

SECTION 1 GENERAL

Group 1 Safety Hints	1-1
Group 2 Specifications	1-9

SECTION 2 STRUCTURE AND FUNCTION

Group 1 Pump Device	2-1
Group 2 Main Control Valve	2-17
Group 3 Swing Device	2-51
Group 4 Travel Motor	2-60
Group 5 RCV Lever	2-70
Group 6 Accelerator Pedal	2-77
Group 7 Brake Device	2-78
Group 8 Transmission	2-80
Group 9 Travel Control Valve	2-87
Group 10 Steering Valve	2-89
Group 11 Front Axle and Rear Axle	2-94

SECTION 3 HYDRAULIC SYSTEM

Group 1 Hydraulic Circuit	3-1
Group 2 Main Circuit	3-5
Group 3 Pilot Circuit	3-8
Group 4 Single Operation	3-16
Group 5 Combined Operation	3-31

SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location	4-1
Group 2 Electrical Circuit	4-3
Group 3 Electrical Component Specification	4-25
Group 4 Connectors	4-38

SECTION 5 MECHATRONICS SYSTEM

Group 1 Outline	5-1
Group 2 Mode selection System	5-3

Group 3	Automatic Deceleration System	5-6
Group 4	Power Boost System	5-7
Group 5	Travel Speed Control System	5-8
Group 6	Automatic Warming Up Function	5-9
Group 7	Engine Overheat Prevention Function	5-10
Group 8	Variable Power Control System	5-11
Group 9	Attachment Flow Control System	5-12
Group 10	Boom Floating Control System	5-13
Group 11	Intelligent Power Control System	5-14
Group 12	Anti-Restart System	5-16
Group 13	Self-Diagnostic System	5-17
Group 14	Engine Control System	5-63
Group 15	EPPR Valve	5-64
Group 16	Monitoring System	5-67
Group 17	Fuel Warmer System	5-113
Group 18	1 or 2-Way Optional Piping Pressure Removal System	5-114

SECTION 6 TROUBLESHOOTING

Group 1	Before Troubleshooting	6-1
Group 2	Hydraulic and Mechanical System	6-4
Group 3	Electrical System	6-25
Group 4	Mechatronics System	6-41
Group 5	Air conditioner and Heater System	6-72

SECTION 7 MAINTENANCE STANDARD

Group 1	Operational Performance Test	7-1
Group 2	Major Components	7-19
Group 3	Track and Work Equipment	7-25

SECTION 8 DISASSEMBLY AND ASSEMBLY

Group 1	Precaution	8-1
Group 2	Tightening Torque	8-4
Group 3	Pump Device	8-7
Group 4	Main Control Valve	8-43
Group 5	Swing Device	8-49
Group 6	Travel Motor	8-53
Group 7	Transmission	8-80

Group 8 Steering Valve	8-177
Group 9 Front Axle	8-202
Group 10 Rear Axle	8-273
Group 11 RCV Lever	8-315
Group 12 Turning Joint	8-329
Group 13 Boom, Arm, Bucket, Dozer and Outrigger Cylinders	8-335
Group 14 Work Equipment	8-359