

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATEBr /No **02-002533/024539**

Potvrđuje se da je ovaj proizvod, u skladu s Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda, odobren za ugradnju na brodove i postrojenja pod nadzorom Hrvatskog registra brodova.

This is to certify that this product, on the basis of the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products, is approved for use on board ships and installations under supervision of the Croatian Register of Shipping.

TIP I OPIS PROIZVODA:

TYPE AND DESCRIPTION OF PRODUCT:

DIZELSKI MOTOR, tip 3500
DIESEL ENGINE, type 3500PROIZVOĐAČ:
MANUFACTURER:**CATERPILLAR INC.**3701 South Street
Lafayette, IN 47905-4856, USA**PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:**

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

HRB: Pravila za klasifikaciju brodova, Dio 9. - Strojevi.*CRS: Rules for the classification of ships, Part 9. - Machines.***DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEDINI.**

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

ODOBRENJE VRIJEDI DO: 2023-03-10

APPROVAL IS VALID UNTIL:

Mjesto i datum: Split, 2019-01-03

Place and date:

M.P.

(Seal)

Marinko Popović, dipl.ing.

NAPOMENA: Ova potvrda nije valjana ako se proizvod ili način njegove proizvodnje promijenio u odnosu na tipno ispitani proizvod. Proizvođač treba obavijestiti Hrvatski registar brodova o bilo kojoj izmjeni na proizvodu kako bi ishodio valjanu potvrdu.

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.

PODROBNJI OPIS PROIZVODA:
*DETAILED PRODUCT DESCRIPTION:***4-taktni, jednoradni dizelski motor**

Promjer cilindra: 170 mm
Hod klipa: 190 mm
Broj cilindara: 8, 12, 16 (V)
Omjer kompresije: 14.7:1

4-stroke, single acting diesel engine

Cylinder bore: 170 mm
Piston stroke: 190 mm
Cylinder number: 8, 12, 16 (V)
Compression ratio: 14.7:1

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:
*APPLICATION / LIMITATIONS:***Seriya 3500 (mehanički)**
Series 3500 (mechanical)

Model <i>Model</i>	Srednji efektivni pritisak, bar <i>Mean effective pressure, bar</i>	Nazivna trajna snaga, kW <i>Rated continuous output, kW</i>	Nazivna brzina, o/min <i>Rated speed, rpm</i>	Primjena Rating Type
3508	15,25	526	1200	A
	16,35	611	1300	C
	14,67	675	1600	B
	16,56	857	1800	D
3512	20,27	1050	1200	C
	15,22	1051	1600	C
	16,80	1305	1800	D
3516	18,91	1305	1200	C
	14,67	1350	1600	B
	15,85	1640	1800	D

Seriya 3500B/C (elektronički)
Series 3500B/C (electronic)

Model <i>Model</i>	Srednji efektivni pritisak, bar <i>Mean effective pressure, bar</i>	Nazivna trajna snaga, kW <i>Rated continuous output, kW</i>	Nazivna brzina, o/min <i>Rated speed, rpm</i>	Primjena Rating Type
3508B/C	19,45	671	1200	C
	17,83	820	1600	C
	15,85	820	1800	C
	17,44	895	1785	B
	18,39	969	1835	C
	19,32	1044	1880	D
	20,22	1119	1925	E
3512B/C	21,58	1118	1200	C
	17,81	1230	1600	C
	15,83	1230	1800	C
	17,43	1343	1785	B
	18,39	1454	1835	C
	19,30	1566	1880	D
3516B/C	20,20	1679	1925	E
	19,99	1379	1200	C
	17,84	1641	1600	C
	15,86	1641	1800	C
	17,44	1790	1785	B
	18,40	1939	1835	C
3516B/C	19,32	2088	1880	D
	20,22	2238	1925	E

Primjena: za poriv
Application: for propulsion

Napomena: Motori primjene D i E su za povremenu upotrebu i ne mogu se preopteretiti.
Note: D and E ratings are intermittent use only and not overloadable.

Seriya 3500 (mehanički)*Series 3500 (mechanical)*

Model <i>Model</i>	Srednji efektivni pritisak, bar <i>Mean effective pressure, bar</i>	Nazivna trajna snaga, kW <i>Rated continuous output, kW</i>	Nazivna brzina, o/min <i>Rated speed, rpm</i>
3508	15,51	446	1000
	17,36	599	1200
	15,61	673	1500
	14,69	760	1800
3512	19,92	860	1000
	18,44	955	1200
	15,75	1020	1500
	14,48	1125	1800
3516	19,13	1100	1000
	17,83	1230	1200
	15,71	1355	1500
	14,60	1511	1800

Seriya 3500B/C(elektronički)*Series 3500B/C (electronic)*

Model <i>Model</i>	Srednji efektivni pritisak, bar <i>Mean effective pressure, bar</i>	Nazivna trajna snaga, kW <i>Rated continuous output, kW</i>	Nazivna brzina, o/min <i>Rated speed, rpm</i>
3508B/C	22,57	649	1000
	19,77	682	1200
	19,85	856	1500
	18,71	968	1800
3512B/C	21,61	933	1000
	21,27	1102	1200
	19,41	1257	1500
	18,43	1432	1800
3516B/C	22,38	1287	1000
	20,04	1383	1200
	19,91	1717	1500
	18,37	1901	1800

Primjena: za pomoćne svrhe*Application:* for auxiliary duties**Napomena:** Svi se motori mogu preopteretiti za 10%.*Note:* All engines are capable of 10% overload.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:
TYPE APPROVAL DOCUMENTATION:

Dokumentacija odobrena od HRB pod brojem: 023715 (2015-03-09)
The documentation approved by CRS with No.:

OZNAČAVANJE PROIZVODA:
MARKING OF PRODUCT:

- **oznaka proizvođača** - *manufacturer's mark*
- **mjesto i godina završne montaže** - *location and year of final fitting*
- **oznaka HRB** - *CRS mark*

UVJETI ZA CERTIFIKACIJU:
CONDITIONS FOR CERTIFICATION:

Signalizacija i zaštita vezana za motor bit će od slučaja do slučaja stvar posebnog odobrenja HRB, a ovisit će o namjeni motora i stupnju automatizacije motornog postrojenja. Ne smiju biti upotrijebljeni ako se zahtijeva dvostruka pumpa rashladne vode.

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. Must not be used when duplication of cooling water pump is requested.