



**POTVRDA O TIPNOM ODOBRENJU**  
*TYPE APPROVAL CERTIFICATE*

Br/No **03-001277/030947**

Potvrđuje se da je ovaj proizvod, u skladu s Pravilima za tehnički nadzor pomorskih 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 technical supervision of sea-going 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:*

**Fuel Control Valve (FCV) and Power Module  
 for C175 Caterpillar Engines**

**PROIZVOĐAČ:**  
*MANUFACTURER:*

**Woodward Governor Company**  
 1000 East Drake Road  
 Fort Collins, Colorado  
 80525 USA

**PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:**  
*THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:*

**Hrvatski registar brodova :** **Pravila za tehnički nadzor pomorskih brodova, Dio 13 i Dio 9**  
*Croatian Register of Shipping: Rules for the Technical Supervision of Sea-Going Ships, Part 13 and Part 9*

**PODRUČJE PRIMJENE/POSEBNI GRANIČNI UVJETI:**  
*FIELD OF APPLICATION/SPECIAL OPERATIONAL LIMITS:*

**Temperatura:** **Otvorena paluba, jarbol/zatvoreni prostori**  
*Temperature: Open deck, masts/Ambient temps*

**Vlaga:** **Sve lokacije (do 100% vlage na svim odgovarajućim temperaturama)**  
*Humidity: All locations (up to 100% humidity all relevant temps.)*

**Vibracije:** **Na strojevima**  
*Vibration: On machinery*

**EMC:** **Sve lokacije osim komandnog mosta i otvorene palube**  
*EMC: All locations except bridge and open deck*

**Zaštita:** **Otvorena paluba, jarbol, ispod podnica u strojarnici (IP56)**  
*Enclosure: Open deck, masts, below floor plates in engine room (IP56)*

**ODOBRENJE VRIJEDI DO:** **2015-10-26**  
*APPROVAL IS VALID UNTIL:*

**UZ UVJETE NAVEDENE NA POLEĐINI**  
*SUBJECT TO CONDITION OVERLEAF*

**Mjesto i datum** ..... Split, 2011-10-26 .....  
*Place and date*

**M.P.**  
*(Seal)*

Goran Begović, dipl.ing.

**Odobrenje je valjano ako je ovaj proizvod izveden prema slijedećoj dokumentaciji:**  
*The approval is valid if this product is manufactured in accordance with the following documentation:*

**PRODUCT DESCRIPTION:**

*The fuel control valve (FCV) is a small rotary valve which regulates rail pressure on the WDS small common rail fuel system. It uses the PWM version of the L-Series actuator with CAN for backup control and diagnostics.*

*L-Series-Integrated Engine Speed Control - Product Specification 03225 (Rev. G)*  
*L-Series-Installation and Operation Manual - Manual 26237 (Revision E)*  
*Power Module Installation Manual - Manual 26283*  
*FCV-Cutaway - Cutaway*

*FCV Drawings:*

<i>Power Conditioning Module</i>	<i>253-7745</i>
<i>Fuel Control Valve</i>	<i>355-5856</i>
<i>Fuel Control Valve Assembly Drawing</i>	<i>3310-1090</i>

**TYPE APPROVAL DOCUMENTATION:**

- *Technical Documentation Approval, CRS letter – 57/TE/VB/030750 – January 11,2008.,*
- *Design FMEA - 253-7745,*
- *Process FMEA - 3310-1090,*
- *Caterpillar Software Development and Quality Procedures,*
- *Woodward Governor Company - BSI Quality Certificates, FM 57982 & FM 93830,*
- *EC-29 Marine Society Testing Requirements, Ver. 1.6- December 12,2007,*
- *Environmental Test Report – Elite No. 0801187-02, Rev.B, 3/12/2007-4/23/2008,*
- *EMC Test Report – Elite No. 0801188-01, April 8-17, 2008,*
- *Marine Society Witness Test Final Report - May 21, 2008.*
- *Caterpillar White Paper Ver. 1.0, dated September 19, 2011.*

**CLAUSE FOR APPLICATION SOFTWARE CONTROL:**

*All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to CRS for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.*

**Ovo odobrenje ne isključuje zahtjev za nadzorom tijekom izradbe proizvoda kod proizvođača, u skladu s gore navedenim Pravilima.**  
*This approval does not eliminate the need for inspection during manufacturing of the product into manufacturers shop in compliance with a.m. Rules.*

**Raščlana**

13.12.07

**Zamjenjuje potvrdu**

03-001129/030750