



CERTIFICATE NUMBER	24-2490578-PDA
EFFECTIVE DATE	24-Jan-2024
EXPIRY DATE	23-Jan-2029
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF Product Design Assessment

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

LAGERSMIT

located at

P.O. BOX 176, , ALBLASSERDAM, Netherlands, 2950 AD

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: Stern Tube Seals
Model: Model Name: SUPREME
Model Number: STA, STF, LDA, LDF, SG, SGV SVA, SGA, SAA, TS3, TS4, TSV4
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 23/Jan/2029 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

SBalakan

Serkan Balakan,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)

LAGERSMIT

P.O. BOX 176

ALBLASSERDAM

Netherlands 2950 AD

Telephone: 31 88 0216 200

Fax:

Email: info@lagersmit.com

Web: www.lagersmit.com

Tier: 2 - PDA Issued

Product: Stern Tube Seals

Model: Model Name: SUPREME

Model Number: STA, STF, LDA, LDF, SG, SGV SVA, SGA, SAA, TS3, TS4, TSV4

Endorsements:

Intended Service:

Shaft Seals for Oil or Grease Lubricated Propeller Shafts in Stern Tube and Thrusters on all types of Vessels and Mobile Offshore Drilling Units.

Description:

SUPREME SAA, SUPREME SGA, SUPREME STA, SUPREME SVA, SUPREME SG, and SUPREME SGV, are intended for Sterntube Aft Seal applications.

SUPREME STF is intended for Sterntube Forward Seal applications.

SUPREME LDA and LDF are intended for Low Duty Aft and Forward Stern Tube Applications respectively, and SUPREME TS3, SUPREME TS4 and SUPREME TSV4 are intended for Thruster Propeller Shaft Seals applications.

Rating:

Seal sizes from 155 mm through to 900 mm for shaft diameters from 110 mm to 840 mm.

Service Restriction:

- 1) Unit Certification is not required for this product.
- 2) Stern tube shaft sealing arrangement should be installed according with the latest manufacturers' recommended procedures
- 3) Acceptance on Vessels or Mobile Offshore Drilling Units with IACS Polar Ice Class is to be carried out on a case-to-case basis.
- 4) Acceptance on Vessels or Mobile Offshore Drilling Units with the optional Notation TCM (Tailshaft Condition Monitoring) is to be carried out on a case-to-case basis.

Comments:

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product
- 2) With regard to USCG requirements, in accordance with 46 CFR 58-05-1(a), if the design and installation of the subject equipment complies with the ABS Rules, the same will be satisfactory to the US Coast Guard.
- 3) Unless specially directed by Administration, this approval is not to be construed as a substitute for a flag Administration's (USCG) requirements.

Notes/Drawing/Documentation:

Drawing No. 01-60-100--, article encoding supreme, Revision: -, Pages: 1

Drawing No. 01-60-105, encoding seals, Revision: -, Pages: 1

Drawing No. 04-10-100-wiki, Supreme STA - AFT seal assembly, Revision: 05, Pages: 1

Drawing No. 04-12-100-wiki, Supreme SVA - AFT sea assembly, Revision: 05, Pages: 1

Drawing No. 04-15-100-wiki, Supreme STF - FWD seal assembly, Revision: 05, Pages: 1

Drawing No. 04-20-100-wiki, Supreme SG - AFT seal assembly, Revision: 08, Pages: 1

Drawing No. 04-25-100-wiki, supreme SGV- AFT seal assembly, Revision: 08, Pages: 1

Drawing No. 04-30-100--, Supreme LDA - AFT seal assembly, Revision: 26, Pages: 1

Drawing No. 04-35-100--, Supreme LDF - FWD seal assembly, Revision: 26, Pages: 1

Drawing No. 04-60-100-wiki, Supreme SAA - AFT seal assembly, Revision: 05, Pages: 1

Drawing No. 04-65-100-wiki, Supreme SGA - AFT seal assembly, Revision: 05, Pages: 1

Drawing No. Correspondence, PDA certificate, Revision: -, Pages: 1

Drawing No. Overview 2023, Overview 2023, Revision: -, Pages: 1

Drawing No. PID-LD--, Supreme LD Piping Diagram, Revision: C, Pages: 1

Drawing No. PID-LD-G--, Supreme Piping Diagram, Revision: A, Pages: 1

Drawing No. PID-SAA-MK2017--, Supreme Athmos Piping Diagram MK2017, Revision: C, Pages: 1

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P.O. BOX 176

ALBLASSERDAM

Netherlands 2950 AD

Telephone: 31 88 0216 200

Fax:

Email: info@lagersmit.com

Web: www.lagersmit.com

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Drawing No. PID-SG--, P&ID Supreme SeaGuard, Revision: H, Pages: 1
Drawing No. PID-SG-R, P&ID Supreme SeaGuard with Retour, Revision: B, Pages: 1
Drawing No. PID-SGA-MK2017--, Supreme SeaGuard ATHMOS Piping Diagram MK2017, Revision: C, Pages: 1
Drawing No. PID-SGV-MK2017--, P&ID Supreme SeaGuard Ventus, Revision: K, Pages: 1
Drawing No. PID-STA-STF, P&ID Supreme Standard, Revision: E, Pages: 1
Drawing No. PID-SVA-MK2017--, P&ID Supreme Ventus, Revision: J, Pages: 1
Drawing No. PID-TS3--, Supreme TS3 Piping Diagram, Revision: B, Pages: 1
Drawing No. PID-TS4--, SUPREME TS4 Piping Diagram, Revision: B, Pages: 1
Drawing No. PID-TSV4--, SUPREME TSV4 Piping Diagram, Revision: D, Pages: 1
Drawing No. TA-FWD-OT--, FWD Oil Tank Supreme FWD Seal Type Approval, Revision: B, Pages: 1
Drawing No. TA-SUP-B30, Supreme LDA AFT Seal Assembly Type Approval, Revision: D, Pages: 1
Drawing No. TA-SUP-B31, Supreme LDF FWD Seal Assembly Type Approval, Revision: D, Pages: 1
Drawing No. TA-SUP-OPT--, Optional Extras Supreme Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X01--, Supreme STA AFT Seal Assembly Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X05--, Supreme SVA AFT Seal Assembly Type Approval, Revision: E, Pages: 1
Drawing No. TA-SUP-X10--, Supreme SG AFT Seal Assembly Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X15--, Supreme SGV AFT Seal Assembly Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X20--, Supreme STF FWD Seal Assembly Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X40--, Supreme TS3 Thruster Seal Assembly Type Approval, Revision: C, Pages: 1
Drawing No. TA-SUP-X41--, SUPREME TS4 Thruster Seal Assembly Type Approval, Revision: D, Pages: 1
Drawing No. TA-SUP-X43--, SUPREME TSV4 Thruster Seal Assembly Type Approval, Revision: D, Pages: 1
Drawing No. TA-SUP-X60-B, Supreme SAA AFT Seal Assembly Type Approval, Revision: B, Pages: 1
Drawing No. TA-SUP-X65--, Supreme SGA AFT Seal Assembly Type Approval, Revision: B, Pages: 1
Drawing No. sgv_stf_2024, sgv_stf_installation_and_maintenance_manual, Revision: -, Pages: 125
Drawing No. sta3_stf3_2024, sta3_stf3_installation_and_maintenance, Revision: -, Pages: 69
Drawing No. ts4_2024, ts4_installation_and_maintenance_manual, Revision: -, Pages: 47

Terms of Validity:

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STANDARDS

ABS Rules:

2024 Rules for Conditions of Classification, Part 1A – 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which covers the following:
Rules for Building and Classing Marine Vessels - (2024 Edition) 4-3-2/5.13, 4-3-3/9.5.

2024 Rules for Conditions of Classification, Part 1B of Offshore Units and Structures – 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the following:
Rules for Building and Classing Mobile Offshore Units - (2024 Edition - Refer to Marine Vessels Rules) 4-1-2/9, 4-2-2/13.

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Tier: 2 - PDA Issued

National:

NA

International:

NA

Government:

Standards: USCG 46 CFR 58.05-1(a)

EUMED:

NA

OTHERS:

NA