



Certificate No. 02-003372/025347

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,
type QSB7-DM**

MANUFACTURER:

**CUMMINS Inc.
4500 Leeds Avenue, Suite 301
Charleston, SC 29405
United States**

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: **2025-09-20**

Place and date: Split, 2021-08-24

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>	107
<i>Stroke (mm)</i>	124
<i>Kind of fuel</i>	Liquid
<i>Fuel injection system</i>	Electronically controled, common rail, direct injection
<i>Valve operation</i>	Cam control
<i>Turbocharging system</i>	With supercharging, wih charge air cooling

APPLICATION / LIMITATIONS:

Application: Auxiliary engines

<i>Rated power (kW)</i>	210	186	142	130	112	98	164	122
<i>Rated speed (rpm)</i>	1800	1800	1800	1800	1800	1800	1500	1500
<i>Mean effective pressure (bar)</i>	20,9	18,5	14,2	13,0	11,2	9,8	19,6	14,6
<i>Max firing pressure (bar)</i>	148	134	118	112	103	95	98	88

Power ratings (at the same rated speed) lower than those stated is accepted 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): 2056/TS/IA/023498 (2013-09-20)

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.