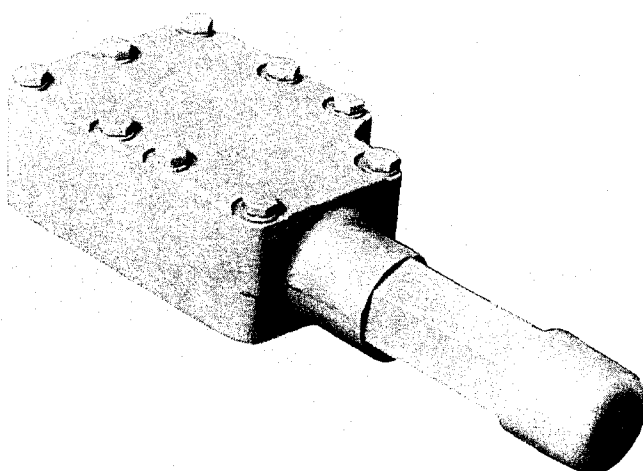


Bulletin 9743
March, 1979

SUNDSTRAND REPAIR MANUAL



PRESSURE COMPENSATOR CONTROL

128345-1

Sundstrand Hydro-Transmission

AMES, IOWA 50010
unit of Sundstrand Corporation



INTRODUCTION

The purpose of this manual is to provide the instructions necessary for the disassembly and reassembly of the control valve described herein. The equipment manufacturer should be consulted regarding any affect such repairs may have on warranty.

These repair procedures, when used in conjunction with the Sundstrand Service Manual (Bulletin 9741) provide complete service information for the control. The procedures for trouble shooting, adjustment, removal and replacement are contained in the Service Manual.

Cleanliness is the primary means of insuring satisfactory control life, either on new or repaired units. Cleaning parts by using a solvent wash and air drying is adequate, providing clean solvent is used. As with any precision equipment, the internal mechanism must be kept free of chemical and particulate contamination.

Sundstrand Hydro-Transmission provides a complete repair service for its products. The specifics of this service are included in the Sundstrand bulletin 9614.



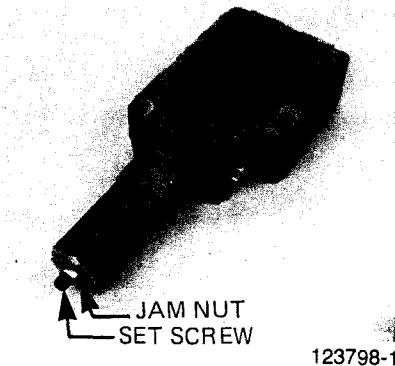
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TABLE OF CONTENTS

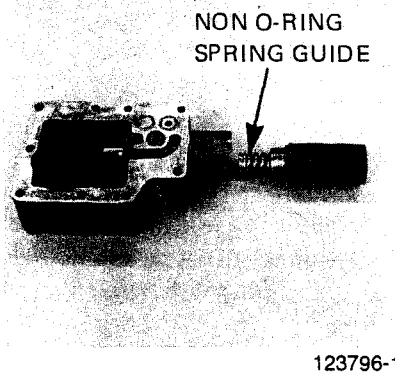
DESCRIPTION	PAGE
Control Disassembly	1-2
Control Assembly	3-4
General Parts Identification	5-6

CONTROL DISASSEMBLY

Thoroughly clean the pressure compensator control prior to disassembly. Cleaning with a solvent wash and air drying is adequate, providing clean solvent is used.

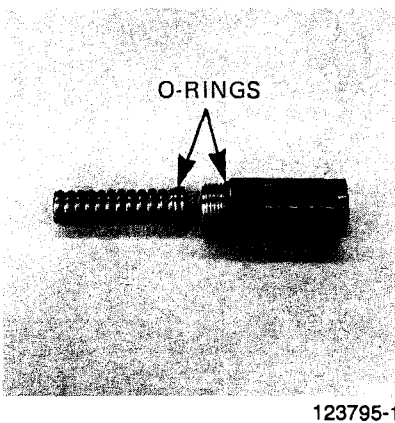


Using a 7/16" wrench and a 1/8" internal hex wrench, loosen the jam nut and remove the set screw from the spring cavity plug.



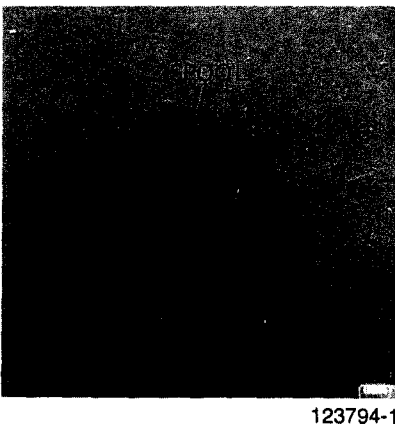
Using a 1-3/8" wrench, remove the spring cavity plug assembly from the control housing.

Remove the non-O-ring spring guide from the exposed end of the spring.



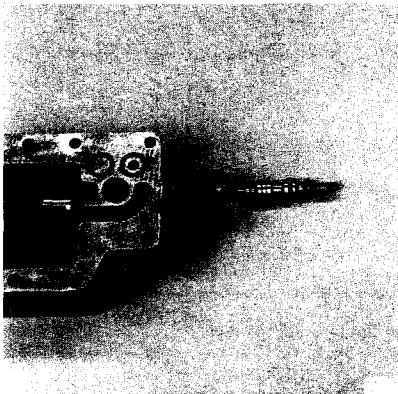
Remove the spring and spring guide (with O-ring) from the spring cavity plug.

Remove and discard the O-rings.



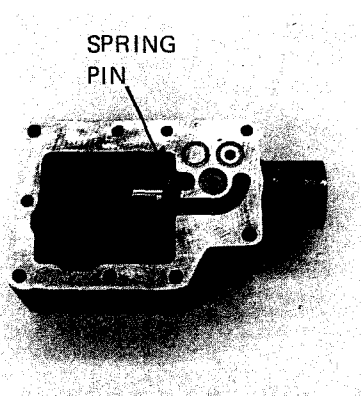
Check the control valve spool assembly for freedom of movement.

CONTROL DISASSEMBLY



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Remove the control valve spool assembly (including the pin and sensing piston) from the housing, note orientation of spool.

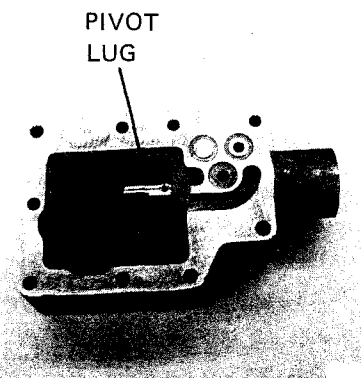


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Using a pair of pliers, remove and discard the spring pin from valve housing.

CAUTION

Use care not to break off the spring pin in the housing.

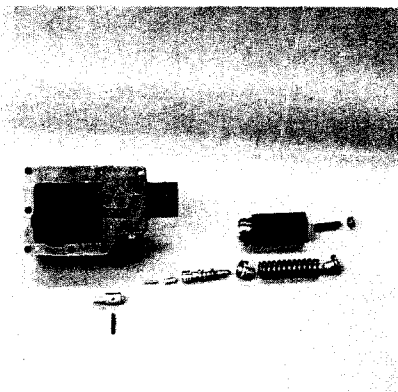


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Remove the spool pivot lug from the valve housing by pulling the pivot lug into the housing cavity as shown.

CAUTION

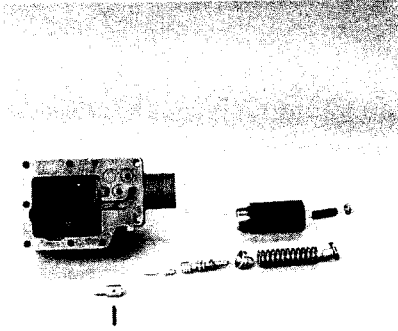
Pivot lug should be a loose fit. If it binds in the housing, use care not to damage the spool bore in removing.



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Inspect all parts for damage (bent, scratched, nicked, cracked, etc.) or excessive wear and replace as necessary.

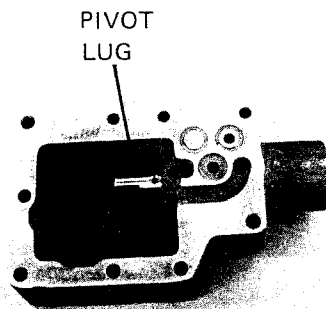
CONTROL ASSEMBLY



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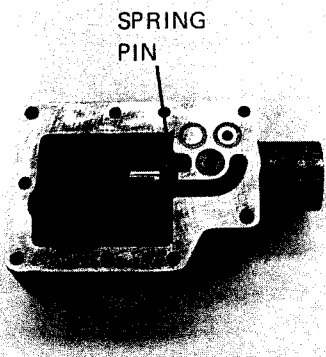
Thoroughly clean all parts prior to reassembly. Cleaning with a solvent wash and air drying is adequate, providing clean solvent is used.

Remove any gasket material on sealing surface of control housing using caution not to damage sealing surface.



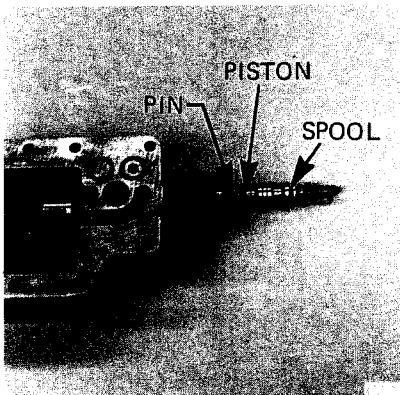
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Replace the pivot lug into the spool bore by installing it through the cavity in the valve housing. Note proper orientation as shown.



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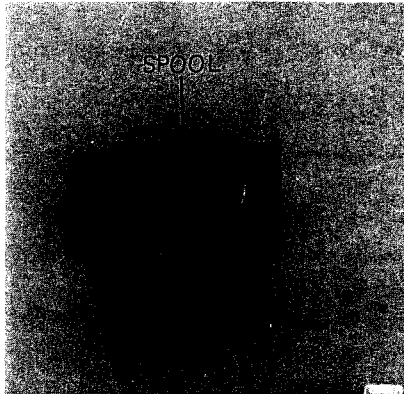
Align the hole in the pivot lug with the hole in the control housing and install a new spring pin.



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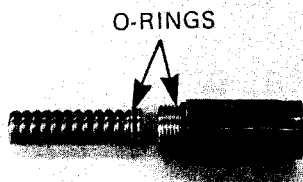
Reassemble the control valve spool assembly by installing the pin into the sensing piston then installing the sensing piston into the control spool. Check the sensing piston for freedom of movement in the control spool. Lubricate the spool assembly and spool bore with clean hydraulic fluid. Insert the spool assembly into the control housing. Note the proper orientation of parts as shown.

CONTROL ASSEMBLY



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By rotating the control spool assembly while reciprocating it through the working range of the spool bore, check for freedom of movement of the spool assembly. There must be no sticking or binding of the spool assembly.



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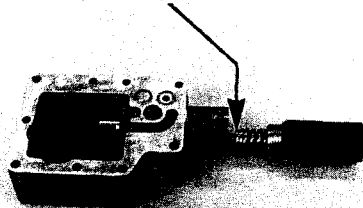
Examine the bore of the spring cavity plug for damage or excessive wear. Install a new O-ring.

Install the spring and spring guide (including new O-ring) into the spring cavity plug.

NOTE:

Lubricate all O-rings with clean petroleum jelly.

NON O-RING
SPRING GUIDE

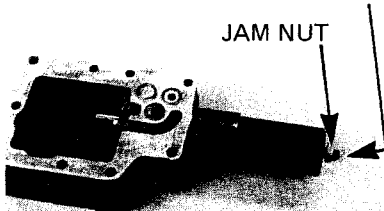


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Install the non-O-ring spring guide to the exposed end of the spring and install the spring cavity plug assembly into the control housing.

Using a 1-3/8" wrench torque the spring cavity plug to 70 to 100 ft. lbs.

SET SCREW
JAM NUT



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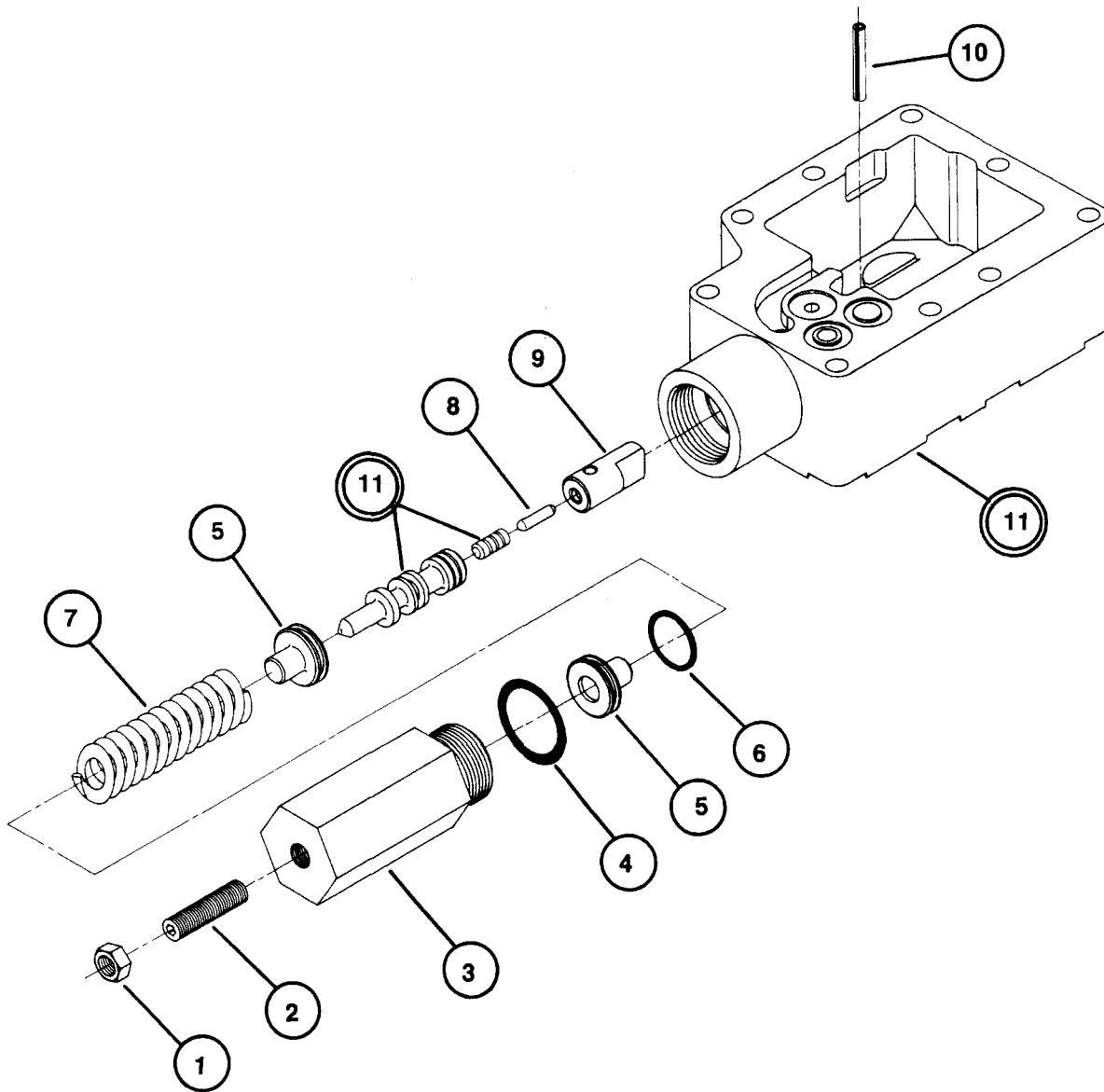
Install the set screw and jam nut into the spring cavity plug. Finger tighten only.

The control is now complete. Refer to Bulletin 9741 for control installation and pressure adjustment.

NOTE:

If the control will not be installed immediately, store in a suitable container to prevent oxidation and contamination.

PARTS IDENTIFICATION



PRESSURE COMPENSATOR
CONTROL

PARTS IDENTIFICATION

<u>Item #</u>	<u>Description</u>
1	Nut - Hex jam
2	Screw - set
3	Plug-spring cavity
4	O-ring
5	Guide - spring
6	O-ring
7	Spring - pilot valve
8	Pin
9	Lug - pivot
10	Pin - spring
11	Spool/Sensing Piston/Housing*

* These parts are select fit and are not to be replaced separately.

NOTE

SEE APPLICABLE PARTS LIST FOR PART NUMBERS