

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Freudenberg Oil & Gas Canada Inc.
Address	803 Barton St., Stoney Creek, Ontario, L8E 5G6, Canada
Place of Production	Freudenberg Oil & Gas Canada Inc. 803 Barton St., Stoney Creek, Ontario, L8E 5G6, Canada
Type	Ball Joint
Description	Nonlinear Expansion devices for reducing pipe stress and equipment load due to thermal expansion and /differential settlement
Trade Name	Freudenberg's BlueSky ball joints (Flexball, Rotaball and RotaPipe)
Application	Onshore and Offshore (Topside)
Ratings	According to Form BPS-102 R3.2 Flexball and Rotaball Product Bulletin & OH06133.2 stamped ABSA
Other Conditions	<ol style="list-style-type: none">1. The Joints intended for use on the applications as stated above, are to be manufactured in accordance with the approved drawings and installed in accordance with the manufacturer's recommendations, to the satisfaction of the Lloyd's Register Surveyor.2. Materials used are to be suitable for their intended service.3. The Joints are to be maintained in accordance with the manufacturer's recommendations.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Vahid Saremi Shahab

Senior Piping Specialist to Lloyd's Register
EMEA
A member of the Lloyd's Register group

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This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. LR2006531TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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