

JUNJIN CONCRETE PUMP SERVICE INFORMATION



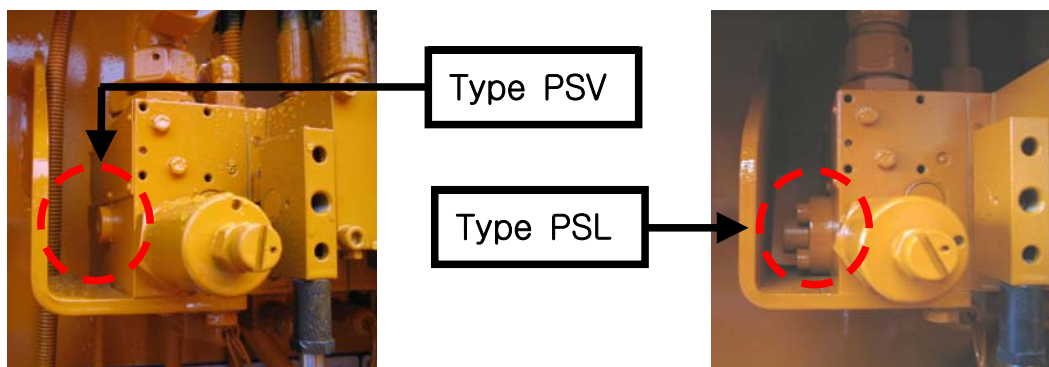
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Total Pages	4	Present Page	1
Written by	IL KYU, AN	Approved by	IN JAE, HWANG
Subject	Boom control valve (HAWE)		

■ Boom control valve(HAWE)

JUNJIN uses 2 kinds of boom control valves(HAWE), type PSL and type PSV. Type PSL is used for the fixed boom pump of M33, M37 and M40. Type PSV is used for the variable boom pump of M42, M43, M50 and M55.

○ Type PSL and Type PSV

The directional spool valve serve to control both direction of movement and load-independent, stepless velocity of each boom cylinder. In this way several boom cylinders may be moved simultaneously, independently from each other at different velocity and pressure ratings, as long as sum of partial flows needed for this is within the total delivery supplied by the boom pump.



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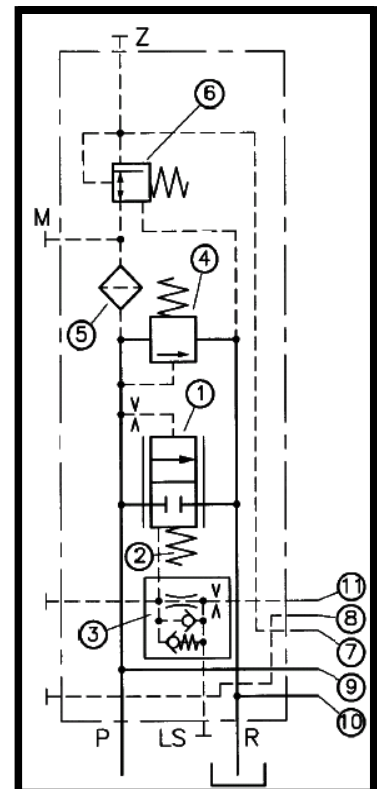
■ Proportional function

The proportional function of this valve enables the boom to be operated smoothly depending on the amperage(0~2 Amp) to the magnetic coil. The 2-way compensator of this valve controls the pressure difference of main spool's inlet and outlet at 6 Bar.

■ Each component of the valve

○ Connection block

- ① 3-way compensator : Main system pressure control
- ② Spring for the spool : 9Bar, Pressure difference control (Inlet and outlet)
- ③ Damping screw : Pressure shock prevention and smooth stop and start of the valve
- ④ Relief valve : System max pressure limit
- ⑤ Filter : Filtering of pilot pressure flow for the spool
- ⑥ Reducing valve for the spool (pilot-pressure)
- ⑦ Pilot-pressure line
- ⑧ Drain Line
- ⑨ P line
- ⑩ Reflow Line (2 of holes)
- ⑪ LS-Line (Load-sensing)

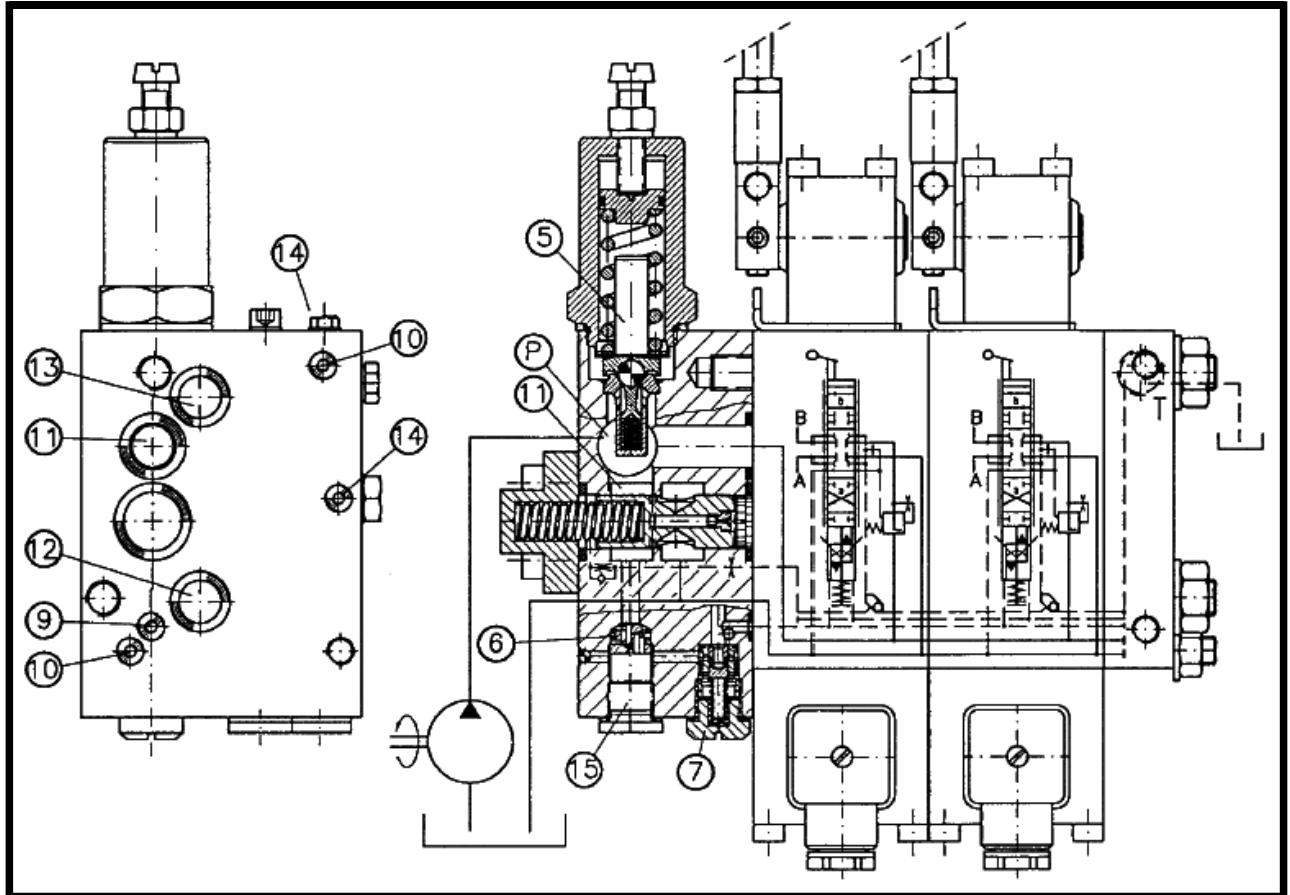


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○ Connection block section drawing



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○ Proportional spool valve

- ① Valve block : Strong durability
- ② Valve spool : Valve spool depends on the required flow rate
- ③ 2- way compensator : Pressure difference control(6 Bar)
(Inlet and outlet pressure)
- ④ Sensing slot of the load from cylinder
- ⑤ Drain line of LS pressure when unloaded
- ⑥ Shuttle valve : The highest pressure is sent to the connection block from the pressure of each spool valve.
- ⑦ Manual lever

