



CERTIFICATE NUMBER
15-HS1320267-PDA

DATE
03 Mar 2015

ABS TECHNICAL OFFICE
Houston SED Machinery - Piping
& Electrical Sys.

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
ERL COMMERCIAL MARINE, INC.

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.

Product: **Level Gauging and Overfill Alarm**

Model: **"Level Alert" - High Level/Overfill Level Alarm Sensors.**

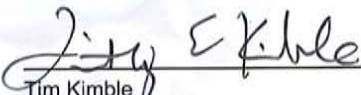
This Product Design Assessment (PDA) Certificate 15-HS1320267-PDA, dated 03/Mar/2015 remains valid until 02/Mar/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING



Tim Kimble
Engineer

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ERL COMMERCIAL MARINE

P.O. BOX 1026
2560 CHARLESTOWN RD
NEW ALBANY IN
United States 47150
Telephone: (812) 948-8484
Fax: (812) 944-8808
Email: rwaiz@erlinc.net
Web:

Tier: 2 - PDA Issued

Product: Level Gauging and Overfill Alarm

Model: "Level Alert" - High Level/Overfill Level Alarm Sensors.

Intended Service:

Level Indication for Tank Vessels.

Description:

Top mounted, rotary action floats actuating high level switch at 95% full and overfill switch at 98% full. Interfaces with loading facilities dock alarms/shutdown system and/or barge mounted annunciator panel.

Rating:

Intrinsically safety rated equipment. Please see website <http://commercial-marine.erlinc.net> for details.

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. Installation of intrinsically safe systems is to be in accordance with Testing Laboratory Reports and Manufacturer's specification and to the satisfaction of the attending Surveyor. This is to include bulkhead and deck penetrations. See 4-8-4/27.7, 27.9 of the Steel Vessel Rules.

Sub-compartments containing intrinsically safe components, documentation are to be submitted with details for review for each application. See 4-8-3/13.1 and 4-8-4/27.5.1 of the Steel Vessel Rules of the intrinsically safety and hazardous area installation.

Intrinsic safe Barriers and Relays Series 9250 & 9251 are associated Intrinsically safe Apparatus Stahl UL E81680.

Notes/Drawing/Documentation:

Correspondence, ABS Type application form 05-HS488857A-2, Revision: -, Pages: 1

UL LISTING L40 SWITCH
088K140B, LEVEL ALERT II, Rev-
UL E122752, E81680.

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Steel Vessels Rules 4-8-4/27.7, 27.9, 27.5.1; 4-8-3/13.; 5C-1-7/21.15

Steel Vessel Rules Under 90M 4-6-3/11;

2015 ABS Rules for Conditions of Classification, Part 1 – 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2015 Offshore Support Vessel Guide 4-8-4/29

National:

CSA 157 (2010)

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA



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Product: **Level Indicating, Fixed Alarm Panel & Audio/Visual Annuncia...**

Model: **APM-2 (-3,-6,-8,-10 & -12)**

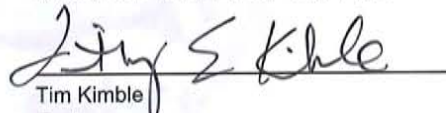
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Tim Kimble
Engineer

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Web:

Tier: 2 - PDA Issued

Product: Level Indicating, Fixed Alarm Panel & Audio/Visual Annunciator

Model: APM-2 (-3,-6,-8,-10 & -12)

Intended Service:

Marine & Offshore Application - Level Indication for Tank Vessels and Oil Barges.

Description:

Level Indication Audio/visual Annunciator Alarm for Tank Vessels & Barges.

Rating:

Power: 24 VDC Battery: Please see website <http://commercial-marine.erlinc.net> for details.

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. Installation of intrinsically safe systems is to be in accordance with testing laboratory reports and manufacturer's specification and to the satisfaction of the attending surveyor. This is to include Bulkhead and Deck penetrations. See 4-8-4/27.7, 27.9 of the Steel Vessel Rules.

Sub-compartments containing intrinsically safe components, documentation are to be submitted with details for review for each application. See 4-8-3/13.1, 4-8-4/27.5.1 of the Steel Vessel Rules of the intrinsically safety and hazardous area installation.

Intrinsic Safety Barriers and Repeater Relays Series 9250 & 9251 are associated intrinsically Safe Apparatus Stahl UL EB 8168.

Notes/Drawing/Documentation:

Correspondence, ABS Type Application Form 05-HS488857B-2, Revision: -, Pages: 1
UL Listing L40 Switch

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STANDARDS

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ABS Rules:

Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Steel Vessels Rules 1-1-4/7.7; 4-8-4/27.7, 27.9, 27.5.1; 4-8-3/13.1,

2015 Under 90M Rules 4-6-3/11;

2015 ABS Rules for Conditions of Classification, Part 1 – 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2015 Offshore Support Vessel 4-8-4/29;

National:

Stahl UL EB 8168 and ABS approved June 1997.

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA



CERTIFICATE NUMBER
15-HS1320258-PDA

DATE
03 Mar 2015

ABS TECHNICAL OFFICE
Houston SED Machinery - Piping
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Product: **Level Gauging, Rising Stick Gauge**

Model: **DS-39**

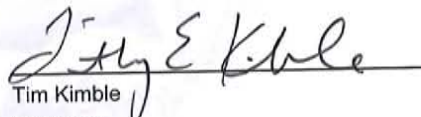
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Tim Kimble
Engineer

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Web:

Tier: 2 - PDA Issued

Product: Level Gauging, Rising Stick Gauge

Model: DS-39

Intended Service:

Level Indication for Tank Barges and Liquid Storage Tanks.

Description:

Top mounted, stick level gauge for use in Tank Barges.

Rating:

NA

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. Unless used in conjunction with an overfill alarm complying with U.S. Coast Guard 46 CFR 39.20-7 or 39.20-9(b) (2), installation is to insure that the red segment of the stick is visible before the tank level reaches 98.5% of the maximum capacity in accordance with 46 CFR 39.30-1 (e).

Notes/Drawing/Documentation:

Correspondence, Asbestos Declaration, Revision: -, Pages: 1
300G120B, Assembly Drawing DS-39 Rising Stick Gauge, Rev-

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

Steel Vessels Rules 5c-1-7/21.13
Steel Barges Rules

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Tier: 2 - PDA Issued

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA



CERTIFICATE NUMBER
15-HS1385378-PDA

DATE
07 Aug 2015

CERTIFICATE OF DESIGN ASSESSMENT

ABS TECHNICAL OFFICE
Houston SED Machinery - Piping
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Product: **Valve, High Velocity Pressure-Vacuum Relief**

Model: **ERL SUPERAC Model: 6" High Velocity Pressure/Vacuum Relief Valve**

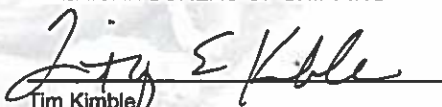
This Product Design Assessment (PDA) Certificate 15-HS1385378-PDA, dated 07/Aug/2015 remains valid until 06/Aug/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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Tier: 2 - PDA Issued

Product: Valve, High Velocity Pressure-Vacuum Relief

Model: ERL SUPERAC Model: 6" High Velocity Pressure/Vacuum Relief Valve

Intended Service:

Marine and Offshore Applications - Device to relieve over-pressure and vacuum of cargo tanks to prevent the passage of flame into the cargo tank.

Description:

6" Superac High Velocity PV Valves operates automatically on both the high velocity pressure side and the vacuum side of each valve. All operating mechanisms are located outside of the vapor exhaust system. The main valve body is made of 1/2" thick stainless steel, with 1/4" pipe. Style 60 (60 x 60) mesh Stainless Steel flame screen as tested and noted in the test report. The bearings and the full weather covers are stainless steel.

Rating:

Designation, Nominal Diameter (ND): 6"
Relief Settings for pressure side (psi): 1.0psi to 10psi
Relief Settings for Vacuum side (psi): 0.5psi to 5psi
Minimum MESH value: 0.28mm
Apparatus Group: II C

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

1. The valve is not designed or intended to be used with ice present on the valve.

Should the valve be exposed to ice conditions, the ice shall be removed from the valve by supplemental means to ensure proper operation.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

1. Pressure / vacuum settings, capacity calculations and details of the cargo venting arrangements are to be submitted for each application.

2. Instruction manual as per 4.3 of MSC/Circ.677 is to be provided by the manufacturer and be kept onboard.

3. Compliance with IMO MSC/Circ. 677, ISO 15364 have been verified by the test in a recognized laboratory.

Notes/Drawing/Documentation:

Drawing No. 6 PV CEESI 10LB Pressure, Calibration 10LB Pressure, Revision: -, Pages: 1

Drawing No. 6 PV CEESI 3LB VAC, Calibration CEESI 3LB VAC, Revision: -, Pages: 1

Drawing No. 6 PV CEESI 5LB VAC, Calibration CEESI 5LB VAC, Revision: -, Pages: 1

Drawing No. 6 PV CEESI 6LB Pressure, Calibration CEESI 6LB Pressure, Revision: -, Pages: 1

Drawing No. 6 PV CEESI Flow Test, Calibration CEESI Flow Test, Revision: -, Pages: 1

Drawing No. 6 PV Coast Guard Certificate of Approval, Coast Guard Certificate of Approval, Revision: -, Pages: 1

Drawing No. 6 PV SWRI ISO MSC 677 Fire Test Report, SWRI ISO MSC 677 Fire Test Report, Revision: -, Pages: 1

Drawing No. 6 PV Salt Spray Test, 6 PV Salt Spray Test, Revision: -, Pages: 1

Drawing No. Catalog PV pg, Catalog PV, Revision: -, Pages: 1

Drawing No. PV Body Pressure Test, Revision: -, Pages: 1

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STANDARDS

ABS Rules:

2015 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 5C-1-7/11.9;
2015 Rules for Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3;

National:

NA

International:

IMO MSC/Circ.677 (30 December 1994) Sections 3.2.3 and 3.3.3 as amended by MSC.1/Circ. 1009 (8 June 2001) and MSC.1/Circ.1324 (10 June 2009), ISO15364 7.2: 2007

Government:

USCG Approval Number: 162.017/167/4, expires 05 April 2016.

EUMED:

NA

OTHERS:

NA