ZEXEL Ass'y No.	104780-9851
Bosch Ass'y No.	9 460 614 860
Bosch Typecode	
Engine Type	TD27
Manufacturer	NISSAN DIESEL
Edition date	11.05.04 (2)

1 Adjustment conditions

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
	Test oil		ISO4113orSAEJ967 d				
		1404 Test oil					
P	Test oil temperature	degC	45	45	50		
	Nozzle		105780-0060				
	Bosch type code		NP-DN0SD1510				
	Nozzle holder		105780-2150				
P	Opening pressure	MPa	13	13	13.3		
P	Opening pressure	kgf/cm2	133	133	136		
	Injection pipe		157805-7320				
P	Injection pipe	mm	2-6-450				
		Inside diameter - outside diameter - length (mm)					
	Joint assembly		157641-4720				
	Tube assembly		157641-4020				
P	Transfer pump pressure	kPa	20	20	20		
P	Transfer pump pressure	kgf/cm2	0.2	0.2	0.2		
	Direction of rotation (viewed from drive side)		R				
		Right					

2 Adjustment specification

2.1 Full load delivery

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
S	Average injection quantity	mm3/st.	47.4	46.9	47.9		
S	Difference in delivery	mm3/st.	3		3		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	400	400	400		
C	Average injection quantity	mm3/st.	43.4	43.4	43.4		
		About					
P	Oil temperature	degC	48	46	50		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	500	500	500		
C	Average injection quantity	mm3/st.	45.2	43.2	47.2		
		About					
P	Oil temperature	degC	48	46	50		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	700	700	700		
C	Average injection quantity	mm3/st.	48.1	48.1	48.1		
		About					
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
C	Average injection quantity	mm3/st.	47.4	46.4	48.4		
C	Difference in delivery	mm3/st.	3.5		3.5		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1150	1150	1150		
C	Average injection quantity	mm3/st.	47.2	43.7	50.7		
		About					
P	Oil temperature	degC	50	48	52		

2.2 Governing

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1350	1350	1350		

S = Setting value, C = Check value)
OT = Outside Tolerance (X is set)

S	Average injection quantity	mm3/st.	15.4	12.4	18.4		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1430	1430	1430		
C	Average injection quantity	mm3/st.	5		5		
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1350	1350	1350		
C	Average injection quantity	mm3/st.	15.4	11.9	18.9		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

2.3 Idle

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	350	350	350		
S	Average injection quantity	mm3/st.	8.3	6.3	10.3		
S	Difference in delivery	mm3/st.	2		2		
P	Basic		*				
P	Oil temperature	degC	48	46	50		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	295	295	295		
C	Average injection quantity	mm3/st.	42.5	37.2	47.8		
P	Oil temperature	degC	48	46	50		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	350	350	350		
C	Average injection quantity	mm3/st.	8.3	5.8	10.8		
C	Difference in delivery	mm3/st.	2.5		2.5		
P	Basic		*				
P	Oil temperature	degC	48	46	50		

2.4 Start

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	100	100	100		
S	Average injection quantity	mm3/st.	55	50	60		
P	Basic		*				
P	Oil temperature	degC	48	46	50		
	Remarks						
		Full					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	100	100	100		
C	Average injection quantity	mm3/st.	55	50	60		
P	Basic		*				
P	Oil temperature	degC	48	46	50		
	Remarks						
		Full					

2.5 Stop

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	350	350	350		
C	Average injection quantity	mm3/st.	0	0	0		
P	Oil temperature	degC	48	46	50		
	Remarks						
		Magnet OFF at idling position					

2.6 Overflow

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
C	Overflow quantity	cm3/min	410	280	540		
P	Oil temperature	degC	50	48	52		

2.7 Pump chamber pressure

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
S	Pressure	kPa	392	363	421		
S	Pressure	kgf/cm2	4	3.7	4.3		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT

S = Setting value, C = Check value)
OT = Outside Tolerance (X is set)

P	Pump speed	r/min	900	900	900		
C	Pressure	kPa	392	353	431		
C	Pressure	kgf/cm2	4	3.6	4.4		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Pressure	kPa	432	393	471		
		About					
C	Pressure	kgf/cm2	4.4	4	4.8		
		About					
P	Oil temperature	degC	50	48	52		

2.8 Timer

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
S	Timer stroke	mm	2	1.8	2.2		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	900	900	900		
C	Timer stroke	mm	2	1.6	2.4		
P	Basic		*				
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Timer stroke	mm	2.9	2.3	3.5		
		About					
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1250	1250	1250		
C	Timer stroke	mm	3.3	2.8	3.7		
P	Oil temperature	degC	50	48	52		

2.9 Magnet

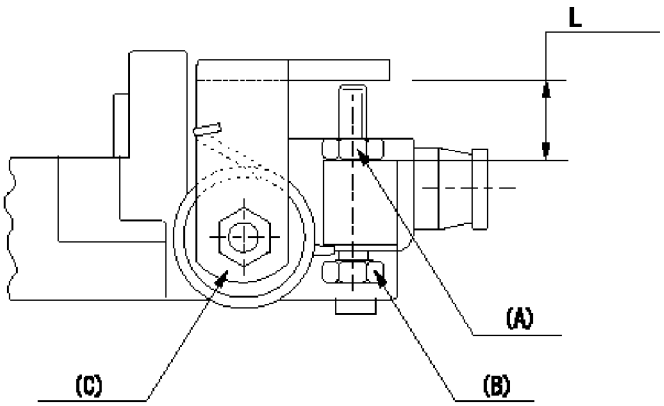
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
C	Max. applied voltage	V	8	8	8		
P	Test voltage	V	13	12	14		

2.10 Additional device adjustment

2.10.1 Additional device 1

Name	STOP LEVER ADJUSTMENT

L=15.0~18.5mm



Adjustment of the stop lever
Adjust adjusting bolt (B) so that the starting injection quantity is within the standard.
Fix using nut.
(A) Adjusting nut
(C) Starting injection quantity adjusting lever

3 Assembly dimension

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
S	K dimension	mm	3.3	3.2	3.4		

S	KF dimension	mm	5.8	5.7	5.9		
S	MS dimension	mm	1.8	1.7	1.9		
S	Control lever angle alpha	deg.	25	21	29		
S	Control lever angle beta	deg.	33	28	38		