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Inspection Certificate

Project: Fire test in accordance with API Specification 16D

Client: Faster S.p.A.

Via Ludovico Ariosto, 7 I-26027 Rivolta D'Adda (CR)

Italy

Client's Order Number: Request for Marine Services dated 25 July 2014

Order Status: Complete

Viareggio

11 November 2014

Office:

Date:

Inspection Dates

First: 24 July 2014 Final: 24 July 2014

This certificate is issued to Messrs Faster S.p.a., to certify that, at their request, the undersigned Surveyor to Lloyd's Register EMEA did attend Messrs LAPI Laboratorio Prevenzione Incendi S.p.a. works, sited in Calenzano (FI), on the above mentioned date for the purpose to witness fire tests carried out on the undernoted equipment in accordance with API American Petroleum Institute Specification 16D, July 2004:

Coupling OGVFR12 34NPS F & OGVFR12 34NPS M
Coupling OGVFR16 1NPS F & OGVFR16 1NPS M
Coupling HNVFR34 NPT F & HNVFR34 NPT M
Coupling HNVFR12 NPT F & HNVFR12 NPT M

identified with plans:

AD004674, AD004675, DE000240 male, female & components; AD004676, AD004677, DE000241 male, female & components; AD004713, AD004714, DE000243 male, female & components; AD004715, AD004716, DE000244 male, female & components;

Scope of Inspection satisfactorily carried out limited to:

- Witness of Fire tests on coupling in accordance with API Specification 16D, II Edition, July 2004, Chapter 10.1.2.
- Verification of specimen assembly components on fire test completion.
- Review of test data.

Notes:

- The fire tests were carried out in gas fuelled furnace, the specimens have been placed in the furnace with two thermo couples wire affixed at 25 mm from the surface of the specimen.
- Prior to furnace ignition, hydrostatic pressure of 350 bar have been applied to the coupling assembly and held for the test's duration.
- Tests commenced when the average temperature of the two thermocouples reached 700 °C and was terminated after 5 minutes of the heat exposure to the coupling assembly.
- Test reports No. 1123.0AE0200/14 dated 28/08/2014, No. 1122.0AE0200/14 dated 01/08/2014, No. 1124.0AE0200/14 dated 28/08/2014, No. 1121.0AE0200/14 dated 01/08/2014 issued by LAPI, Laboratorio Prevenzione Incendi S.p.a.

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Tests results considered satisfactory, the coupling assembly met the 5 minutes fire exposure at 700 $^{\circ}$ C without loss of pressure and leakages.

C. Musso Surveyor to Lloyd's Register EMEA

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