



Certificate no.:
TAM00001F9

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Reduction Gear for Propulsion**

with type designation(s)
ZF 400

issued to

ZF Padova S.r.l.
Caselle di Selvazzano PD, PD, Italy

is found to comply with

DNV rules for classification – Ships
DNV rules for classification – Yachts
DNV rules for classification – High speed and light craft

Application:

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

Input torque **2005 Nm**
Input speed **2100 rpm**
Reduction ratio **1.233**

Issued at **Hamburg** on **2025-10-15**

This Certificate is valid until **2030-10-14**.

for **DNV**

DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Olaf Richter**

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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 USD 300 000.

Product description

Single stage reduction gear, with or without reversing stage, with built-in clutch(es)

Application/Limitation

The approval is valid for main Diesel or electric propulsion systems, more than one propulsion plant per vessel

Type Approval documentation

Tests carried out

None

Marking of product

Manufacturer's name or trademark. Type number designation.

Periodical assessment

For retention of the Type Approval, a DNV surveyor shall perform an assessment after 2 years and after 3.5 years to verify that the conditions of the type approval are complied with. A renewal assessment will be performed at renewal of the certificate.

The objective of the Periodical Assessment is to verify that the conditions for the Type Approval are not altered since the Type Approval Certificate was issued.

In cases where the Type Approved product is manufactured at other companies, the Periodical Assessment shall verify that the Type Approval applicant has a quality control system for consistent production at their licensees/subcontractors. Furthermore Periodical Assessment shall be carried out randomly at these companies.

When a Type Approved product is manufactured at other companies, the Type Approval applicant takes the sole responsibility for the conformity of the product to the applicable requirements.

Other conditions:

The present Type Approval is valid in connection with the "Special Agreement" 1Q00 168 042 Rev.0 between ZF Padova and DNV.

The approval does not cover:

- Fastening and foundation of the gearbox incl. chocking / resilient mounting calculations
- Connection to propeller shaft and input shaft
- Lubrication / hydraulic diagram incl. instrumentation (measuring devices, sensors and alarms)

END OF CERTIFICATE