CASE Engines 668T/M2 and 668T/E2

Service Manual

Bur 6-47950NA

CASE

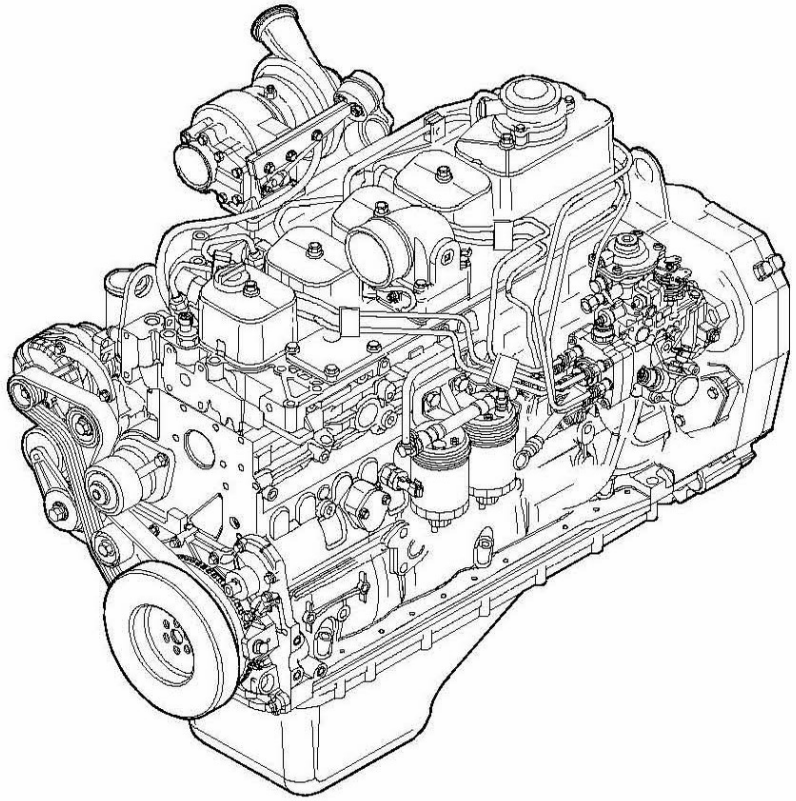
NA North American English

ENGINES
F4GE0684F - F4HE0684J OVERHAUL

INDEX

INDEX

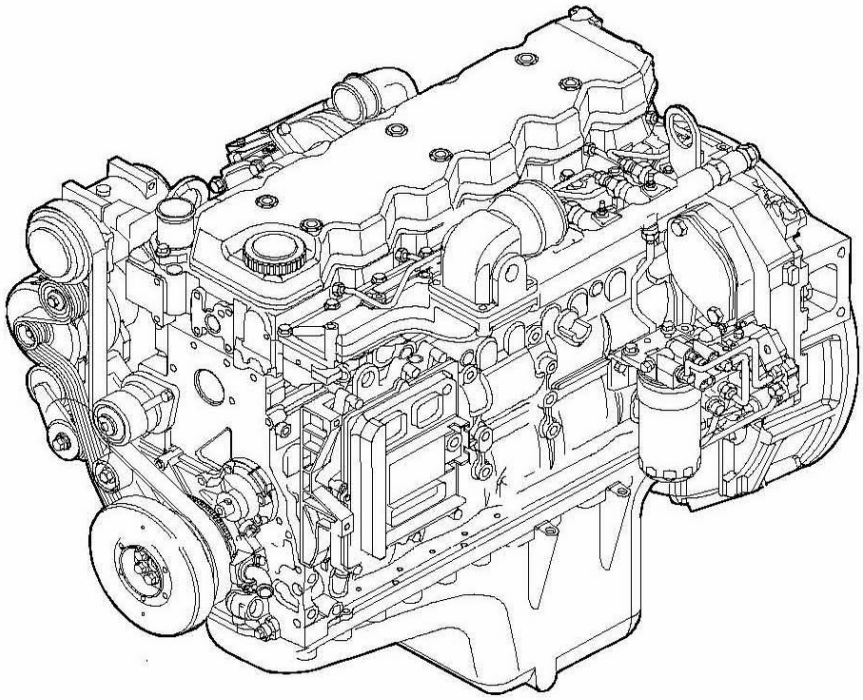
Figure 1



86483

ENGINE F4GE0684F

Figure 2



86484

ENGINE F4HE0684J

DESCRIPTION OF MAIN MECHANIC ENGINE COMPONENTS

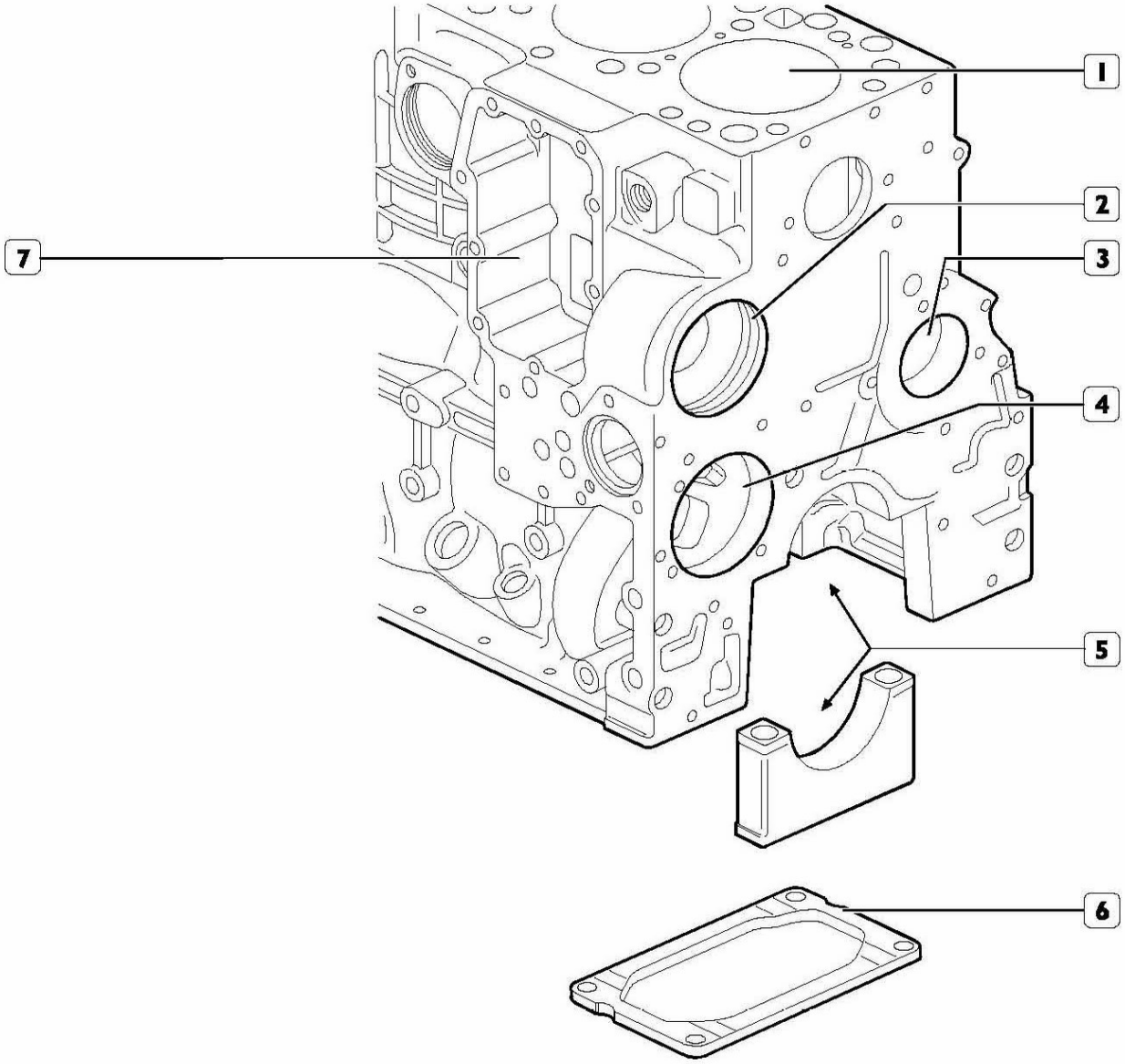
Crankcase

It consists of a cast-iron structure in which the following items are realized: cylinder liners (1); bed supports (5) and seats for: distributing shaft bushings (3), tappets, water/oil heat exchanger (7), water pump (2) and oil pump (4).

It also incorporates the coolant circulation chambers and the engine member lubricating circuit ducts.

Plate (6) is fitted to the lower part of the crankcase and ensures greater resistance to forces and stress.

Figure 5



86605

Drive shaft

It is made of steel and rests on seven induction-hardened supports.

Inside the drive shaft are the lubricating oil ducts.

The following items are force-fitted on the front shank: oil pump drive gear, phonic wheel, damper flywheel and auxiliary component drive pulley.

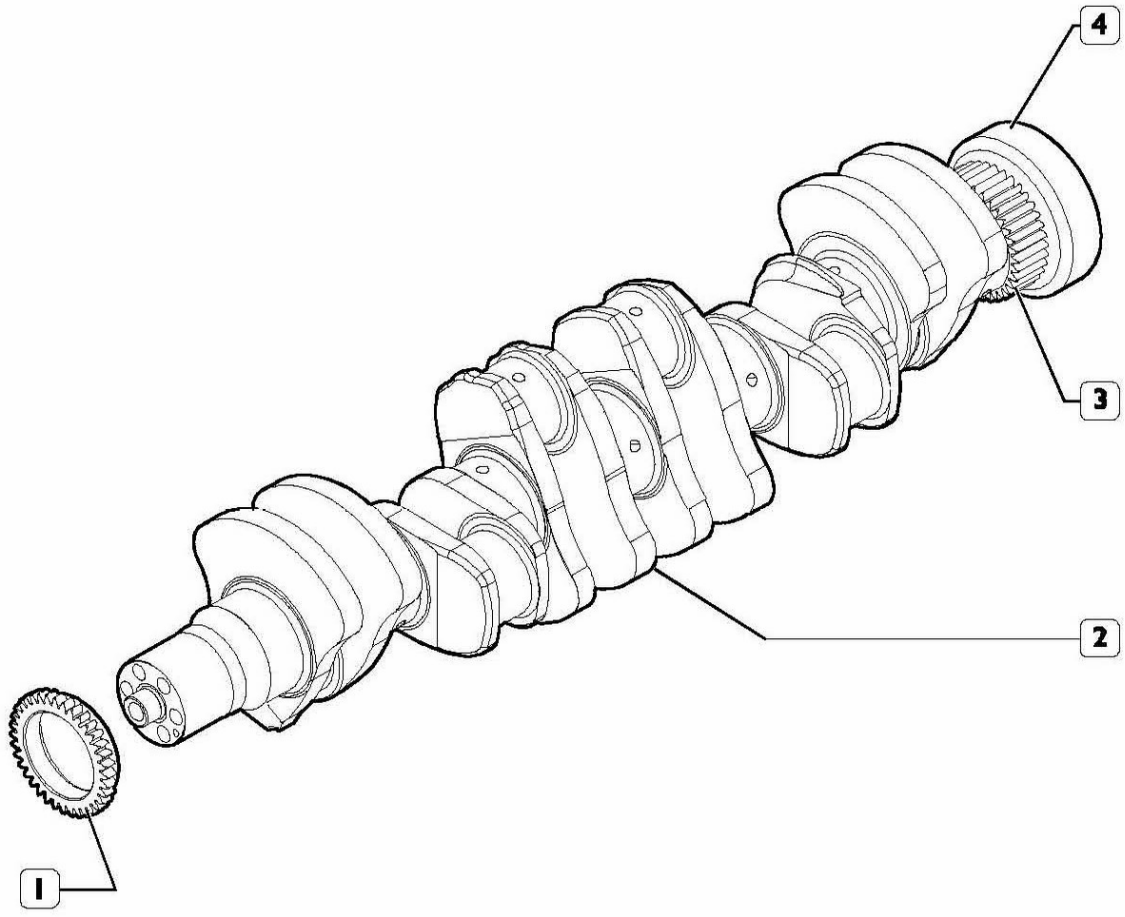
The following items are force-fitted on the rear shank: distributing shaft drive gear and engine flywheel mounting hub.

The main half bearings are made of steel with anti-friction alloy coating.

The penultimate main half bearings are equipped with a shoulder to restrain the drive shaft end play.

Parts (1) and (3) are mounted in an interfering manner on the rear shank and cannot be replaced.

Figure 6



1. Oil pump drive gear - 2. Drive shaft - 3. Valve gear drive gear - 4. Flywheel attachment hub

Drive shaft seal rings

The front and rear seal rings are of the "box" type, with radial seal.

Connecting rods

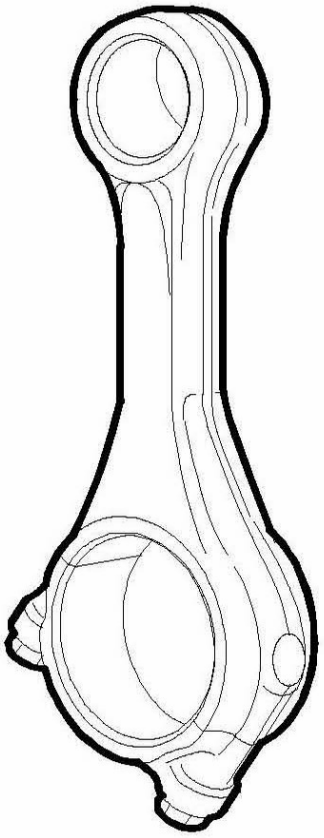
They are steel-stamped, of the oblique cut type, with separation of the cap obtained by an advanced technology (fracture split) instead of mechanic machining.

The connecting rod half bearings are made of steel, with anti-friction alloy coating.

Each connecting rod is marked:

- By a number (on the connecting rod body and cap) indicating its respective match and the cylinder in which it is mounted.
- By a letter (on the connecting rod body) indicating the weight class of the factory-assembled connecting rod.

Figure 7



84038

Pistons

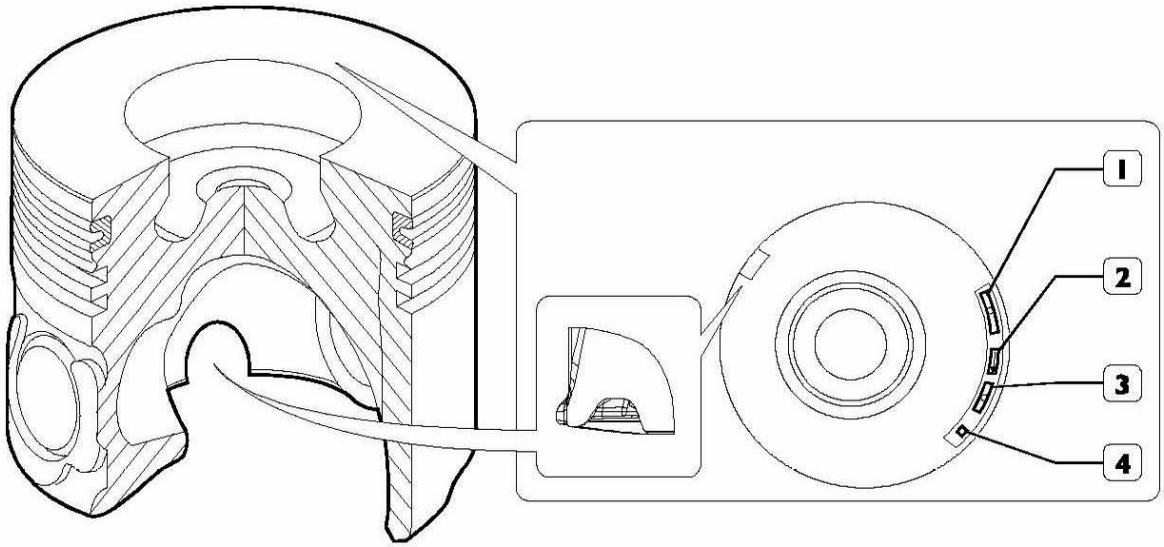
The combustion chamber is machined in the piston crown. The crown of the piston is cooled by the engine oil supplied by the sprayer.

There are three grooves that house the compression rings; the 1st of which is V shaped and is obtained using a cast iron insert.

The following references are engraved on the crown of the piston:

1. Spare part number and design change number.
2. Arrow indicating the assembly sign of the piston in the cylindrical liner; this must be facing towards the front side of the engine block.
3. Date of manufacture.
4. Stamp indicating testing of the 1st groove insert

Figure 8



86549

Distributing shaft

The distributing shaft rests on seven supports in the crankcase.

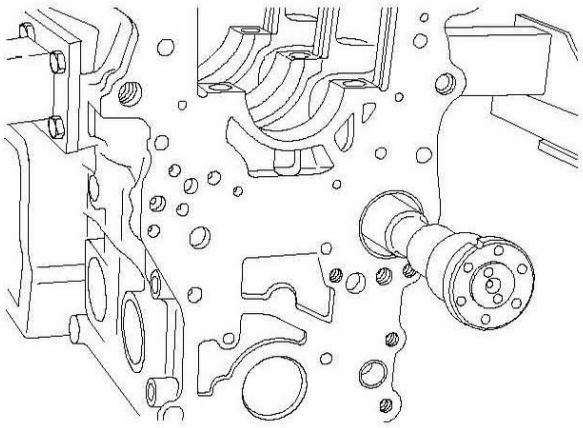
The supports (front and rear) are equipped with steel bushings mounted in an interfering manner and coated with anti-friction material; two control eccentrics are provided for each cylinder.

A. Intake valve control

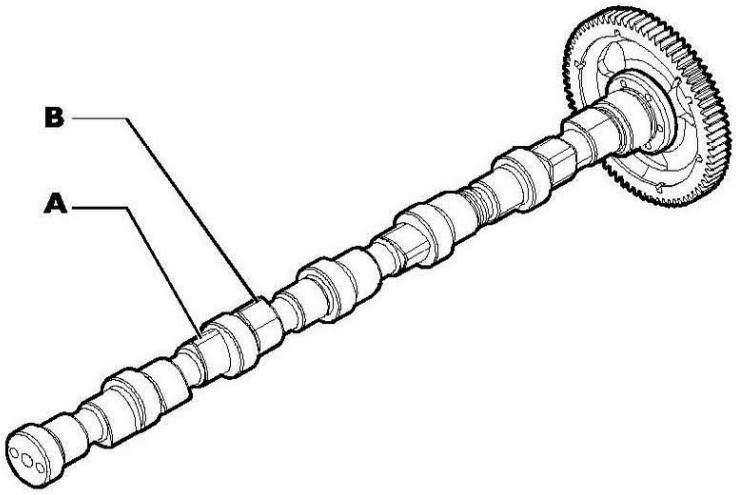
B. Exhaust valve control

The distributing shaft is controlled directly by the drive shaft by means of straight-tooth gears.

Figure 9



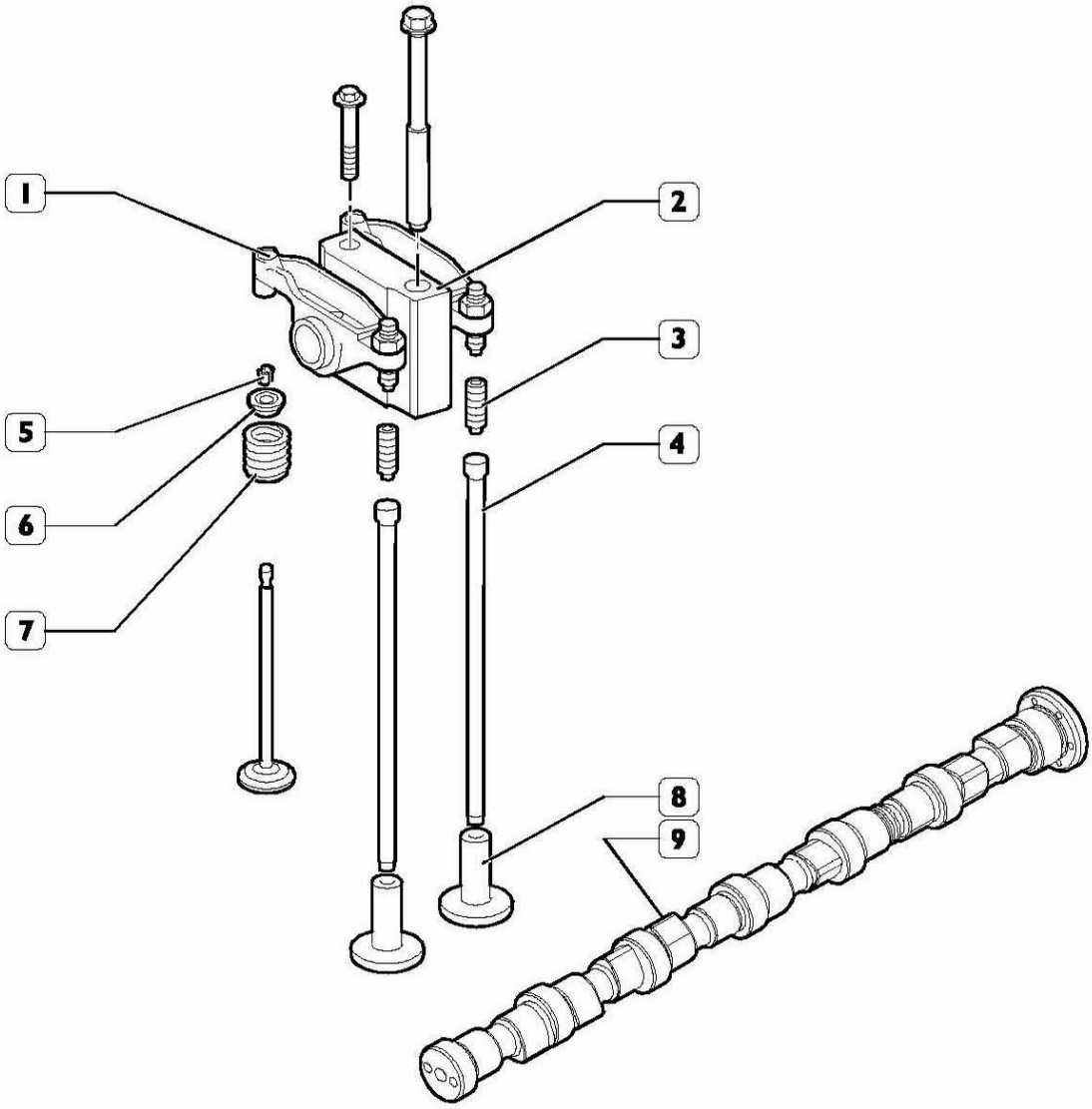
70164



84041

Engine F4GE0684F valve control

Figure 10

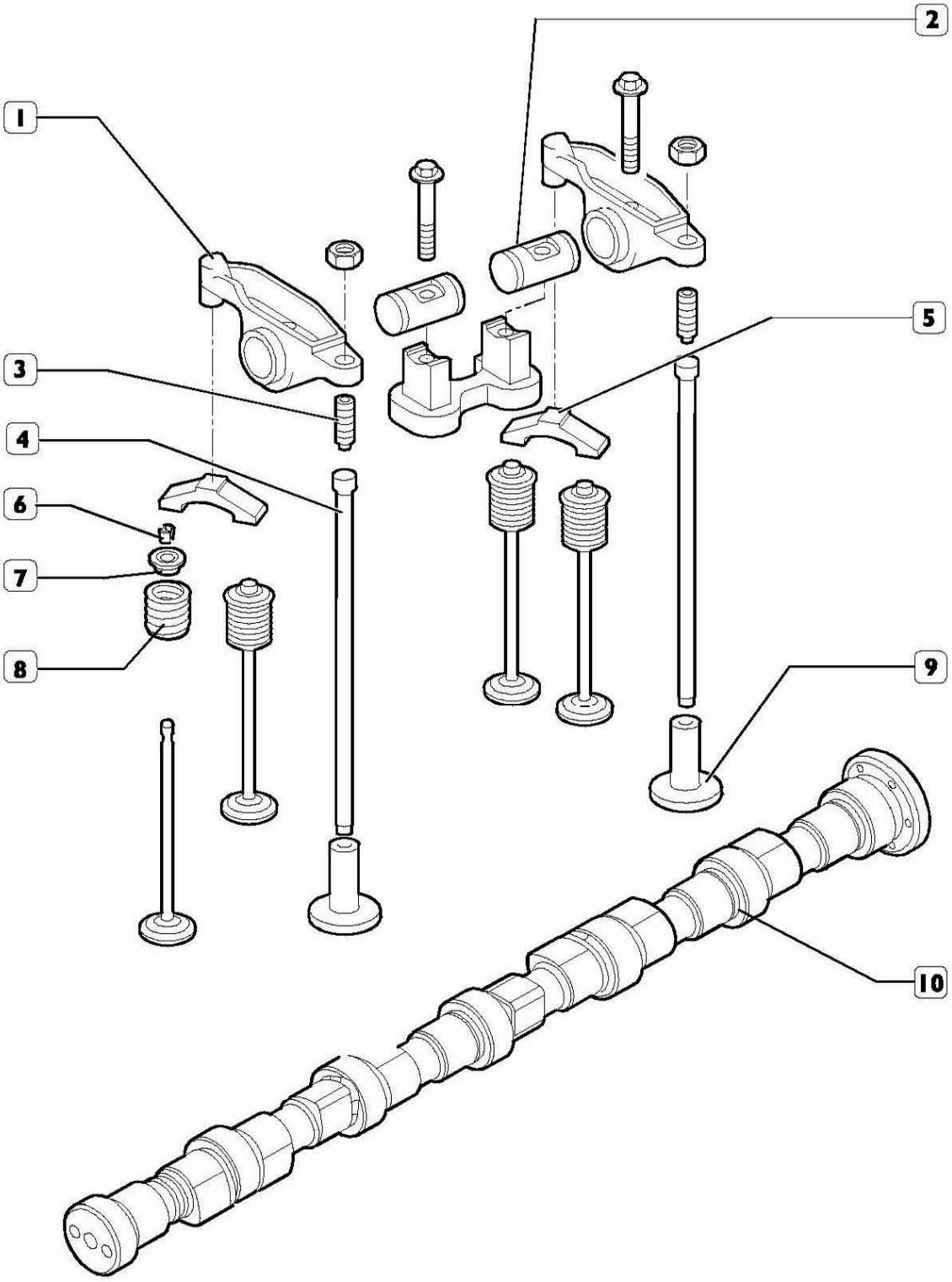


84042

1. Rocker arm – 2. Arbour support – 3. Adjusting screw – 4. Rod – 5. Lock cones – 6. Cup – 7. Spring – 8. Tappet – 9. Distributing shaft

Engine F4HE0684J valve control

Figure 11



1.Rocker arm – 2. Shaft – 3. Adjustment screw – 4. Rod – 5. Bridge – 6. Half-cones – 7. Retainer – 8. Spring – 9. Tappet – 10. Timing shaft

Thank you so much for reading.

Please click the “Buy Now!” button below to download the complete manual.

After you pay.

You can download the most perfect and complete manual in the world immediately.

Our support email:

ebooklibonline@outlook.com