

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000S1

This is to certify:

That the Diesel Engine

with type designation(s)
L16/24

Issued to

CSSC Marine Power Co., Ltd.
100 Zhenjiang, China

is found to comply with

DNV GL Rules for classification, Ships - DNVGL-RU-SHIP-Pt4 Ch3 Sec1,
Reciprocating Internal Combustion Engines

Application :

auxiliary

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

This Certificate is valid until **28th November, 2022.**

Issued at **Hamburg** on **29th November, 2017**

DNV GL local station: **Nanjing**

for **DNV GL**

Approval Engineer: **Sven Neddenien**

Burkhard Lilienthal
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: **262.1-000550-5**
Certificate No: **TAM00000S1**

Product description

four stroke, in-line engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, direct injection, injection operation by cams, valve operation by cams, liquid fuel

Cylinder bore [mm] 160
Piston stroke [mm] 230
No. of cylinders 5, 6, 7, 8, 9

Additional place of production

not applicable

Application/Limitation

Rated power [kW/cyl.]	90	100	110
Rated speed [rpm]	1000	1200	1200
Max. firing pressure [bar]	170	170	170
No. of cylinders	5,6,7,8,9	5	6,7,8,9

Type Approval documentation

262.1-000550

This renewal of Type Approval is based on the previous certificate M-11719 and the designer's type approval certificate M-12766.

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.

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 case 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.

Other Conditions

Engine safety, control and monitoring systems, including sensors and actuators, are not covered by this certificate. Documentation for engine safety, control (including speed governing), and monitoring systems shall be submitted for approval according to DNV GL Rules Ships Pt.4 Ch.9 Sec.1 Table 5 and/or as listed in relevant Type Approval certificates.

END OF CERTIFICATE