



CERTIFICATE NUMBER

08-LD350280/1-PDA

DATE

13 August 2008

ABS TECHNICAL OFFICE

London Engineering Department

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
HEGAWA BV.

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. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

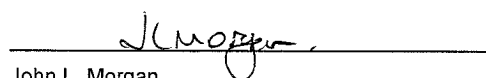
PRODUCT: Pipe Coupling

MODEL: Hegawa Straight FittoSize Couplings

ABS RULE: 2008 ABS Steel Vessel Rules, sections 1-1-4/7.7, 4-6-1/7 1.2, 4-6-1/7 5.2, 4-6-2/5 9, 4-6-2/Table 10, 4-6-2/Table 11

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING



John L. Morgan
Engineering Type Approval Co-ordinator

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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 attached.

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.

Ratings:

DN 50 to DN 600: maximum working pressure 10 bar g; maximum working temperatures up to 90°C

Service Restrictions:

- 1) See attached list of service restrictions
- 2) Usage of these couplings is limited to those applications and systems where a fire test is not a requirement of the Rules.
- 3) 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.

Comments:

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.

Notes/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.

Term of Validity:

This Design Assessment Certificate number 08-LD350280/1-PDA, dated 13/Aug/2008 will expire on 25/Jun/2013 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2009, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

STANDARDS

ABS Rules:

2008 ABS Steel Vessel Rules, sections 1-1-4/7.7, 4-6-1/7.1.2, 4-6-1/7.5.2, 4-6-2/5.9, 4-6-2/Table 10, 4-6-2/Table 11

