PART NO. WNEK50-EN-01

HITACHI

Reliable solutions

Workshop Manual

ZW220-6

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONEK50-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNEK50-EN
Workshop Manual	: Vol. No.WNEK50-EN

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publication WNEK50-EN-01

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:**
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

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publicatio... Order the manual at mid-west-tech.com >

CAUTION: The front casing (00) assembly weight: 36 kg (79.5 lb)

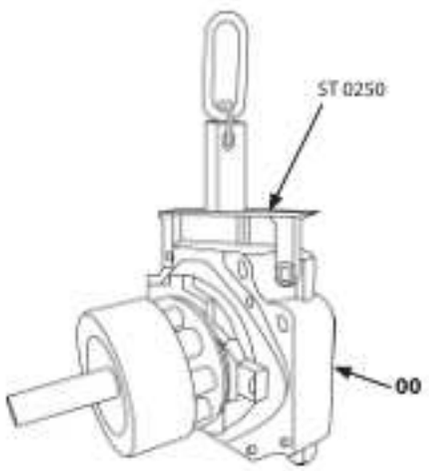
28. Raise the front casing (00) assembly to the vertical position and hold it.

NOTE: Do not raise the front casing (00) assembly excessively as swash plate (09) may come off.

CAUTION: The front casing (00) assembly weight: 36 kg (79.5 lb)

IMPORTANT: Do not tilt the front casing (00) assembly as center of gravity is at the rotor (50B) side. Rotor (50B) may come off.

29. Hoist the front casing assembly (00) by using the special tool (ST 0250).



WNEC-03-08-010

IMPORTANT: Install the front casing (00) assembly so that link pin (29) can be inserted to the mouting concave part with the feedback link (28) assembly in swash plate (09).

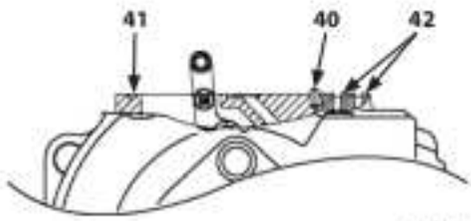
30. Install the front casing (00) assembly to pump casing (18) while fitting knock pin (23) and link pin (29).

31. Install front casing (00) to pump casing (18) with socket bolts (33) (8 used).

: 12 mm

: 180 N-m (133 lbf-ft)

32. Install O-ring (41), O-rings (42) (5 used), and spring pins (40) (2 used) to pump casing (18).



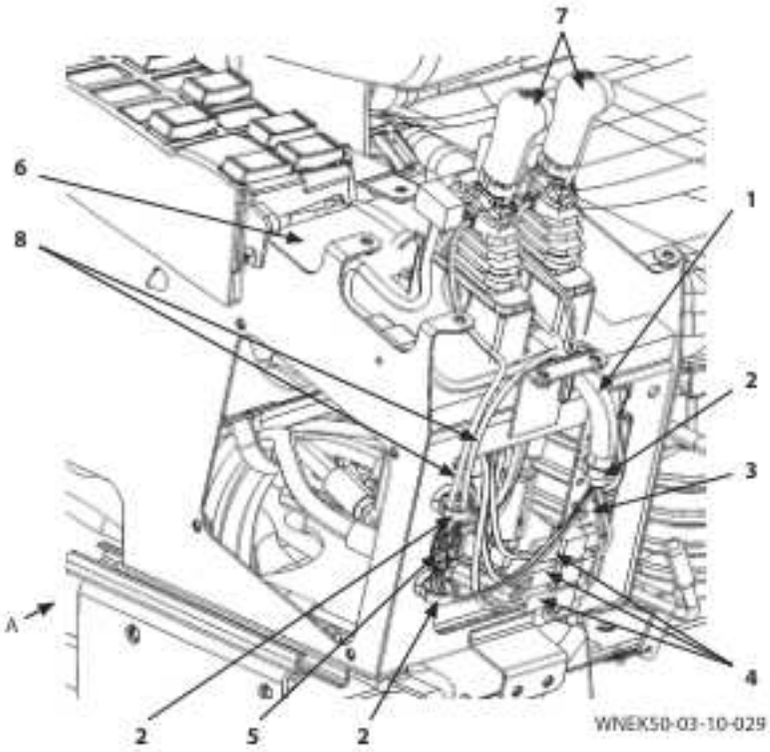
W176-02-04-014

33. Install pressure sensor (48) to pump casing (18).

: 27 mm

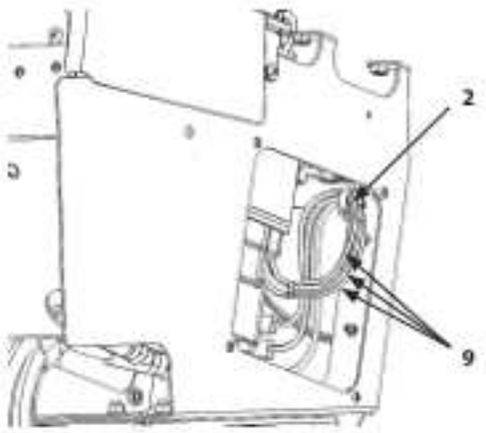
: 100 N-m (74 lbf-ft)

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publicatio... Order the manual at mid-west-tech.com >



WNEK50-03-10-029

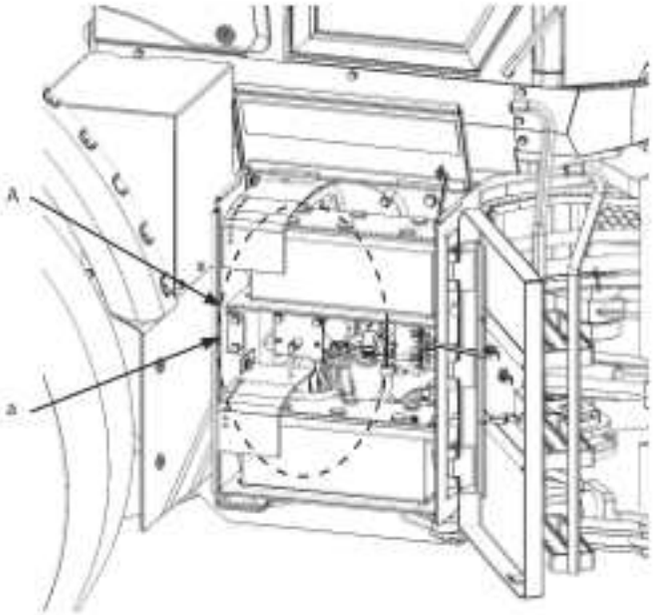
View A



WNEK50-03-10-030

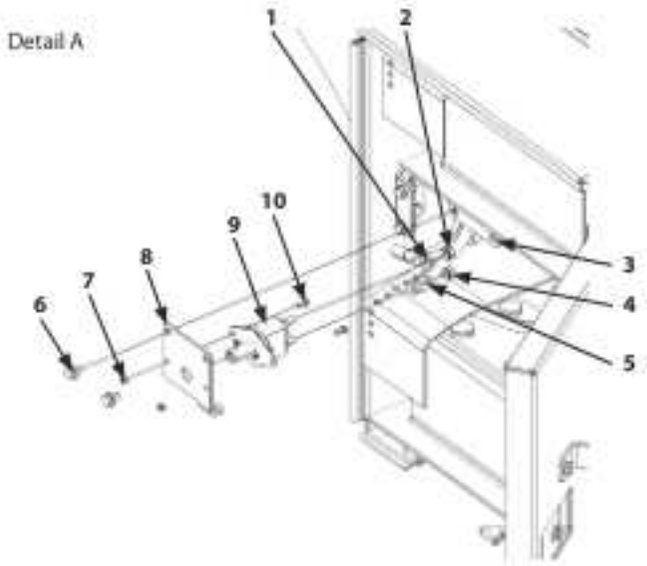
12. Install rubber seal (6).
13. Install harness (1) in between grips (7) (2 used).
14. Install connectors (4) (3 used) to bracket (3).
15. Connect connectors (5) (8 used) and connectors (4) (3 used).
16. Secure harness (1), harnesses (8) (2 used) and harnesses (9) (3 used) with clips (2) (4 used).

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publicatio... Order the manual at mid-west-tech.com >



a- Battery Box

WNEK50-03-22-042



WNEK50-03-17-003

8. Remove nut (4). Disconnect terminal (5).

   : 17 mm

9. Remove nut (2). Disconnect terminal (1).

   : 17 mm

10. Remove bolts, washers (6) (2 used). Remove the bracket (8) assembly from bracket (3).

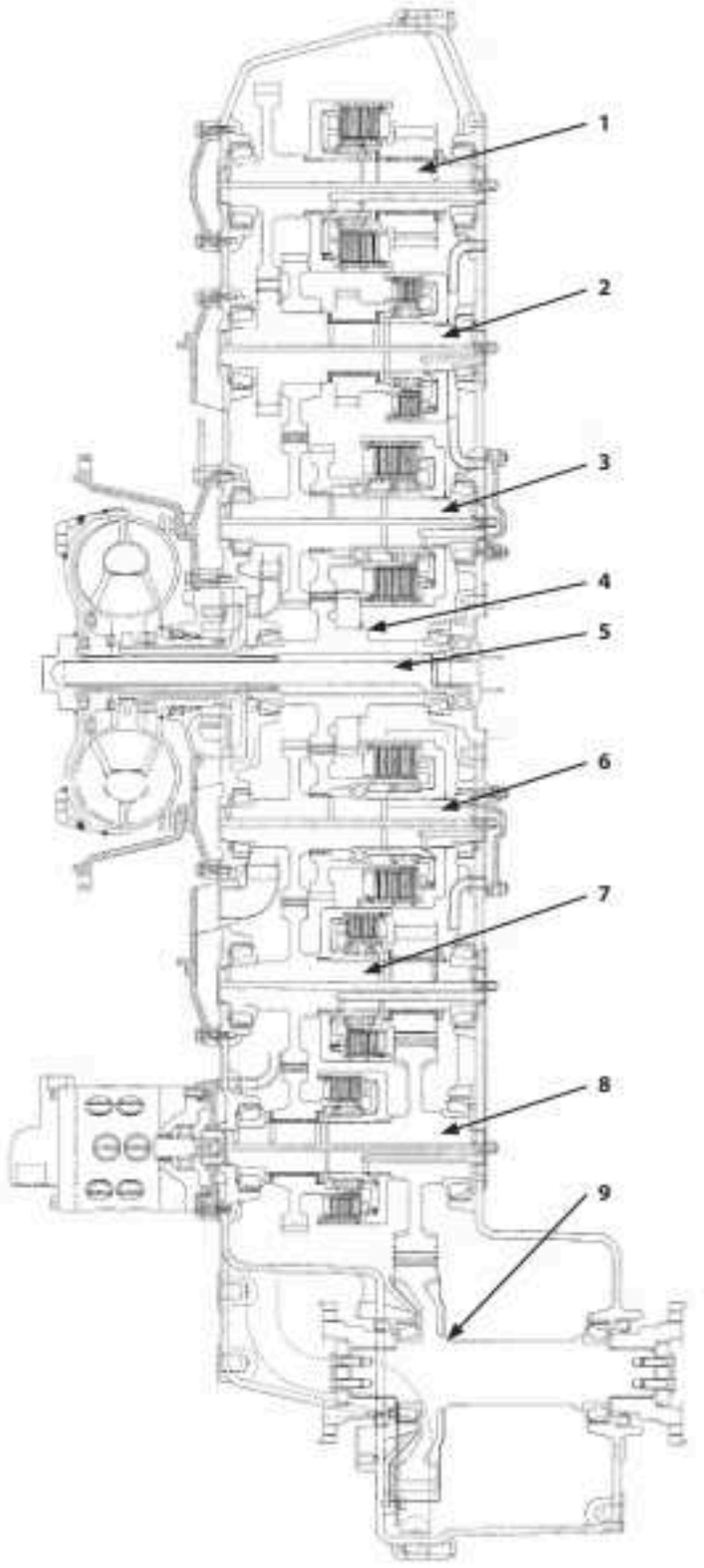
    : 17 mm

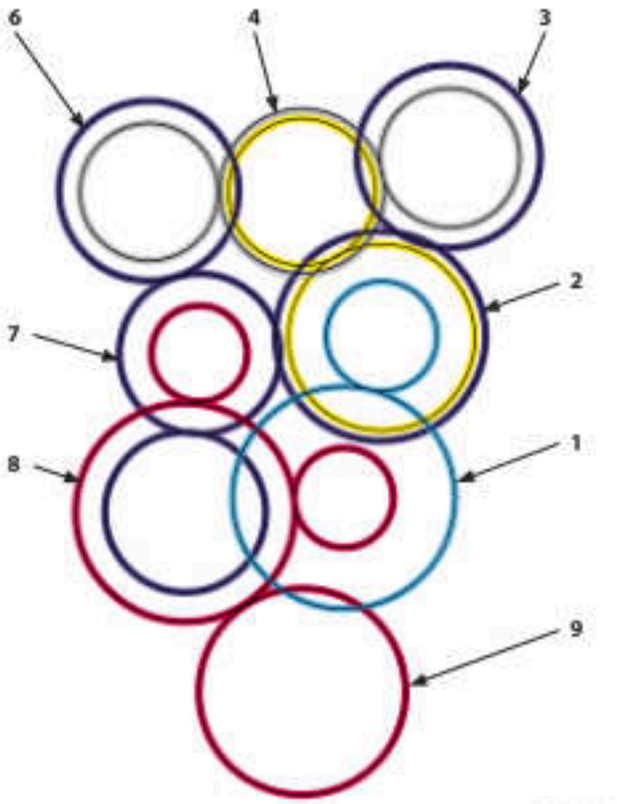
11. Remove nuts (7) (2 used) and bolts, washers (10) (2 used). Remove battery disconnect switch (9) from bracket (8).

    : 10 mm

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publicatio... Order the manual at mid-west-tech.com >

Detail of Transmission Assembly (2)





T106954

T4GB-03-09-004

1- First Speed Clutch (K1)
2- Fast-Speed Forward Clutch (K4)
3- Reverse Clutch (KR)
4- Input Shaft (AN)
5- Hydraulic Pump Drive
6- Slow-Speed Forward Clutch (KV)
7- Second Speed Clutch (K2)
8- Third Speed Clutch (K3)
9- Output Shaft (AB)

MidWestTech | Hitachi ZW220-6 Wheel Loader Workshop Service Manual | Publicatio... Order the manual at mid-west-tech.com >