PART NO. WDDW90-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZX
300-5A
300LC-5A
300LCH-5A

Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODDW90-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDDW90-EN
Workshop Manual	: Vol. No.WDDW90-EN
Engine Manual	: Vol. No.EDDW-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)

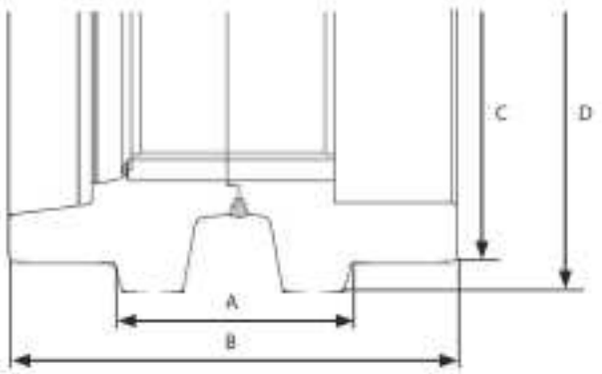
A table for conversion from SI units to other system units is shown below for reference purposes.

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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Upper Roller



WDDE-02-02-001

Unit: mm

	Standard	Allowable Limit	Remedy
A	100	[94]	Replace
B	190	-	
C	150	[144]	
D	175	-	

NOTE: Values in [ ] are just for reference.

Axle and Bushing

Unit: mm

		Standard	Allowable Limit	Remedy
Axle	Outer Diameter	55	[54.2]	Replace
Bushing	Inner Diameter	55	[55.8]	
	Flange Thickness	2.0	[1.6]	

NOTE: Values in [ ] are just for reference.

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CAUTION: The casing (2) assembly weight: 50 kg (115 lb)

11. Place casing (2) with the input shaft side down onto the workbench. Apply THREEBOND #1215 to the main pump (32) mounting surface.

    Workbench: ST 5050

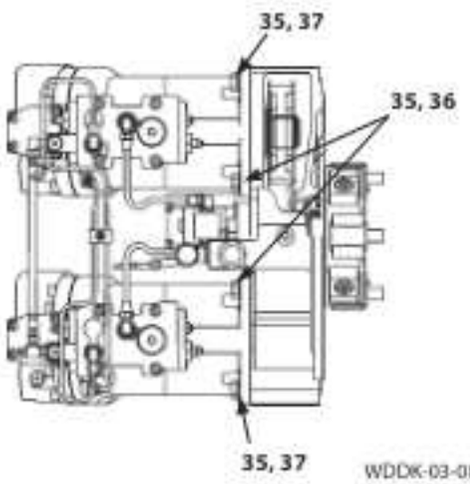
CAUTION: Main pump (32) weight: 67 kg (150 lb)

12. Install eyebolts (M12, Pitch 1.75 mm) (2 used) to main pump (32). Attach nylon slings onto the eyebolts. Hoist main pump (32).

13. Install main pump (32) to casing (2) with spring washers (37) (2 used), seal washers (36) (2 used), and bolts (35) (4 used).

    : 24 mm

    : 150 N·m (15 kgf-m, 111 lbf-ft)



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14. Install other main pump (32) in the same way as step 12 to step 13.

15. Apply THREEBOND #1215 to the pilot pump (2) mounting surface of casing (2). Install pilot pump (19) to casing (2) with washers (22) (2 used), spring washers (20) (2 used), and socket bolts (18) (2 used).

    : 8 mm

    : 50 N·m (5 kgf-m, 37 lbf-ft)

16. Install packing (66) and pipe (64) to casing (2) with socket bolts (65) (2 used).

    : 6 mm

    : 20 N·m (2 kgf-m, 15 lbf-ft)

17. Install O-ring (85) to adapter (23). Apply grease to adapter (23). Install adapter (23) to pilot pump (19).

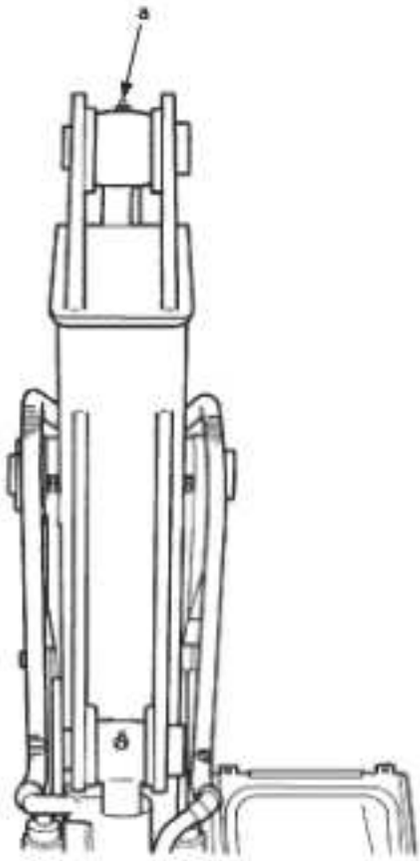
    : 27 mm

    : 95 N·m (9.5 kgf-m, 70 lbf-ft)

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13. Apply grease to grease fitting (a) at the cylinder rod side.

IMPORTANT: After completing the work, operate the arm cylinder to the stroke end several times and bleed air from the circuit.



a- Grease Fitting at Cylinder Rod Side

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