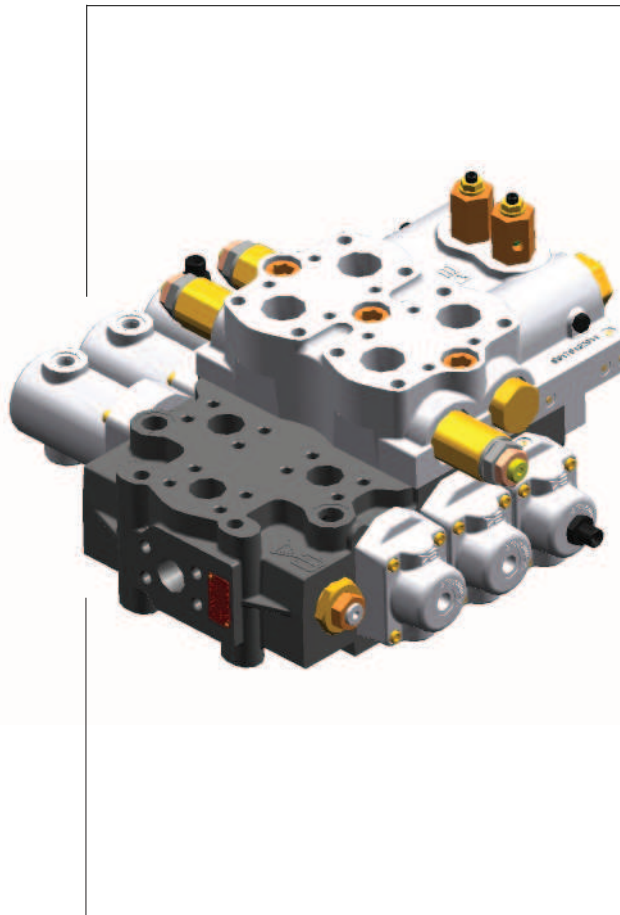




# VALVE TYPE V4A

WITH PILOT OPERATED CHECK BLOCK



WHEEL LOADER CONTROL VALVE

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# V4A4013 PILOT OPERATED FLOAT CHECK BLOCK (POFC)

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*Improved bucket and boom performance for wheeled loaders*

## FUNCTION AND OPERATION

The POFC was designed to respond to wheeled loader manufacturer's need to provide machines with good control of bucket and boom with minimum cycle times and without cavitation.

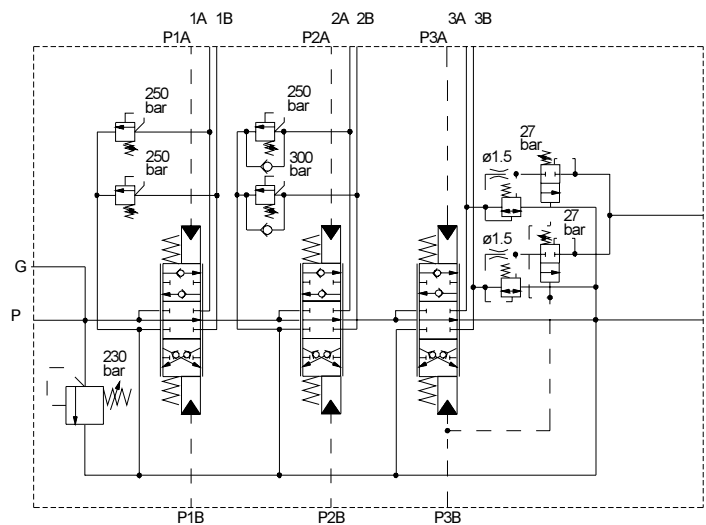
The boom is operated by a double acting spool instead of the usual 4-position float spool. The POFC block is bolted to the top face of the valve and large diameter check valves facilitate the flow to and from the boom cylinders. Both bucket and boom service port sizes are increased so that very large flow areas are available - see circuit diagram below.

Pump flow up to 450 l/min (120 USgpm) and return flow up to 1000 l/min (260 USgpm) can be accommodated.

*Note: When the POFC is fitted, the valve is designated V4A4013 instead of the basic V3A4013.*

## CIRCUIT DIAGRAM

3 spool valve with float function on No. 3 spool. Shown with optional 4 bar (60 psi) back pressure valve.



The POFC is activated by pilot pressure from the HPV and SPV pilot controller used to operate the boom spool. In the example shown, one pilot check valve is opened at 'power lower' to assist return of oil from the cylinder head side to tank whilst both pilot check valves are opened at 'float'. Also in this example, the fitting of shuttle valve 'X' makes it possible to utilise one of the pilot check valves to assist the exhaust of oil to tank from the rod side when boom raise is selected.

High capacity service port relief valves and anti-cavitation valves may be fitted to the boom and bucket ports of a V4A4013 series valve with POFC.

**See overleaf for installation dimensions.**

# V4A4013 PILOT OPERATED FLOAT CHECK BLOCK (POFC)

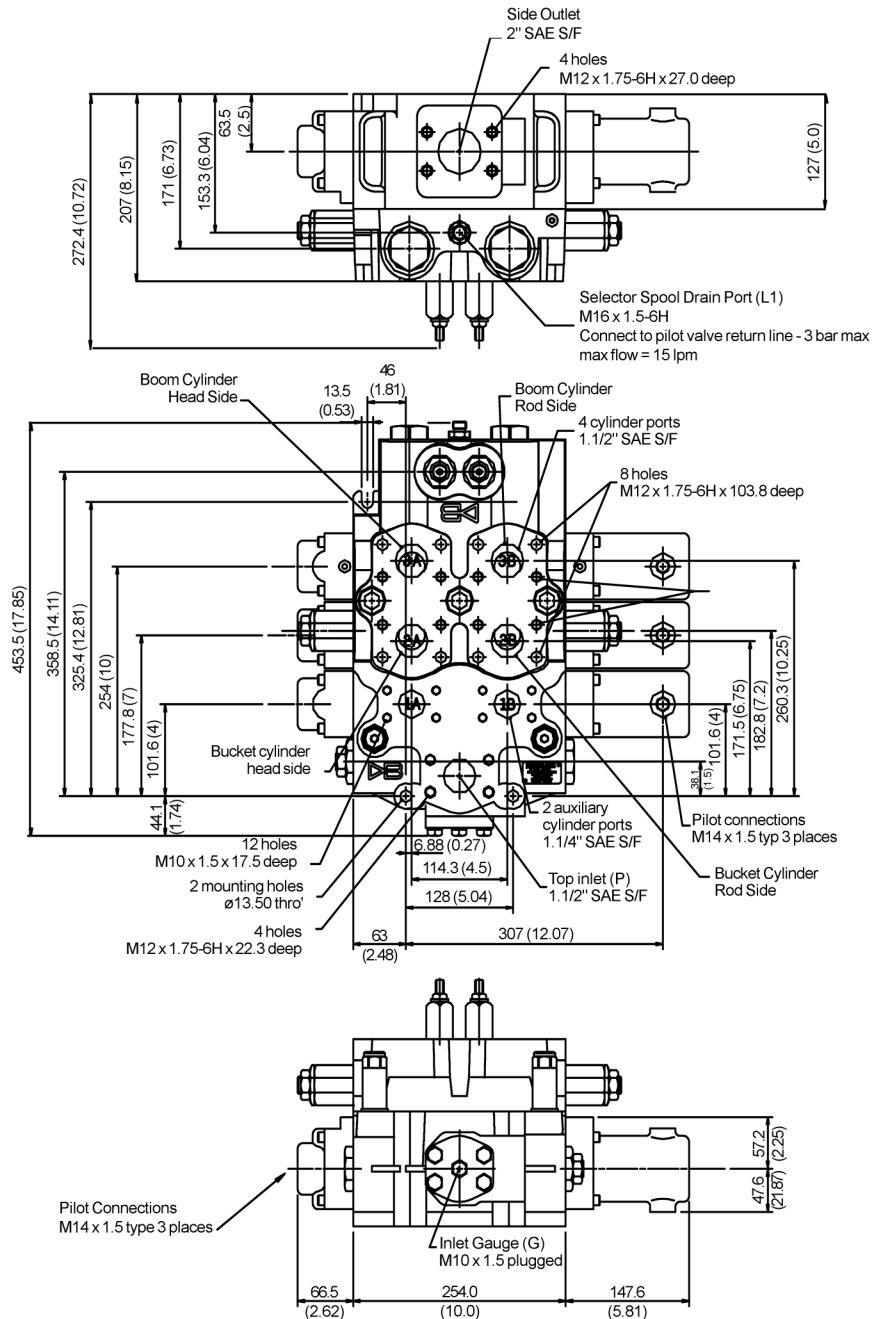
## INSTALLATION DETAILS

The POFC block may be mounted to 2 spool and 3 spool series 4013.

The following drawing shows a 3 spool 4013 valve fitted with the POFC block.

Note that the POFC covers the normal mounting holes at the outlet end of the valve and so a slot is provided as shown.

Otherwise, dimensions are as the 'thick housing' version of series V3A4013 - see **V3A4013 brochure**.



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The Global Hydraulics range includes pumps, motors, valves, pilot valves and power take offs to provide transport and mobile hydraulic solutions to customers seeking reliability combined with advanced performance.

For assistance see contact information below.



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