PART NO. WNHF-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZW

550-5B

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONHF-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNHF-EN
Workshop Manual	: Vol. No.WNHF-EN

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Safety Alert Symbol and Headline Notations

In this manual, the following safety alert symbol and signal words are used to alert the reader to the potential for personal injury of machine damage.

⚠ This is the safety alert symbol. When you see this symbol, be alert to the potential for personal injury.
Never fail to follow the safety instructions prescribed along with the safety alert symbol.
The safety alert symbol is also used to draw attention to component/part weights.
To avoid injury and damage, be sure to use appropriate lifting techniques and equipment when lifting heavy parts.

⚠ **CAUTION:**
Indicates potentially hazardous situation which could, if not avoided, result in personal injury or death.

IMPORTANT:
Indicates a situation which, if not conformed to the instructions, could result in damage to the machine.

NOTE:
Indicates supplementary technical information or know-how.

Units Used

SI Units (International System of Units) are used in this manual. MKSA system units and English units are also indicated in parentheses just behind SI units.

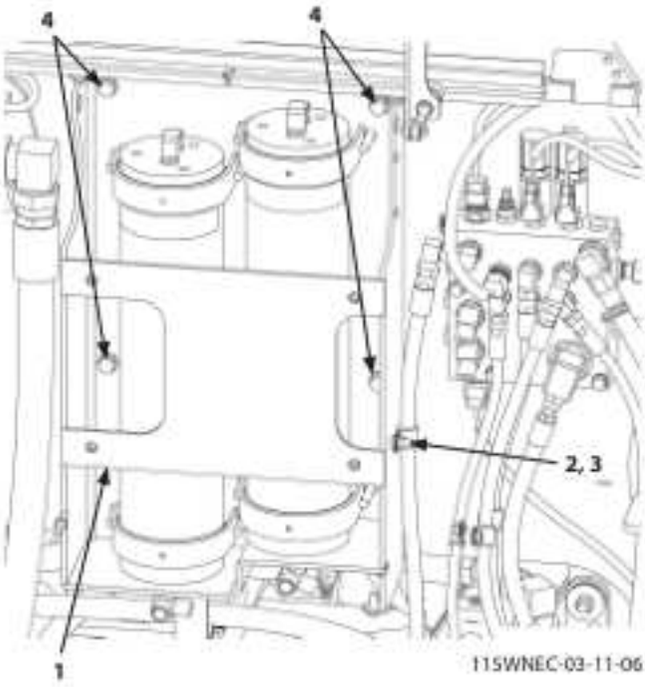
Example: 24.5 MPa (250 kgf/cm², 3560 psi)

A table for conversion from SI units to other system units is shown below for reference purposes.

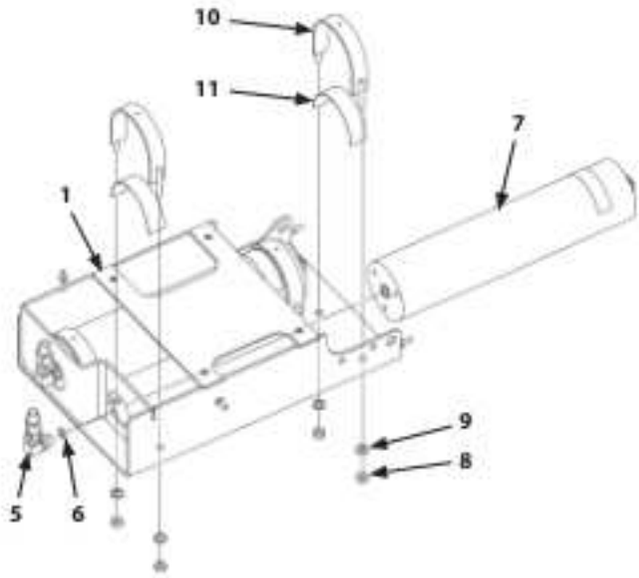
Quantity	To Convert From	Into	Multiply By
Length	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m^3	yd^3	1.308
Weight	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N·m	kgf·m	0.10197
Pressure	MPa	kgf/cm^2	10.197
	MPa	psi	145.0
Power	kW	PS	1.360
	kW	HP	1.341
Temperature	°C	°F	°C×1.8+32
Velocity	km/h	mph	0.6214
	min^{-1}	rpm	1.0
Flow rate	L/min	US gpm	0.2642
	mL/rev	cc/rev	1.0

NOTE: The numerical value in this manual might be different from the above-mentioned table.

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115WNEC-03-11-06



115WNEC-03-11-07

6. Remove nut (2) and clip (3) from accumulator assembly (1).

: 12 mm (0.47 in)

CAUTION: Accumulator assembly (1) weight: 62 kg (137 lbs)/each

7. Attach sling to accumulator assembly (1) and hold it temporarily.
Remove bolts (4) (4 used).

: 17 mm (0.67 in)

8. Remove accumulator assembly (1).

9. Remove adapter (5) and O-ring (6) from accumulator assembly (1).

: 27 mm (1.06 in)

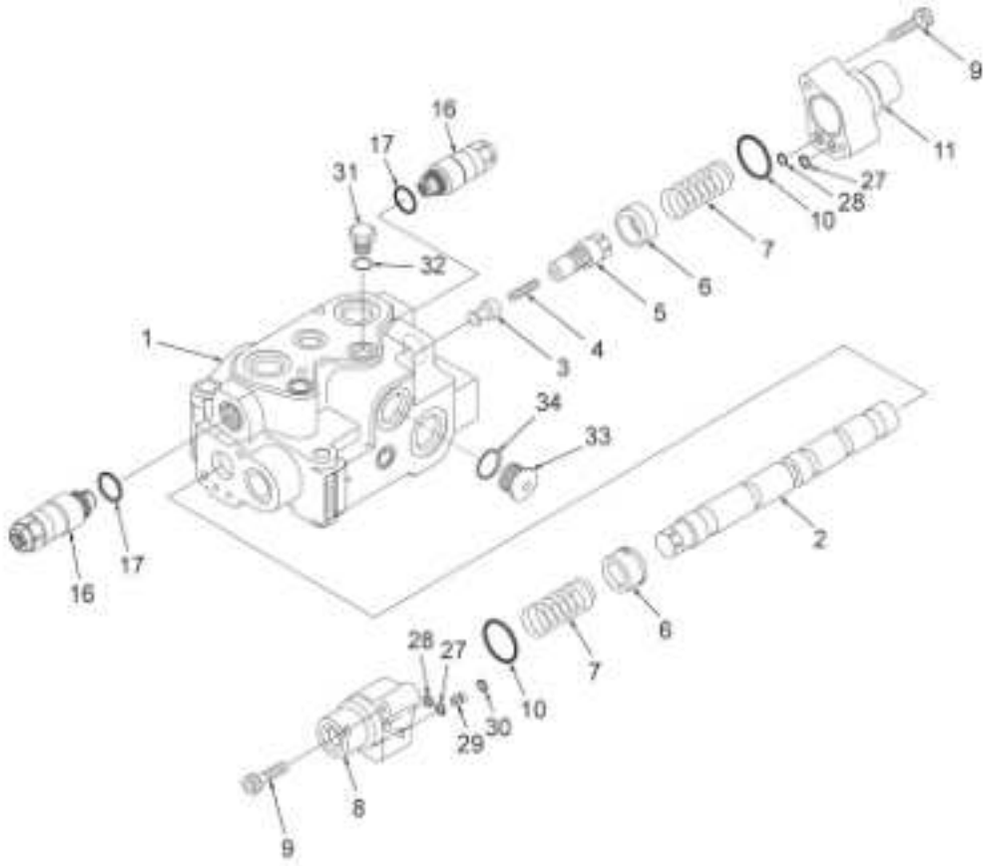
10. Remove lock nuts (8) (2 used), washers (9) (2 used), clamp (10), and rubber sheet (11).
Remove accumulator (7).

: 19 mm (0.75 in)

NOTE: Accumulator (7) weight: 19 kg (42 lbs)/each

11. Remove another accumulator in the same manner.

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Disassembly of Steering Valve

IMPORTANT: Do not disassemble the overload relief valve. If it has been disassembled, pressure should be adjusted. (Refer to TROUBLESHOOTING/ Operational Performance Test in the separated volume, Shop Manual.)

1. Remove overload relief valves (16) (2 used) with O-rings (17) (2 used) from valve housing (1).

   : 32 mm (1.26 in)

2. Remove plugs (31, 33) and O-rings (32, 34) from valve housing (1).

   : 36 mm (1.42 in)

   : 22 mm (0.87 in)

IMPORTANT: Spring (7) may fly out due to the spring force when removing cap (11).

3. Remove socket bolts (9) (2 used) from cap (11).

   : 8 mm (0.3 in)

4. Remove spring (7) and spring seat (6) from valve housing (1).

5. Remove O-rings (10, 27, and 28) from cap (11).

IMPORTANT: Spring (7) may fly out due to the spring force when removing cap (8).

6. Remove socket bolts (9) (2 used) from cap (8).

   : 8 mm (0.3 in)

7. Remove spring (7) and spring seat (6) from valve housing (1).

8. Remove O-rings (10, 27, and 28), sleeve (29) and O-ring (30) from cap (8).

IMPORTANT: Put the matching marks on valve housing (1) and spool (2) before disassembling.

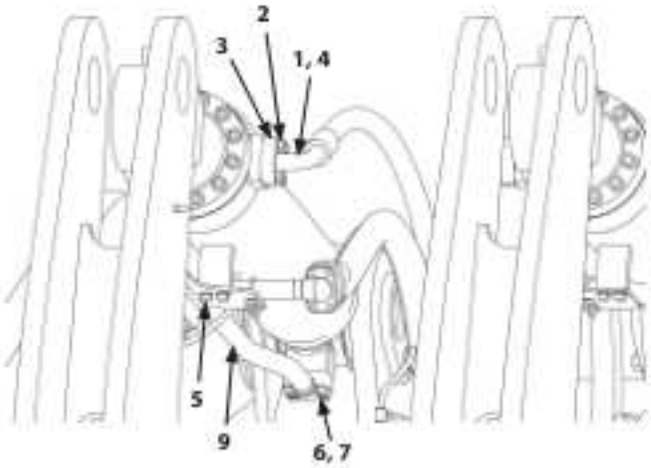
9. Remove the spool (2) assembly from valve housing (1).

10. Secure the spool (2) assembly in a vise by using wooden pieces.

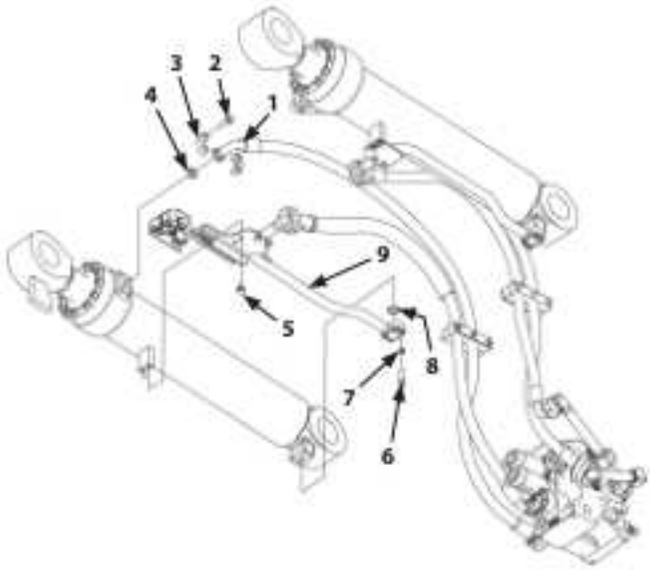
11. Remove cap screws (5) (2 used), springs (4) (2 used), and poppets (3) (2 used) from the main spool (2) assembly.

    : 17 mm (0.67 in)

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CAUTION: Bleed air from the hydraulic oil tank. (Refer to W1-4-1.)

CAUTION: Release any pressure in the front hydraulic circuit. (Refer to W1-5-1.)

12. Place a container under the disconnecting part of hose (1).

13. Remove bolts (2) (4 used) and flanges (3) (2 used). Disconnect hose (1). Remove O-ring (4). (On both sides)

    : 17 mm (0.67 in)

14. Place a container under the disconnecting part of pipe (9).

15. Remove bolts (5) (2 used), bolts (6) (4 used), and spring washer (7) (4 used). Disconnect pipe (9). Remove O-ring (8).

    : 17 mm (0.67 in)

    : 10 mm (0.4 in)

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