



CERTIFICATE NUMBER	23-2412589-PDA
EFFECTIVE DATE	25-Aug-2023
EXPIRY DATE	24-Aug-2028
ABS TECHNICAL OFFICE	Genoa Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

BOENING AUTOMATIONSTECHNOLOGIE GMBH & CO. KG

located at

AM STEENOEVER 4, , GANDERKESEE, Germany, D-27777

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: Diesel Engine, Control, Monitoring and Safety System
Model: AHD 514 Diesel Engine, Control, Monitoring and Safety System
AHD-IAMC Integrated Alarm, Monitoring and Control System
Endorsements:
Tier: 5 - Unit Certification Required

This Product Design Assessment (PDA) Certificate remains valid until 24/Aug/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping
Giorgio Barbini
Giorgio Barbini, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

BOENING AUTOMATIONSTECHNOLOGIE GMBH & CO. KG

AM STEENOEVER 4
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Germany D-27777
Telephone: -49-4221-9475-0
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Email: info@boening.com
Web: www.boening.com

Tier: 5 - Unit Certification Required

Product: Diesel Engine, Control, Monitoring and Safety System
Model: AHD 514 Diesel Engine, Control, Monitoring and Safety System
AHD-IAMC Integrated Alarm, Monitoring and Control System

Endorsements:

Intended Service:
Ships, Offshore Units and High Speed Crafts

Description:

AHD 1219 G: 19" Panel PCs with glass front
AHD 1219 F: 19" Panel PCs with foil front
AHD 1215 G: 15" Panel PCs with glass front
AHD 1215 F: 15" Panel PCs with foil front
AHD 1119 G: 19" Display with glass front
AHD 1119 F: 19" Display with foil front
AHD 1115 G: 15" Display with glass front
AHD 1115 F: 15" Display with foil front
AHD 1224 G: 24" Panel PCs with glass front
AHD 1310 G: 10" Panel PC with glass front
AHD 1310 F: 10" Panel PC with foil front
AHD 1110 F: 10" Display with foil front
AHD 1110 G: 10" Display with glass front
AHD 880 G: 8.8" Operating panel with glass front
AHD 880 TC: 8.8" Operating panel with foil front
AHD 880 E: 8.8" Operating panel with engine monitoring
AHD 570: 5.7" LCD colour display
AHD 570 DP: 5.7" LCD colour display
AHD 652: 6.5" Operating panel
AHD-DRM R: Control unit for colour displays and monitors with rotary push drive
AHD-DRM T: Control unit for colour displays and monitors with trackball
AHD-PS 15B: Data station with duty selection function
AHD 406-2: Cabin duty alarm
AHD-DPU 9: Data processing station
AHD-SAS 15 M12: Data station for analog and binary sensors
AHD-PS 15: Data station for 15 binary inputs
AHD-PS 30: Data station for 30 binary inputs
AHD-PS 47: Data station for 47 binary inputs
AHD-R101: Microprocessor controlled relay station
AHD 1200: Embedded PC
AHD-UIC: Compact protocol converter
AHD-UCC: Repeater
AHD-GAP F: General alarm unit with fire alarm function
AHD-WAOP K: Personnel alarm system
AHD-WAOP: BNWAS
AHD-WOP: Whistle Operation Panel
AHD-DPS02 G14: Basic module for navigation and signal light control and monitoring
AHD-DPS02 A07: Extension module for navigation and signal light control and monitoring
AHD-DPS02 BS: Operation and indicator module for console
AHD-DPS02 E07 / 14: Emergency switch units with 7 / 14 switches
AHD 882: Central Unit
AHD-R101-2: Microprocessor controlled relay station
AHD 514 Diesel Engine Control and Safety System for Vessels

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Tier: 5 - Unit Certification Required

Rating:

Power Supply: 24V DC (115VAC and 230VAC)
Ambient Temperature: -25°C (- 50°C for some units) ... +70°C
Two separate power supplies for emergency stop and safety functions
Degree of Protection: IP20, 22, 44 and 56 (depending from the unit)

Service Restriction:

1. Unit Certification is 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.
2. The product is assigned as Category II or III Computer Based Systems in accordance with 4-9-3/Table 1 of the ABS Marine Vessels Rules. As such:
 - (a) The required evidence is to be kept by the manufacturer in accordance with 4-9-3/Table 2 of the MVR.
 - (b) The tests are required to be witnessed by ABS Surveyor in accordance with 4-9-3/Table 2 of the MVR.
3. Tests and approval is for hardware only.
4. Each configuration and external connection arrangement is to be specifically approved for each specific application.

Comments:

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

Notes/Drawing/Documentation:

See attached list

Terms of Validity:

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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2023 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
2023 Marine Vessels Rules 4-8-3/1.7, 4-8-3/1.11.1, 4-8-3/1.17, 4-9-2/7, 4-9-2/9.1, 4-9-2/9.3, 4-9-3/5, 4-9-3/7, 4-9-3/9, 4-9-3/11, 4-9-9/13, 4-9-9/Table 1

2023 Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:
2023 Mobile Offshore Unit Rules, 4-3-1/11, 4-3-1/15, 4-3-1/17

National:

NA

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Tier: 5 - Unit Certification Required

International:

IACS UR E10 Rev.8

Government:

NA

EUMED:

NA

OTHERS:

NA