

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATE**Br /No** **02-001514/023149**

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:***Brodski reduktori za dizelski poriv – tip ZF W350-1***Marine Reduction Gearboxes for Diesel Propulsion – type ZF W350-1***PROIZVOĐAČ:***MANUFACTURER:***ZF Padova S.r.l.**

Via Penghe 48

35030 Caselle di Selvazzano (PD)

Italia

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 POLEĐINI.***FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.***ODOBRENJE VRIJEDI DO:****2015-08-30***APPROVAL IS VALID UNTIL:***Mjesto i datum:**

Split, 2011-08-30

*Place and date:***M.P.***(Seal)*

Goran Begović, 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:

Brodski reduktori ZF W350-1, sa ugrađenom hidrauličkom spojkom, direktni i prekretni.
Marine reduction gearboxes ZF W350-1, with built-in hydraulic clutch, direct and reverse drives.

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:
 APPLICATION / LIMITATIONS:

Odobreno za pogonski faktor $K_A = 1,30$.
The approval status is based on application factor 1,30.

Duty Ratio	Continuous @ 2100 rpm		Medium @ 2300 rpm	
	MCR, kW	Torque, Nm	MCR, kW	Torque, Nm
3.026	435	1978	547	2271.2
3.500	435	1978	547	2271.2
3.968	435	1978	547	2271.2
4.536	435	1978	547	2271.2
4.962	435	1978	547	2271.2
5.458	435	1978	547	2271.2
5.955	435	1978	547	2271.2
6.409	374	1701	478	1984.7

DOKUMENTACIJA ZA TIPNO ODOBRENJE:
 TYPE APPROVAL DOCUMENTATION:

Nacrti i proračuni odobreni od HRB dopisom: 708/023065 (2011-04-12)
Drawings and calculations approved by CRS with letter:

OZNAČAVANJE PROIZVODA:
 MARKING OF PRODUCT:

- | | |
|--------------------------|--------------------------------------|
| - oznaka proizvođača | - manufacturer's mark |
| - serijski broj | - serial No. |
| - mjesto i godina izrade | - location and year of manufacturing |
| - oznaka HRB | - CRS mark |

UVJETI ZA CERTIFIKACIJU:
 CONDITIONS FOR CERTIFICATION:

Proizvođač mora organizirati prisustvo inspektora Registra pregledu i ispitivanju u tvornici ili se mora obaviti odgovarajući pregled ako se odobri alternativni način prihvata. HRB Potvrda za svaki pojedini reduktor izdat će se nakon zadovoljavajućeg završetka postupka.
The manufacturer shall make arrangements for the CRS Surveyor to attend the relevant tests and examinations at manufacturer's works or to perform the relevant audits in case an alternative survey scheme has been approved. Relevant CRS certificate for each particular reduction gearbox will be issued after satisfactory completion of the procedure.

Raščlana

09.04.02

Zamjenjuje potvrdu

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