

CONTENTS

Foreword	0-1	9. Normal operation of excavator	4-22
Before servicing this machine	0-2	10. Attachment lowering	4-23
EC regulation approved	0-3	11. Storage	4-24
Table to enter S/No and distribution	0-4	12. RCV lever operating pattern	4-26
Safety labels	0-5	13. Switching hydraulic attachment circuit	4-28
Machine data plate	0-19		
Guide (direction, S/No, symbol)	0-20		
SAFETY HINTS			
1. Before operating the machine	1-1	1. Preparation for transportation	5-1
2. During operating the machine	1-16	2. Dimension and weight	5-2
3. During maintenance	1-23	3. Loading the machine	5-6
4. Parking	1-26	4. Fixing the machine	5-8
5. Loading and unloading by crane	5-9		
SPECIFICATIONS			
1. Major components	2-1	1. Instruction	6-1
2. Specifications	2-2	2. Tightening torque	6-6
3. Working range	2-5	3. Fuel, coolant and lubricants	6-9
4. Weight	2-8	4. Maintenance check list	6-11
5. Lifting capacities	2-11	5. Maintenance chart	6-16
6. Bucket selection guide	2-18	6. Service instruction	6-18
7. Undercarriage	2-20	7. Electrical system	6-42
8. Specification for major components	2-22	8. Air conditioner and heater	6-45
9. Recommended oils	2-26		
CONTROL DEVICES			
1. Cab devices	3-1	1. Engine	7-1
2. Cluster	3-2	2. Electrical system	7-2
3. Switches	3-25	3. Others	7-3
4. Levers and pedals	3-30		
5. Air conditioner and heater	3-32		
6. Others	3-36		
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		
13. Switching hydraulic attachment circuit	4-28		
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		
AMPHIBIOUS EXCAVATOR SERIES			
1. Safety operation	9-1		
2. Basic machine operation	9-5		
3. Undercarriage maintenance	9-9		
4. Assembly manual	9-18		
INDEX	10-1		