



Certificate No:
TAS000040N

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Lifting Gear

with type designation(s)
HSL 3.5

Issued to

H. Henriksen AS
TØNSBERG, Norway

is found to comply with

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

Application :

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

Issued at **Høvik** on **2023-11-21**

This Certificate is valid until **2028-11-20** .

for **DNV**

DNV local unit: **East & South Norway CMC**

Approval Engineer: **Axel Janson**

Per Esvall
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.

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.



Form code: TA 281

Revision: 2022-12

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Job Id: **262.1-039848-1**
Certificate No: **TAS000040N**

Product description

Swivel joint for Henriksen off-load lifting hooks.

Application/Limitation

<u>Parameter</u>	<u>Value</u>
Safe Working Load:	3 500 kg
Applied Safety Factor (to tensile strength):	6
Max. Swivel Angle:	$\pm 30^\circ$
Max. Angle (alongship):	$\pm 10^\circ$

Type Approval Documentation

Tests carried out

The swivel was tested in accordance with relevant requirements in MSC.81(70), proving a Safety-factor of 6 compared to Ultimate Tensile Strength, based on the designated SWL.

<u>Description</u>	<u>Report</u>	<u>Date(s)</u>	<u>Witnessed by</u>
HSL 3.5 Tensile Test	N/A	2023-10-11	Poulsen, John

Marking of product

The product shall be marked with the product serial number, type approval certificate number and Safe Working Load.

Comments

<u>NPS No.</u>	<u>Comment</u>	<u>Status</u>
1	This Type Approval covers design approval only. I.e., it does not constitute a DNV Product Certificate for the final product.	For info.
2	Materials specified on drawings shall be delivered with material certificates (3.1 per EN10204).	Action req.
3	Installation, onboard testing, and deck structure support are not included in this approval and shall be accepted by attending surveyor for each installation, as applicable.	For info.

Periodical assessment

This certificate is only valid if required periodical assessments are carried out by a DNV surveyor. To verify the validity of this certificate, see <https://approvalfinder.dnv.com>.

END OF CERTIFICATE