PART NO. WDAY90-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZX135US-5A

Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODAY90-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDAY90-EN
Workshop Manual	: Vol. No.WDAY90-EN
Engine Manual	: Vol. No.EDBL-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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Pin



W142-03-07-004

Unit: mm

	Standard	Allowable Limit	Remedy
A	175	-	Replace
B	33.5	[30.5]	

NOTE: Values in [ ] are just for reference.

Bushing



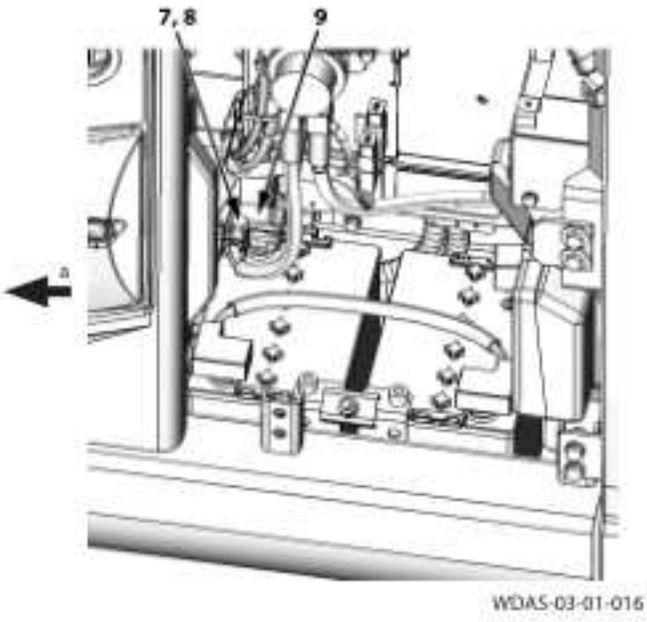
WDDQ50-02-02-001

Unit: mm

	Standard	Allowable Limit	Remedy
A	117.4	-	Replace
B	34.1	[35.1]	
C	50.72	[45.72]	

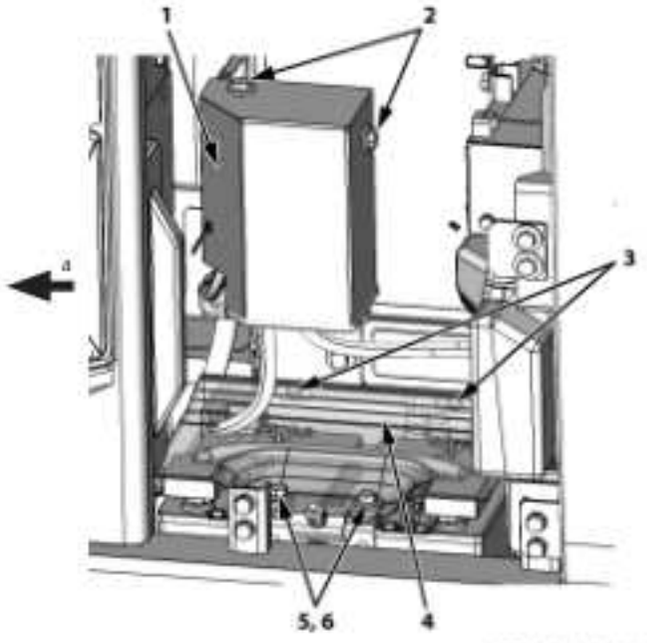
NOTE: Values in [ ] are just for reference.

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WDAS-03-01-016

a- Machine Front Side



a- Machine Front Side

WDAS-03-15-003

34. Remove bolts, washers (5) (2 used) and washers (6) (2 used). Remove cover (4).

    : 17 mm

35. Connect harness (8) with bolt, washer (7).

    : 17 mm

    : 50 N·m

36. Install cover (9).
37. Install cover (4) with clips (3) (2 used).
38. Install washers (6) (2 used) and bolts, washers (5) (2 used).

    : 17 mm

    : 50 N·m

39. Install cover (1) with bolts, washers (2) (2 used).

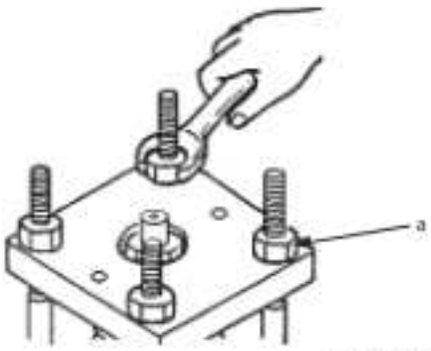
    : 17 mm

    : 50 N·m

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12. Install nuts (a) (4 used) of the special tool (ST 4920). Secure the spring (02) assembly.

: 46 mm



W105-03-04-012

a- Nut

13. Operate an oil jack. Compress spring (02) to the specified length.

NOTE: Specified spring length: 407 mm

14. Install nut (08) to rod (008).

: 65 mm

15. Install plug (09) to nut (08).

: 5 mm

: 15 N·m

16. Install valve (10) to rod (008).

: 24 mm

: 90 N·m

17. Lower the oil jack.

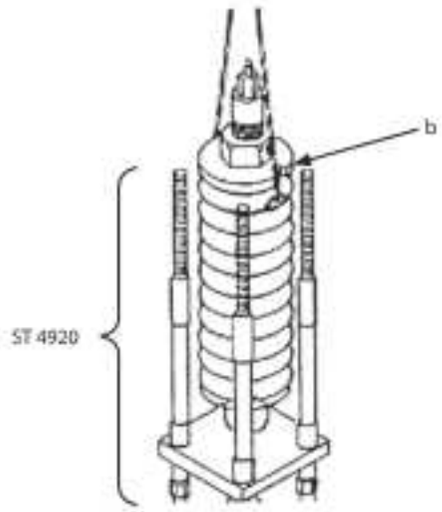
CAUTION: Special tool (ST 4036) weight: 34 kg

18. Attach nylon slings onto the eyebolts (2 used) of special tool (ST 4036). Hoist and hold special tool (ST 4036). Remove nuts (a) (4 used) from special tool (ST 4920). Hoist and remove special tool (ST 4036) from special tool (ST 4920).

: 46 mm

CAUTION: Track adjuster (b) weight: 57 kg

19. Attach nylon slings onto track adjuster (b). Hoist track adjuster (b). Remove track adjuster (b) from special tool (ST 4920).



WDAD-04-04-002

b- Track Adjuster

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