



# **PERKINS ENGINES COMPANY LTD**

## **EMISSIONS SUPPLEMENT**

Confidential: Green.

© Proprietary information of Perkins Engines Company Limited, all rights reserved.

The information is correct at the time of production.

Published by Warranty Administration Department,  
Perkins Engines Company Limited, Peterborough PE1 5NA, England

## **Contents**

**General Emissions Components.....Page [3-5](#)**

**China Non-road 4 Key Emission Parts.....Page 6**  
**非道路国四排放关键零部件质保清单 (如适用)**

| Group   | Part Name  |
|---|--|
| <p><b>Air Induction System</b></p> <p><b>Includes:</b></p> <p><b>Air Intake and Exhaust Group</b><br/> <b>Camshaft Group</b><br/> <b>Cylinder Head Group</b><br/> <b>Turbocharger Group</b></p> | <p>Air Filter <b>(Maintenance Item limits)</b><br/> ATAAC Outlet Temperature Sensor<br/> Balance Valve Solenoid<br/> Camshaft<br/> Charge Air Cooler (ATAAC, SCAC, JWAC)<br/> Compressor Inlet Pressure Sensor<br/> Compressor Outlet Pressure Sensor<br/> Exhaust Manifold<br/> Inlet Air Temperature Sensor<br/> Inlet Manifold Pressure Sensor<br/> Inlet Manifold Temperature Sensor<br/> Intake Manifold<br/> Interstage Ducting (Series Turbocharged Engines)<br/> Precooler<br/> Smart Wastegate Solenoid<br/> Turbo Balance Valve<br/> Turbocharger(s)<br/> Turbo to CEM - Flexible Coupling<br/> Turbo to CEM - Rigid Pipe<br/> IVA/VVA - Actuator/accumulator<br/> IVA/VVA - Check Valve<br/> IVA/VVA - Oil Feed Tubes (Quill Tubes)<br/> IVA/VVA - Pressure Sensor<br/> IVA/VVA - Solenoid<br/> IVA/VVA - Wiring Harness<br/> Wastegate</p> |
| <p><b>Cooling System Coolant</b></p>  | <p>Temperature Sensor<br/> Thermostat/Regulator <b>(Maintenance Item limits)</b></p>   |
| <p><b>Crankcase Ventilation System</b></p>  | <p>Fumes Filter <b>(Maintenance Item limits)</b><br/> Fumes Filter Housing<br/> Oil Filler Cap - <b>Only if equipped with OCV, CCV systems</b><br/> Pressure Regulating Valve</p>  |
| <p><b>Electronic Engine Controls</b></p>  | <p>Electronic Control Module<br/> Engine Wiring Harness<br/> Personality Module/Software<br/> Speed/Timing Sensor</p>  |

| Group  | Part Name  |
|--|--|
| <b>Fuel Metering System Common</b>   | Rail Fuel Pump<br>Fuel Injection - Pump (High Pressure)<br>Fuel Injector - Rocker Arms, Push Rods<br>Fuel Injector - Wiring Harness<br>Fuel Injectors/Nozzles<br>Fuel Rail (Common Rail Fuel Systems)<br>Fuel Rail Pressure Sensor<br>HEUI Oil Pressure Sensor<br>HEUI Pump, HEP Pump<br>High Pressure Fuel Lines<br>Quill Tubes<br>Rail Pressure Control Valve<br>Timing - Advance<br>Timing - Solenoid   |
| <b>Fuel Supply System</b>  | Fuel Cooler<br>Fuel Pressure Regulator<br>Fuel Return Check Valve<br>Fuel Temperature Sensor<br>Fuel Transfer Pump   |
| <b>Particulate Regeneration System</b><br><br>Includes:<br><br><b>ARD</b> - Aftertreatment Regen Group<br><b>CEM</b> - Clean Emissions Mod Group<br><b>DPG</b> - Diesel Particulate Group<br><b>NRS</b> - Nox Reduction System Group | ARD - Fuel Nozzle<br>ARD - Fuel Pump Wiring Harness<br>ARD - Head<br>ARD - Housing<br>ARD - Ignition Coil<br>ARD - Spark Plug ( <b>Maintenance Item Limits</b> )<br>Backpressure Valve<br>Catalyzed Particulate Filter<br>CEM - Delta Pressure Sensor<br>CEM - Inlet Pressure Sensor<br>CEM - Inlet Temperature Sensor<br>CEM - Wiring Harness<br>Combustion Air Valve<br>Diesel Oxidation Catalyst<br>Exhaust Gas Temperature Sensor<br>Flame Detect Sensor<br>Fuel/Air Ratio Control<br>Fuel Pressure Regulator<br>Fuel Pump<br>Intake Throttle Valve<br>Main Fuel Pressure Sensor<br>Main Fuel Solenoid<br>Nozzle Heater Relay<br>NRS - Absolute Pressure Sensor<br>NRS - Cooler<br>NRS - Mass Flow Sensor<br>NRS - Mixer<br>NRS - Temperature Sensor<br>NRS - Valve<br>NRS - Valve Position Sensor<br>Particulate Filter<br>Pilot Fuel Pressure Sensor<br>Pilot Fuel Solenoid<br>Reed Valves<br>RF Soot Sensor Antenna<br>RF Soot Sensor Module<br>Secondary Air Pressure Sensor |

| <b>Group</b>        | <b>Part Name</b>  |
|---------------------|---|
| Miscellaneous items | Used to connect the above listed approved parts including but limited to:<br>Hoses, connectors, clamps, fittings, tubing, sealing gaskets or devices, mounting hardware and Emission Control Information Labels are also covered by emissions warranty. |

**China Non-road 4 Key Emission Parts Warranty List (If applicable)**

**非道路国四排放关键零部件质保清单 (如适用)**

| Group<br>类别                                       | Part Name<br>零件名称   |   |
|---|---|---|
| <b>Air Intake System</b><br>进气系统                  | Intake manifold<br>进气歧管   |   |
|   | Turbocharger system<br>增压器  |   |
|   | Inlet throttle valve<br>进气节流阀   |   |
|   | Camshaft<br>凸轮轴   |   |
| <b>Fuel System</b><br>燃油系统                        | Fuel Injection system (fuel injection pump, Injector, common rail included)<br>燃油喷射系统 (包括喷油泵、喷油器、共轨管) |   |
| <b>EGR System</b><br>废气再循环系统                      | Exhaust Gas Recirculation (EGR) system<br>废气再循环系统   |   |
| <b>Emission Control Related Parts</b><br>排放控制相关部件 | Diesel Oxidation Catalyst<br>DOC  |   |
|   | Diesel Particulate Filter<br>DPF  |   |
|   | Selective Catalytic Reduction/Ammonia Slip Catalyst (AMOX)<br>SCR/ASC(AMOX)                           |   |
|   | Reductant dispensing system (reactant dispensing pump included)<br>反应剂喷射系统 (包括反应剂喷射泵)                 |   |
|   | Reactant level sensor<br>反应剂液位传感器   |   |
|   | Reactant quality sensor<br>反应剂质量传感器   |   |
|   | NOx sensor<br>NOx传感器  |   |
|   | NH3 sensor<br>NH3传感器  |   |
|   | Oxygen sensor<br>氧传感器   |   |
|   | Exhaust temperature sensor<br>排温传感器   |   |
|   | Exhaust pressure sensor<br>排气压力传感器  |   |
|   | Differential pressure sensor<br>压差传感器   |   |
|   | Particulate sensor<br>颗粒物传感器  |   |
|   | <b>Electronic Control Units</b><br>电子控制单元   | Electronic Control Unit (ECU)<br>电子控制单元( ECU) |
|   | <b>Positive Crankcase Ventilation (PCV) System</b><br>曲轴箱强制通风系统                                       | PCV valve<br>PCV 阀                            |