

CONTENTS

FORWARD

Group 1 Structure	0-1
Group 2 How to read the service manual	0-2
Group 3 Conversion table	0-3

SECTION 1 GENERAL

Group 1 Safety Hints	1-1
Group 2 Specifications	1-10

SECTION 2 STRUCTURE AND FUNCTION

Group 1 Pump Device	2-1
Group 2 Main Control Valve	2-20
Group 3 Swing Device	2-54
Group 4 Travel Device	2-65
Group 5 RCV Lever	2-79
Group 6 RCV Pedal	2-86

SECTION 3 HYDRAULIC SYSTEM

Group 1 Hydraulic Circuit	3-1
Group 2 Main Circuit	3-2
Group 3 Pilot Circuit	3-5

SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location	4-1
Group 2 Electric Circuit	4-3
Group 3 Electrical Component Specification	4-18
Group 4 Connectors	4-25

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 Travel Speed Control System	5-7
Group 5 Automatic Warming Up System	5-8
Group 6 Engine Overheat Prevention System	5-9
Group 7 Variable Power Control System	5-10
Group 8 Anti-Restart System	5-11

Group 9 Self-Diagnostic System	5-12
Group 10 Engine Control System	5-14
Group 11 EPPR Valve	5-15
Group 12 Monitoring System	5-18
Group 13 Fuel Warmer System	5-40

SECTION 6 TROUBLESHOOTING

Group 1 Before Troubleshooting	6-1
Group 2 Hydraulic and Mechanical System	6-4
Group 3 Electrical System	6-24
Group 4 Mechatronics System	6-38

SECTION 7 MAINTENANCE STANDARD

Group 1 Operational Performance Test	7-1
Group 2 Major Components	7-19
Group 3 Track and Work Equipment	7-26

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	8-30
Group 5 Swing Device	8-49
Group 6 Travel Device	8-74
Group 7 RCV Lever	8-106
Group 8 Turning Joint	8-120
Group 9 Boom, Arm and Bucket Cylinder	8-125
Group 10 Undercarriage	8-142
Group 11 Work Equipment	8-154

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 Undercarriage	9-9
Group 6 Structure	9-11
Group 7 Work equipment	9-15