PART NO. TACC50-EN-00

HITACHI

Reliable solutions

Technical Manual

ZX26U-5A

Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual	: Vol. No.TACC50-EN
Workshop Manual	: Vol. No.WACC50-EN
Engine Manual	: Vol. No.EABA-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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Engine Accessories

	Radiator	Oil Cooler
Air-Tight Test Pressure	177 kPa (1.8 kgf/cm^2, 26 psi)	981 kPa (10 kgf/cm ^{2}, 140 psi)
Cap Opening Pressure	88.3±14.7 kPa (0.9±0.15 kgf/cm^2, 13±2.1 psi)	–

BATTERY	Type	55B24R-MF
	Voltage	12 V
	Capacity	36 Ah or more (5-Hour Rate), 38 Ah or more (20-Hour Rate)
BATTERY (Optional)	Type	65B24R-MF
	Voltage	12 V
	Capacity	36 Ah or more (5-Hour Rate), 38 Ah or more (20-Hour Rate)

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Precautions for Inspection and Maintenance

1. Disconnect the power source.
   Disconnect the wire harness from the negative terminal side in battery first when taking wire harnesses and connectors off for repair or replacement work. Failure to do so can result in damage to the wire harnesses, fuses and slow blow fuses and, in some cases, cause fire due to short circuiting. In addition, even when the key switch is turned OFF, the controller may be operated for a specified time. Therefore, disconnect the harness from the negative terminal side in battery after setting the key switch to the OFF position and waiting one minute or more.
2. Color coding of wire harnesses.
   As for the color codes of wire harnesses in the electrical system, refer to the table. In cases on the design sheet where two colors are indicated for one wire, the left initial stands for base color, while the right initial stands for marking color.

Code	R	W	L	G	Y	B
Color	Red	White	Blue	Green	Yellow	Black
Code	Or	Lg	Br	P	Gr	V
Color	Orange	Light green	Brown	Pink	Gray	Violet

NOTE:

- *Code BW indicates a black base wire with white fine-line marking.*
- *Initials "O" and "Or" both stand for the color orange.*
- *Wires with longitudinal stripes printed on them are not color coded. Do not confuse them with color coded wires.*

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All Actuator System Troubleshooting

A-1 All actuator speeds are slow and power is weak.

	Specification	Remark
Primary Pilot Pressure (MPa)	4.1±0.5	Engine Control Lever: Max.Speed

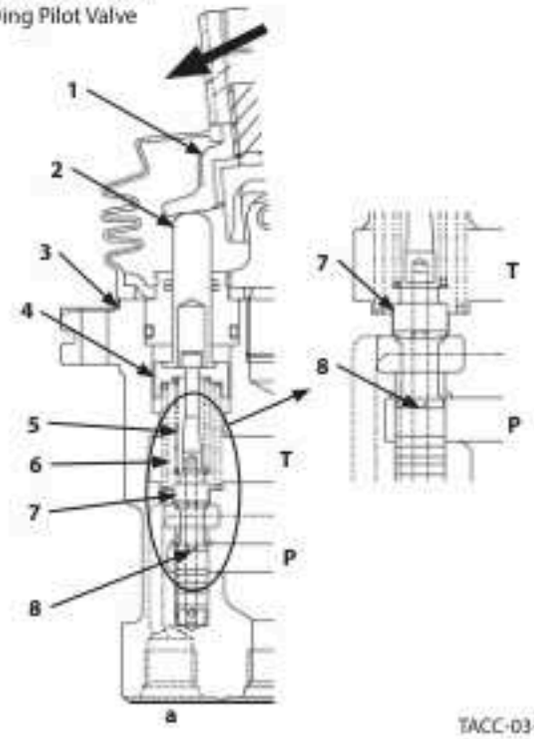
Preparation

- In case the trouble occurs only when the hydraulic oil temperature is low, high viscosity of hydraulic oil may be the cause.
- As the main circuit consists of 3 systems (3 main relief valves are located), all main relief valves are unlikely to be faulty at the same time.
- In case more than one actuators are abnormal, the load check valves in the related circuits may be faulty.

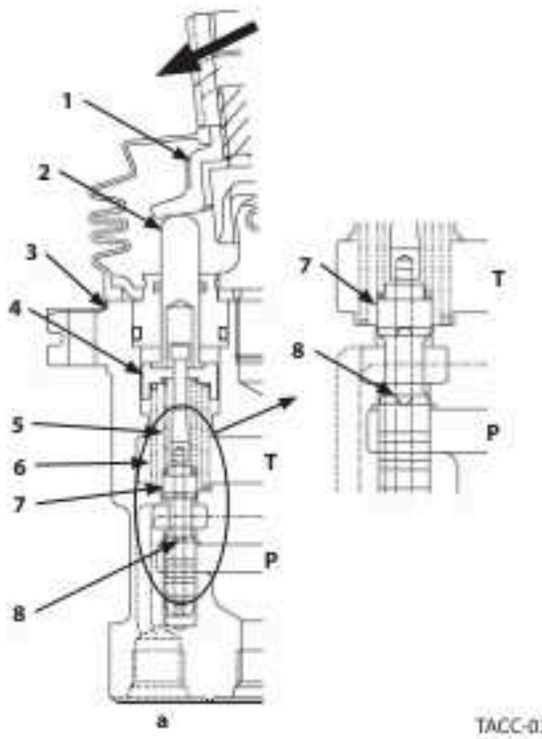
Procedure	Inspection Method	Condition	Evaluation	Cause
1	Measure engine speed.	Refer to OPERATIONAL PERFORMANCE TEST / Engine Test.	The value is not within the normal values.	Faulty engine unit
2	Measure primary pilot pressure.	-	The value is not within the normal values. (Normal value: 4.1±0.5 MPa)	To Procedure No. 3
			Correct	Find out cause of trouble by tracing other trouble symptoms.
3	Check that pilot filter is clogged.	-	There is abnormality.	Clogged pilot filter
4	-	-	Normal in above check	Faulty pilot relief valve or faulty pilot pump

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Front Attachment/
Swing Pilot Valve

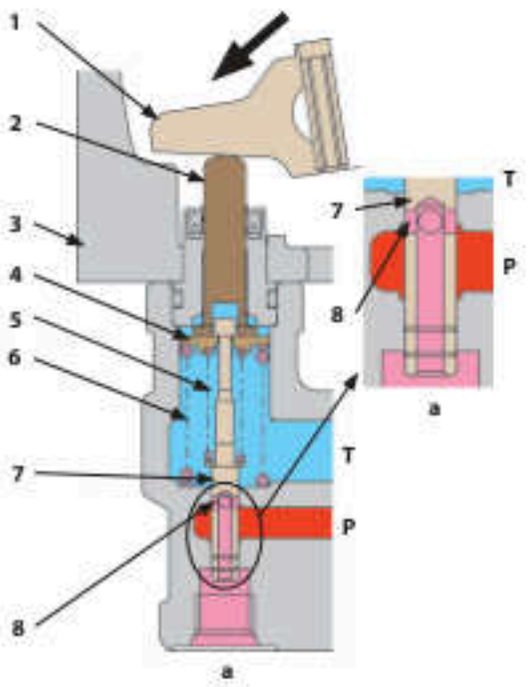


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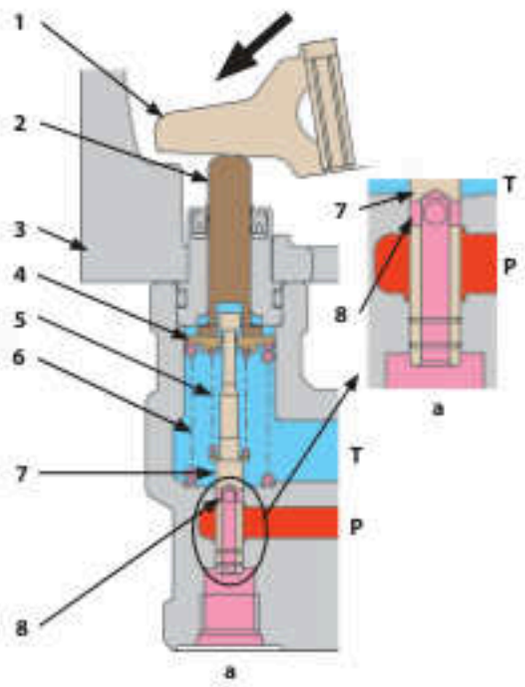


TACC-03-04-006

Travel Pilot Valve



TPPP-03-04-012



TPPP-03-04-013

P- Port P
T- Port T
a- Output Port

1- Cam
2- Pusher
3- Casing
4- Spring Guide
5- Balance Spring
6- Return Spring
7- Spool
8- Hole

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