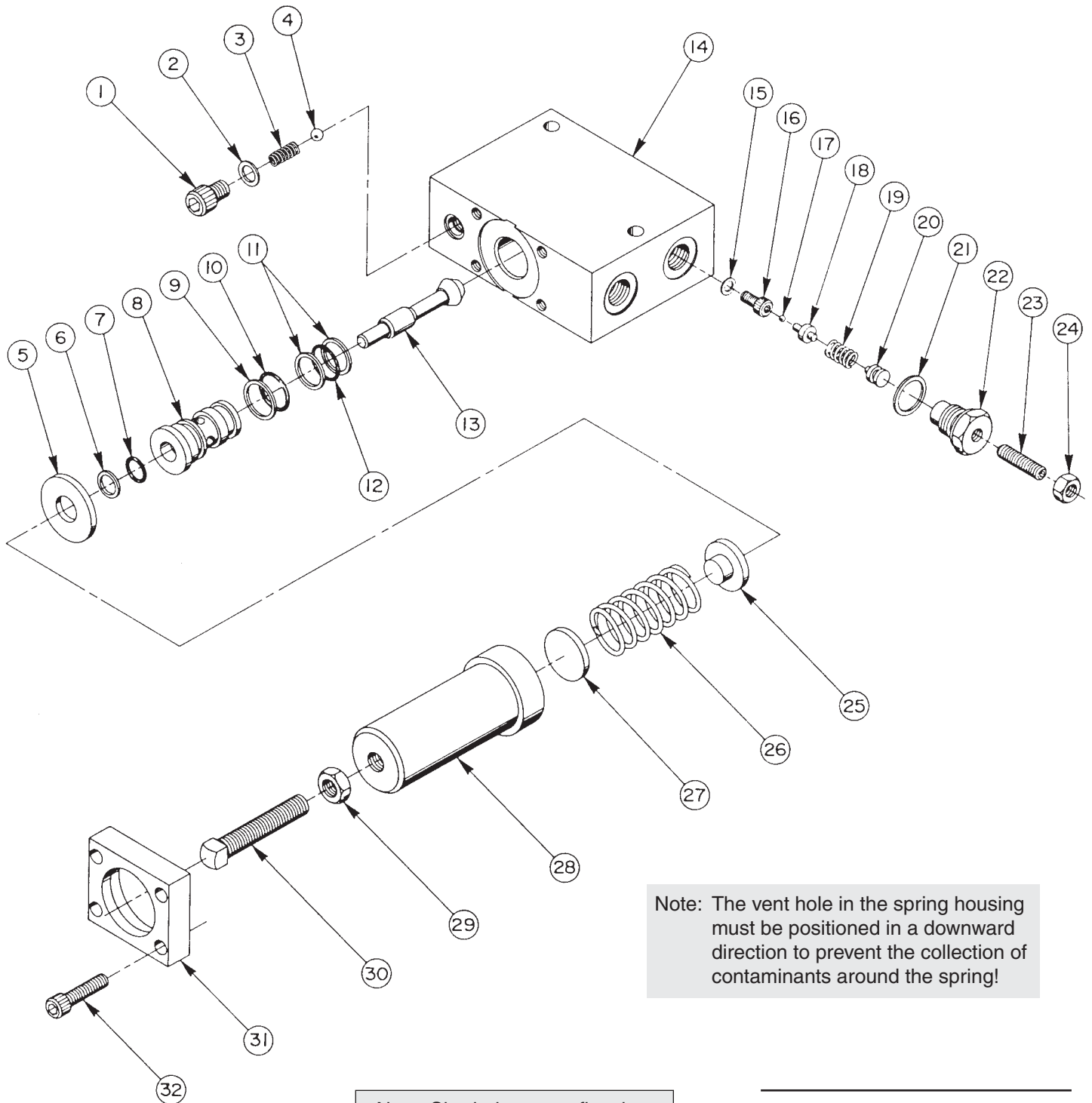


## PRESSURE REDUCING VALVE



Note: The vent hole in the spring housing must be positioned in a downward direction to prevent the collection of contaminants around the spring!

Note: Shaded areas reflect last revision(s) made to this form.

Sheet No. 1 of 2

Rev. 1 Date: 14 Apr. 1999

# Parts List and Operating Instructions, Form No. 101612, Back sheet 1 of 2

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	11006	1	Soc. Hd. Cap Screw (Torque to 80/100 in. lbs.)	15	14319	1	Copper Washer (5/16 X 3/16 X 1/32)
2	11031	1	Copper Washer (15/32 X 5/16 X 1/32)	16	203364	1	Replaceable Seat
3	11024	1	Compression Spring (1/4 O.D. X 5/8 Lg.)	17	14443	1	Steel Ball (3/32 Dia.)
4	10374	1	Steel Ball (7/32 Dia.)	18	29785	1	Ball Retainer
5	209251	1	Retainer Washer	19	209260	1	Compression Spring
6	11863	1	Backup Washer (1/2 X 3/8 X 1/16, -012)	20	200539	1	Ball & Spring Guide (No O-ring req.)
7	10268	1	O-ring (1/2 X 3/8 X 1/16, -012)	21	10261	1	Copper Washer
8	22068	1	Bushing	22	26570	1	Guide
9	12392	1	Backup Washer (3/4 X 5/8 X 1/16, -016)	23	15503	1	Set Screw (1/4-28 UNF X 1" Lg.)
10	10302	1	O-ring (3/4 X 5/8 X 1/16, -016)	24	10200	1	Hex Nut
11	12391	2	Backup Washer (11/16 X 9/16 X .048, -015)	25	209249	1	Spring Guide
12	11284	1	O-ring (11/16 X 9/16 X 1/16, -015)	26	209259	1	Compression Spring
13	200542	1	Balanced Poppet Half	27	209254	1	Disc
14	64850	1	Valve Body	28	304458	1	Spring Housing
				29	10387	1	Hex Jam Nut
				30	11154	1	Set Screw (3/8-16 UNC X 2" Lg.)
				31	304457	1	Collar
				32	10016	4	Soc. Hd. Cap Screw (1/4-20 UNC X 1" Lg.)
				33	209294	1	Decal (Not shown)

## SPECIFICATIONS

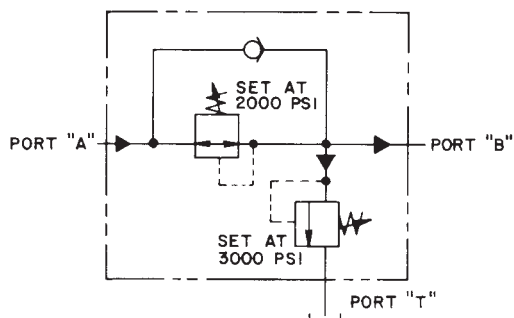
This pressure reducing valve is used to provide an adjustable regulated pressure which is lower than the supply pressure. It is used for applications where more than one pressure is required from one pump. This valve can be used with either single-acting or double-acting hydraulic cylinders and can be used with various types of hydraulic pumps. It can be used with a series of cylinders to control the multiple pressure drops independently (see Fig. 1) or simultaneously (see Fig. 2).

Turning the adjusting screw clockwise (Item 30) will increase the downstream pressure. Turning it counter-clockwise will decrease the downstream pressure of the next cycle.

**NOTE: It will not decrease the downstream pressure of an already pressurized system.**

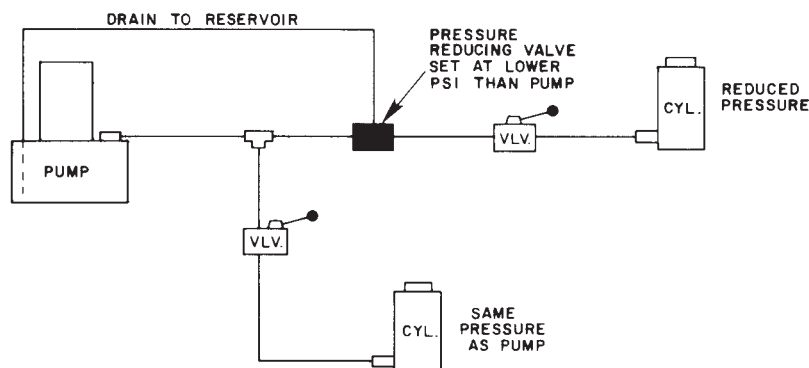
### IMPORTANT

- Port "A" is rated at 10,000 PSI maximum. Reduced outlet pressure port "B" is adjustable from 1000 to 5000 PSI with pressure adjustment screw.



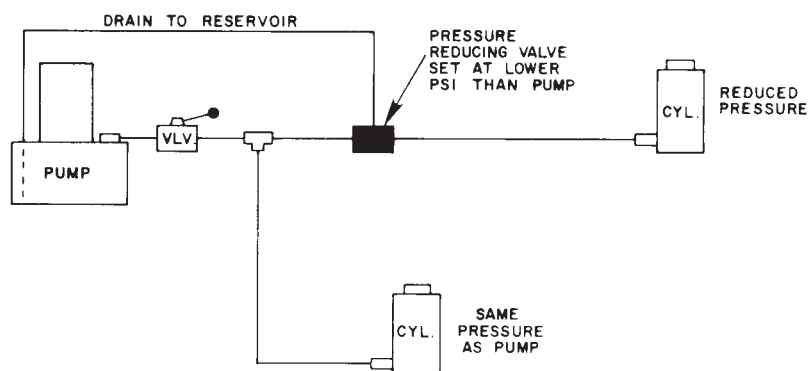
### INDEPENDENTLY OPERATED

Fig. 1



### SIMULTANEOUSLY OPERATED

Fig. 2



## PRESSURE REDUCING VALVE SETUP INSTRUCTIONS

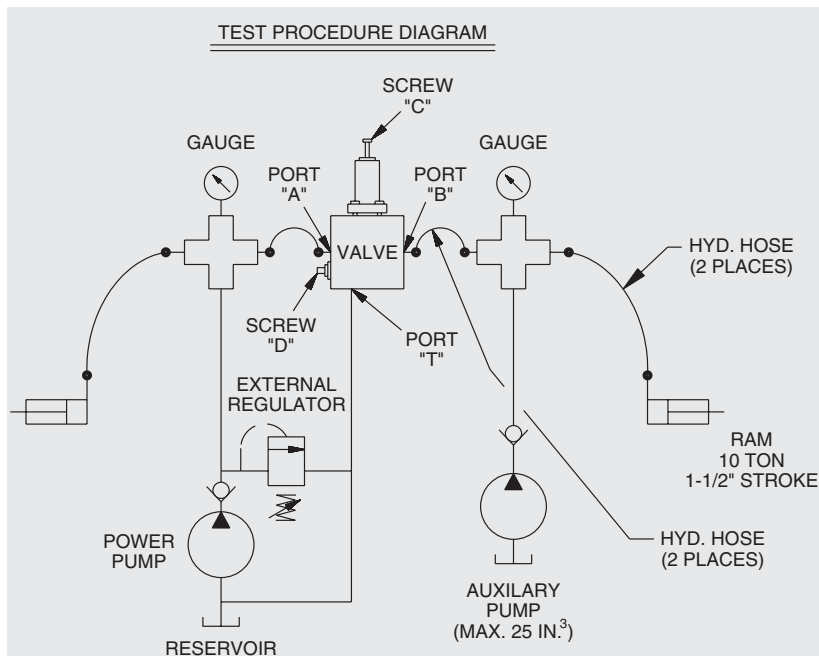
1. Hook up the pump pressure line to the "In" port "A".
2. Hook up the reduced pressure line to the "Out" port "B".
3. Hook up the drain port "T" to the pump reservoir.
4. Set the reduced pressure relief valve by first turning the pressure regulating screw "C" (on the end of the aluminum spring tube) in solid and then:
  - a. If a hand pump is to be used with the system, set the small relief valve screw "D" (located next to the "In" port "A") to 200 PSI above the desired reduced pressure setting. This is accomplished by setting the relief valve while pumping oil through the system.
  - b. If a power pump is used with the system, set the relief valve (as above) at 1,000 PSI above the desired reduced pressure setting.
5. Release the pressure from port "A" and adjust (CCW rotation) the pressure regulator screw "C" until it's free.
6. Direct hydraulic pressure to port "A" and set the desired reduced pressure level by adjusting (CW rotation) the pressure regulating screw "C" to the desired setting. Cycle the system between zero and the desired setting and make minor adjustments to the pressure regulating screw "C" as required. Once the valve is set to operate on rising pressure, further adjustments will not be necessary.

**NOTE:** The regulated pressure relief valve is designed to protect the system from over pressurization due to wear, dirt, heat, or misadjustment of the pressure reducing valve. Any over pressurization to the relief valve setting would indicate that valve maintenance is necessary. Oil leakage from drain port "T" is an indication that the relief valve setting has been reached. This valve is factory set at 5,100/5,700 PSI.

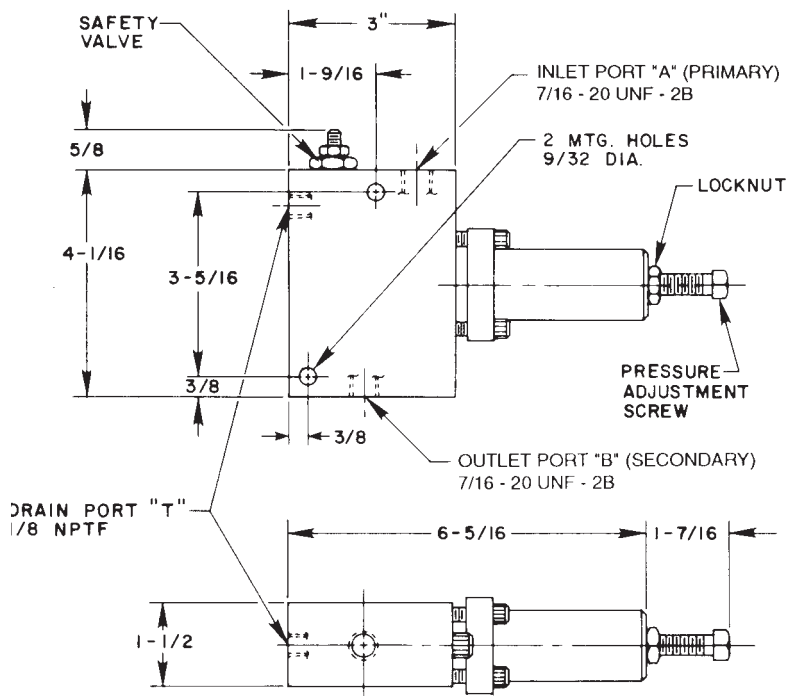


**WARNING**

Port "T" must not be plugged or damage to the valve or external components may occur, which could cause injury to the operator.



The diagram above is for hydraulic assembly test only and has nothing to do with customer setup.



Note: Shaded areas reflect last revision(s) made to this form.