



Certificate No. 02-003632/025571

TYPE APPROVAL CERTIFICATE

This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TYPE AND DESCRIPTION OF PRODUCT:

DIESEL ENGINE, series CURSOR 9

MANUFACTURER:

FPT Industrial S.p.A.
Via Puglia 15
10156 Turin, Italy

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

CRS: Rules for the classification of ships, Part 9. - Machines.

FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.

APPROVAL IS VALID UNTIL: **2026-06-14**

Place and date: Split, 2022-06-14

Seal

Marinko Popović, dipl.ing.

NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

DETAILED PRODUCT DESCRIPTION:

<i>Number of cylinders</i>	6
<i>Cylinder arrangement</i>	In-line
<i>Working cycle</i>	4- stroke
<i>Cylinder bore (mm)</i>	117
<i>Stroke (mm)</i>	135
<i>Kind of fuel</i>	Liquid
<i>Fuel system</i>	Direct injection type, electronically controled, common rail
<i>Valve operation</i>	Cam control
<i>Turbocharging system</i>	Single-stage wih charge air cooling

APPLICATION / LIMITATIONS:

Application: Propulsion engine

<i>Model</i>	<i>Rated output (kW)</i>	<i>Rated speed (rpm)</i>	<i>Cooling type</i>	<i>Pressures (bar)</i>	
				<i>MFP¹⁾</i>	<i>MEP²⁾</i>
C87ENTM38.11	279	2000	Heat exchanger	160	19,3
C87ENTM38.31			Keel cooling		
C87ENTM62	368	2530	Heat exchanger	132	20

Application: Auxiliary and emergency

<i>Model</i>	<i>Rated output (kW)</i>	<i>Rated speed (rpm)</i>	<i>Cooling type</i>	<i>Pressures (bar)</i>	
				<i>MFP¹⁾</i>	<i>MEP²⁾</i>
C87ENTM38.90	276	1800	Heat exchanger	160	21,2
	230	1500			
C87ENTM38.40	276	1800	Keel cooling	160	21,2
	230	1500			

1) *Max. firing pressure (bar)*

2) *Mean effective pressure (bar)*

Lower ratings than these stated are acceptable as long as they are within the values approved by engine designer.

TYPE APPROVAL DOCUMENTATION:

Approved by the Croatian Register of Shipping with letter No. (dated): 023706 (2015-02-09)

MARKING OF PRODUCT:

- *manufacturer's mark*
- *location and year of final fitting*
- *CRS mark*

CONDITIONS FOR CERTIFICATION:

Signalization and protection related to the engine shall be subject to CRS approval in each particular case and will depend on service applied and the degree of automation of the engine plant.