



Graders

845B / 845B DHP

865B / 865B VHP / 865B AWD

885B / 885B DHP / 885B AWD

TIER 0 / TIER 1 / TIER 2 / TIER 3

Service Manual

71114392



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GRADERS
845B / 865B / 885B
845B DHP / 865B VHP / 885B DHP
865B AWD / 885B AWD
Service Manual
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GENERAL

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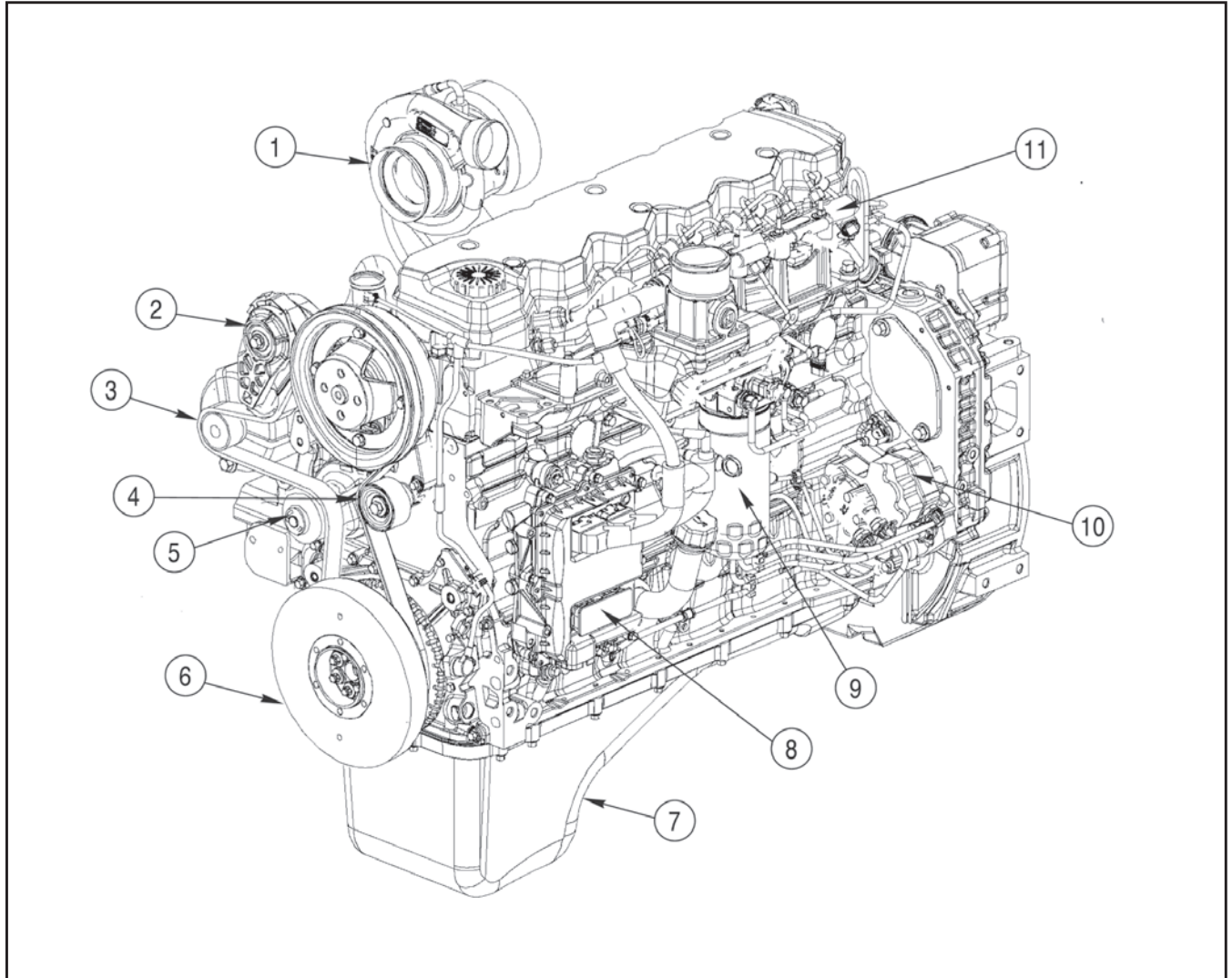
Section 1001

1001

STANDARD TORQUE ESPECIFICACIONES

PART	TORQUE - Nm(lb.-ft.)
Front cover and oil pump screws	
1st Stage	7 to 9 Nm (5.2 to 6.6 lb.-ft.)
2nd Stage	20 to 28 Nm (14.8 to 20.7 lb.-ft.)
Oil nozzle screw	12 to 18 Nm (8.9 to 13.3 lb.-ft.)
Common Rail screws	20 to 28 Nm (14.8 to 20.7 lb.-ft.)
Intake air temperature and pressure sensor screw	5 to 7 Nm (3.7 to 5.2 lb.-ft.)
Oil level sensor screw	10 to 14 Nm (7.3 to 10.3 lb.-ft.)
Turbocharger to exhaust manifold screws	37 to 49 Nm (27.3 to 36.1 lb.-ft.)
Electrical cable tube M6 screws	8 to 12 Nm (5.9 to 8.9 lb.-ft.)
Injector electrical cable support screw	20 to 28 Nm (14.8 to 20.7 lb.-ft.)
Fuel filter support	
M12 Screw	69 to 85 Nm (50.9 to 62.7 lb.-ft.)
M8 Screw	20 to 28 Nm (14.8 to 20.7 lb.-ft.)
Engine flywheel housing	
M10 Screw	75 to 95 Nm (55.3 to 70.1 lb.-ft.)
M12 Screw	44 to 55 Nm (32.5 to 40.6 lb.-ft.)
Camshaft sensor screw	6 to 10 Nm (4.4 to 7.4 lb.-ft.)
Crankshaft sensor screw	6 to 10 Nm (4.4 to 7.4 lb.-ft.)
Cooler temperature sensor screw	17 to 23 Nm (12.5 to 17.0 lb.-ft.)
Oil temperature and pressure sensor screw	5 to 7 Nm (3.7 to 5.2 lb.-ft.)
Fuel pressure sensor screw	30 to 40 Nm (22.1 to 29.5 lb.-ft.)
Fuel temperature sensor screw	17 to 23 Nm (12.5 to 17.0 lb.-ft.)

667TA ENGINES



BS06K020

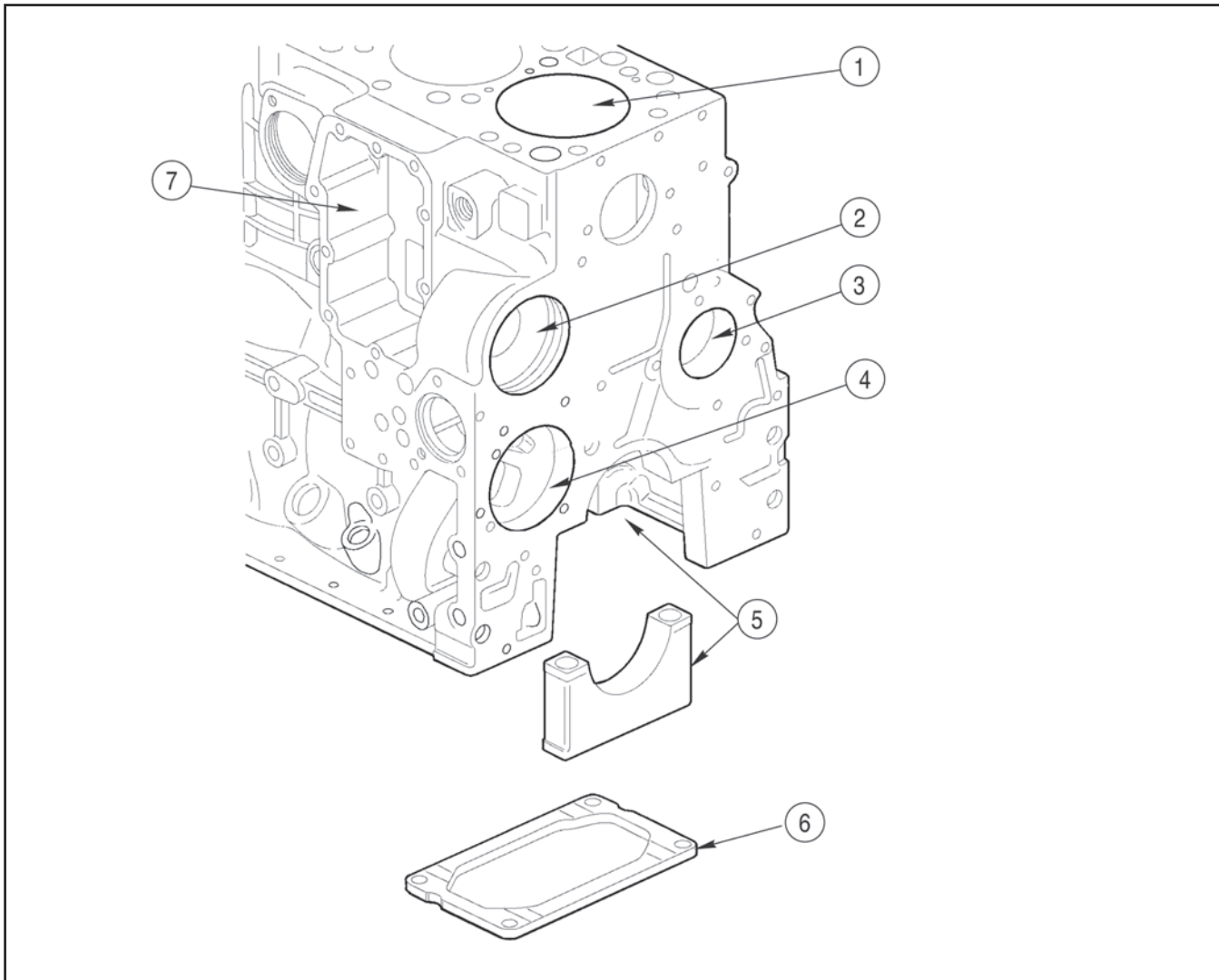
Figura 3000-12

1. TURBOCHARGER
2. AUTOMATIC TENSION BELT
3. ALTERNATOR
4. FIX GUIDE PULLEY
5. WATER PUMP
6. ENGINE FLYWHEEL COUNTERWEIGHT

7. OIL SUMP
8. ELECTRONIC CONTROL UNIT - E.C.U.
9. FUEL FILTER
10. HIGH PRESSURE PUMP
11. COMMON RAIL

DESCRIPTION OF ENGINE MAIN COMPONENTS

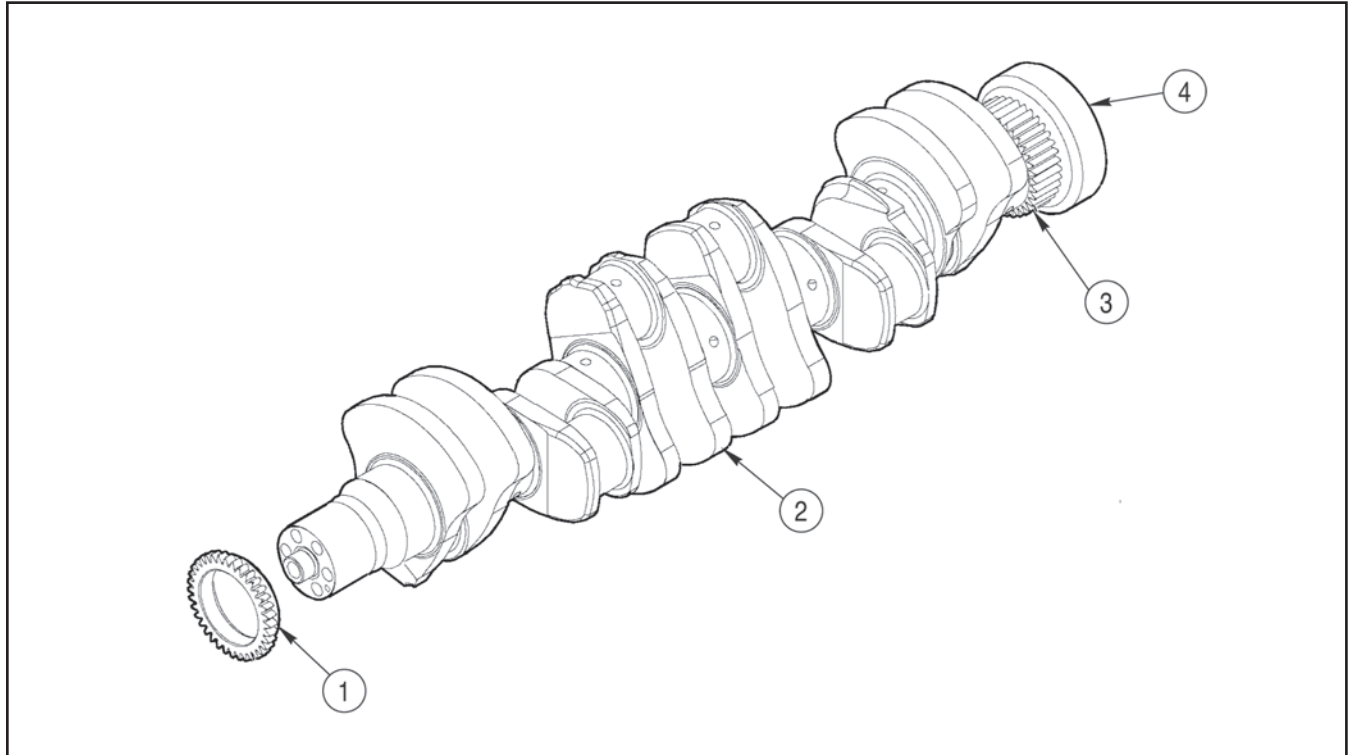
Engine Block



- | | |
|----------------------------------|---|
| 1. CYLINDER BORE | 5. MAIN JOURNALS |
| 2. MOUNTING FOR WATER PUMP | 6. STIFFENING PLATE |
| 3. MOUNTING FOR CAMSHAFT BEARING | 7. MOUNTING FOR WATER-OIL EXCHANGE HEATER |
| 4. MOUNTING FOR OIL PUMP | |

The cylinder block is a cast iron structure with cylinders bores (1), main journals (5) e moun-tings for camshaft bearing (3) and valves, water-oil exchanger heater (7), water pump (2) and oil pump (4). The block also has coolant and oil passages. The lubrication circuit provides oil for the moving parts. The stiffening plate (6) is applied in the engine block bottom to increase the resistance to mechanical fatigue.

Crankshaft



BS06K022

Figura 3000-14

- | | |
|------------------|---------------------------------|
| 1. OIL PUMP GEAR | 3. TIMING GEAR |
| 2. CRANKSHAFT | 4. MOUNTING FOR ENGINE FLYWHEEL |

The crankshaft is steel made and rests in seven journals tempered by induction.

There is a series of drilled passages for the lubricating oil.

The follow items are pressed in front: oil pump gear (1), position sensor sprocket, counterweight, and the auxiliary devices pulley.

The follow items are pressed in rear: timing gear (3), and the mounting for engine flywheel (4).

The main journals bearings are steel made and coated by a anti-friction alloy. One of them is equipped with shoulders to limit the crantckshaft axial clearance.

The timing gear (3) and the engine flywheel mounting (4) are forced positioned in the crantckshaft rear and can not be replaced.

CRANCKSHAFT OIL SEALS

The front and rear seals are box type with radial sealing. To remove them use the special tools 380000665 e 380000663. For installation se special tools 380000666 e 380000664.

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