Certificate No:
TAS000036X

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Loose Gear - Block

with type designation(s)
UF-340045-00001

Issued to
Mohr-Hebetechnik GmbH
Horst (Holstein), Schleswig-Holstein, Germany

is found to comply with
DNV GL standard DNVGL-ST-0377 – Standard for shipboard lifting appliances
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

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

Issued at **Hamburg** on **2021-09-27**
This Certificate is valid until **2026-09-26** .
DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Stefan Heuer**

for **DNV**

Jörg Kallies
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.

Product description

Lower Blocks type UF-340045-00001

Application/Limitation

1. Working conditions:
   - Design temperature: -25°C
   - Safe working load: 45t (rope 22.5t)
   - Hoist load coefficient: $\psi \leq 1.3$
   - Categorization:
     - Block acc. to FEM 1.001: E3 (B5/P1)
     - Hook acc. to DIN 15020: mechanism class 1Am
   - Rope Ø 34mm, strength max. 1960MPa; lateral deflection angle max. 2°
   - DNV crane group A, B, Offshore- and Platform Cranes

2. Rope sheaves:
   The plastic rope sheaves shall bear Product Certificates (PC) issued by the manufacturer.
   For traceability, each sheave shall be permanently marked with an ID or serial number.
   Blank sheaves are to be purchased from a maker with Approval of Manufacturer (DNVGL-CP-0296)
   or delivered with individual 3.1 material certificates, meeting following minimum material requirements:
     - Modulus of elasticity (tensile test acc. DIN EN ISO 527-2): 3100 MPa
     - Tensile strength at yield (acc. DIN EN ISO 527-2): 80 MPa
   A light colour is recommended.

3. Product certification:
   To obtain DNV Product Certificates, each block shall be inspected and tested with:
     - Block Lpstat: 74.9t
     - Hook Lpstat: 74.9t

Type Approval documentation

Marking of product

Each lower block shall be marked by the manufacturer with at least:
- Manufacturer´s name or trademark
- Type designation
- Serial number
- Year of construction
- Nominal load(s) “SWL” in t or kg
- Dead load “WT” in t or kg

Periodical assessment

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.dnvgl.com

End of Certificate