



Certificate no.:
TAS00004VY

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Lifting Gear

with type designation(s)

Flag Lead Sheave FLS 528.28.1.27 (E230132)

issued to

Ropeblock B.V.

Oldenzaal, Overijssel, Netherlands

is found to comply with

DNV standard DNV-ST-0378 – Offshore and platform lifting appliances

Application:

See next page

Issued at **Høvik** on **2025-06-05**

This Certificate is valid until **2030-06-04**.

for **DNV**

DNV local unit: **Netherlands CMC**

Approval Engineer: **Igor Antonijevic**

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 USD 300 000.

Product description

Flag Lead Sheaves covered by this type approval are to be installed permanently as component on a crane type SL900.

Application/Limitation

Maximum static line pull:	27 mT
Design dynamic factor (DAF):	1.3
Wrap angle:	60° ± 20°
Fleet angle:	-
Design temperature:	-20°C
Wire rope diameter:	28mm

- the tilt angle shall be such that the cheekplate does not get in contact with the base plate when in lifting operation.
- it is the operator's duty to ensure that the real dynamic coefficient does not exceed the design dynamic factor. The maximum dynamic load shall include effects such as the weight of the hook/block, the weight of the wire rope and the crane's design dynamic factor.
- the bolt connection of the base plate to the structure is not covered by this type approval and, as appropriate, shall be assessed separately.
- the equipment has not been evaluated with respect to fatigue and, if applicable, shall be assessed separately.
- the equipment is to be properly protected against corrosion. Regular inspections and all necessary maintenance shall be carried out to ensure equipment functionality and corrosion prevention.
- the various components transferring the load like wire rope, bearing etc. are not covered by this approval and are to be delivered with relevant certificates as per DNV-ST-0378 Section 2.2.
- all materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with the type approval documentation.
- all welding and NDT shall be carried out by qualified personnel as per DNV-ST-0378 Section 3.11.

Type Approval documentation

Tests carried out

If a DNV Product Certificate is required, each sheave shall be subjected to overload testing as per DNV-ST-0378 Table 14-1 and 14.2.3.4. Testing shall be witnessed by DNV representative.

Certification

This type approval covers design(s) only, i.e. the type approval is not valid for the final product, but may be used as basis for obtaining a product certificate.

Marking of product

Each product shall be marked according to DNV-ST-0378, Section 14.5

Periodical assessment

For retention of the type approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>.

END OF CERTIFICATE