

CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

19-RJ1908558-PDA 30-Oct-2019 29-Oct-2024 Rio de Janeiro Engineering -Machinery

CERTIFICATE OF

Product Design Assessment

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

HEGAWA BV.

located at

KERKDIJK-ZUID 11A, SINT-OEDENRODE, Netherlands, 5492 HW

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 Coupling

Model Hegawa Straight FittoSize Couplings

This Product Design Assessment (PDA) Certificate remains valid until 29/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.

American Bureau Of Shipping

Joao C. Bastos Machado, 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)

HEGAWA BV.

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Tier: 2 - PDA Issued

Product:

Pipe Coupling

Model:

Hegawa Straight FittoSize Couplings

Intended Service:

Connection of pipeline sections for general shipboard service in systems, in conjunction with the limits imposed by the ratings and the service restrictions list.

Description:

Pipe couplings in the following sizes "DN", 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500 and 600; for material specifications, consult manufacturer's product datasheet.

Rating:

DN 50 to DN 600: maximum working pressure 10 bar g maximum working temperatures up to 90 deg.C

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) Usage of these couplings is limited to those applications and systems where a fire test is not a requirement of the Rules.

- 3) Slip type joints are not to be used in the systems listed below:
 - Any class I piping system.
 - Steering gear hydraulic systems.
 - Starting air and control air systems.
 - Steam piping systems (class I & II).
 - CO2 and other fixed fire extinguishing systems.
 - Boiler feed water piping.
 - Chemical cargo piping systems.
 - Cargo oil pipes located on open deck, cargo pumps rooms and pipe duct keels.
 - Crude oil washing lines located on open deck and in pump rooms.
 - Bilge pipes located in category A machinery spaces.
 - Ballast system located in category A machinery spaces.
 - Cooling water system located in category A machinery spaces.

- Fuel oil system located in category A machinery spaces and accommodation spaces. For more service restrictions refer to 4-6-2/Table 10 and 4-6-2/Table 11 of the Marine Vessels Rules.

4) 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.

Comments:

1) Joints are to be installed in such a manner that the axial loads generated by internal pressure thrust are adequately restrained, and this is to be by suitable restraints as close to either side of the joint as possible.

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

3) Note that unless specially directed by Administration, this approval is not to be construed as a substitute for a flag Administration's requirements.

Notes/Drawing/Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

Drawing No. Approval GL Tests 2011 2016, Type Approval Certificate, Revision: -

Drawing No. BOOKLET, STRAIGHT FIT TO SIZE COUPLINGS AND FLANGE ADAPTORS, Revision: 0

Electronically published by ABS Rio de Janeiro. Reference T1916420, dated 30-OCT-2019.

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Drawing No. Certificate Type Approval GL 2011 2016, Certificate, Revision: -

Drawing no. Hegawa Straight Fit to Size, pipeline products for water, gas and industrial applications, Revision: - Drawing no. Hegawa UK ISO 9001-2008 19-07-2015, Certificate, Revision: -

Drawing no. test report, test report, Revision: -

Terms of Validity:

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STANDARDS

ABS Rules:

ABS Rules for Conditions of Classification (2019): 1-1-4/7.7, 1-1-A3, 1-1-a4, which covers the following: 2019 ABS Rules for Building and Classing Marine Vessels 4-6-2/5.9, 4-6-2/Table 10, 4-6-2/Table 11 2019 ABS Rules for Building and Classing Steel Vessel 4-6-2/5.9, 4-6-2/Table 10, 4-6-2/Table 11

National:

N/A

International:

N/A

Government:

N/A

EUMED:

N/A

OTHERS:

N/A