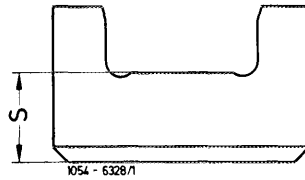



**05—213 Checking and correcting basic position of hydraulic valve clearance compensating elements**

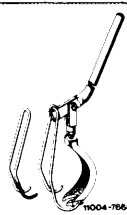
Thickness „S” of thrust pieces in mm	Part No.
6.15	117 053 07 53
5.8	117 053 06 53
5.45	117 053 05 53
5.1	117 053 04 53
4.75	117 053 03 53
4.4	117 053 02 53
4.05	117 053 01 53
3.7	117 053 00 53



Tightening torque	Nm
Bolts for cylinder head cover	3

**Special tools**

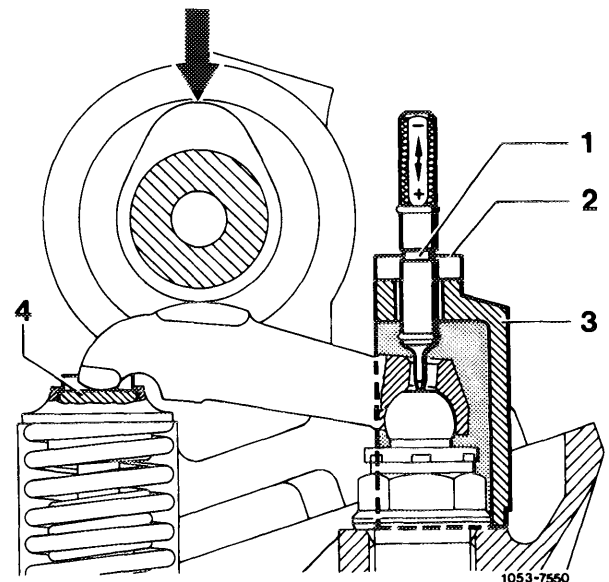
Test gauge for hydraulic compensating elements		117 589 06 23 00
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Spring compressor for valve spring		123 589 03 61 00
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**Note**

The test gauge serves to find the basic position or a plus (+) or minus (–) deviation of hydraulic element.

In the event of a plus (+) or minus (–) deviation, the installation of a thinner or a thicker thrust piece (4) permits to reattain the basic position.



Since December 1982, the hydraulic valve clearance compensating elements are adjusted with a revised preload dimension (basic position) (previously 0.7–1.9 mm, now 1.2–2.4 mm).

This is achieved by adding a thicker thrust piece to the valve spring retainer.

**Production breakpoint: December 1982**

Model	Engine	Engine end No.	Chassis end No.
107.045	116.962	013323	022708
107.046	117.962	001791	004833
126.032 126.033	116.963	025756	040889
126.036 126.037	117.963	021019	029280
126.043 126.044	116.963 117.963	025756 021019	005329 004833

The revised preload dimension is also valid for all previously manufactured engines 116 and 117, and must be taken into account when checking and adjusting the basic position.

**Note:** Checking and adjusting should be carried out with the testing gauge 117 589 06 23 00 with revised measuring groove position.

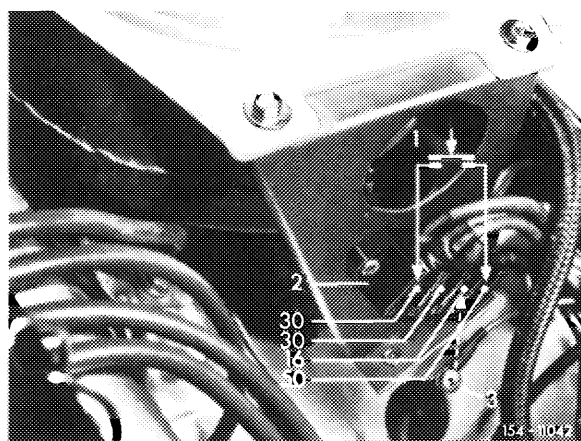
## Checking

1 With newly installed compensating element, crank engine with starter motor for approx. 30 seconds prior to checking.

2 Cranking engine:

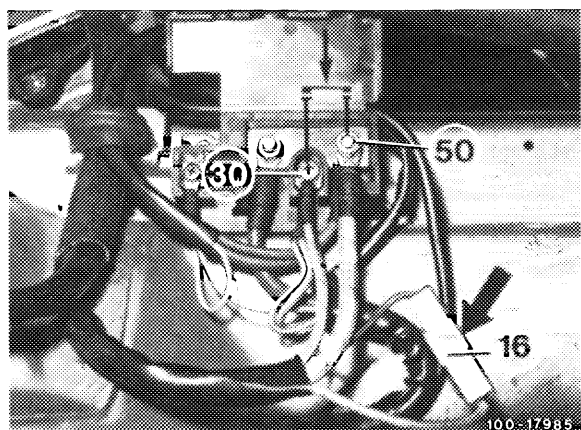
### Model 107

On 4-point cable connector, disconnect cable terminal 16 (cable color red/purple) so that the ignition coil and the fuel pump are not activated. Connect terminal 30 (cable color red) and terminal 50 (cable color purple).



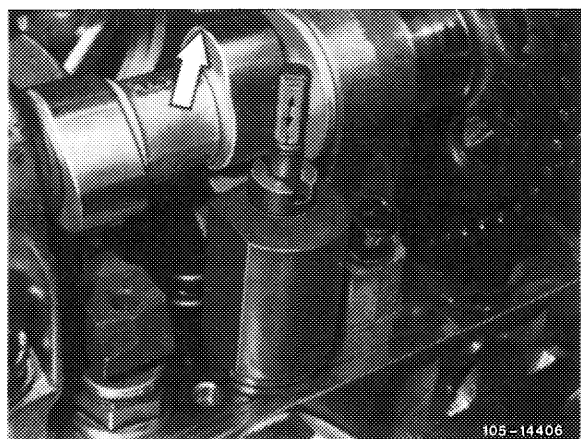
### Model 126

Disconnect cable plug (terminal 16, arrow) so that the ignition coil and the fuel pump cannot be activated. Connect terminal 30 and 50.



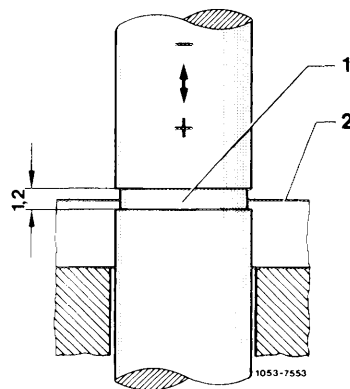
3 Remove load from hydraulic element to be checked, i.e. the cam tip should point in upward direction (arrow).

4 Place test gauge over hydraulic element to be tested and set measuring pin on the ball head bolt.



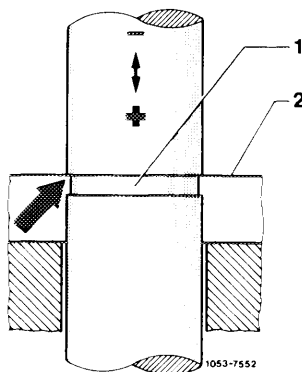
5 Check position of measuring groove (1) relative to the measuring edge (2):

- a) The basic position is correct if the measuring edge (2) is within the 1.2 mm wide red measuring groove (1).



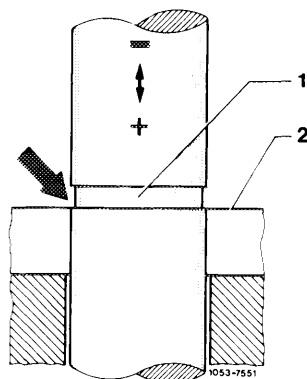
- b) Plus deviation (+) is indicated if the measuring edge (2) is above the red measuring groove (1).

**Remedy:** For plus deviation (+) install thinner thrust piece.



- c) Minus deviation (-) is indicated if the measuring edge (2) is below the red measuring groove (1).

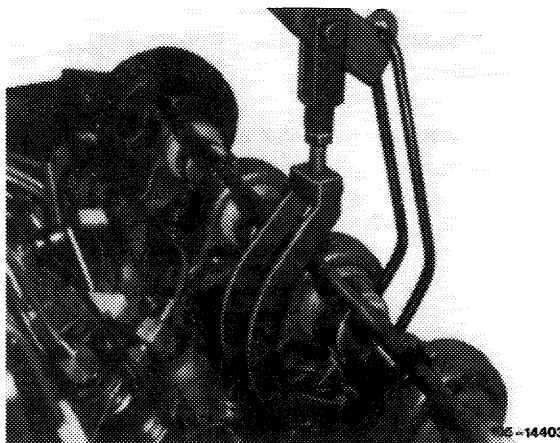
**Remedy:** For minus deviation (-) install thicker thrust piece.



## Corrections

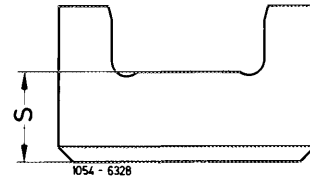
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- 6 Remove rocker arm by means of spring compressor. Remove thrust piece.



7 Measure thickness „S“ of thrust piece.

Thrust piece thickness „S“ in mm	Part No.
6.15	117 053 07 53
5.8	117 053 06 53
5.45	117 053 05 53
5.1	117 053 04 53
4.75	117 053 03 53
4.4	117 053 02 53
4.05	117 053 01 53
3.7	117 053 00 53



8 In the event of plus deviation (+) install thinner,  
in the event of minus deviation (–) install thicker  
thrust piece.

**Note:** For readjustment aim for center position on  
measuring groove.

9 Install rocker arm and repeat checkup.