Certificate no.:
TAS000049J

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Chain, shackles, swivels, sockets

with type designation(s)
Overhaul Ball - SWL 6.5 t

issued to
Melcal S.p.A.
Calatafimi SEGESTA, TP, Italy

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

Application:

Included on second page of this document.

Issued at **Høvik** on **2024-10-29**
This Certificate is valid until **2029-10-23**.
DNV local unit: **Italy/Malta CMC**

for **DNV**

Approval Engineer: **Luisa Brites**

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

Overhaul ball equipped with self-locking hook.

Application/Limitation

Categorization: Offshore, Loose gear
Safe working load (SWL) to be marked on the equipment: 6.5 metric tonnes
Design dynamic factor: 1.3
Minimum design temperature: -20 °C

1. 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.
2. All materials are to be delivered with 3.1 certificates, documenting mechanical properties and chemical composition in accordance with DNV-ST-0378 Sec.3.
3. Fatigue classification according to F.E.M 1.001: M5 (T2-L5).
4. The bow shackle and the self-locking hook are not covered by this approval and shall be delivered with relevant ILO form certificates.
5. 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.

Type Approval documentation

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.

If a DNV Product Certificate is required, each overhaul ball shall be subjected to overload testing as per DNV-ST-0378 Table 14-2 and NDT to be carried out according to DNV-ST-0378 section 3 [3.11].

Marking of product

Each overhaul ball shall be marked according to DNV-ST-0378, section 14 [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