PART NO. WDC452-EN-00

HITACHI

Reliable solutions

Workshop Manual

ZX
210X-6
210LCX-6

Hydraulic Excavator

3DMC
3DMG
2DMC
2DMG

Service Manual consists of the following separate Part No.

Technical Manual	: Vol. No.TDC452-EN
Workshop Manual	: Vol. No.WDC452-EN
Engine Manual	: Vol. No.ETDC150-EN, EWDC150-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.

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

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Maintenance Standard Terminology

"Standard"

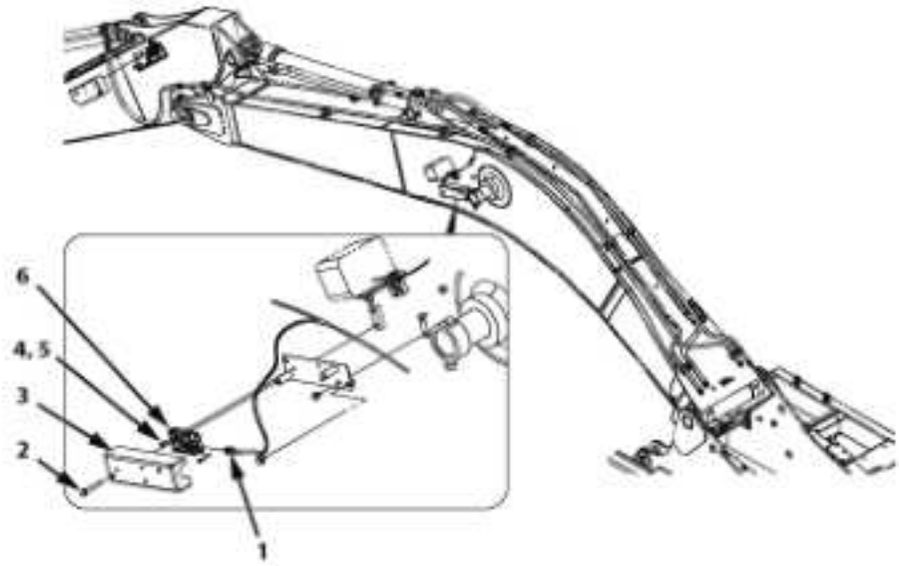
1. Dimension for parts on a new machine.
2. Dimension of new components or assemblies adjusted to specification. Allowable errors will be indicated if necessary.

"Allowable Limit"

1. Normal machine performance cannot be accomplished after exceeding this limit.
2. Repair or adjustment is difficult after exceeding this limit.
3. Repair or adjustment is impossible after exceeding this limit.
   Therefore, in consideration of operation efficiency and maintenance expense, proper maintenance shall be carried out before reaching the "Allowable Limit".

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Removal and Installation of Boom Position Sensor



WDC4A8-02-04-001

Removal

1. Set the machine position for inspection and maintenance. (Refer to W1-6-1.)
2. Remove bolts, washers (2) (2 used). Remove cover (3).

   : 17 mm
3. Disconnect connector (1).
4. Remove socket bolts (4) (3 used) and washers (5) (3 used). Remove boom position sensor (6).

   : 5 mm

Installation

1. Install boom position sensor (6) with socket bolts (4) (3 used) and washers (5) (3 used).

   : 5 mm

   : 15 N-m
2. Connect connector (1).
3. Install cover (3) with bolts, washers (2) (2 used).

   : 17 mm

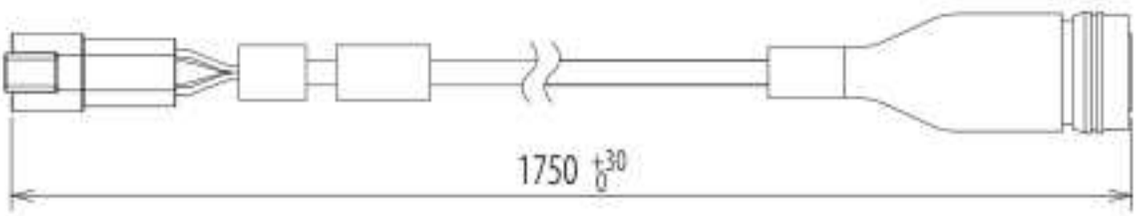
   : 50 N-m
4. Perform calibration. (Refer to T4-3 Calibration of Tilt Sensor in the separated volume, Technical Manual.)

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RTK RECEIVER HARNESS

Applicable Machine

Attach to Vol. No.	Model
TTDAQ50-EN-00	ZX130-6/130LCN-6
TTDAS50-EN-00	ZX135US-6
TTDBR50-EN-00	ZX160LC-6
TTDC458-EN-00	ZX210LCX-6
TTDFX50-EN-00	ZH210LC-6
TTDFB50-EN-00	ZX225USLC-6/225USRLC-6
TTDC150-EN-00	ZX250LC-6
TTDDN50-EN-00	ZX300LC-6
TTDDQ50-EN-00	ZX350LC-6



⚠ CAUTION: Parts numbers on the drawing are provided only for reference purpose. To order parts on the drawing, be sure to consult the Parts Catalog.

Term Contrast Table

Circuit Diagram	Service Manual
MACHINE_GUIDANCE	Machine Guidance Controller
MC_CONTROLLER	CAC Controller
ICU	CAC Controller
GNSS LEFT	GNSS Receiver (Left)
GNSS RIGHT	GNSS Receiver (Right)
RADIO_FOR_RTK	RTK Receiver
VISION LINK	Communication Terminal
MONITOR_W/TOUCH_PANEL	Touch Panel Monitor
CUT_P	Arm Roll-In Secondary HRV Pressure Sensor
IMU_BOOM	Boom Position Sensor
IMU_STICK	Arm Position Sensor
IMU_BUCKET	Bucket Position Sensor
LASER CATCHER	Laser Receiver
MC_SW	Machine Control Switch
MCZ	MC
DSZ	Monitor Controller
BCZ	Wiper/Light Controller

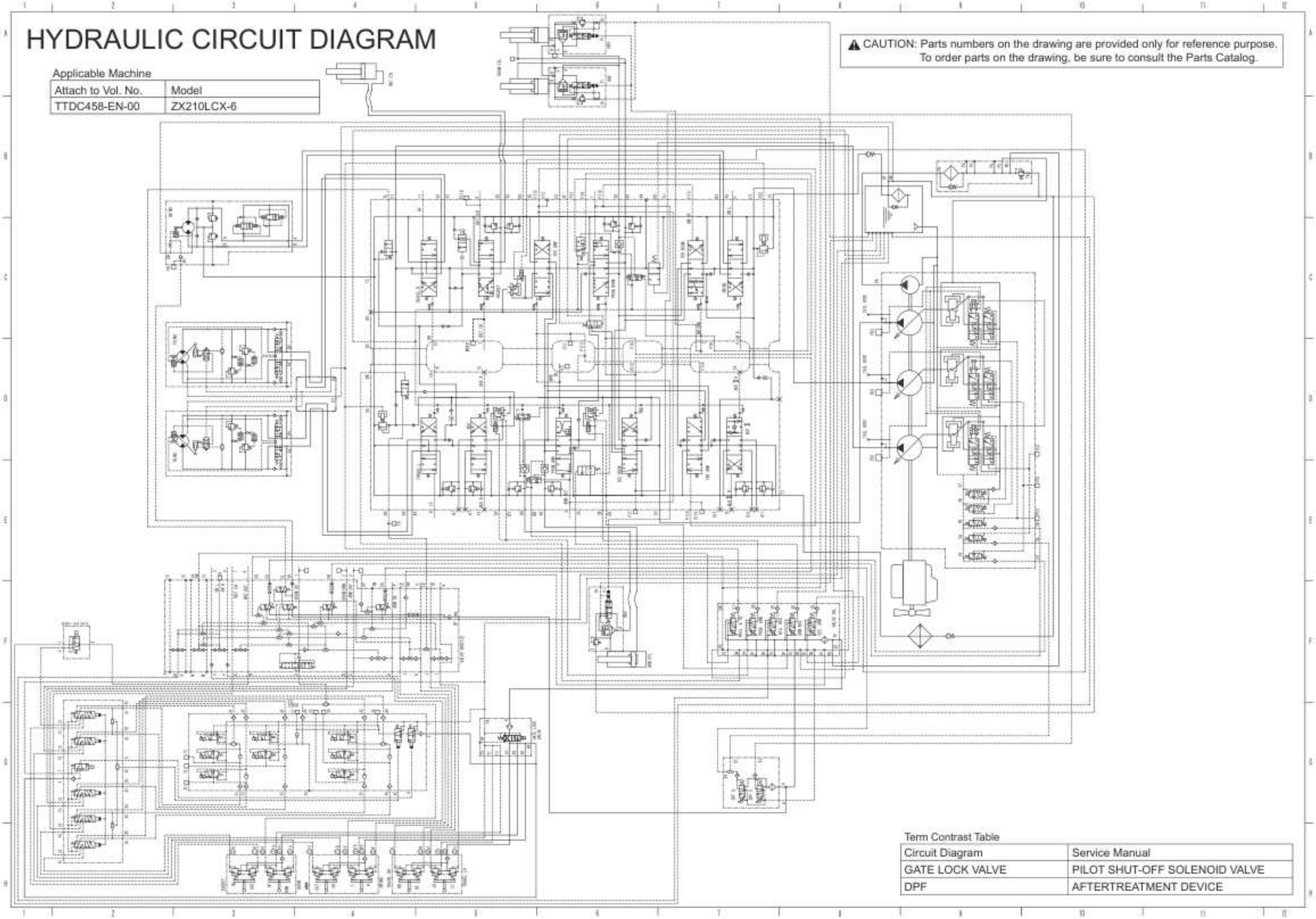
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HYDRAULIC CIRCUIT DIAGRAM

Applicable Machine

Attach to Vol. No.	Model
TTDC458-EN-00	ZX210LCX-6

⚠ CAUTION: Parts numbers on the drawing are provided only for reference purpose. To order parts on the drawing, be sure to consult the Parts Catalog.



Term Contrast Table

Circuit Diagram	Service Manual
GATE LOCK VALVE	PILOT SHUT-OFF SOLENOID VALVE
DPF	AFTERTREATMENT DEVICE

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