

INSTALLATION INFORMATION FOR 74 SERIES
INDUSTRIAL SERVOVALVE

HYDRAULIC SYSTEM PREPARATION:

To prolong servovalve life and to reduce hydraulic system maintenance, successful industrial users have installed a 5 or 10 micron large capacity filter upstream of each servovalve. Their practice has been to operate a new hydraulic system for a period with a flushing block at the servovalve location before the servovalve is installed. The period of flushing prior to servovalve installation varies considerably with the complexity and condition of the system. The usual period is at least four hours. The flushing is done under conditions of temperature, flow rates, etc., which reasonably simulate operating conditions. New system filter elements are installed during the flushing process whenever the pressure drop across the filter indicates that the element (s) need changing. When a filter will operate for a period of two hours with no perceptible increase in pressure drop, most of the harmful system contamination has been removed. To maintain a clean system, filters must be replaced whenever the pressure drop indicates a need for changing. Users also frequently install an oversize capacity 5 or 10 micron filter in the return line or in a line that provides a constant full capacity flow. This increases the filter element replacement interval and greatly reduces the system contamination level.

FILTER REPLACEMENT (MOOG PART NUMBER 071-43029)

The MOOG Industrial Servovalve is equipped with a replaceable filter assembly. These may be obtained from Moog and it is recommended that a spare filter be maintained ready for use. Filter elements supplied by Moog are ready for immediate installation. Filter replacement is as follows:

1. Depressurize supply and return lines to valve.
2. Remove three #8-32 socket head cap screws from valve end cap.
3. Remove end cap by pulling with a twisting motion, taking care not to drop spring assembly. Place spring assembly in a clean container.
4. Remove filter retainer and filter element by grasping lug on each part with a pair of needle nose pliers. Exercise caution to prevent dirt from falling into valve body or filter bore.
5. Replace filter element assembly and filter retainer.
6. Place spring assembly into spool bore of body.
7. Replace end cap and tighten three #8-32 screws.

INSTALLATION:

The 74 Series Industrial Servovalve may be mounted in any position. The mounting holes will accommodate 5/16 - 18x 1 1/2" long minimum socket head cap screws. The mounting pattern in the valve is shown on Installation Drawing No. 001-43462. With a light oil film on screws, the screws should be tightened with a torque of 96 in. -lbs.

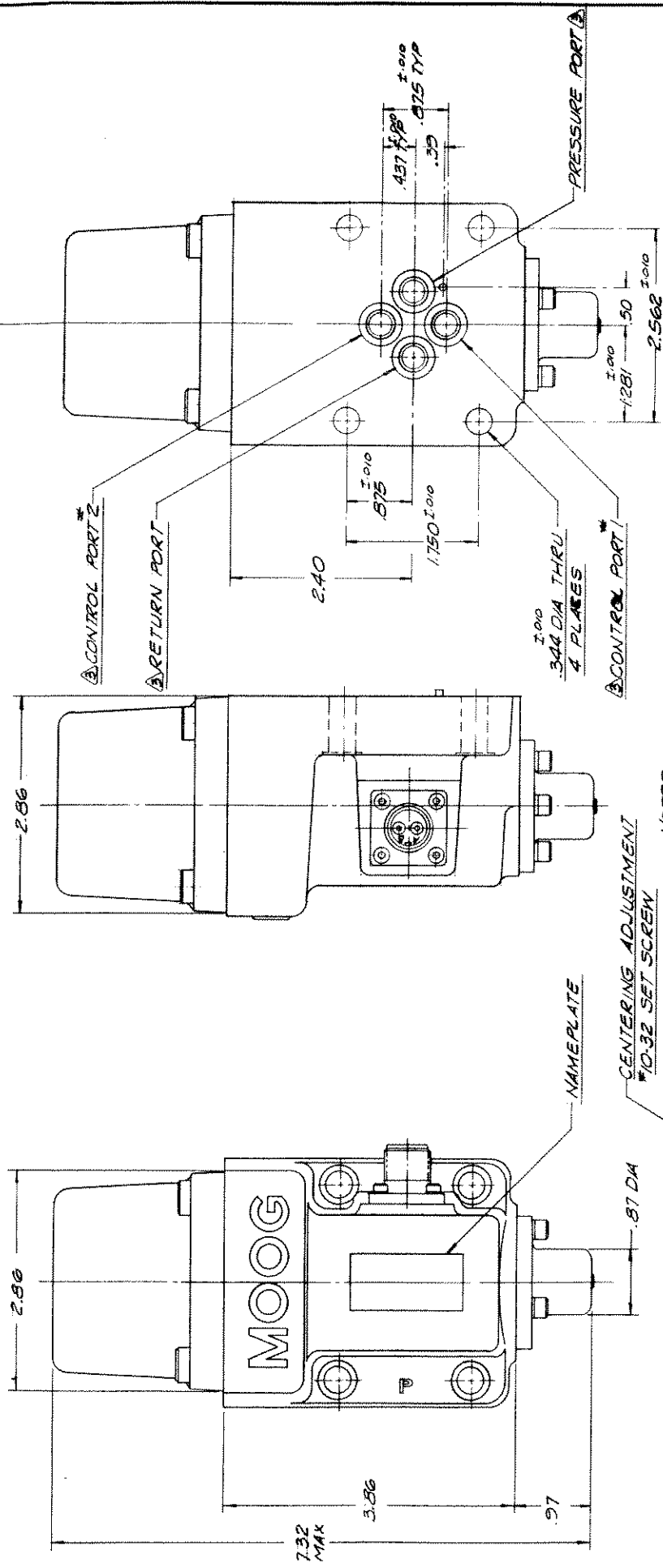
The first time after installing valve, pressure should be applied to the system slowly to allow oil to fill filter cavities gradually.

MECHANICAL CENTERING ADJUSTMENT

It is often desirable to adjust the flow null of a servovalve independent of other system parameters. The mechanical centering adjustment of the Moog 74 Series Servovalve is located in the end cap, see Installation Drawing No. 001-43462.

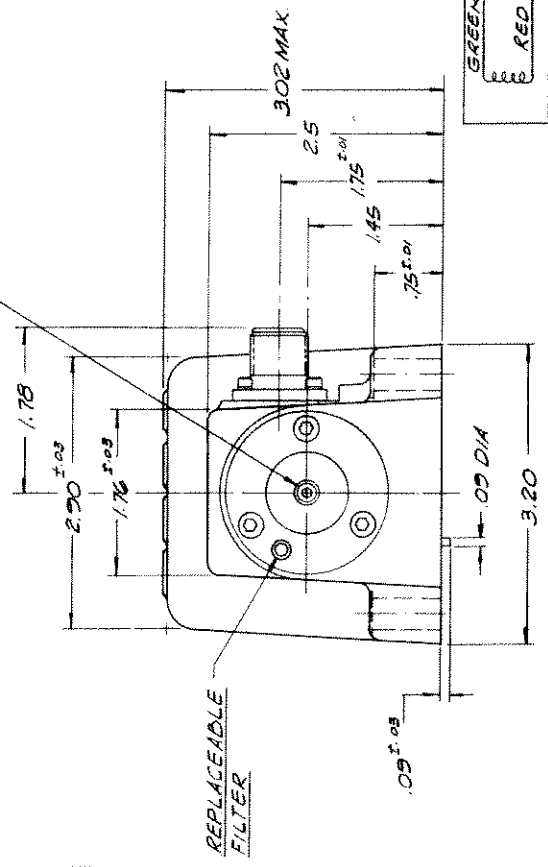
A 3/32" allen head wrench fits the adjustor screw socket.

Clockwise rotation of adjustor screw produces an open loop flow from port #1 to port #2.



NOTES -

1. FLUID - INDUSTRIAL PETROLEUM BASE OIL (-65°F TO +275°F)
2. PHASING - SERIES OPERATION - A PLUS, B MINUS FLOW OUT CONTROL PORT #2
3. PORTS - 1/2 DIA, COATED .980 ID x .562 OD x .055 DP FOR .070 x .426 ID O-RINGS
4. SURFACE TO WHICH VALVE IS MOUNTED REQUIRES GRAMS FINISH FLAT WITHIN .001 TIR
5. ELECTRICAL CONNECTOR MATES WITH MS 9106-105L-4S
6. 10 MICRON SYSTEM FILTRATION RECOMMENDED
7. DIMENSIONS WITHOUT TOLERANCE ARE FOR REFERENCE ONLY



QTY	REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL OR NOTE	SPECIFICATION	CODE IDENT	UNIT WT	ITEM NO.
LIST OF MATERIALS OR PARTS LIST								
UNLESS OTHERWISE SPECIFIED			1. XX-2 D10 XXX ±.003	FA WILLIAMS 2/14/66	MOOG SERVOCONTROLS, INC. EAST AURORA, NEW YORK			
2. DRILLS > 1/4" DIA = .001			3. DRILLS > 1/4" DIA = .001	RPW 2/14/66	INSTALLATION			
4. FILLETS			5. SURFACE FINISH (RMS)		74 SERIES SERVOVALVE			
6. PART TO BE FREE OF BURRS								

MOOG SERVOCONTROLS, INC. EAST AURORA, NEW YORK	
INSTALLATION	
74 SERIES SERVOVALVE	
CODE IDENT NO.	94697
SIZE	C
001-43462	
SCALE	FIRST USE 74-126
SHEET	