

CONTENTS

Foreword	0-1
Emission-related components warranty (USA and CANADA only)	0-1-1
Before servicing this machine	0-2
EC regulation approved	0-3
Table to enter S/No and distribution	0-4
Safety labels	0-5
Machine data plate	0-21
Guide (direction, S/No, symbol)	0-22

SAFETY RULES

1. California proposition 65	1-1
2. Safety rules	1-2

SPECIFICATIONS

1. Major components	2-1
2. Specifications	2-2
3. Working range	2-4
4. Weight	2-5
5. Lifting capacities	2-6
6. Bucket selection guide	2-9
7. Undercarriage	2-11
8. Specification for major components	2-13
9. Recommended oils	2-16

CONTROL DEVICES

1. Cab devices	3-1
2. Cluster	3-2
3. Switches	3-31
4. Levers and pedals	3-36
5. Air conditioner and heater	3-38
6. Others	3-42

OPERATION

1. Suggestion for new machine	4-1
2. Check before starting the engine	4-2
3. Starting and stop the engine	4-3
4. Mode selection system	4-7
5. Operation of the working device	4-12
6. Traveling of the machine	4-13

7. Efficient working method	4-16
8. Operation in the special work sites	4-20
9. Normal operation of excavator	4-22
10. Attachment lowering	4-23
11. Storage	4-24
12. RCV lever operating pattern	4-26

TRANSPORTATION

1. Preparation for transportation	5-1
2. Dimension and weight	5-2
3. Loading the machine	5-6
4. Fixing the machine	5-8
5. Loading and unloading by crane	5-9

MAINTENANCE

1. Instruction	6-1
2. Tightening torque	6-6
3. Fuel, coolant and lubricants	6-9
4. Maintenance check list	6-11
5. Maintenance chart	6-16
6. Service instruction	6-18
7. Electrical system	6-42
8. Air conditioner and heater	6-45

TROUBLESHOOTING GUIDE

1. Engine	7-1
2. Electrical system	7-2
3. Others	7-3

HYDRAULIC BREAKER AND QUICK CLAMP

1. Selecting hydraulic breaker	8-1
2. Circuit configuration	8-2
3. Maintenance	8-3
4. Precaution while operating the breaker	8-4
5. Quick clamp	8-6

INDEX	9-1
-------------	-----