



CERTIFICATE NUMBER 20-2026195-PDA
EFFECTIVE DATE 19-Aug-2020
EXPIRATION DATE 18-Aug-2025
ABS TECHNICAL OFFICE CN Shanghai ESD

CERTIFICATE OF

Product Design Assessment

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

SAILUOKE FLUID EQUIPMENT INC.

located at

156 TONGXIN ROAD, CHONGZHOU ECONOMIC ZONE, CHENGDU,
SICHUAN PROVINCE, China

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 Piping System, Mechanical Joint

Model Metric series, Fractional series

This Product Design Assessment (PDA) Certificate remains valid until 18/Aug/2025 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

Bin-Hong Wang, Director

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)

SAILUOKE FLUID EQUIPMENT INC.

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Web: www.cir-lok.com

Tier: 3 - Type Approved, unit certification not required

Product: Piping System, Mechanical Joint

Model: Metric series, Fractional series

Intended Service:

The intended service as listed in 4-6-2/Table 10 of the ABS Rules for Building and Classing Marine Vessels (MVR)

Description:

Stainless steel straight fitting, right-angle fitting, tee, cross joint

Rating:

Design temperature: -40°C~205°C, Material: F316, 316L (ASTM A182, ASTM A479)

Detailed parameters as per attachment.

Service Restriction:

1. 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.
2. For sea water piping systems in which sea water may be retained within the piping system in a stagnant or low flow condition (i.e., less than 1 m/sec), there is a potential for chloride pitting and 304 stainless steels, 316L stainless steels with a molybdenum content of less than 2.5% are not to be used for the piping or piping components as per 4-6-2/3.1.2 of MVR.
3. Mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the vessel's side below the bulkhead deck of passenger vessels and freeboard deck of cargo vessels or tanks containing flammable fluids as per 4-6-2/5.9.1(f) of MVR.
4. Piping in which a mechanical joint is fitted is to be adequately adjusted, aligned and supported. Supports or hangers are not to be used to force alignment of piping at the point of connection as per 4-6-2/5.9.1(h) of MVR.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. The installation of mechanical joints is to be in accordance with the manufacturer's assembly instructions. Where special tools and gauges are required for installation of the joints, these are to be supplied by the manufacturer as per 4-6-2/9.6 of MVR.

Notes/Drawing/Documentation:

Report No.: 4318687-A, Burst test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Tightness test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642) Report

No.: 4318687-A, Vacuum test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642) Report No.:

4318687-A, Vibration (Fatigue) test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC.

(425642)

Report No.: 4318687-A, Pull-Out test report, 16-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Fire endurance test report, 16-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Pressure pulsation test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Repeated assembly test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Flexure fatigue test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Rotary flexure test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Report No.: 4318687-A, Tensile test report, 28-Jun-2020, SAILUOKE FLUID EQUIPMENT INC. (425642)

Drawing No.: Tube fitting (Fractional)re

Drawing No.: Tube fitting (Metric)re

Drawing No.: Design pressure uodate

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Terms of Validity:

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STANDARDS

ABS Rules:

ABS Rules for Building and Classing Marine Vessels (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-6-2/5.9

ABS Rules for Building and Classing Mobile Offshore Units (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3, 6-1-6/5.1.6

National:

NA

International:

ASTM F1387-2019

Government:

NA

EUMED:

NA

OTHERS:

NA