

MOTOR-GENERATORS KS-15839 AND KS-15842 REPLACEMENT PARTS AND PROCEDURES

1. GENERAL

1.01 This section covers the information necessary for ordering parts to be used in the maintenance of the KS-15839 and KS-15842 motor-generators. 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 this equipment. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called Replacement Parts.

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. REPLACEMENT PARTS

2.01 The figures included in this part show the various replacement parts in their proper relation to other parts of the apparatus together with their corresponding names, Fig. 1 to 3.

2.02 When ordering parts for replacement purposes, give the name of the parts as shown in the figures of this section, the end of the machine (motor, generator, or flexible coupling) for which the part is required, and the complete nameplate data of the motor-generator for which the part is ordered, including the manufacturer's name, type, and frame designation, serial number, and the KS specification and list number. Do not refer to this section number.

2.03 Brush replacement shall be ordered in accordance with Section 171-110-802.

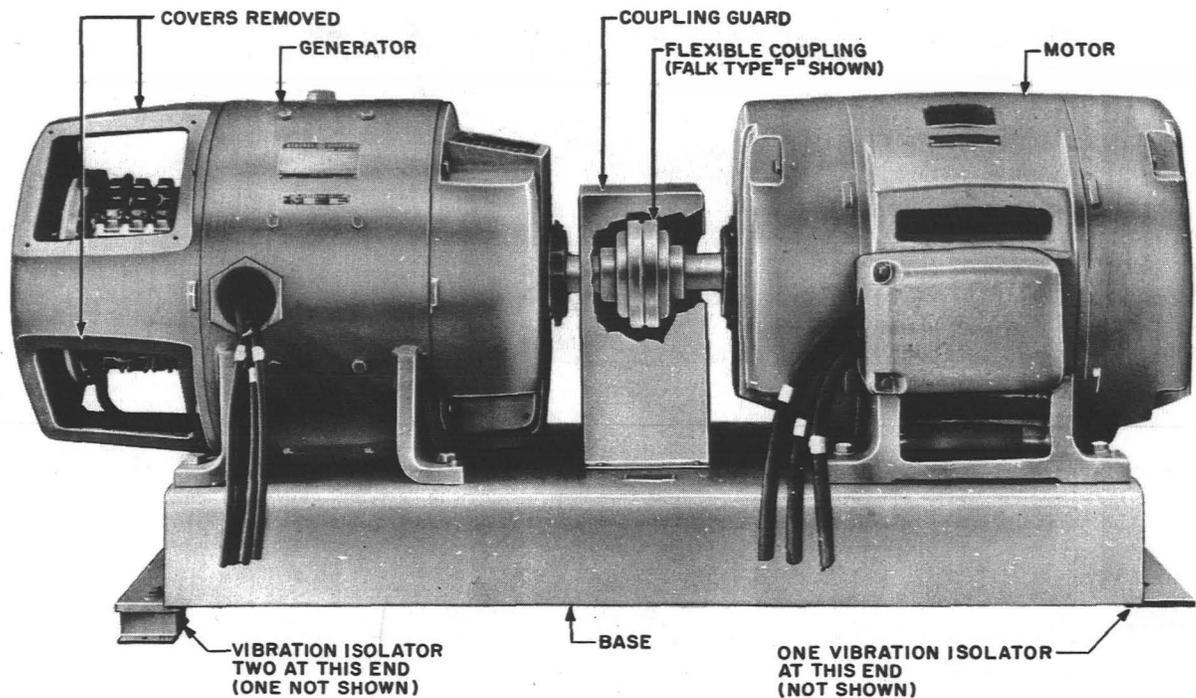


Fig. 1 - Motor-Generator — KS-15839, List 5 Shown

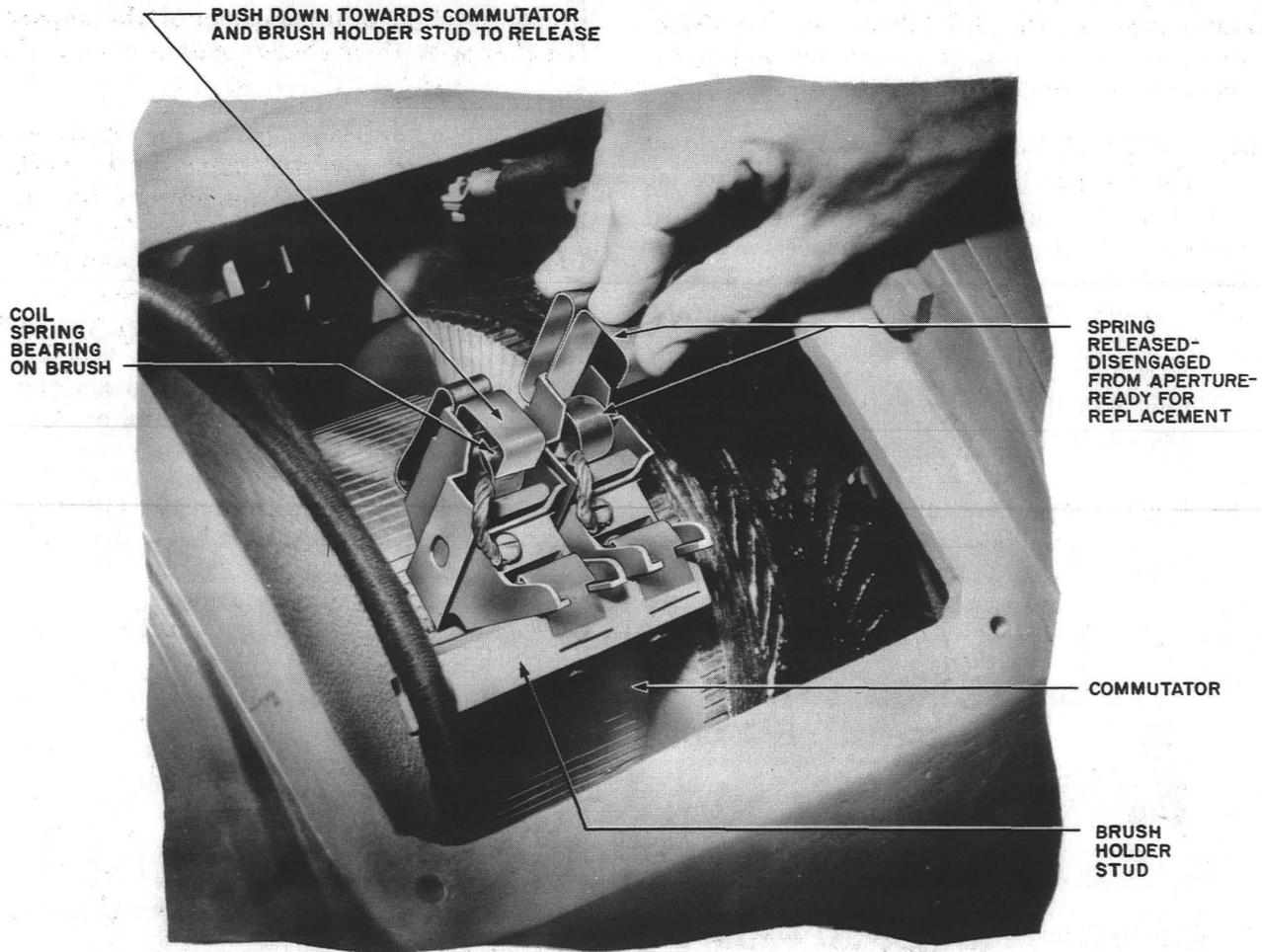


Fig. 2 - Constant Pressure Brush Holders

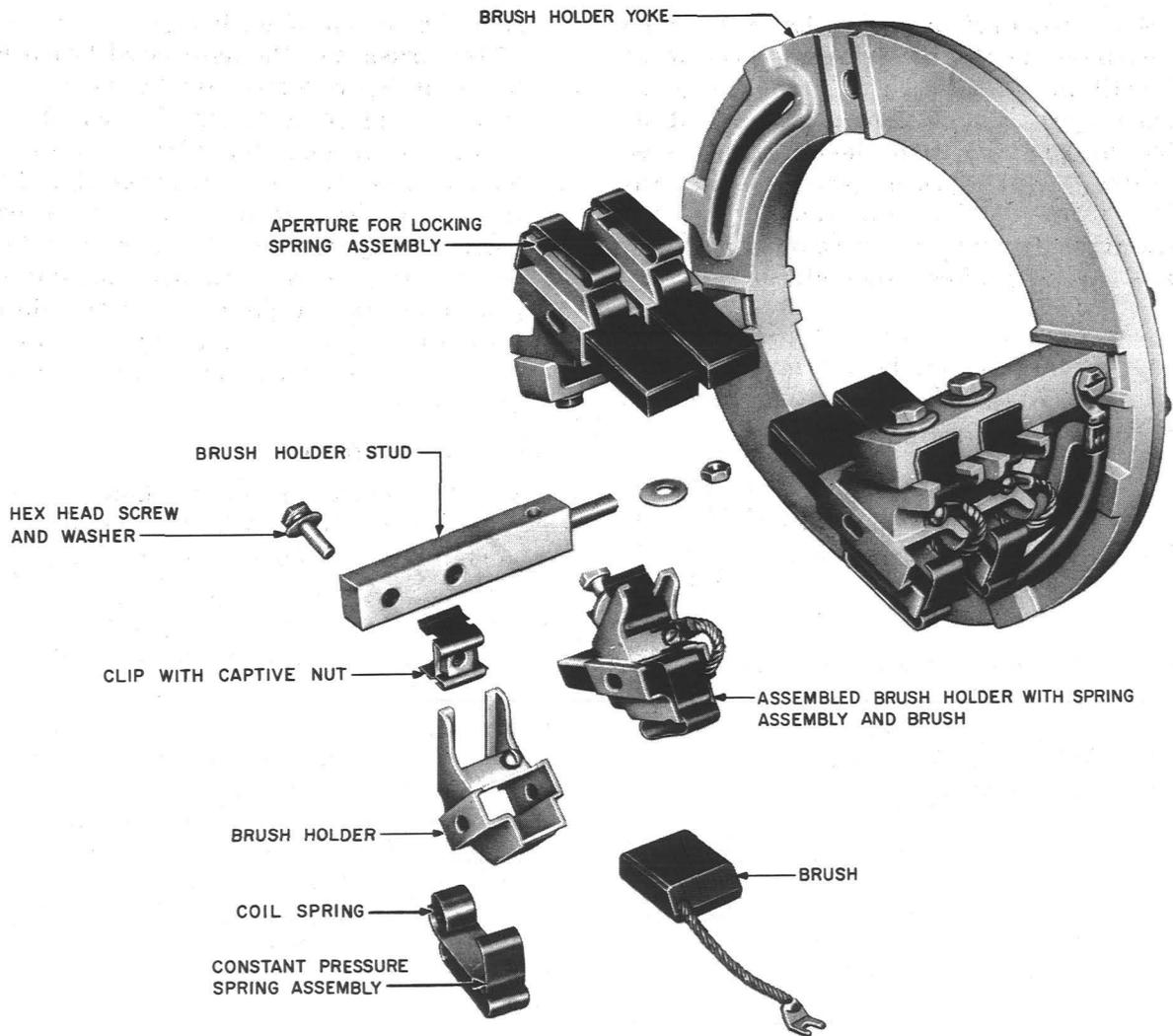


Fig. 3 – Yoke, Stud, and Brush Holder Assembly

3. REPLACEMENT PROCEDURES

3.01 List of Tools and Materials

CODE OR SPEC NO.	DESCRIPTION
TOOLS	
KS-6320	Orange Stick
KS-6854	3-1/2-inch Screwdriver
R-2512	8-inch Adjustable Wrench
—	1-pound Ball Peen Hammer
—	5-inch Regular Screwdriver
MATERIALS (See Sections 065-330-101 and 065-370-101)	
KS-7860	Petroleum Spirits
KS-14666	Cleaning Cloth

3.02 Before making any replacements, remove the motor-generator set from service.

3.03 After making any replacement of parts, the part or parts replaced shall meet the adjust requirements involved, as specified in Section 155-625-701. Other parts, whose adjustments may have been disturbed by the replacing operations, shall be checked to the readjust requirements and an over-all operation check shall be made of the motor-generator before restoring it to service.

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

3.05 When using petroleum spirits for cleaning purposes in the power room, provide as much ventilation as practicable. After using the petroleum spirits, the commutators of all dc machines in the power room should be burnished in accordance with approved procedures for the machines involved, since the fumes from the petroleum spirits may soften commutator film and thus adversely affect commutation.

3.06 Whenever it is necessary to disconnect leads, care should be taken to mark or record the positions of the leads to facilitate their correct replacement.

3.07 Whenever it is necessary to remove the protective guard that covers the flexible coupling, care should be taken to mark the guard's position to facilitate correct replacement.

Note: Machine should not be restored to operation without the protective guard.

3.08 Bearings

3.09 Flexible Couplings

(1) Whenever it becomes necessary to replace either the ball bearings or the flexible couplings, the manufacturer or his authorized representative should be consulted since the replacement of either involves a major job of disconnecting and dismantling the motor and the generator and requires critical reassembly and realignment.

3.10 Brushes

(1) Whenever it is necessary to remove brushes from their holders for reasons other than replacement of the brushes, care

should be taken to mark or record the position of the brush and the associated brush holder to facilitate the correct replacement.

(2) To replace a brush, loosen the screw which fastens the pigtail to the brush holder. Raise the brush with its pigtail. Clean the brush holder with a cloth moistened with petroleum spirits (see 3.05) and insert the new brush with its pigtail. Return the pigtail to its proper position, tighten the screw which fastens the pigtail to the brush holder and seat the new brush as outlined in Section 171-110-701.

3.11 Brush Holders

(1) To replace a brush holder assembly, remove the brush associated with the assembly to be replaced as covered in 3.10.

(2) Remove the brush holder bolt which holds the brush holder assembly on the brush holder stud and work the assembly off the stud. Slip the new complete brush holder assembly on the brush holder stud and re-assemble in the reverse order, making sure that the brush holder bolt is tight. In the event that it is necessary to remove an adjacent brush holder assembly before the desired assembly can be removed, the same procedure should be followed as outlined above. See Section 155-625-701 for requirements and adjusting procedures.

3.12 Brush Holder Yoke

3.13 Rotor Assembly in Motor

3.14 Commutator Assembly in Generator

(1) The replacement of a brush holder yoke, rotor assembly, or commutator assembly is a major job which should be handled by the manufacturer of the motor-generator, or the manufacturer's authorized representative.