

07.5–503 Removing and preventing coating on breaker points

Conventional tool

Voltmeter with measuring range 0–3 volts.

A blue or dark grey coating on breaker points of transistorized ignition systems may result in misfiring when in a progressive stage due to the insulating characteristics of the coating – no matter whether a GE or a SI switchgear is installed. Pertinent complaints have resulted in unjustified exchange of switchgear.

A formation of a coating on breaker points may be due to the various influences explained in short below:

Blue coating

The blue coating (tungsten oxide) is formed by the arc generated during the closing phase and above all by the discharge of the suppressor contact installed in ignition distributor.

A large closing angle (small contact gap) favours the intensity of the arc and thereby of the coating.

Dark grey coating

The dark grey coating is caused by burnt grease, oil or dirt particles formed between the breaker points.

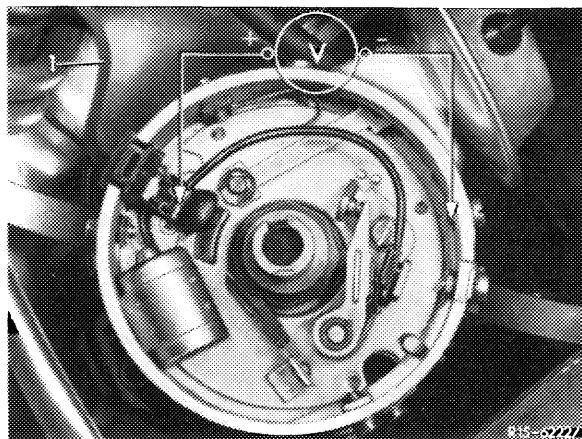
The remedy for complaints about the formation of such coatings requires the following jobs:

- 1 Check on ignition distributor whether:
 - a) A coating has been formed on breaker point.
 - b) The felt lubricator has been destroyed by the cams.
 - c) The cams are showing score marks (check with finger nail).

2 If the visual checkup shows no clear-cut faults, check function of contacts by measuring voltage drop. Use voltmeter with 0–3 V measuring range.

With contact closed, the voltage drop may amount to **0.5 volts**. A larger voltage drop indicates the beginning of a coating.

1 Control line with capacitor



Remedies

1 Coating on breaker points:

- a) Exchange breaker points (refer to repair instructions).
- b) Remove control line with capacitor (1) and replace by **shielded control line without capacitor**.

2 Score marks in distributor cam or rubbed-through lubricating felt:

Exchange ignition distributor. Prior to installation, mount shielded control line without capacitor on new ignition distributor.

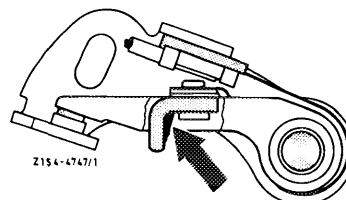
Repair instructions

Breaker points

In the event of complaints, the ignition distributor must be provided with new breaker points including an improved slide piece (polyimide). These breaker points are identified by a connecting cable with black/white stripes.

When renewing breaker points, be sure to coat slide piece (arrow) with a selected grease wedge (special grease Bosch Ft 1 v 4). If no grease is applied, the increased wear of the slide piece will increase the closing angle (smaller contact gap). This in turn will favour the formation of a coating and may result in misfiring.

Arrow: spot to be greased



Closing angle (dwell angle)

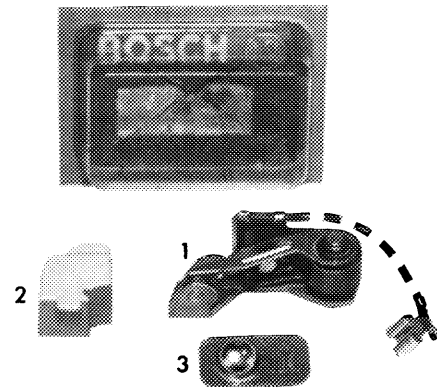
Adjust closing angle (dwell angle) to lower tolerance limit (07.5–500) to make sure that the closing angle will not change beyond specified value after run-in time of slide piece.

Adjusting value (lower tolerance) 30°.

Protective breaker point cap

Mount breaker point cap to protect contact against grease, oil or dirt particles.

To guarantee that the slide piece is greased and the protective cap is mounted when the breaker points are installed, breaker points are supplied from now on together with a grease capsule and a protective cap.



- 1 Breaker point
- 2 Protective cap
- 3 Grease capsule

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