

07.1–108 Checking injection timing (begin of delivery) with digital tester (RIV method)

Job no. of flat rates or standard texts and flat rates data 07–8244.

Testing and adjusting value

RI-test value (indirect injection timing) $-15^{\circ} \pm 1^{\circ}$ (after TDC)

RI-adjusting value (indirect injection timing) -15° (after TDC)

Tightening torque

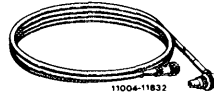
Nm

Closing plug on regulator (measuring point)

30–35

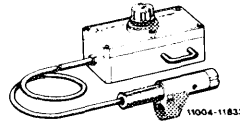
Special tools

RI-transmitter



617 589 10 21 00

RI-adapter (for available digital testers)

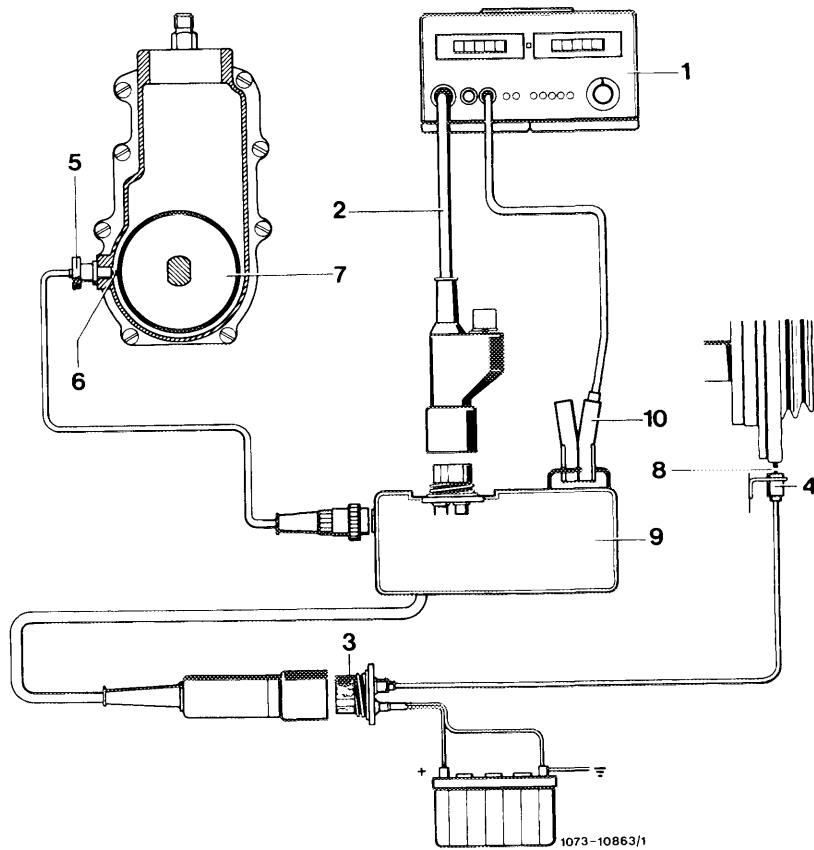


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Conventional tester

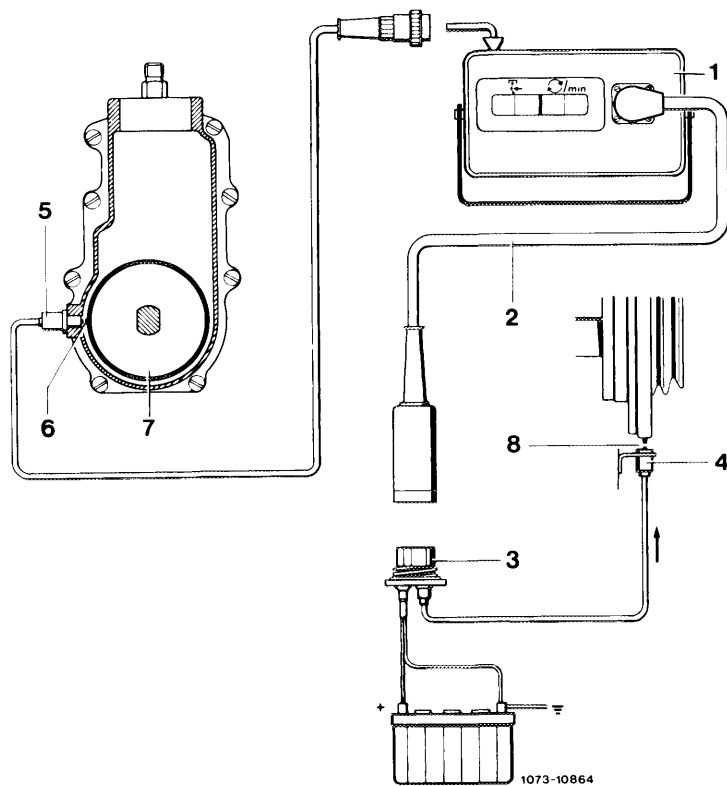
Digital tester

e.g. Bosch, MOT 001.03



Connection diagram for available ignition-dwell angle testers, e.g. Bosch MOT 001.03, Hartmann & Braun EOMT 3

- 1 Tester
- 2 Test cable with plug
- 3 Diagnosis socket
- 4 TDC impulse transmitter
- 5 RI-transmitter
- 6 RI-transmitter pin
- 7 Regulator
- 8 TDC transmitter pin
- 9 Adapter
- 10 Trigger clamp

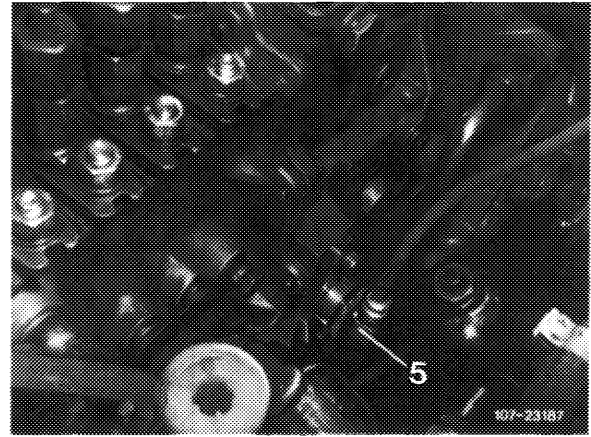


Wiring diagram with diesel tester, e.g. SUN DIT 9000, AVL diesel tester 875, Bosch EDT 019.00

- 1 Tester
- 2 Test cable with plug
- 3 Diagnosis socket
- 4 TDC impulse transmitter
- 5 RI-impulse transmitter
- 6 RI-transmitter pin
- 7 Regulator (injection pump)
- 8 TDC transmitter pin

Testing

- 1 Connect tester according to wiring diagram.
- 2 Remove closing plug (2) on regulator housing, screw in RI-transmitter (5) and connect electrically with tester.



Attention!

When removing closing plug, approx. 0.2 l of engine oil will flow out. Collect oil.

- 3 Start engine. Read RI-value (indirect injection timing) and idle speed 700–800/min on tester.

RI-test value: $-15^{\circ} \pm 1^{\circ}$ (after TDC)

Note: If tester indicates values such as:
on Bosch MOT 001.03 -20° or $+147^{\circ}$ or
 -151

Hartmann & Braun $+67^{\circ}$ or -89° ,
the injection pump is more than 5° too much in
retard.

For adjustment refer to adjusting injection timing
(begin of delivery) (07.1–114).

- 4 Stop engine.
- 5 Disconnect tester, remove RI-transmitter and screw in closing plug.
- 6 Run engine and check for leaks.
- 7 Check oil level and correct, if required.

