DNV·GL

Certificate No:
TAF00000MU

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Jet Fire Protection

with type designation(s)
Trelleborg HTP - Jet Fire

Issued to
Trelleborg Offshore Norway AS.
KROKSTADELVA, Norway

is found to comply with
DNV GL offshore standards

Application :

Approved for use as jet fire penetration system for pipes.

Issued at **Høvik** on **2017-04-27**
This Certificate is valid until **2022-04-26**.
DNV GL local station: **Oslo Maritime and CAP**

Approval Engineer: **Kathrine Ilje Nerland**

for **DNV GL**

Petter Langnes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

Trelleborg HPT pipe penetration seal is a flexible seal with nominal thickness 13 mm, mounted onto a steel penetration sleeve and a steel pipe of smaller diameter which passes through the sleeve. The length of the sleeve is 300 mm. The seal is fitted to the sleeve and pipe with two hose clamps at each fastening point.

The pipe and the division it penetrates are insulated on the exposed side with 100 mm FireMaster 128 kg/m^3 and covered with a ceramic cloth. The ceramic cloth is fastened to the division with pins and washers and to the pipe with 1.25 mm steel wire.

Application/Limitation

Approved for use as jet fire penetration system for steel pipes of OD max. 14'' (355.6 mm) of rating (Type of fire / Type of application / Critical temperature rise (°C) / Period of resistance (minutes)):

JF / Pipe penetration seal / 35 °C / 15 min
JF / Pipe penetration seal / 70 °C / 30 min
JF / Pipe penetration seal / 110 °C / 45 min
JF / Pipe penetration seal / 155 °C / 60 min
JF / Pipe penetration seal / 180 °C /65 min
JF / Pipe penetration seal / 220 °C / 90 min
JF / Pipe penetration seal / 225 °C / 120 min

Restricted application: Jet fire against the insulated side

Any project specific design solutions, arrived at on basis of this certificate, are to be further validated by the project specific approvals, carried out by the appointed verifying authority for each project, in each case at the detailed engineering stage.

The approval refers only to the fire resistance properties of the system.

Each product is to be supplied with its manual for application and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test report No. 20300:1, version 2, dated 2017-01-23 from SP Fire Research AS.

Tests carried out

Tested according to ISO 22899-1 and ISO/TR 22899-2.

Marking of product

The product or packing shall be marked with the name of the manufacturer, type designation and fire technical rating.

Periodical assessment

DNV GL's surveyor shall be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement shall be in accordance with procedure described in DNVGL-CP-0338 Section 4.