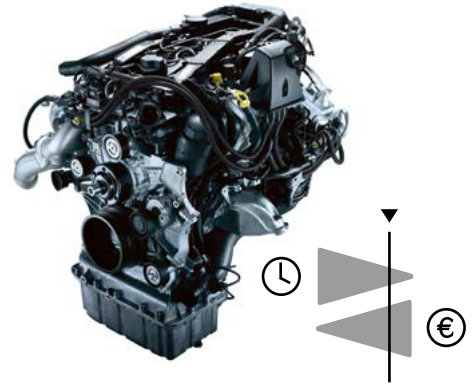


# Complete engine – the all-round package.



- Plug-and-play to minimize non-operational times.
- Profitable investment if the goal for the vehicle is to convince with maximum availability for quite some time.
- Premium product for maximum service life, high output at optimum fuel consumption.

## At a glance

### Package contents

- EGR valve
- Fill level sensor
- High-pressure pump
- Injectors
- Piston
- Crankshaft
- Manifold
- Engine wiring harness
- Camshaft
- Oil separator
- Oil pump
- Oil spray nozzles
- Oil pan
- Connecting rods
- Rail
- Vibration damper
- Turbocharger
- Vacuum pump
- Heat pump
- Water pump
- Cylinder head with preassembled valves
- Cylinder crankcase
- Cylinder liners
- Various small parts

### Vehicle and engine model series

- Sprinter, Vito, Viano, V-Class, Vaneo, Citan, Vario (T2)
- Engine model series: OM646 (all), OM651 (all)

### Warranty

**2-year warranty** – may vary by country.

Please check the detailed information about product contents in VeDoc/EPC, or contact your Mercedes-Benz Partner. The pictures and product contents are shown as examples.

## Advantages

### Availability – rapidly back on the road

- **Plug-and-play:** Comprehensive package contents with preassembled components and optimum dimensional accuracy ensure short down-times.
- **The old engine simply has to be removed and the new one installed.**
- **Saves effort and time** since more than 4,000 complete engines are permanently in stock.
- **Reduced effort** due to optimum engine running characteristics and long durability.

### Cost advantage – replacement on a tight budget

- **Reduced downtime costs** because the vehicle is ready for service again as quickly as possible.
- **Quickly ready for service after the engine replacement** thanks to prefilling with break-in engine oil (Mercedes-Benz special mixture).
- **High old part reuse rate** contributes to the attractive overall genuine remanufactured part price.

### New parts or new part standards – fitness program for your engine

- **Excellent smooth running characteristics** since all rotating components are precisely balanced corresponding to the current technical status of new parts, e.g., crankshaft and camshaft.
- **High reliability and durability** since all wear parts and small parts are replaced with Mercedes-Benz GenuineParts, e.g., belt pulleys, vibration dampers, critically pressurized lines, bearing shells and pistons.
- **Less friction on pistons and shafts** ensures optimum smooth running characteristics, efficient fuel consumption and engine leak tightness.

- **Compliance with emissions regulation and improved longevity** by replacing the valve guides and reworking to the dimensions of the new part.
- **Full functionality and longevity are ensured and consequential damage avoided** since parts that are obviously functional such as vibration dampers always undergo a functional or dimensional check and are replaced by new parts if necessary.

### Cleaning and examination – carefully cleaned and tested

- **All functional surfaces are carefully cleaned with environmentally friendly cleaning agents.** This also reveals any hidden damage. Components that are especially difficult to clean such as the crankcase are cleaned in a multistage industrial process and checked for cleanliness. Advantage: Consequential damage from “bearing seizures” resulting from dirt is avoided. Performance and fuel consumption reach the level of a new engine.
- **Detection of micro-damage on highly stressed components** using a special crack test procedure with fluorescent magnetic powder. This ensures longevity of the repaired engine parts.
- **Highly sensitive test procedures in order to comply with production tolerances in the area of  $\mu$ -meters.** While remanufacturing cylinder crankcases and crankshafts, the spherical shape of the piston ring on the main bearing and the connecting rod bearing must be between 2 and 4  $\mu$ m.
- **Legal emission levels and efficient fuel consumption:** Each Genuine Remanufactured Engine is checked on high-tech company test stands with regard to output, torque, fuel consumption and compliance with statutory emission levels.
- **Improved long-term corrosion protection and high-end appeal** because the complete engine is painted after the test run.