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KOMATSU PC650, PC650LC, PC650SE

KOMATSU PC650, PC650LC, PC650SE Hydraulic Excavator

Operation, Maintenance, Service, and Repair Manual

INTRODUCTION

This manual provides comprehensive information for the operation, maintenance, service, and repair of KOMATSU PC650-5, PC650LC-5, and PC650SE-5 Hydraulic Excavators, including models with serial numbers A25001 and up. It contains detailed instructions, illustrations, and diagrams to assist in all aspects of machine management, from routine maintenance to complex repairs and troubleshooting.

The content is structured to provide clear, step-by-step guidance for assembly, disassembly, and system diagnostics, ensuring efficient and effective machine upkeep.

MANUAL OVERVIEW

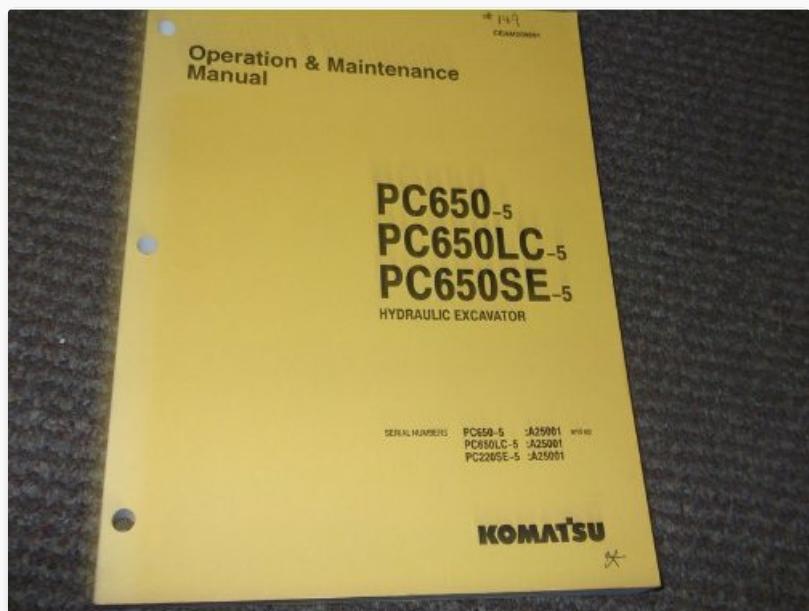


Figure 1: Front cover of the official KOMATSU Operation & Maintenance Manual for PC650, PC650LC, and PC650SE Hydraulic Excavators. The cover is yellow with black text, indicating "Operation & Maintenance Manual" at the top, followed by "PC650-5, PC650LC-5, PC650SE-5 HYDRAULIC EXCAVATOR" and serial number ranges. The KOMATSU logo is visible at the bottom.

This manual is an essential resource for technicians and operators. It covers a wide range of topics, ensuring that all

necessary information is readily available for maintaining the optimal performance and longevity of your Komatsu hydraulic excavator.

SETUP AND INITIAL INSPECTION

Before operating the excavator, a thorough setup and initial inspection are crucial. This section details the procedures for preparing the machine for first use or after transport.

- **Fluid Level Checks:** Verify engine oil, hydraulic fluid, coolant, and fuel levels. Refer to the specifications section for correct fluid types and capacities.
- **Battery Connection:** Ensure battery terminals are clean and securely connected.
- **Track Tension:** Inspect and adjust track tension as required for the operating conditions.
- **Safety Devices:** Confirm all safety interlocks, alarms, and emergency stop buttons are functional.
- **Visual Inspection:** Check for any visible damage, loose fasteners, or leaks.

OPERATING PROCEDURES

This section outlines the correct procedures for operating the KOMATSU PC650 series hydraulic excavators safely and efficiently.

Starting the Engine

1. Ensure the parking brake is engaged and the control levers are in neutral.
2. Insert the key into the ignition switch and turn it to the ON position.
3. Wait for the pre-heat indicator to turn off (if applicable).
4. Turn the key to the START position and release once the engine starts. Do not crank for more than 15 seconds.

Basic Operation

- **Travel:** Use the travel levers/pedals to move the machine forward or backward.
- **Swing:** Operate the swing control lever to rotate the upper structure.
- **Boom, Arm, Bucket:** Utilize the multi-function control levers for precise movement of the boom, arm, and bucket.

MAINTENANCE SCHEDULE AND PROCEDURES

Regular maintenance is vital for the longevity and performance of your excavator. This section provides detailed maintenance schedules and procedures.

Daily Checks (Before Operation)

- Check engine oil level.
- Inspect hydraulic oil level.
- Check coolant level.
- Drain water and sediment from the fuel tank.
- Inspect tracks and undercarriage for damage.

50-Hour / Weekly Maintenance

- Lubricate all grease points.
- Check fan belt tension.
- Inspect air cleaner element.

250-Hour / Monthly Maintenance

- Change engine oil and filter.
- Replace fuel filter element.
- Check hydraulic oil filter.

For detailed instructions on each maintenance task, refer to the specific chapters within the full manual.

TROUBLESHOOTING GUIDE

This section provides a basic guide to common issues and their potential solutions. For complex problems, consult a qualified technician or refer to the detailed troubleshooting charts in the complete service manual.

Problem	Possible Cause	Solution
Engine will not start	Low battery charge, fuel system issue, faulty starter	Check battery, inspect fuel lines/filters, test starter motor
Hydraulic system slow/weak	Low hydraulic fluid, clogged filter, pump issue	Check fluid level, replace filter, consult service manual for pump diagnostics
Overheating engine	Low coolant, clogged radiator, faulty thermostat	Check coolant, clean radiator fins, replace thermostat

SPECIFICATIONS

Key specifications for the KOMATSU PC650, PC650LC, and PC650SE Hydraulic Excavators.

- **Models Covered:** PC650-5, PC650LC-5, PC650SE-5
- **Applicable Serial Numbers:** A25001 and up (for PC650-5, PC650LC-5, PC220SE-5)
- **Manual Type:** Operation, Maintenance, Service, Shop, Repair Manual
- **Content:** Step-by-step instructions, assembly/disassembly, exploded illustrations/diagrams, troubleshooting.

Note: For detailed technical specifications such as engine type, power output, operating weight, and dimensions, please refer to the complete manual or the official Komatsu product documentation.

WARRANTY AND SUPPORT

For information regarding product warranty, please refer to the warranty documentation provided at the time of purchase or contact your authorized KOMATSU dealer. Technical support and genuine spare parts can be obtained through official KOMATSU service centers.

Contact Information:

Authorized KOMATSU Dealer: [Locate your nearest dealer](#)

KOMATSU Official Website: www.komatsu.com

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