



CERTIFICATE NUMBER

DATE

10-HS537949-PDA

11 January 2010

ABS TECHNICAL OFFICE

Houston SED - Ship Equipment

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
TIDES MARINE INC. - DEERFIELD BEACH

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Bulkhead and Deck Firetight and Watertight Penetrations

MODEL: Tides Marine Model HA-PB, Housing Adapter with Pneumatic Bladder

ABS RULE: 2010 Steel Vessels Rules 1-1-4/7.7; 1975 Rules for Aluminum Vessels, Section 32; 1978 Rules for Reinforced Plastic Vessels, Section 18.4; 2000 Guide for Motor Pleasure Yachts Section 19.9 & 20.3.3f

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING

Hans P. Haendler

Engineering Type Approval Co-ordinator

TIDES MARINE INC.
3251A S.W. 13TH DRIVE
DEERFIELD BEACH
FL 33442
United States
Telephone: 800-420-0949
Fax: 954-420-5234

MA Certificate No. 08-FL1081351

Product: Bulkhead and Deck Firetight and Watertight Penetrations

Model: Tides Marine Model HA-PB, Housing Adapter with Pneumatic Bladder

Intended Service:

For creating a Drive Shaft through-hull Flange with a Hose connection, which is Sealed with a Pneumatic Bladder, for New Construction and Retrofits, on Pleasure or Commercial Craft.

Description:

A Flanged through-hull Assembly which can be attached to the Hull, or to an existing through-hull Flange. The Assembly contains a Pneumatic Bladder for Sealing the Drive Shaft during Maintenance and Repairs. This Assembly has a Hose Fitting desgned to accept the Hose associated with the SureSeal System Model FSK.

Ratings:

For Drive Shaft Size Ranges: from 4"-8", or 100mm - 205mm.

Service Restrictions:

Unit Certification is not required for this product.

Comments:

None

Notes / Drawings / Documentation:

This Product Design Assessment (PDA) is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. Use in a non-classed vessel, MODU or Facility is to be to the satisfaction of the manufacturer and purchaser.

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 10-HS537949-PDA, dated 11/Jan/2010. This PDA Certificate expires 10/Jan/2015. It will remain valid for 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first). It is valid for all vessels contracted on or before the date of the Rules used in this evaluation.

STANDARDS

ABS Rules:

2010 Steel Vessels Rules 1-1-4/7.7; 1975 Rules for Aluminum Vessels, Section 32; 1978 Rules for Reinforced Plastic Vessels, Section 18.4; 2000 Guide for Motor Pleasure Yachts Section 19.9 & 20.3.3f

National:

NA

International:

NA

Government Authority:

NA

EUMED:

NA

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Others:
NA