

## 05–240 Replacement of rocker arms and rocker arm brackets

Valve clearance	engine cold (approx. 20 °C)	engine hot (60 °C ± 15 °C)
Intake	0.10 <sup>1)</sup>	0.15 <sup>1)</sup>
Exhaust	0.30	0.35

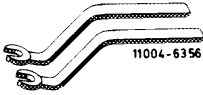

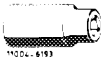
<sup>1)</sup> 0.05 mm greater for steady ambient temperatures below –20 °C.

### Rocker arm, rocker arm bracket and shaft

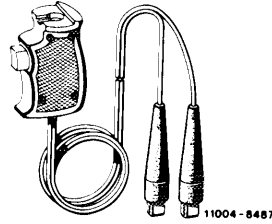
Basic bore in rocker arm		14.00
		14.02
OD of bushing	≈	14.03
		14.05
ID of bushing and bore in rocker arm	(open bushing)	—
	finished size	12.00
		12.02
Rocker shaft diameter		11.98
		11.96
Radial play of rocker arm on shaft		0.02–0.06
Bore in rocker arm bracket		11.98
		12.00
Width of rocker arm bracket		24.07–24.20

Tightening torques	Nm	(kpm)
Bolts for cylinder head cover (engine 615)	5	(0.5)
Nuts for cylinder head cover (engines 615, 616, 617)	15	(1.5)
Rocker arm brackets to cylinder head	38	(3.8)

### Special tools

Valve adjusting wrench 14 mm (two)		615 589 00 01 00
Holding wrench for valve spring cap		615 589 00 03 00
Socket 27 mm, 1/2'' drive to crank engine		001 589 65 09 00

Remote starter switch for cranking engine  
(individual component of compression  
pressure recorder 001 589 46 21 00)



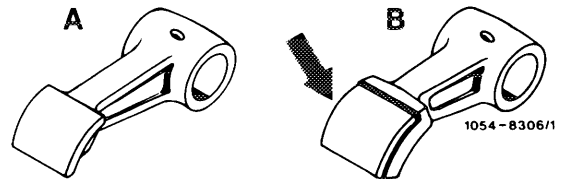
001 589 46 21 08

**Note**

There are two types of rocker arm:

**1st version**

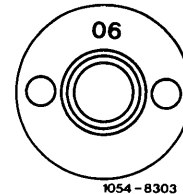
Rocker arm with induction hardened and hard chrome-plated contact surface (A) for tempered camshafts (code Nos. 00 and 02).



**2nd version**

Rocker arm with hard-backed, soldered contact surface (B, arrow) for chilled casting camshafts (code Nos. 06, 08 and 10).

The code No. is stamped in the aft camshaft end.



**Caution:**

Be sure not to cross rocker arms because this would destroy the cams and rocker arm contact surfaces.

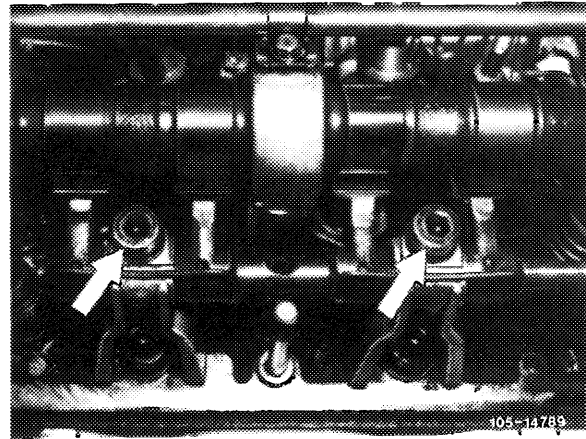
When replacing a rocker arm check whether bushing is fitted or not.

Rocker arms without bushings are to be discarded.

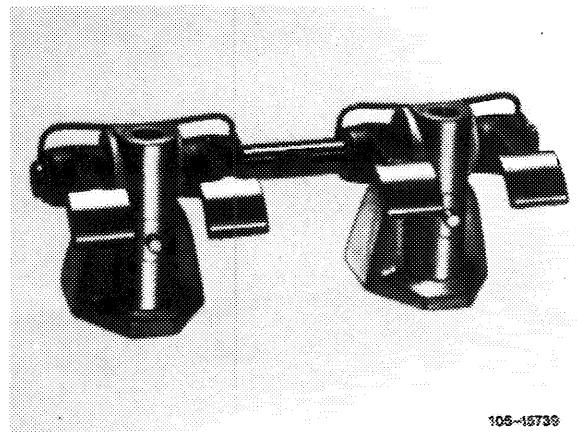
Rocker arms with bushings can be rebushed.

## Removal

1 Remove rocker arm assemblies complete (05-235).

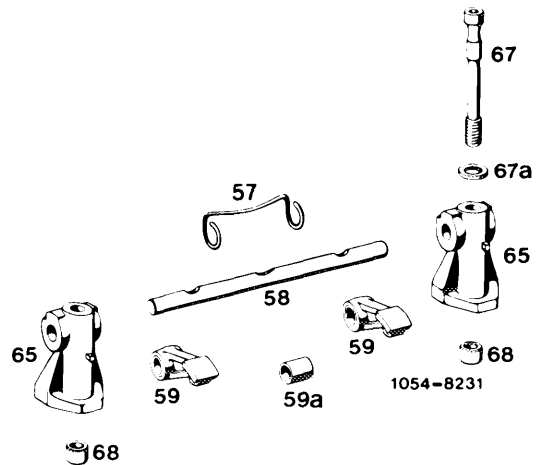


2 Force tension springs off rocker arm brackets.



3 Draw tension spring (57), bearing brackets (65) and rocker arms (59) off rocker shaft (58).

- 57 Tension spring
- 58 Rocker shaft
- 59 Rocker arm
- 59a Rocker arm bushing
- 65 Bearing bracket
- 67 Bolt
- 67a Washer
- 68 Locating sleeve



## Installation

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4 Slip tension spring (57), rocker arms (59) and bearing brackets (65) onto rocker shaft (58).

5 Slip second eye of tension spring onto rocker shaft and press into bearing bracket groove.

6 Install rocker arm assemblies complete (05-235).

7 Adjust valve clearance (05-210).

