Test Plan: 8443B180B

Applic:	Peugeot XD 3P
Issue No:	2
Date:	14/09/87
Pumps covered:	8443B183B 8443B183B 8443B184B HRP146 HRP147 R8443B183B R8443B184B Z8443B183B Z8443B184B

PUMP SPECIFICATION

Rotation:	Clockwise
Plunger Diameter:	7 mm
Roller to roller:	50.48 mm
Advance Type:	Automatic speed and light load.
Governor type:	Mechanical mini-maxi.
Gov. Link Length:	16.5 ± 0.5 mm
Throttle lever link hole:	-
Gov.arm hole No.:	-
Drive type:	Externally splined hub - unsupported shaft.

Stop solenoid 12 V.
Light load advance by external adjustment.
Double lever idling.

ISO TEST CONDITIONS.

This data is only valid for the test conditions specified and the following test benches: HA3000/HA2500/HA1150/HA1100MkII/HA875 HA700/HA400/AVM/PGM

Test Fluid:	ISO 4113 at 40 ± 2 °C.
Nozzles:	ISO 4010.
Nozzle opening pressure:	125 +3 -0 bar.
H.P. pipes:	6 x 2 x 600 mm (ISO 4093.1)
H.P. Outlet Connections:	Original (M12 x 1.5)
Test machine drive:	ADC103

Test machine drive in supported position.

Inlet feed pressure:	0.1 bar

PRE-TEST NOTES

2.0 mm shim fitted in advance housing.
Retain idling lever using 3mm dia. rod, SIN RD/TOOLS A13
LLA valve lever to be at 90° to pump axis.
Fit advance gauge to speed piston end.

Timing:	-To accurately set the internal and external timing, use
the following tools:	1804-003/1804-615

ISO TEST PROCEDURE

Test	Operation	S/C	RPM	Requirements
1.	Priming	(C)	100	Obtain delivery from all injectors.
			-1000	No air in pump backleak.
2.	Transfer press.	(S)	1000	4.1 ± 0.2 bar (Pre-setting).
Stop test machine & wait 10 sec min. Cambox press. 0.1 bar max.				
3.	XS fuel valve	(S)	125	Increases by 3 to 12 litre/hr.
	Backleak change (Initial set)			Throttle closed. SIN D109
				LLA lever towards HP outlets.
Set LLA valve lever at 90° to pump axis.				
4.	Advance Gauge	(S)	270	0 mm (0°)
				SIN RD/TOOLS 18 (Tool 7244-590)
5.	Throttle test	(C)	380	1 cm3 maximum, Throttle closed.
6.	Stop solenoid	(C)	380	0.4 cm3 max., De-energize solenoid.
Stop test machine & wait 10 sec. min. Cambox press. 0.1 bar max.				
Energise solenoid shut-off with 12 V.				
7.	T. P Vacuum	(C)	100	0.5 bar vacuum. 60 seconds maximum.
8.	Transfer press.	(C)	70	0.35 bar minimum.
9.	Advance (Full load)	(S)	1500	4.2 mm (5.5) SIN RD/TOOLS 18. (Tool 7244-590)
10.	Transfer press.	(C)	1500	4.7 to 5.4 bar.
11.	Advance (Full load)	(C)	2000	5.4to 6.3 mm (7.2 to 8.4°) SIN RD/TOOLS 18 (Tool 7244-590)
12.	Cambox pressure	(C)	2000	0.6 to 0.9 bar. Throttle closed. Tool 1804-447B.
13.	Backleakage	(C)	2000	16 to 33 cm3 per 100 shots. 0.32 to 0.66 litre per minute.
14.	Max. delivery	(S)	1500	42.5 ± 0.5 mm3/st. Max. spread 3 mm3/st. Tools 1804-423 & 1804-448
15.	Anti-stall	(S)	450	1.5 to 1.9 cm3, Tool 1804-801. SIN RD/PUMPS A81 & TOOLS A14.
Remove retaining tool from idling lever/stop.				
Throttle lever closed.				
16.	Idling screw	(S)	380	1.4 to 2.2 cm3,
17.	LLA Linkage	(S)	600	Delivery 25 to 30 mm3/st. Throttle 13 ± 2 mm off min. stop Tool 1804-612. Advance 0 to 0.8 mm (0 to 1.1°) Tool 7244-590
Lock LLA linkage in this position.				
18.	LLA Advance	(C)	600	2.3 to 3.8 mm (3.1 to 5.1°) Throttle as test(17) - 1 mm. Tools 1804-612 & 7244-590 SIN RD/TOOLS 18.
19.	LLA Advance	(C)	1500	6.5 to 8 mm (8.7 to 10.7°) Throttle closed. Tool 7244-590.
20.	Gov. delivery	(C)	2250	Record average delivery.
21.	Gov. operation	(S)	2350	24.5 to 29.5 mm3/st.
22.	Gov. cut-off	(C)	2700	Maximum 1.6 cm3, Line max. 2 cm3.
23.	Advance (Full load)	(C)	2700	7.3to 7.7 mm (9.7 to 10.3°) SIN RD/TOOLS 18 (Tool 7244-590)
24.	Gov. delivery	(C)	2250	Minimum as test(20).
25.				

	Delivery(F.L.)	(C)	2000	9 to 9.4 cm3.
Stop test machine & wait 10 sec min. Cambox press. 0.1 bar max.				
26.	Start retard	(C)	0	-1.1 to -1.9 mm (-1.5to -2.5°) Cambox Press. 0.1 bar maximum. Tool 7244-590.
27.	Excess delivery	(C)	100	13.5 to 15.5 cm3
28.	1'Stage Advance	(C)	110	2.5 ± 0.2 mm (3.4 ± 0.3°)
			-270	Throttle closed. (Tool 7244-590)
29.	Delivery(F.L.)	(C)	270	8.2 cm3. Maximum.
30.	Internal timing -Micrometric	S/C		HP outlet' X', Press 80 bar Feed press. 2 bar, Torque 0.16 daN.m Tools 1804-003 & 1804-615/1804-498 SIN RD/PUMPS 102,TOOLS 5 on 4 outlets
31.	External timing	S/C		Stamp timing value on the timing disc Refer to product application sheet. Tool 1804-615. Shows if timing is at beginning of injection or at TDC.

REFER TO STATEMENT AT END OF EXPLANATORY NOTES REGARDING MAXIMUM FUEL AND SPEED SETTING AND VARIATIONS IN ENGINE PERFORMANCE.