DNV·GL

Certificate No:
TAD00000EJ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Hoisting, Rotation and Pipehandling Equipment

with type designation(s)
12 short tons DSJX Elevators

Issued to
National Oilwell Varco - Varco BJ B.V.
Etten-Leur, Netherlands

is found to comply with
DNVGL-OS-E101 – Drilling plant, Edition July 2015

Application :

See page 2

This Certificate is valid until **2021-08-21**.

Issued at **Høvik** on **2016-08-22**

for **DNV GL**

DNV GL local station: **Rotterdam, Product Certification /Verification**

Approval Engineer: **Bruno Junalik**

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.

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Job Id: **262.1-013978-2**
Certificate No: **TAD00000EJ**

Reference Standards

- API Specification 8C – Specification for Drilling and Production Hoisting Equipment (PSL 1 and PSL2), 5th edition April 2012
- F.E.M. Rules for the design of hoisting Appliances 3rd edition 1998.

Product description

BJ Type Elevator
Part Number 50004955Y and 50004958

Application/Limitation

The elevator/spider is approved for the following particulars:

Load Rating according to API 8C	10.9 metric tonnes	12 short tons
Min. Design Temperature:	-20 °C	-4 °F
Part 50004955Y Minimum Size / Maximum Size	3 25/32" / 6 1/8"	
Part 50004958 Minimum Size / Maximum Size	6 1/4" / 8 7/8"	
Product Specification Levels	PSL 1 or PSL 2	

Type Approval documentation

Tests carried out

Destructive design verification tests were carried out in accordance with API 8C, section 5.5. The elevators 50004955Y and 50004958 were respectively tested to 49.9 Short Tons and and 54.5 Short Tons. Tests were witnessed by DNV Surveyor, ref. NOV Design Verification Reports EREL-0558 and EREL-0653.

Testing

Test Procedures:

1. Proof load test according to API Spec. 8C, Ch.8.6, to be witnessed by DNV GL.
2. Charpy impact testing in accordance with API Spec. 8C, Ch. 6.3.

NDE Procedures:

3. Non-destructive examination methods, extent and acceptance criteria shall be in accordance with DNVGL-OS-E101, Ch.2, Sec.6 and API Spec 8C 8.4 Quality Control for Specific Equipment and Components. NDT requirements as per API 8C for PSL2 shall be adequately applied.

Welding Procedures:

4. Qualification of welding procedures and qualification of welders shall be in accordance with DNVGL-OS-E101, Ch.2, Sec.6 and DNVGL-OS-C401, Ch.2, Sec.1.

Marking of product

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

- Part No.
- Bore code
- Size
- Serial No.
- Rated Load capacity
- Manufacturers Name or Mark

Other conditions and comments

- Each product is to be surveyed during fabrication in accordance with the requirements for equipment of Category I as defined in DNV GL's Offshore Standard DNVGL-OS-E101 "Drilling Plant", followed by issuance of Product Certificate. If the intended vessel is DNV GL classed then this automatically means DNV GL Product Certificate. Fabrication records are to be maintained in accordance with DNVGL-OS-E101 Ch.3, Sec.3, 2. Fabrication Record.
- This document may be used as part of the documentation required to comply with European Union (EU) Directives referenced in PSA's Acts, regulations and provisions for the petroleum activities. It should however be noted that the scope covered by this document does not necessarily cover all aspects required to issue the EU Declaration of Conformity and to affix the CE-mark. It is the manufacturer's/operator's responsibility to ensure compliance with relevant EU Directives.
- The elevator is not to be used without guiding bolt for Lock Keypins.

Periodical assessment

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

This Type Approval Certificate replaces certificate D-5007.

END OF CERTIFICATE