

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Lifting Gear**

with type designation(s)
Roller Type Turn Down Sheave P11169

Issued to

Patco Machine & Fabricating
Houston, TX, USA

is found to comply with
DNVGL-OS-E101 – Drilling facilities, Edition January 2018
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Houston** on **2020-04-16**

This Certificate is valid until **2025-04-15**.

for **DNV GL**

DNV GL local station: **Certification & Inspection Services**

Approval Engineer: **Bo Cui**

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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: **262.1-033319-1**
Certificate No: **TAS00002FJ**

Product description

Turn Down Sheave, 2.00" Dia. Hose/Cable, 24" min. Bend Radius, 4000 lbf Line Pull

Application/Limitation

Design Parameter	Value	Equivalent
Min. Design Temperature	-4 °F	-20 °C
Safe working load – Single Line Pull	4,000 lbf	17,793 kN
Sheave Selfweight	245 lbf	1.09 kN
Cable Wrap Angle	180 degree	
Design Dynamic Factor	1.3	
Equipment	Loose Gear	
Service	Offshore Onboard Lift	

Type Approval documentation

Tests carried out

Procedures related to testing, welding, NDE etc. are to be reviewed/approved by DNV GL's surveyor. Load Test was carried out at 04/14/2020, reference to A0830546.

Marking of product

For traceability to this Type Approval Certificate the products are as a minimum to be marked as follows:

1. Part Number
2. Serial Number
3. Load Rating
4. Sheave Groove Size
5. Sheave Outside Diameter
6. Manufacturer's name and trademark

Periodical assessment

For retention of this Type Approval, DNV GL's representative shall carry out surveys in accordance with DNVGL-CP-0338 Section 4.

END OF CERTIFICATE