



Certificate No. 02-003117/025170

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 3500 HD

MANUFACTURER:

CATERPILLAR INC.
3701 South Street
Lafayette, IN 47905-4856, USA

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: **2024-02-10**

Place and date: Split, 2020-01-04

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:

4-stroke, single acting diesel engine

Cylinder bore: 170 mm
 Piston stroke: 215 mm
 Cylinder number: 12, 16 (V)
 Compression ratio: 14,7:1

APPLICATION / LIMITATIONS:

Series 3500E HD (electronic)

Highest power at a certain revolution speed.

<i>Model</i>	<i>Mean effective pressure, bar</i>	<i>Rated power, kW</i>	<i>Rated speed, rpm</i>
3512B/C/E HD	21,64	1268	1200
	21,12	1650	1600
	21,64	1902	1800
3516B/C/E HD	21,15	2200	1600
	21,58	2525	1800

Application: for propulsion

<i>Model</i>	<i>Mean effective pressure, bar</i>	<i>Rated power, kW</i>	<i>Rated speed, rpm</i>
3512B/C/E HD	18,61	1363	1500
	20,36	1790	1800
3516B/C/E HD	19,90	1940	1500
	20,24	2368	1800

Application: for auxiliary duties

Lower ratings than this stated is accepted as long as they are within the values approved by engine designer.

TYPE APPROVAL DOCUMENTATION:

Drawings approved by CRS with No:

023715 (2015-03-09)

023830 (2015-11-30)

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.