# Shop Manual

# PC27R8

# **HYDRAULIC EXCAVATOR**

SERIAL NUMBERS PC27R-8 - F30671 and up

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# **A** IMPORTANT SAFETY NOTICE

Proper service and repair is extremely important for the safe operation of your machine.

The service and repair techniques recommended by Komatsu and describe in this manual are both effective and safe methods of operation. Some of these operations require the use of tools specially designed by Komatsu for the purpose.

To prevent injury to workers, the symbols and are used to mark safety precautions in this manual. The cautions accompanying these symbols should always be carefully followed. If any danger arises or may possibly arise, first consider safety, and take necessary steps to face.



### **GENERAL PRECAUTIONS**

Mistakes in operation extremely dangerous. Read all the Operation and Maintenance Manual carefully BEFORE operating the machine.

- Before carrying out any greasing or repairs, read all the precautions written on the decals which are suck on the machine.
- 2. When carrying out any operation, always wear safety shoes and helmet. Do not wear loose work clothes, or clothes with buttons missing.
  - Always wear safety glasses when hitting parts with a hammer.
  - Always wear safety glasses when grinding parts with a grinder, etc.
- If welding repairs are needed, always have a trained, experienced welder carry out the work.
   When carrying out welding work, always wear welding gloves, apron, glasses, cap and other clothes suited for welding work.
- 4. When carrying out any operation with two or more workers, always agree on the operating procedure before starting. Always inform your fellow workers before starting any step of the operation. Before starting work, hang UNDER REPAIR signs on the controls in the operator's compartment.
- 5. Keep all tools in good condition and learn the correct way to use them.
- Decide a place in the repair workshop to keep tools and removed parts. Always keep the tools and parts in their correct places. Always keep the work area clean and make sure that there is no dirt or oil on the floor.

Smoke only in the areas provided for smoking. Never smoke while working.

### PREPARATIONS FOR WORK

- 7. Before adding or making any repairs, park the machine on hard, level ground, and block the tracks to prevent the machine from moving.
- 8. Before starting work, lower blade, bucket or any other work equipment to the ground. If this is not possible, use blocks to prevent the work equipment from falling down. In addition, be sure to lock all the control levers and hang warning sign on them.
- 9. When disassembling or assembling, support the machine with blocks, jacks or stands before starting work.
- 10. Remove all mud and oil from the steps or other places used to get on and off the machine. Always use the handrails, ladders or steps when getting on or off the machine.

Never jump on or off the machine.

If it is impossible to use the handrails, ladders or steps, use a stand to provide safe footing.

## PRECAUTIONS DURING WORK

- 11. When removing the oil filler cap, drain plug or hydraulic pressure measuring plugs, loosen them slowly to prevent the oil from spurting out. Before disconnecting or removing components of the hydraulic circuit and engine cooling circuit, first remove the pressure completely from the circuit.
- 12. The water and oil in the circuits are not hot when the engine in stopped, so be careful not to get burned.

Wait for the oil water to cool before carrying out any work on the cooling water circuits.

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