PART NO. TODAE-EN-00

HITACHI

Reliable solutions

Technical Manual
Operational Principle

ZX
135US-5B
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODAE-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDAE-EN
Workshop Manual	: Vol. No.WDAE-EN
Engine Manual	: Vol. No.EDBE-EN

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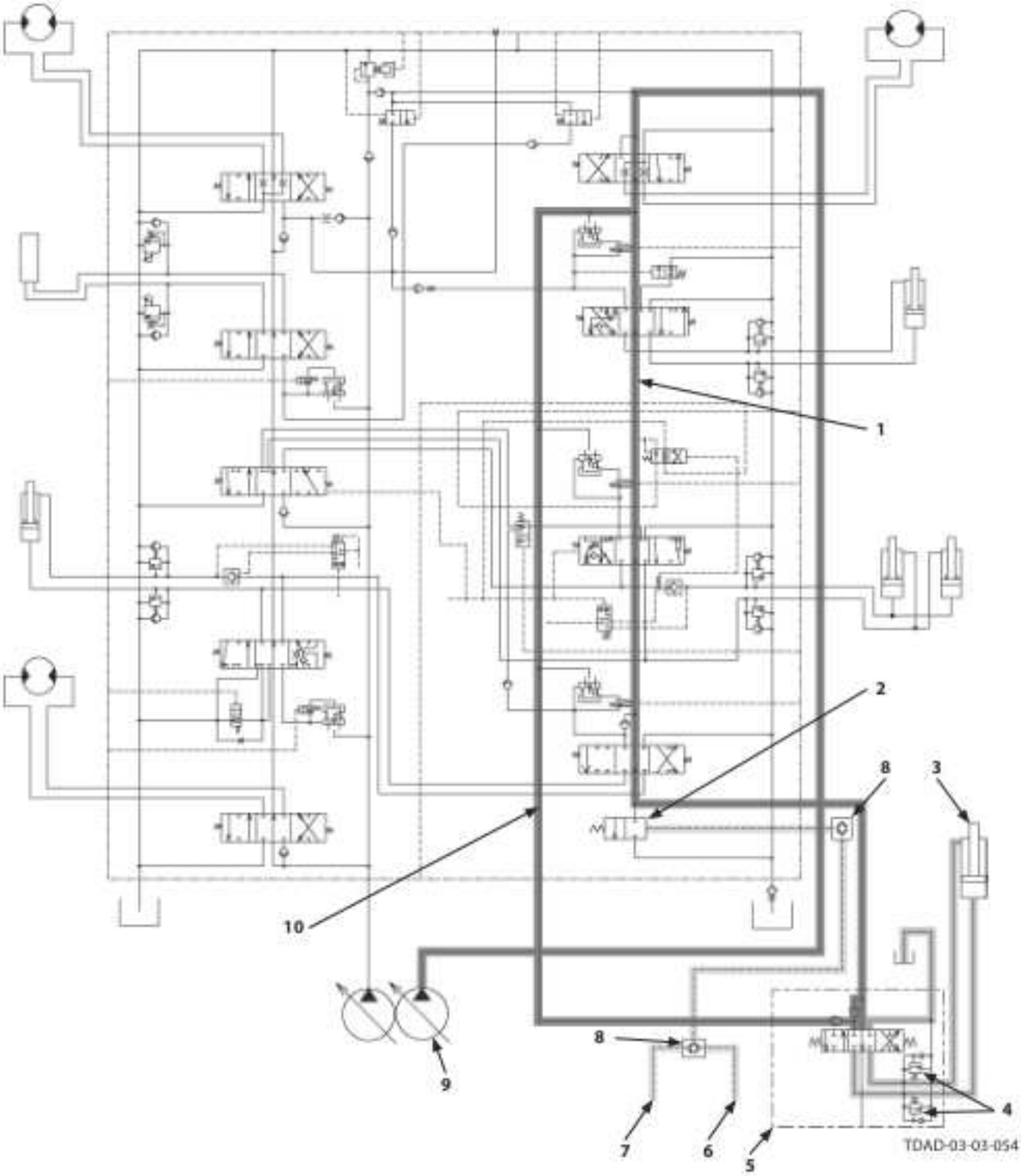
Engine Accessories

RADIATOR ASSEMBLY	Type	Radiator, Oil Cooler Parallel Type, Intercooler Tandem Type
	Weight	48.0 kg (106 lb)

	Radiator	Oil Cooler	Intercooler
Air-Tight Test Pressure	100 kPa (1.0 kgf/cm^2, 14 psi)	1500 kPa (15 kgf/cm^2, 218 psi)	250 kPa (2.5 kgf/cm^2, 36 psi)
Cap Opening Pressure	49 kPa (0.5 kgf/cm^2, 7 psi)	–	–

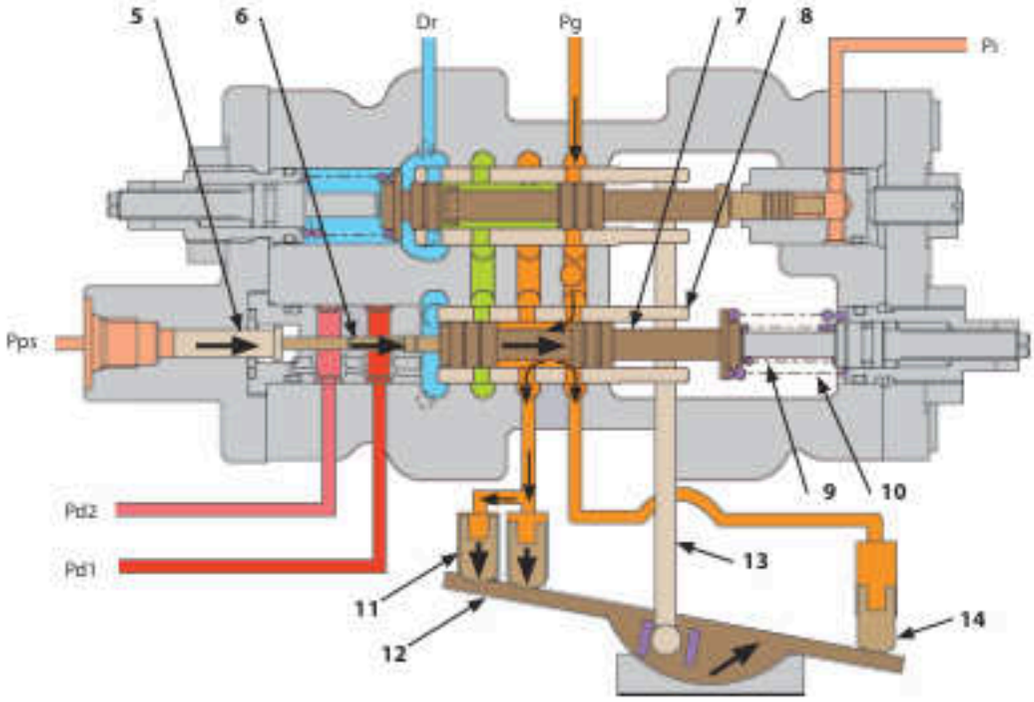
BATTERY	Type	80D26R-MF
	Voltage	12 V
	Capacity	55 Ah or more (5-Hour Rate)
	Weight	17.7 kg (39 lb)×2

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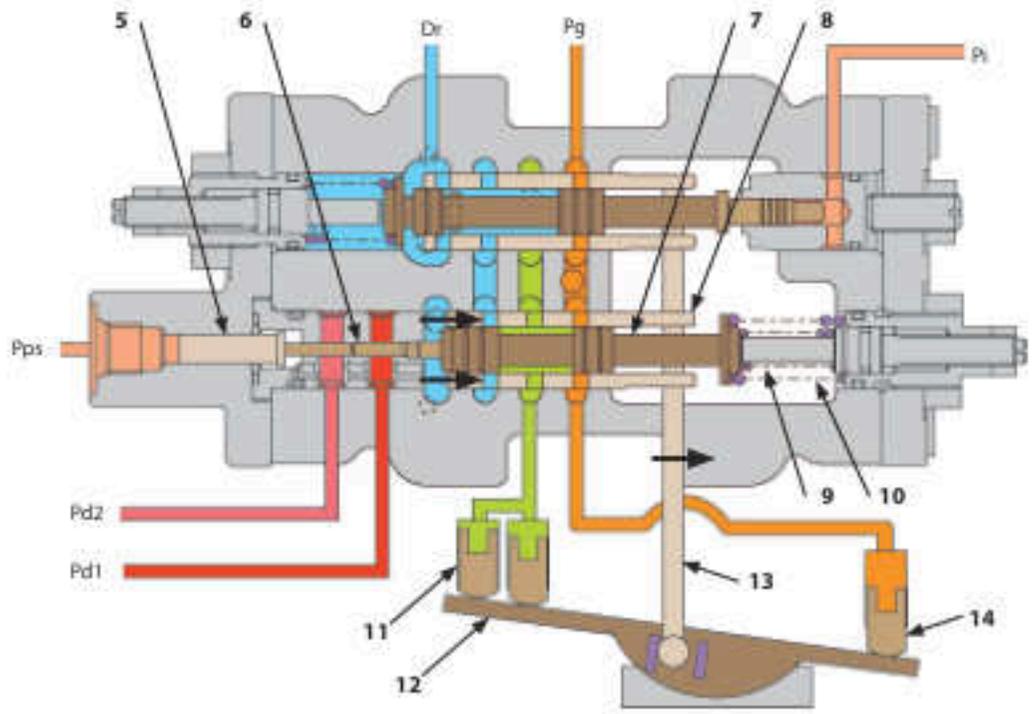


1- Neutral Circuit
2- Bypass Shut-Out Valve
3- Positioning Cylinder
4- Overload Relief Valve
5- Positioning Control Valve
6- Boom Lower Pilot Pressure
7- Positioning Pilot Pressure
8- Shuttle Valve
9- Pump 1
10- Parallel Circuit

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TDAD-03-01-009



TDAD-03-01-010

Pd1- Pump 1 Delivery Pressure
Pd2- Pump 2 Delivery Pressure

Dr- Returning to Hydraulic Oil Tank

Pi- Pump Control Pressure
Pps- Torque Control Pressure

Pg- Primary Pilot Pressure (From Pilot Pump)

5- Load Piston 1
6- Load Piston 2
7- Spool 8

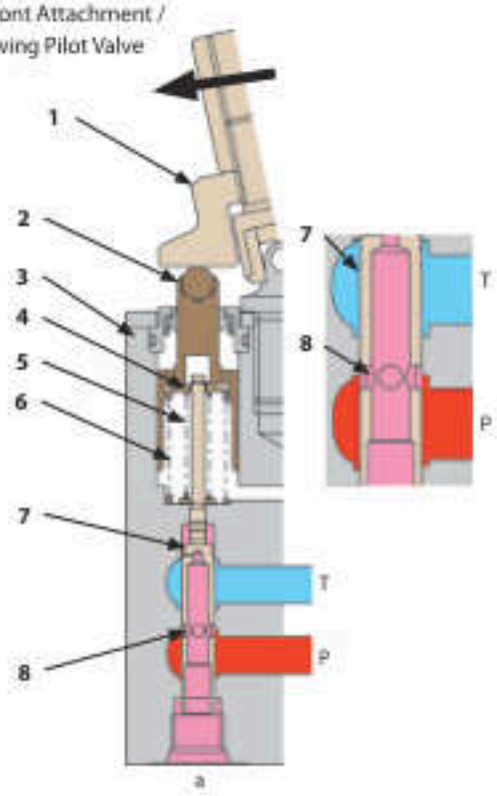
8- Sleeve 8
9- Inner Spring
10- Outer Spring

11- Servo Piston 1 (2 Used)
12- Swash Plate
13- Link

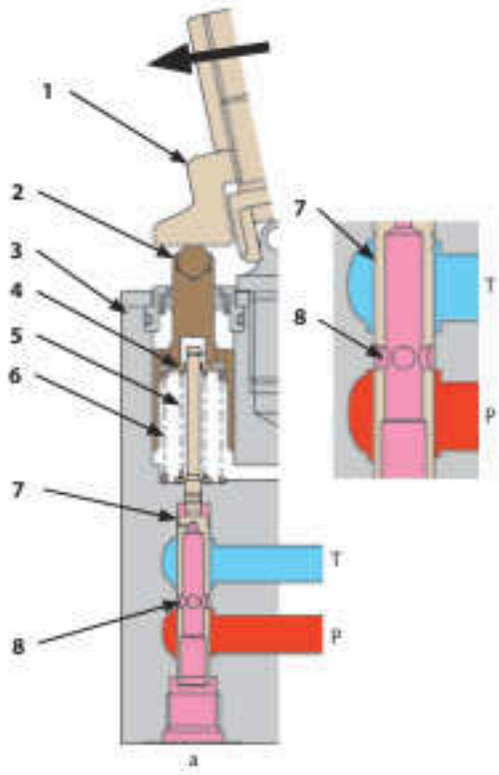
14- Servo Piston 2

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Front Attachment / Swing Pilot Valve

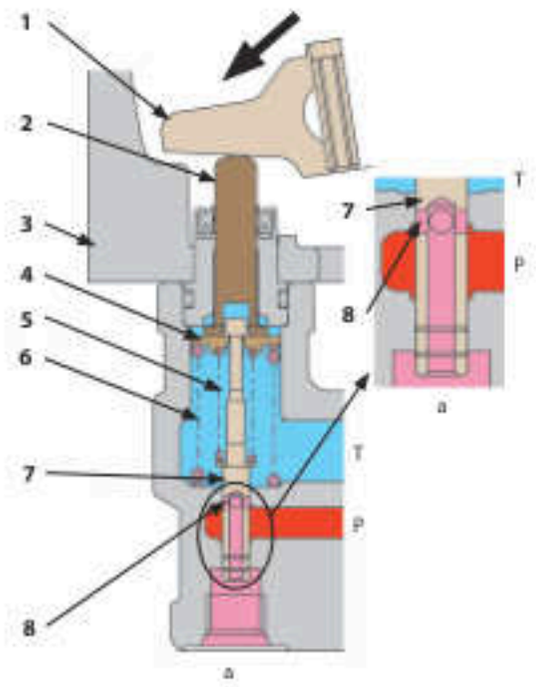


TPPP-03-04-007

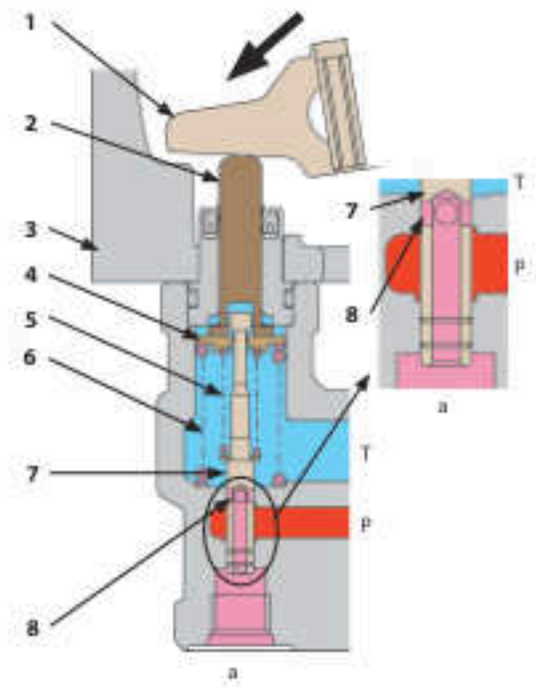


TPPP-03-04-008

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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