### CROATIAN REGISTER OF SHIPPING



Certificate No.

02-003055/025097

## 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 D2676 LE

MANUFACTURER:

# **MAN Truck & Bus SE**

Nürnberg, Germany

THE PRODUCT MEETS FOLLOWING	<b>RULES/REGULATIONS:</b>
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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: 2024-10-08

Place and date: Split, 2020-10-08 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.

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#### **DETAILED PRODUCT DESCRIPTION:**

Number of cylinders	6
Cylinder arrangement	In-line
Working cycle	4- stroke
Cylinder bore (mm)	126
Stroke (mm)	166
Kind of fuel	Liquid
Fuel system	Electronically controled, direct injection, common rail
Valve operation	Cam control
Turbocharging system	Single-stage wih charge air cooling, constant pressure
SCR	Without and with SCR exhaust gas aftertreatment system

#### **APPLICATION / LIMITATIONS:**

Application: Propulsion engine

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Rated power (kW)	537	478	368	
Rated speed (rpm)	2300	2100	1800	
Mean effective pressure (bar)	22,6	22,0	19,8	
Max. firing pressure (bar)	210	193	176	
Application / Rating*	Light Duty	Medium Duty	Heavy Duty	

<sup>\*</sup>Reference is made to Manufacturer marine rating classification.

Application: Auxiliary and emergency

Rated power (kW)	375	445
Rated speed (rpm)	1500	1800
Mean effective pressure (bar)	24,2	23,9
Max. firing pressure (bar)	180	200

Lower ratings than this 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): 2071/TSEv/KF/025097 (2020-10-08)

#### 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.