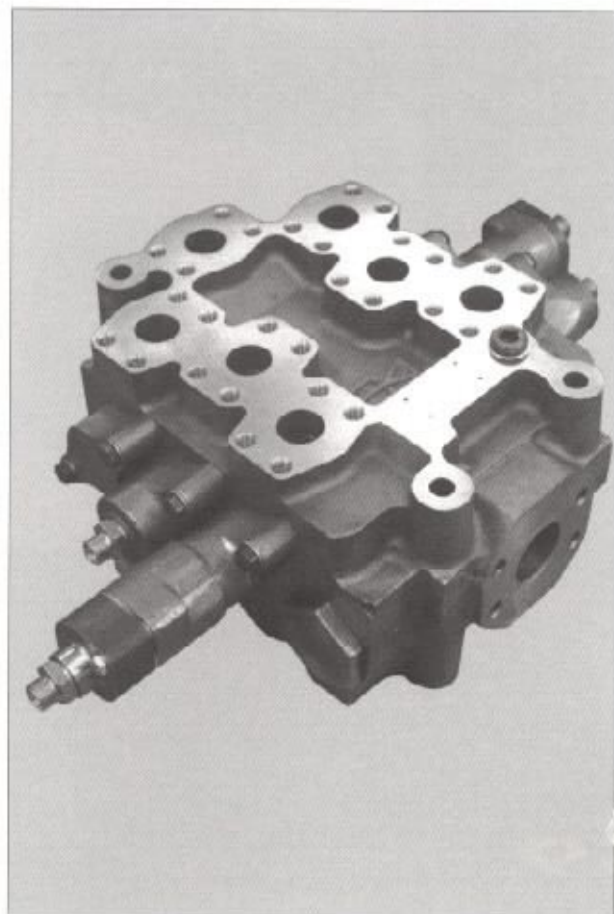


MV-059

OPEN CENTRE

DIRECTIONAL CONTROL VALVE FOR LOADERS



250 BAR - 325 L/MIN.



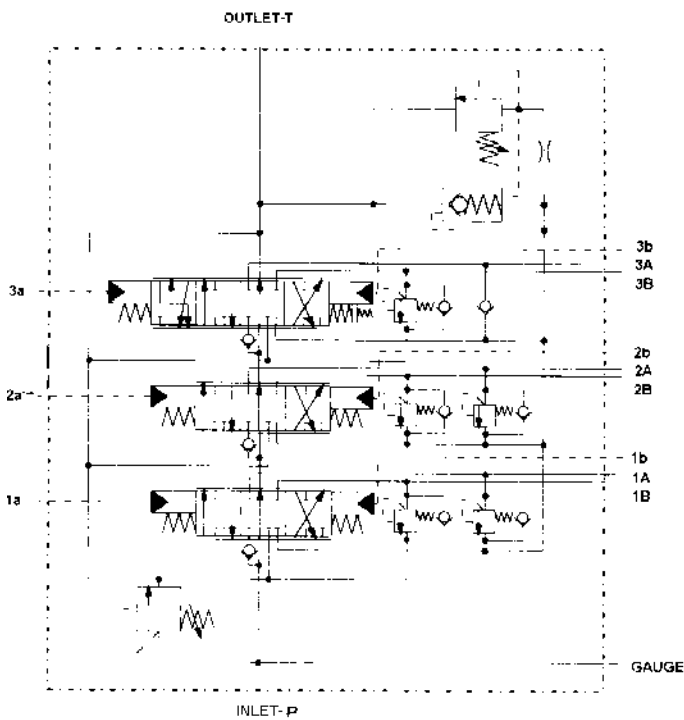
 **DAVID BROWN**
HYDRAULICS

MV-059 TECHNICAL DATA

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Service Port Valves	4
Anti-cavitation Valves	4
Spool Types & Actuation	5
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Valve Dimensions	6
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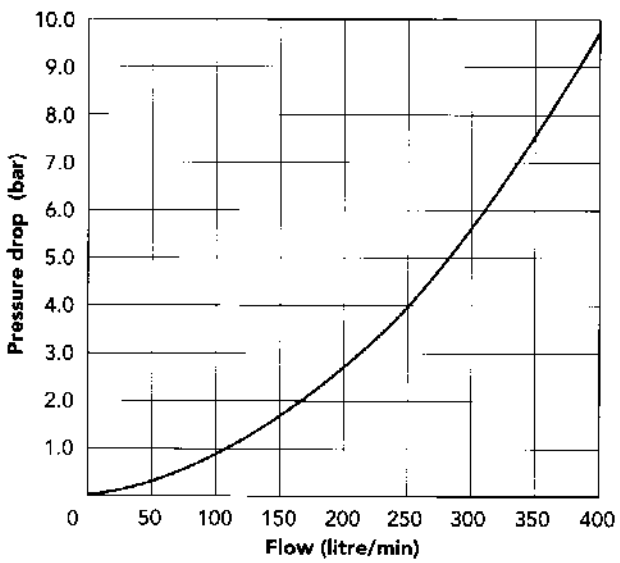
TECHNICAL DATA	
Nominal Capacity	325 L/min
Construction	Monobloc
Installation	No attitude limitation
Number of spools	3
Operating Pressure	Inlet (P) 250 bar (max.) Service (A) & (B) 300 bar (max.) Outlet (T) 10 bar (max.)
Operating Temperature	-10°C to + 80°C
Ambient Temperature	-40°C to + 60°C
Maximum viscosity for normal working conditions	250mm ² /sec (cSt)
Minimum permissible viscosity	10mm ² /sec (cSt)
For optimum life and efficiency, fluid viscosity should be in the range of 15 to 25mm ² /sec (cSt) during normal working conditions.	
Fluid cleanliness	ISO4406 - 19/15 max

Typical circuit diagram
(shown with optional back pressure valve)

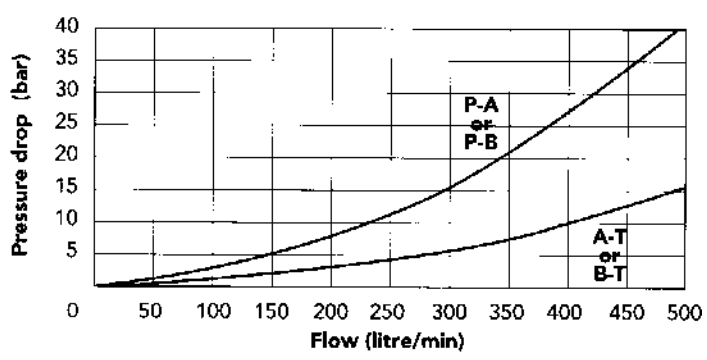


Service port leakage
Maximum leakage from service ports A or B to T with spools in neutral will not exceed 50 ml/min at 100 bar with fluid viscosity 23 mm²/sec (cSt).

Pressure drop P-T spools in neutral



Pressure drop P-A/B-T spools selected

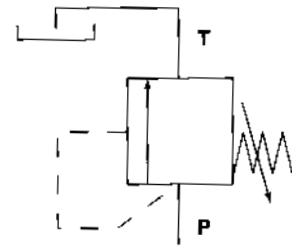
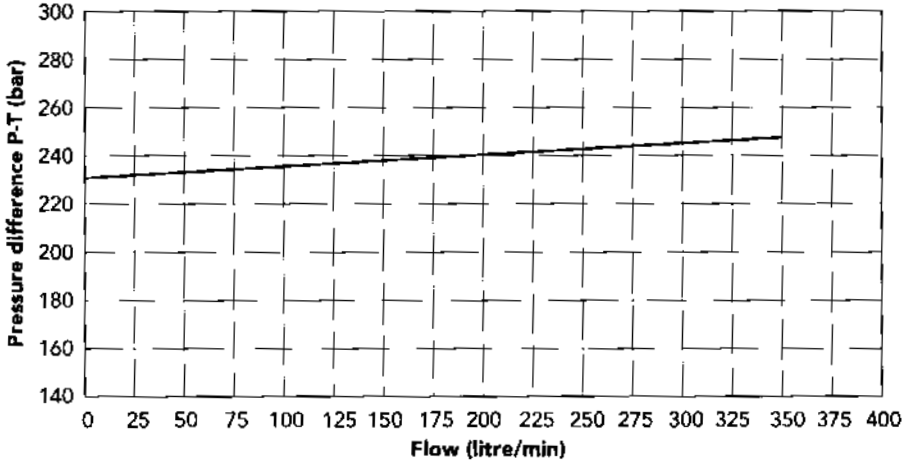


ALL PERFORMANCE DATA AT 23 mm²/sec (cSt) FLUID VISCOSITY.

MV-059 OPTIONAL FEATURES

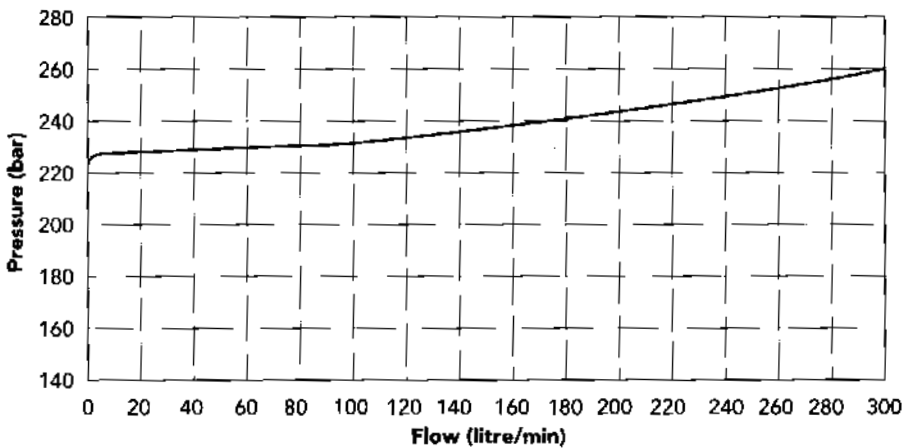
MAIN RELIEF VALVE

Pump is protected at settings up to 250 bar

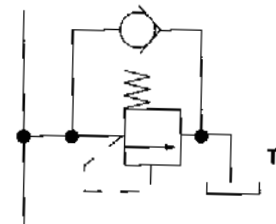


SERVICE PORT RELIEF VALVES

Service port relief valve combined with anti-cavitation valve. Service lines are protected at settings up to 300 bar. Optional on any service port A or B.

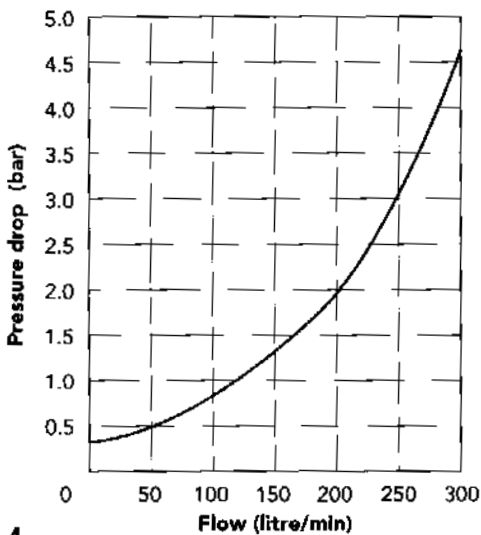


Service port A or B

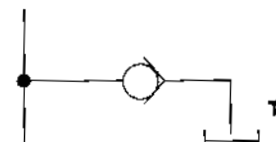


ANTI-CAVITATION CHECK VALVES

Optional for any service port A or B with or without service port relief valve.



Service port A or B

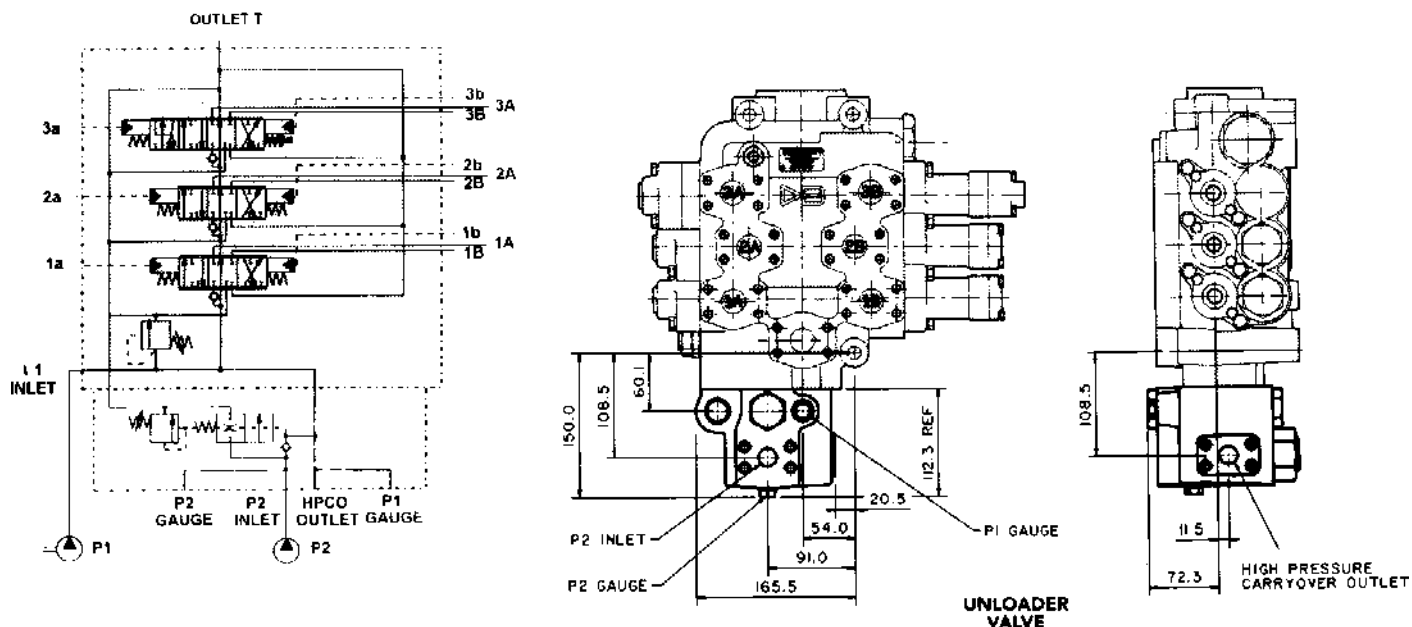


Anti-cavitation check valve performance can be enhanced by fitting the optional back pressure valve. See page 5.

MV-059 OPTIONAL FEATURES

UNLOADER VALVE

A bolt-on unloader valve can be mounted at the inlet of the MV.059 so that a second pump (P2) can supplement flow from the first pump (P1) to the main loader hydraulics. At a pre-set pressure the flow from the second pump is switched to tank. The machine can then be run at higher pressure but lower flow.



The connection of flows from P2 to P1 may be internal or external to the valves.

BACK PRESSURE VALVE

The optional back pressure valve is used to raise the pressure available to assist the anti-cavitation valves to maintain full cylinders and is factory adjustable.

For circuit diagram see page 3.

For location see page 6

SPOOL TYPES & VALVE CIRCUIT

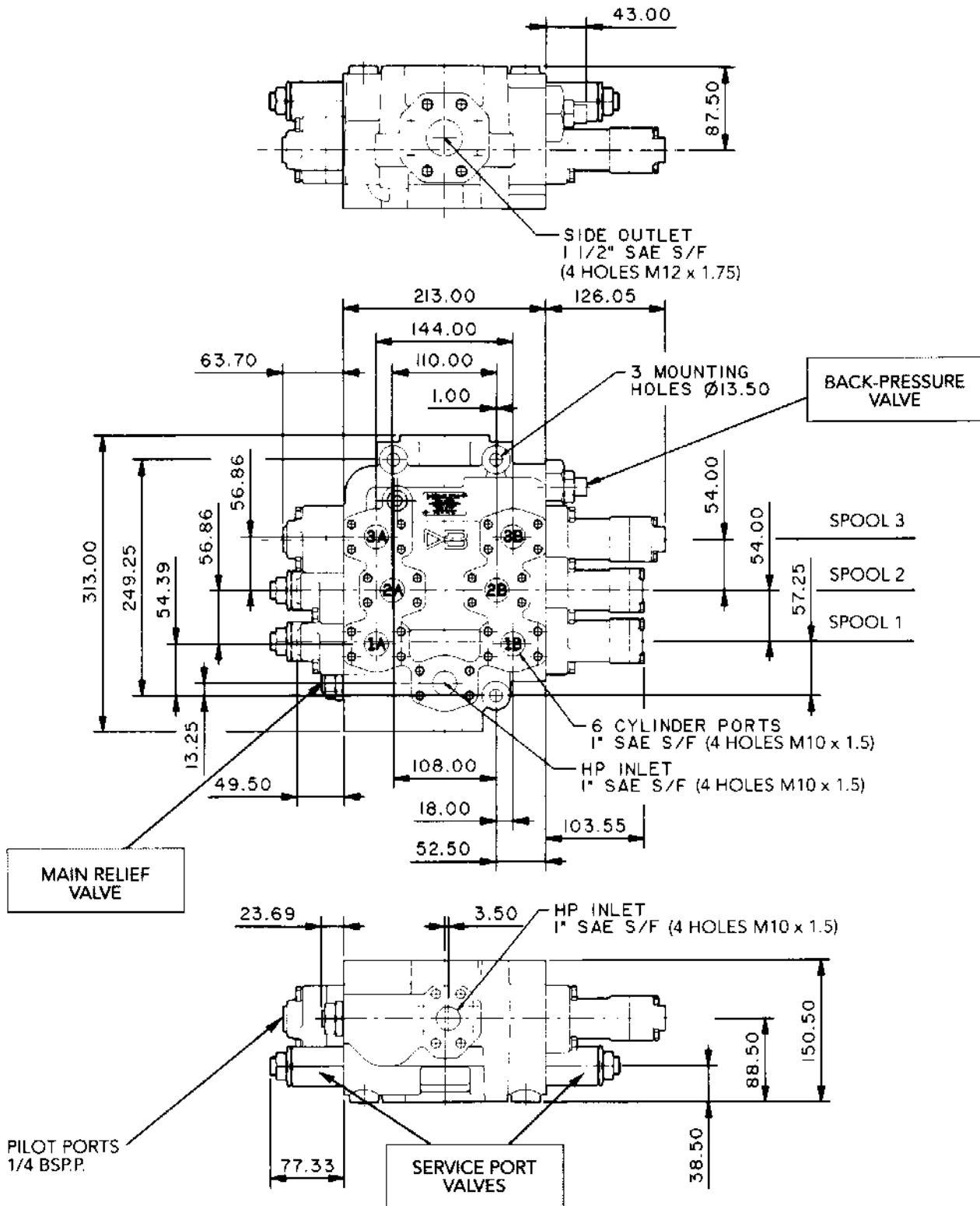
The tandem circuit allows full flow to the first (nearest to the inlet) spool selected isolating downstream spools. The MV.059 is designed for the following configuration.

No. 1 spool	Auxiliary service	Double acting (D) or Inoperative (P)
No. 2 spool	Bucket crowd/tip	Double acting (D)
No. 3 spool	Lift/lower/float	Float spool (F)

SPOOL ACTUATION

The MV.059 is designed to be driven by the David Brown type HPVL low pressure hydraulic pilot valve. Also available is the SUH pilot supply valve. See page 7.

MV-059 INSTALLATION DATA



PORTS

For alternative types please refer to your David Brown Hydraulics representative.

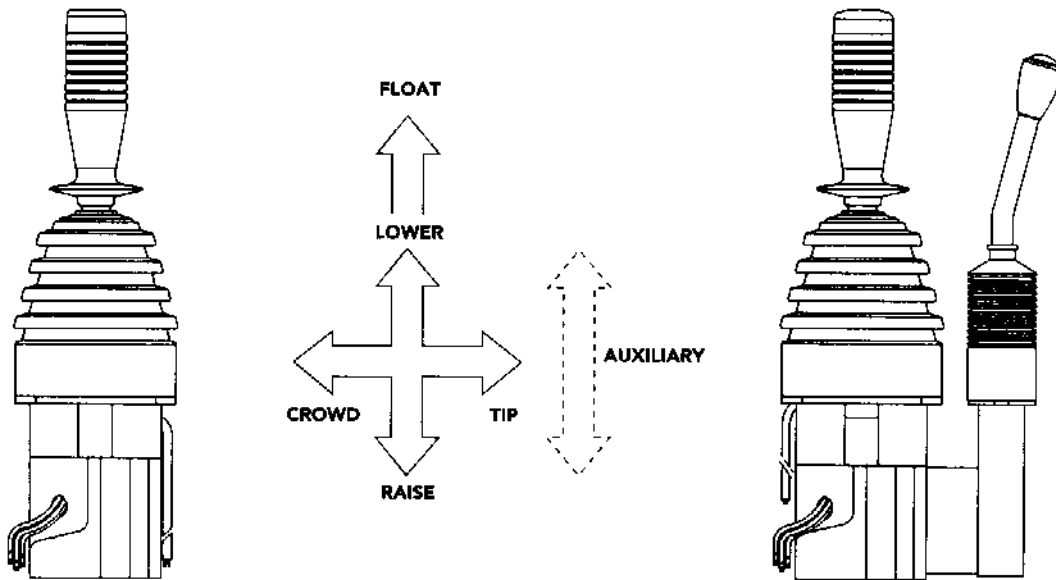
ENQUIRIES

Please consult your David Brown Hydraulics representative who will discuss your exact needs, finalise the specification and provide you with a quotation.

MV-059 PILOT VALVES & PILOT SUPPLY UNITS

PILOT VALVE HPVL

Specifically designed for wheeled and tracked loaders, the HPVL is available to drive 2 or 3 spool directional control valves such as the MV.059.



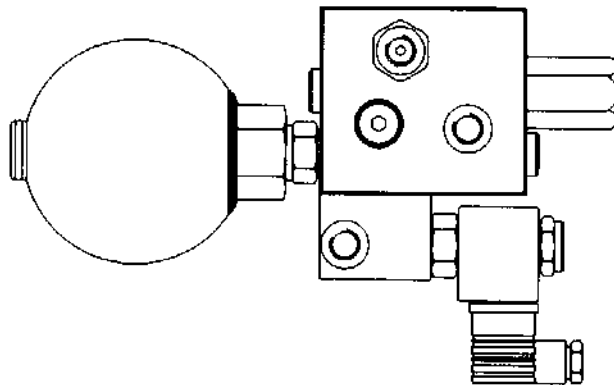
The very compact, yet robust, HPVL features standard 108 mm PCD mounting, stylish gaiters and handles and a light-weight housing. The HPVL is a low power consumption, pressure reducing valve.

Options include mechanical or electrical detents, fourth position float function with ramp for the power lower position, ergonomic handle, additional electric switches in the handle and a range of control curves.

PILOT SUPPLY VALVE - SUH

The SUH valve is connected into the main hydraulic circuit (with versions up to 350 bar) and provides low pressure fluid to the pilot valve HPVL (typically <50 bar).

An accumulator may be fitted to satisfy short-term peak power demands and to provide a source of emergency power should the main circuit fail.



Global Hydraulics combines the businesses of David Brown Hydraulics, Hydreco, and Powauto and supports worldwide customers with application expertise and famously reliable products.

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.



CONTACT INFORMATION

AUSTRALIA

David Brown Engineering & Hydraulics Pty Ltd
 Unit 1A/167 Prospect Highway
 Seven Hills,
 NSW, 2147, Australia
 Tel: +61 2 9838 6800
 Fax: +61 2 9838 6899
 E-mail: sales@powauto.com.au

DANMARK

David Brown Hydraulics Danmark A/S
 Fuglebækvej 3d
 DK-2770 Kastrup
 Tel: +45 32 51 40 15
 Fax: +45 32 51 20 22
 E-mail: david-brown@david-brown.dk

FINLAND

David Brown Hydraulics OY
 Vanha talvitie 3C
 FI-00580 Helsinki
 Tel: +385 9 3424 120
 Fax: +385 9 3424 1236
 E-mail: sales@davidbrownhydraulics.fi

DEUTSCHLAND

David Brown Hydraulics Deutschland GmbH
 c/o Benzler TBA BV, Jachthavenweg 2
 NL-5928 NT Venlo
 The Netherlands
 Tel: +31 77 32020 95
 Fax: +31 77 32459 01
 E-mail: davidbrown@t-online.de

ITALIA

David Brown Hydraulics Italia S.r.l.
 Via Del Costruttore, 64
 41058 Vignola - MO
 Tel: +39 059 7700411
 Fax: +39 059 7700425
 E-mail: dbhitalia@dbhsl.com

NORWAY

David Brown Benzlers AS
 Strømsveien 312
 Postboks 73 Leirdal
 Oslo 1008
 Tel: +47 22 90 94 10
 Fax: +47 22 90 94 11
 E-mail: post@dbhsl.no

USA

Hydreco Inc.
 1500 Continental Blvd Ste Z
 Charlotte
 NC 28273-6376
 Tel: +1 704-295-7575
 Fax: +1 704-295-7574
 E-mail: postmaster@hydreco.com

UK

David Brown Hydraulics
 32 Factory Road
 Poole
 Dorset
 BH16 5SL
 Tel: +44 (0)1202 627500
 Fax: +44 (0)1202 627555
 E-mail: info@dbhsl.com

WEBSITES

David Brown Hydraulics:
www.davidbrownhydraulics.com

Hydreco: www.hydreco.com

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