TYPE APPROVAL CERTIFICATE

Certificate No:
TAM00000JX

This is to certify:

That the Diesel Engine

with type designations
49 and 74 CTIM

Issued to
AGCO Power Inc.
37240 Linnavuori, Finland

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

Products approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **31th August, 2021**.

Issued at **Høvik** on **23rd January, 2018**
DNV GL local station: **Turku** for **DNV GL**

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: **262.1-007103-3**
Certificate No: **TAM00000JX**

Product description

Four stroke, in-line engine, non-reversible, trunk-piston, with supercharging, injection operation electronically controlled

Cylinder bore :	108
Piston stroke :	134
No. of cylinders :	4, 6

Application/Limitation

	49CTIM-4V	74CTIM-4V	49/74	49/74
Rated power [kW/cyl.]	33.25	39.17	29	32
Rated speed [rpm]	2200	2200	1500	1800
Mean effective pressure [bar]	14.75	17.37	18,90	17,38
Max. firing pressure [bar]	116	129	155,9	135,2
Definition	Prop	Prop	Aux/Emerg	Aux/Emerg

Manufacturers rating definitions to be applied.

Type Approval documentation

Tests carried out

Place of test	Den Oever, The Netherlands
Date of test	2007-11-21 until 2007-12-06
Model	
Serial no.	T20850 (74CTAG)
No. of cylinders	6

Marking of product

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

Periodical assessment

For retention of the Type Approval, a DNV GL 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.

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.

Other Conditions

Flexible hoses with couplings to be type approved by DNV GL.

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.

END OF CERTIFICATE