

**POTVRDA O TIPNOM ODOBRENJU**  
**TYPE APPROVAL CERTIFICATE****Br /No**      **02-002419/024415**

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 MOTORI, tip 4045, 6068**  
**DIESEL ENGINES,      type 4045, 6068****PROIZVOĐAČ:**  
*MANUFACTURER:***JOHN DEERE POWER SYSTEM**

3801 West Ridgeway Avenue

P.O. Box 5100

Waterloo, IA 50704-5100

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:****2022-03-12***APPROVAL IS VALID UNTIL:***Mjesto i datum:****Split, 2018-08-03***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, brodski dizel motor**

**Promjer cilindra: 106,5 mm**

**Hod klipa: 127 mm**

**Broj cilindara: 4,6 L**

**4-stroke marine diesel engine**

**Cylinder bore: 106,5 mm**

**Piston stroke: 127 mm**

**Cylinder number: 4,6 L**

**PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:**  
**APPLICATION / LIMITATIONS:**

| Model motora<br><i>Engine model</i> | Nazivna snaga, kW<br><i>Rated power, kW</i> | Brzina, o/min<br><i>Speed, rpm</i> | Primjena<br><i>Rating</i> |
|-------------------------------------|---------------------------------------------|------------------------------------|---------------------------|
| 4045 DFM50                          | 56                                          | 2400                               | M1                        |
|                                     | 63                                          | 2500                               | M2                        |
| 4045 DFM70                          | 60                                          | 2500                               | M2                        |
| 4045 TFM50                          | 78                                          | 2300                               | M1                        |
|                                     | 90                                          | 2400                               | M2                        |
|                                     | 101                                         | 2500                               | M3                        |
|                                     | 112                                         | 2600                               | M4                        |
| 4045 TFM75                          | 80                                          | 2400                               | M1                        |
|                                     | 90                                          | 2500                               | M2                        |
|                                     | 101                                         | 2600                               | M3                        |
| 4045 AFM85                          | 119                                         | 2300                               | M1                        |
|                                     | 134                                         | 2400                               | M2                        |
|                                     | 149                                         | 2500                               | M3                        |
|                                     | 168                                         | 2600                               | M4                        |

| Model motora<br><i>Engine model</i> | Nazivna snaga, kW<br><i>Rated power, kW</i> | Brzina, o/min<br><i>Speed, rpm</i> | Primjena<br><i>Rating</i> |
|-------------------------------------|---------------------------------------------|------------------------------------|---------------------------|
| 6068 TFM50                          | 115                                         | 2300                               | M1                        |
|                                     | 131                                         | 2400                               | M2                        |
|                                     | 149                                         | 2500                               | M3                        |
|                                     | 168                                         | 2600                               | M4                        |
| 6068 TFM75                          | 118                                         | 2400                               | M1                        |
|                                     | 133                                         | 2500                               | M2                        |
|                                     | 150                                         | 2600                               | M3                        |
| 6068 AFM75                          | 172                                         | 2300                               | M1                        |
|                                     | 198                                         | 2400                               | M2                        |
|                                     | 224                                         | 2500                               | M3                        |
|                                     | 246                                         | 2600                               | M4                        |
| 6068 AFM85                          | 172                                         | 2300                               | M2                        |
|                                     | 198                                         | 2400                               | M3                        |
|                                     | 224                                         | 2500                               | M4                        |
|                                     | 246                                         | 2600                               | M4                        |
| 6068 SFM50                          | 176                                         | 2400                               | M3                        |
|                                     | 199                                         | 2500                               | M4                        |
|                                     | 224                                         | 2600                               | M5                        |
| 6068 SFM75                          | 186                                         | 2400                               | M1                        |
|                                     | 209                                         | 2500                               | M2                        |
|                                     | 239                                         | 2600                               | M3                        |
|                                     | 265                                         | 2700                               | M4                        |
|                                     | 298                                         | 2800                               | M5                        |
| 6068 SFM85                          | 186                                         | 2400                               | M1                        |
|                                     | 209                                         | 2500                               | M2                        |
|                                     | 239                                         | 2600                               | M3                        |
|                                     | 265                                         | 2700                               | M4                        |
|                                     | 298                                         | 2800                               | M5                        |

**Za poriv**

*For propulsion*

**Ne mogu se preopteretiti**

*Not overloadable*

| Model motora<br><i>Engine model</i> | Nazivna snaga, kW<br><i>Rated power, kW</i> | Brzina, o/min<br><i>Speed, rpm</i> |
|-------------------------------------|---------------------------------------------|------------------------------------|
| 6068 AFM75                          | 139                                         | 1500                               |
| 6068 AFM85                          | 139                                         |                                    |
| 6068 SFM85                          | 168                                         |                                    |
| 4045 AFM85                          | 110                                         | 1800                               |
| 6068 TFM76                          | 110                                         |                                    |
| 6068 TFM50                          | 115                                         |                                    |
| 6068 AFM75                          | 166                                         |                                    |
| 6068 AFM85                          | 166                                         |                                    |
| 6068 SFM85                          | 195                                         |                                    |

**Za pogon generatora**

*Generator drive engines*

**DOKUMENTACIJA ZA TIPNO ODOBRENJE:**

TYPE APPROVAL DOCUMENTATION:

**Dokumentacija odobrena od HRB dopisom od:***The documentation approved by CRS with letter dated:*

453/TS/IA/023564 2014-03-12

**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:

**Najmanja rastezna čvrstoća materijala koljenastog vratila je 750 MPa.****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.***Minimal tensile strength of crank shaft material is 750 MPa.**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.*