



CERTIFICATE NUMBER 19-YO1902312-PDA

EFFECTIVE DATE 8-OCT-2019

EXPIRATION DATE 7-OCT-2024

ABS TECHNICAL OFFICE Yokohama Engineering Services

CERTIFICATE OF

Product Design Assessment

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

VAF INSTRUMENTS

located at

DORDRECHT, Netherlands

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 Oil Discharge Monitoring and Control System

Model Oilcon Mark 6 M

This Product Design Assessment (PDA) Certificate 19-YO1902312-PDA, dated 8/October/2019 remains valid until 7/October/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

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


Motohiro Tamura
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)

VAF INSTRUMENTS

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Web: www.vaf.nl

Tier: 3 - Type Approved, unit certification not required

Product: Oil Discharge Monitoring and Control System

Model: Oilcon Mark 6 M

Intended Service:

- Crude oils,
- "Black" and "White" products,
- Oil like substances as listed below:
Kerosene, Gasoline, Ethyl Cyclohexane, Cyclohexane, Methyl Cyclohexane, Toluene, Cyclopentane, Paraffin, Hexene, Octane, Pentane, p-Cymene, Xylene, Nonane, Diethylbenzene, Dipentene, Dodecane, Ethylbenzene, Hexene, Tetrahydrohaphthalene, Orimulsion,
- Individual Bio-Fuel Blends and Concentrations as listed below:
Bio-fuel blend of Diesel/gas oil and Vegetable oil (25% Vegetable oil + 75% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and Vegetable oil (1% Vegetable oil + 99% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and Alkanes (C10-C26) linear and branched with a flashpoint >60C (25% Alkanes + 75% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and Alkanes (C10-C26) linear and branched with a flashpoint >60C (1% Alkanes + 99% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and Alkanes (C10-C26) linear and branched with a flashpoint 60 C (25% Alkanes + 75% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and Alkanes (C10-C26) linear and branched with a flashpoint 60 C (1% Alkanes + 99% Diesel/gas oil)
Bio-fuel blend of Gasoline and Ethyl alcohol (25% Ethyl alcohol + 75% Gasoline)
Bio-fuel blend of Gasoline and Ethyl alcohol (1% Ethyl alcohol + 99% Gasoline)
Bio-fuel blend of Diesel/gas oil and FAME (25% FAME + 75% Diesel/gas oil)
Bio-fuel blend of Diesel/gas oil and FAME (1% FAME + 99% Diesel/gas oil)

Description:

Oil Discharge Monitoring and Control System consisting of main control unit 0206-0088, skid containing the measuring cell, sampling pump, starter box, sample valves, sample probe, electro pneumatic unit, pressure regulating valve.

Rating:

0-1000 ppm,
Ambient temperature 0-55 degree centigrade

Service Restriction:

- 1) Full details of each installation showing bulkhead penetration, pipe runs, response time calculations, electrical supply details etc. are to be submitted to an ABS technical office for approval.
- 2) Each tanker is required to have a 'ship specific' oil discharge monitoring and control system manual. The contents of this manual are to be in accordance with IMO Resolution MEPC.108(49) and Regulation 31, Annex I of MARPOL 73/78.
- 3) Unit Certification is not required for this product. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

- 1) If ABS is issuing the MARPOL 73/78 certificates on behalf of an Administration, the oil discharge monitoring and control system manual is to be approved by ABS.
- 2) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 3) The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006

Notes/Drawing/Documentation:

- 1) Institut Fresenius AG Certificate No. 104_254598 dated 20 Dec 2004
- 2) Cosmos Corporation, test report no. E89244 dated 03 Feb 2010

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- 3) DEKRA Test Report Nr. 2147179.0501-EMC and 2147179.0502-EMC dated 26 Jan 2012
- 4) DEKRA Certificate Nr. 2147179.0551-EMC dated 26 Jan 2012
- 5) DEKRA Attestation Certificate Nr. 2147179.0552-EMC dated 26 Jan 2012
- 6) VAF Test Report of the MCU dated 31 Jan 2012
- 7) SGS Institut Fresenius, Appendix to Report No. 114_3189674 dated 11 Nov 2014
- 8) VAF Technical Manual TIB-641-GB-0215 rev.0215
- 9) VAF Assembly drawing 0806-1288 Rev.A
- 10) Control drawing Mark 6M, 0806-0008 Rev. A dated 17 August 2018
- 11) Dim Drawing & partslist EPU 1-2 sample valves Mark 6M, 0806-1306 Rev. A dated 26 September 2018
- 12) Dim Drawing partslist ballast skid Mark 6M, 0806-1308 dated 21 June 2018
- 13) Electr conn diagr ballast monitor Mark 6M 2 DPI transmitter, 0806-2057 dated 30 May 2018
- 14) Electr conn diagr ballast monitor Mark 6M 2 DPI transmitter, 0806-2058 dated 4 June 2018
- 15) Schematic diagr mon Mark 6M, 0806-5030 dated 22 June 2018
- 16) Installation flowmeter MK5+6, 0806-8016 dated 25 January 1995
- 17) Schematic install monitor 1xdP-I Mark 6M, 0806-8090 dated 11 June 2018
- 18) Schematic install monitor 2xdP-I Mark 6M, 0806-8091 dated 11 June 2018
- 19) Bulkhead+piping diagr Mark 6M, 0806-8092 dated 12 June 2018
- 20) Schematic pip arr skid mark 6M, 0806-8093 dated 26 June 2018
- 21) Assy draw window washpump Mark 6M, 0871-1214 9 October 2018
- 22) Climate test M18.003-P18.002 VAF report signed by dnv, Report No. M18.003-P18.002 dated 8 October 2018 issued by Seberr Trillingstechniek B.V.
- 23) EMC test Dare!! Reference No. 18C00636RPT01 dated 26 September 2018 issued by DARE!! Measurements
- 24) Specification for Oil discharge monitoring & control systems PB_639_081018 2, Received date: 23 August 2019
- 25) TIB-642-GB-0119 Oilcon Mark 6M valid for serial numbers from 3190101M, Publication No. TIB-642-GB-0119 Received date: 23 August 2019
- 26) Test program dated 24 July 2018 Rev D
- 27) Vibration test M18.001-P18.001 VAF report, Report No. M18.001-P18.001 dated 14 August 2018 issued by Seberr Trillingstechniek B.V.

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 07/Oct/2024 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.

STANDARDS

ABS Rules:

2019 Marine Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 5C-1-7/5.3.4(b)
2019 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 5C-1-7/5.3.4(b)
2019 Mobile Offshore Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3
2019 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3

National:

NA

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International:

Regulation 31 Annex I of MARPOL 73/78 (2011 Consolidated Edition), MEPC.108(49) as amended by IMO Res. MEPC.240(65)

Government:

NA

EUMED:

NA

OTHERS:

NA