

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	2-21
Group 3 Swing Device	2-48
Group 4 Travel Motor	2-59
Group 5 RCV Lever	2-65
Group 6 Accelerator Pedal	2-72
Group 7 Brake Pedal	2-73
Group 8 Transmission	2-75
Group 9 Travel Control Valve	2-82
Group 10 Steering Valve	2-84
Group 11 Axle	2-86

SECTION 3 HYDRAULIC SYSTEM

Group 1 Hydraulic Circuit	3-1
Group 2 Main Circuit	3-2
Group 3 Pilot Circuit	3-5
Group 4 Single Operation	3-14
Group 5 Combined Operation	3-29

SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location	4-1
Group 2 Electrical Circuit	4-3
Group 3 Electrical Component Specification	4-24
Group 4 Connectors	4-33

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	5-53
Group 15 EPPR Valve	5-54
Group 16 Monitoring System	5-59
Group 17 Fuel Warmer System	5-94

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

SECTION 7 MAINTENANCE STANDARD

Group 1 Operational Performance Test	7-1
Group 2 Major Components	7-19
Group 3 Track and Work Equipment	7-28

SECTION 8 DISASSEMBLY AND ASSEMBLY

Group 1 Precautions	8-1
Group 2 Tightening Torque	8-4
Group 3 Pump Device	8-7
Group 4 Main Control Valve	8-30
Group 5 Swing Device	8-52
Group 6 Travel Motor	8-82
Group 7 Transmission	8-106
Group 8 Steering Valve	8-160

Group 9 Front Axle	8-185
Group 10 Rear Axle	8-256
Group 11 RCV Lever	8-298
Group 12 Turning Joint	8-312
Group 13 Boom, Arm, Bucket, Dozer and Outrigger Cylinders	8-318
Group 14 Work Equipment	8-339

SECTION 9 COMPONENT MOUNTING TORQUE

Group 1 Introduction Guide	9-1
Group 2 Engine System	9-2
Group 3 Electric System	9-4
Group 4 Hydraulic System	9-6
Group 5 Power train System	9-9
Group 6 Structure	9-11
Group 7 Work Equipment	9-15