

## KS-15516-TYPE RELAYS

### 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 KS-15516 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 the KS-15516 relays. No attempt should be made to replace parts not designated. Part 2 also contains an explanatory figure showing the different parts. This information is called Piece-part Data.

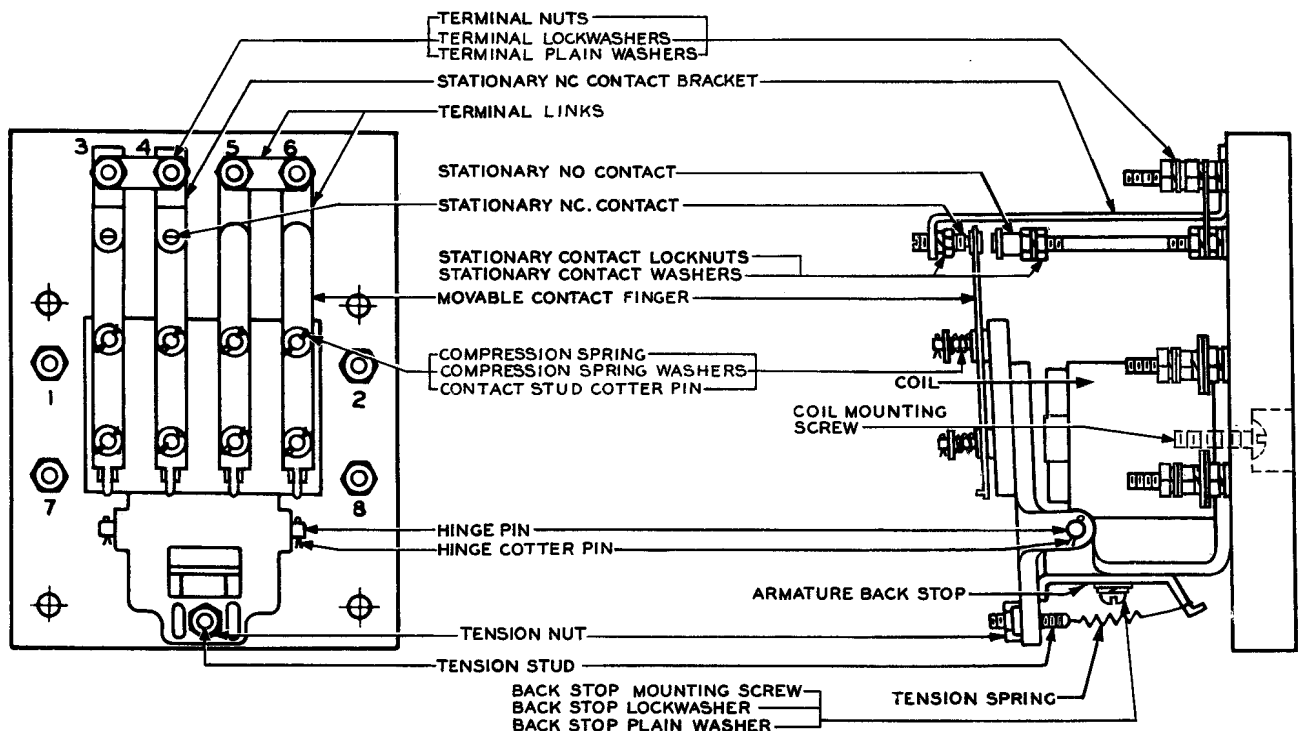
1.03 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2. This information is called Replacement Procedures.

#### 2. PIECE-PART DATA

2.01 The figure included in this part shows the various replacement parts in their proper relation to other parts of the apparatus together with their corresponding names.

2.02 When ordering parts for replacement purposes, give the name of the part as shown in the figure of this section and also the nameplate data of the relay, which is shown on the relay coil, for which the part is ordered, including the manufacturer's name and the KS specification and list number. For example: One stationary NC contact bracket for Struthers-Dunn, Inc., relay KS-15516L3, 22-36 volts dc coil, 230 volts ac 5-ampere contacts. Do not refer to the BSP number.

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.



NOTE  
"NC" AND "NO" ARE ABBREVIATIONS FOR  
"NORMALLY CLOSED" AND  
"NORMALLY OPEN", RESPECTIVELY.

Fig. 1 - KS-15516 Relay (List 3 Shown)

3. REPLACEMENT PROCEDURES3.01 List of Tools  
(Equivalents may be substituted)

<u>Code or Spec. No.</u>	<u>Description</u>
<u>Tools</u>	
417A (2 Required)	1/4-inch and 3/8-inch hex. open double end flat wrench
-	6-1/2-inch P-long-nose pliers
-	3-inch Cabinet screwdriver

Materials

KS-7187 Cleaning Paper

Caution: Use care when working in close quarters with live parts.

3.02 Do not touch at the same time, live terminals or parts which are at different potentials, or otherwise short circuit them. Before making any replacements, be sure that service will be maintained by means of temporary wiring, making connections at the most convenient points in the circuit, or in some other suitable manner. Disconnect all power supply from the relay winding and contact circuits by opening switches, if provided, or by removing the fuse or fuses. Where it is not possible to remove the relay from the working circuit, bridge around contacts, insulate between contacts with a strip of cleaning paper and disconnect leads, as necessary, in order to maintain circuit conditions unchanged. In the case of the J86621 engine control panel high voltage is removed from the panel by operating the BY PASS switch to its NORMAL LINE TO LOAD position, with the engine-driven alternator not running.

3.03 After making any replacement of parts, 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 in Section 040-666-701 covering this apparatus.

3.04 No replacement procedures are specified for parts where the replacement consists of a simple operation.

3.05 Movable Contacts and Movable Contact Finger: To replace a movable contact, it is necessary to replace the complete movable contact finger which includes the contact finger, movable contact, and the pigtail. To replace a movable contact finger, disconnect the lead of the contact finger to be replaced from its terminal stud in the base. Remove the contact stud cotter pins, using the pliers, lift off the compression springs and associated compression spring washers and replace the finger. Reassemble the parts in the reverse order.

3.06 Coil: To replace a coil, scrape out the compound in the coil mounting screw hole on the underside of the base with a screwdriver. Unhook the tension spring or springs, remove one of the hinge cotter pins and withdraw the hinge pin. Lift the armature and movable contact finger assembly away from the top of the coil. Note the positions of the coil leads and disconnect the leads from their terminal studs in the base. Remove the coil mounting screw with the screwdriver. This will free the coil and core. Replace the coil and reassemble the parts in the reverse order. It will not be necessary to refill the mounting screw hole with new compound.

3.07 Tension Spring: To replace the tension spring, remove the tension nut by raising the stud so that the nut clears the stops and remove the nut. This will free the tension stud. Unhook the tension spring from the armature back stop and the stud. Replace the spring and reassemble in the reverse order.

3.08 Stationary NC Contacts: To replace a stationary NC contact, hold it in position with the screwdriver and remove the locknut and washer, using the wrench. Then unscrew and remove the contact. Replace the contact and reassemble in the reverse order.

3.09 Stationary NO Contacts: To replace a stationary NO contact, use one wrench to turn the contact in a counterclockwise direction and the other wrench to hold the locknut under the contact. Remove the contact, leaving the washer in place above the locknut. Replace the contact and reassemble in the reverse order.