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| **Glossary** |
| **KDI 2504TCR / KDI 2504TCRE5 Owner Manual (Rev\_20)** |



**Registration of modifications to the document**

Any modifications to this document must be registered by the drafting body, by completing the following table.

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| **Released by** | **Code** | **Revision** | **Release Date** | **Revision date** | **Edited by** | **Endorsed** |
|  | 2504tcr |  |  |  |  |  |

**Translated from the original manual in Italian language**

Data reported in this issue can be modified at any time by KOHLER.

Sommario

[1. TITOLO 1 2](#_Toc495648770)

[1.1. Asdfsdfsdf 2](#_Toc495648771)

[1.2. Asdfsdfsdfggg 2](#_Toc495648772)

# Glossary

## Glossary

***A***

|  |  |
| --- | --- |
| Alternator | A component that transforms mechanical energy into AC electrical energy. |
| Authorised workshop | Kohler authorised service centre. |
| ATS | After Treatment System - Post-treatment system, referred to the exhaust gases produced by the engine. |

***B***

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| Bore | Internal diameter of the cylinder in combustion engines. |

***C***

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| Catalyst | A device in charge of filtering exhausted gas. |
| Combustion | Chemical reaction of a mixture composed of fuel and fuel (air) inside a combustion chamber. |
| Common Rail | A high-pressure "Common Duct" that produces a constant supply of fuel directly to the injectors. |

***D***

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| DOC | Diesel Oxidation Catalyst - Catalyst for diesel engines that reduces harmful exhaust gas emissions produced by the engine. |
| DPF | Diesel Particulate Filter - A filter that captures particles of carbonaceous origin emitted by diesel engines. |

***E***

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| EC | "European Community". |
| ECS | "Emission Control System" |
| ECU | "Electronic Control Unit"; an electronic device in charge of electronically detecting and controlling other electronic control devices. |
| EGR | Exhaust Gas Recirculation, in internal combustion engines; a system that enables recirculation of combusted gas by means of taking it in once again, which enables it to break down a part of the pollutants present in the exhaust gas. |
| EGR Cooler | Recirculated exhaust gas cooling; a system that is able to cool recirculated gas (EGR) from the exhaust. This enables the temperature to remain constant inside the intake manifold, thus improving combustion inside the cylinders and breaking down pollutants further. |
| Electronic injector | An electronically activated component able to inject jets of atomised fuel inside the cylinders. |
| EPA | "Environmental Protection Agency - The United States' authority that safeguards the environment" ; its duty is to govern and control polluting emissions. |
| ETB | Electronic Throttle Body - This is controlled by the ECU upon request of the accelerator pedal, and its function is crucial for the correct regeneration of the ATS system. |

***F***

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| Fig. | Figure. |

***G***

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| Galvanised | Material that has undergone surface protection treatment. |

***H***

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| Heavy conditions | Type of extreme condition referred to the work environment in which the engine is used (very dusty - dirty area, or in a contaminated environment due to various types of gas). |

***I***

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| Intercooler | Air-cooling element under pressure from the turbo situated between the turbine and intake manifold. |

***K***

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| KDI | "Kohler Direct Injection" |

***M***

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| Maintenance - periodic | A group of maintenance actions that have the sole objective to control and replace elements on their expiry, without modifying or improving the functions carried out by the system, neither increasing the value nor improving performance. |
| Max. | "Maximum". |
| Methyl ester | It is a mixture of products by means of a chemical conversion of oils and animal and/or vegetable fat, which is used to produce Biofuel. |
| Min | "Minutes". |
| Min. | "Minimum". |
| Model | "Model", engine identification plate, which indicates the engine's model. |

***O***

|  |  |
| --- | --- |
| Oil Cooler | Small radiator used to cool the oil. |

***P***

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| --- | --- |
| Par. | Paragraph. |
| Paraffin | Fatty and solid substance that may form inside the diesel. |
| Poly-V | "Poly-V", the name associated with a service belt, which derives from the profile of its section that is constructed with joined Vs. |

***R***

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| Ref. | Reference. |

***S***

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| s/n | "Serial number" (engine identification name plate) indicating the engine identification series/chassis number. |
| Spec. | "Specification", (engine identification name plate) indicating the engine version. |

***T***

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| Tab. | Table. |
| T-MAP | "T-MAP" (sensor), measures the temperature and absolute pressure inside the intake collector. |
| TCR | "Turbo Common Rail" |
| Tightening torque | A term indicated for installation of threaded components and which is determined by means of a unit of measurement Nm. |
| Turbocharger | Device that compresses air intake by sending it to the intake manifold by means of a turbine. |

***U***

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| Used oil | Oil altered by operation or time, which is no longer compliant for correct lubrication of the components. |

***W***

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| Waste-Gate valve | A device, which is directly or automatically controlled, used to limit the pressure of exhaust gas inside the turbine. |

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| **SYMBOLS AND UNITS OF MEASUREMENT** |
| **SYMBOL** | **UNIT OF MEASUREMENT** | **DESCRIPTION** | **EXAMPLE** |
| α | degree | Rotation/inclination angle | 1° |
| cm 2 | square centimetre | Area | 1 cm 2 |
| Ø | millimetre | Circumference | Ø 1 mm |
| Nm | newton-metre | Torque | 1 Nm |
| mm | millimetre | Length | 1 mm |
| µm | 1/1000 of a millimetre (micron) | 1 µm |
| H | hour | Time | 1 h |
| g/kW | grammes per kilowatt per hour | Specific consumption | 1 g/kWh |
| kg/h | kilogramme per hour | Max. flow rate | 1 kg/h |
| Lt./min. | litres per minute | Flow rate | 1 Lt./min. |
| Lt./h | litres per hour | 1 Lt./h |
| ppm | parts per million | Percentage | 1 ppm |
| N | newton | Force | 1 N |
| A | Ampere | Intensity of electrical current | 1 A |
| gr. | gramme | Weight | 1 gr. |
| kg | kilogramme | 1 kg |
| W | Watt | Power | 1 W. |
| kW | kiloWatt | 1 kW |
| pa | pascal | Pressure | 1 pa |
| KPa | Kilopascal | 1 KPa |
| bar | barometric pressure | 1 bar |
| mbar (1/1000 bar) | barometric pressure | 1 mbar |
| R | Resistance | Resistance to electrical current (referred to a component) | 1 Ω |
| Ω | ohm | Resistance of electrical current | 1 Ω |
| Rpm | revs per minute | Rotation of an axis | 1 Rpm |
| Ra | average roughness expressed in microns | Roughness | 1 Ra |
| °C | degree centigrade | Temperature | 1°C |
| V | Volt | Electrical voltage | 1 V |
| eagonale.png | millimetre | Hex-head capscrew | eagonale.png 1 mm |
| cm 3 | cubic centimetre | Volume | 1 cm 3 |
| Lt. | litre | 1 Lt. |

