Technical Data, Measures and Adjusting Values

Change: marked with x

Job No. 00–0

Type or design model		OM 636 636.914 636.935 x 636.917 636.936 636.919 636.937 636.930 636.938 636.932 636.939 636.933 636.940 636.934	OM 621 x 180 Dc 190 D 190 Db	OM 621 x 190 Dc L and x O 319 D
Valve clearance with cold engine	intake valve	0.20	0.15	
	mm exhaust valve	x 0.25	0.30	0.35
Compression pressure with normal operating temperature (cooling water 70–80° C) and at 200–250 r.p.m.				
normal		21–23 atü	22–24 atü	
minimum		17 atü	18 atü	
* **Position of crankshaft when installing the injection pump in feed begin position** (see Job No. 00–6)		26° BTDC for engines with injection timing device and built-in engines for fork lifts without injection timing device 32° BTDC for engines without injection timing device, except built-in engines for fork lifts.	26° BTDC	
Feed begin of injection pump (see Job No. 00–6)	Check with overflow pipe on 1st pump element	The fuel should just stop to drip from the overflow pipe, then the pump plunger just covers the inlet bore in the injection pump cylinder, **i. e., the pump plunger of the 1st injection pump cylinder is on feed begin.**		
	Check with pre-stroke measuring device at 1st pump element	1.7+0.1 mm as from BDC		

* Any high speed Diesel knock ('load-knock') in OM 636 engines without injection timing device can be eliminated by advancing the crankshaft position with respect to the feed begin of the injection pump from 32° to 34° BTDC, provided that the idling knock is not excessive.

The feed begin on fork lift engines is adjusted to 26° BTDC in order to prevent heavy fumes at lower speeds. This will also slightly improve torque at lower speed, but the output at speeds above 2 000 r.p.m. decreases progressively in relation to the 32° BTDC adjustment.

Check and adjust the feed begin of the injection pump according to the overflow method or with the help of the pre-stroke measuring device.

Idling speed	550–600 r.p.m.	700–800 r.p.m.
Max. speed, unloaded	(see page 0–1/11 and foll. pages)	(refer to page 0–2/1)
Opening pressure of fuel overflow valve	1–1.5 atü	1–1.5 atü
Feed pressure of feed pump, min. ((refer to Job No. 00–9)	2.0 atü	2.0 atü

Timing for Test Measurements with a Test Valve Clearance of 0.4 mm:

Model	Camshaft Version Part No.	Inlet		Exhaust		Test Valve Clearance Inlet and Exhaust
		opens BTDC	closes ABDC	opens BBDC	closes ATDC	
OM 636	181 051 03 01 installed in the engines type 636.914, 915 and 916 starting with the engine end No. 03 446/50 and in all engines of the type 636.917, 918, 919, 930, 931, 932, 933, 934 and 936.	6° 30′	41° 30′	41°	8°	0.4 mm
	181 051 00 01 installed in the engines type 636. 912, 914, 915 and 636.916 up to the engine end No. 03 445/50	6° 30′	41° 30′	38° 30′	5° 30′	
OM 621	621 050 01 01 [1] installed in the engines type 621.910	11°	40°	43° 30′	7° 30′	
	x 621 050 02 01 [2] installed in the engines type 621. 912, 621.913, 621.914	12°30′	41° 30′	45°	9°	
	x 621 051 12 01 [3] installed in the engines type 621.912 and 621.913 and as from engine No. 621.912-10-062 967 621.913-10-015 552					

[1]) This camshaft is marked by the number "01" at its rear face.
[2]) This camshaft is marked by the number "02" at its rear face.
[3]) This camshaft is marked by the number "12" at its rear face.