



WARNING

CALIFORNIA PROPOSITION 65

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

91K4-07310-EN

⚠ Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

※ For more information go to www.P65warnings.ca.gov/diesel.

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
Machine data plate	0-5
Guide (direction, S/No, symbol)	0-6

SAFETY HINTS

1. Safety instructions	1-2
2. Safety labels	1-31

OPERATION

1. Instruction for new machine	2-1
2. Check before starting the engine	2-2
3. Starting and stopping the engine	2-3
4. Mode selection system	2-7
5. Operation of the working device	2-12
6. Traveling of the machine	2-13
7. Efficient working method	2-16
8. Operation in the special work sites	2-20
9. Normal operation of excavator	2-22
10. Attachment lowering	2-23
11. Storage	2-24
12. RCV lever operating pattern	2-26
13. Exhaust system cleaning	2-28

CONTROL DEVICES

1. Cab devices	3-1
2. Cluster	3-2
3. Switches	3-40
4. Levers and pedals	3-45
5. Others	3-47
6. 2DMG+ system	3-79

MAINTENANCE

1. Instruction	4-1
2. Tightening torque	4-6

3. Fuel, coolant and lubricants	4-9
4. Maintenance check list	4-10
5. Maintenance chart	4-16
6. Service instruction	4-19
7. Electrical system	4-54
8. Air conditioner and heater	4-57

TRANSPORTATION

1. Preparation for transportation	5-1
2. Dimension and weight	5-2
3. Loading the machine	5-5
4. Fixing the machine	5-7
5. Loading and unloading by crane	5-8

TROUBLESHOOTING GUIDE

1. Engine	6-1
2. Electrical system	6-2
3. Others	6-3

SPECIFICATIONS

1. Major components	7-1
2. Specifications	7-2
3. Working range	7-5
4. Weight	7-6
5. Lifting capacities	7-7
6. Bucket selection guide	7-16
7. Undercarriage	7-18
8. Specification for major components	7-20
9. Recommended oils	7-23

HYDRAULIC BREAKER AND QUICK COUPLER

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 coupler	8-6

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