PART NO. WNDF-EN-01

HITACHI

Reliable solutions

Workshop Manual

ZW

140-5B
140PL-5B

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONDF-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNDF-EN
Workshop Manual	: Vol. No.WNDF-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.

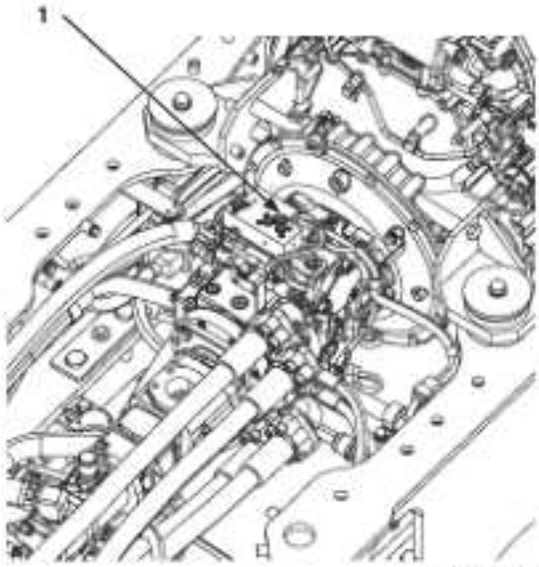
Example: 24.5 MPa (250 kgf/cm², 3560 psi)

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

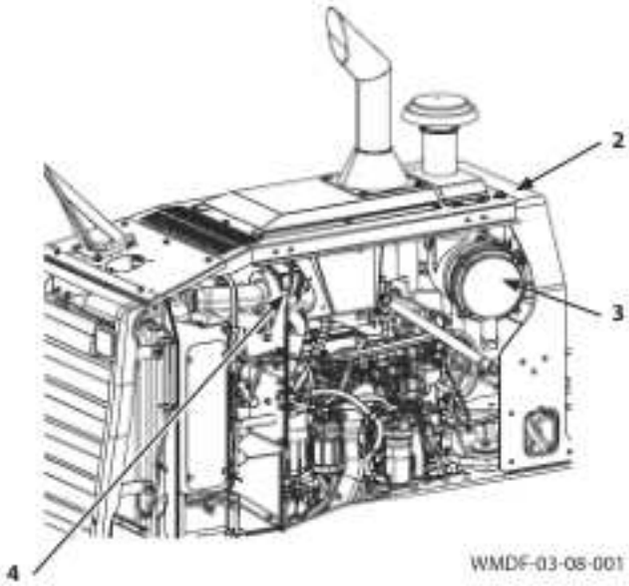
Quantity	To Convert From	Into	Multiply By
Length	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m^3	yd^3	1.308
Weight	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N·m	kgf·m	0.10197
Pressure	MPa	kgf/cm^2	10.197
	MPa	psi	145.0
Power	kW	PS	1.360
	kW	HP	1.341
Temperature	°C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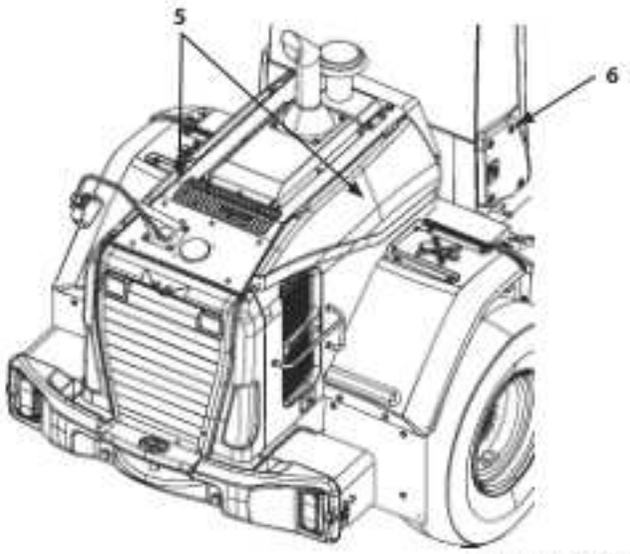


WMDF-03-08-001

22. Install pump device (1) and support (2). (Refer to W3-8-1.)
23. Install the air cleaner (3) assembly. (Refer to W3-4-3.)
24. Install the muffler filter (4) assembly. (Refer to W3-17-1.)
25. Install cab (6). (Refer to W3-1-1.)

IMPORTANT: Check the hydraulic oil level and transmission oil level. Start the engine and check for any oil leaks.

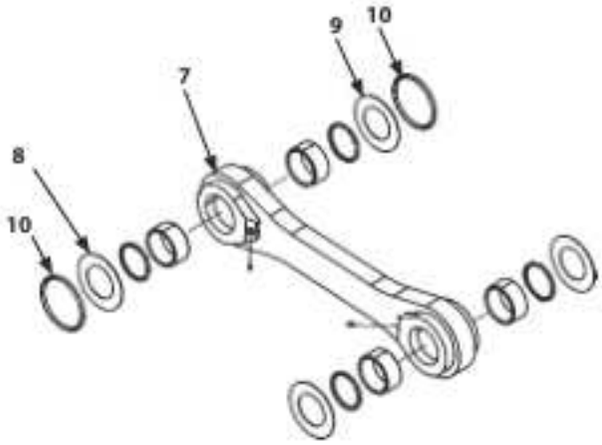
26. Install side covers (5) at right and left sides. (Refer to W3-4-2.)



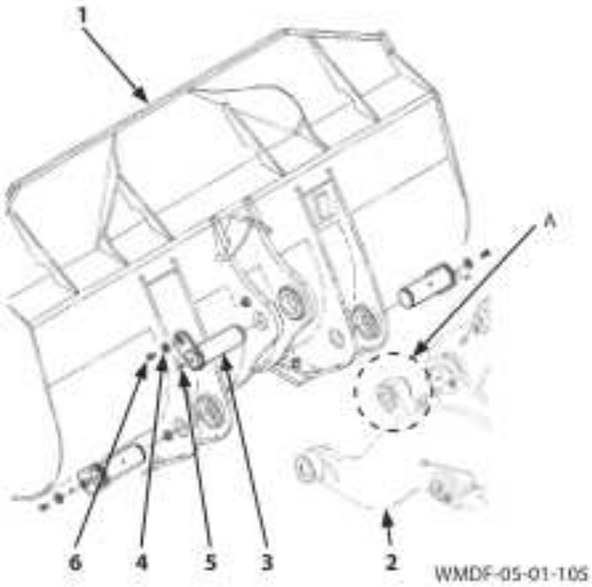
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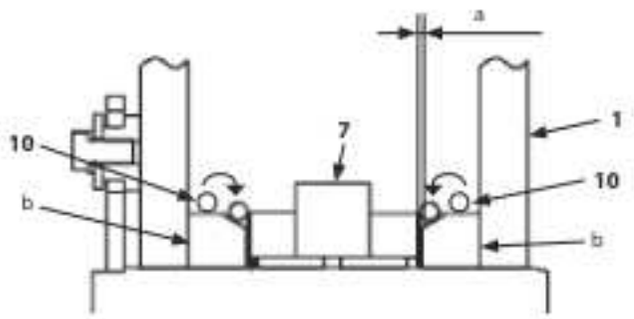
Detail A



WMDF-05-01-107



WMDF-05-01-105



WNEC-05-01-019

a- Clearance b- Boss part

8. Install O-rings (10) (2 used) to the boss part (b) positions (2 places) of bucket (1).

CAUTION: Bucket link (7) weight: 38 kg (84 lb)

9. Attach nylon slings onto bucket link (7). Hoist and hold bucket link (7).
10. Start the engine. Operate the bucket cylinder. Fit bucket link (7) mounting holes to bucket (1). Stop the engine.

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.

11. Fit spacer (9) and shim (8) to bucket link (7) 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 bucket link (7) mounting hole.

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

12. Install washer (4) and bolt, washer (6).

: 19 mm

: 90 N-m (9 kgf-m, 66 lbf-ft)

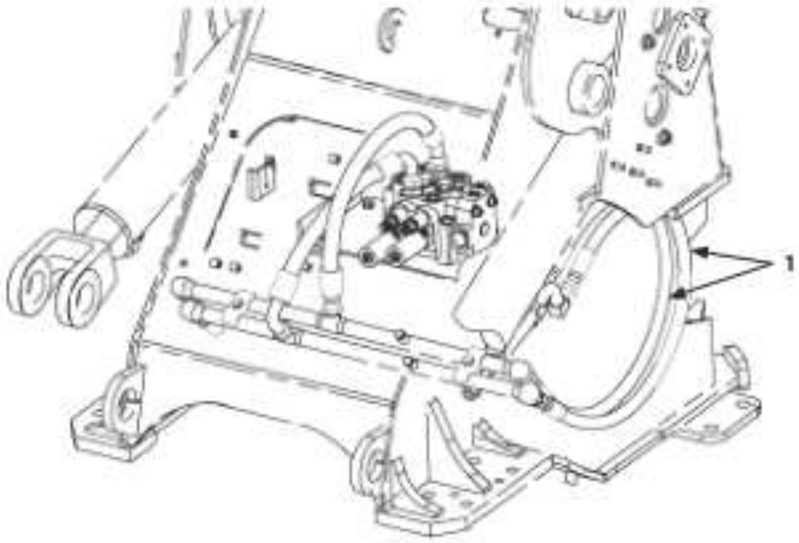
13. Install grease fitting (5). Apply grease.

: 10 mm

: 4 N-m (0.4 kgf-m, 3 lbf-ft)

14. Move O-rings (10) (2 used) which have installed to the boss part (b) positions (2 places) of bucket (1) to the connecting part of bucket (1) and bucket link (7).

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

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

10. Disconnect hoses (1) (2 used).

    : 36 mm

11. Disconnect other hoses (1) (2 used) in the same way as step 10.

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