PART NO. WJBE-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZX
870-5G
870LC-5G
870H-5G
870LCH-5G
870LCR-5G

Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TOJBE-EN
Technical Manual (Troubleshooting)	: Vol. No.TTJBE-EN
Workshop Manual	: Vol. No.WJBE-EN

MidWestTech | Hitachi ZX870-5G, ZX870LC-5G, ZX870H-5G, ZX870LCH-5G, ZX870LCR-5G, Excavator Workshop Service Manual | Publication WJBE-EN-00

Order the manual at mid-west-tech.com >

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:**
Indicated 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.

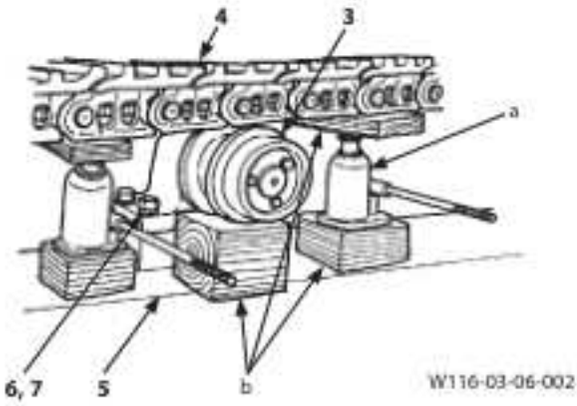
Example: 24.5 MPa (250 kgf/cm², 3560 psi)

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

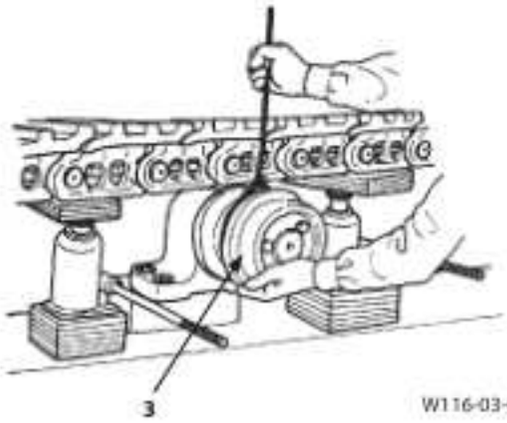
Quantity	To Convert From	Into	Multiply By
Length	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m^3	yd^3	1.308
Weight	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N·m	kgf·m	0.10197
Pressure	MPa	kgf/cm^2	10.197
	MPa	psi	145.0
Power	kW	PS	1.360
	kW	HP	1.341
Temperature	°C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

MidWestTech | Hitachi ZX870-5G, ZX870LC-5G, ZX870H-5G, ZX870LCH-5G, ZX870L... Order the manual at mid-west-tech.com >

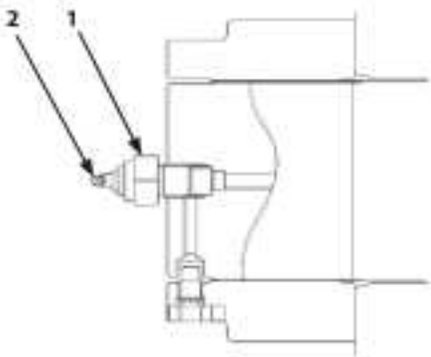


W116-03-06-002

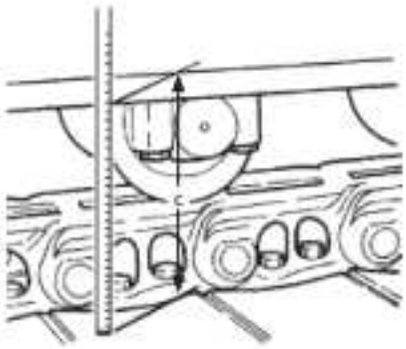


W116-03-06-003

a- Oil Jack
b- Wooden Block



W800-03-07-002



Wxxx-03-07-001

c - Track Sag Specification

Installation

CAUTION: Upper roller (3) weight: 82 kg (185 lb)

1. Attach nylon slings onto the body of upper roller (3). Hoist upper roller (3).
2. Apply LOCTITE #262 onto bolts (6) (4 used)
3. Install upper roller (3) with washers (7) (4 used) and bolts (6) (4 used).

   : 32 mm

   : 750 N·m (75 kgf·m, 550 lbf·ft)
4. Remove wooden blocks (b) and oil jack (a) between track (4) and track frame (5).
5. Tighten valve (1) of the track adjuster.

   : 24 mm

   : 150 N·m (15 kgf·m, 111 lbf·ft)

CAUTION: Securely support the raised machine by using the blocks.

6. Raise the track to be adjusted. Rotate the track in the reverse direction a little.
7. Apply grease through grease fitting (2) and adjust the track (4) tension.

NOTE: Track sag specification (c):

- *ZX870-5G, 870H-5G : 450 to 500 mm (17.7 to 19.7 in)*
- *ZX870LC-5G, 870LCH-5G, 870LCR-5G : 470 to 530 mm (18.5 to 20.9 in)*

8. Lower the track.

MidWestTech | Hitachi ZX870-5G, ZX870LC-5G, ZX870H-5G, ZX870LCH-5G, ZX870L... Order the manual at mid-west-tech.com >

3. Insufficient Power

Condition	Possible Cause	Correction
Trouble in the air intake system	Clogged air cleaner element	Clean or replace the air cleaner element
Trouble in the fuel system	Water particles in fuel system	Replace fuel
	Clogged fuel filter element	Replace the fuel filter element or cartridge
	Clogged strainer or defective fuel feed pump	Repair or replace the feed pump
	Injection nozzle sticking	Replace the injection nozzle
	Injection nozzle starting pressure too low	Adjust or replace the injection nozzle
	Improper spray condition	Adjust or replace the injection nozzle
	Fuel injection pipes damaged or obstructed	Replace the injection pipes
	Defective delivery valve	Replace the delivery valve
	Injection timing improperly adjusted	Adjust the injection timing Repair or replace the timing advancer
	Worn plunger of the injection pump	Replace the plunger assembly
	Worn camshaft of the injection pump	Replace the camshaft
Trouble in the turbocharged system	Exhaust gas leakage from the exhaust system	Repair or replace the related parts
	Air leakage from the intake system	Repair or replace the related parts
	Defective turbocharger assembly	Replace the turbocharger assembly
Low compression pressure	Blown out cylinder head gasket Worn cylinder liner Piston ring sticking or broken Improper seating between the valve and valve seat	Replace the related parts
Trouble in the valve gear train	Valve clearance improperly adjusted	Adjust the valve clearance
	Worn camshaft lobe	Replace the camshaft
	Valve spring weak or broken	Replace the valve spring

MidWestTech | Hitachi ZX870-5G, ZX870LC-5G, ZX870H-5G, ZX870LCH-5G, ZX870L... Order the manual at mid-west-tech.com >