Certificate no.:
TAS00004DM

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Cranes, gen.

with type designation(s)
Telescopic Boom Crane (TL50T2)

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 **2024-08-08**
This Certificate is valid until **2029-08-07**.
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

Telescopic boom crane, model TL50T2, consisting of: Base Frame, Main Boom and two Boom Extensions.

Application/Limitation

- Design temperature: -20 °C
- Maximum outreach: 12 m
- Heel/trim: 5°/2°
- Fatigue classification acc. to F.E.M 1.001: A3/U3/Q2
- Wire rope: Ø12 mm, minimum breaking load 107.7 kN
- Loading conditions:

Lift type	Maximum Safe Working Load (SWL)*	Dynamic Factor (DF)	Significant wave height (Hs)
Offshore	1000 kg	2.93	1.50 m
	750 kg	3.52	1.75 m
Harbour or sheltered waters	2000 kg	1.15	0.30 m

* The maximum SWL is dependent on lifting modes as specified in the Load Diagram (doc. no. M23026U00C01DBZ Rev. 01).

1. The various components transferring load (loose gear) such as hook, wire rope, sockets, shackles, etc. shall be manufactured according to recognized standards or codes and shall be delivered with relevant ILO form certificates.
2. The following components are not covered by this approval and shall be delivered with DNV Product Certificate:
   - Winch gears and brakes
   - Luffing and extension cylinders
   - Accumulators
3. The sheaves for the crane are not covered by this approval and shall be delivered with the applicable product certificate as per DNV-ST-0378 Table 2-3.
4. The structure below the top flange of the pedestal is not covered by this approval and shall be subject of separate approval.
5. Pad eyes (lifting lugs) and service cranes used for maintenance and installations are not covered by this approval.

Type Approval documentation

Tests carried out

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 crane shall be subject to overload testing as per DNV-ST-0378 Table 14-1.

Overload test with 2750 kg at maximum radius of 12 m was carried out on 2023-11-16 and witnessed by a DNV surveyor (reference to doc. no. M23026U00C01PBZ *Performed testing*).

Marking of product

Each crane 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