DNV·GL

Certificate No:
TAS00001EM

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Portable Offshore Units

with type designation(s)
DID Reel 232"

Issued to
Dwellop AS
Sandnes, Norway

is found to comply with
DNV GL standard DNVGL-ST-E273 – 2.7-3 Portable offshore units, December 2016

Application :

DNV 2.7-3 Type C R30
Max. significant wave hight during offshore lift: 3.0 m
Only certified lifting equipment shall be used.

Max. gross mass (kg)	**95 000**
Max. payload (kg)	**85 000**
Max. sling leg angle	**Lower 2 / Upper 15**

Issued at **Høvik** on **2018-04-26**
This Certificate is valid until **2023-04-25**.
DNV GL local station: **Certification & Inspection Services**

Approval Engineer: **Steinar Hernes**

for **DNV GL**

Stig Johannes Johannesen
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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Holder of certificate
Dwellop AS, Koppholen 25 4313 Sandnes, Norway

Manufactured by
Spooltech, LLC., 9325 Hwy. 6 North, Houston, Texas 77095 USA

Responsability
The Holder of the Certificate takes responsability that both design and production are in compliance with the Rules, Standards and/or Regulations listed on page 1 of this Type Approval Certificate.

Product description
POU TYPE / CLASS	:	DNV 2.7-3 Type C R30
TARE WEIGHT	:	10 000 kg (Drum 7 000 kg, Cradle&Slings 3 000 kg)
POU external dimensions (LxWxH)	:	5892x2488x5892 [mm] / 232x98x232 [inch]

Application/Limitation
Maximum Gross Weigth (MGW)	:	95 000 kg
Max Hs during offshore lift	:	3.0 m
Min. temperature	:	-20 °C
Max. sling angle from vertical	:	Lower slings 2°/ Upprer slings 15°
Shackles (WLL)	:	55 mT (Min $Ø_{pin}$= 57 mm [Green Pin Super G5263])
Master link (MBL)	:	462 mT
Spreader beam (SWL)	:	95 mT (Excluding self-weight and weight of rig set.)

Lifting:
Lifting of these units shall be carried out as planned operations. Specific lifting procedures shall be available. The procedure shall include all relevant information required to ensure safe handling of the unit. Reference to the procedure (doc.no. PROC15945, Rev. 02, 2018-02-27) shall be clearly stated on the information plate.

Lifting set to be used:
Lifting set for this unit shall be designed according to the lifting arrangement drawings listed in section C of DNV GL Design verification report DVR-10077189-002, Rev.:03;

DID232 (mm)	DID232 (inch)
10058806_REV_04	10100272_REV_01
10058807_REV_02	10100278_REV_01
10058808_REV_03	10100586_REV_01

The below listed lifting set components (or similar) having minimum strength as indicated, can be used:
- Shackles (all): WLL = 55 t (Green Pin Super G-5263, SF=5)
- Slings – lower (wire sling, thimbles & ferrules):
  MBL = 2349 kN,
  Length = 2540 mm / 100 inch
- Slings – upper (wire sling, thimbles & ferrules):
  MBL = 2430 kN,
  Length = 4330 mm / 170 inch
- Master link: MBL = 462 t

Spreader bar
SWL = 95 000 kg - Excluding self-weight and rig set.
Dedicated spreader bars which are part of the lifting set shall be separately certified. Reference is made to DNVGL Design Verification Report DNV-PP114877-DVR-002 rev. 02.

Note that 100% traceability is required for all lifting equipment/components.
Only certified lifting equipment/components shall be used.

Type Approval documentation

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Tests carried out

Prototype testing according to DNVGL-ST-E273, Sec. 5.

All point lift test according sec. 5.2.3, total load (table 5-2): 70 710 kg per side with 5 min hold each.
Tested unit marked: SN DID-D-129.

Marking of product

Each unit to be marked with:

- Safety marking according to DNVGL-ST-E273 (December 2016), sec. 6 including
  - Operational Class Identification
  - "OPERATIONAL RESTRICTIONS"
- Data plates according to DNVGL-ST-E273 (December 2016), sec. 6
- Reference to operational procedure shall be clearly stated on information plate
- The general DNV GL hard stamp "VL" shall be hard stamped on frame
- Manufacturer's serial number to be welded on frame
- DNV GL emblem for Portable Offshore Units

Periodical assessment

Periodical assessment to be carried out at intervals not exceeding 12 months and after substantial repair or alteration according to DNVGL-ST-E273 (December 2016), sec. 8.

END OF CERTIFICATE