94/3
M 453 C

Injection pump drive

In the course of technical development there was an improvement in design of the injection pump drive. The previous clamping arrangement for setting the fuel pump pre-stroke is replaced by a thrust piece now. The pre-stroke is adjusted by means of shims.

The modified roller tappet is fully integrated in the series now and replaces the old variant. In spare parts service the new roller tappet is only supplied complete. However, it is possible to use the old and the new variant of roller tappet in one engine at the same time.

Attached to this service information you will find job card A5.05.04.03.01.01 of the operating instructions for the new injection pump drive.

A company of the Krupp Hoesch Maschinenbau group.

Postfach/P.O. Box 9009
D-24157 Kiel
Telefon/Phone: (-431) 3995-838

Telefax: (-431) 3995-827
Telex: 292993 mak d
Teletex: 17 431 105 MaK

See also:	*07.02.01.nn / 07.06.01.nn*
Spare parts list:	*B1.05.04.6.3502*
Time requirement:	*1 Pers./ 1 h*
Personnel qualification:	*skilled engine hand*
Operating medium:	*Heavy fuel and distillate fuel*

Inspection:

Working surfaces of all rollers and tappets after 12,000 h

Maintenance:

Of all roller tappets for injection pumps every 24,000 h

Tools:

Holding-down clamp	W1	6.9235-A

Auxiliary material:

Molykote paste "G-Rapid" *

* or a product of equal standard

Safety note:

The spring plate (8) is spring-loaded

Note:

The tappet roller and its bearing are subjected to high loads. If the roller is blocked by the ingress of dirt, the whole roller tappet and the cam will be destroyed. Care must therefore be taken that the working surfaces of the roller and pin are in a proper condition. Even the smallest particles of dirt can disturb operation.

Sequence of operations:

1. **Disassembly**

1.1 Turn the engine until the roller (**Fig. 1**/12) is located on the cam base circle.

1.2 Remove the fuel injection pump (07.02.01.nn).

1.3 Remove the cover (16).

1.4 Pull out the thrust screw (3) and remove the shines (17).

1.5 Remove the circlip (4), the leak fuel deflector (5) and O-ring (7).

1.6 Screw the device (**Fig. 2**/W1) onto the cover (2), compress the spring, remove the circlip (6), release the spring, unscrew the devic e, remove the spring plate (8) and the spring (9).

1.7 Push the roller tappet (10) out upwards.

1.8 Inspect the running surfaces, groove and feather key (11) for damage.

1.9 Remove the roller (12).

1.9.1 Remove the head of the rivet pin (14) with a Ø 3.0 mm drill so that the pin can be removed with a copper drift.

1.9.2 Drive the roller pin (13) out of the tappet body.

1.10 Blow with compressed air through the oil ducts.

1.11 Inspect the roller and the roller pin.

1.12 If the housing (15) must be replaced, unscrew the lubricating oil pipes and remove the housing.

2. Assembly

2.1 Install the housing, connect the lubricating oil pipes.

2.2 Assemble the roller, the roller pin and the roller tappet (for ease of assembly cool the roller pin). Observe the correct po sition of the groove (19) at the roller pin to the roller tappet.

2.3 Install the rivet pin and rivet it.

2.4 Oil and install the feather key, the roller and the roller tappet.

2.5 Insert the spring and the spring plate, compress the spring by means of the device (W1) and assemble the circlip.

2.6 Replace the O-ring (7), install the leak fuel deflector and circlip.

2.7 Insert the thrust screw (**Fig. 1**/3) with shines (17). Absolutely observe that the dimension Y = 10.3 ± 0.1 is maintained.

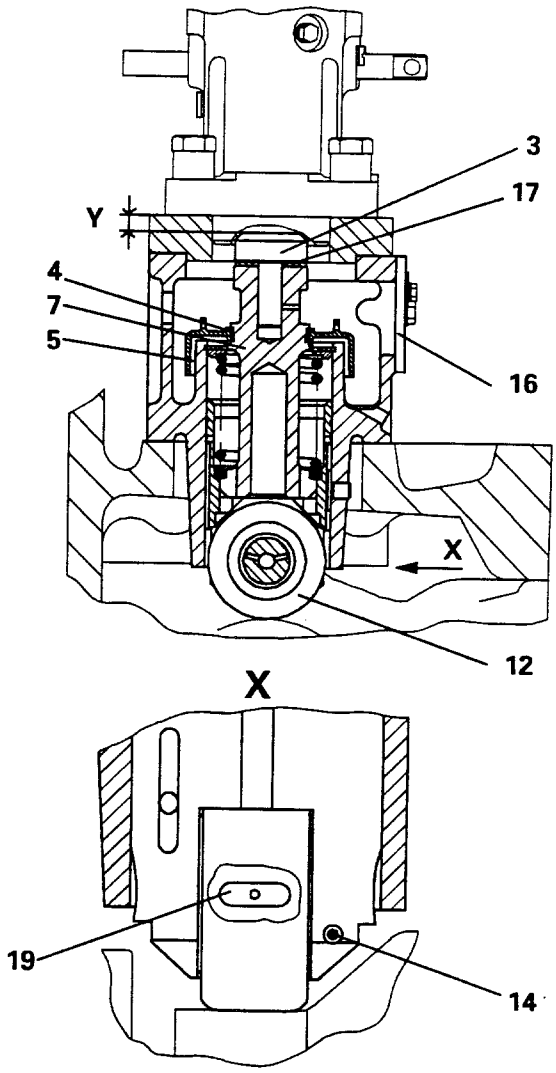

Fig. 1

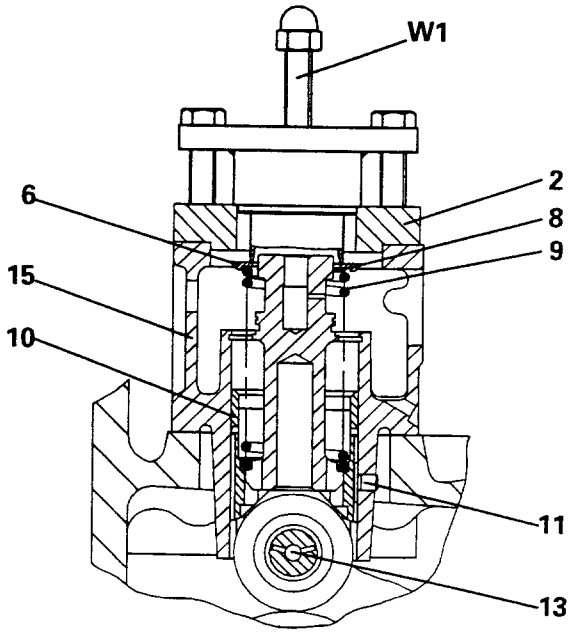

Fig. 2

2.8 Mount the fuel injection pump (07.02.01.nn) and check the commencement of delivery (07.06.01.nn).

2.9 Fit cover (16) and check the oil flow.