CUTLER-HAMMER AUTOMATIC REVERSE CURRENT RELAYS KS-5323-01 AND KS-15572 PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of the KS-5323-01 and KS-15572 Cutler-Hammer automatic reverse current relays. It also covers the approved procedures for replacing these parts.

1.02 Part 2 of this section covers the various parts which it is practicable to replace in the field in the maintenance of these relays. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called Piece-part Data.

1.03 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2. This information is called Replacement Procedures.

2. PIECE-PART DATA

2.01 The figures included in this part show the various replacement parts in their proper relation to other parts of the anparatus together with their corresponding names.

2.02 When ordering parts for replacement purposes, give the name of the part as shown in the figures of this section and also the nameplate data of the relay for which the part is ordered including the manufacturer's name, the rating in volts and amperes and the KS specification and list number. For example: One armature assembly for the 44-65 volts, 100 amperes, reverse current relay KS-15572, List 11. Do not refer to the BSP number.

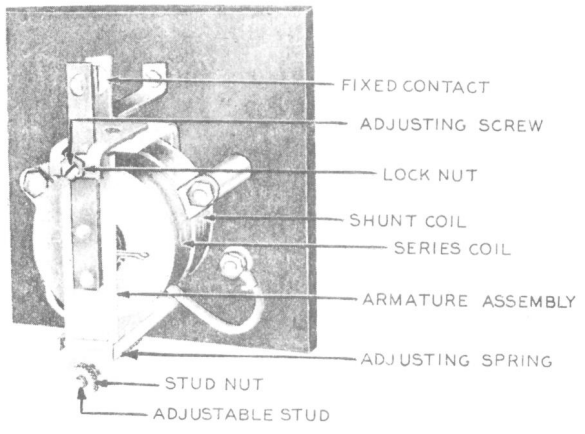

Fig. 1 - Reverse Current Relay

2.03 Miscellaneous parts, such as nuts, washers, etc., which are not named in the figures and which cannot be obtained locally should be ordered by describing the part.

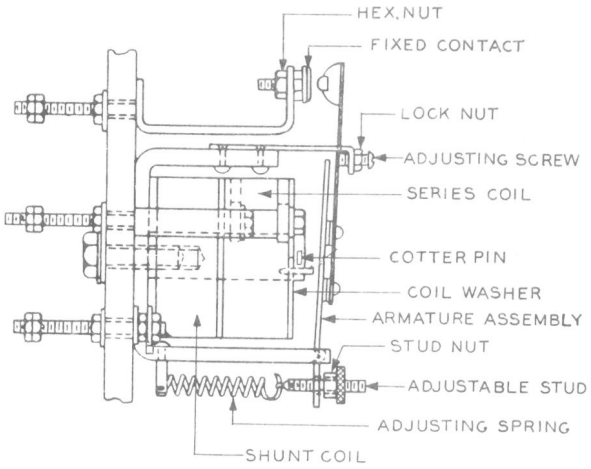

Fig. 2 - Detailed View - Reverse Current Relay

3. REPLACEMENT PROCEDURES

3.01 List of Tools and Materials
(Equivalents may be substituted)

Code or Spec No.	Description
Tools	
R-1542	6-inch Adjustable Wrench
-	3-inch Cabinet Screwdriver
-	6-1/2-inch P-long-nose Pliers

3.02 Before making any replacements be sure that service will be maintained by means of temporary wiring or in some other suitable manner. Remove the apparatus from service before making any replacement of parts.

3.03 After making any replacement of parts of a relay, the part or parts replaced and other parts whose adjustments may have been directly disturbed by the replacing operations shall be checked and where necessary readjusted to meet the requirements of Section 040-631-701.

3.04 No replacement procedures are specified for nuts, washers, and other parts where the replacement consists of a simple operation.

3.05 Adjusting Spring: To replace an adjusting spring, unhook the two ends of the spring using the long-nose pliers. Install the new spring by following the reverse procedure.

3.06 Armature Assembly: To replace the armature assembly, unhook the adjusting spring from the adjustable stud. Loosen the locknut using the wrench, screw out the adjusting screw and slide the contact spring of the armature assembly down through the guiding slot in the magnet frame. Remove the adjustable stud and stud nut from the old armature assembly and place on the new one. Assemble the new armature assembly and other parts in the reverse order making certain that the knife edge of the magnet frame fits into the groove provided for that purpose in the armature.

3.07 Fixed Contact: To replace the fixed contact it will first be necessary to remove the armature assembly as outlined in 3.06. Remove the hexagonal nut from the part of the contact screw which projects through the fixed contact support, using the wrench. Remove the fixed contact proper by inserting the screwdriver in the slot in the contact screw and turning in a clockwise direction. Install the new contact in the reverse order and reassemble the armature assembly as outlined in 3.06.

3.08 Series Coil: To replace the series coil, remove the armature assembly as outlined in 3.06. Remove the cotter pin and washer from the magnet core. Remove the terminals from the terminal studs and slip the old coil off the magnet core and replace with a new one. Replace the washer and cotter pin. Tighten the nuts of the terminal studs. Replace the armature assembly as outlined in 3.06.

3.09 Shunt Coil: To replace the shunt coil, first remove the series coil as outlined in 3.08. Then remove the shunt coil terminal lugs from their associated studs, noting the position of the leads, and slip the coil off the magnet core. Unsolder the terminal lugs from the old coil and replace on the new one. Next insert the new coil in position and fasten the terminal lugs to their respective terminal studs in the same manner as the old one. Replace the series coil as outlined in 3.08. When properly connected, the shunt and series coil magnetic fields aid each other under normal conditions but will oppose each other causing the relay contacts to open if current flows through the circuit in the wrong direction.