



PRODUCT BULLETIN

Integrated Accumulator Charging Valve/Pump Package

DESCRIPTION

This integrated package features a ZF Off-Highway Accumulator Charge Valve and a Haldex W 900 Gear Pump to accomplish the accumulator charge function. The function of a dual accumulator charge valve is to control the pressure in redundant accumulators used in two or more brake circuits. When the pressure in either accumulator reaches a specified low limit a charge cycle is initiated. The flow rate at which the accumulators charge is constant throughout the charging cycle. The charging cycle is complete when the pressure in both accumulators reaches the specified high limit. The brake circuits are protected from pressure spikes at startup by an internal pressure relief valve. Excess flow from the valve may be used for steering, cooling, or implement functions. A relief valve is required for these functions.

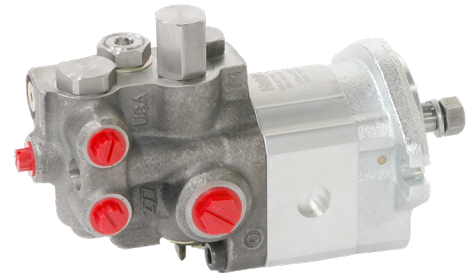
BENEFITS

The package offers greater system reliability by reducing system components. It reduces potential leak points as well as plumbing and mounting hardware. Additional benefits include:

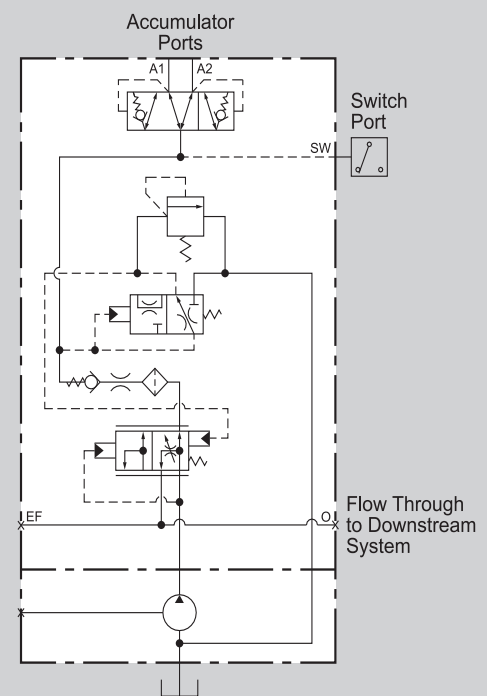
- Energy savings from greater than 90% overall pump efficiency across pressure and speed ranges
- Minimal system transients at the start and end of the accumulator charging cycle due to snap like action of the control section
- A switch port for direct mounting of low accumulator pressure warning switch
- Wide range of pump mounting and shaft configurations available

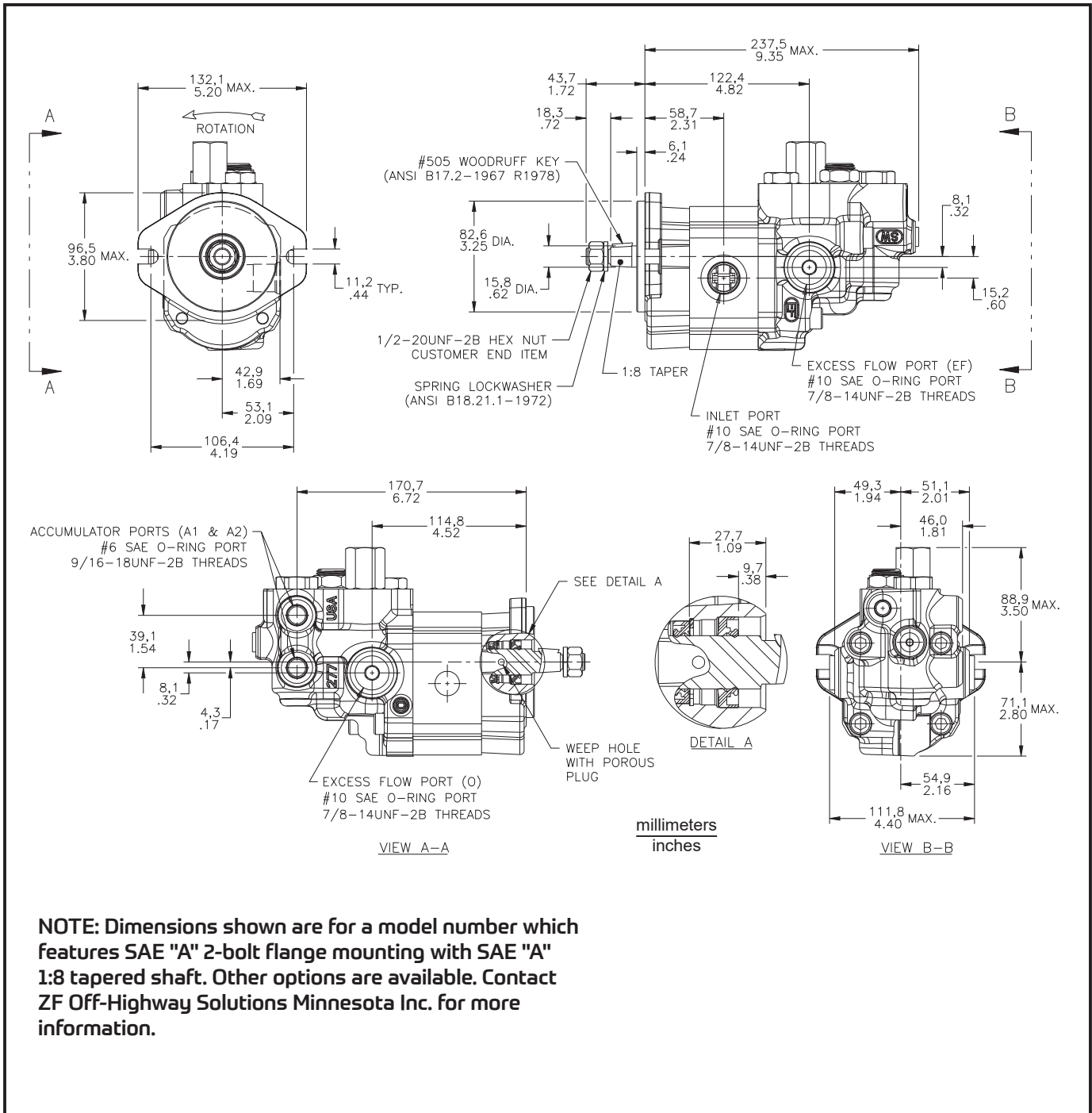
SPECIFICATIONS

Pump displacement..... 6.0 to 28 cc/rev. (0.37 to 1.7 in³/rev.)
Maximum pressure 207 bar (3000 PSI) continuous
(higher pressure optional)
Speed 500 to 4000 RPM
Pump rotation clockwise or counterclockwise
Pump mounting SAE A and B 2 bolt flange
other options available
Shaft straight, tapered, spline, tang
other options available
Pump inlet port straight thread o-ring boss or flange
Accumulator charge limits custom ranges 193 bar
(2800 PSI) maximum upper limit
Accumulator charge rate 1.9 to 19.0 L/min
(0.5 to 5.0 GPM) 4 options
Options dual or single accumulator



Symbol





NOTE: Dimensions shown are for a model number which features SAE "A" 2-bolt flange mounting with SAE "A" 1:8 tapered shaft. Other options are available. Contact ZF Off-Highway Solutions Minnesota Inc. for more information.

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