

GROUP 11 TURNING JOINT

1. REMOVAL AND INSTALL

1) REMOVAL

- (1) Lower the work equipment to the ground and stop the engine.
- (2) Operate the control levers and pedals several times to release the remaining pressure in the hydraulic piping.
- (3) Loosen the breather slowly to release the pressure inside the hydraulic tank.

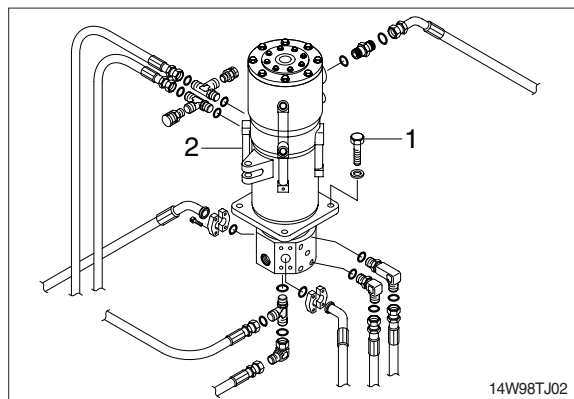
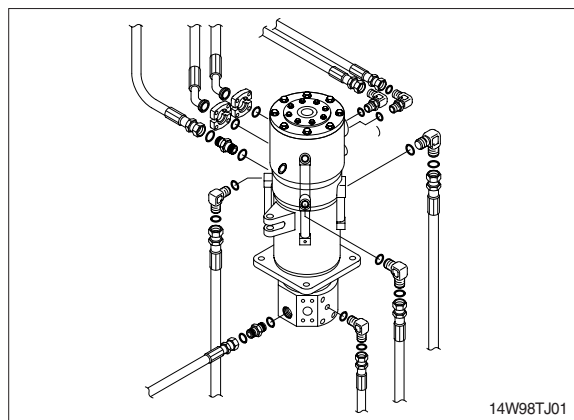
▲ Escaping fluid under pressure can penetrate the skin causing serious injury.

When pipes and hoses are disconnected, the oil inside the piping will flow out, so catch it in oil pan.

Disconnect all hoses.

- (4) Sling the turning joint assembly (1) and
- (5) remove the mounting bolt (2).
 - Weight : 120 kg (265 lb)
 - Tightening torque : $12.3 \pm 1.3 \text{ kgf} \cdot \text{m}$
($89 \pm 9.4 \text{ lbf} \cdot \text{ft}$)

- (6) Remove the turning joint (1) assembly.
 - ※ When removing the turning joint, check that all the hoses have been disconnected.

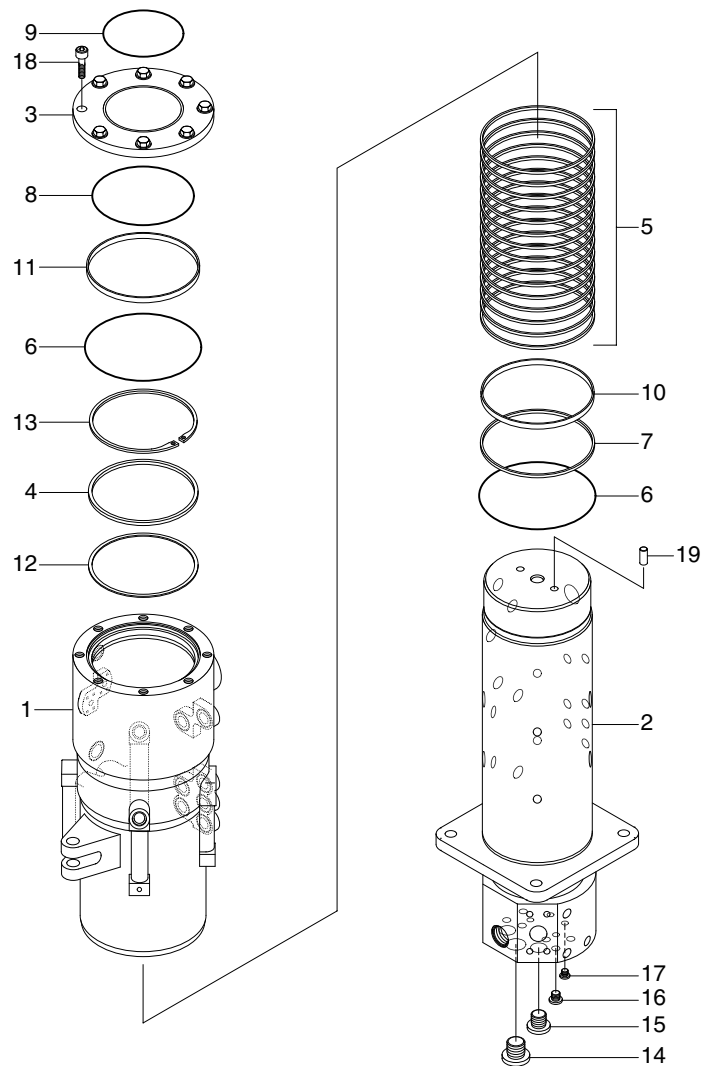


2) INSTALL

- (1) Carry out installation in the reverse order to removal.
 - ※ Take care of turning joint direction.
 - ※ Assemble hoses to their original positions.
 - ※ Confirm the hydraulic oil level and check the hydraulic oil leak or not.

2. DISASSEMBLY AND ASSEMBLY

1) STRUCTURE



- 1 Hub
- 2 Shaft
- 3 Cover
- 4 Spacer
- 5 Slipper seal
- 6 O-ring
- 7 O-ring

- 8 O-ring
- 9 O-ring
- 10 Wear ring
- 11 Wear ring
- 12 Shim
- 13 Retainer ring
- 14 Plug

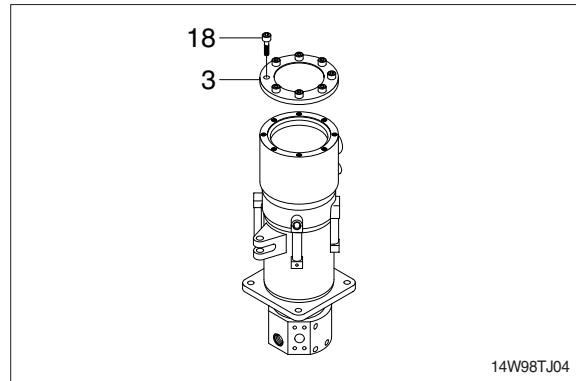
- 15 Plug
- 16 Plug
- 17 Plug
- 18 Socket bolt
- 19 Spring pin

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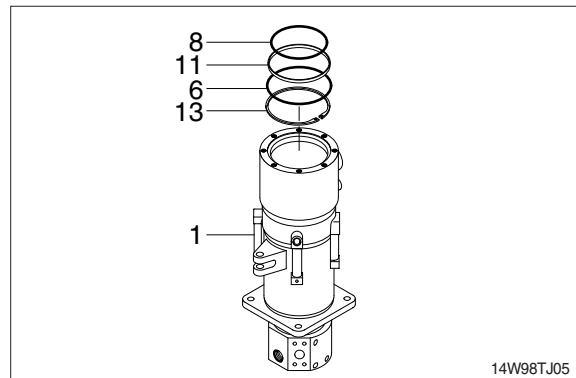
2) DISASSEMBLY

※ Before the disassembly, clean the turning joint.

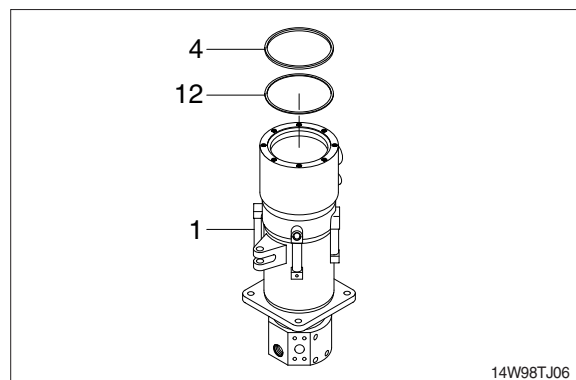
(1) Loosen the socket bolt (18) and remove cover (3).



(2) Remove O-ring (8), wear ring (11), O-ring (6) and retainer ring (13) from hub (1).



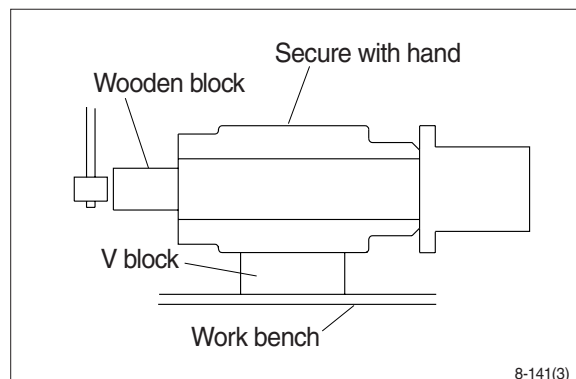
(3) Remove spacer (4) and shim (12) from hub (1).



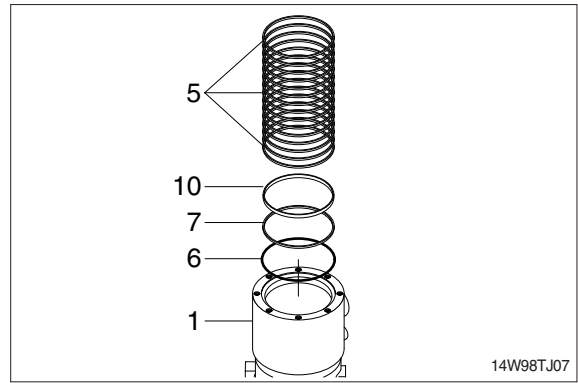
(4) Place hub (1) on a V-block and by using a wood buffer at the shaft end, hit out shaft (2) to about 1/2 from the hub with a hammer.

※ Take care not to damage the shaft (2) when remove hub (1) or rest it sideways.

※ Put a fitting mark on hub (1) and shaft (2).



(5) Remove seventeen slipper seal (5), O-ring (6, 7) and wear ring (10) from hub (1).

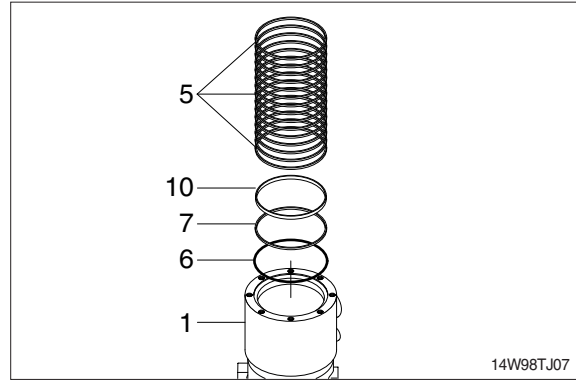


3) ASSEMBLY

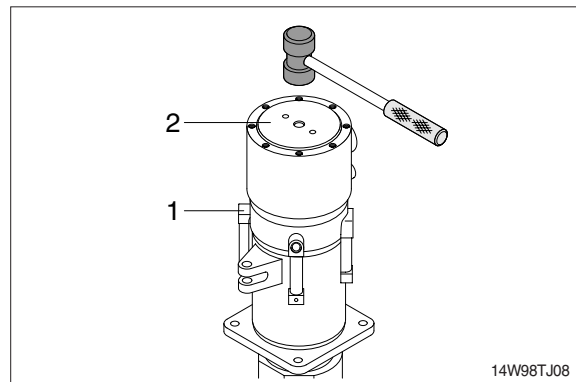
- ※ Clean all parts.
- ※ As a general rule, replace oil seals and O-ring.
- ※ Coat the sliding surfaces of all parts with engine oil or grease before installing.

(1) Fit O-ring (7), seventeen slipper seal (5), and wear ring (10).

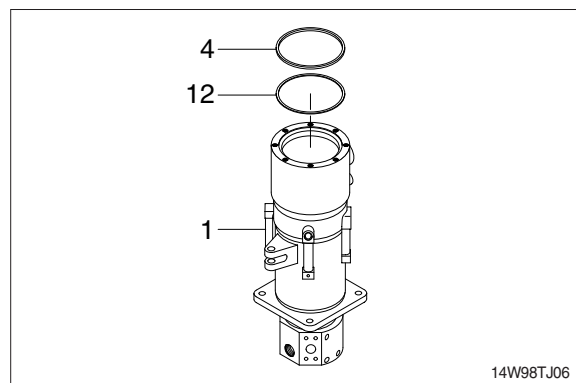
(2) Fit O-ring (6) to shaft (2).



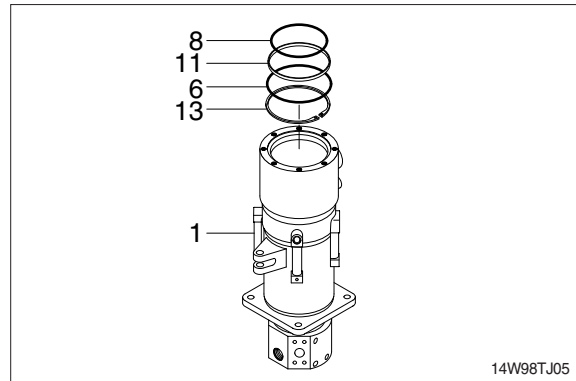
(3) Set shaft (2) on block, tap hub (1) with a plastic hammer to install.



(4) Fit shim (12), and spacer (4) to hub (1) of turning joint upside.



- (5) Fit retainer ring (13), O-ring (6) and wear ring (11) to shaft (2).
- (6) Fit O-ring (8) to hub (1).



- (7) Install cover (3) to hub and tighten bolts (18).
- Torque : $2.35 \pm 0.35 \text{ kgf} \cdot \text{m}$
($17.0 \pm 2.5 \text{ lbf} \cdot \text{ft}$)

