

## Motor Mount HICs (Hydraulic Integrated Circuits)

### Introduction

For more than 40 years, Sauer-Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off highway applications around the world. We have become a preferred supplier by delivering know how in motion™.

Off-highway mobile machinery OEMs and distributors can choose from four types of ready-to-mount hydraulic integrated circuits (HICs), designed to fit seven popular Sauer-Danfoss low speed, high torque (LSHT) motors.

The new HICs work in combination with DH, DS, OMP, OMR, OMH, OMS and OMT motors.

Motor mount HICs are appropriate for a number of applications, including swing drives, winch drives, slew drives (mini-excavators), vehicle propulsion, auger drives, conveyor drives and on/off fan applications.



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### Features:

- Direct mount to motor provides optimum control at the load. Pre-work is done to ensure proper assembly and mounting to motor.
- Mounting bolts and O-rings are included.
- Improve system plumbing, packaging, and installed cost on your machine.
- Pre-testing to NFPA test standards ensures robustness on your application.
- Designed to match the technical capabilities of the motor

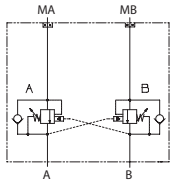
### Functions:

- Counterbalance (overcenter)
  - Prevents excessive motor drift, holds the load, limits overrun of load.
  - Provides a smooth cushioned stop when the control valve suddenly closes.
  - Single or dual valves are available on A or B port.
  - Optional shuttle valve is available for load-sensing feedback, operating an unloading valve, or releasing a brake.
- Cross-port relief
  - Provides the work ports with full-flow, by-pass relief protection controlling the maximum motor torque.
  - Single or dual valves are available on A or B port.
  - Optional shuttle valve is available for load-sensing feedback, operating an unloading valve, or releasing a brake.
- Bypass solenoid
  - Uses electric signal to enable/disable motor rotation independent of system hydraulics. A normally closed solenoid valve bypasses flow from B to A when energized.
  - Drain port connects to port A to simplify circuit plumbing.
  - PLUS+1™ compliant and optional robust coil are available.
- Dual shock valve with anti-cavitation checks
  - Trims the maximum motor torque by absorbing pressure spikes (shock effects) at the work ports.
  - Anti-cavitation feature allows additional flow to the motor through the drain port when the motor overruns the pump.
  - PVL (shock valves from PVG) and ductile iron manifolds allow for a compact design.

Local Address:

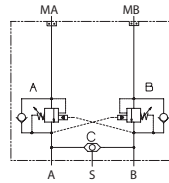
## Schematics

Counterbalance valve (hydraulic vent)\*



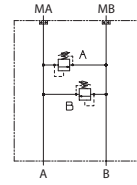
P104 593

Counterbalance valve (hydraulic vent) with shuttle\*



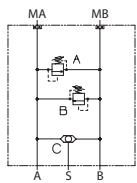
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Cross port relief\*



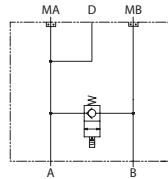
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Cross-port relief with shuttle\*



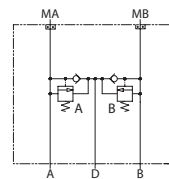
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Bypass solenoid with drain



P104 750

Dual shock valve with anti-cavitation (PVLV)



P104 763

\* Also available in single valve on A or B port

## Technical Data

Motor	DH	DS	OMP/OMR	OMH	OMS	OMT
Maximum continuous flow l/min [US gal/min]	16 [60]	16 [60]	16 [60]	20 [75]	20 [75]	33 [125]
Port locations		Same as DH, but requires adapter plate 				
Counterbalance valve (hydraulic vent)	MM-DH-00-DCB10-HV-...	MM-DS-00-DCB10-HV-...	MM-OMP/OMR-00-DCB10-HV-...	MM-OMH-00-DCP441-1-...	MM-OMS-00-DCP441-1-...	MM-OMT-00-DCP441-1-...
Counterbalance valve (hydraulic vent) w/shuttle	MM-DH-LS-DCB10-HV-...	MM-DS-LS-DCB10-HV-...	MM-OMP/OMR-LS-DCB10-HV-...	MM-OMH-LS-DCP441-1-...	MM-OMS-LS-DCP441-1-...	MM-OMT-LS-DCP441-1-...
Cross-port relief	MM-DH-00-DVME06-...	MM-DS-00-DVME06-...	MM-OMP/OMR-00-DVME06-...	MM-OMH-00-DCP211-2-...	MM-OMS-00-DCP211-2-...	MM-OMT-00-DCP211-2-...
Cross-port relief w/shuttle	MM-DH-LS-DVME06-...	MM-DS-LS-DVME06-...	MM-OMP/OMR-LS-DVME06-...	MM-OMH-LS-DCP211-2-...	MM-OMS-LS-DCP211-2-...	MM-OMT-LS-DCP211-2-...
Bypass solenoid w/drain	MM-DH-00-BSVP10-NCR-...	MM-DS-00-BSVP10-NCR-...	MM-OMP/OMR-00-BSVP10-NCR-...	MM-OMH-00-BSVP10-NCR-...	MM-OMS-00-BSVP10-NCR-...	MM-OMT-00-BCP502-3-...
Dual shock valve w/anti-cavitation (PVLV)	MM-DH-00-DPVLP-...	MM-DS-00-DPVLP-...	MM-OMP/OMR-00-DPVLP-...	MM-OMH-00-DPVLP-...	MM-OMS-00-DPVLP-...	MM-OMT-00-DPVLP-...

For more information on Sauer-Danfoss cartridge valves and HICs, refer to *Cartridge Valves Technical Information 520L0588*. See the motor mount valves section for detailed information on motor mount HICs.