

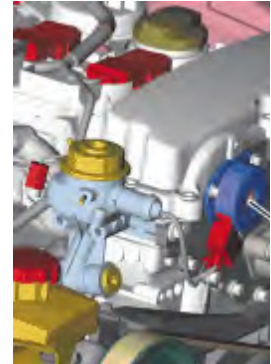
GF05.20-P-2100KE

Component description for solenoid on the camshaft

ENGINE 271.948**Arrangement**

Y49/1 Camshaft intake solenoid
Y49/3 Camshaft exhaust solenoid

The solenoids for intake and exhaust camshafts are located at the front on the cylinder head.

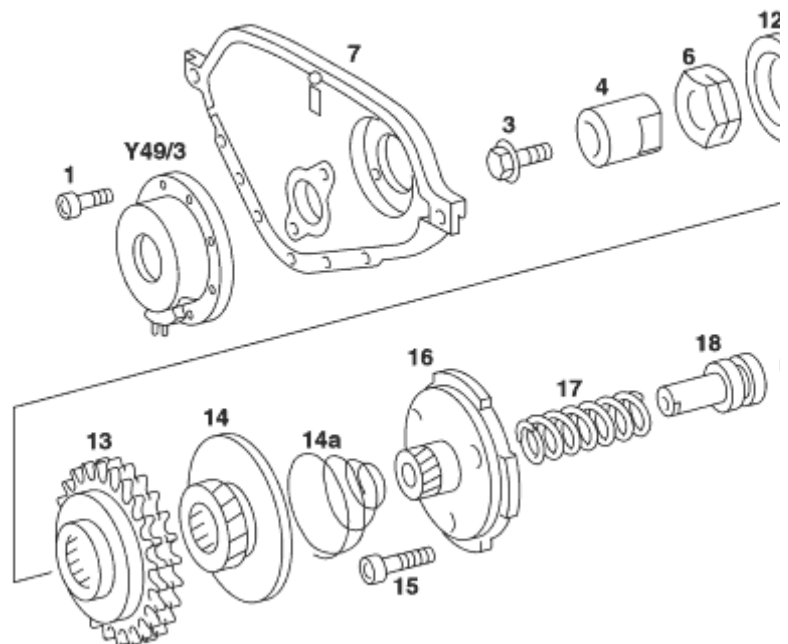
**Task**

The solenoid for intake and exhaust camshafts actuate the camshaft adjustment, whereby the camshafts are continuously adjusted. Adjustment of the camshaft optimizes engine torque development and improves the exhaust characteristics.

Exhaust camshaft adjustment

- 1 Bolt M6×16
- 3 Collar bolt M5×11
- 4 Armature
- 6 Nut M20×1.5
- 7 Front cover on cylinder head
- 12 Cover
- 13 Camshaft sprocket
- 14 Adjusting piston
- 14a Conical spring
- 15 Bolt M7×13.3
- 16 Flange shaft
- 17 Compression spring
- 18 Control plunger
- 19 Circlip 18×1
- 20 Cap
- 21 Straight pin in camshaft
- 22 Exhaust camshaft

Y49/3 Camshaft exhaust solenoid

**Function**

The solenoids for intake and exhaust camshafts are actuated in the partial and full-load range by the ME control unit (N3/10) according to a performance map by means of a PWM signal (pulse width modulated signal).

Here the adjustment piston (14) is turned continuously by the building up magnetic force and in this leads engine oil into the

This causes the control plunger to move axially and turns the camshaft over the helical cut rotation of the camshaft.

The intake camshaft can be adjusted to up to 4° advanced and the exhaust camshaft to a 4° retarded.

control plunger (18).