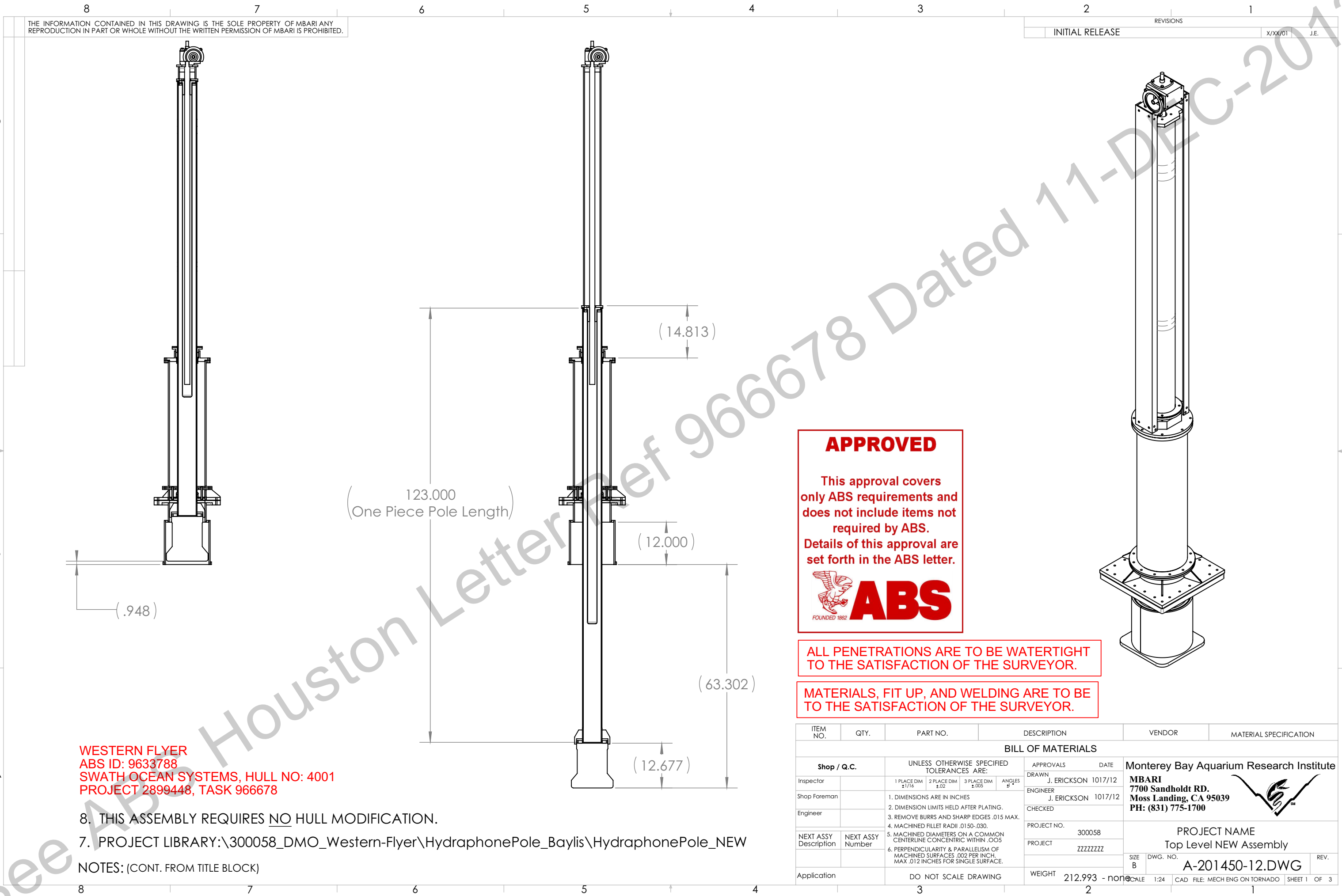




THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

| REVISIONS       |         |      |
|-----------------|---------|------|
| INITIAL RELEASE | X/XX/01 | J.E. |

WESTERN FLYER  
ABS ID: 9633788  
SWATH OCEAN SYSTEMS, HULL NO: 4001  
PROJECT 2899448, TASK 966678

8. THIS ASSEMBLY REQUIRES NO HULL MODIFICATION.
7. PROJECT LIBRARY:\300058\_DMO\_Western-Flyer\HydraphonePole\_Baylis\HydraphonePole\_NEW

NOTES: (CONT. FROM TITLE BLOCK)

APPROVED

This approval covers only ABS requirements and does not include items not required by ABS. Details of this approval are set forth in the ABS letter.

 **ABS**

ALL PENETRATIONS ARE TO BE WATERTIGHT TO THE SATISFACTION OF THE SURVEYOR.

MATERIALS, FIT UP, AND WELDING ARE TO BE TO THE SATISFACTION OF THE SURVEYOR.

| ITEM NO.              | QTY.             | PART NO. | DESCRIPTION                                                                                               | VENDOR      | MATERIAL SPECIFICATION |
|-----------------------|------------------|----------|-----------------------------------------------------------------------------------------------------------|-------------|------------------------|
| BILL OF MATERIALS     |                  |          |                                                                                                           |             |                        |
| Shop / Q.C.           |                  |          | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                                                                | APPROVALS   | DATE                   |
| Inspector             |                  |          | 1 PLACE DIM ±1/16                                                                                         | DRAWN       | J. ERICKSON 1017/12    |
| Shop Foreman          |                  |          | 2 PLACE DIM ±.02                                                                                          | ENGINEER    | J. ERICKSON 1017/12    |
| Engineer              |                  |          | 3 PLACE DIM ±.005                                                                                         | CHECKED     |                        |
|                       |                  |          | ANGLES ±°                                                                                                 | PROJECT NO. | 300058                 |
| NEXT ASSY Description | NEXT ASSY Number |          | 1. DIMENSIONS ARE IN INCHES                                                                               | PROJECT     | ZZZZZZZZ               |
|                       |                  |          | 2. DIMENSION LIMITS HELD AFTER PLATING.                                                                   |             |                        |
|                       |                  |          | 3. REMOVE BURRS AND SHARP EDGES .015 MAX.                                                                 |             |                        |
|                       |                  |          | 4. MACHINED FILLET RADII .0150-.030.                                                                      |             |                        |
|                       |                  |          | 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005                                       |             |                        |
|                       |                  |          | 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE. |             |                        |
| Application           |                  |          | DO NOT SCALE DRAWING                                                                                      | WEIGHT      | 212.993 - none         |
|                       |                  |          |                                                                                                           | SCALE       | 1:24                   |
|                       |                  |          |                                                                                                           | CAD FILE:   | MECH ENG ON TORNADO    |
|                       |                  |          |                                                                                                           | SHEET       | 1 OF 3                 |

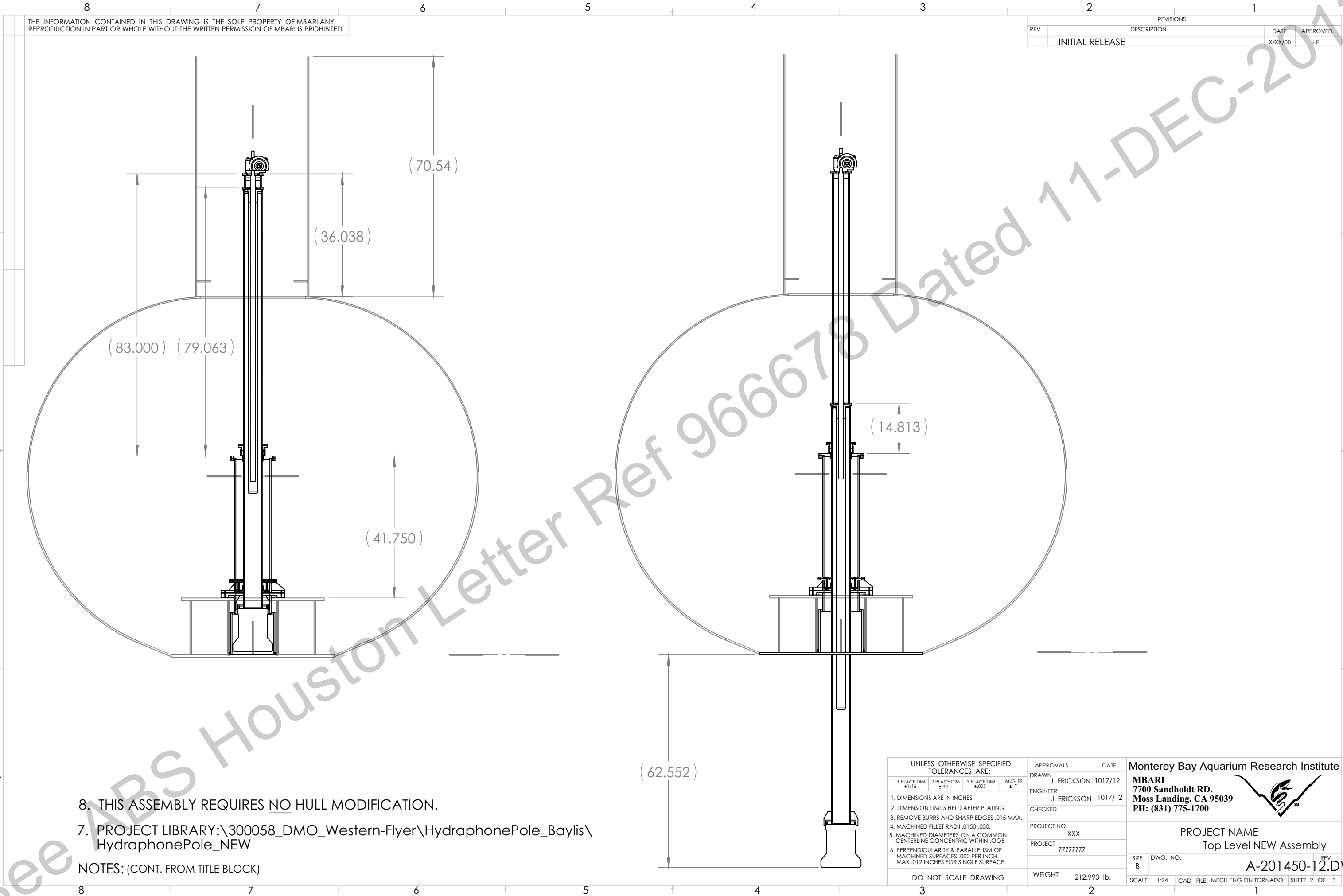
Monterey Bay Aquarium Research Institute  
**MBARI**  
7700 Sandholdt RD.  
Moss Landing, CA 95039  
PH: (831) 775-1700



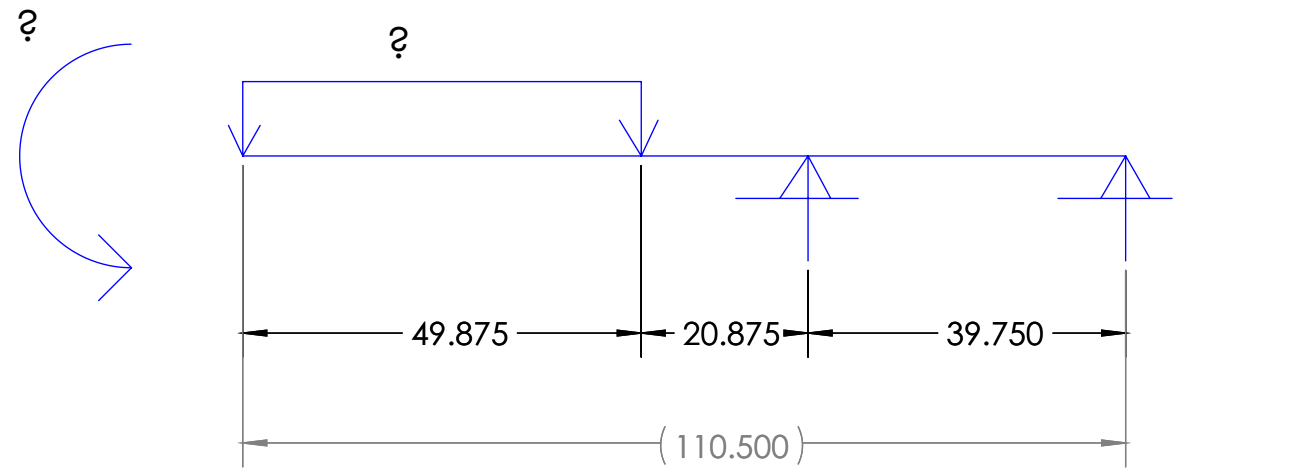
PROJECT NAME  
Top Level NEW Assembly

SIZE B DWG. NO. A-201450-12.DWG

REV.



| REVISIONS |                 |         |          |
|-----------|-----------------|---------|----------|
| REV.      | DESCRIPTION     | DATE    | APPROVED |
|           | INITIAL RELEASE | X/XX/00 | J.E.     |



|                          |                  |                                                                                                                                                                                                                      |                     |                                                                                                                                                                                                                                                                                               |                        |
|--------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| ITEM NO.                 | QTY.             | PART NO.                                                                                                                                                                                                             | DESCRIPTION         | VENDOR                                                                                                                                                                                                                                                                                        | MATERIAL SPECIFICATION |
| <b>BILL OF MATERIALS</b> |                  |                                                                                                                                                                                                                      |                     |                                                                                                                                                                                                                                                                                               |                        |
| <b>Shop / Q.C.</b>       |                  | UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                                                                                                                                                                           |                     | <div> <div> <div>APPROVALS</div> <div>DATE</div> </div> <div> <div>DRAWN</div> <div>J. ERICKSON 10/17/12</div> </div> <div> <div>ENGINEER</div> <div>J. ERICKSON 10/17/12</div> </div> <div>CHECKED</div> <div>PROJECT NO.</div> <div>XXX</div> <div>PROJECT</div> <div>ZZZZZZZZ</div> </div> |                        |
| Inspector                |                  | 1 PLACE DIM<br>±1/16                                                                                                                                                                                                 | 2 PLACE DIM<br>±.02 | 3 PLACE DIM<br>±.005                                                                                                                                                                                                                                                                          | ANGLES<br>±1°          |
| Shop Foreman             |                  | <div> <div>1. DIMENSIONS ARE IN INCHES</div> <div>2. DIMENSION LIMITS HELD AFTER PLATING.</div> <div>3. REMOVE BURRS AND SHARP EDGES .015 MAX.</div> <div>4. MACHINED FILLET RADII .0150-.030.</div> </div>          |                     |                                                                                                                                                                                                                                                                                               |                        |
| Engineer                 |                  | <div> <div>5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005</div> <div>6. PERPENDICULARITY &amp; PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.</div> </div> |                     |                                                                                                                                                                                                                                                                                               |                        |
| NEXT ASSY Description    | NEXT ASSY Number | <div> <div>PROJECT NAME</div> <div>Top Level NEW Assembly</div> </div>                                                                                                                                               |                     |                                                                                                                                                                                                                                                                                               |                        |
| Application              |                  | DO NOT SCALE DRAWING                                                                                                                                                                                                 |                     | <div> <div>SIZE</div> <div>B</div> <div>DWG. NO.</div> <div>A-201450-12.D</div> <div>REV.</div> <div>12.D</div> </div>                                                                                                                                                                        |                        |
|                          |                  | WEIGHT                                                                                                                                                                                                               |                     | <div> <div>SCALE</div> <div>1:24</div> <div>CAD FILE: MECH ENG ON TORNADO</div> <div>SHEET 3 OF 3</div> </div>                                                                                                                                                                                |                        |