

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Coupling**

with type designation(s)
3-1/16" 15K Quick Stab Connector (QSC)

Issued to

SUB SEA SERVICES AS
STAVANGER, Norway

is found to comply with

DNVGL-OS-E101 – Drilling plant, Edition July 2015

DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2015

Application :

See next page.

Issued at **Høvik** on **2017-09-27**

This Certificate is valid until **2022-09-26**.

DNV GL local station: **Oslo Drilling Systems**

Approval Engineer: **Axel Janson**

for **DNV GL**

Per Esvall
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.



Reference Standards

- [1] API Specification 16A
- [2] API Specification 16C "Choke and Kill Equipment", second edition, March 2015
- [3] ASME Boiler & Pressure Vessel Code, Section VIII, Division II, September 2004
- [4] ASME B31.3, Code for Pressure Piping, 2014 Edition
- [5] ISO 15156 / NACE MR0175 "Materials for use in H₂S-containing environments in oil and gas production", first edition, 2001.

Product Description

The 15 000 psi Quick Stab Connector is a quick release coupling to be connected between a flexible hose and a metallic pipe with API 16BX hubs.

Application/Limitation

<u>Design Parameter</u>	<u>Value</u>	<u>Equivalent</u>
Min. Design Temperature:	-20 °C	-4 °F
Max. Design Temperature:	100 °C	212 °F
Max. Working Pressure:	1034 bar	15 000 psi
Vertical Load Capacity:	64 kN	14 400 lbf
Horizontal Load Capacity:	17 kN	3800
Service:	Sour service/H ₂ S	

Job Id: **262.1-026873-1**
Certificate No: **TAD00000U1**

Type Approval Documentation:

Materials

<u>Components</u>	<u>Material</u>	<u>Min. Yield Strength</u>	<u>Min. Charpy (long, average)</u>
Main Body & Hubs	AISI 4130 AISI 4140 AISI 4145	75K psi	42 J @ -20 °C

Marking of Product

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

- Part No.
- Serial No.
- Rated Load/Pressure capacity
- Manufacturers Name or Mark

Fabrication/Testing Procedures

Test Procedures:

1. Pressure testing shall be performed in accordance with Ch.2, Sec.6 of DNVGL-OS-E101 Drilling Plant with a test pressure of 1,5 x WP.
2. Charpy testing shall be performed in accordance with Ch.2, Sec.2 of DNVGL-OS-E101 Drilling Plant.

NDE Procedures:

3. NDE/NDT shall be performed in accordance with Ch.2, Sec.6 of DNVGL-OS-E101 Drilling Plant.

Welding Procedures:

4. Qualification of welding procedure and qualification of welders shall be in accordance with DNVGL-OS-E101, Ch.2 Sec.6.

Comments

- This certificate replaces Type Approval Certificate D-4474.
- Each product to be surveyed during fabrication in accordance with the requirements for equipment of Category 1 as defined in DNVGL-OS-E101 Ch.3 Sec.3, followed by issuance of a DNV GL Product Certificate Form No. 20.92a.
- Fabrication records shall be maintained by the manufacturer in accordance with DNVGL-OS-E101 Ch.3, Sec.3 §2.
- If intended for sour service (H₂S), hardness testing shall be performed on equipment with wetted surfaces as per ISO 15156 1st Edition.

Certificate Retention Survey

For retention of the Type Approval Certificate, DNV GL AS's representative shall carry out surveys every second year in accordance with DNV GL Type Approval Scheme DNVGL-CP-0338.

END OF CERTIFICATE