

2021 EMISSION WARRANTIES

MS65022/09E



Power. Passion. Partnership.

Printed in Germany

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1 Federal Emission Control Warranty Statement

This Federal Emission Control Warranty applies to all 2021 or later MTU compression ignition nonroad-, marine-, and rail-engines that are covered by a certificate of conformity according to EPA regulations.

1.1 Emission Warranty

MTU Friedrichshafen GmbH and MTU America, Inc. (MTU) warrants to the original and each subsequent owner of a certified MTU nonroad engine (herein “engine”), that such engine is:

- 1.) Designed, built and equipped so as to conform at the time of sale, with the applicable regulations adopted by the United States Environmental Protection Agency (EPA).
- 2.) Free from defects in materials and workmanship of specific emission-related components for the appropriate period of years or hours of operation (as specified below) after date of delivery to the initial owner.

ENGINE TYPE	ENGINE CATEGORY	WARRANTY PERIOD (whichever occurs first)
Nonroad acc. to 40 CFR parts 60, 89, 1039	Variable or constant speed	5 years / 3.000 hours
Marine acc. to 40 CFR parts 94, 1042	Cat. 1 Engine - recreational	5 years / 50% of useful life in hours
	Cat. 2 Engine	5 years / 50% of useful life in hours
Rail acc. to 40 CFR §§ 1033	Variable or constant speed	1 / 3 Useful life in terms of MW-hrs or years

The warranty period begins when the engine is placed into service. For MTU this generally will be the date the engine is delivered to the first retail purchaser or, if the engine is first placed in service as a dealer demonstrator prior to sale at retail, on the date the engine is first placed in such service.

If an emission-related component fails during the warranty period, it will be repaired or replaced. Any such component repaired or replaced under warranty is warranted for the remainder of the warranty period.

During the term of this warranty MTU will provide, through MTU or other MTU authorized facility, repair or replacement including reasonable diagnostic costs of any warranted part at no charge to the engine owner.

1.2 Limitation and Responsibilities

The warranty is subject to the following conditions:

1.2.1 MTU Responsibilities

During the Federal Emission Warranty period, if a defect in material or workmanship of an emission related part or component is found, MTU will provide:

- 1.) New, remanufactured or repaired components, approved pursuant to EPA regulations, required to correct the defect. Parts replaced under this warranty become property of MTU.
- 2.) Reasonable and customary labor during normal working hours, required to make the warranted repair. This includes labor to remove and install the engine if necessary.

1.2.2 Owner Responsibilities

If you have any questions regarding your warranty rights and responsibilities or the location of the nearest authorized dealer or distributor, you should contact MTU Service-Desk at 1-248-560-8200.

During the Federal Emission Warranty period the owner is responsible for:

- A.) Costs to investigate conditions which are determined by MTU in the exercise of its reasonable discretion to be not caused by a defect in MTU material or workmanship.
- B.) Providing timely notice (within 30 days) of a warrantable failure and promptly making product available for repair.
- C.) Proper maintenance as required in the Operator’s Manual and the Maintenance Booklet at owner’s expenses.

Following Parts – if existent in condition on delivery – are covered by the above warranty:

- | | | |
|---|---|--|
| <p>Air induction system including</p> <ul style="list-style-type: none"> - Intake Manifolds - Charge Air Coolers | <ul style="list-style-type: none"> - Reducing Agent Supply Unit (including its components like sensors etc.) - Reducing Agent Pre Feed Module Reducing Agent - Reducing Agent Tank - Exhaust Piping from Engine Outlet to Aftertreatment Inlet | <ul style="list-style-type: none"> - Coolant Temperature Sensors - NOx Sensors - Lambda (O2) Sensors - Intake Air Humidity Sensors - Intake Air Pressure Sensors - Intake Air Temperature Sensors - Electrical Harnesses for Power Supply and Control Signals of SCR Systems - LOP (Local Operating Panel, only for marine engines with SCR systems) - SCR Exhaust Gas Pressure Sensors - Exhaust Gas Temperature Sensors after SCR - Reducing Agent Tank Level Sensors - Reducing Agent Tank Temperature Sensors - Reducing Agent Temperature Sensors - Reducing Agent Pressure Sensors - Reducing Agent Quality Sensors |
| <p>Fuel system including</p> <ul style="list-style-type: none"> - Fuel Injectors - High Pressure Fuel Lines - High Pressure Fuel Pumps | <p>Crankcase Ventilation / Recirculation System Components</p> | |
| <p>Turbocharging Systems including</p> <ul style="list-style-type: none"> - Turbochargers - Diverter Valves including Actuators - Wastegate including Actuator - Exhaust and Air Flaps related to - Turbochargers including Actuators | <p>Exhaust gas recirculation system including</p> <ul style="list-style-type: none"> - EGR-Coolers - EGR-Flaps | |
| <p>Exhaust gas aftertreatment systems including</p> <ul style="list-style-type: none"> - SCR Housing - SCR Catalytic Modules - Reducing Agent* Piping Components - Reducing Agent Dosing Units | <p>Electronic control systems including</p> <ul style="list-style-type: none"> - Electronic Control Module (ECM) - Timing Reference Sensors - High Pressure Fuel Sensors (Rail Pressure) - Charge Air Pressure Sensors - Charge Air Temperature Sensors | |

*Reducing Agent also known as DEF (= Diesel Emission Fluid)

1.2.3 Limitations

MTU is not responsible for resulting damages to an emission-related component resulting from:

- 1.) Any application or installation MTU deems improper.
- 2.) Attachments, accessory items or parts not sold nor approved by MTU.
- 3.) Improper engine maintenance or repair and also engine abuse.
- 4.) Conditions resulting from tampering, misuse, improper adjustment, alteration, accident, failure to use specified fuel or non-performance of maintenance services.

This warranty is in addition to the MTU standard warranty, applicable to the relevant engine. Remedies under this warranty are limited to the provisions of material and service as specified herein. MTU is not responsible for incidental or consequential damages. This warranty applies only to engines that are covered by a certificate of conformity according to the provisions of EPA.

2 California Emission Control Warranty Statement

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board (CARB) and MTU Friedrichshafen Incorporated (MTU) are pleased to explain the emission control system warranty on your 2021 or later heavy-duty off-road-diesel engine. In California, new heavy-duty off-road engines (herein "engine") must be designed, built and equipped to meet the State's stringent anti-smog standards. MTU must warrant the emission control system on your engine for the periods of the time listed below provided there has been no abuse, neglect or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system and the air induction system. Also included may be hoses, belts, connectors and other emission related assemblies.

Where a warrantable condition exists, MTU will repair your engine at no cost to you, including diagnosis (if diagnostic work is performed at an MTU authorized dealer), parts and labor.

2.1 Manufacturer's Warranty Coverage

The 2021 and later heavy-duty off-road engines are warranted for 5 years or 3,000 operating hours, whichever occurs first, from the date the engine is delivered to an ultimate purchaser. If any emission-related part on your engine is defective, the part and any other damaged part, whose damage is proximately caused by a failure under warranty of any warranted part, will be repaired or replaced by MTU.

2.2 Owner's Warranty Responsibilities

- As the off-road engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual and Maintenance Book. MTU recommends that you retain all receipts covering maintenance on your engine, but MTU cannot deny warranty solely for the lack of receipts.
- As the off-road engine owner, you should however be aware that MTU may deny you warranty coverage if your off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- Your off-road engine is designed to operate on fuel specified in your Operator's Manual and Maintenance Book only. Use of any other fuel may result in your off-road engine no longer operating in compliance with California's emissions requirements.
- You are responsible for initiating the warranty process. CARB suggests that you present your off-road engine to a MTU dealer or distributor as soon as a problem exists. The warranty repairs should be completed by the dealer or distributor as expeditiously as possible.

If you have any questions regarding your warranty rights and responsibilities or the location of the nearest authorized dealer or distributor, you should contact **MTU Service-Desk** at 1-248-560-8200 or the **California Air Resources Board** at: State of California Air Resources Board/Mobile Source Operations Division/9528 Telstar Ave./El Monte, California 91731. Please note: The emission control system warranty only applies to engines that are covered by an Executive Order according to the provisions of California Air Resources Board (CARB).

2.3 Warranty Coverage

MTU warrants to the original and each subsequent owner of a 2021 or later MTU engine certified for sale and registered in the State of California, that:

- The engine was designed, built and equipped so as to conform at the time of sale with the applicable regulations adopted by the Federal Environmental Protection Agency and the California Air Resources Board.
- The emission control system of such engine is free from defects in materials and workmanship which would cause it not to conform with those regulations for a period of use of 5 years or 3,000 hours of engine operations, whichever occurs first. The 5 years/3,000 hours warranty period shall begin on the date the engine is delivered to the ultimate purchaser or, if the engine is first placed in service as a dealer demonstrator prior to sale at retail, on the date the engine is first placed in such service. In the absence of a device to measure hours of use, that engine shall be warranted for a period of 5 years.

If an emission-related warranted part fails during the period of warranty coverage, the part shall be repaired or replaced by MTU at no charge to the owner at a MTU authorized dealer or distributor. Any such part repaired or replaced during the warranty shall be warranted for the remaining warranty period. The owner shall not be charged for diagnostic labor which leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at an authorized MTU dealer or distributor.

If a warranted part fails because of a defect, MTU will repair or replace it at any authorized MTU dealer or distributor. Any other parts damaged by the failure under warranty of a warranted part will also be repaired or replaced at no charge to the owner.

Any warranted part, which is scheduled for replacement as required maintenance is warranted for the period of time prior to the first scheduled replacement point for that part. If replaced or repaired under warranty prior to the first scheduled replacement of that part, the new or repaired parts shall be warranted for the time remaining to the first scheduled replacement.

Any warranted parts scheduled only for the regular inspection in the written instructions shall be warranted for the warranty period defined in the above section. Any statement in the written instruction to repair or replace as necessary shall not reduce the warranty coverage. Any such part, repaired or replaced, under the warranty shall also be warranted for the remaining warranty period.

Any replacement part may be used in the performance of any maintenance or repairs. However, the manufacturer is not responsible for non-manufacturer parts.

2.4 Exclusions

This warranty does not cover:

- Any application or installation MTU deems improper.
- Malfunctions in any part caused by any of the following: misuse, improper adjustment, modification, alteration, tampering, disconnection, improper or inadequate maintenance.
- Damage resulting from accident, negligence, acts of God or other events beyond the control of MTU.
- Incidental or consequential damages such as loss of time, inconvenience, loss of use of the engine or equipment powered by the engine, towing, down time, telephone, travel, lodging or any other indirect or direct damages.

2.5 Warranted Parts

The following components are covered by the above warranty. Some scheduled maintenance is required (refer to the Owner’s Emission Control Maintenance Service Chart):

<ul style="list-style-type: none"> (1) Fuel Metering System <ul style="list-style-type: none"> (A) Fuel injection system. (B) Air/fuel ratio feedback and control system. (C) Cold start enrichment system (2) Air Induction System <ul style="list-style-type: none"> (A) Controlled hot air intake system. (B) Intake manifold. (C) Heat Riser Valve and Assembly. (D) Turbocharger/Supercharger Systems. (E) Charge Air Cooling Systems. (3) Exhaust Gas Recirculation (EGR) System <ul style="list-style-type: none"> (A) EGR valve body, and carburetor spacer if applicable. (B) EGR rate feedback and control system. (4) Air Injection System <ul style="list-style-type: none"> (A) Air pump or pulse valve. (B) Valves affecting distribution of flow. (C) Distribution manifold. (5) Advanced Oxides of Nitrogen (NOx) Controls <ul style="list-style-type: none"> (A) Exhaust manifold. (B) Selective Catalyst Reduction. (C) Reductant (urea/fuel) containers/dispensing systems. 	<ul style="list-style-type: none"> (6) Positive Crankcase Ventilation (PCV) System <ul style="list-style-type: none"> (A) PCV Valve. (B) Oil Filter Cap. (7) Miscellaneous items used in above Systems <ul style="list-style-type: none"> (C) Vacuum, temperature, and time sensitive valves and switches. (D) Electronic control units, sensors, solenoids, and wiring harnesses. (E) Hoses, belts, connectors, assemblies, clamps, fittings, tubing, sealing gaskets or devices, and mounting hardware. (F) Pulleys, belts and idlers. (G) Emission Control Information Labels. (H) Any other part with the primary purpose of reducing emissions or that can increase emissions during failure without significantly degrading engine performance.
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