

TYPE APPROVAL CERTIFICATE

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

with type designation(s)

500 Sh.T HGG Center Latch 18 deg. elevator:**P/N 70013, 70222, 200059, 200060, 200061, 200062**

Issued to

Varco BJ B.V.**Etten-Leur, Noord-Brabant, Netherlands**

is found to comply with

DNVGL-OS-E101 – Drilling facilities, Edition January 2018**Application :****The elevator is designed for lifting and suspending tubular goods.**Issued at **Høvik** on **2020-03-27**This Certificate is valid until **2025-03-26**.DNV GL local station: **Netherlands CMC**for **DNV GL**Approval Engineer: **Hallvard Thune Uglane**

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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

API Spec 8C, Specification for Drilling and Production Hoisting Equipment (PSL1 and PSL2), 5th Edition

Product description

500 sh.T HGG Center Latch 18 degr. Elevator, 4" – 7" (without wear bushing) and 4" – 6,906" (with wear bushing)

- Manually operated: P/N 70013
- Air operated: P/N 70222
- Manually operated w/ wear bushing: P/N 200060, 200062
- Air operated w/ wear bushing: P/N 200059, 200061

The elevators are constructed in two halves of practically the same weight for better balance, making them easier to handle; easier to latch on and take off the pipe.

Application/Limitation

Maximum load rating:	4500 kN (500 short tons)
Minimum design temperature:	-20 °C (-4 °F)
Bore sizes without wear bushing:	4" – 7"
Bore sizes with wear bushing:	4" – 6,906"

Type Approval documentation

Tests to be carried out

Test procedures:

1. Each product is to be tested according to DNV GL's Offshore Standard DNVGL-OS-E101 "Drilling Facilities", January 2018, Ch.2, Sec.8, 4.1, including proof load test according to API Spec 8C, Ch 8.6.
2. Charpy impact testing shall be performed in accordance with DNVGL-OS-E101 "Drilling Facilities" Ch.2, Sec.2, 2.6.
3. Qualification of welders, welding- and heat treatment procedures shall be in accordance with DNVGL-OS-E101 "Drilling Facilities" Ch.2, Sec.8, 2.3 to 2.5.

PSL 2

4. PSL 2 units shall meet the stricter demands for materials, welding, quality control (NDE) and as described in Chapters 6, 7 and 8 respectively in API Spec 8C.

Marking of product

For tracability and compliance with API 8C, Sec. 10, each unit should as a minimum be marked with:

- API Spec 8C
- PSL number
- Load rating
- Component traceability
- Drillpipe size and style (if used for lifting drillpipes)

Periodical assessment

For retention of the Type Approval, DNV GL Surveyor shall perform a survey – every second year and before the expiry date of this certificate. This is in order to verify that the conditions for the type approval are complied with, ref. DNVGL-CP-0338, DNVGL Type approval scheme.

This certificate is a renewal and replaces the earlier issued Type Approval Certificate No. D-6262.

END OF CERTIFICATE