PART NO. WPD850-EN-01

HITACHI

Reliable solutions

Workshop Manual

ZW

180-6
180PL-6

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TOPD850-EN
Technical Manual (Troubleshooting)	: Vol. No.TTPD850-EN
Workshop Manual	: Vol. No.WPD850-EN

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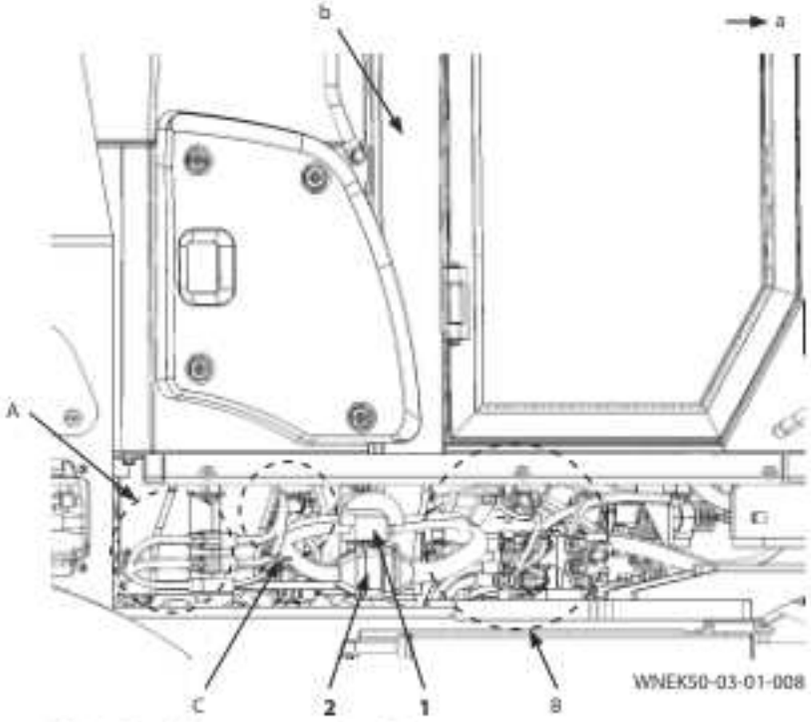
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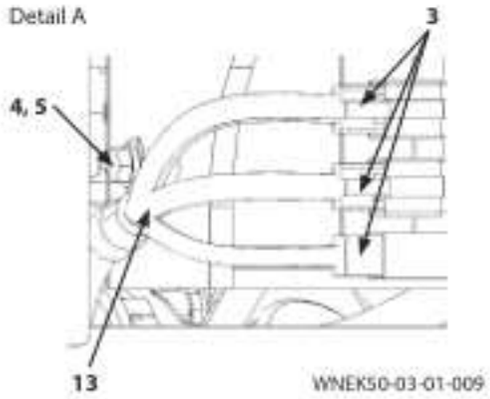
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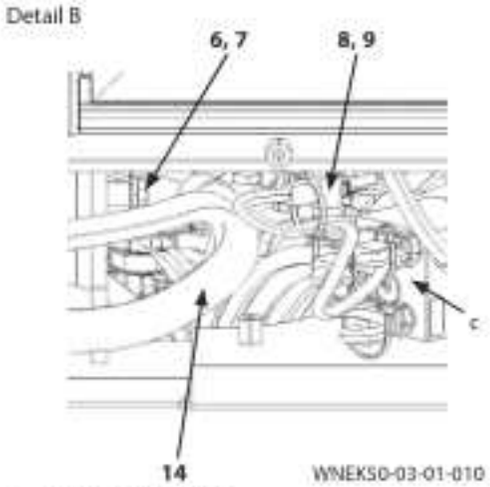
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a- Vehicle Front Side b- Cab





c- Flow Regulator Valve

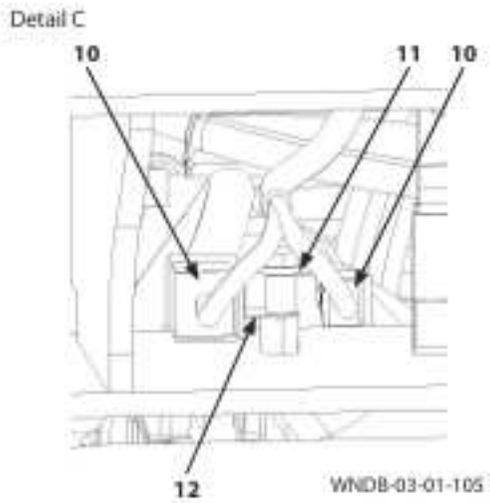
25. Install connectors (10) (2 used) to brackets (11, 12). Connect connectors (10) (2 used).
26. Secure wire harness (14) with bracket (7) and bolt, washer (6).

    : 17 mm

    : 50 N·m (37 lbf·ft)
27. Install connector (8) to bracket (9) (only for the machine with the ride control device). Connect connector (8).
28. Connect connectors (1, 2) and connectors (3) (3 used).
29. Secure harness (13) with clip (5) and bolt, washer (4).

    : 17 mm

    : 50 N·m (37 lbf·ft)



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Disassembly of Main Pump

CAUTION: Pump device weight: 83 kg

1. Secure the main pump assembly on a workbench with the regulator side up.

CAUTION: Front casing (00) weight: 36 kg (79.5 lb)

2. Remove socket bolts (33) (8 used) from front casing (00).

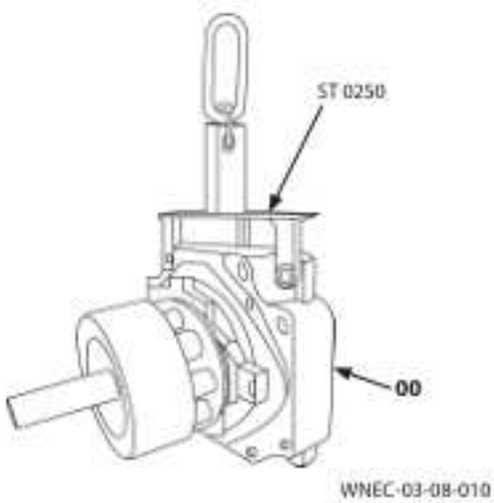
: 12 mm

IMPORTANT: Inner race (02) of the drive shaft (01) assembly cannot be replaced. Do not damage it.

IMPORTANT: Do not remove retaining ring (03) of the drive shaft (01) assembly.

IMPORTANT: Do not remove the restrictor pin (24) assembly and knock pin (23) of front casing (00) unless necessary.

3. Hoist front casing (00) by using the special tool (ST 0250). Remove the front casing (00) assembly and O-ring (17) from the pump casing (18) assembly.



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NOTE: When removing the front casing (00) assembly, raise the pump casing (18) assembly side a little in order to prevent the rotor (50B) assembly from falling off.

NOTE: The restrictor pin (24) assembly of front casing (00) may stay in the pump casing (18) assembly.

4. Place the front casing (00) assembly onto wooden pieces (120 mm square or more) with the rotor (50B) side up.

IMPORTANT: The valve plate (50A) side of rotor (50B) is a sliding surface. Do not damage it.

IMPORTANT: Do not remove knock pin (20) of valve plate (50A) unless necessary.

5. Remove the rotor (50B) assembly from drive shaft (01). Place the rotor (50B) assembly with the valve plate (50A) side down.

6. Remove retainer (15) and pistons (46) (7 used) from rotor (50B).

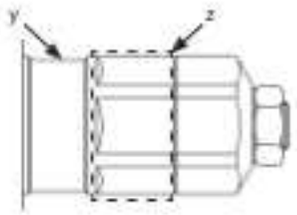
7. Remove bushing (14) and springs (13) (7 used) from the rotor (50B) assembly.

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- Installation of Overload Relief Valve (Bucket: Rod Side) (j)

IMPORTANT: If the overload relief valve has been disassembled, pressure should be adjusted. (Refer to TROUBLESHOOTING/Operational Performance Test in the separated volume, T/M.)

IMPORTANT: Place a spanner onto hexagonal part (z) of relief valve case (y).



y- Relief Valve Case z- Hexagonal Part

WNDF-03-09-021

25. Install O-ring (29A) to relief valve (29). Install relief valve (29) to housing (01).

    : 32 mm

    : 83 to 88 N·m (61.5 to 65 lbf·ft)

- Installation of Overload Relief Valve (Quick Coupler: Bottom Side) (m) and Overload Relief Valve (Quick Coupler: Rod Side) (n)

IMPORTANT: If the overload relief valve has been disassembled, pressure should be adjusted. (Refer to TROUBLESHOOTING/Operational Performance Test in the separated volume, T/M.)

IMPORTANT: Place a spanner onto the hexagonal part (z) of the relief valve case (y).

26. Install O-rings (36A) (2 used) to relief valves (36) (2 used). Install relief valves (36) (2 used) to housing (55).

    : 32 mm

    : 83 to 88 N·m (61.5 to 65 lbf·ft)

- Installation of Overload Relief Valves (Auxiliary Circuit) (q, r)

IMPORTANT: If the overload relief valve has been disassembled, pressure should be adjusted. (Refer to TROUBLESHOOTING/Operational Performance Test in the separated volume, T/M.)

IMPORTANT: Place a spanner onto the hexagonal part (z) of the relief valve case (y).

27. Install O-rings (30A) (2 used) to relief valves (30) (2 used). Install relief valves (30) (2 used) to housing (55).

    : 32 mm

    : 83 to 88 N·m (61.5 to 65 lbf·ft)

- Assembly of Low-Pressure Relief Valve (e)

28. Install poppet (45) and spring (46) to housing (01). Install O-ring (25) to plug (47). Install plug (47) to housing (01).

    : 36 mm

    : 177 to 206 N·m (131 to 152 lbf·ft)

29. Install O-ring (77A) to plug (77). Install plug (77) to housing (01).

    : 17 mm

    : 177 to 206 N·m (131 to 152 lbf·ft)

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