



STANDARD OVERHAUL PRACTICES MANUAL

CORROSION PROTECTION PROCEDURES FOR HYDRAULIC COMPONENTS

**PART NUMBER
NONE**

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PUBLISHED BY BOEING COMMERCIAL AIRPLANES GROUP, SEATTLE, WASHINGTON, USA
A DIVISION OF THE BOEING COMPANY
PAGE DATE: Jul 01/2009

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STANDARD OVERHAUL PRACTICES MANUAL

Revision No. 5
Jul 01/2009

To: All holders of CORROSION PROTECTION PROCEDURES FOR HYDRAULIC COMPONENTS 20-50-17.

Attached is the current revision to this STANDARD OVERHAUL PRACTICES MANUAL

The STANDARD OVERHAUL PRACTICES MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

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Location of Change

Description of Change

NO HIGHLIGHTS

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HIGHLIGHTS

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A = Added, R = Revised, D = Deleted, O = Overflow

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All revisions to this manual will be accompanied by transmittal sheet bearing the revision number. Enter the revision number in numerical order, together with the revision date, the date filed and the initials of the person filing.

Revision		Filed	
Number	Date	Date	Initials

Revision		Filed	
Number	Date	Date	Initials



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Revision		Filed		Revision		Filed	
Number	Date	Date	Initials	Number	Date	Date	Initials



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Temporary Revision		Inserted		Removed		Temporary Revision		Inserted		Removed	
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INTRODUCTION

1. General

- A. The instructions in this manual tell how to do standard shop procedures during maintenance functions from simple checks and replacement to complete shop-type repair.
- B. This manual is divided into separate sections:
 - (1) Title Page
 - (2) Transmittal Letter
 - (3) Highlights
 - (4) Effective Pages
 - (5) Contents
 - (6) Revision Record
 - (7) Record of Temporary Revisions
 - (8) Introduction
 - (9) Procedures
- C. Refer to SOPM 20-00-00 for a definition of standard industry practices, vendor names and addresses, and an explanation of the True Position Dimensioning symbols used.
- D. The data is general. It is not about all situations or specific installations. Use it as a guide to help you write minimum standards.
- E. If the component overhaul instructions are different from the data in this subject, use the component overhaul instructions.

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INTRODUCTION

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CORROSION PROTECTION PROCEDURES FOR HYDRAULIC COMPONENTS

1. INTRODUCTION

- A. The data in this subject comes from Boeing Process Specification Control Drawing 61-32165. The airline has a copy of the Boeing Process Specification Manual.
- B. The data is general. It is not about all situations or specific installations. Use this data to help you write minimum requirements.
- C. Refer to SOPM 20-00-00 for a full list of all the vendor names and addresses.

2. MATERIALS

- A. Grease – Batco 8401 No. 1 or No. 2 (Ref SOPM 20-60-03)
- B. Solvent – Methyl Ethyl Ketone TT-M-261 (Ref SOPM 20-60-01)
- C. Sealant – (Ref SOPM 20-60-04)
 - (1) BMS 5-95, Type 1, Class B-1/2 (Preferred)
 - (2) BMS 5-95, Type 2, Class B-2 (Preferred)
 - (3) BMS 5-26, Type 2, Class B-2 (Optional)

3. TYPE 1 PROCEDURE

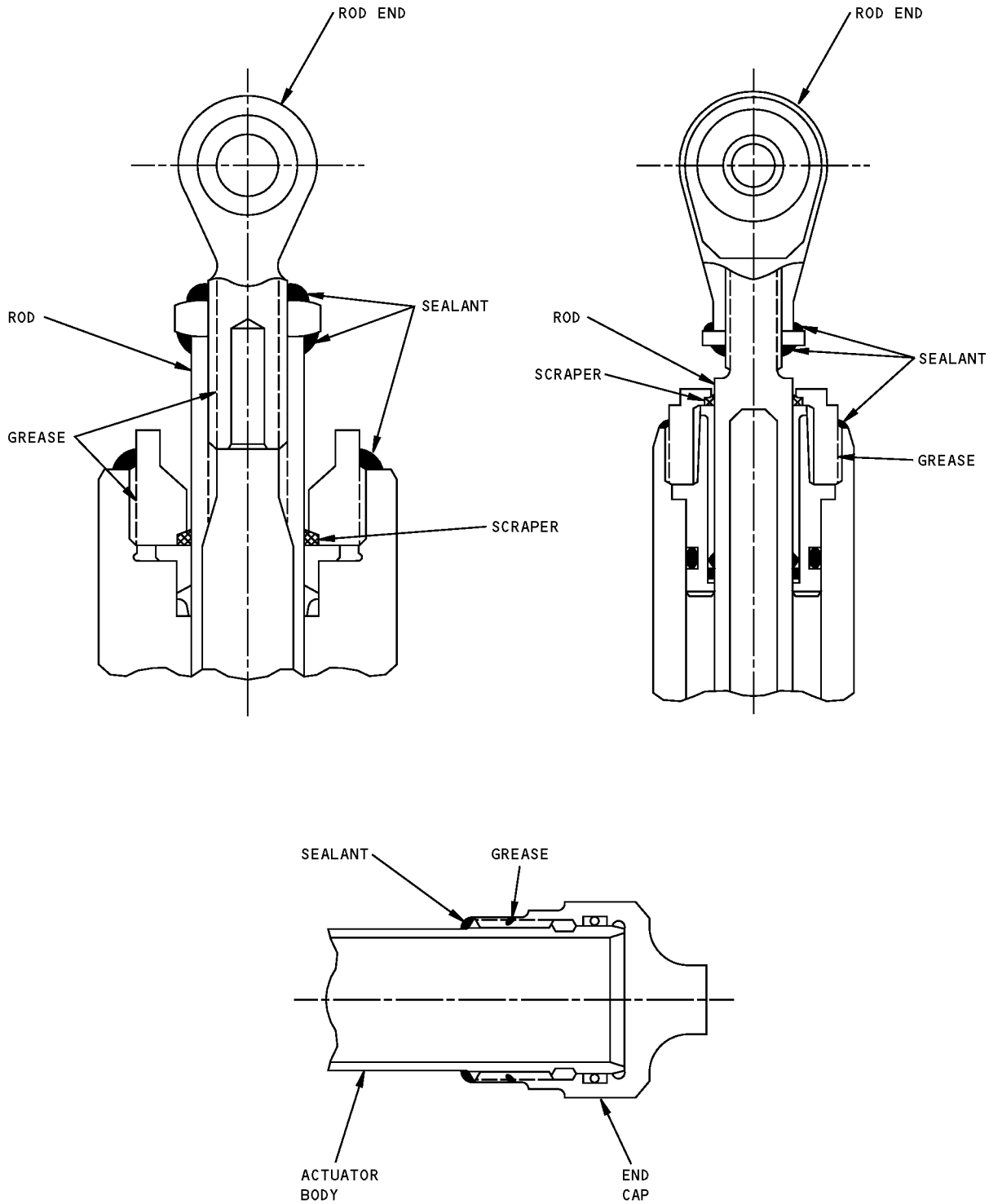
- A. Use this procedure for threaded end caps and rod end bearings (Figure 1).
- B. Start to install the threaded parts together until approximately 2 threads are engaged. Then apply a thin layer of grease to the male threads.
- C. Completely assemble, tighten and lockwire the parts by the overhaul instructions. Then wipe off the unwanted grease from the unit with a clean cloth.
- D. Identify the joints, keyways, or other locations where moisture can soak into the threads which must have protection.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

- E. Clean the areas where sealant will be applied. Use a clean cloth wet with solvent.
- F. Apply a bead of sealant to all joints identified in Paragraph 3.D.
- G. Let the sealant cure for 48 hours.
- H. Make sure the sealant is cured and correctly bonded to all surfaces.

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Examples of Type 1 Corrosion Protection
Figure 1

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4. TYPE 2 PROCEDURE

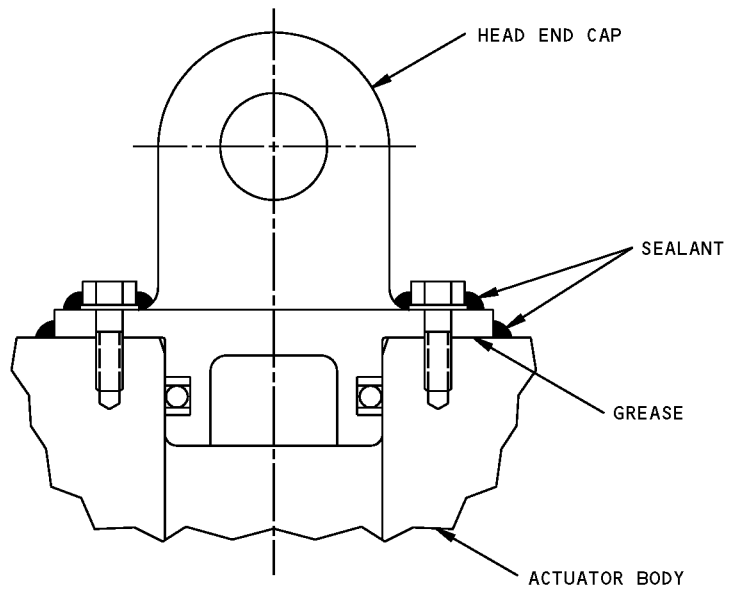
- A. Use this procedure for end caps attached with bolts (Figure 2).
- B. Apply a thin layer of grease to the faying surface of the end cap flange.
- C. Install the cap with the bolts, tighten and lockwire per overhaul instructions. Then wipe off the unwanted grease from the unit with a clean cloth.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

- D. Clean the end cap/housing joint around the fasteners with a clean cloth wet with solvent.
- E. Apply a bead of sealant to the joint between the end cap and housing, and around the fasteners.
- F. Let the sealant cure for 48 hours.
- G. Make sure the sealant is cured and correctly bonded to all surfaces.

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Example of Type 2 Corrosion Protection
Figure 2

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5. TYPE 3 PROCEDURE

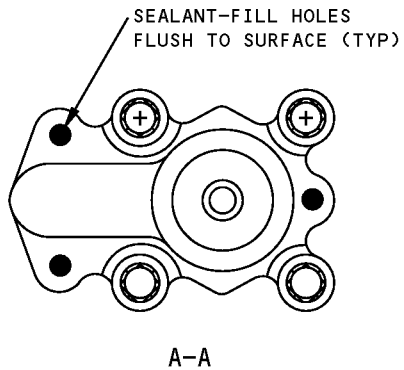
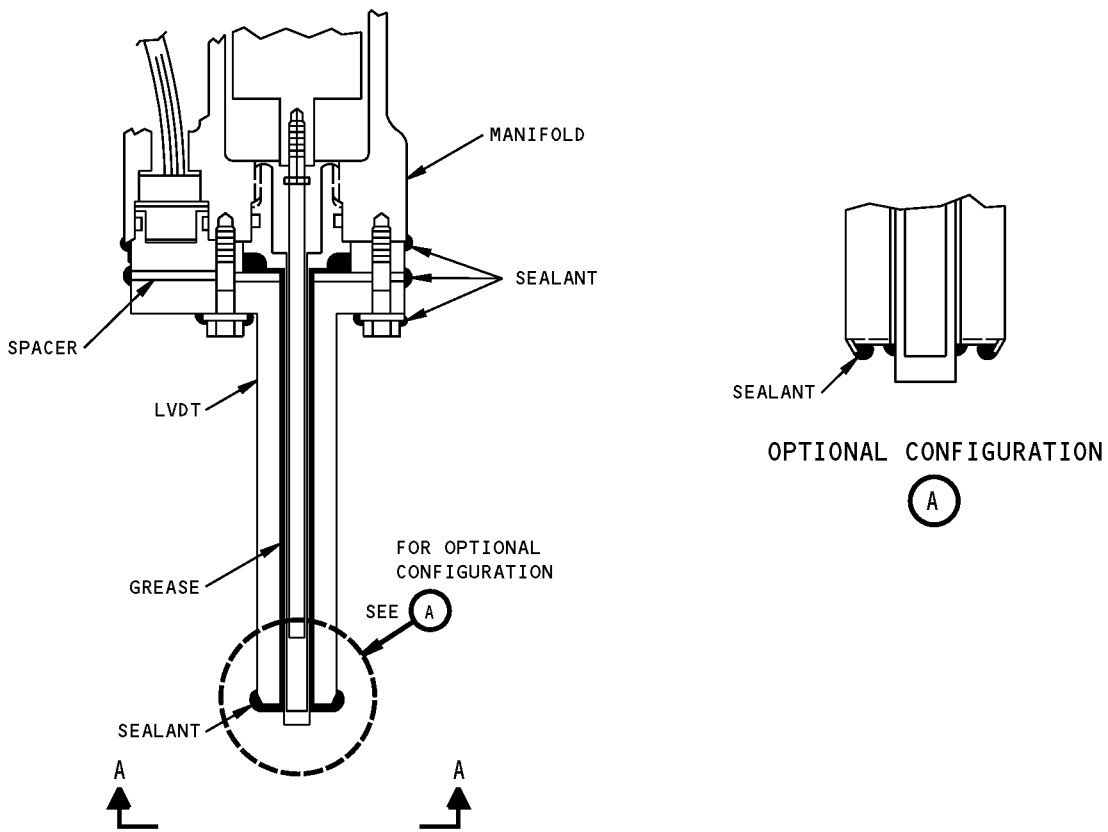
- A. Use this procedure for linear variable differential transducers (LVDT) (Figure 3).
- B. Before you install the LVDT on the manifold, apply a thin layer of grease to the LVDT cavity and to the faying surface of the manifold.
- C. Remove all signs of moisture or hydraulic fluid from the electrical connector on the LVDT and the mating receptacle on the manifold.
- D. Install the LVDT per overhaul instructions. Then wipe off the unwanted grease from the unit.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

- E. Clean the areas where the sealant will be applied. Use a clean cloth wet with solvent.
- F. Apply a bead of sealant around all faying surface joints and around the fasteners.
- G. Let the sealant cure for 48 hours.
- H. Make sure the sealant is cured and is correctly bonded to all surfaces.

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Examples of Type 3 Corrosion Protection
Figure 3

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6. TYPE 4 PROCEDURES

- A. Use these procedures for exposed seal lead-in bores. There are procedures for components without and with a flange (Figure 4).
- B. Method 1 – Components Without Flange
 - (1) Apply a thin layer of grease to the atmospheric side of the sealing diameter, outside of the pressurized area.
 - (2) Turn the threaded component into its mating housing. Tighten per overhaul instructions.
 - (3) Push grease into the seal entrance chamfer between the component and the mating housing.
 - (4) Wipe off the unwanted grease from the threaded component and the mating housing, but make sure grease stays in the seal entrance chamfer.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

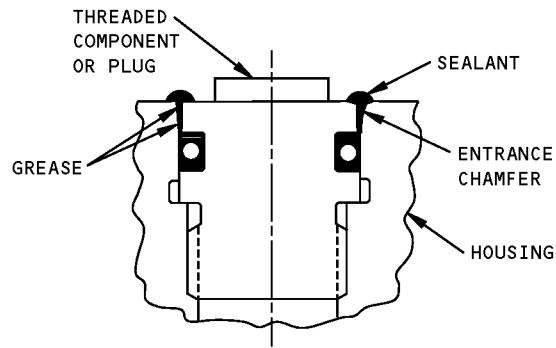
- (5) Clean the areas where sealant will be applied. Use a clean cloth wet with solvent.
 - (6) Apply a bead of sealant to the cleaned surfaces to completely seal the joint between the threaded component and the mating housing.
 - (7) Lockwire if applicable.
 - (8) Let the sealant cure for 48 hours.
 - (9) Make sure the sealant is cured and correctly bonded to all surfaces.
- C. Method 2 – Components With Flange
 - (1) Apply a thin layer of grease to the underside of the flange and to the atmospheric side of the sealing diameter, outside of the pressurized area.
 - (2) Turn the threaded component into its mating housing. Tighten per overhaul instructions.
 - (3) Wipe off unwanted grease.
 - (4) Identify the joints where moisture can get into the seal diameter.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

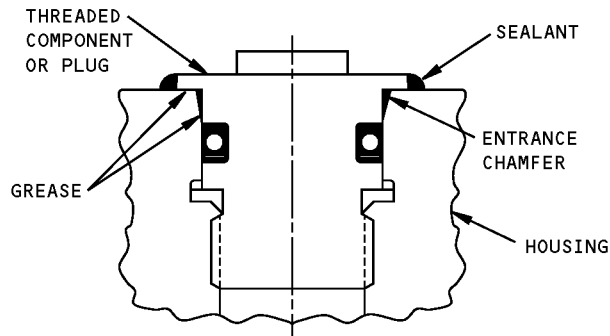
- (5) Clean the areas where sealant will be applied. Use a clean cloth wet with solvent.
 - (6) Apply a bead of sealant to the cleaned surfaces.
 - (7) Lockwire if applicable.
 - (8) Let the sealant cure for 48 hours.
 - (9) Make sure the sealant is cured and correctly bonded to all surfaces.

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CONFIGURATIONS WITHOUT FLANGE



CONFIGURATIONS WITH FLANGE

Examples of Type 4 Corrosion Protection
Figure 4

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7. TYPE 5 PROCEDURE

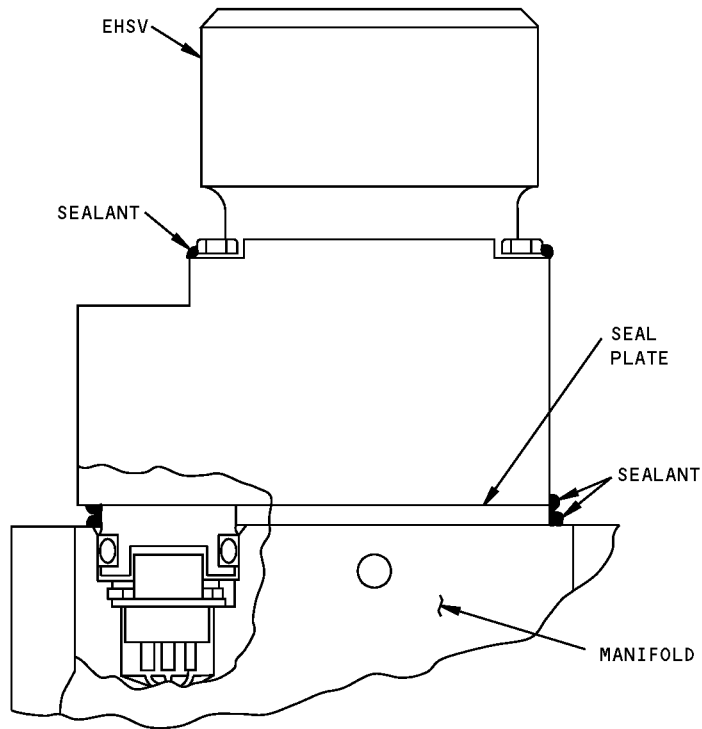
- A. Use this procedure for electrohydraulic servovalves (EHSV) (Figure 5).
- B. Remove all signs of moisture or hydraulic fluid from the electrical connector on the EHSV and the mating receptacle on the manifold.
- C. Install the EHSV per overhaul instructions.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

- D. Clean the areas where sealant will be applied. Use a clean cloth wet with solvent.
- E. Apply a bead of sealant to the joint between the EHSV and the manifold, and around the fasteners.
- F. Let the sealant cure for 48 hours.
- G. Make sure the sealant is cured and correctly bonded to all surfaces.

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Example of Type 5 Corrosion Protection
Figure 5

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8. TYPE 6 PROCEDURE

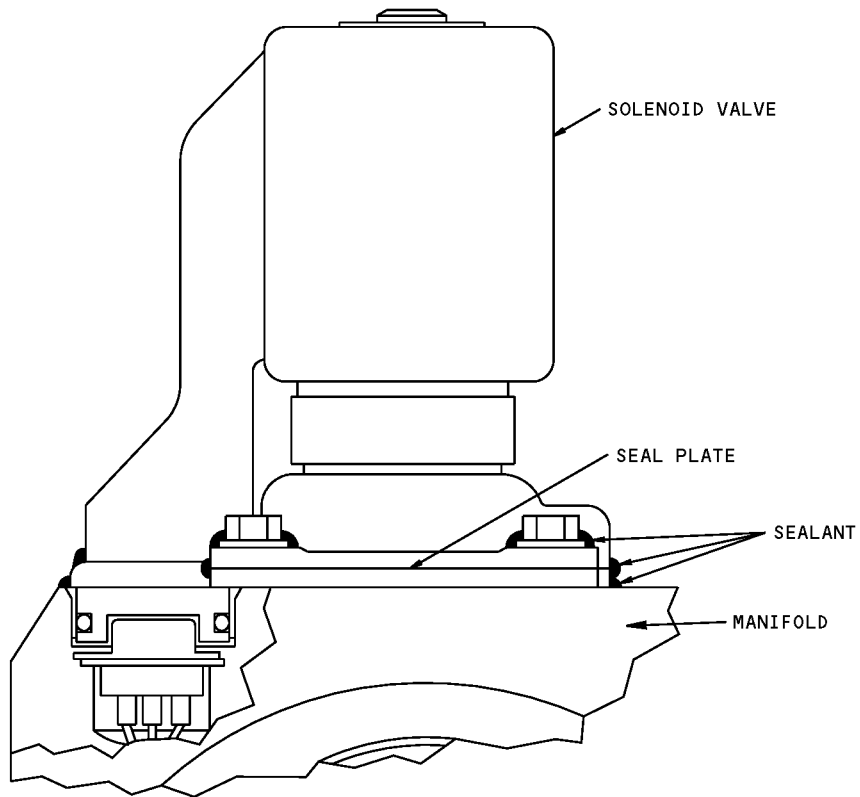
- A. Use this procedure for solenoid valves (Figure 6).
- B. Remove all signs of moisture or hydraulic fluid from the electrical connector on the solenoid valve and the mating receptacle on the manifold.
- C. Install the solenoid valve per overhaul instructions.

CAUTION: DO NOT APPLY TOO MUCH SOLVENT TO THE JOINTS.

- D. Clean the areas where sealant will be applied. Use a clean cloth wet with solvent.
- E. Apply a bead of sealant to the joint between the solenoid valve and the manifold, and around the fasteners.
- F. Let the sealant cure for 48 hours.
- G. Make sure the sealant is cured and correctly bonded to all surfaces.

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Example of Type 6 Corrosion Protection
Figure 6

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