



Certificate No. 03-001865/031564

## 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 Module**

**ADEM III**

MANUFACTURER:

**CATERPILLAR Inc.**  
3701 South Street  
Lafayette, Indiana 47905-4856  
UNITED STATES OF AMERICA

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: **2025-12-08**

Place and date: **Split, 2021-12-08** 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:**

*ADEM III (A3:6v9) ECM is used in 12/24 V HEUI/MEUI/EUI II engine applications (P/N 348-2376, P/N 348-2377).*

*ADEM III (A3:16v5) ECM is used in 12/24 V diesel engine applications (P/N 348-2387).*

*Liquid-Cooled (LC) and Air-Cooled (AC) variants.*

*Voltage rating: 12 or 24 VDC*

*Temperature rating: -40°C to +85°C (air cooled), -40°C to +120°C (liquid cooled)*

**APPLICATION / LIMITATIONS:**

*Correct configuration and set up for each delivery to be tested during commissioning, after installation, under the supervision of a Society Surveyor.*

*Unit certification is not required.*

*Approval is also valid for ships to be granted with class notations: AUT 1, AUT 2 and AUT 3.*

**TYPE APPROVAL DOCUMENTATION:**

*1 ADEM III – A3:6v9 Electronic Control Module – Product information sheet*

*2 ADEM III – A3:16v5 Electronic Control Module – Product information sheet*

*3 348-2376 Schematic – Elek (ADEM III HEUI-B AIR COOLED) (DP)*

*4 348-2387 Schematic – Elek (ADEM III – 16 DIESEL) (DP)*

*5 Engine ECM Software Quality*

*6 Certificate IATF 16949*

*7 Certificate ISO 9001*

*8 A3 ECM Type Approval Test Plan 1.0*

*9 A3 ECM Type Approval Test Report 1.1*

*10 TAC ADEM III 03-001166/030813*

**MARKING OF PRODUCT:**

*In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, safe distance to magnetic compass-if app., supply voltage, software version...).*

**CONDITIONS FOR CERTIFICATION:**

*All changes in components and 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.*