



CERTIFICATE NUMBER
11-LD754841-2-PDA

DATE
31 Mar 2015

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

QUICKFLANGE AS

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: **A106 Carbon Steel QF ; 316 Stainless Steel QF; CuNi 90/10* QF**

This Product Design Assessment (PDA) Certificate 11-LD754841-2-PDA, dated 31/Mar/2015 remains valid until 12/Aug/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

Nikolaos Vrellos
Engineer



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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

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Tier: 2 - PDA Issued

Product: **Piping System, Mechanical Joint**

Model: **A106 Carbon Steel QF; 316 Stainless Steel QF; CuNi 90/10***

QF Intended Service:

Compressed air, Fresh water, Sea water, Sanitary, Low pressure nitrogen/inert gas, Instrument air, Plant air, Sprinkler, Fire water / Deluge, Water in drilling systems, Produced water, Steam wash down, Open drain, Non-hazardous drain, Atmospheric ventilation, Lube oil, Glycol, TEG system, MEG system, Bilge system for spill water, Solid system (baryte, cement), hydrocarbon fluids and gases, hydraulic oil.

Description:

QF is a compressed, swage type, flange coupling which can be used to form a mechanical joint in piping.

Rating:

Pressure: maximum 102.1 bar, complying with ASME B 16.5 pressure/ temperature rating.

Temperature: -18C to +205 Celsius.

Pipe/ Coupling Size and Schedule: Please see attachment below.

Service Restriction:

Unit Certification is not required for this product.

CuNi QF is only permitted in fresh water, sea water, and fire water / deluge system piping joints.

These couplings are not to be used on Gas Carrier cargo piping.

These couplings are not to be used for structural applications.

Comments:

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

Mounting of this product is to be carried by personnel trained and qualified by Quickflange AS in accordance with their procedures and recommendations.

Documents regarding traceability and marking for each unit of this product shall be made available to ABS.

The assembly is to be to the satisfaction of the surveyor.

Notes/Drawing/Documentation:

Drawing No. Burst test Results, Revision: 1, Pages:-

Drawing No. Current PDA with no Approval to Hydrocarbons, Revision: 1, Pages:-

Drawing No. Gas Leak Test Results, Revision: 1, Pages:-

Drawing No. Proposal for QF extension to hydrocarbons and High Pressure, Revision: 1, Pages:-

Drawing No. Request for QF Use in Hydrocarbons, Revision: 1, Pages:-

Drawing No. Type Approval (PDA) Request, Revision: 1, Pages:-

Drawing No. Vibration Pulsation Test, Revision: 1, Pages:-

Terms of Validity:

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STANDARDS

ABS Rules:

2015 Rules for Building and Classing Steel Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, 2-3-12, 4-6-2/ 5.9, 4-6-2/ 5.15.
2015 Offshore Units and Structure 1-1-4/9.7, 1-1-A2, 1-1-A3.
2015 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-2-2/ 5.
2012 Guide for Classification of Drilling Systems (Up-dated Feb 2014) 6/ 7.

National:

NA

International:

ASME B31.3 (2012); ASME B16.5 (2013).

Government:

NA

EUMED:

NA

OTHERS:

NA



ASME B16.5 Schedule Table

Class 150 / 20 bar			
Pipe Size / Material	A106 Carbon Steel QF	316 Stainless Steel QF	CuNi 90/10 QF*
1" DN 25	Sch. 40	Sch. 10S	
	Sch. 80	Sch. 40S	
1 ½" DN 40	Sch. 40	Sch. 10S	
	Sch. 80	Sch. 40S	
2" DN 50	Sch. 40	Sch. 10S	WN 57x2.5mm
	Sch. 80	Sch. 40S	
3" DN 80	Sch. 40	Sch. 10S	
	Sch. 80	Sch. 40S	
4" DN 100	Sch. 40	Sch. 10S	
	Sch. 80	Sch. 40S	
5" DN 125	Sch. 40	Sch. 10S	
	Sch. 80		
6" DN 150	Sch. 40	Sch. 10S	
	Sch. 80		
8" DN 200	Sch. 20	Sch. 10S	
	Sch. 30		
	Sch. 40		
	Sch. 60		
	Sch. 80		

* CuNi QF are only permitted in fresh water, sea water, fire water / deluge system piping joints

Class 300/ 52 bar	
Pipe Size / Material	A106 Carbon Steel QF
1" DN 25	Sch. 40
	Sch. 80
1 ½" DN 40	Sch. 40
	Sch. 80
2" DN 50	Sch. 40
	Sch. 80
3" DN 80	Sch. 40
	Sch. 80
4" DN 100	Sch. 40
	Sch. 80
5" DN 125	Sch. 40
	Sch. 80
6" DN 150	Sch. 40
	Sch. 80
8" DN 200	Sch. 80

Class 600/ 102.1 bar	
Pipe Size / Material	A106 Carbon Steel QF
1" DN 25	Sch. 80
1 ½" DN 40	Sch. 80
2" DN 50	Sch. 80
3" DN 80	Sch. 80
4" DN 100	Sch. 80
5" DN 125	Sch. 80
6" DN 150	Sch. 80
8" DN 200	Sch. 80