

INA Service Info

Classified Roller Finger Followers

for BMW Valvetronic and PSA Engines

In BMW Valvetronic and PSA engines, classified finger followers are installed on the intake side. With only one exception, these are finger followers that are each marked with a code number (see Figure 2). In the case of the divergent design, there is no code number on the finger follower. The finger followers must always be replaced with a part of the same sort. This means that all the finger followers of an engine should always have the same classification, i.e. all finger followers have either no code numbers or the same code numbers. In rare cases, it is possible that finger followers with different classifications are installed. Here, the finger follower to be installed should have the same classification as the one that is removed.



Figure 1: General overview of the BMW-Valvetronic system

Attention!

The roller finger followers on the intake side are classified according to bearing classes. Used roller finger followers may only be reused in the same position!



Figure 2: Examples of the marking on some roller finger followers



Technical background of Valvetronic engines (Figure 3):

Here, the intake valve performs the function of the throttle valve and is not actuated directly by the camshaft (1) but via an intermediate arm (2). The intermediate arm (2), which is also classified, has a roller in the center on which the cam runs.

Its lower end rests on the roller of the finger follower (3), which is supported by a hydraulic adjustment element (7). The upper end of the arm (2) is supported by a second roller on an eccentric shaft (4). An electric motor (5) rotates the eccentric shaft (4) according to the load conditions desired by the driver. The intermediate arm (2) transmits the rotation of the cam to the valve (6), depending on the position of the eccentric. The variable adjustment of the system is carried out depending on the engine speed and the position of the accelerator pedal.



Figure 3: Detailed view of the system components in the BMW Valvetronic system

Please observe the vehicle manufacturer specifications!

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