SERVICE INSTRUCTIONS

OILGEAR TYPE "CH" HIGH-LOW COMPENSATOR CONTROL FOR "PVWH" AND "PVW" PUMPS

PURPOSE OF INSTRUCTIONS

These instructions have been prepared to simplify and minimize your work of operating Oilgear type "CH" controlled units. This material will inform you as to basic construction, principle of operation and service parts listings. Some controls may be modified for specific applications from those described and other changes may be made without notice.

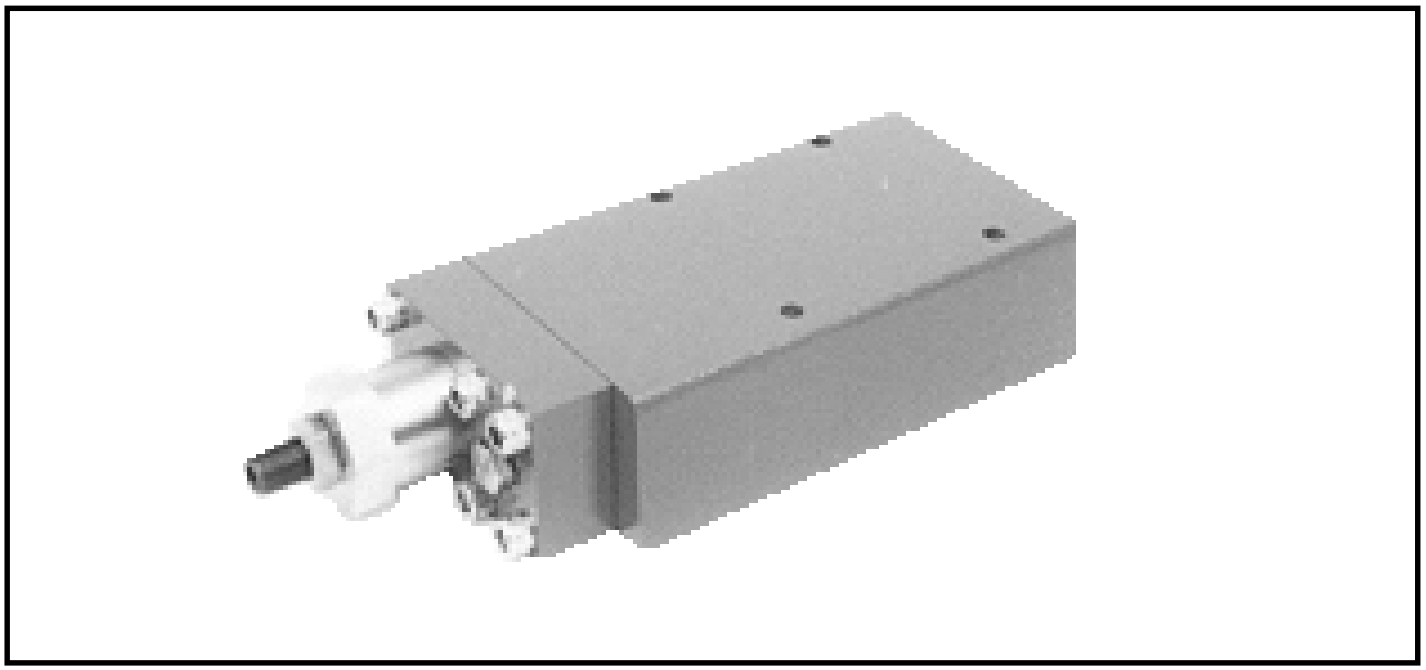

Figure 1. Typical "CH" Control for Oilgear "PVWH" and "PVW" Pumps (N89-002-07).

REFERENCE MATERIAL

Fluid Recommendations	Bulletin	90000
Filtration Recommendations	Bulletin	90007
Piping Information	Bulletin	90011
"PVWH" and "PVW" Open-Loop Pump . .	Bulletin	947015

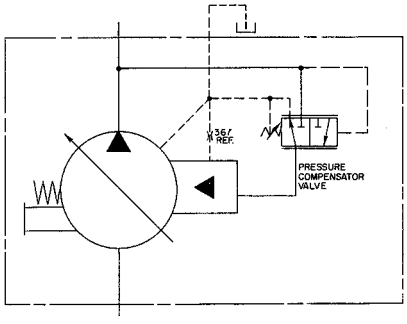

Figure 2. ASA diagram for "CH" control with "PVWH" Pumps (E51340).

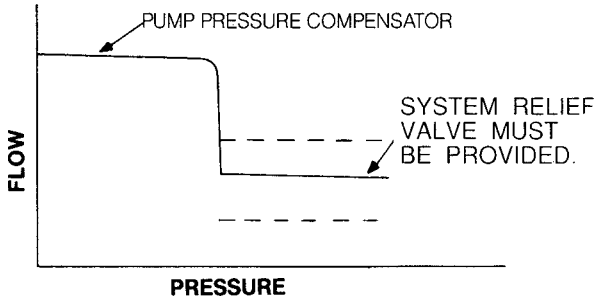

Figure 3. Curve indicating flow vs. pressure for "CH" controls.

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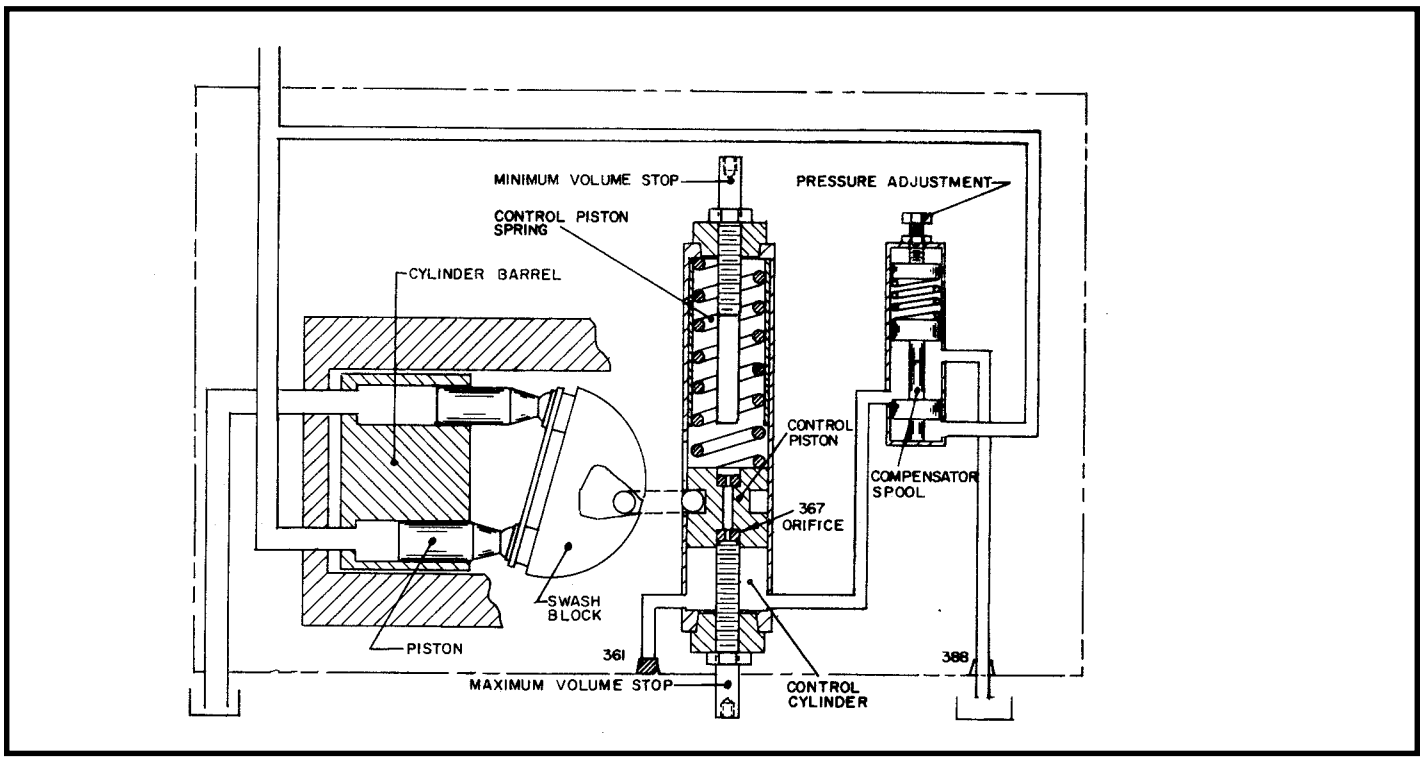

Figure 4. Cut-a-way diagram of "CH" High-Low Compensator Control (E51340).

PRINCIPLE OF OPERATION

Refer to figure 4. The pressure compensator control ensures maximum pump flow until the system reaches the controls preset pressure setting. When pressure in the delivery line reaches a pressure high enough to shift the pressure compensator spool against the spring, high pressure is ported into the control cylinder and behind the control piston which compresses the control piston spring and shifts the pump (swashblock) for reduced delivery until pressure in delivery line holds at the pressure compensator valve setting. However, the minimum volume stop built into the control assures a preset flow regardless of system pressure.

A SYSTEM relief valve must be used to protect the pump and the system.

A remote pressure compensating option can be attained by use of an Oilgear sequence type compensator module remote from the control. See page 4.

PARTS LIST

Parts used in this assembly are per Oilgear specifications. Use Oilgear parts to ensure compatibility with assembly requirements. When ordering replacement parts, be sure to include pump type designation and serial number stamped on nameplate, bulletin and item number. To assure seal and packing compatibility, specify type of hydraulic fluid used.

ITEM NO.	DESCRIPTION
303	Screw, H.H.C. Mounting
355	Seal, O'ring
356	Seal, O'ring
357	Nut, Jam
358	Screw, Pressure Adjustment
359	Plug, SAE
360	Plug, SAE
361	Plug, SAE
362	Piston, Control
363	Spool, Pressure Compensator
364	Seat, Spring
365	Gasket, Cover
366	Spring, Pressure Compensator
367*	Orifice, Control Piston
367B	Orifice, Control
368	Housing, "CH" Control
369	Gasket, Control Housing
370	Spring, Control Piston
371	Plug, Control
372	Cover, Control Housing

ITEM NO.	DESCRIPTION
373	Pin, Control Piston
374	Screw, SHC
375	Seal, O'ring
375A	Seal, O'ring
381	Assembly, Pres. Comp. Adj.
385	Seal, O'ring
388**	Screw, Set
390	Nut, Jam
390A	Seal, O'ring
391A	Stem, "CH" Min. Vol. Stop
392	Adapter, Max. Vol. Stop
392A	Adapter, "CH" Min. Vol. Stop
393	Stem, Max. Vol. Stop
394	Seal, O'ring
394A	Seal, O'ring

* Spring side of control piston for "PVWH" 11 thru 20 sizes and for "PVW" 15 thru 60 sizes. Opposite side of control piston for all others.

** Install only when remote control is used.

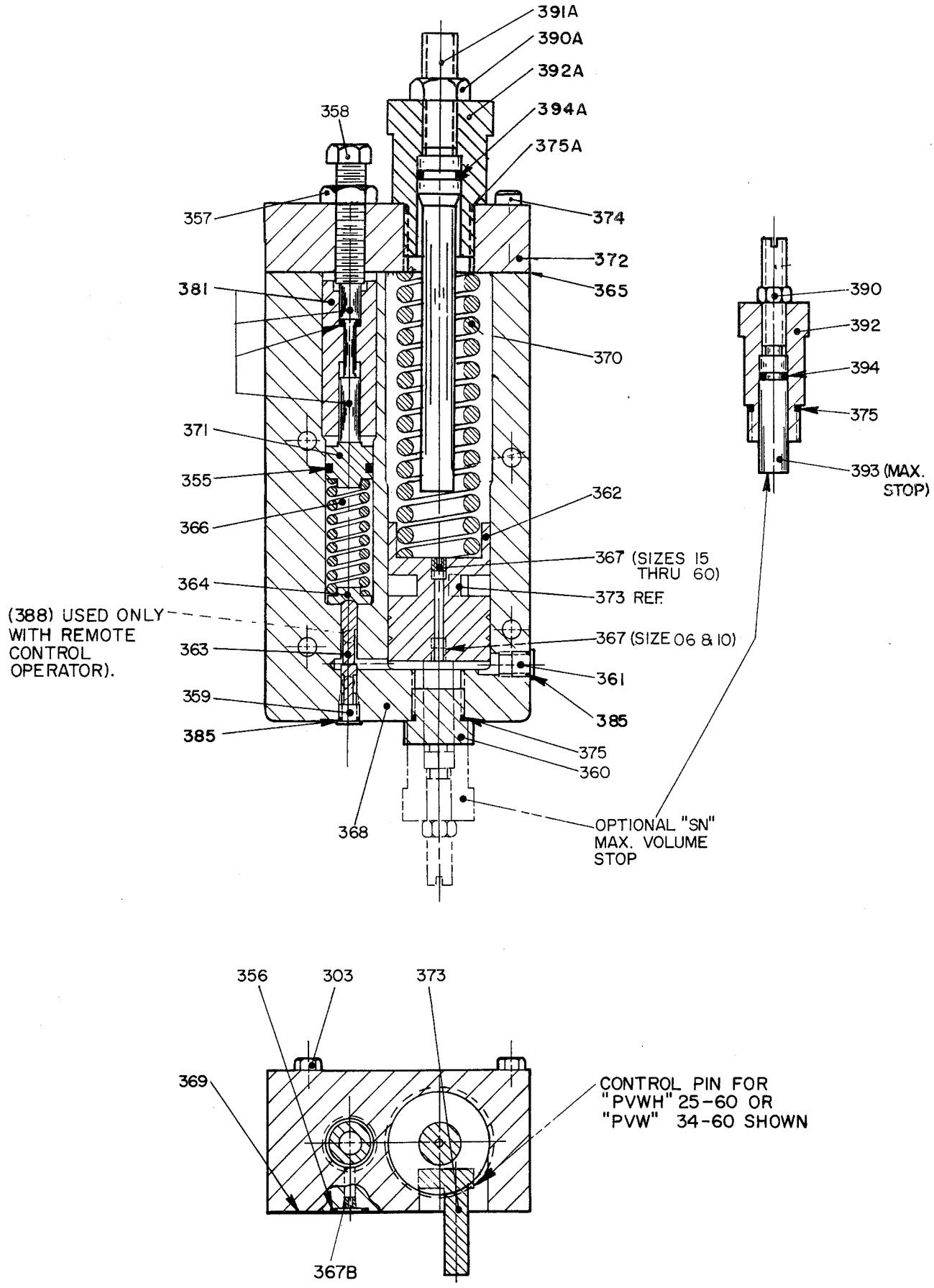

Figure 5. Parts Drawing, Oilgear Type “CH” Control (E51340).

REMOTE CONTROL

Refer to figure 6. Remote operation of "CH" controls can be accomplished by installing an Oilgear remote compensator module at the location shown in the control circuit and plugging compensating spool drain with a #10-24 set screw (388). Use L51542 for units rated continuously for 3500 psi (241,4 bar) or less, use L51542-1 for units rated above 3500 psi (241,4 bar).

When system pressure reaches the setting of the remote pressure compensator valve, the valve opens and ports fluid into the control piston cylinder via the port from which plug (361 or 360) have been removed. This fluid causes the pump to destroke.

The compensator setting on the pump control must be set at least 200 psi (13,8 bar) higher than required maximum system pressure setting of the remote compensator module. Doing this will prevent the pump compensator control from interacting with the remote adjustable compensator (sequence) module.

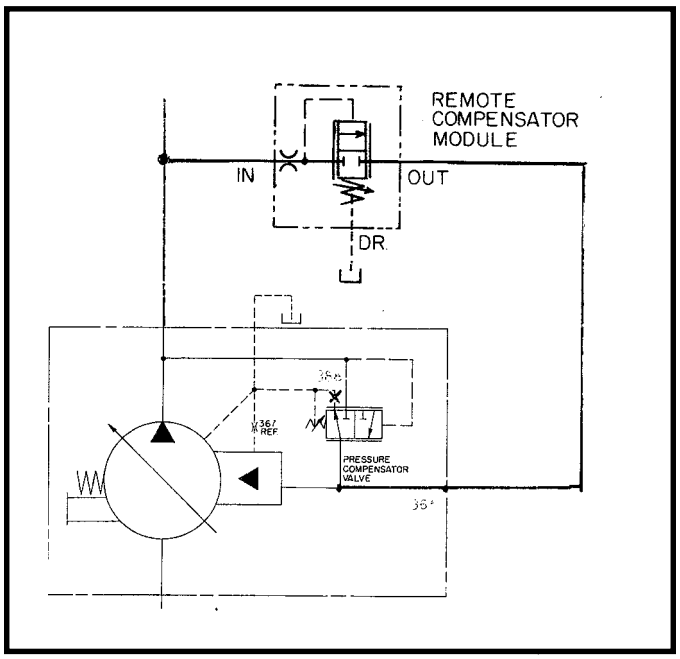

Figure 6. "CH" control circuit with remote pressure control.

NOTES

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