

TYPE EXAMINATION CERTIFICATE

This is to certify:

That the Accommodation Ladder/Winch

with type designation(s)

Electric winch, type "PES-1", for accommodation ladders

Issued to

TUYCALDE, S.L.

Cotiño (Dornelas-Mos) Pontevedra, Spain

is found to comply with

ISO 7364 Shipbuilding and marine structures - Deck machinery - Accommodation ladder winch

Application :

Accommodation ladder winch corresponding to a nominal size of "5" according to ISO 7364-1983.

Issued at **Høvik** on **2017-01-11**

for **DNV GL**

This Certificate is valid until **2022-01-10**.

DNV GL local station: **Vigo**

Approval Engineer: **Xiao Long Eric Song**

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Aldo Matteucci
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 Examination Certificate and not to the approval of equipment/systems installed.

Product description

Electric winch type "ED10L/R D" for accommodation ladders. The winch size is corresponding to a nominal size of "5" according to ISO 7364-1983.

Application/Limitation

- Rating according to ISO 7364-1983:

Drum load:	5 kN
Holding load:	15 kN
Wire diameter:	12 mm
Length of wire on drum:	32,2 m
Number of layers:	3

- The minimum rope strength according to ISO 7364-1983 is to be 75 kN.
- If the winch is to lift an accommodation ladder with a "2:1" wire reeving system, the total load to be lifted/hold may be twice the drum load/holding load of the winch as stated above.
- The functionality of the friction connection in the winch gear is not covered by this verification, and is to be proved by tests at site.
- Materials as stated on the above drawings are understood to be delivered with certificates minimum equal to EN-10204 3.1.
- Gear is not included in the type examination, to be covered by separate approval.
- Manual lowering and hoisting of the accommodation ladder is not covered by this verification. And is to be proved by tests at site.
- Material of connecting shaft is not specified in dwg. 085-01-03, Rev E, minimum Yield for shaft to be 275MPa.
- Material of keys is not specified in dwg. 085-01-03, Rev E, minimum Yield for keys to be 300MPa.

Type Examination documentation

Tests carried out

Each unit is to be tested according to ISO 7364-1983, chapter 7.

Marking of product

The winches are to be marked according to ISO 7364-1983, chapter 6; and with the manufacturer's name or trademark and type number identification.



Job Id:
Certificate No: **TAS00000B9**

Certificate Retention Survey

For retention of the Type Examination, DNV GL surveyor shall perform a survey every second year and before expire date of this certificate to verify that the conditions of the type examination are complied with.

END OF CERTIFICATE