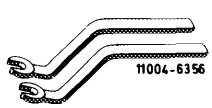
Valve clearance	with engine cold (approx. 20 °C)	with engine warm (60 °C ± 15 °C)
Intake	0.10[1])	0.15[1])
Exhaust	0.35	0.40

[1]) 0.05 mm higher during lasting outside temperatures below –20 °C.

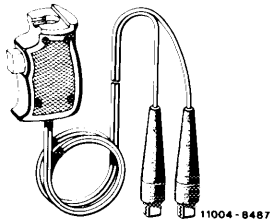
Rocker arms, rocker arm brackets and shaft		
Basic bore in rocker arm		14.00 / 14.02
OD of bushing	(open bushing) ≈	14.03 / 14.05
ID of bushing	(open bushing)	——
	final dimension	12.00 / 12.02
Dia. of rocker arm shaft		11.98 / 11.96
Radial play of rocker arm on shaft		0.02–0.06
Bore in rocker arm bearing bracket		11.98 / 12.00
Width of rocker arm bearing brackets		24.07–24.20

Tightening torques	Nm
Nuts for cylinder head cover	15
Rocker arm bearing brackets to cylinder head	38

Special tools

Valve adjusting wrench 14 mm (2 each)		615 589 00 01 00
Holding wrench for valve spring retainer		615 589 00 03 00
Socket 27 mm, 1/2" square, for rotating engine		001 589 65 09 00

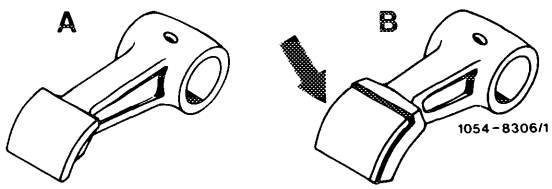
Contact handle for rotating engine
(component of compression pressure
recorder 001 589 46 21 00)



001 589 46 21 08

Note

There are two rocker arm versions:



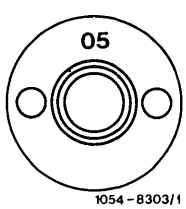
1st version

Rocker arm with inductance-hardened and hard-chromed running surface (A) for camshaft made of malleable cast iron (code number 00).

2nd version

Rocker arm with brazed-on carbide facing as running surface (B, arrow), for camshafts made of chilled cast iron (code number 05 and 08).

Code number is punched into rear end of camshaft.



Attention!
Do not mix up rocker arms, since this will lead to destruction of cam and of rocker arm running surface.

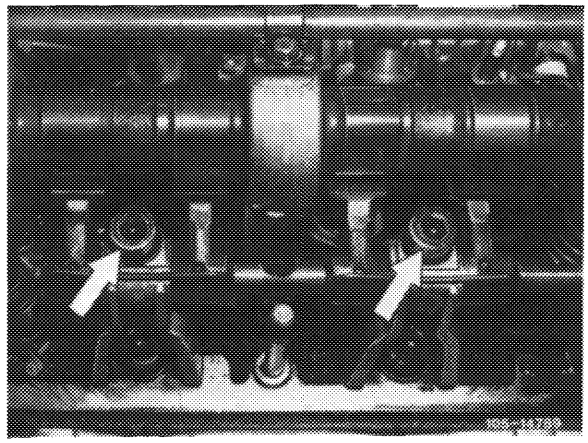
During renewal, make sure whether rocker arm has a bushing or not.

Rocker arms without bushing should be scrapped.

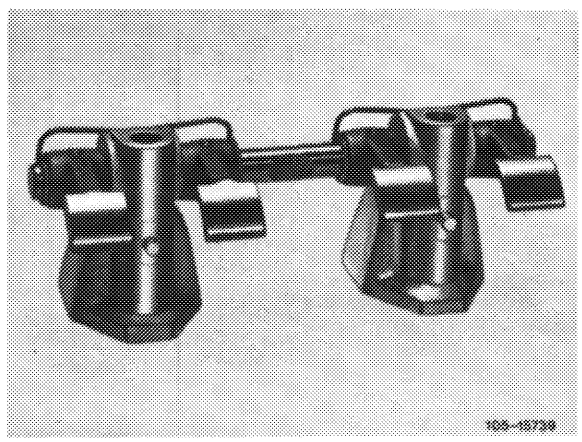
On rocker arms with bushings, bushing can be renewed.

Removal

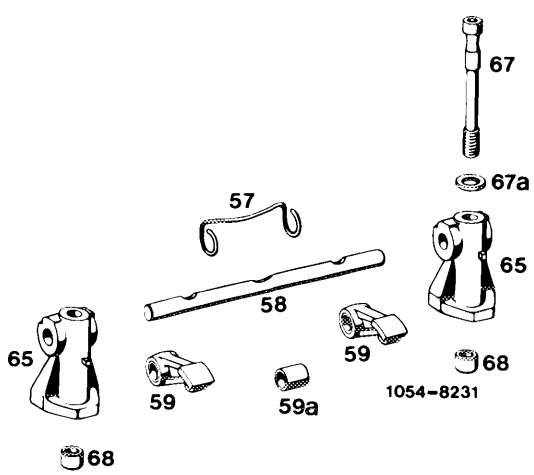
1 Completely remove rocker arm groups (05–235).



2 Push down tensioning springs of rocker arm brackets.



3 Pull tensioning spring (57), bearing brackets (65) and rocker arm (59) from rocker arm shaft (58).



57 Tensioning spring
58 Rocker arm shaft
59 Rocker arm
59a Rocker arm bearing bushing
65 Bearing bracket
67 Screw
67a Washer
68 Fitted sleeve

Installation

4 Slip tensioning spring (57), rocker arm (59) and bearing brackets (65) on rocker arm shaft (58).

5 Slip tensioning spring with second eye on rocker arm shaft and push into groove of bearing brackets.

6 Completely install rocker arm groups (05–235).

7 Adjust valve clearance (05–210).