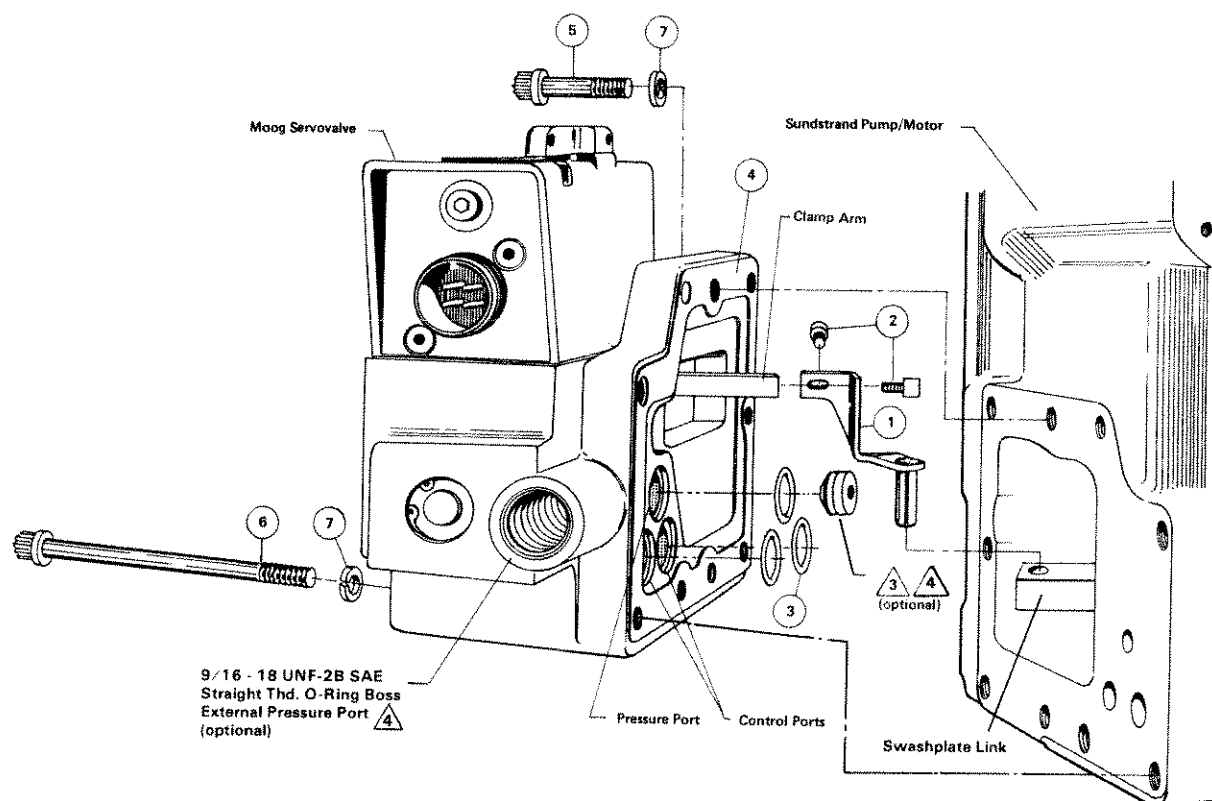


INSTALLATION INSTRUCTIONS FOR MOUNTING MOOG CONTROL VALVE, SERIES 62-500A/B, 62-600A/B, AND 63-500 TO SUNDSTRAND PUMP/MOTOR, SERIES 20 THRU 27 AND 33 THRU 36

P/N A37102
Rev. C: June 1982



**TABLE I
MOUNTING KIT CONTENTS**

ITEM	PART NAME	QTY.
1	Connecting Link Assembly	1
2	Soc. Head Cap Screw 5/16" long, locking	2
3	O-Ring	3
4	Gasket	1
5	External Wrenching Cap Screw 1" long	5
6	External Wrenching Cap Screw 3" long	3
7	Lockwasher	8

REQUIRED TOOLS

- (1) Torque Wrench, 1/4" drive (0-30 in. lbs.)
- (1) Torque Wrench, 1/4" drive (0-150 in. lbs.)
- (1) Socket, 1/4" drive (1/4", 12 pt.)
- (1) Allen Wrench, 1/8" Hex
- (1) Adaptor, 1/4" drive to 7/64" hex Allen

INSTALLATION PROCEDURE

1. Remove protective packing or shipping plate.
2. Attach connecting link assembly (1) to valve clamp arm assembly with two self locking soc. head cap screws, (2). Torque screws to 17 ± 2 in. lbs. using 0-30 in. lb. torque wrench and 1/4" drive adaptor to 7/64" hex Allen. Use care not to damage clamp arm assembly during torquing.

3 Place three O-Rings (3) on control ports and pressure port of valve, being certain port screens are in place on Series 63-500 Valve. If control valve being replaced has an orifice in pressure port, orifice should be checked for cleanliness and placed in pressure port of new control valve.

4 When using external pressure port (only available on Series 63-500 Valve), remove pressure port O-Ring (3) and pressure port screen. Install optional pressure port O-Ring plug assembly, Moog Part Number A37932-1, approximately flush with valve mounting surface. Reinstall pressure port O-Ring (3).

5. Clean mating surfaces thoroughly before mounting the valve. Place the new gasket (4) on mounting surface of valve. Align holes in gasket with mounting holes in valve.

6. Observe position of swash plate link in pump/motor opening. If necessary, position the swash plate link so that it is near the opening in the pump/motor.

7. Position the valve opposite the opening in the pump/motor. Engage the pin on the connecting link assembly (1) in the mating hole in the swashplate link. Slide the pin all the way into the swashplate link hole and then swing the valve into place against the mounting surface of the pump/motor, being certain the orifice and o-rings are in place.

8. Install five screws (5), three screws (6) and eight lockwashers (7). Torque screws to 110 ± 10 in. lbs. using 0-150 in. lb. torque wrench and 1/4" socket (12 pt.)

NULL ADJUSTMENT PROCEDURE - MOTOR

1. Ensure that zero electrical signal is applied to the control valve by disconnecting the power cable to the valve electrical connector (2, Figure 1).
2. To properly adjust the valve for motor operation, it is necessary to install a 250 psi pressure gauge in the 1/8-27 NPT pipe port located directly below the Moog Control Valve on all 20 thru 27 Series Motors, as shown in Figure 2. For all 33 thru 36 Series Motors, install a 250 psi pressure gauge in the 9/16-18 SAE straight thread O-Ring boss port located as shown in Figure 2.
3. Using a 1/8" hex Allen wrench, push null adjust assembly (1) to engage torque motor adjustor.
NOTE: Some models may require the removal of a slotted cover screw before engagement of the 1/8" hex Allen wrench can be made.
4. With the motor running, slowly rotate the Allen wrench clockwise. The pressure gauge will read near case pressure (5 to 40 psi) as the Allen wrench is turned, until such time as the swashplate hits the full displacement stop. At that time the gauge pressure will rise rapidly to charge pressure (approx. 180 psi). Turn Allen wrench for an additional 1/8 turn.
NOTE: In no case should the adjustor be turned more than two turns from its original position.
5. To check the valve adjustment, apply a positive voltage to Pin A with Pins B and C tied and Pin D connected to ground. As the voltage is increased, the swashplate will move off the 18° stop and will normally hit the 7° limiting stop at 1-1/2 to 2-1/2 volts.
6. Reconnect the power cable to the electrical connector (2).

NULL ADJUSTMENT PROCEDURE - PUMP

1. Ensure that zero electrical signal is applied to the control valve by disconnecting the power cable to the electrical connector (2, Figure 1).
2. Using a 1/8" hex Allen wrench, push null adjust assembly (1) to engage torque motor adjustor.
3. With pump running, use hex Allen wrench to slowly rotate the null adjust assembly (1) in each direction (clockwise and counterclockwise), in turn. Note the relative position of the null adjust assembly at the moment the transmission output shaft begins to rotate, for each direction of null adjust assembly rotation.
4. Position the null adjust assembly (1) at a position approximately centered within the "deadband" between the two positions noted in step 3, above.
5. Reconnect the power cable to the electrical connector (2).

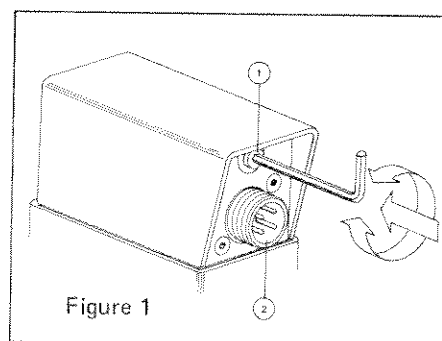
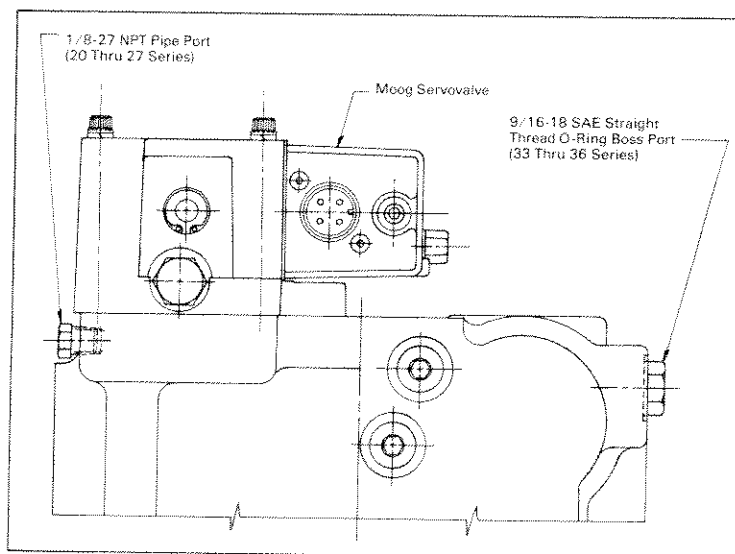


TABLE II
SUNDSTRAND PUMP/MOTOR SERIES
VS
MOOG MOUNTING KIT NUMBER

SUNDSTRAND PUMP/MOTOR SERIES	MOOG KIT NUMBER (Buna-N)	PACKAGE CONTENTS AS MARKED
20, 21, 22	A37083-1	
23(-09)	A37083-2	
23(-10)	A37083-3	
24	A37083-4	
25	A37083-5	
26	A37083-6	
27	A37083-7	
33, 34, 36	A37083-30	



Sundstrand Motor - Rear View
Figure 2