

TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000RT

This is to certify:

That the Diesel Engine

with type designation(s)
C18 ACERT, C18

Issued to

Caterpillar, Inc. Engine Division
Peoria, USA

is found to comply with

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

Application :

Propulsion, multi engine plant / auxiliary / emergency

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

This Certificate is valid until **12th November, 2022**.

Issued at **Hamburg** on **13th November, 2017**

DNV GL local station: **New York**

for **DNV GL**

Approval Engineer: **Ralph Michael**

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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: **262.1-002706-7**
Certificate No: **TAM00000RT**

Product description

four stroke, in-line engine, non-reversible, trunk-piston, with supercharging, with charge air cooling, constant-pressure charging system, direct injection, injection operation by cams + electronically controlled, valve operation by cams, liquid fuel

Cylinder bore [mm] :145
Piston stroke [mm] :183
No. of cylinders :6

Additional place of production

Caterpillar Inc., GRIFFIN, United States

Application/Limitation

Rated power [kW/cyl.]	124.33	108.5	99.83	88.83	100.17	82
Rated speed [rpm]	2300	2200	2100	2100	1800	1500
Mean effective pressure [bar]	21.47	19.59	18.9	16.8	22.1	21.71
Max. firing pressure [bar]	-	-	-	-	-	-
Definition	-	-	-	-	-	-

The emergency application is not valid in ships for carriage of liquefied gases and of chemicals according to DNV GL Rules Ships Pt.4 Ch.1 Sec.3 Table 3

Type Approval documentation

Tests carried out

Documentation:

Test report title Type Approval test Caterpillar C18 Marine Propulsion Engine
Place of test Mossville, Illinois U.S.A.
Date of test 2007-03-26 until 2007-03-30

Test engine:

Model C18
Serial no. CKH02427
No. of cylinders 6
Power [kW/cyl.] 108.5
Speed [rpm] 2200

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.

This renewal of Type Approval is based on previous certificate M-12532, 50716-07 HH.



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The Exhaust gas turbochargers are not covered by this type approval certificate.

The approval does not include SCAC System with seawaterhoses plus double clamps according to DNV GL Rule/ Ref. 262-1-002706-4

END OF CERTIFICATE