PART NO. WNDG-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZW150-5B

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONDG-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNDG-EN
Workshop Manual	: Vol. No.WNDG-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.

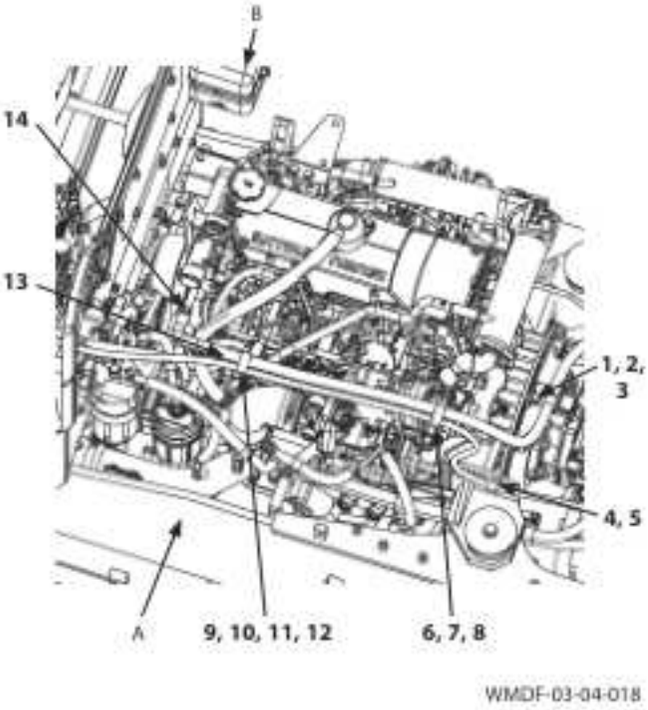
Example: 24.5 MPa (250 kgf/cm², 3560 psi)

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

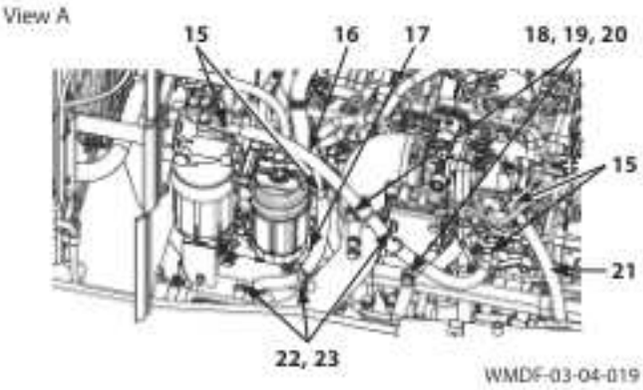
Quantity	To Convert From	Into	Multiply By
Length	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m^3	yd^3	1.308
Weight	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N·m	kgf·m	0.10197
Pressure	MPa	kgf/cm^2	10.197
	MPa	psi	145.0
Power	kW	PS	1.360
	kW	HP	1.341
Temperature	°C	°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.

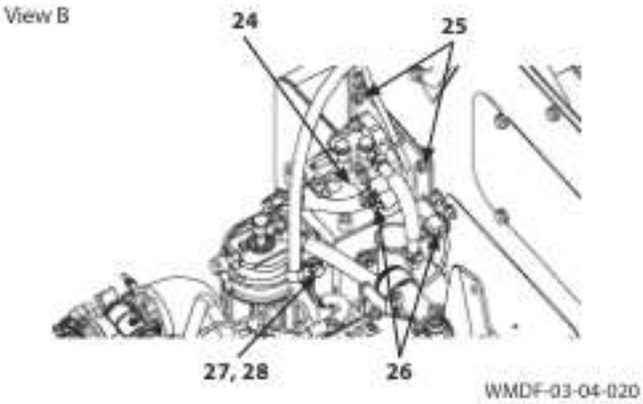
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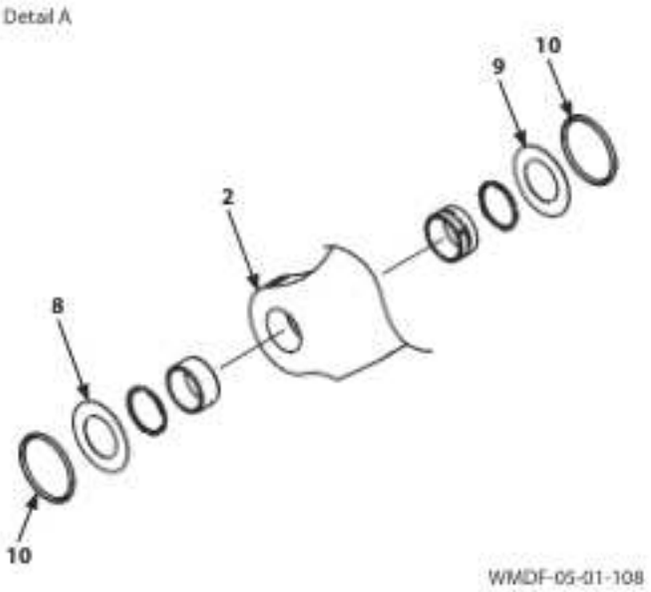
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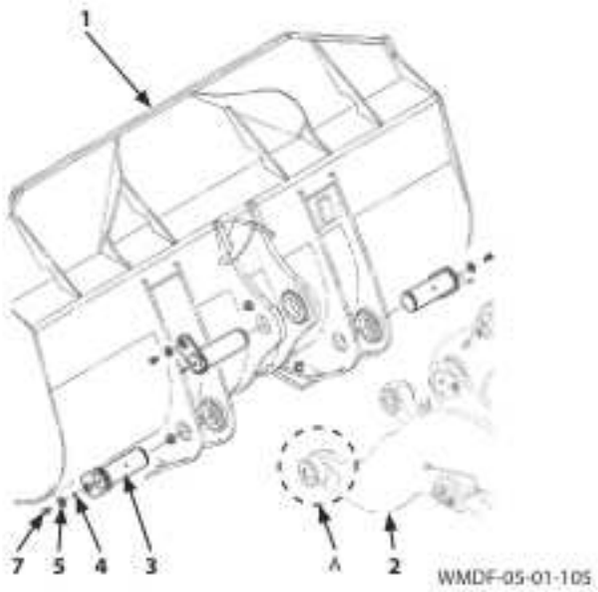


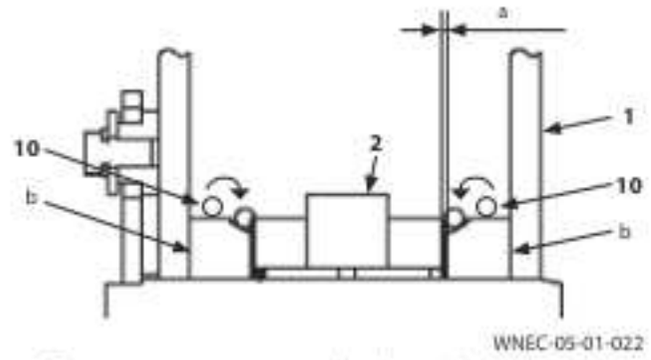
WMDF-03-04-020

49. Remove bolt, washer (1), nut (2), and clip (3).
    : 17 mm
50. Remove bolt, washer (4) and clip (5).
    : 17 mm
51. Remove bolt, washer (6) and clips (7, 8).
    : 17 mm
52. Remove bolt, washer (9), nut (10), and clips (11, 12).
    : 17 mm
53. Remove clamp (14). Disconnect hose (13).
    : 7 mm
54. Remove bolts, washers (18) (2 used), nuts (19) (2 used), and clips (20) (2 used).
    : 17 mm
55. Remove bolts, washers (22) (3 used) and clips (23) (3 used).
    : 17 mm
56. Remove clamps (15) (4 used). Disconnect the both ends of hose (16) and hoses (17, 21).
    : 7 mm
57. Remove bolt, washer (27) and clip (28).
    : 17 mm
58. Disconnect connectors (26) (2 used).
59. Remove bolts, washers (25) (4 used). Remove the fuel filter (24) assembly.
    : 17 mm

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a- Clearance b- Boss part

1. Install O-rings (10) (4 used) to the boss part (b) positions (4 places) of bucket (1).

CAUTION: Bucket (1) weight: 950 kg (2100 lb)

2. Attach nylon slings onto bucket (1). Hoist and hold bucket (1). Fit bucket (1) mounting holes to lift arm (2).

CAUTION: Metal fragments may fly off when a hammer is used. Wear necessary protection, such as goggles, hard hat, etc. in order to prevent personal injury.

3. Fit spacer (9) and shim (8) to the lift arm (2) mounting holes so that clearance (a) is adjusted within 1.5 mm (0.059 in). Install pin (3) to bucket (1) by using a hammer.

NOTE: Fit at least one spacer (9) or shim (8) to the both side of lift arm (2) mounting hole.

NOTE: Thickness of spacer (9): 2.3 mm (0.091 in), thickness of shim (8): 1.6 mm (0.063 in)

4. Install washer (5) and bolt, washer (7).
   - : 19 mm
   - : 90 N-m (9 kgf-m, 66 lbf-ft)
5. Install grease fitting (4). Apply grease.
   - : 10 mm
   - : 4 N-m (0.4 kgf-m, 3 lbf-ft)
6. Install another pin (3) in opposite side in the same way as step 3 to step 5.
7. Move O-rings (10) (4 used) which have installed to the boss part (b) positions (4 places) of bucket (1) to the connecting part of bucket (1) and lift arm (2).

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