



Certificate no.:
TAS000051V

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Top Drive shipping skids (TDX Shipping Skids)

with type designation(s)

TDX-1000 Top Drive System

TDX-1250 Top Drive System

TDX-1500 Top Drive System

issued to

National Oilwell Varco, L.P. – Rig Technologies Division

Houston, TX

United States

is found to comply with

DNV standard DNV-ST-E273 – 2.7-3 Portable offshore units, April 2016 (Amended May 2022)

Application:

TDX Shipping Skid with model No. TDX-1000

Max. gross weight: 36,385 kg 80,200 lbs

Max. payload: 29,300 kg 64,600 lbs

Max. sling leg angle: 45 °

TDX Shipping Skid with model No. TDX-1250

Max. gross weight: 50,135 kg 110,520 lbs

Max. payload: 43,050 kg 94,900 lbs

Max. sling leg angle: 45 °

TDX Shipping Skid with model No. TDX-1500

Max. gross weight: 51,585 kg 113,720 lbs

Max. payload: 44,500 kg 98,100 lbs

Max. sling leg angle: 45 °

Note: The top level skid assembly with P/N: 19184116-001 is being certified as the prototype product.

Issued at **Houston** on **2025-11-11**

This Certificate is valid until **2030-11-10**.

for **DNV**

DNV local unit: **Houston, Technical Advisory and Verification**

Approval Engineer: **Simon Ouyang**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

TDX Shipping Skid
National Oilwell Varco, L.P. –Rig Technologies
6390 N. Eldridg Pkwy.
Houston, TX 77041
USA

Responsibility

National Oilwell Varco, L.P. –Rig Technologies takes full responsibility that both the design and production are in compliance with the Rules, Standards and/ or Regulations listed on page 1

Product Description

TDX Shipping Skid, Model No. TDX-1000, P/N: M611005549

POU Type: DNV 2.7-3 Type B R30-SE
Max. Tare: 7,085 kg 15,620 lbs

TDX Shipping Skid, Model No. TDX-1500, P/N: 10727429-001

POU Type: DNV 2.7-3 Type B R30-SE
Max. Tare: 7,085 kg 15,620 lbs

TDX Shipping Skid, Model No. TDX-1250,

Subassembly P/N: M614002425 (Motor Housing Assy), 30182869 (IBOP Stack), M614002217 (Pipe Handler Assy), M611009384 (PH-150 Rotate/Lock Plate Assy), 30182257 (PH-150 Slip Ring Assy), 10738358-001 (PH-150 Gripper Assy)

POU Type: DNV 2.7-3 Type B R30-SE
Max. Tare: 7,085 kg 15,620 lbs

Application/Limitation

Min. Design Temperature: -20 °C -4 °F
Max. Sling Angle w/ Vertical: 45 °
Shackle WLL: 41.58 t
Min. Shackle Pin Diameter: 50.8 mm 2.0 inch

The skids are intended for single transport purposes. The total number of lifting for each skid throughout life is limited to five round trip lifts. Please refer to DNV-ST-E273 Section 1.2.3 for single transport definition and requirements.

Type Approval documentation

This approval is based on DNV's design document review and comments closed out satisfactory in October 2025

<u>Drwg./Doc. No.</u>	<u>Rev.</u>	<u>Title</u>
19014819-DAD	03	Weldment Drawing for Shipping Skid Assy, TDX-1000/ TDX-1250/TDX-1500
19184116-ASM	02	Drawing for Shipping Skid Assy, TDX-1000/ TDX-1250/TDX-1500
19189265-DAD	02	Placard Drawing for TDX-1000 Shipping
19192480-DAD	01	Placard Drawing for TDX-1250/TDX-1500 Shipping
19184170-DAD	01	Placard Drawing, Shipping
19141421-REP	02	Design and Analysis for TDX-1000 / TDX-1250 / TDX-1500 Shipping Skid
D614000770-PRO-025	03	Handling, Preservation & Storage Procedure, TDX-1250
19014819-REP	03	Shipping Skid Certification Analysis using the larger loads of the TDX-1500
D74MS00006-SPC-001	AF	Material Specification for Special Quality Steel Plate and Shapes
D74MS00005-SPC-001	V	Material Specification ms00005, Quality requirements for Steel Weldments

Material Specifications

Component	Material	Min Yield	Avg. Charpy Value
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		Strength	
Primary Structure MS00006	ASTM Grade A588 or equivalent	345 MPa [50 ksi]	35 J @ -10 °C for 6 < t ≤ 12 mm 35 J @ -20 °C for 12 < t ≤ 25 mm 35 J @ -40 °C for 25 < t ≤ 50 mm
Padeyes MS00006	API 2H Gr. 50 or equivalent	345 MPa [50 ksi]	35 J @ -40 °C

Tests carried out

The lifting testing and witness for the prototype has been waived due to the skids are for single transport purpose, and the design loads for lifting are increased by a factor of 1.3 in the design analysis report. Please refer to DNV-ST-E273 Section 5.2.5 for the exceptions for single transport.

The manufacturing databook (document reference No. 130938242, Rev. 0) for a TDX-1000 shipping skid (P/N: 19014819-500, L/N: 50305265) has been provided and reviewed in October 2025.

Marking of product

Marking is to be carried out in accordance with DNV-ST-E273 Section 6.

Periodical assessment

Periodical assessment to be carried out at intervals not exceeding 12 months and after substantial repair or alteration according to Standard for Certification in DNV-ST-E273, 2016 edition.

Notes

The lifting set including the slings, beams, and other lifting equipment are not part of the design package and are to be procured by the end customer. Thus, the design verification for the lifting set is out of DNV's certification scope. The end user shall be responsible for the appropriate lifting set selection and certification.

END OF CERTIFICATE