Operation & Maintenance Manual

UEAM002603

PC228US-3

PC228USLC-3

HYDRAULIC EXCAVATOR

SERIAL NUMBER

PC228US-3	- 31936 and up
PC228USLC-3	- 31959 and up

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

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WORKING MODE

Working Mode

The mode selector switch can be used to switch the mode to match the operating conditions and purpose, thereby enabling work to be carried out efficiently.

Make effective use of each mode as follows.

When the starting switch is turned ON, the working mode is set to A mode (digging).

Use the working mode switch to set the mode to the most efficient mode to match the type of work.



Working mode	Applicable operations
A mode	Normal digging, loading operations (Operations with emphasis on productivity)
E mode	Normal digging, loading operations
L mode	When positioning work equipment exactly (fine-control operations)
B mode	Breaker operations

NOTICE
Do not use the heavy-duty operation mode for breaker operations. If breaker operations are carried out in the heavy-duty operation mode, there is a hazard that the hydraulic equipment may be damaged or broken.

Power Max and Shift Slowdown

The one-touch power max. Switch can be used during operations to increase the power. Make effective use of this function whenever necessary in combination with the working mode.

- Press the left knob switch and keep it pressed. The power is increased as long as the switch is being pressed. However, the increased power is automatically canceled after 8.5 seconds.
- This function is not actuated when the working mode is set to L mode or B mode.



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EVERY 1000 HOURS MAINTENANCE

Maintenance for every 100, 250 and 500 hours service should be carried out at the same time.

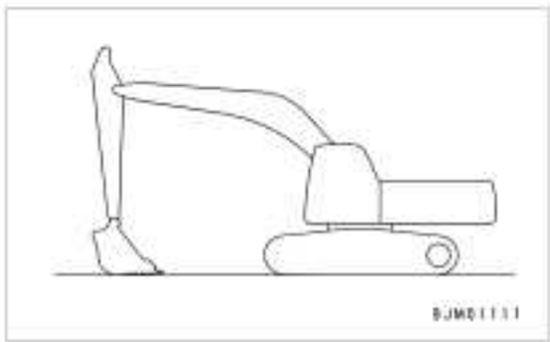
REPLACE HYDRAULIC OIL FILTER ELEMENT

⚠ WARNING

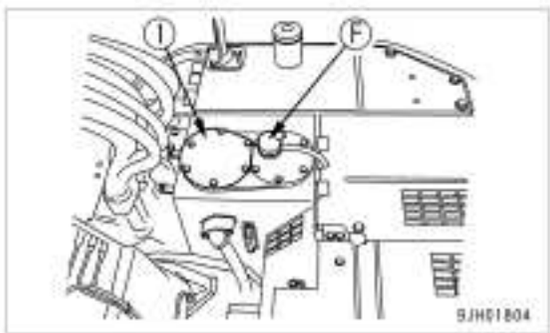
- **The parts and oil are at high temperature after the engine is stopped, and may cause burns. Wait for the temperature to go down before starting the work.**
- **When removing the oil filler cap, turn it slowly to release the internal pressure, then remove it.**

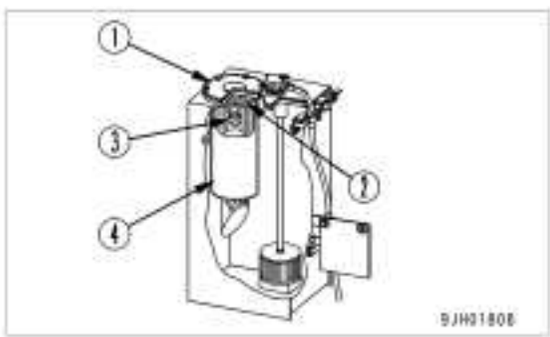
NOTICE
If the machine is equipped with a hydraulic breaker, the hydraulic oil will deteriorate much faster than during normal bucket operations. For details, see "MAINTENANCE INTERVAL FOR HYDRAULIC BREAKER (4-17)" when carrying out maintenance.

1. Set the work equipment on the hard and flat ground in the maintenance posture as shown in the figure, then lower it to the ground and stop the engine.



2. Remove the cap from oil filler (F), and release the internal pressure.
3. Loosen 6 bolts, then remove cover (1). When doing this, the cover may fly out under the force of spring (2), so hold the cover down when removing the bolts.
4. After removing spring (2) and valve (3), take out element (4).
   - Inspect the bottom of the filter case for dirt, and remove it, if any. Take good care then not to let fall the dirt into the hydraulic tank.
5. Clean the removed parts in diesel oil.
6. Install the new element in the place where old element (4) was installed.
7. Set valve (3) and spring (2) on top of the element.
8. Set cover (1) in position, push it down by hand, and install the cover with the mounting bolts.





9. Screw in the oil filler cap and install the cover.

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TRACK SHOES SELECTION

Select the most suitable track shoe to match the operating conditions.

Selection

Check the category from the uses in the table below, then select the shoes from the table below that.

- Category of use B and C are the wide shoe, so there are limits on the use. Check the precautions for use, examine the conditions of use thoroughly, and use the optimum shoes for the situation.
- When selecting the shoe width, choose the narrowest shoes possible to bring the machine within the range where there is no problem regarding the machine flotation and ground contact pressure. If wider shoes than necessary are used, the load on the track shoe will increase, so this may cause problems such as bending of the shoe, cracking of the link, damage of the pin, and looseness of the shoe bolts.

Category	Use	Precautions when using
A	Rocky ground, riverbeds, normal soil	•On rough ground with large obstacles such as boulders or fallen trees, travel at low speed.
B	Normal soil, soft ground	•These shoes cannot be used on rough ground where there are large obstacles such as boulders or fallen trees. •Travel at Hi or Mi speed only on flat ground, and if it is impossible to avoid going over obstacles, shift down and travel at half speed in Lo.
C	Extremely soft ground (swampy ground)	•Use the shoes only in places where the machine sinks and it is impossible to use A or B shoes. •These shoes cannot be used on rough ground where there are large obstacles such as boulders or fallen trees. •Travel at Hi or Mi speed only on flat ground, and if it is impossible to avoid going over obstacles, shift down and travel at half speed in Lo.
D	Paved road	•Take note of low grade ability due to the flat shoes and exercise a due care.
E	Paved road	•Be sure to follow the instructions set forth in the "Handling of Road Liner" section for the protection of the rubber pad shoes.

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	Specifications	Category	Specifications	Category
Standard	600mm Triple	A	700mm Triple	B
Option	600mm Road Liner (Rubber pat type)	E	600mm Road Liner (Rubber pat type)	E
Option	610mm Flat	D	610mm Flat	D
Option	700mm Triple	B	600mm Triple	A
Option	800mm Triple	C	800mm Triple	C
Option	860mm Swamp	C	860mm Swamp	C

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