PART NO. TONDG-EN-01

HITACHI

Reliable solutions

Technical Manual
Operational Principle

ZW

150-5B
150PL-5B

Wheel Loader

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TONDG-EN
Technical Manual (Troubleshooting)	: Vol. No.TTNDG-EN
Workshop Manual	: Vol. No.WNDG-EN

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Fan Motor	Theoretical Displacement	16.4 cm^3/rev
Solenoid Valve (Fan Valve)	Function	Fan Motor Speed Control, Fan Motor Reverse Rotation Control (OPT)
	Relief Set-Pressure	13.7 MPa (140 kgf/cm^2, 1987 psi) at 10 L/min (2.6 US gal)

Ride Control Valve	Type	Pilot Pressure Operated Type
	Overload Relief Set-Pressure	28.4 MPa (290 kgf/cm^2, 4119 psi) at 50 L/min
	Charge-Cut Valve	8.5 MPa (87 kgf/cm^2, 1233 psi)
Ride Control Accumulator	Capacity	2.5 L (153 in^3)
	Charging Pressure	2.0 MPa (20 kgf/cm^2, 290 psi)

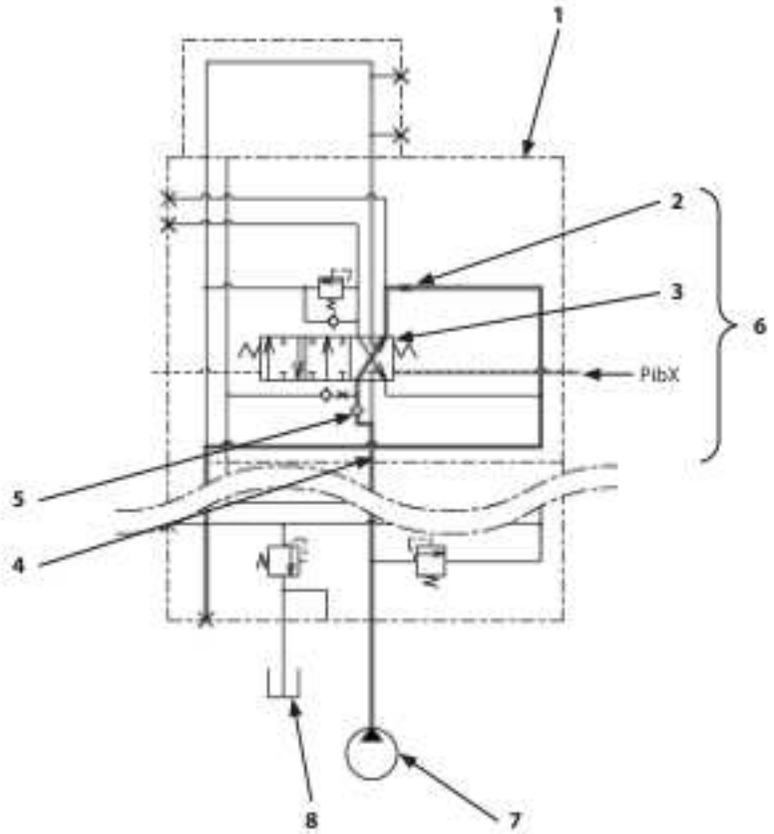
Solenoid Valve (For Muffler Filter Regeneration Control)	Function	Solenoid Valve (For Muffler Filter Regeneration Control)
	Rated Pressure	3.7 MPa (38 kgf/cm^2, 537 psi)
	Power Voltage	DC24V
Solenoid Valve (For Quick Coupler Pilot)	Function	Quick Coupler Circuit (OPT)
	Rated Pressure	4.9 MPa (50 kgf/cm^2, 711 psi)
	Power Voltage	DC24V
Solenoid Valve (For Coupler Cylinder Selector)	Function	Quick Coupler Circuit (OPT)
	Rated Pressure	21.0 Mpa (214 kgf/cm^2, 3046 psi)
	Power Voltage	DC24V

Emergency Steering Block	Function	Emergency Steering Circuit (OPT)

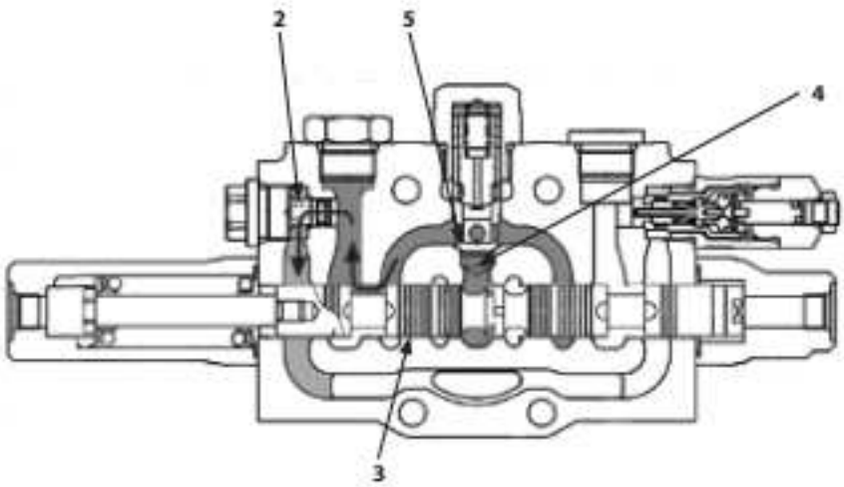
- ZW150PL-5B

Bucket Regenerative Valve	Function	For increasing bucket dump speed
	Maximum Flow Rate	320 L/min^{-1}@2200 min^{-1}
	Rated Pressure	27.4 Mpa (279 kgf/cm^2, 3973 psi)
Bucket Regenerative Selector Valve	Function	Main Circuit/bucket dump circuit (parallel link front attachment)
	Control Pressure (Pilot Pressure)	3.7 Mpa (37.7 kgf/cm^2, 536.5 psi)

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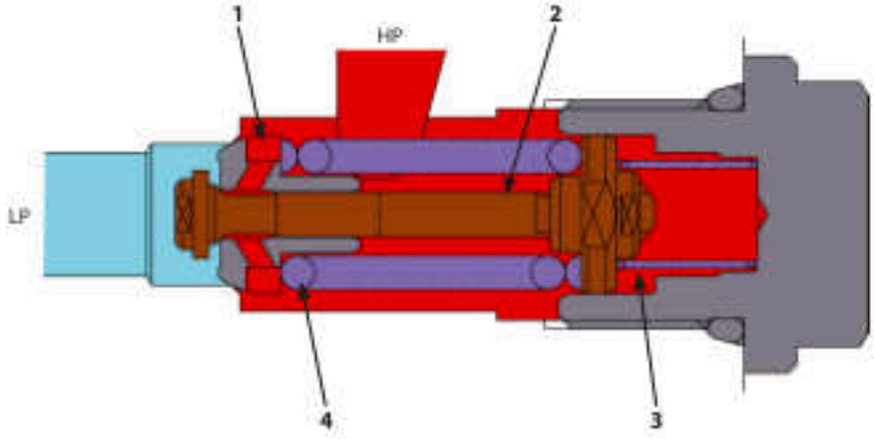
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PibX- Muffler Filter Regeneration

1- Control Valve
2- Orifice
3- Muffler Filter Regeneration/ Quick Coupler Spool
4- Neutral Circuit
5- Load Check Valve (Muffler Filter Regeneration/Quick Coupler)
6- Muffler Filter Regeneration Circuit
7- Main Pump
8- Hydraulic Oil Tank

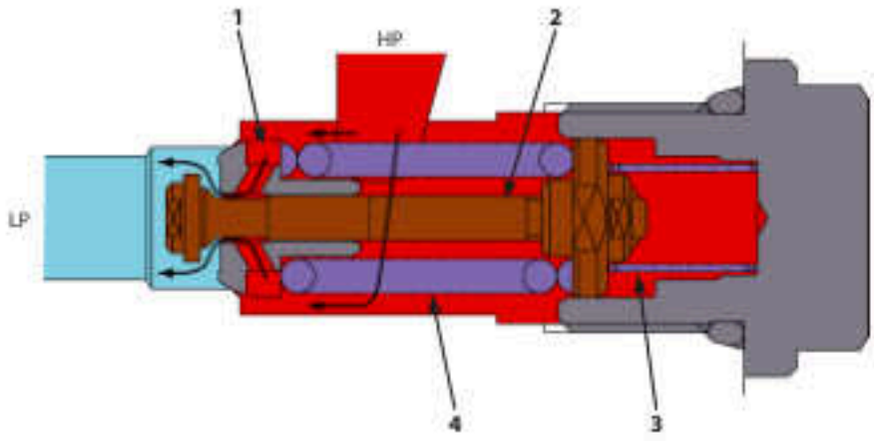
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Normal Operation:



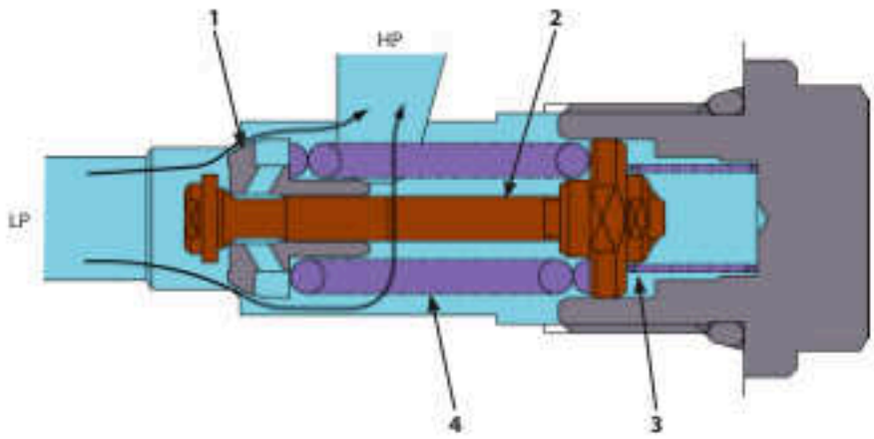
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During Relief Operation:



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During Make-Up Operation:



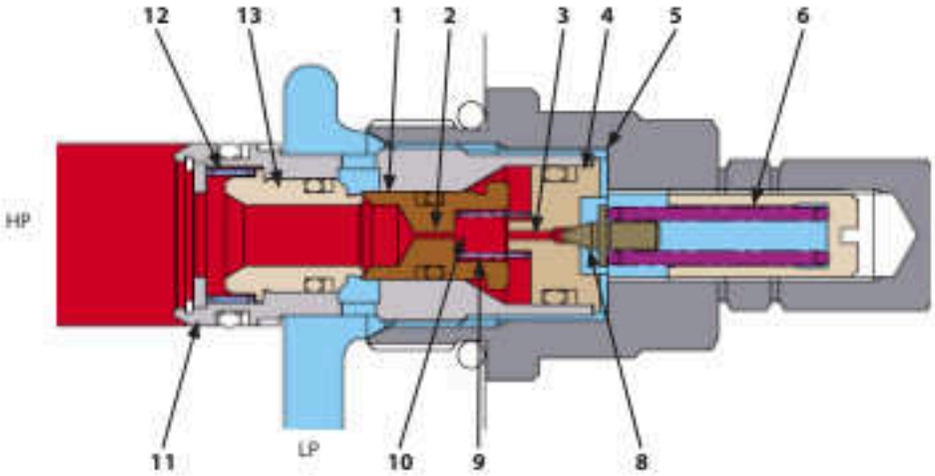
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HP- Actuator Circuit; LP- Hydraulic Oil Tank

1- Seat; 2- Shaft; 3- Spring B; 4- Spring A

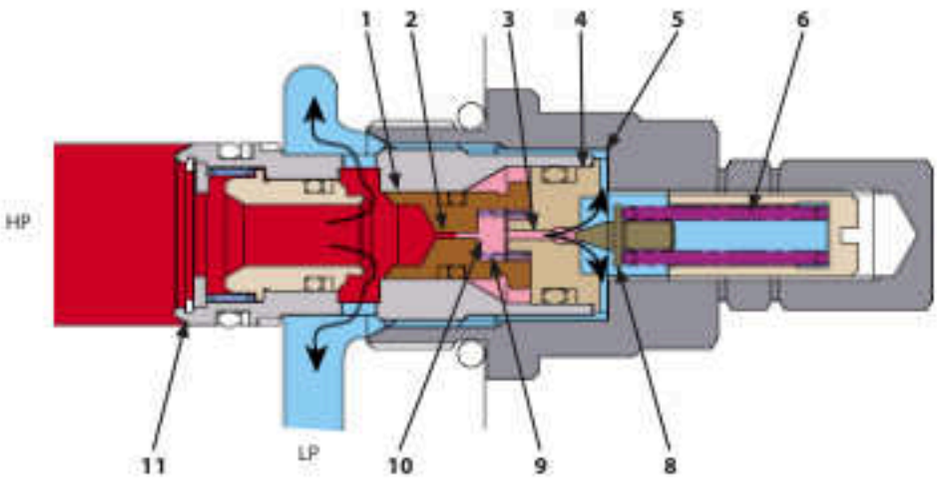
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Normal Operation:



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Relief Operation:



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HP- Actuator Circuit
LP- Hydraulic Oil Tank

1- Main Poppet
2- Orifice A
3- Orifice B
4- Seat
5- Passage A
6- Spring B
8- Pilot Poppet
9- Spring A
10- Spring Chamber
11- Sleeve
12- Spring C
13- Make-Up Valve

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