4 X 2-1/4, 316 S/S	STAINLESS STEEL, 316L
6	4	0411-2032	LOCKNUT, NYLON INSERT, 3/8-16, 316 S/S	STAINLESS STEEL, 316
5	1	9813-2016	GASKET	NEOPRENE
4	1	0021-2005	HANDLE, S/S, ROUND BAR	STAINLESS STEEL, 316
3	1	0011-2002	HUB, AL, 4 HOLE	ALUMINUM, 535.2-F
2	1	2448-3001	COVER, 24 HK	ALUMINUM A356.0-F
1	1	2448-1002	RING: 24-K	ALUMINUM A356.0-F

REV.	DESCRIPTION	DATE	DRAWN
-	INITIAL RELEASE	18MARD9	TLK
A	UPDATE GEN. NOTES & B.O.M.	23AUG11	PPC

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

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. UNAUTHORIZED USE, COPYING OR DISTRIBUTION IS STRICTLY PROHIBITED. POSSESSOR OF THIS DOCUMENT AGREES TO THE FOREGOING AND SHALL RETURN THIS DOCUMENT UPON REQUEST.

CLIENT: **FREEMAN MARINE**

TITLE: **HATCH: 24-H K
AL COVER, AL RING
W/ INTEGRAL TOPSIDE HANDLE**

DRAWN: T. KUHNHAUSEN DATE: 18MARD09
CHECKED: DATE:
ENGR: DATE:
DESIGN ACTIVITY: DATE:

SIZE: **D** CAGE CODE: 64747 DRAWING NUMBER: 2448-0002-0001 REV. A

SCALE: 1:1.25 CALC. WT. ACT. WT. SHEET 2 OF 3

8 7 6 5 4 3 2 1

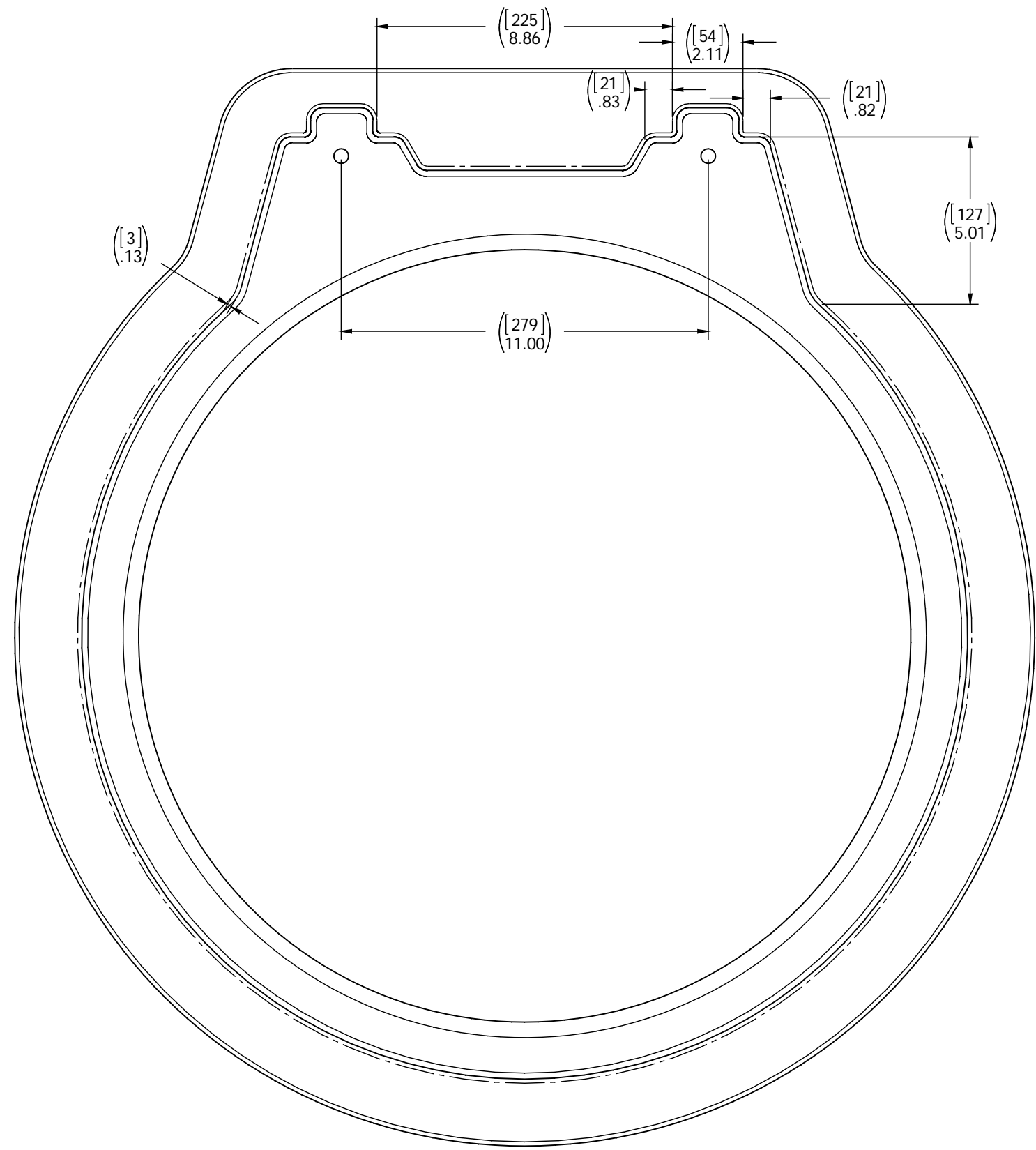
D

C

B

A

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
-	INITIAL RELEASE	18MAR09	TLK
A	UPDATE GEN. NOTES & B.O.M.	23AUG11	PPC

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

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. UNAUTHORIZED USE, REPRODUCTION OR DISTRIBUTION IS STRICTLY PROHIBITED. ALL COPIES REMAIN THE PROPERTY OF FREEMAN MARINE EQUIPMENT, INC. AND MUST BE RETURNED UPON REQUEST.
 © ALL RIGHTS RESERVED 2012, FREEMAN MARINE EQUIPMENT, INC.

CLIENT: **FREEMAN MARINE**
 TITLE: **HATCH: 24-H K
 AL COVER, AL RING**

DRAWN: T. KUHNHAUSEN	DATE: 18MAR09	SIZE: D	CAGE CODE: 64747	DRAWING NUMBER: 2448-0002-0001	REV: A
CHECKED:	DATE:	SCALE: 1:2	CALC. WT.	ACT. WT.	SHEET 3 OF 3