

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Hoisting, Rotation and Pipehandling Equipment**

with type designation(s)

Load Pin Assembly, P/N LPE-1.25-EC044-1D

Issued to

National Oilwell DHT L.P.**Cedar Park, TX, USA**

is found to comply with

DNVGL-OS-E101 – Drilling facilities, Edition January 2018**DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2018****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****This TAC is used to replace TAC D-6210**Issued at **Houston** on **10/14/2019**This Certificate is valid until **10/13/2024**.for **DNV GL**DNV GL local station: **Certification & Inspection Services**Approval Engineer: **Bo Cui**

Christian Nilsen
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.



Job Id: **262.1-019664-2**
Certificate No: **TAD0000167**

Product description

Load pin assembly, 1.25M lb, 4-20 ma, Rdnt bridge , Rcal, HTB1250. For use in the Travelling Block of NOV Top Drive TDX-1250.

Application/Limitation

Design Parameter	Value	Equivalent
Maximum Rated Load	: 5560 kN	(1,250,000 lbf)
Minimum Operating Temperature	: -20 °C	-4 °F
Maximum Operating Temperature	: -45 °C	113 °F
Product Specification Level (PSL)	: 1	
Temperature Class	: T4	
Service	: Standard Marine Environment	

For use in Zone 0, Gas Group IIB (Class 1 Division 1, Gas Group C & D), Protection method Ex ia.

Type Approval documentation

Fabrication procedures

Procedures related to testing, welding, NDT, etc are to be reviewed/approved by DNV GL's local Surveyor

Marking of product

For traceability, the following marking is to be carried out on each product:

- Serial number
- Manufacturer's name or trademark
- Additional marking at the manufacturer's discretion
- Be in accordance with API Specification 8C

Periodical assessment

For retention of the Type Approval, DNV GL's surveyor shall perform periodical assessment in accordance with DNV GL's Class Programme DNVGL-CP-0338, Section 4.

Other Conditions / Comments

- 1) The instructions listed in the "Conditions of Certification", IECEx certificate UL 10.0024X and in "Specific Conditions of Use", EC-TE Certificate DEMKO 03 ATEX 0305995X Rev.4, shall be taken into consideration when installing and operating the device.
- 2) This design verification does not cover the approval of the controls and automation for the equipment. These shall be approved separately as part of the drilling equipment control system and tested onboard by the site surveyor to verify compliance with DNVGL-OS-E101 Ch.2 Sec.4.
- 3) Procedures related to testing, welding, NDE and other quality control requirements are to be reviewed/approved by DNV GL's local surveyor.

END OF CERTIFICATE