

ZEXEL Ass'y No.	101401-9480
Bosch Ass'y No.	
Bosch Typecode	
Engine Type	SH
Manufacturer	DPICO
Edition date	07.04.03

1 Adjustment conditions

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
	Test oil		ISO4113 or {SAEJ967d}				
		1404 Test oil					
P	Test oil temperature	degC	40	40	45		
	Nozzle and nozzle holder		105780-8140				
	Bosch type code		EF8511/9A				
	Nozzle		105780-0000				
	Bosch type code		DN12SD12T				
	Nozzle holder		105780-2080				
	Bosch type code		EF8511/9				
P	Opening pressure	MPa	17.2				
P	Opening pressure	kgf/cm2	175				
	Injection pipe	mm	6-2-600				
		Outer diameter - inner diameter - length (mm)					
	Overflow valve		134424-1420				
P	Overflow valve opening pressure	kPa	157	123	191		
P	Overflow valve opening pressure	kgf/cm2	1.6	1.25	1.95		
P	Tester oil delivery pressure	kPa	157	157	157		
P	Tester oil delivery pressure	kgf/cm2	1.6	1.6	1.6		
	Direction of rotation (viewed from drive side)		R				
		Right					

2 Adjustment specification**2.1 Injection timing adjustment**

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Direction of rotation (viewed from drive side)		R				
		Right					
P	Injection order		1-3-4-2				
S	Pre-stroke	mm	4.4	4.35	4.45		
P	Beginning of injection position		NO.1				
		Drive side					
S	Difference between angles 1	deg.	90	89.5	90.5		
		Cal 1-3					
S	Difference between angles 2	deg.	180	179.5	180.5		
		Cal 1-4					
S	Difference between angles 3	deg.	270	269.5	270.5		
		Cyl.1-2					

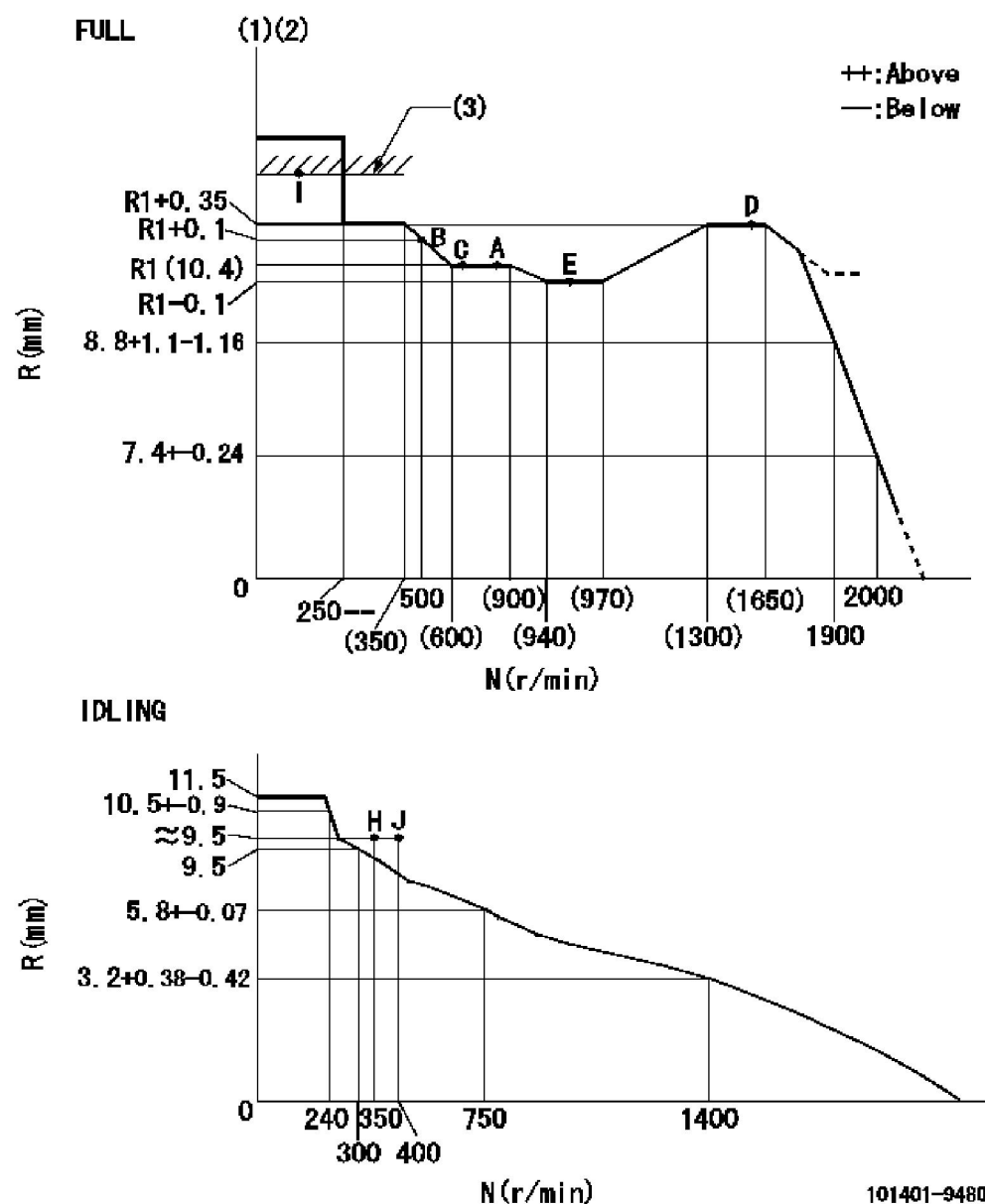
2.2 Injection quantity adjustment

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		-				
P	Rack position		10.4				
P	Pump speed	r/min	850	850	850		
S	Average injection quantity	mm3/st.	59.5	57.9	61.1		
S	Max. variation between cylinders	%	0	-2.5	2.5		
P	Basic		*				
P	Fixing the rack		*				
P	Standard for adjustment of the maximum variation between cylinders		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		H				
P	Rack position		9.5+-0.5				
P	Pump speed	r/min	350	350	350		
S	Average injection quantity	mm3/st.	12	10	14		
S	Max. variation between cylinders	%	0	-14	14		
P	Fixing the rack		*				
P	Standard for adjustment of the maximum variation between cylinders		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		A				
P	Rack position		R1(10.4)				

P	Pump speed	r/min	850	850	850		
S	Average injection quantity	mm3/st.	59.5	58.5	60.5		
P	Basic		*				
P	Fixing the lever		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		B				
P	Rack position		R1+0.1				
P	Pump speed	r/min	500	500	500		
S	Average injection quantity	mm3/st.	43.6	39.6	47.6		
P	Fixing the lever		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		C				
P	Rack position		R1(10.4)				
P	Pump speed	r/min	650	650	650		
S	Average injection quantity	mm3/st.	51	47	55		
P	Fixing the lever		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		D				
P	Rack position		R1+0.35				
P	Pump speed	r/min	1600	1600	1600		
S	Average injection quantity	mm3/st.	77	73	81		
P	Fixing the lever		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		E				
P	Rack position		(R1-0.1)				
P	Pump speed	r/min	950	950	950		
S	Average injection quantity	mm3/st.	58	54	62		
P	Fixing the lever		*				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Adjusting point		I				
P	Rack position		-				
P	Pump speed	r/min	100	100	100		
S	Average injection quantity	mm3/st.	95	85	105		
P	Fixing the lever		*				
P	Rack limit		*				

2.3 Governor adjustment

Name _____

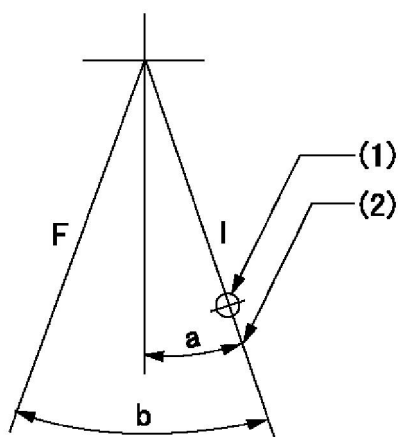


T1=K35

N: Pump speed
R: Rack position (mm)
(1) Torque cam stamping: T1
(2) Tolerance for racks not indicated: ± 0.05 mm.
(3) RACK LIMIT

2.4 Timer adjustment

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	-				
S	Advance angle	deg.	0	0	0		
	Remarks						
Measure speed (beginning of operation).							
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	-				
S	Advance angle	deg.	4.5	4	5		
	Remarks						
Measure the actual speed, stop							

2.5 Speed control lever angleName a=18deg+-5deg
b=(38deg)+-3deg

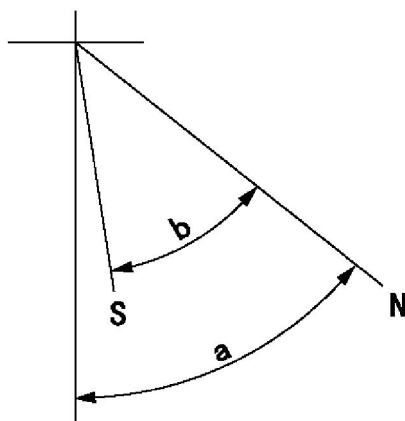
aa=36mm

F:Full speed

I:Idle

(1)Use the hole at R = aa

(2)Stopper bolt setting

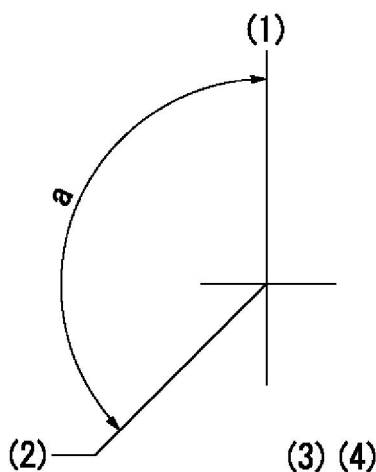
2.6 Stop lever angleName a=40deg+-5deg
b=40deg+-5deg

N:Pump normal

S:Stop the pump.

2.7 Timing settingName

a=(130deg)



aa=10deg

(1)Pump vertical direction

(2)Position of gear mark 'CC' at No 1 cylinder's beginning of injection

(3)B.T.D.C.: aa

(4)-