



Accelerator control linkage . . . . .	check ease of movement, condition. Lubricate bearing points, relay levers, ball sockets.
Full throttle stop . . . . .	check from accelerator pedal, adjust Bowden cable if necessary.
Idle stop . . . . .	check; adjust at Bowden cable if necessary.
Voltage at battery . . . . .	test. Specification min. 11.5 volts.
Engine . . . . .	warm up to operating temperature (coolant temperature approx. 80 °C).
Air conditioner or automatic climate control . . . . .	switch off.
Idle speed . . . . .	check, adjust if necessary. Unplug connector from actuator, plug in.
Start of delivery . . . . .	test with digital tester.
Max. speed at no load . . . . .	test.
Injection timer . . . . .	test.
Electronic diesel system (EDS) . . . . .	test with pulse counter (013), see (07.1-1120).
Anti-jerk control (ARA) . . . . .	test with pulse counter (013), see (07.1-1841.)

### Test and setting data

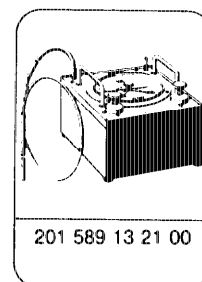
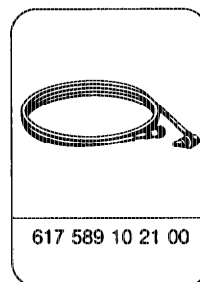
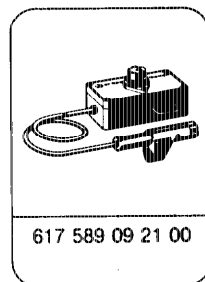
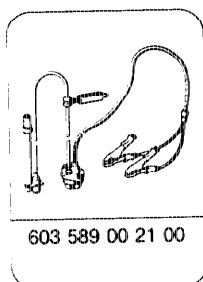
Engine	Idling speed in rpm with control	Idling speed in rpm without control connector at servomagnet unplugged	Start of delivery with digital tester RI specification	Max. speed without load or end of governed speed in rpm	Timing device w/o load or end of governed speed RIV meth. in°
602.96 <sup>1)</sup>	740 ± 20	690 ± 40	15 ± 1° after TDC. (USA) as of 09/89, Base version Code 62/0 as of 06/91, (A) (FIN) (CH) (DK) as of model year 1991: 14 ± 0.5° after TDC.	5150 ± 150	+ 3° to + 5°
602.96 <sup>2)</sup>	680 ± 20	620 ± 40			
603.96	630 ± 20 680 ± 20 <sup>3)</sup>	570 ± 40 620 ± 40 <sup>3)</sup>	15 ± 1° after TDC. Base version Code 62/0 as of 06/91, (A) (FIN) as of model year 1991: 14 ± 0.5° after TDC.		
603.970	630 ± 20	570 ± 40	15 ± 1° after TDC. (USA) as of 09/89: 14 ± 0.5° after TDC.	4650 ± 150	
603.971	610 ± 20	560 ± 40	14 ± 0.5°	4750 ± 150	

<sup>1)</sup> Manual transmission.

<sup>2)</sup> Automatic transmission

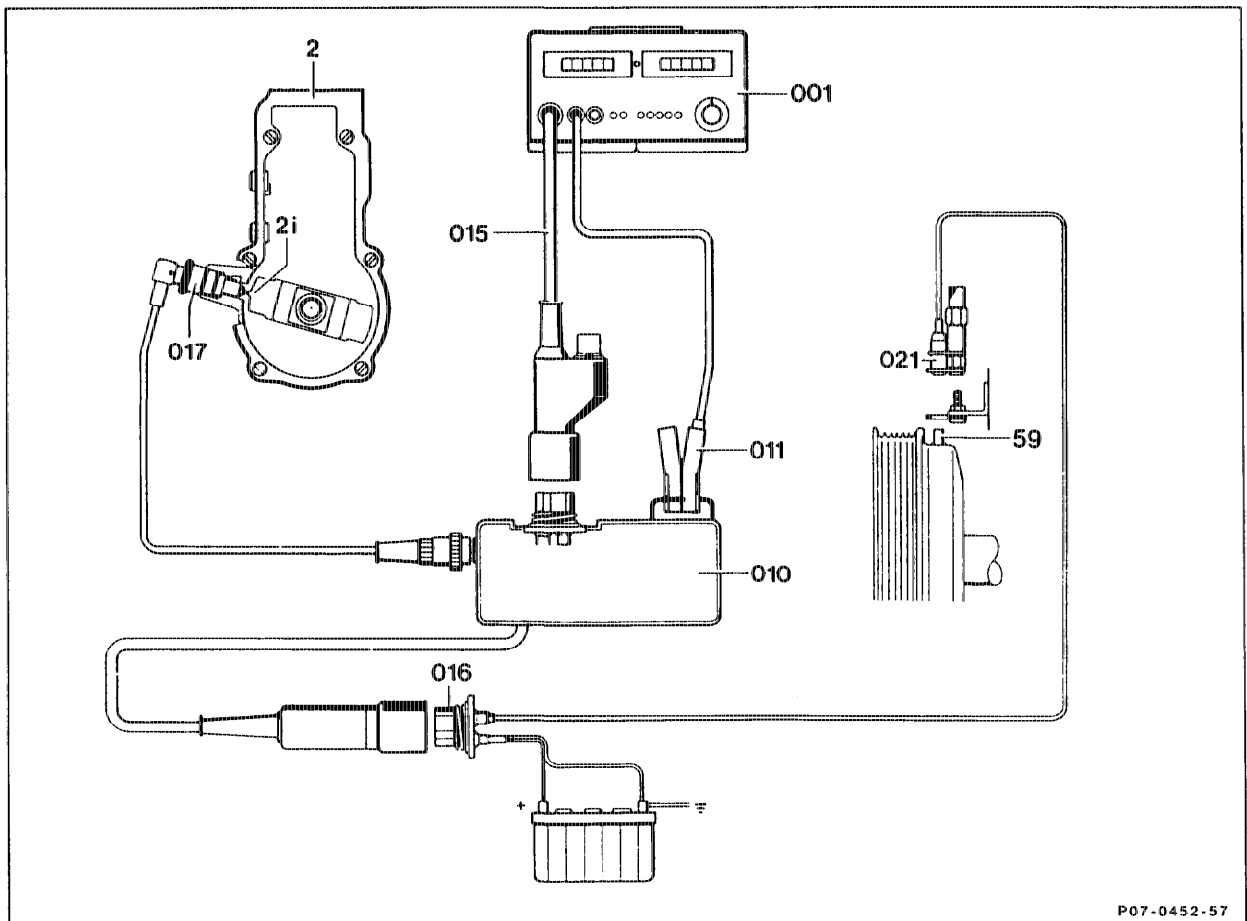
<sup>3)</sup> 4MATIC with manual transmission.

### Special tools



## Commercially available testers

Designation	e. g. make, order no.
<b>Used without adapter</b>	
Digital testers	Bosch, ETD 019.02 or MOT 350/500/501 Sun, DIT 9100 AVL, Diesel-Tester 873
<b>Used with adapter</b>	
Digital testers	Bosch, MOT 001.03
Lambda tester (only for EDS)	Bosch, KDJE-P 600 Hermann, L 115



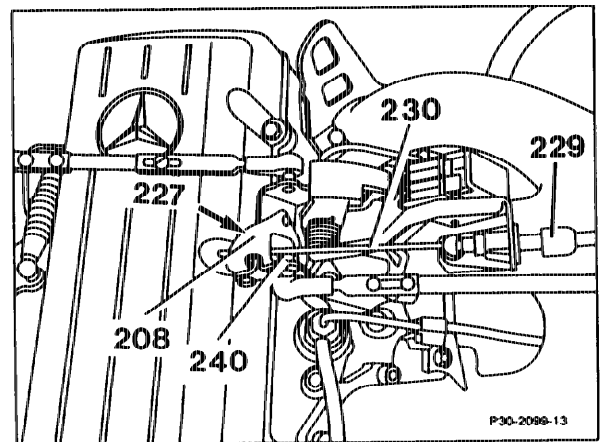
P07-0452-57

## Connection diagram for testers with adapter

001	Digital tester	017	RI generator
010	Adapter	021	TDC pulse generator
011	Trigger clamp	2	Governor
015	Test cable with connector	2i	RI generator pin
016	Diagnostic socket	59	TDC generator pin

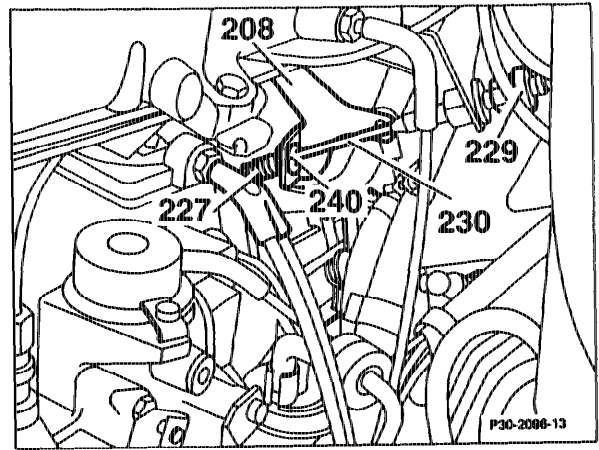
### Testing, adjusting engine

- 1 Check coolant level, correct if necessary.
- 2 Check engine oil level, paying attention to condition of oil (visual inspection).
- 3 Remove air filter element (visual inspection), and install.
- 4 Connect testers (013, 001, 017) according to connection diagram.
- 5 Connect pulse generator (021).
- 6 Check accelerator control for ease of movement and condition. Lubricate bearing points, relay levers and ball sockets.
- 7 Check full throttle stop from accelerator pedal; adjust at adjusting screw (229) if necessary.



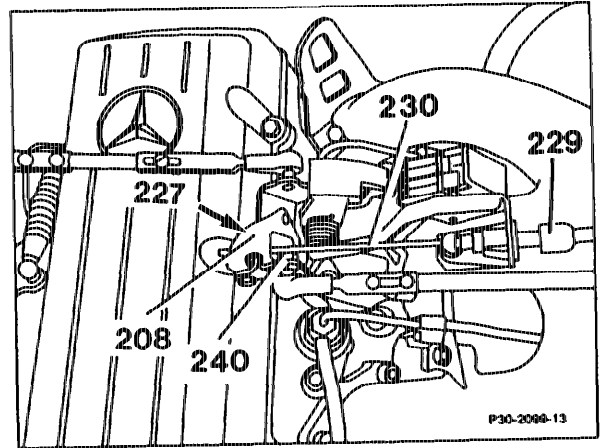
Engine 602.96

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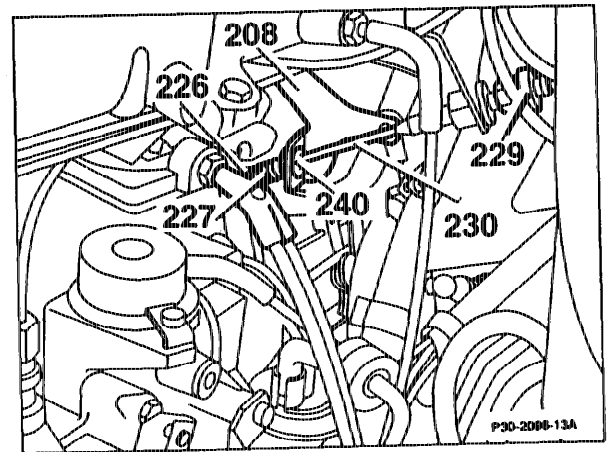


Engine 603.96

8 Check idle stop.  
 The spring plate (226) of the Bowden cable (230) must be resting against the compression spring (227) free of tension.

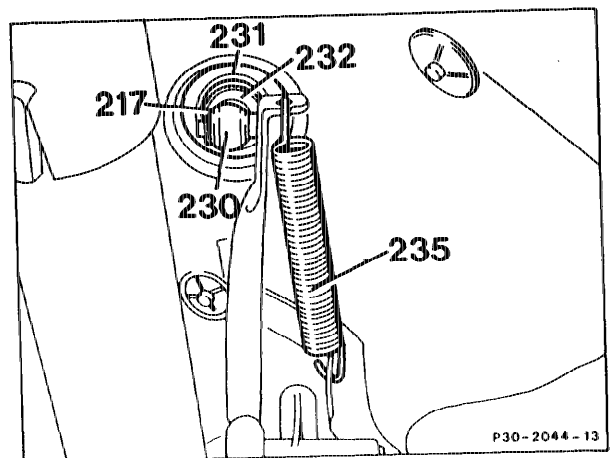


Engine 602.96



Engine 603.96

Adjust Bowden cable (230) with adjusting nut (232) from the car interior, if necessary.



P30-2044-13

9 Test voltage at battery.  
Specification: at least 11.5 V.

10 Raise engine to operating temperature  
(coolant temperature approx. 80 °C).

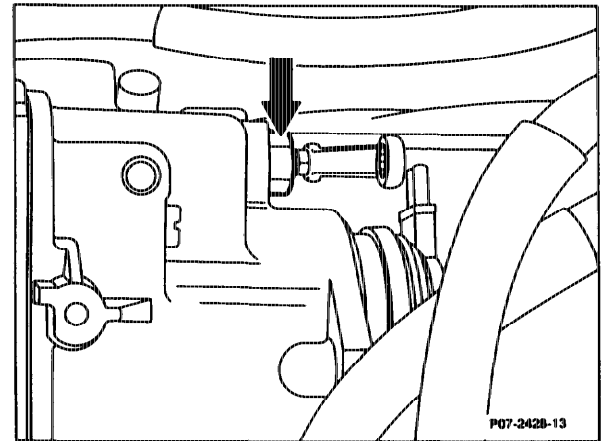
11 Switch off air conditioner or automatic  
climate control.

Test idling speed.

Unplug 2-pin coupling at actuator, plug in. Set  
idling speed by slackening locking nut (arrow).

Engine	Idle speed in rpm with control	Idle speed rpm connector at actuator unplugged without control
602.96 manual transm.	740±20	690±40
602.96 automatic transm.	680±20	620±40
603.96	630 ± 20 680±20 1)	570±40 620±40 1)
603.970	630 ± 20	570±40
603.971	610 ± 20	560±40

1) 4MATIC with manual transmission.



Test start of delivery dynamically, read off on  
digital tester (07-8244).

12 Test "max. speed" without engine load.

13 Test injection timing device without load.

14 Test electronic diesel system, see  
(07.1-1120).