

Checking and Adjusting Operations on Installed Injection Pump

Job No.

07-8

I. Checking and Adjusting of Pneumatic Governor

As already mentioned in Job No. 07-5, the exact testing and adjusting of the governor is only possible on an injection pump test stand. The different checks and operations, which can be done in the vehicle without the help of a test stand, are described below.

A checking of the governor can become necessary if the engine shows too low output, heavy smoking, irregular running, faltering and hunting during idling and surpassing of full load max. speed and/or max. permissible speed in the gear ranges on a level stretch and of the no-load max. speed.

Testing the Diaphragm and the Vacuum Housing for Leaks

Remove the protecting cap (2) from the control rod. Disconnect the vacuum line at the vacuum connector (1). Press with adjusting lever the control rod fully in direction STOP. Seal the vacuum connector (1) with one finger. Then release the adjusting lever (Figure 07-8/1) and watch the control rod.

If the diaphragm and the vacuum housing are in proper working order, the control rod will only be pushed out a short distance by the control spring and will be held there by the vacuum produced in the vacuum housing. If the control rod does not remain there, then either the diaphragm or the vacuum housing is leaking.

If a leak has been determined, the vacuum housing must be disassembled. For this purpose unscrew the 4 fixing screws. Disengage the diaphragm bolt at the control rod and remove the diaphragm and check for damages.

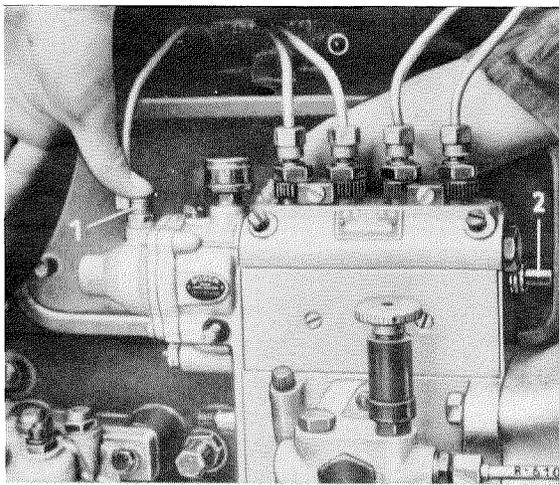


Figure 07-8/1

OM 636

1 Vacuum connector

2 Protecting cap on control rod

A brittle diaphragm must always be replaced. The following has to be observed here: As already mentioned, the adapting spring installed in the diaphragm bolt has been exactly matched with the control spring. If installing a new diaphragm, the corresponding control spring must therefore also be installed.

If an old control spring must be installed for some reason, the adapting spring with the installed washers must be removed from the old diaphragm and has to be installed in the same way in the new diaphragm. Generally, a new diaphragm serving as a spare will only be supplied with the matching control spring.

In order to avoid mistakes the diaphragms and control springs must be properly marked for storing, because they cannot always be kept apart by sight. **The Job No. 07-0 contains the Bosch designations and DB numbers of diaphragms with control springs of all governor types, which are installed in the engines of the Models OM 636 and OM 621.**