



Certificate no.:
TAD00001NJ

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Hoisting, Rotation and Pipehandling Equipment

with type designation(s)
KOSD-FAD2422 230 kN Load Pin

issued to
VISHAY NOBEL AB
Karlskoga, Örebro Län, Sweden

is found to comply with
DNV standard DNV-ST-0378 – Offshore and platform lifting appliances

Application:

See next page.

Issued at **Høvik** on **2024-09-12**

This Certificate is valid until **2029-09-11**.

for **DNV**

DNV local unit: **Oslo Drilling Systems & Lifting Appliances**

Approval Engineer: **Axel Janson**

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 251

Revision: 2023-09

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Reference Standards

DNV-ST-0378 Offshore and platform lifting appliances, edition 2019

Product description

230 kN Load Pin for real time monitoring of load forces.

Part Number: KOSD-FAD2422

Application/Limitation

<u>Parameter</u>	<u>Value</u>
Load Rating:	230 kN
Min. Design Temperature:	-20 °C
Max. Design Temperature:	70 °C
IP Grade:	IP 67
Dynamic Amplification Factor (DAF):	1.33
FEM 1.001 Component Class:	E4

Type Approval documentation

Tests to be carried out on each individual product

Test Procedures:

1. Overload testing shall be carried out in accordance with DNV-ST-0378 §14.2 Table 14-2 (2 x SWL).
2. Functional testing shall be carried out in accordance with DNV-ST-0378 §14.1
3. Charpy Impact testing shall be performed in accordance with DNV-ST-0378 §3.2.2

Procedures:

4. NDE/NDT methods shall be in accordance with DNV-ST-0378 §3.11.

Marking of product

Marking of each product shall be done in accordance with DNV-ST-0378 §14.5, and shall contain:

- Part Number
- Serial Number
- Load Rating
- Manufacturers Name or Mark

Other conditions and comments

- Each delivery shall be accompanied by appropriate ATEX/IECEx documentation.
- This certificate approves the design of the Load Pin. If a DNV Product Certificate is required for a specific delivery, the equipment must undergo full DNV survey, where the fabrication process, ATEX-certificates, fabrication testing etc. is witnessed and approved by a DNV Surveyor.

Periodical assessment

For retention of this Type Approval, a DNV representative shall carry out Product Audits every second year in accordance with DNV Type Approval Scheme DNV-CP-0338.

END OF CERTIFICATE