PART NO. TAEA-EN-01

HITACHI

Reliable solutions

Technical Manual

ZX 48U-5A

Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual	: Vol. No.TAEA-EN
Workshop Manual	: Vol. No.WAEA-EN
Engine Manual	: Vol. No.ETADB-EN, EWADB-EN

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GENERAL

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CYLINDER		Boom	Arm	Bucket
	Rod Diameter	55 mm (2.17")	50 mm (1.97")	40 mm (1.57")
	Cylinder Bore	90 mm (3.54")	80 mm (3.15")	70 mm (2.76")
	Stroke	699±1.5 mm (2'3.5"±0.06")	698±1.5 mm (2'3.5"±0.06")	551±1.5 mm (1'9.7"±0.06")
	Fully Retracted Length	1076±1.5 mm (3'6.4"±0.06")	1041±1.5 mm (3'5"±0.06")	840±1.5 mm (2'9.1"±0.06")
	Plating Thickness	30 µm (1.18 µin)	30 µm (1.18 µin)	30 µm (1.18 µin)

CYLINDER		Boom Swing	Blade
	Rod Diameter	50 mm (1.97")	50 mm (1.97")
	Cylinder Bore	90 mm (3.54")	105 mm (4.13")
	Stroke	666±2.0 mm (2'2.2"±0.08")	140±2.0 mm (5.51"±0.08")
	Fully Retracted Length	974±2.0 mm (3'2.3"±0.08")	503.5±2.0 mm (1'7.8"±0.08")
	Plating Thickness	30 µm (1.18 µin)	30 µm (1.18 µin)

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Fault Code W: 2306

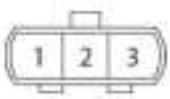
Preparation

- Check the wiring connections first.

Fault Code	Trouble	Inspection Method	Evaluation	Cause
W: 2306	Boom Bottom Pressure Sensor Failure	Measure resistance in boom bottom pressure sensor end.	The value is not within the normal values. (Normal value: between #1 and #2: 166 kΩ, between #1 and #3: 2.7 kΩ, between #2 and #3: 81.5 kΩ)	Faulty sensor
		Measure resistance between harness end #1 and #2 in boom bottom pressure sensor.	0 Ω	Shorted circuit in harness #1 and #2.
		Measure resistance between harness end #3 in boom bottom pressure sensor and terminal M1-14 in monitor controller.	∞ Ω	Open circuit in harness #3.
		Measure resistance between harness end #2 in boom bottom pressure sensor and terminal M1-16 in monitor controller.	∞ Ω	Open circuit in harness #2.
		-	The check mentioned above is normal.	Open circuit in harness #1.

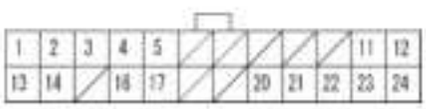
Connector (Harness end)

- Boom Bottom Pressure Sensor



TADB-05-03-005

- Monitor Controller M1



TADB-05-03-002

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T-2 Fast travel is not selected. Travel mode does not change from slow mode to fast mode.

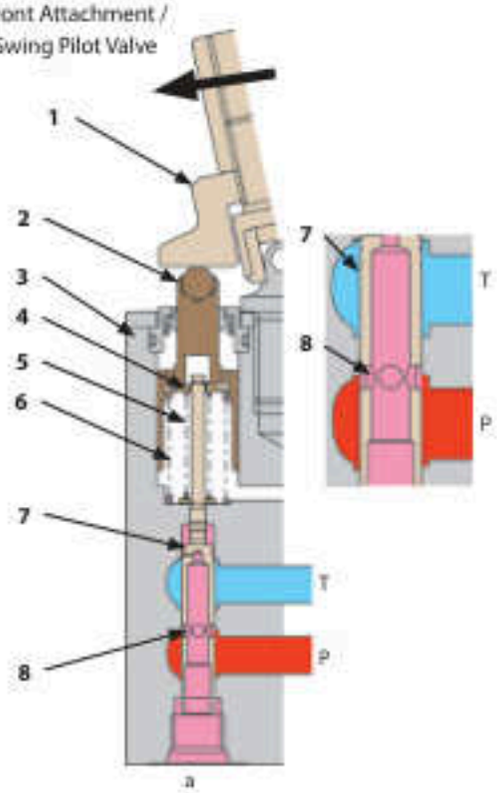
Preparation

- In case the work light does not light, #9 fuse may be faulty.
- Check the wiring connections first.

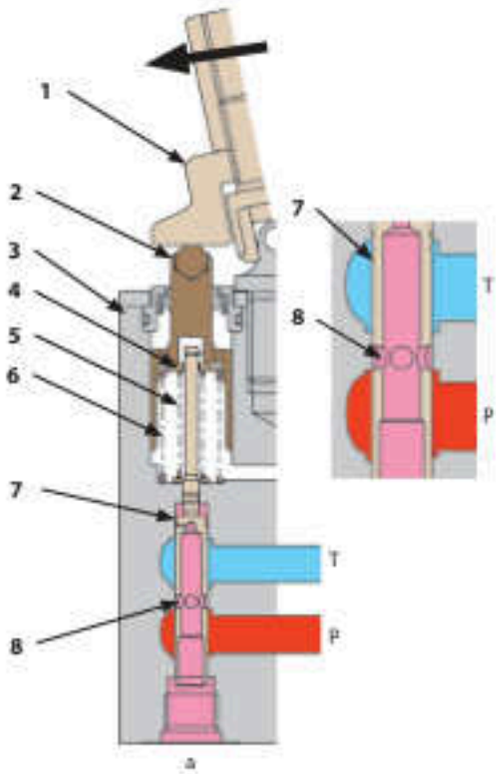
Procedure	Inspection Method	Condition	Evaluation	Cause
1	Measure voltage at travel mode switch (panel) harness end #2.	Key Switch: ON	0 V (Normal value: 12 V)	Open circuit in harness between travel mode switch (panel) and #14 fuse
2	Measure voltage at travel mode switch (lever) (OP) harness end #2.	Key Switch: ON	0 V (Normal value: 12 V)	Open circuit in harness between travel mode switch (lever) (OP) and #14 fuse
3	Measure voltage at travel mode selector relay #3.	-	0 V (Normal value: 12 V)	Open circuit in harness between travel mode selector relay and #9 fuse
4	Measure voltage at travel mode selector relay harness end #1.	Key Switch: ON Travel Mode Switch: Fast Speed Position	0 V (Normal value: 12 V)	Faulty travel mode switch (panel), faulty travel mode selector relay unit (OP), or open circuit in harness between travel mode switch (panel) and travel mode selector relay
5	Switch travel mode selector relay with other general relay.	Key Switch: ON Travel Mode Switch: Fast Speed Position	The symptom disappears.	Faulty travel mode selector relay
6	Measure voltage at travel mode selector solenoid valve harness end #1.	Key Switch: ON Travel Mode Switch: Fast Speed Position	0 V (Normal value: 12 V)	Open circuit in harness between travel mode selector relay and travel mode selector solenoid valve
7	Measure resistance between travel mode selector solenoid valve #1 and #2.	-	∞ Ω (Normal value: 12.2±0.85 Ω)	Faulty travel mode selector solenoid valve
8	-	-	The check mentioned above is normal.	Open circuit in harness #2 of travel mode selector solenoid valve

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Front Attachment / Swing Pilot Valve

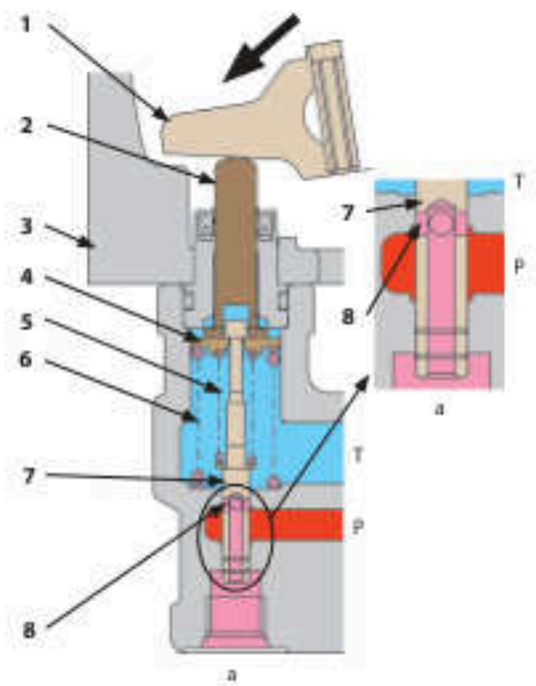


TPPP-03-04-007

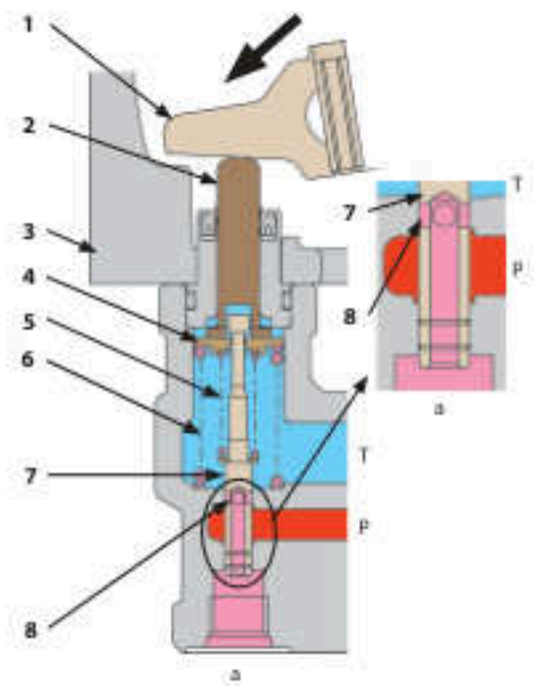


TPPP-03-04-008

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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