



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

24-0087545-PDA
05-Sep-2024
04-Sep-2029
Hamburg Engineering Department

CERTIFICATE OF Product Design Assessment

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

SCHWER FITTINGS GMBH

located at

HANS-SCHWER-PLATZ 1, D-78588 Denkingen, Germany

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: Pipe Fittings
Model: sf 500 ff (DIN EN ISO8431-1, DIN 2353), L- and S- Series.
Endorsements:
Tier: 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 04/Sep/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


Efstratios Maliatsos, 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)

SCHWER FITTINGS GMBH

HANS-SCHWER-PLATZ 1

D-78588 DENKINGEN

Germany

Telephone: 0049 (0) 742498250

Fax: 0049 (0) 74249825900

Email: info@schwer.com Web:

www.schwer.com

Tier: 2 - PDA Issued

Product: Pipe Fittings

Model: sf 500 ff (DIN EN ISO8431-1, DIN 2353), L- and S- Series.

Endorsements:

Intended Service:

For use in shipboard stainless steel piping systems.

Description:

Mechanical Joints, Compression Fittings/Bite Type with union body, cutting ring and nut made from austenitic stainless steel material, grade: 1.4571 (AISI 316Ti).

Sealing: NBR, FKM, EPDM, PTFE, POM.

Rating:

Temperature range: -60°C to + 400°C.

(In case of use of elastomeric sealing elements the maximum allowable service temperature will be effected by the jointing material).

Pressure rating:

Series L (Light)

6 mm to 18 mm Pipe OD, PN 315 bar; 22 mm to 42 mm Pipe OD, PN 160 bar.

Series S (Heavy)

6 mm to 14 mm Pipe OD, PN 630 bar; 16 mm to 30 mm Pipe OD, PN 400 bar; 38 mm Pipe OD, PN 315 bar, 50 mm Pipe OD, PN 250 bar.

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.

Coupling types with tapered threads are not to be used for toxic and corrosive fluid services. Further, their use is limited to the following restrictions: In class I and II piping systems in general, for joining sections of hydraulic pipes and for steering gear-, controllable pitch propeller- and propulsion related hydraulic systems:

Pipe OD (mm): 6-20, Pressure Limitation (bar): 103,

Pipe OD (mm): 22-25, Pressure Limitation (bar): 82.3,

Pipe OD (mm): 28-50, Pressure Limitation (bar): 41.4.

In other hydraulic oil systems they may be used without pressure limitation only for connection to equipment, such as pumps, cylinders, accumulators, gauges and hoses. Straight thread O-ring fittings may be used for connections to equipment in hydraulic oil piping without pressure limitation, but are not to be used for joining sections of pipes.

Threaded couplings are not to be used in Class A / B Divisions and watertight bulkheads.

Comments:

The application and installation of the fittings is to be in accordance with the manufacturer's specifications and instructions and is to be specifically approved in connection with the relevant piping systems.

Generally, care is to be taken to prevent built-up of static electricity in piping conveying fluids having flash point of 60°C or less or being routed through hazardous areas. The wall thickness of tubes used in connection with "sf 500 ff" fittings is to be in accordance with the Bureau's current Marine Vessel Rules.

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

Notes/Drawing/Documentation:

Drawing No. 506S30S, SHM-506S30S-Fitting, Revision: 0, Pages:

Drawing No. 506S38S, SHM-506S38S-Fitting, Revision: 0, Pages:

Drawing No. Test Report, Test Report_Type approval of cutting ring couplings_2003, Revision: 0, Pages:

Drawing No. 506S14S, 506S14S-Fitting, Revision: 0, Pages:

Drawing No. 506S18L, 506S18L-Fitting, Revision: 0, Pages:

Drawing No. Katalog-H11, Katalog-H11_D-GB, Revision: , Pages:

Drawing No. Test DNV, DNV TAP00002EA_3, Revision: 3, Pages:

SCHWER FITTINGS GMBH

HANS-SCHWER-PLATZ 1

D-78588 DENKINGEN

Germany

Telephone: 0049 (0) 742498250

Fax: 0049 (0) 74249825900

Email: info@schwer.com Web:

www.schwer.com

Tier: 2 - PDA Issued

Drawing No. 506S42L, 506S42L-Fitting, Revision: 0, Pages:

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 04/Sep/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.

STANDARDS**ABS Rules:**

2024 Rules for Conditions of Classification: 1A-1-4/7.7, 1-1-A3 and A4, which covers the following:
2024 Rules for Building and Classing Marine Vessels: 4-3-4/9.5.2, 4-6-1/7.5.2, 4-6-2/5.5.5 & 5.9.

National:

NA

International:

DIN EN ISO 8434-1 (DIN 2353), 2018-11
IACS UR P2.11, Feb 2021

Government:

NA

EUMED:

NA

OTHERS:

NA