

TYPE EXAMINATION CERTIFICATE

This is to certify:**That the Flexible Hoses**

with type designation(s)

HOSE DS BOP 3000**HOSE DS BOP 5000**

Issued to

Diesse Rubber Hoses S.p.A.
FILAGO BG, Italy

is found to comply with

API Spec 16D, Control Systems for Drilling Well Control Equipment, 2nd Edition**Application :****DSBOP-5000-10-06 / N.S.: 9,5 to 10,1 mm / O.D.: 24,5 to 26,5 mm / WP: 350 Bar****DSBOP-3000-12-08 / N.S.: 12,4 to 13,2 mm / O.D.: 27 to 29 mm / WP: 210 Bar****DSBOP-3000-19-12 / N.S.: 19 to 19,8 mm / O.D.: 34,5 to 36,5 mm / WP: 210 Bar****DSBOP-3000-25-16 / N.S.: 24,5 to 26,2 mm / O.D.: 41,5 to 43,5 mm / WP: 210 Bar****Temperature Range: -40°, + 120°C**Issued at **Esbjerg** on **2016-08-05**for **DNV GL**This Certificate is valid until **2019-08-04**.DNV GL local station: **Milan Verification**Approval Engineer: **Andersen Ivan**
Principal Engineer
OEEDK780**Pedersen Lars Henning**
Principal Surveyor
Group Leader for OEEDK780

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 Examination Certificate and not to the approval of equipment/systems installed.

Product description

HOSE DS BOP 3000

INNER TUBE: OIL-RESISTANT SYNTHETIC RUBBER

REINFORCEMENT: 2 HIGH TENSILE STEEL BRAID AND A FIBER GLASS LAYER

COVER: SYNTHETIC RED RUBBER,MSHA APPROVED,RESISTENT TO ABRASION,OIL AND WEATHER CONDITIONS

COUPLING ENDS: INTERTRACO, SERIES J (FOR MULTISPIRAL AND WIRE BRAID HOSES)

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Application/Limitation

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- Temperature Range: -40° + 120°C

Type Examination documentation

- Flexible hoses datasheets: 161-00 - BOP5000
- Flexible hoses datasheets: 162-00 - BOP3000
- Coupling ends datasheets: J SERIES (INTERTRACO, FOR MULTISPIRAL AND WIRE BRAID HOSES)
- Type Examination, application form: Application_form, TE, Diesse Rubber_A0317993
- Certificates of Calibration, pressure gauge: SICK TEST report, Product No. 6038660, Serial No. 15441315
- Certificates of Calibration, thermocouple: RT03805 (16.01087/1 qty.6 id:S2 to S8)
- Survey report: IR 01_Diesse Rubber_Flexible Hose - Fire Test
- Diesse Rubber test report: N.:001/2016; N.:002/2016; N.:003/2016; N.:004/2016;
- Diesse Rubber test report (Annex): Annex rep. N.:001/2016; Annex rep. N.:002/2016; Annex rep. N.:003/2016; Annex rep. N.:004/2016;
- Diesse Rubber test procedure: IO_10 16_Test_API_16D

Tests carried out

Fire Tests according with API 16D Drilling well control systems, section 10.1.2.

Marking of product

For traceability to this Type Approval the hoses are to be marked as a minimum:

- Manufacturers name,
- Type,
- Service

Certificate Retention Survey

For retention of the Type Approval, DNV GL Surveyor shall perform a survey every second year, to verify that the conditions for the type examination are complied with unless the hoses are regularly certified by DNV GL

Notes and Assumptions

- In the context of this Type Examination Certificate: Flexible Hoses fire tested Fire Tests executed according with API 16D Drilling well control systems, section 10.1.2. also comply with LLOYD'S OD 1000/499 rev.2 for Hydraulic control hoses serving well completion units and blow out preventers.
- In the context of this Type Examination Certificate: DNV GL surveyor does not act on behalf of Lloyd's register
- Please consider that this certificate is not valid for products (materials, component or equipment) subjected to DNVGL classification.