



TYPE APPROVAL CERTIFICATE
No. MAC169522CS

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Reciprocating internal combustion engine with light duty operating profile
<i>Type</i>	800 Plus
<i>Applicant</i>	SEATEK S.P.A. VIA PROVINCIALE, 71 23841 ANNONE BRIANZA (LC) ITALY
<i>Manufacturer</i>	SEATEK S.P.A.
<i>Place of manufacture</i>	VIA PROVINCIALE, 71 23841 ANNONE BRIANZA (LC) ITALY
<i>Reference standards</i>	Part C, Chapter 1, Section 2 of RINA Rules for the Classification of Fast Patrol Vessels
<i>Reference documents</i>	RINA Type approval system

Issued in **Genoa** on **May 13, 2022**. *This Certificate is valid until* **May 13, 2027**

RINA Services S.p.A.
Marco Dardano

This certificate consists of this page and 1 enclosure

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Reference documents		
File and Test Report no.	Test Report 2010-CS-01-389 relevant to the Type Approval test carried out at Seatek SpA facilities on 24/05 to 31/05/2010 and related enclosures.	

Technical characteristics			
Type approved MCR(s) [kW/cyl] - rpm	95.67 kW/cyl @ 3000 rpm		
Declared Time Between Overhaul	N.A.	Hours	-
Cycle	Diesel	2 or 4 stroke	4
Cooling	Water	Swept volume [l/cyl]	1.71
Cylinder bore [mm]	127	Stroke [mm]	135
Numbers of cylinders (in line)	6	Numbers of cylinders (Vee type)	-
Supercharged (yes or no)	Yes	Air cooling (yes or no)	Yes
Reversible (yes or no)	No	Compression ratio	14
Max firing pressure [N/mm ²]	16.27	Mean effective pressure [N/mm ²]	2.24
Specific fuel consumption [g/kWh]	246		

Manufacturer of injection pumps	Type of injection pumps	Plunger bore [mm]
BOSCH	PES6R120/320/3LS-1500 (BOSCH dwg. No. 0 411 426 001	-

Manufacturer of the turboblowers	Number and type of turboblowers:
Schwitzer	1 x S4TW

Fields of application	
The engine may be intended for the following services:	Propulsion service according to the operating profile stated in "remarks".

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According to requirements of Part C Chapter 1 Section 2 of the RINA Rules (Ed.2001) on engine type 800 Plus having No. 6 cylinders and Serial No. 2379.

Remarks

Operating profile:

 Oa_{MAX} = yearly service hours allowed at the mean power deliverable by the engine = 1500 Oa_{MIN} = minimum yearly service hours = 1000 Op_{MAX} = yearly service hours allowed at the maximum power = 150

Pmean = mean power = 219 kW

 $Ic = \text{load index} = (P_{\text{mean}} \times Oa_{MAX}) / (P_{\text{max}} \times Oa_{MIN}) = 0.57$

Crankshaft conforming to drawings approved with No.:

PRMT-6288 (Seatek ref. T.60.402) approved on 02/07/2010

Maximum allowable alternating torsional stress (referred to the crankpin) [N/mm²]

48

Control, alarm and safety electronical devices are to be RINA Type Approved.

It is intended that the minimum required monitoring equipment as per Part C Chapter 1 Section 2 Table 2 and/or Table 3 of RINA Rules for the Classification of Naval Ships, as applicable, are to be fitted to all engines intended to classified ships, unless otherwise agreed for restricted navigation.

The approval is intended for propulsion of ships classed in accordance with RINA Rules for FPV and having propulsion plant equipped with two or more propulsion engines.

For single propulsion engine installations all the redundancies required by RINA Rules are to be fitted as applicable taking into account also the ship dimensions and navigational range.

Jacketed fuel injection high pressure pipes with leakages collection system and alarm to be activated in case of fuel leakage are to be fitted (the jacketed pipe system tested on engine SN 2379 during type approval test is an acceptable arrangement).

According to RINA Rules for FPV ed.2007, for vessels classed for restricted navigation or length $L < 20$ m, this requirement may be relaxed at RINA's discretion.

Genoa May 13, 2022

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