CROATIAN REGISTER OF SHIPPING

Certificate No. **03-002255***/031971*

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:

Engine Control and Monitoring System for multiple propulsion and diesel generator applications

Level 15

MANUFACTURER:

John Deere Power Systems
3801 West Ridgeway Avenue
P.O. Box 5100
Waterloo, IA 50704-5100
USA

THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

Croatian Register of Shipping: **Rules for the classification of ships, Part 9. – Machinery, Part 13. – Automation**

IACS UR E10

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

APPROVAL IS VALID UNTIL: **2030-09-02**

Place and date: Split, 2026-09-02 **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:

ECU Level 15 is an engine control module for electronic control of diesel engine fuel injection which ensure optimum combustion and fuel economy, speed governing and enable connection to external modules for engine management.

Various programmes for governor settings produce various engine power take off. Alarm and safety systems are not included.

APPLICATION / LIMITATIONS:

System is applicable on the following engines:

6135AFM85 / 6135SFM85

TYPE APPROVAL DOCUMENTATION:

Technical documentation:	- Electronic Control Unit, Engine Controller – No. RE520954
Technical documentation:	- Engine Control Unit, System Operation – CTM370 (22JUL15), No. 03-140-14
Technical documentation:	- 13.5L 12V Wiring Diagram 1 – CTM370 (22JUL15), No. 06-210-7
Type Testing – Environmental test:	- Environ Laboratories LLC – Sinusoidal Vibration Test, No. 35844-1
Type Testing – EMC test:	- TUV SUD America Inc – EMC Test Rep. No. NC605639.7, dated 20 April 2007
Type Testing – Environmental test:	- Phoenix Int. – Electrical & Environmental Test Report, No. 11012-RE520954A
EMS – FMEA test:	- FMEA – L14 HPCR Electronic Fuel Control System Non-EGR Engine
Type Testing – EMC test:	- TUV SUD America Inc – No. NC72175863.1, dated 04 February 2022

MARKING OF PRODUCT:

In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, supply voltage, software version).

CONDITIONS FOR CERTIFICATION:

Major changes in the hardware and software are to be forwarded to CRS for evaluation and approval before being installed on the vessel.

ECU controller is to be used in conjunction with line grounded filter EPCOS type B841120000G136.

A separate, independent engine safety system must be provided.