

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Diesel Engine**with type designation(s)
6F24, 6F24TK, 6FS24/6FR24, 6FS24TK/ 6FR24TK

Issued to

**A/S Grenaa Motorfabrik
Grenaa, Midtjylland, Denmark**is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.3 Sec.1 Reciprocating internal combustion engines**Application :****The approval is valid for propulsion and auxiliary duty.
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.
Rating see page 2**Issued at **Høvik** on **2019-07-04**This Certificate is valid until **2024-07-03**.for **DNV GL**DNV GL local station: **Denmark CMC**Approval Engineer: **Dag Harald Williksen****Oddvar Deinboll
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.



Job Id: **262.1-007115-3**
Certificate No: **TAM000013E**

Product description

Four stroke diesel engine

Cylinder bore: 240 mm
Piston stroke: 300 mm
No. of cyl.: 6

Application/Limitation

The approval is valid for propulsion and auxiliary duty and is based on the following main data:

Engine type	6F24	6F24TK	6FS24/6FR24	6FS24TK/6FR24TK
Rated continuous output, [kW]:	243	442	318	758
Corresponding to, [RPM]:	500	500	750	750
Mean effective pressure, [bar]:	7,6	13,0	6,3	14,9
Max. cylinder pressure, [bar]:	60	83.4	75	115

Type Approval documentation

Drawings mentioned in letters of 21.5.75, 9.7.76 and 12.11.80.

Marking of product

The product to be marked with manufacturer's name or trademark and type number identification

Periodical Assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

Other conditions

Engine safety, control and monitoring systems, including sensors and actuators are not covered by this type approval certificate. Documentation for engine safety, control including speed governing and monitoring systems shall be submitted for approval according to the rules Pt.4 Ch.9 Sec.1 Table 5 - Documentation requirements.

Electric cables and cabling are not covered by this approval and must be verified to comply to the rules Pt.4 Ch.8 - Electrical Installation.

Flexible hoses for flammable fluids to be type approved by DNV.

END OF CERTIFICATE