

## B. OM 621

## a) Serially installed Injection Pumps with Governor and Feed Pump for Operation up to 2000 m above Sea Level

Type Designation present (before)	Version	Injection Pump with Governor and Feed Pump DB Part No.	Injection Pump Bosch Designation	Governor Bosch Designation	Feed Pump Bosch Designation	Control Rod Travel incl. Adapting Travel	Test Data DAI Sheet Date	Remarks	
621.910 (190 D, 190 Db)     x	1	002 074 85 01	PES 4 M 50/320 R 1	EP/MN 60 M 3 d	FP/K 22 M 2	14.9-15	1.9 a 10. 3. 1959	Injection pump without supporting carrier and supporting bell	
	2	x 003 074 14 01 (621 070 05 01)	PES 4 M 50/320 R 1/24	EP/MN 60 M 4 d	FP/K 22 M 2/8			Engine pump with supporting pump and supporting bell, with return spring on lever of additional mechanical controls	
	3		PES 4 M 50/320 R 4/24						
	4	x 003 074 45 01 (621 070 07 01)	PES 4 M 50/320 R 3/24				1.9 c 10. 7. 1959		Injection pump plunger with double control edge as from engine No. x 621.910-10-01 23 26
	5		PES 4 M 50 A 320 R 53						
621.912 (190 Dc)	1 For left-hand drive	003 074 93 01 (621 070 09 01)	PES 4 M 50 A 320 RS 14	EP/MN 60 M 7 d	FP/K 22 M 7	14.9-15	1.9 e 3. 8. 1961	With built-in small standard intake pipe 621 140 00 01 and centrally located upward pointing throttle duct 621 070 17 28 or 621 070 20 28 with solid shaft but without check flap up to engine No. 621.912-10-00 30 24	
	1 For right-hand drive	004 074 30 01 (621 070 10 01)		EP/MN 60 M 8 d					

(Also refer to Note and Instructions on page 07-2/30)

Type Designation present (before)	Version	Injection Pump with Governor and Feed Pump DB Part No.	Injection Pump Bosch Designation	Governor Bosch Designation	Feed Pump Bosch Designation	Control Rod Travel incl. Adapting Travel	Test Data DAI Sheet Date	Remarks
621.912 190 Dc	2 For left-hand drive	004 074 63 01 (621 070 18 01)	PES 4 M 50 A 320 RS 14	EP/MN 60 M 12 d	FP/K 22 M 7	14.9-15	1.9 h 15.3.62	With built-in swing intake pipe 621 140 02 01 and centrally located upward pointing throttle duct 621 070 18 28 with solid shaft, but without check flap. (This throttle duct differs from the above duct only by different levers up to engine No. 621.912-10-01 74 21)
	2 For right-hand drive	004 074 64 01 (621 070 19 01)		EP/MN 60 M 13 d				
	3 For left-hand drive	004 074 78 01 (621 070 23 01)		EP/MN 60 M 15 d			1.9 k 19.1.62	With built-in swing intake pipe 621 140 02 01 and centrally located upward pointing throttle duct 621 070 22 28 with shaft and check valve and outer rubber stop and a brake by means of a coil spring against heavy vibrations as from engine No. 621.912-10-01 74 22
	3 For right-hand drive	004 074 79 01 (621 070 24 01)		EP/MN 60 M 16 d				
621.913 (L u. O 319 Dc)	1	004 074 12 01 (621 070 11 01)	PES 4 M 50 A 320 RS 14	EP/MN 60 M 9 d	FP/K 22 M 3/8	14.9-15	1.9 f 3.8.61	With built-in swing intake pipe 621 140 03 01 and front attached throttle duct 621 070 19 28 without solid shaft and without check valve, but some engines with solid shaft or check flap 621 070 23 with shaft and check flap and outer rubber stop and a brake by means of a coil spring against too heavy vibrations
	2			EP/MN 60 M 14 d (changed comp. spring for better torque)		15.3-15.4	1.9 i 19.1.62	

(Also refer to Note and Instructions on page 07-2/30)

Type Designation present (before)	Version	Injection Pump with Governor and Feed Pump DB Part No.	Injection Pump Bosch Designation	Governor Bosch Designation	Feed Pump Bosch Designation	Control Rod Travel incl. Adapting Travel	Test Data DAI Sheet Date	Remarks
621.914 (180 Dc) x	1	004 074 36 01 (621 070 12 01)	PES 4 M 50 A 320 RS 14	EP/MN 60 M 11 d	FP/K 22 M 6	13.9-14	1.9 g 6. 10. 1961	With built-in small standard intake pipe 621 140 0001 and centrally located upward pointing throttle duct 621 070 20 28 with solid shaft but without check valve or throttle duct 621 070 21 28 without shaft for check flap, but with holes closed with set pins for eventual shaft or throttle duct 621 070 24 28 with shaft and check flap and outer rubber stop and a brake by means of a compression spring against too heavy vibrations.

(Also refer to Note and Instructions on page 07-2/30)

- x **Note: In each case, max. speed must be measured and the throttle flap set accordingly, if required** (the specified max. speeds may definitely not be exceeded, refer to 0-2/1 and Job No. 00-12). Engines with throttle ducts with solid shaft turn at approx. 200-400 rpm higher and for this reason the solid shaft has been replaced by set pins.

Permissible max. Speeds as indicated on tachometer		
model	in 2nd gear	in 3rd gear
180 Dc	51	79
190 D 190 Db	56	89
190 Dc	58	91
L and O 319 Dc	32	55

Instead of measuring max. speed at no load (end of governing) the begin of governing can be checked and corrected at full load or, for the vehicle, the permissible max. speed in 2nd or 3rd gear according to tachometer readings. For permissible max. speeds refer to table above. Higher speeds are not permissible for mechanical reasons and because oil and dirt may be pulled along out of the air filter.

- x **The injection pump with governor 7 d or 8 d, respectively, may only be installed in engines with small standard intake pipe and throttle duct, but with solid shaft without check flap.**

In case of need, an RS 14 injection pump with a 12 d or 15 d governor can be installed in these engines. Since the injection pump with a 12 d governor governs approx. 1000 rpm too soon, and with a 15 d governor approx. 700 rpm too soon, the governor must be changed in both cases by replacing the control spring or by installing control spring WSF 11 S 26 X, respectively, followed by measuring and adjusting max. speed at no load (refer to Job No. 00-12). Dimensions of control spring WSF 11 S 26 X (refer to page 07-0/3).

- x **The injection pump with governor 12 d or 13 d, respectively, may only be installed in engines with swing intake pipe and throttle duct with solid shaft, but without check flap.**

If in case of need an RS 14 injection pump with a 15 d governor is installed in these engines governing will be approx. 300 rpm too late. The governor flap must be set back accordingly or the max. speed must be adjusted under no load (refer to job No. 00-12). If an RS 14 injection pump with a 7 d controller ist installed, the governor must be changed by replacing the control spring or by installing control spring WSF 11 S 16 X, respectively. Since the 7 d governor does not govern engines with swing intake pipe and the engine smokes slightly in the upper speed ranges, the max. speed should be measured under no load and corrected. (Refer to Job No. 00-12). Dimensions of control spring WSF 11 S 16 X (refer to page 07-0/3).

- x **The injection pump with governor 15 d or 16 d, respectively, is for installation in engines with swing intake pipe and throttle duct with check flap.**

If in case of need an RS 14 injection pump with a 12 d governor is installed in these engines governing will be approx. 300 rpm too early. Check max. speed under no load by opening governor flap and adjust, if required, at the control spring (refer to Job No. 00-12). If an RS 14 injection pump with a 7 d governor is installed, change governor by replacing control spring or by installing control spring WSF 11 P 260 X, since the 7 d governor does not govern engines with swing intake pipe and the engine smokes slightly in the upper speed ranges. Measure max. speed under no load and adjust (refer to job No. 00-12). Dimensions of control spring WSF 11 P 260 X (refer to page 07-0/3).

- x **b) Exchange Injection Pump with Governor and Feed Pump**

For these pump the same applies as under sections a) and c).

## c) Serially installed Injection Pumps with Governor and Feed Pump for Operation above 2000 m above Sea Level

Type Designation present (before)	Version	Injection Pump with Governor and Feed Pump DB Part No.	Injection Pump Bosch Designation	Governor Bosch Designation	Feed Pump Bosch Designation	Control Rod Travel incl. Adapting Travel	Test Data DAI Sheet Date	Remarks
621.910 (190 D, 190 Db) x	1	x 003 074 15 01 (621 070 06 01)	PES 4 M 50/320 R 1/2 z	EP/MN 60 M 4 d	FP/K 22 M 2/8	14.9-15	1.9 b 10. 7. 1959	Injection pump with supporting carrier and supporting bell
	2		PES 4 M 50/320 R 4/24 z					
	3	x 003 074 46 01 (621 070 08 01)	PES 4 M 50/320 R 3/24 z				1.9 d 10. 7. 1959	Injection pump piston with double control edge
	4		PES 4 M 50 A 320 RS 3 z					
x 621.912 (190 Dc)	1 for left-hand drive	004 074 65 01 (621 070 20 01)	PES 4 M 50 A 320 RS 14 z	EP/MN 60 M 12 d	FP K 22 M 7	14.0-14.1	1.9 h 15. 3. 1962	With built-in swing intake pipe 621 140 02 01 and centrally located side-wards pointing throttle duct 621 070 18 28 with solid shaft but without check flap. (This throttle duct differs from the above named throttle duct only by different levers)
	1 for right-hand drive	004 074 66 01 (621 070 21 01)		EP/MN 60 M 13 d				
	2 for left-hand drive	004 074 80 01 (621 070 25 01)		EP/MN 60 M 15 d			1.9 k 19. 1. 1962	With built-in swing intake pipe 621 140 02 01 and centrally located side-wards pointing throttle duct 621 070 22 28 with shaft and check flap and outer rubber stop and a brake by means of a compression spring against heavy vibrations as from engine No. 621.912-10-017-422
	2 for right-hand drive	004 074 81 01 (621 070 26 01)		EP/MN 60 M 16 d				

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x	621.913 (L and O 319 D)	1	004 074 71 01 (621 070 22 01)	PES 4 M 50 A 320 RS 14 z	EP/MN 60 M 14 d	FP/K 22 M 3/8	14.4–14.5	1.9 i 19. 1. 1962	With built-in swing intake pipe 621 140 03 01 and front attached throttle duct 621 070 19 28 without solid shaft and without check flap but several engines with solid shaft or throttle duct 621 070 23 28 with shaft and check flap and outer rubber stop and a brake by means of a compression spring against too heavy vibrations
x	621.914 (180 Dc)	1	004 074 54 01 (621 070 13 01)	PES 4 M 50 A 320 RS 14 z	EP/MN 60 M 11 d	FP/K 22 M 6	13.1–13.2	1.9 g 6. 10. 1961	With built-in small standard intake pipe 621 140 00 01 and centrally located upward pointing throttle duct 621 070 20 28 with solid shaft but without check valve or throttle duct 621 070 21 28 without shaft for check flap, but with holes closed with set pins for eventual shaft or throttle duct 621 070 24 28 with shaft and check flap and outer rubber stop and a brake by means of a compression spring against too heavy vibrations.

**Note:** Be sure to measure max. load at no load and, if required, set control flap as needed (the specified max. speeds may definitely not be exceeded, refer to page 0-2/1 and Job No. 00-12). Engines with control flap with solid shaft rotate approx. 200–400 rpm higher, for this reason the solid shaft has been replaced by set pins.

The injection pump with governor 12 d or 13 d is installed only for engines with swing intake pipe and throttle duct with solid shaft, but without check flap (refer to additional instructions in section a).

The injection pump with governor 15 d or 16 d is installed for engines with swing intake pipe and throttle duct with check flap (refer to further instructions in section a).