

**ZEXEL**  
**COMPONENTS**

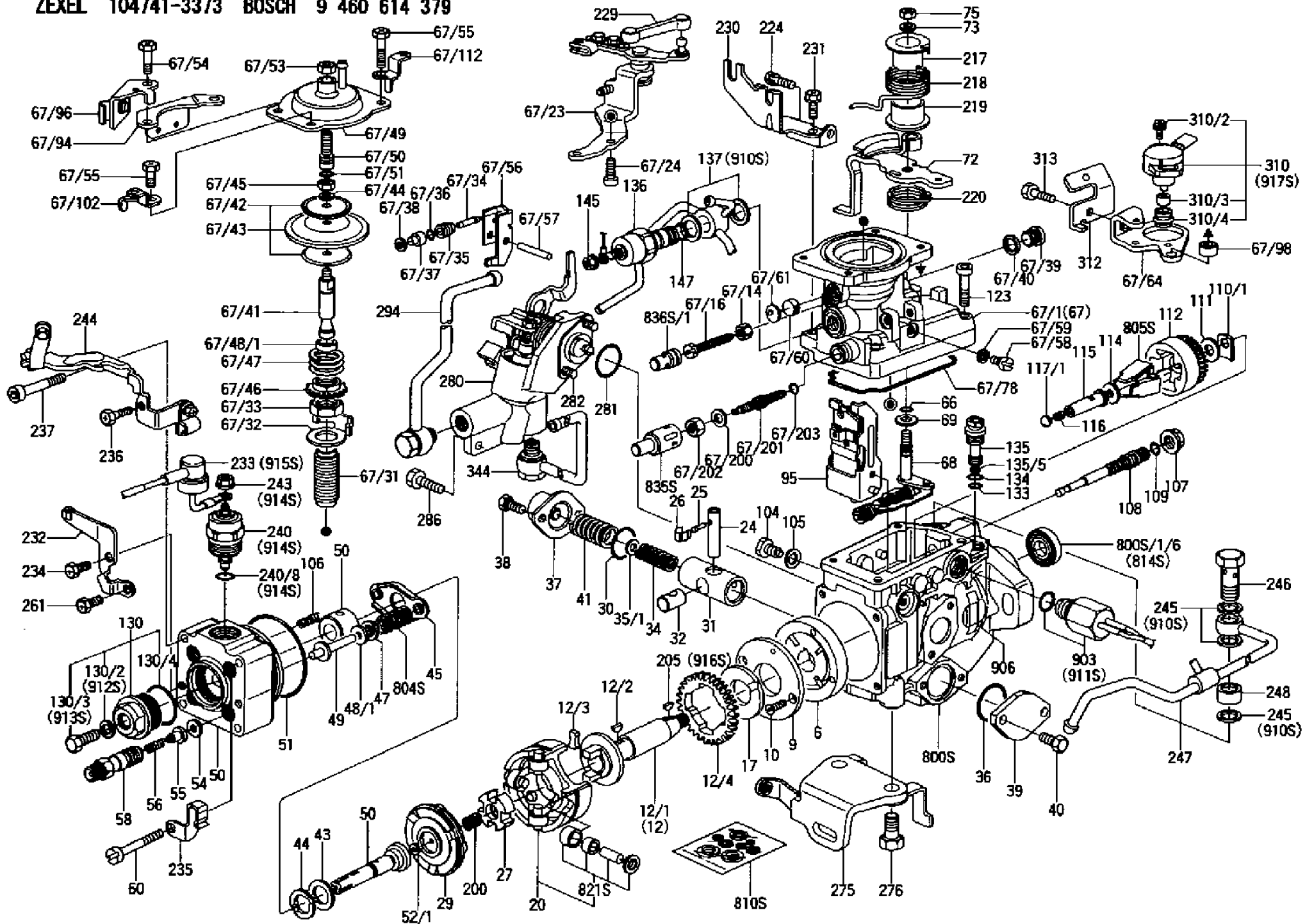
Date:10.02.12  
Time:12:04:26

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+ INJECTION-PUMP ASSEMBLY	104741-3373 9 460 614 379
Manufacturer No.:	ME201983
- FUEL-INJECTION PUMP	104641-3373 9 461 627 944 NP-VE4/11F2000RNP1531
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-	
- NOZZLE AND HOLDER ASSY.	105148-1401 9 430 610 435 018144
Nozzle and Holder:	
Open Pre:MPa(Kgf/cm2):	14.7{150}
- NOZZLE-HOLDER	105078-0181 9 430 615 127
- NOZZLE	105007-1350 9 432 610 478 NP-DN10PDN135

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ZEXEL 104741-3373 BOSCH 9 460 614 379



Product: 104741-3373 9 460 614 379 ME201983 INJECTION-PUMP ASSEMBLY

Item	ZEXEL No.	BOSCH No.	Info	Piece	Designation
1/6	146601-1100	9 461 615 031		1	PACKING RING
6	146100-0220	9 461 611 363		1	SUPPLY PUMP
9	146103-0100	9 461 611 411		1	COVER
10	139104-0000	9 411 610 049		2	FLAT-HEAD SCREW
12	146200-0320	9 461 610 105		1	# DRIVE SHAFT
12/1	146200-0300	9 461 610 104		1	DRIVE SHAFT
12/2	146201-0000	9 461 610 107		1	WOODRUFF KEY
12/3	146202-0100	9 461 610 109		2	DAMPER
12/4	146203-0000	9 461 610 110		1	TOOTHED GEAR
17	146204-0000	9 461 610 111		1	PLAIN WASHER
20	146210-3520	9 461 615 340		1	ROLLER SET
24	146303-0100	9 461 611 659		1	BEARING PIN
25	146304-0000	9 461 610 148		1	BEARING PIN
26	146305-0000	9 461 610 149		1	CLAMPING BAND
27	146205-0000	9 461 610 112		1	SLOTTED WASHER
29	146220-4820	9 461 616 818		1	CAM PLATE
30	146600-0800	9 461 610 421		1	O-RING
31	146311-6520	9 461 612 004		1	PUMP PLUNGER
32	146301-0000	9 461 610 138		1	SLIDING PIECE
34	146312-4700	9 461 617 083	A	1	COMPRESSION SPRING
34B	146312-5500	9 461 617 086	A	1	COMPRESSION SPRING
34C	146312-4900	9 461 617 084	A	1	COMPRESSION SPRING
35/1	146690-3200	9 461 612 011	A	1	SHIM:D11.5&9.4T0.1
35/1	146690-3300	9 461 612 012	A	1	SHIM:D11.5&9.4T0.2
35/1	146690-3400	9 461 612 013	A	1	SHIM:D11.5&9.4T0.25
35/1	146690-3500	9 461 612 014	A	1	SHIM:D11.5&9.4T1.0
35/1	146690-4100	9 461 612 015	A	1	SHIM:D11.5&9.4T2
35/1	146690-4200	9 461 612 278	A	1	SHIM:D11.5&9.4T0.5
35/1	146690-4300	9 461 612 279	A	1	SHIM:D11.5&9.4T0.75
36	146600-0800	9 461 610 421		1	O-RING
37	146310-4020	9 461 616 691		1	COVER
38	146620-5000	9 461 612 038		2	BLEEDER SCREW
39	146310-5100	9 461 615 453		1	COVER
40	146620-5000	9 461 612 038		2	BLEEDER SCREW
41	146312-5300	9 461 617 085		1	COMPRESSION SPRING
43	146230-0000	9 461 610 123		1	SHIM
44	146230-0100	9 461 610 124		1	PLAIN WASHER
45	146231-0001	9 461 614 270		1	SLOTTED WASHER
47	146233-0000	9 461 610 128		2	SLOTTED WASHER
48/1	146603-0000	9 461 610 440	A	1	SHIM:D17.0&5.2T0.50
48/1	146603-0100	9 461 610 441	A	1	SHIM:D17.0&5.2T0.80
48/1	146603-0200	9 461 610 442	A	1	SHIM:D17.0&5.2T1.00
48/1	146603-0300	9 461 610 443	A	1	SHIM:D17.0&5.2T1.20
48/1	146603-0400	9 461 610 444	A	1	SHIM:D17.0&5.2T1.50
48/1	146603-0500	9 461 610 445	A	1	SHIM:D17.0&5.2T1.80
48/1	146603-0600	9 461 610 446	A	1	SHIM:D17.0&5.2T2.00
48/1	146690-1400	9 461 611 329	A	1	SHIM:D17&5.2T0.9
48/1	146690-1500	9 461 611 330	A	1	SHIM:D17&5.2T1.1
48/1	146690-1600	9 461 611 331	A	1	SHIM:D17&5.2T1.3
48/1	146690-1700	9 461 611 332	A	1	SHIM:D17&5.2T1.4
48/1	146690-1800	9 461 611 333	A	1	SHIM:D17&5.2T1.6
48/1	146690-1900	9 461 611 334	A	1	SHIM:D17&5.2T1.7
48/1	146690-5800	9 461 619 110	A	1	SHIM:D17&5.2T2.1
48/1	146690-5900	9 461 619 111	A	1	SHIM:D17&5.2T2.2
48/1	146690-6000	9 461 619 112	A	1	SHIM:D17&5.2T2.3
48/1	146690-6100	9 461 619 113	A	1	SHIM:D17&5.2T2.4
48/1	146690-6200	9 461 619 114	A	1	SHIM:D17&5.2T2.5
48/1	146690-6300	9 461 619 115	A	1	SHIM:D17&5.2T2.6
48/1	146690-6400	9 461 619 116	A	1	SHIM:D17&5.2T2.7
48/1	146690-6500	9 461 619 117	A	1	SHIM:D17&5.2T2.8

48/1	146690-6600	9 461 619 118	A	1	SHIM:D17&5.2T2.9
48/1	146690-6700	9 461 619 119	A	1	SHIM:D17&5.2T3.0
48/1	146690-6800	9 461 619 120	A	1	SHIM:D17&5.2T3.1
48/1	146690-6900	9 461 619 121	A	1	SHIM:D17&5.2T3.2
48/1	146690-7000	9 461 619 122	A	1	SHIM:D17&5.2T3.3
48/1	146690-7100	9 461 619 123	A	1	SHIM:D17&5.2T3.4
48/1	146690-7200	9 461 615 908	A	1	SHIM:D17&5.2T0.4
48/1	146690-7300	9 461 615 909	A	1	SHIM:D17&5.2T0.6
48/1	146690-7400	9 461 615 910	A	1	SHIM:D17&5.2T0.7
48/1	146690-7500	9 461 615 911	A	1	SHIM:D17&5.2T1.9
48/1	146690-7800	9 461 619 124	A	1	SHIM:D17&5.2T0.2
49	146234-0600	9 461 617 869		2	GUIDE PIN
50	146403-7420	9 461 617 100		1	HYDRAULIC HEAD
51	146600-0000	9 461 610 413		1	O-RING
52/1	146420-0000	9 461 610 177	A	1	SHIM:D9.5&3.0T1.90
52/1	146420-0100	9 461 610 178	A	1	SHIM:D9.5&3.0T1.92
52/1	146420-0200	9 461 610 179	A	1	SHIM:D9.5&3.0T1.94
52/1	146420-0300	9 461 610 180	A	1	SHIM:D9.5&3.0T1.96
52/1	146420-0400	9 461 610 181	A	1	SHIM:D9.5&3.0T1.98
52/1	146420-0500	9 461 610 182	A	1	SHIM:D9.5&3.0T2.00
52/1	146420-0600	9 461 610 183	A	1	SHIM:D9.5&3.0T2.02
52/1	146420-0700	9 461 610 184	A	1	SHIM:D9.5&3.0T2.04
52/1	146420-0800	9 461 610 185	A	1	SHIM:D9.5&3.0T2.06
52/1	146420-0900	9 461 610 186	A	1	SHIM:D9.5&3.0T2.08
52/1	146420-1000	9 461 610 187	A	1	SHIM:D9.5&3.0T2.10
52/1	146420-1100	9 461 610 188	A	1	SHIM:D9.5&3.0T2.12
52/1	146420-1200	9 461 610 189	A	1	SHIM:D9.5&3.0T2.14
52/1	146420-1300	9 461 610 190	A	1	SHIM:D9.5&3.0T2.16
52/1	146420-1400	9 461 610 191	A	1	SHIM:D9.5&3.0T2.18
52/1	146420-1500	9 461 610 192	A	1	SHIM:D9.5&3.0T2.20
52/1	146420-1600	9 461 610 193	A	1	SHIM:D9.5&3.0T2.22
52/1	146420-1700	9 461 610 194	A	1	SHIM:D9.5&3.0T2.24
52/1	146420-1800	9 461 610 195	A	1	SHIM:D9.5&3.0T2.26
52/1	146420-1900	9 461 610 196	A	1	SHIM:D9.5&3.0T2.28
52/1	146420-2000	9 461 610 197	A	1	SHIM:D9.5&3.0T2.30
52/1	146420-2100	9 461 610 198	A	1	SHIM:D9.5&3.0T2.32
52/1	146420-2200	9 461 610 199	A	1	SHIM:D9.5&3.0T2.34
52/1	146420-2300	9 461 610 200	A	1	SHIM:D9.5&3.0T2.36
52/1	146420-2400	9 461 610 201	A	1	SHIM:D9.5&3.0T2.38
52/1	146420-2500	9 461 610 202	A	1	SHIM:D9.5&3.0T2.40
52/1	146420-2600	9 461 610 203	A	1	SHIM:D9.5&3.0T2.42
52/1	146420-2700	9 461 610 204	A	1	SHIM:D9.5&3.0T2.44
52/1	146420-2800	9 461 610 205	A	1	SHIM:D9.5&3.0T2.46
52/1	146420-2900	9 461 610 206	A	1	SHIM:D9.5&3.0T2.48
52/1	146420-3000	9 461 610 207	A	1	SHIM:D9.5&3.0T2.50
52/1	146420-3100	9 461 610 208	A	1	SHIM:D9.5&3.0T2.52
52/1	146420-3200	9 461 610 209	A	1	SHIM:D9.5&3.0T2.54
52/1	146420-3300	9 461 610 210	A	1	SHIM:D9.5&3.0T2.56
52/1	146420-3400	9 461 610 211	A	1	SHIM:D9.5&3.0T2.58
52/1	146420-3500	9 461 610 212	A	1	SHIM:D9.5&3.0T2.60
52/1	146420-3600	9 461 610 213	A	1	SHIM:D9.5&3.0T2.62
52/1	146420-3700	9 461 610 214	A	1	SHIM:D9.5&3.0T2.64
52/1	146420-3800	9 461 610 215	A	1	SHIM:D9.5&3.0T2.66
52/1	146420-3900	9 461 610 216	A	1	SHIM:D9.5&3.0T2.68
52/1	146420-4000	9 461 610 217	A	1	SHIM:D9.5&3.0T2.70
52/1	146420-4100	9 461 610 218	A	1	SHIM:D9.5&3.0T2.72
52/1	146420-4200	9 461 610 219	A	1	SHIM:D9.5&3.0T2.74
52/1	146420-4300	9 461 610 220	A	1	SHIM:D9.5&3.0T2.76
52/1	146420-4400	9 461 610 221	A	1	SHIM:D9.5&3.0T2.78
52/1	146420-4500	9 461 610 222	A	1	SHIM:D9.5&3.0T2.80
52/1	146420-4600	9 461 610 223	A	1	SHIM:D9.5&3.0T2.82
52/1	146420-4700	9 461 610 224	A	1	SHIM:D9.5&3.0T2.84
52/1	146420-4800	9 461 610 225	A	1	SHIM:D9.5&3.0T2.86
52/1	146420-4900	9 461 610 226	A	1	SHIM:D9.5&3.0T2.88
52/1	146420-5000	9 461 610 227	A	1	SHIM:D9.5&3.0T2.90
52/1	146420-5100	9 461 610 228	A	1	SHIM:D9.5&3.0T1.74

52/1	146420-5200	9 461 610 229	A	1	SHIM:D9.5&3.0T1.76
52/1	146420-5300	9 461 610 230	A	1	SHIM:D9.5&3.0T1.78
52/1	146420-5400	9 461 610 231	A	1	SHIM:D9.5&3.0T1.80
52/1	146420-5500	9 461 610 232	A	1	SHIM:D9.5&3.0T1.82
52/1	146420-5600	9 461 610 233	A	1	SHIM:D9.5&3.0T1.84
52/1	146420-5700	9 461 610 234	A	1	SHIM:D9.5&3.0T1.86
52/1	146420-5800	9 461 610 235	A	1	SHIM:D9.5&3.0T1.88
54	146433-0100	9 461 610 239		4	GASKET:D12&6.4T1.00
55	146430-2920	9 413 610 175		4	DELIVERY-VALVE ASSEMBLY
56	146432-0000	9 461 610 238		4	COMPRESSION SPRING
58	146440-0720	9 461 613 411		4	FITTING
60	139106-0100	9 411 610 051		3	FLAT-HEAD SCREW
66	146600-0100	9 461 610 414		1	O-RING
67	146703-6220	9 461 617 678		1	# COMPENSATOR,MANIFOLD-PRES
67/1	146805-8320	9 461 615 573		1	GOVERNOR COVER
67/14	146621-1700	9 461 610 503		1	UNION NUT
67/16	146526-3000	9 461 611 439		1	BLEEDER SCREW
67/23	146930-9422	9 461 615 623		1	BRACKET
67/24	010206-1440	9 442 610 202		2	HEX-SOCKET-HEAD CAP SCREW:M6P1L14
67/31	146710-0700	9 461 613 521		1	BUSHING
67/32	146711-0000	9 461 610 554		1	PLATE
67/33	139218-0400	9 411 610 060		1	UNION NUT
67/34	146712-0700	9 461 611 031		1	BEARING PIN
67/35	146621-0300	9 461 610 502		1	UNION NUT
67/36	146600-1400	9 461 610 426		1	O-RING
67/37	146710-0100	9 461 610 553		1	BUSHING
67/38	139506-0200	9 411 610 073		1	GASKET:D8.9&6.8T1.00
67/39	146620-0300	9 461 610 498		1	CAPSULE
67/40	026512-1540	9 442 610 044		1	GASKET:D15.4&12.2T1.50
67/41	146713-4300	9 461 615 994		1	ADJUSTING PIN
67/42	146714-0200	9 461 613 523		2	PLATE
67/43	146715-0300	9 461 613 524		1	DIAPHRAGM
67/44	139306-0100	9 411 610 061		1	LOCKING WASHER
67/45	013030-6040	9 442 610 012		1	UNION NUT:M6P1H3.6
67/46	146716-0000	9 461 610 560		1	UNION NUT
67/47	146717-3900	9 461 616 245		1	COILED SPRING
67/48/1	146720-3000	9 461 613 526	A	1	SPACER BUSHING:L3.7
67/48/1	146720-3100	9 461 613 527	A	1	SPACER BUSHING:L3.9
67/48/1	146720-3200	9 461 613 528	A	1	SPACER BUSHING:L4.1
67/48/1	146720-3300	9 461 613 529	A	1	SPACER BUSHING:L4.3
67/48/1	146720-3400	9 461 613 530	A	1	SPACER BUSHING:L4.5
67/48/1	146720-3500	9 461 613 531	A	1	SPACER BUSHING:L4.7
67/48/1	146720-3600	9 461 613 532	A	1	SPACER BUSHING:L4.9
67/48/1	146720-3700	9 461 613 533	A	1	SPACER BUSHING:L5.1
67/48/1	146720-3800	9 461 613 534	A	1	SPACER BUSHING:L5.3
67/48/1	146720-3900	9 461 613 535	A	1	SPACER BUSHING:L5.5
67/48/1	146720-4000	9 461 613 536	A	1	SPACER BUSHING:L5.7
67/48/1	146720-4100	9 461 613 537	A	1	SPACER BUSHING:L5.9
67/48/1	146720-4200	9 461 613 538	A	1	SPACER BUSHING:L6.1
67/48/1	146720-4300	9 461 613 539	A	1	SPACER BUSHING:L6.3
67/48/1	146720-4400	9 461 613 540	A	1	SPACER BUSHING:L6.5
67/48/1	146720-8900	9 461 613 541	A	1	SPACER BUSHING:L6.7
67/48/1	146720-9000	9 461 613 542	A	1	SPACER BUSHING:L6.9
67/48/1	146720-9100	9 461 613 543	A	1	SPACER BUSHING:L7.1
67/48/1	146720-9200	9 461 613 544	A	1	SPACER BUSHING:L7.3
67/48/1	146720-9300	9 461 613 545	A	1	SPACER BUSHING:L7.5
67/48/1	146720-9400	9 461 613 546	A	1	SPACER BUSHING:L7.7
67/48/1	146720-9500	9 461 613 547	A	1	SPACER BUSHING:L7.9
67/48/1	146720-9600	9 461 613 548	A	1	SPACER BUSHING:L8.1
67/48/1	146720-9700	9 461 613 549	A	1	SPACER BUSHING:L8.3
67/48/1	146720-9800	9 461 613 550	A	1	SPACER BUSHING:L8.5
67/48/1	146720-9900	9 461 614 185	A	1	SPACER BUSHING:L3.6
67/48/1	146725-0000	9 461 614 186	A	1	SPACER BUSHING:L3.8
67/48/1	146725-0100	9 461 614 187	A	1	SPACER BUSHING:L4.0
67/48/1	146725-0200	9 461 614 188	A	1	SPACER BUSHING:L4.2
67/48/1	146725-0300	9 461 614 189	A	1	SPACER BUSHING:L4.4

67/48/1	146725-0400	9 461 614 190	A	1	SPACER BUSHING:L4.6
67/48/1	146725-0500	9 461 614 191	A	1	SPACER BUSHING:L4.8
67/48/1	146725-0600	9 461 614 192	A	1	SPACER BUSHING:L5.0
67/48/1	146725-0700	9 461 614 193	A	1	SPACER BUSHING:L5.2
67/48/1	146725-0800	9 461 614 194	A	1	SPACER BUSHING:L5.4
67/48/1	146725-0900	9 461 614 195	A	1	SPACER BUSHING:L5.6
67/48/1	146725-1000	9 461 614 196	A	1	SPACER BUSHING:L5.8
67/48/1	146725-1100	9 461 614 197	A	1	SPACER BUSHING:L6.0
67/48/1	146725-1200	9 461 614 198	A	1	SPACER BUSHING:L6.2
67/48/1	146725-1300	9 461 614 199	A	1	SPACER BUSHING:L6.4
67/48/1	146725-1400	9 461 614 200	A	1	SPACER BUSHING:L6.6
67/48/1	146725-1500	9 461 614 201	A	1	SPACER BUSHING:L6.8
67/48/1	146725-1600	9 461 614 202	A	1	SPACER BUSHING:L7.0
67/48/1	146725-1700	9 461 614 203	A	1	SPACER BUSHING:L7.2
67/48/1	146725-1800	9 461 614 204	A	1	SPACER BUSHING:L7.4
67/48/1	146725-1900	9 461 614 205	A	1	SPACER BUSHING:L7.6
67/48/1	146725-2000	9 461 614 206	A	1	SPACER BUSHING:L7.8
67/48/1	146725-2100	9 461 614 207	A	1	SPACER BUSHING:L8.0
67/48/1	146725-2200	9 461 614 208	A	1	SPACER BUSHING:L8.2
67/48/1	146725-2300	9 461 614 209	A	1	SPACER BUSHING:L8.4
67/48/1	146725-2400	9 461 614 210	A	1	SPACER BUSHING:L8.6
67/49	146721-3621	9 461 616 246		1	COVER
67/50	146722-0200	9 461 615 396		1	FLAT-HEAD SCREW
67/51	146600-0300	9 461 610 416		1	O-RING
67/53	013020-6040	9 442 610 010		1	UNION NUT:M6P1H5
67/54	139006-4600	9 411 610 667		2	BLEEDER SCREW
67/55	139006-4800	9 411 610 556		2	BLEEDER SCREW
67/56	146723-0300	9 461 613 001		1	CONTROL LEVER
67/57	146712-0100	9 461 610 556		1	BEARING PIN
67/58	146620-0600	9 461 610 500		2	CAPSULE
67/59	026506-1040	9 421 617 011		2	GASKET:D9.9&6.2T1
67/60	146724-0300	9 461 611 260		1	ELEMENT
67/61	146724-0600	9 461 611 262		1	CAPSULE
67/64	146930-8900	9 461 615 412		1	BRACKET
67/78	146600-4400	9 461 615 663		1	SEAL RING
67/94	146926-7600	9 461 614 335		1	BRACKET
67/96	146930-9220	9 461 615 415		1	BRACKET
67/98	146648-2800	9 461 614 141		2	SPACER BUSHING
67/102	146930-9000	9 461 615 413		1	BRACKET
67/112	146930-9100	9 461 615 414		1	BRACKET
67/200	139308-0300	9 411 610 063		1	PLAIN WASHER
67/201	146545-4100	9 461 615 365	A	1	THREADED PIN
67/201B	146545-4200	9 461 615 366	A	1	THREADED PIN
67/201C	146545-4300	9 461 615 367	A	1	THREADED PIN
67/202	139208-0900	9 411 610 627		1	UNION NUT
67/203	146600-1200	9 461 610 424		1	O-RING
68	146810-4420	9 461 617 276		1	CONTROL SHAFT
69	139310-0200	9 411 610 065		1	PLAIN WASHER
72	146830-6920	9 461 615 575	A	1	CONTROL LEVER
72B	146830-7020	9 461 615 576	A	1	CONTROL LEVER
73	014110-6440	9 442 610 020		1	LOCKING WASHER
75	013020-6040	9 442 610 010		1	UNION NUT:M6P1H5
95	146861-6920	9 461 617 317		1	FULCRUM LEVER
104	146568-0000	9 461 610 342		2	SLOTTED SPRING PIN
105	026508-1140	0 986 613 069		2	GASKET:D11.4&8.2T1
106	146588-0500	9 461 611 663		2	COILED SPRING
107	146569-0300	9 461 612 031		1	UNION NUT
108	146570-0100	9 461 610 346		1	GOVERNOR SHAFT
109	146600-0400	9 461 610 417		1	O-RING
110/1	146571-0000	9 461 610 348	A	1	SHIM:D20.2&8.3T1.05
110/1	146571-0100	9 461 610 349	A	1	SHIM:D20.2&8.3T1.25
110/1	146571-0200	9 461 610 350	A	1	SHIM:D20.2&8.3T1.45
110/1	146571-0300	9 461 610 351	A	1	SHIM:D20.2&8.3T1.65
110/1	146571-0400	9 461 610 352	A	1	SHIM:D20.2&8.3T1.85
110/1	146571-0500	9 461 610 353	A	1	SHIM:D20.2&8.3T1.15
110/1	146571-0600	9 461 610 354	A	1	SHIM:D20.2&8.3T1.35

110/1	146571-0700	9 461 610 355	A	1	SHIM:D20.2&8.3T1.55
110/1	146571-0800	9 461 610 356	A	1	SHIM:D20.2&8.3T1.75
111	146602-0600	9 461 610 437		1	PLAIN WASHER:D20&8.4T1.40
112	146572-0020	9 461 610 357		1	FLYWEIGHT ASSEMBLY
114	146602-0500	9 461 610 436		1	PLAIN WASHER:D17&6.4T1.60
115	146975-2800	9 461 618 764		1	SLIDING SLEEVE
116	146576-0200	9 461 610 851		1	CAP
117/1	146577-1800	9 461 610 383	A	1	PLUG:L2.10
117/1	146577-1900	9 461 610 384	A	1	PLUG:L2.30
117/1	146577-2000	9 461 610 385	A	1	PLUG:L2.50
117/1	146577-2100	9 461 610 386	A	1	PLUG:L2.70
117/1	146577-2200	9 461 610 387	A	1	PLUG:L2.90
117/1	146577-2300	9 461 610 388	A	1	PLUG:L3.10
117/1	146577-2400	9 461 610 389	A	1	PLUG:L3.30
117/1	146577-2500	9 461 610 390	A	1	PLUG:L3.50
117/1	146577-2600	9 461 610 391	A	1	PLUG:L3.70
117/1	146577-2700	9 461 610 392	A	1	PLUG:L3.90
117/1	146577-2800	9 461 610 393	A	1	PLUG:L4.10
117/1	146577-2900	9 461 610 394	A	1	PLUG:L4.30
117/1	146577-3000	9 461 610 395	A	1	PLUG:L4.50
117/1	146577-3100	9 461 610 396	A	1	PLUG:L4.70
117/1	146577-3200	9 461 610 397	A	1	PLUG:L4.90
117/1	146577-3300	9 461 610 398	A	1	PLUG:L5.10
117/1	146577-6700	9 461 611 309	A	1	PLUG:L2.2
117/1	146577-6800	9 461 611 310	A	1	PLUG:L2.4
117/1	146577-6900	9 461 611 311	A	1	PLUG:L2.6
117/1	146577-7000	9 461 611 312	A	1	PLUG:L2.8
117/1	146577-7100	9 461 611 313	A	1	PLUG:L3.0
117/1	146577-7200	9 461 611 314	A	1	PLUG:L3.2
117/1	146577-7300	9 461 611 315	A	1	PLUG:L3.4
117/1	146577-7400	9 461 611 316	A	1	PLUG:L3.6
117/1	146577-7500	9 461 611 317	A	1	PLUG:L3.8
117/1	146577-7600	9 461 611 318	A	1	PLUG:L4.0
117/1	146577-7700	9 461 611 319	A	1	PLUG:L4.2
117/1	146577-7800	9 461 611 320	A	1	PLUG:L4.4
117/1	146577-7900	9 461 611 321	A	1	PLUG:L4.6
117/1	146577-8000	9 461 611 322	A	1	PLUG:L4.8
117/1	146577-8100	9 461 611 323	A	1	PLUG:L5.0
117/1	146877-0000	9 461 613 553	A	1	PLUG:L5.2
117/1	146877-0100	9 461 613 554	A	1	PLUG:L5.3
117/1	146877-0200	9 461 613 555	A	1	PLUG:L5.4
117/1	146877-0300	9 461 613 556	A	1	PLUG:L5.5
117/1	146877-4700	9 461 616 284	A	1	PLUG
117/1	146877-4800	9 461 616 285	A	1	PLUG
117/1	146877-4900	9 461 616 286	A	1	PLUG
117/1	146877-5000	9 461 616 287	A	1	PLUG
123	146620-0500	9 461 610 499		4	HEX-SOCKET-HEAD CAP SCREW
130	146421-0020	9 461 610 236		1	# CAPSULE
130/2	026508-1140	0 986 613 069		1	GASKET:D11.4&8.2T1
130/3	146422-0000	9 461 610 237		1	BLEEDER SCREW
130/4	146600-0500	9 461 610 418		1	O-RING
133	146600-0600	9 461 610 419		1	O-RING
134	146600-0700	9 461 610 420		1	O-RING
135	146110-0920	9 461 610 093		1	# CONTROL VALVE
135/5	146114-0000	9 461 610 094		1	SPRING WASHER
136	146688-1320	9 461 617 222		1	PULLING ELECTROMAGNET
137	139514-0200	9 411 610 080		2	GASKET
145	146621-4901	9 461 621 894		1	UNION NUT
147	146600-5000	9 461 618 321		1	O-RING
200	146206-0100	9 461 610 113		1	COILED SPRING
205	029470-4030	9 442 610 130		1	WOODRUFF KEY
217	146542-5300	9 461 614 490		1	SLOTTED WASHER
218	146592-2500	9 461 614 492		1	COILED SPRING
219	146541-3000	9 461 610 319		1	BUSHING
220	146592-2600	9 461 614 493		1	COILED SPRING
224	139006-4400	9 411 610 583		1	BLEEDER SCREW

229	146613-8300	9 461 610 892		1	JOINT CONNECTION
230	146629-0200	9 461 612 914		1	BRACKET
231	139006-4400	9 411 610 583		1	BLEEDER SCREW
232	146931-6601	9 461 617 906		1	BRACKET
233	146662-3220	9 461 615 379		1	WIRE
234	139006-4700	9 411 610 555		1	BLEEDER SCREW
235	146931-6100	9 461 615 419		1	BRACKET
236	139006-4700	9 411 610 555		1	BLEEDER SCREW
237	146620-0200	9 461 610 497		1	HEX-SOCKET-HEAD CAP SCREW
240	146650-1220	9 461 610 533		1	# PULLING ELECTROMAGNET
240/8	146600-1700	9 461 610 427		1	O-RING
243	146621-4901	9 461 621 894		1	UNION NUT
244	146931-7220	9 461 615 421		1	BRACKET
245	139512-0500	9 411 611 625		3	GASKET
246	146125-0700	9 461 625 811		1	EYE BOLT
247	146666-6820	9 461 615 384		1	PIPE
248	146614-0200	9 461 610 481		1	SPACER BUSHING
261	139006-4700	9 411 610 555		1	BLEEDER SCREW
275	146612-7420	9 461 615 374		1	BRACKET
276	010010-2040	9 442 610 289		2	BLEEDER SCREW:M10P1.5L20
280	146361-5920	9 461 627 317		1	START ADVANCE ASSY
281	146600-0800	9 461 610 421		1	O-RING
282	010206-1240	9 442 610 201		2	HEX-SOCKET-HEAD CAP SCREW:M6P1L12
286	139006-4600	9 411 610 667		1	BLEEDER SCREW
294	146666-7520	9 461 616 490		1	INLET UNION
310	146685-7120	9 461 626 346		1	# POTENTIOMETER
310/2	139104-0400	9 411 610 668		2	FLAT-HEAD SCREW
310/3	146648-2900	9 461 617 885	A	1	JOINT CONNECTION
310/3B	146648-3000	9 461 617 886	A	1	JOINT CONNECTION
310/3C	146648-3100	9 461 617 887	A	1	JOINT CONNECTION
310/3D	146648-3200	9 461 617 888	A	1	JOINT CONNECTION
310/3E	146648-3300	9 461 617 889	A	1	JOINT CONNECTION
310/3F	146648-4700	9 461 617 890	A	1	JOINT CONNECTION
310/3G	146648-5300	9 461 617 891	A	1	JOINT CONNECTION
310/3H	146649-1700	9 461 617 892	A	1	JOINT CONNECTION
310/4	146661-0601	9 461 617 525		1	BOOT
312	146933-6000	9 461 616 324		1	BRACKET
313	020106-1240	9 442 610 314		1	BLEEDER SCREW:M6P1.0L12
344	146666-7620	9 461 616 491		1	INLET UNION
800S	146020-1220	9 461 625 808		1	# PUMP HOUSING
800S/1/6	146601-1100	9 461 615 031		1	PACKING RING
804S	146232-1520	9 461 624 116		1	COMPRESSION SPRING
805S	146574-0720	9 461 624 260		1	PARTS SET
810S	146600-1120	9 461 610 423		1	REPAIR SET
814S	146601-1100	9 461 615 031		1	PACKING RING
821S	146210-5720	9 461 616 128		1	ROLLER SET
835S	146598-1000	9 461 612 195		1	CAP
836S/1	146598-0600	9 461 612 191	A	1	CAP:L18
836S/1	146598-0700	9 461 612 192	A	1	CAP:L21
836S/1	146598-0800	9 461 612 193	A	1	CAP:L24
836S/1	146598-0900	9 461 612 194	A	1	CAP:L27
903	479771-0520	9 461 619 928		1	PULSE GENERATOR
906	146974-3000	9 461 628 093		1	NAMEPLATE
910S	146600-4320	9 461 615 372		1	PARTS SET
911S	479771-0520	9 461 619 928		1	PULSE GENERATOR
912S	026508-1140	0 986 613 069		1	GASKET:D11.4&8.2T1
913S	146422-0000	9 461 610 237		1	BLEEDER SCREW
914S	146699-0020	9 461 613 775		1	VALVE SET
915S	146662-3220	9 461 615 379		1	WIRE
916S	025804-1610	9 442 610 040		1	WOODRUFF KEY
917S	146685-7110	9 461 626 413		1	POTENTIOMETER



ZEXEL Ass'y No.	104741-3373
Bosch Ass'y No.	9 460 614 379
Bosch Typecode	
Engine Type	4M40TI
Manufacturer	mitsubishi
Edition date	24.06.08 (6)

### 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					
	(Solenoid timer adjustment condition)		OFF				
		With S/T O-ring; S/T OFF.					

### 2 Adjustment specification

#### 2.1 Full load delivery

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm2	0	0	0		
P	Boost pressure	mmHg	0	0	0		
S	Average injection quantity	mm3/st.	54.6	54.1	55.1		
S	Difference in delivery	mm3/st.	4.5		4.5		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		NA					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	40	38.7	41.3		
P	Boost pressure	kgf/cm2	0.41	0.396	0.424		
P	Boost pressure	mmHg	300	290	310		
S	Average injection quantity	mm3/st.	68	67.5	68.5		
S	Difference in delivery	mm3/st.	5.5		5.5		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		CBS					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1000	1000	1000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
S	Average injection quantity	mm3/st.	78.4	77.9	78.9		
S	Difference in delivery	mm3/st.	6.5		6.5		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		Full					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
C	Average injection quantity	mm <sup>3</sup> /st.	54.6	53.6	55.6		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		NA					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	40	38.7	41.3		
P	Boost pressure	kgf/cm <sup>2</sup>	0.41	0.396	0.424		
P	Boost pressure	mmHg	300	290	310		
C	Average injection quantity	mm <sup>3</sup> /st.	68	67	69		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		CBS					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1000	1000	1000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Average injection quantity	mm <sup>3</sup> /st.	78.4	77.4	79.4		
C	Difference in delivery	mm <sup>3</sup> /st.	7		7		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		Full					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2000	2000	2000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Average injection quantity	mm <sup>3</sup> /st.	71.5	67.5	75.5		
		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	2475	2475	2475		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
S	Average injection quantity	mm <sup>3</sup> /st.	26.4	23.4	29.4		
S	Difference in delivery	mm <sup>3</sup> /st.	8		8		
P	Basic		*				
P	Oil temperature	degC	55	52	58		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2475	2475	2475		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Average injection quantity	mm <sup>3</sup> /st.	26.4	21.4	31.4		
C	Difference in delivery	mm <sup>3</sup> /st.	8.5		8.5		
P	Basic		*				
P	Oil temperature	degC	55	52	58		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	3000	3000	3000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Average injection quantity	mm <sup>3</sup> /st.	8		8		
P	Oil temperature	degC	55	52	58		

## 2.3 Idle

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	400	400	400		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
S	Average injection quantity	mm <sup>3</sup> /st.	18.9	16.9	20.9		
S	Difference in delivery	mm <sup>3</sup> /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	400	400	400		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
C	Average injection quantity	mm <sup>3</sup> /st.	18.9	16.4	21.4		
C	Difference in delivery	mm <sup>3</sup> /st.	2.5		2.5		
P	Basic		*				
P	Oil temperature	degC	48	46	50		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
C	Average injection quantity	mm <sup>3</sup> /st.	5		5		
P	Oil temperature	degC	50	48	52		

## 2.4 Start

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	150	150	150		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
S	Average injection quantity	mm <sup>3</sup> /st.	78.1	58.1	98.1		
		About					
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	150	150	150		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
C	Average injection quantity	mm <sup>3</sup> /st.	78.4	58.4	98.4		
		About					
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	400	400	400		
P	Boost pressure	kPa	0	0	0		
P	Boost pressure	kgf/cm <sup>2</sup>	0	0	0		
P	Boost pressure	mmHg	0	0	0		
C	Average injection quantity	mm <sup>3</sup> /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	1250	1250	1250		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Overflow quantity with S/T ON	cm <sup>3</sup> /min	740	610	870		

		About					
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	1500	1500	1500		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
S	Pressure with S/T ON	kPa	608	569	647		
		About					
S	Pressure with S/T ON	kgf/cm2	6.2	5.8	6.6		
		About					
S	Pressure with S/T OFF	kPa	500	480	520		
S	Pressure with S/T OFF	kgf/cm2	5.1	4.9	5.3		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		OFF					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	750	750	750		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Pressure with S/T OFF	kPa	275	226	324		
		About					
C	Pressure with S/T OFF	kgf/cm2	2.8	2.3	3.3		
		About					
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Pressure with S/T ON	kPa	608	559	657		
		About					
C	Pressure with S/T ON	kgf/cm2	6.2	5.7	6.7		
		About					
C	Pressure with S/T OFF	kPa	500	471	529		
C	Pressure with S/T OFF	kgf/cm2	5.1	4.8	5.4		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		OFF					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2000	2000	2000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Pressure with S/T OFF	kPa	618	569	667		
		About					
C	Pressure with S/T OFF	kgf/cm2	6.3	5.8	6.8		
		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	1500	1500	1500		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm2	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
S	Timer stroke with S/T ON	mm	6.8	6.3	7.3		
		About					
S	Timer stroke with S/T OFF	mm	4.1	3.9	4.3		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						

			OFF				
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1000	1000	1000		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Timer stroke with S/T ON	mm	3.5	2.8	4.2		

		About					
C	Timer stroke with S/T OFF	mm	0.7	0	1.4		
		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		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Timer stroke with S/T OFF	mm	2.4	1.7	3.1		

		About					
P	Oil temperature	degC	50	48	52		

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	1500	1500	1500		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Timer stroke with S/T ON	mm	6.8	6.1	7.5		

		About					
C	Timer stroke with S/T OFF	mm	4.1	3.7	4.5		
P	Basic		*				
P	Oil temperature	degC	50	48	52		
	Remarks						
		OFF					

CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
P	Pump speed	r/min	2300	2300	2300		
P	Boost pressure	kPa	73.3	72	74.6		
P	Boost pressure	kgf/cm <sup>2</sup>	0.75	0.736	0.764		
P	Boost pressure	mmHg	550	540	560		
C	Timer stroke with S/T OFF	mm	8.6	8.1	9		

		About					
P	Oil temperature	degC	52	50	54		

## 2.9 Magnet

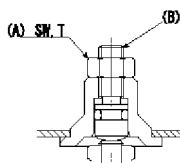
CAT	Designation	Unit	Set value	min.	max.	Actual values	OT
C	Max. applied voltage	V	8	8	8		
P	Test voltage	V	13	12	14		

## 2.10 Compensator

### 2.10.1 BCS adjustment

Name BOOST COMPENSATOR ADJUSTMENT

SW=10mm  
T=6~9N·m(0.6~0.9kgf·m)



N1=750r/min  
N2=750r/min  
P1=40.0kPa(300mmHg)  
P2=0kPa(0mmHg)  
T=6~9N·m(0.6~0.9kgf·m)

BCS adjustment procedure

1. At full boost pressure, set so that the full injection quantity is within the specifications (adjusting point).
2. Perform boost compensator intermediate operation point adjustment (pump speed N1, boost pressure P1).
3. When injection quantity at boost pressure P2 and pump speed N2 is not as specified, loosen nut (A) and adjust position of screw (B) so that injection quantity is as specified. The screw position should be within +1 turn of initial position.
4. The nut tightening torque is T.

## 2.11 Additional device adjustment

2.11.1 Additional device 1

Name POTENTIOMETER ADJUSTMENT

N1=750r/min  
 Q1=34.7+-1.0mm3/st  
 P1=0kPa(0mmHg)  
 V1=4.16+-0.03V  
 V2=(2.16+-0.52V)  
 V3=(9.02+-0.72V)  
 Vi=10V

N	P	Q	V	C/L	
N1	P1	Q1	V1		A
			V2	I	B
			V3	F	B

Vi

N1=750r/min  
 Q1=34.7+-1.0mm3/st  
 V1=4.16+-0.03V  
 Vi=10V

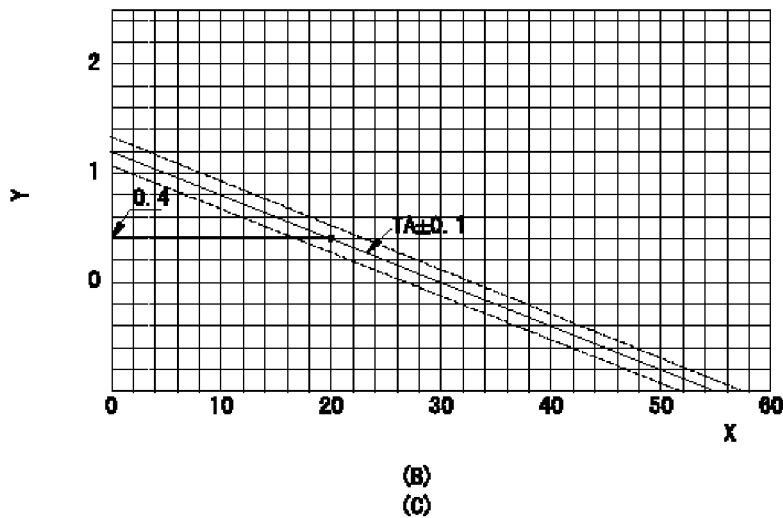
Adjustment of the potentiometer  
 Dummy bolt method

1. Hold the dummy bolt against the control lever at position N = N1 and Q = Q1 and fix using the lock nut.
2. At potentiometer adjustment, with the control lever contacting the dummy bolt, adjust the potentiometer so that the output voltage is V1.
3. After adjustment, remove the dummy bolt and confirm that the potentiometer output voltage at the control lever's idling and full speed positions is as specified above.

N: Pump speed  
 P: Boost pressure  
 Q: Injection quantity  
 V: Output voltage  
 A: Adjusting point  
 B: Checking point  
 C/L: control lever position  
 I: Idling  
 F: Full speed  
 Vi: Applied voltage

2.11.2 Additional device 2

Name W-CSD ADJUSTMENT



Adjustment of the W-CSD

Adjustment of the timer advance angle

Determine the timers stroke value from the graph and then adjust using the adjusting bolt.

(B) Timer stroke graph

(C) Graph  $TA = -0.04t + 1.2$  ( $0 \leq t \leq 30$  deg C)

X: Temperature t (deg C)

Y: Timer stroke TA (mm)

2.11.3 Additional device 3

Name	W-FICD LEVER ADJUSTMENT
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$L = -0.193t + 6.3 \quad (0 \leq t)$

$L1 = L + 0.3 \text{ mm}$   
 $T = 3.4 \sim 4.9 \text{ N}\cdot\text{m} (0.35 \sim 0.5 \text{ kgf}\cdot\text{m})$   
 $\alpha = 35 \text{ degC}$

W-FICD adjustment  
 (1) Insert a block gauge L1 determined from the graph between the control lever (B) and the idling set screw (A).  
 (2) Fix bolt (E) in the position where W-FICD lever (C) contacts the control lever (D). (Tighten to torque T.)  
 (3) Remove the block gauge and shims after completing adjustment.  
 Caution: The temperature of the wax at adjustment must not exceed  $\alpha$ .  
 Y = control lever dimension L (control lever position)  
 X = temperature t (deg C)

2.11.4 Additional device 4

Name	ACCELERATOR LINK STROKE
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$L = 32.9 \pm 1 \text{ mm}$

$L = 32.9 \pm 1 \text{ mm}$

Adjustment of the accelerator link stroke  
 As shown in the figure, adjust so that the accelerator link's stroke between idle (B) and full speed (A) is L1.  
 (A): Full-speed  
 (B): Idle

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	0.9	0.8	1		
S	BCS stroke	mm	5.5	5.3	5.7		
S	Control lever angle alpha	deg.	59	55	63		
S	Control lever angle beta	deg.	41	36	46		
		About					