

ZEXEL Ass'y No.	104740-9850
Bosch Ass'y No.	9 460 610 341
Bosch Typecode	
Engine Type	TD23
Manufacturer	NISSAN DIESEL
Edition date	09.01.04

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		105000-2010				
	Bosch type code		NP-DN12SD12TT				
	Nozzle holder		105780-2080				
P	Opening pressure	MPa	14.7	14.7	15.19		
P	Opening pressure	kgf/cm2	150	150	155		
P	Injection pipe	mm	2-6-840				
		Inside diameter - outside diameter - length (mm)					
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					
	(Solenoid timer adjustment condition)		OFF				

2 Adjustment specification**2.1 Full load delivery**

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
S	Average injection quantity	mm3/st.	44.6	44.1	45.1		
S	Difference in delivery	mm3/st.	3		3		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2500	2500	2500		
C	Average injection quantity	mm3/st.	8.9	5.4	12.4		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2300	2300	2300		
C	Average injection quantity	mm3/st.	30.3	27.8	32.8		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2150	2150	2150		
C	Average injection quantity	mm3/st.	38	35.9	40.1		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Average injection quantity	mm3/st.	44.6	43.6	45.6		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	600	600	600		
C	Average injection quantity	mm3/st.	43.5	41.5	45.5		

2.2 Governing

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2300	2300	2300		
S	Average injection quantity	mm3/st.	30.3	28.3	32.3		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2700	2700	2700		
C	Average injection quantity	mm3/st.	5		5		

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.	6.5	4.5	8.5		
S	Difference in delivery	mm3/st.	2		2		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	350	350	350		
C	Average injection quantity	mm3/st.	6.5	4.5	8.5		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	400	400	400		
C	Average injection quantity	mm3/st.	3		3		

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.	62.5	45	80		
P	Basic		*				

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		
	Remarks						
		Magnet OFF					

2.6 Overflow

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Overflow quantity with S/T OFF	cm3/min	390	258	522		

2.7 Pump chamber pressure

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
S	Pressure with S/T OFF	kPa	372.5	343	402		
S	Pressure with S/T OFF	kgf/cm2	3.8	3.5	4.1		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Pressure with S/T OFF	kPa	372.5	343	402		
C	Pressure with S/T OFF	kgf/cm2	3.8	3.5	4.1		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1700	1700	1700		
C	Pressure with S/T OFF	kPa	510	481	539		

C	Pressure with S/T OFF	kgf/cm2	5.2	4.9	5.5		
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2150	2150	2150		
C	Pressure with S/T OFF	kPa	598.5	569	628		
C	Pressure with S/T OFF	kgf/cm2	6.1	5.8	6.4		

2.8 Timer

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
S	Timer stroke with S/T OFF	mm	2.5	2.3	2.7		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1100	1100	1100		
C	Timer stroke with S/T ON	mm	4.2	3.7	4.7		
C	Timer stroke with S/T OFF	mm	2.5	2.2	2.8		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1700	1700	1700		
C	Timer stroke with S/T OFF	mm	4.6	4	5.2		

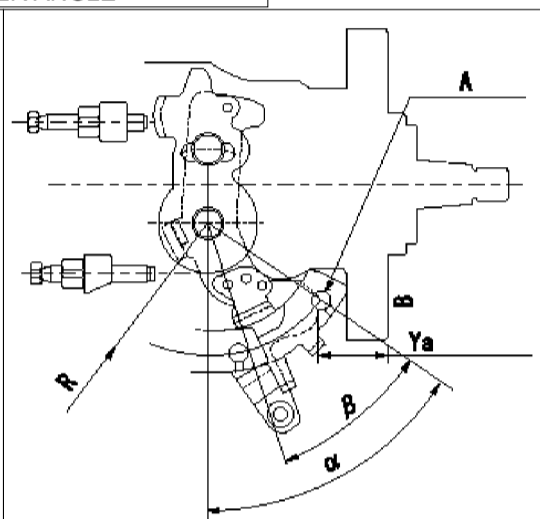
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2550	2550	2550		
C	Timer stroke with S/T OFF	mm	6.9	6.4	7.4		

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 CONTROL LEVER ANGLE

Ya=23.7~28.3mm
R=49mmYa=23.7~28.3mm
R=49mm

Control lever angle measurement

1. Measure dimension Ya between the end of the lever and the flange face.

2. Measure the lever angle from the pin hole R (plate).

A = lever angle measuring position

B = flange face

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	0.9	1.1		
S	Control lever angle alpha	deg.	54	50	58		
S	Control lever angle beta	deg.	42	37	47		