

10. FOR SPECIFIC INFORMATION CONTACT SALES.
9. COMPLETE ASSEMBLY WEIGHT W/ DECK RING, 52.5LBS/ 23.8K.
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. MILD STEEL COAMING, COAMING WELDED INSTALLATION.
2. QUICK-ACTING, MECHANISM ENGAGES OR DISENGAGES IN QUARTER-TURN OF CENTER SPINDLE.
1. 15.0" x 24.0" 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.

| REV. | DESCRIPTION: | DATE: | DRAWN: |
|------|----------------------------|---------|--------|
| - | INITIAL RELEASE | 09OCT08 | GJM |
| A | UPDATE GEN. NOTES & B.O.M. | 11NOV11 | PPC |

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

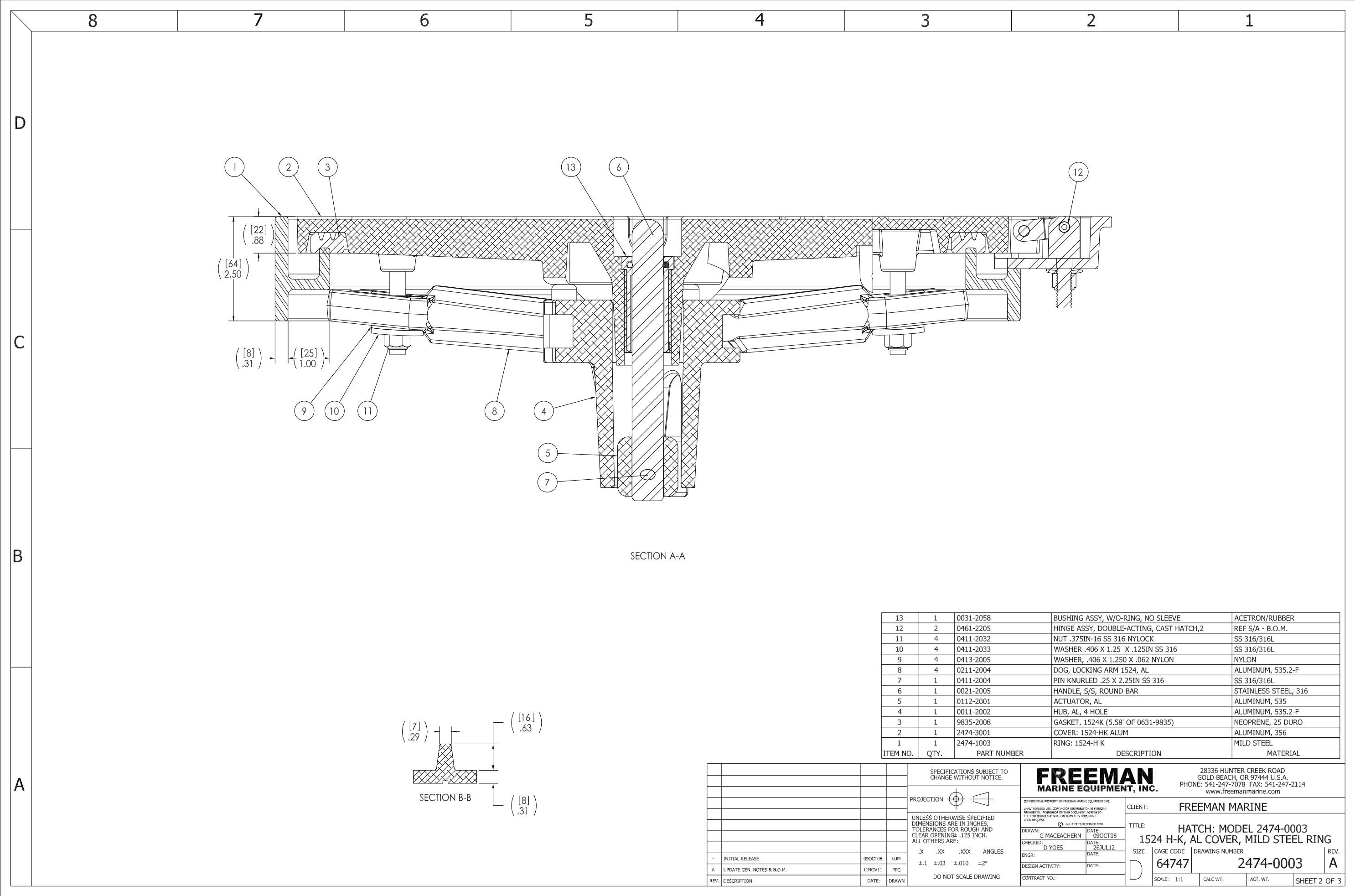
CLIENT: FREEMAN MARINE

TITLE: HATCH: MODEL 2474-0003

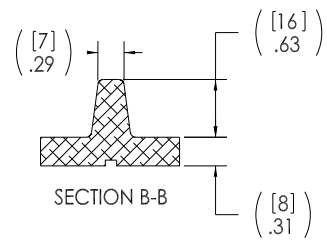
1524 H-K, AL COVER, MILD STEEL RING

| | |
|---------------------|---------------|
| DRAWN: G MACEACHERN | DATE: 09OCT08 |
| CHECKED: D YOES | DATE: 26JUL12 |
| ENGR: | DATE: |
| DESIGN ACTIVITY: | DATE: |
| CONTRACT NO.: | |

| | | | |
|--------------|------------------|---------------------------|--------------|
| SIZE: D | CAGE CODE: 64747 | DRAWING NUMBER: 2474-0003 | REV. A |
| SCALE: 1:2.5 | CALC. WT. | ACT. WT. | SHEET 1 OF 3 |



SECTION A-A



SECTION B-B

| ITEM NO. | QTY. | PART NUMBER | DESCRIPTION | MATERIAL |
|----------|------|-------------|---|----------------------|
| 13 | 1 | 0031-2058 | BUSHING ASSY, W/O-RING, NO SLEEVE | ACETRON/RUBBER |
| 12 | 2 | 0461-2205 | HINGE ASSY, DOUBLE-ACTING, CAST HATCH,2 | REF S/A - B.O.M. |
| 11 | 4 | 0411-2032 | NUT .375IN-16 SS 316 NYLOCK | SS 316/316L |
| 10 | 4 | 0411-2033 | WASHER .406 X 1.25 X .125IN SS 316 | SS 316/316L |
| 9 | 4 | 0413-2005 | WASHER, .406 X 1.250 X .062 NYLON | NYLON |
| 8 | 4 | 0211-2004 | DOG, LOCKING ARM 1524, AL | ALUMINUM, 535.2-F |
| 7 | 1 | 0411-2004 | PIN KNURLED .25 X 2.25IN SS 316 | SS 316/316L |
| 6 | 1 | 0021-2005 | HANDLE, S/S, ROUND BAR | STAINLESS STEEL, 316 |
| 5 | 1 | 0112-2001 | ACTUATOR, AL | ALUMINUM, 535 |
| 4 | 1 | 0011-2002 | HUB, AL, 4 HOLE | ALUMINUM, 535.2-F |
| 3 | 1 | 9835-2008 | GASKET, 1524K (5.58" OF 0631-9835) | NEOPRENE, 25 DURO |
| 2 | 1 | 2474-3001 | COVER: 1524-HK ALUM | ALUMINUM, 356 |
| 1 | 1 | 2474-1003 | RING: 1524-H K | MILD STEEL |

| REV. | DESCRIPTION | DATE | DRAWN |
|------|----------------------------|---------|-------|
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 ±.1 ±.03 ±.010 ±2°

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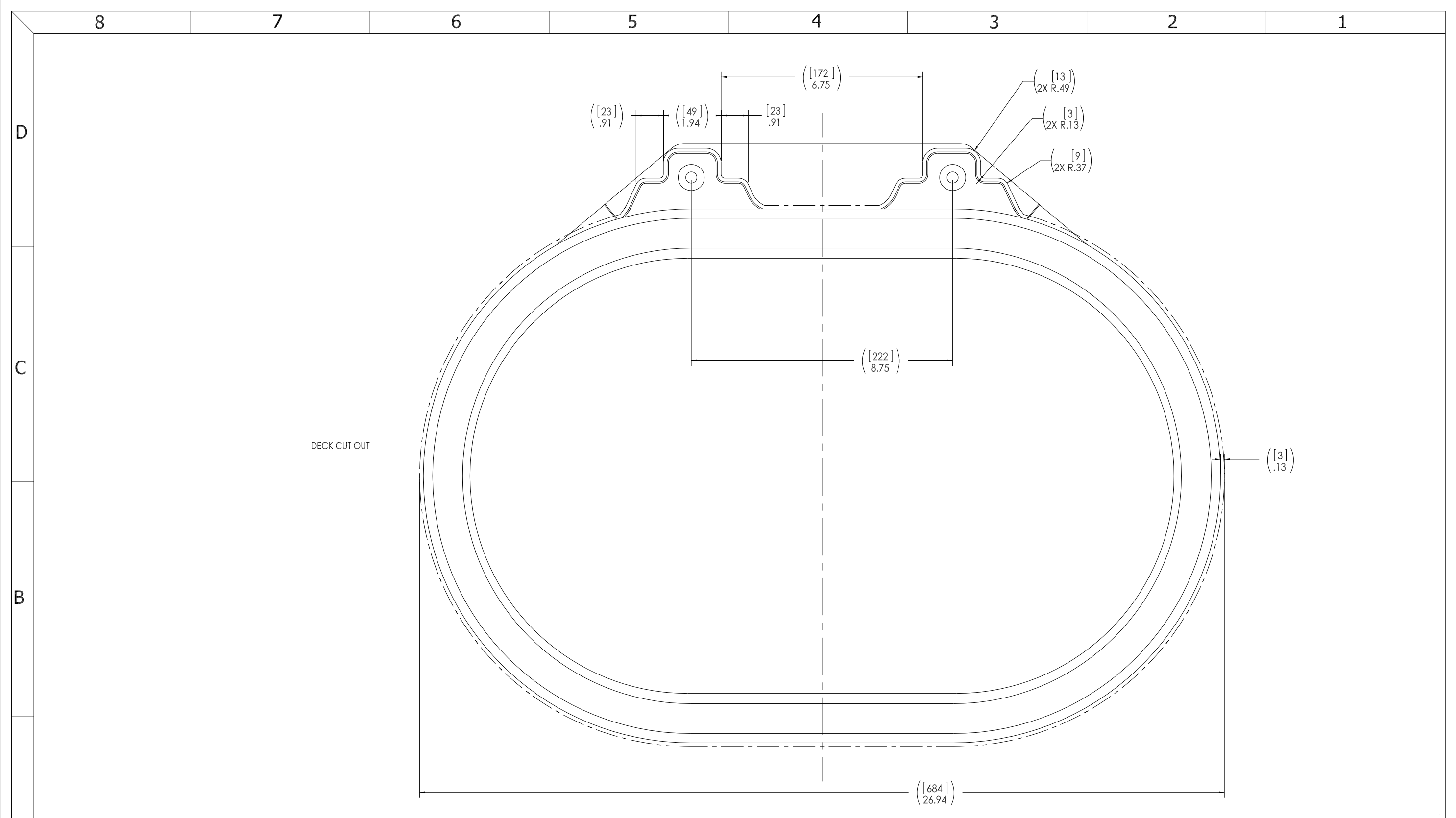
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CLIENT: **FREEMAN MARINE**

TITLE: **HATCH: MODEL 2474-0003
 1524 H-K, AL COVER, MILD STEEL RING**

SIZE: **D** CAGE CODE: **64747** DRAWING NUMBER: **2474-0003** REV. **A**

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



3. FINISH: 125 RMS MAX.
2. BREAK SHARP EDGES AND DEBURR.
1. MATERIAL: ALUMINUM

NOTES: UNLESS OTHERWISE SPECIFIED.

CUSTOMER APPROVAL

Signature: _____

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|---|--|--|--|
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| DRAWN: G MACEACHERN CHECKED: D YOES ENGR: DESIGN ACTIVITY: CONTRACT NO.: | DATE: 09OCT08 DATE: 26JUL12 DATE: DATE: | SIZE: D CAGE CODE: 64747 SCALE: 1:2.5 | DRAWING NUMBER: 2474-0003 ACT. WT.: SHEET 3 OF 3 |