

Bosch Injection Pump Test Stand EFEP 25 or Bosch EFEP 5 (or EF 8500).

Nozzle holder: EF 8511/9A

Nozzles: EFEP 182, adjusted to 175 atm.

The nozzles should be checked once a week if the test stand is used frequently, if not, check after testing approx. 20 injection pumps.

Pressure lines for ... A and M ... pumps
6 × 2 × 600 mm.

After a certain period check the clearance of the pressure lines, bore if necessary (2.0 mm). The cross section of the pipe greatly influences the discharge rate.

Test oil: OI 61 v1 or Shell AB 11 4½° Engler, mixed with the same quantity of kerosene. In countries outside of Germany Shell Fusus Oil A can also be used or a mixture of 50 % kerosene and 50 % Shell Glavus Oil 17.

During the operation care has to be taken that the test oil is not mixed with the lubeoil of the injection pump and contaminated with dirt.

The test oil must be replaced after testing approx. 200 injection pumps. The specified test data are valid for a test oil temperature of approx. 20°C. Higher temperatures will cause lower discharge rates, lower temperatures will induce higher discharge rates.

I. Conducting Visual Inspection before Beginning of Checking

It must be determined whether the pump and governor designations correspond with the entries in the Bosch test data sheet.

At least half of the normal oil capacity must be in the injection pump and the governor during testing.

Check operational ease of the control rod. An exact adjusting of the injection pump is impossible if the control rod runs stiffly.

Check the injection order 1-3-4-2, observing correct sense of rotation (clockwise).

The sense of rotation character **R** in the type designation of the injection pump (see type plate) means that all checks should only be carried through in the specified sense of rotation – seen on the driving side –.

On the "A"-Pump of Model OM 636 check on all four elements whether the plungers in highest cam position (top dead center) still have a travel (safety clearance) of at least 0.3 mm.

Observing this distance is very important. (Also see Adjusting and Checking Feed Beginning.)

On the "A"-Pump of Model OM 636 check whether the pinion segments are tightly seated on the control sleeves and whether the line marks still coincide (Figure 07-5/10), adjust and tighten if necessary. Displaced pinion segments cause unequal discharge rates, irregular running of the engine, heavy smoking or backfires.

This check can also be done while the pump is still installed in the vehicle.

We further recommend to check the pressure valves and the pressure valve springs before the beginning of testing; replace if necessary. Poor sealing of the pressure valves or broken valve springs can cause a failure of the respective cylinder. If there is similar trouble, the check should also be done in the vehicle.