

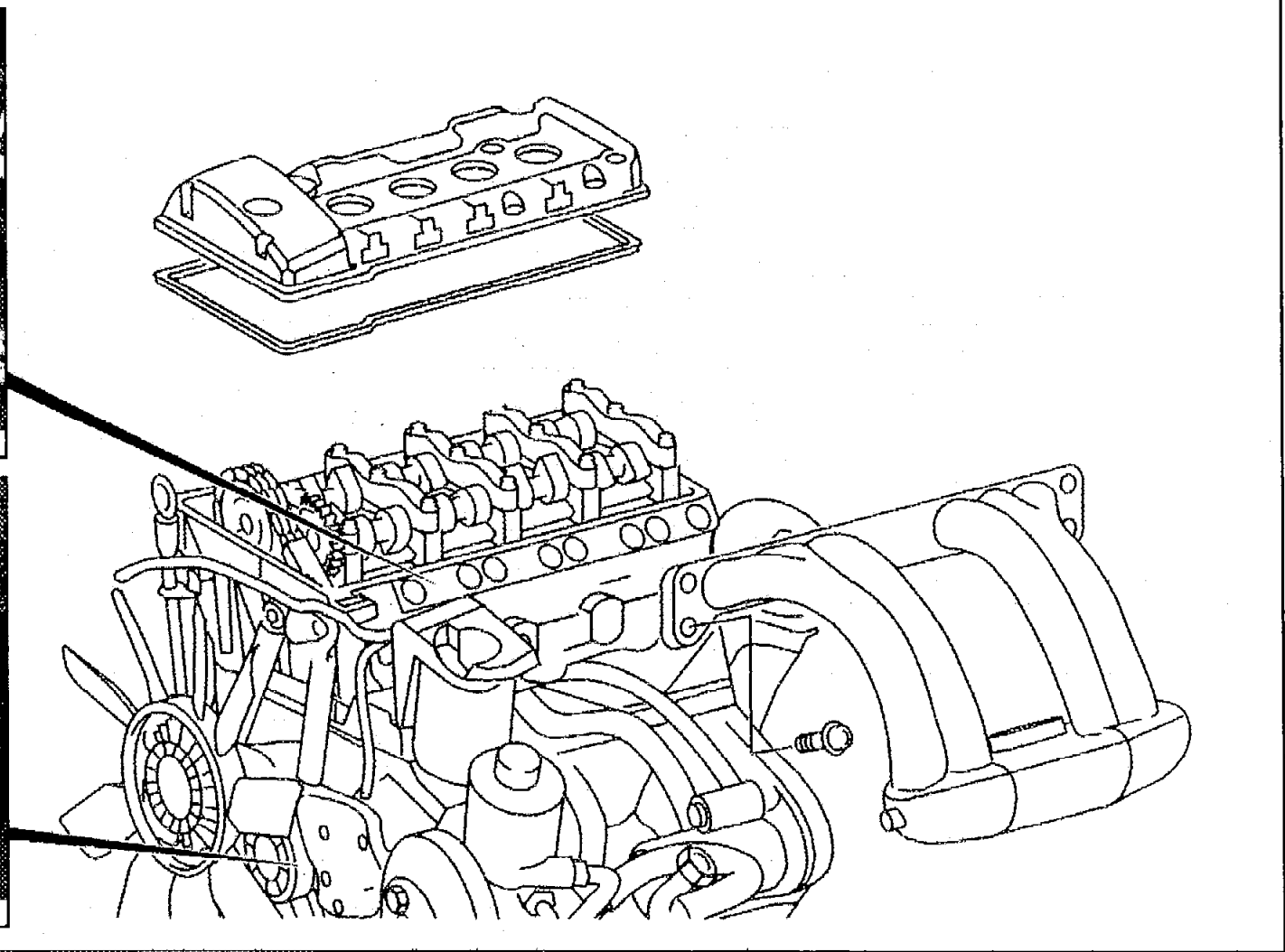
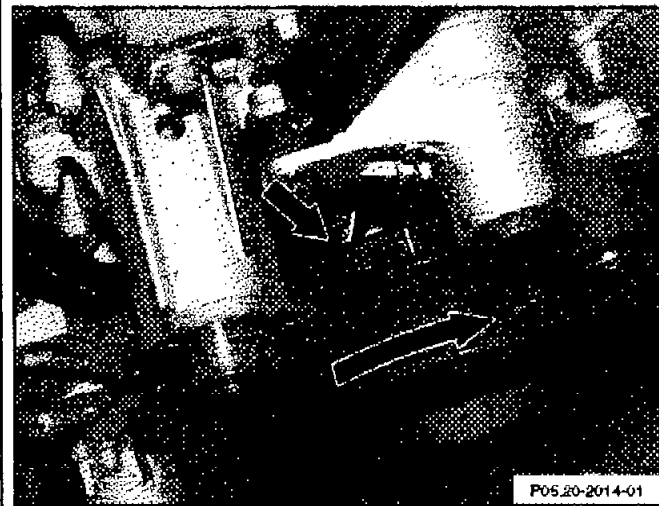
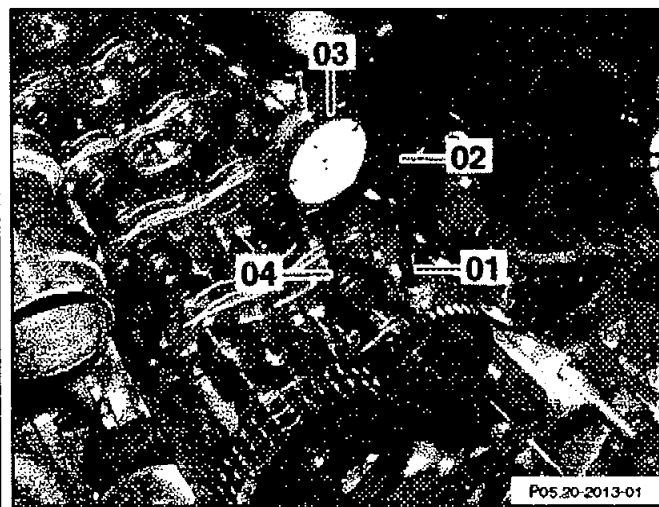
M2





AR05.20-P-6015HB

### Checking camshaft timing

14.1.98

### ENGINE 604, 605, 606



|   |   |  |   |
|---|---|--|---|
|    | <p>When carrying out removal and installation work, it is sufficient if the basic position of the camshafts is checked. Only check the timing of the camshafts if it is certain that the setting of the TDC pointer is correct, if necessary ↓</p> <p>inspect setting of TDC pointer bracket, correct</p> |  | <p>AR05.20-P-6010HA <b>J2</b></p> <p>AR03.00-P-1101HA</p> |
|    | <p><b>Removing, installing</b></p>  |  |   |
| <p>1</p>  | <p>Remove cylinder head cover</p>   |  | <p>AR01.20-P-5014HA</p>                                   |
| <p>2</p>  | <p>Remove viscous fan clutch</p>  | <p>Engine 605, 606 in model 124<br/>           Engine 606.961 in model 140<br/>           Engine 605 in model 202<br/>           Engine 605, 606 in model 210<br/>           Engine 604 in models 202, 210</p> | <p>AR20.40-P-5660HB</p> <p>AR20.40-P-5660HA</p>           |
|   |   | <p>Engine 606 in model 463</p>   | <p>AR20.40-P-5660GG</p>                                   |
|  | <p><b>Checking</b></p>  |  |   |
| <p>3</p>  | <p>Check camshaft code numbers</p>  | <p> The camshaft code numbers are shown at the thrust collar of the axial bearing</p>                                     | <p>BE05.20-P-1001-01A</p>                                 |



|    |   |   |  |
|----|---|---|--|
| 4  | Attach dial gage holder (02) to the intake side of cylinder 1 to the cylinder head  | <p><b>i</b> Insert threaded pin into M6 hole of cylinder head cover attachment for this step.<br/>Screw nut (01) (part no. 102 990 01 51) onto threaded pin.<br/>Screw dial gage holder (02) onto nut (01) with magnetic foot removed.</p> <p><b>S</b> Threaded pin<br/><b>S</b> Dial gage holder</p> | <p>116 589 01 34 00<br/>363 589 02 21 00</p> |
| 5  | Position inlet cams of cylinder 1 so that only the base circles are making contact with the bucket tappets                  |   |  |
| 6  | Attach dial gage (03) with tracer pin (04) to dial gage holder  | <b>S</b> Dial gage  | 001 589 53 21 00                             |
| 7  | Set a preload of 3 mm and an angle of 90° of tracer pin (04) to bucket tappet   |   |  |
| 8  | Use socket wrench bit to rotate the crankshaft in direction of rotation of engine until a valve stroke of 2 mm is indicated | <b>S</b> Socket wrench bit  | 001 589 65 09 00                             |
| 9  | Check reading (arrow) at the vibration damper   | <b>i</b> At valve lift of 2 mm, the reading at the vibration damper should agree with the figure as in the table  | BE05.20-P-1001-02A                           |
| 10 | Install in the reverse order  |   |  |

**Camshaft code numbers**

| Number             | Designation           | Engine 604 | Engine 605<br>except<br>605.960/962 | Engine 606<br>except<br>606.961/962/964 |
|--------------------|-----------------------|------------|-------------------------------------|---|
| BE05.20-P-1001-01A | Camshaft code numbers | inlet      | 11                                  | 11                                      |
|                    |                       | exhaust    | 10                                  | 08                                      |
|                    |                       |            |                                     | 07                                      |

**Camshaft code numbers**

| Number             | Designation           | Engine 605.960/<br>962 | Engine 606.961/<br>962/964 |
|--------------------|-----------------------|------------------------|----------------------------|
| BE05.20-P-1001-01A | Camshaft code numbers | inlet                  | 14                         |
|                    |                       | exhaust                | 08                         |
|                    |                       |                        | 11                         |
|                    |                       |                        | 07                         |

**Timing**

| Number             | Designation  | Engine 604,<br>605.910/911/912,<br>606.910/912 |
|--------------------|--|--|
| BE05.20-P-1001-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | inlet valve opens after TDC °CRA 12            |
|                    |  | inlet valve closes after BDC °CRA 13           |



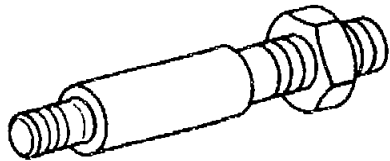
| Number             | Designation  | Engine 604,<br>605.910/911/912,<br>606.910/912  |
|--------------------|--|---|
| BE05.20-P-1002-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | exhaust valve<br>opens before °CRA<br>BDC<br>25 |
|                    |  | closes before TDC °CRA<br>14                    |

**Timing**

| Number             | Designation  | Engine 605.960/<br>962  |
|--------------------|--|---|
| BE05.20-P-1001-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | inlet valve<br>opens after TDC °CRA<br>12<br>closes after BDC °CRA<br>0         |
| BE05.20-P-1002-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | exhaust valve<br>opens before °CRA<br>BDC<br>25<br>closes before TDC °CRA<br>14 |

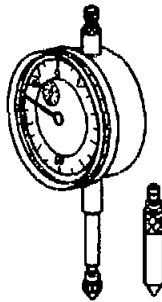
## Timing

| Number             | Designation  | Engine 606.961/<br>962/964                   |
|--------------------|--|--|
| BE05.20-P-1001-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | inlet valve<br>opens after TDC °CRA 12       |
|                    |  | closes after BDC °CRA 0                      |
| BE05.20-P-1002-02A | Timing of inlet valve/exhaust valve at 2 mm valve stroke and used timing chain | exhaust valve<br>opens before °CRA 25<br>BDC |
|                    |  | closes before TDC °CRA 14                    |



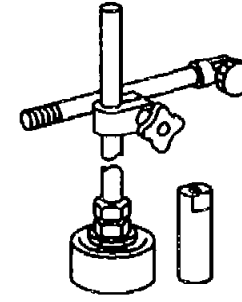
116 589 01 34 00

Threaded pin



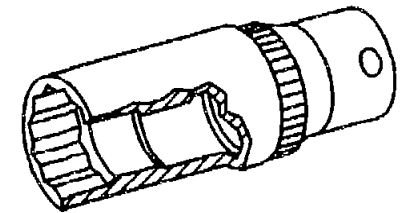
001 589 53 21 00

Dial gage



363 589 02 21 00

Dial gage holder



001 589 65 09 00

Socket wrench bit