

ZEXEL Ass'y No.	104742-0003
Bosch Ass'y No.	9 460 612 522
Bosch Typecode	
Engine Type	SL
Manufacturer	MAZDA
Edition date	31.01.02

1 Adjustment conditions

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
	Test oil		ISO4113orSAEJ967d				
			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	1000	1000	1000		
S	Average injection quantity	mm3/st.	65.1	64.6	65.6		
S	Difference in delivery	mm3/st.	4		4		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1950	1950	1950		
C	Average injection quantity	mm3/st.	24.7	16.2	33.2		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1875	1875	1875		
C	Average injection quantity	mm3/st.	57.5	54	61		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1600	1600	1600		
C	Average injection quantity	mm3/st.	76	72.5	79.5		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1000	1000	1000		
C	Average injection quantity	mm3/st.	65.1	64.1	66.1		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	625	625	625		
C	Average injection quantity	mm3/st.	52.6	50.1	55.1		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	400	400	400		
C	Average injection quantity	mm3/st.	75.5	70	81		

2.2 Governing

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1875	1875	1875		
S	Average injection quantity	mm3/st.	57.5	54.5	60.5		
S	Difference in delivery	mm3/st.	7		7		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2200	2200	2200		
C	Average injection quantity	mm3/st.	8		8		

2.3 Idle

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	325	325	325		
S	Average injection quantity	mm3/st.	11.6	9.6	13.6		
S	Difference in delivery	mm3/st.	2.5		2.5		

P	Basic		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	450	450	450		
C	Average injection quantity	mm ³ /st.	3		3		
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	325	325	325		
C	Average injection quantity	mm ³ /st.	11.6	9.6	13.6		

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	mm ³ /st.	75	75			
P	Basic		*				

2.5 Stop

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	325	325	325		
C	Average injection quantity	mm ³ /st.	0	0	0		

2.6 Overflow

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
C	Overflow quantity with S/T ON	cm ³ /min	624	474	774		
C	Overflow quantity with S/T OFF	cm ³ /min	660	450	870		

2.7 Pump chamber pressure

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
S	Pressure	kPa	519.5	500	539		
S	Pressure	kgf/cm ²	5.3	5.1	5.5		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
C	Pressure with S/T OFF	kPa	519.5	500	539		
C	Pressure with S/T OFF	kgf/cm ²	5.3	5.1	5.5		

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	588.5	559	618		
C	Pressure with S/T OFF	kgf/cm ²	6	5.7	6.3		

2.8 Timer

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
S	Timer stroke	mm	2.4	2.2	2.6		
P	Basic		*				

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	550	550	550		
C	Timer stroke with S/T ON	mm	0.5	0.5			

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1250	1250	1250		
C	Timer stroke with S/T OFF	mm	0.5		0.5		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
C	Timer stroke with S/T OFF	mm	2.4	2.1	2.7		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1600	1600	1600		
C	Timer stroke with S/T OFF	mm	3	2.5	3.5		

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	3.3	2.9	3.7		

2.9 Magnet

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
C	Max. applied voltage	V	16	16	16		
P	Test voltage	V	25	24	26		

3 Assembly dimension

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
S	K dimension	mm	3.1	3	3.2		
S	KF dimension	mm	5.5	5.4	5.6		
S	MS dimension	mm	0.9	0.8	1		

S	Pre-stroke	mm	0.45	0.43	0.47		
S	Control lever angle alpha	deg.	40	36	44		
S	Control lever angle beta	deg.	35	30	40		