1000-CYCLE MACHINES
KS-5472 AND KS-5472-01
REPLACEMENT PARTS AND PROCEDURES

1. GENERAL

1.01 This section covers the following 1000-cycle machines.

KS-5472 with ac motor drive and waste-packed sleeve bearings. This motor has an internal centrifugal switch which closes the circuit to the starting winding while starting.

The KS-5472-01 set is the same as the KS-5472 except that a capacitor motor is used, it has no switch, and has a small fan mounted internally. The capacitor is mounted externally.

1.02 This section is reissued to incorporate material from the addendum in its proper location. In this process marginal arrows have been omitted.

1.03 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.

1.04 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.

2.02 If parts other than end play washers of either the KS-5472 or KS-5472-01 machines require replacement, it is recommended that the matter be referred to the supervisor for consideration of the return of the set for repair or replacement. When ordering end play washers from the manufacturer, give the name of the part and the complete nameplate data of the machine including the serial and KS numbers and the manufacturer's name. End play washers come in the following thicknesses: 0.005, 0.010, 0.015, 0.020, and 0.032 inch. Order sufficient washers. Do not refer to the BSP number or to any information in parentheses following the name of the part.

2.03 Information enclosed by parentheses ( ) is not ordering information. This information may be references to notes, parts referred to in other portions of the section and not considered replaceable, or part names in general use in the field if these names differ from those assigned by the manufacturer.

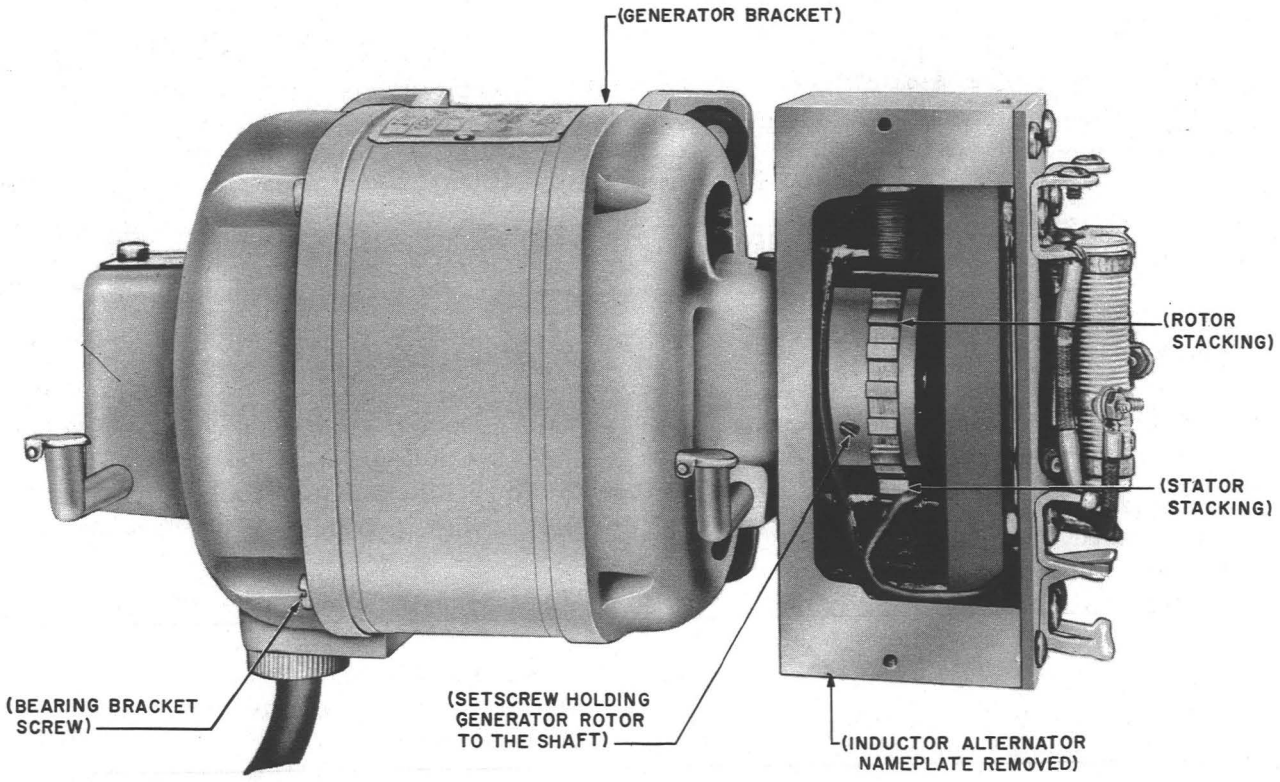

Fig. 1 – KS-5472 and KS-5472-01 Machines

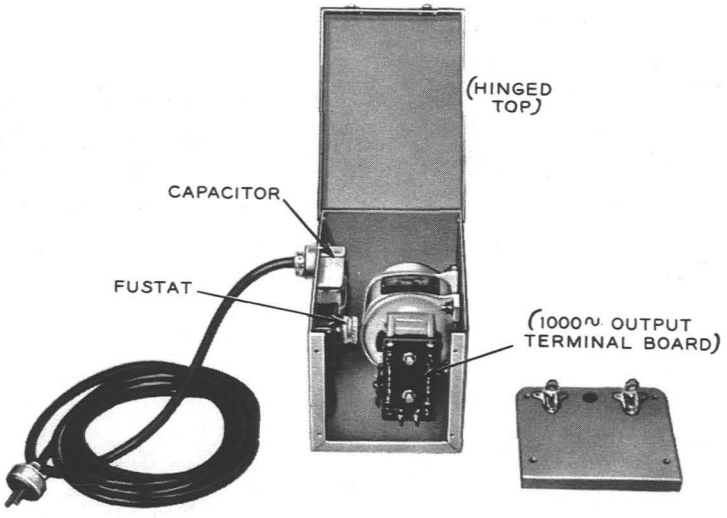

Fig. 2 – KS-5472-01 Portable AC Machine in Carrying Case

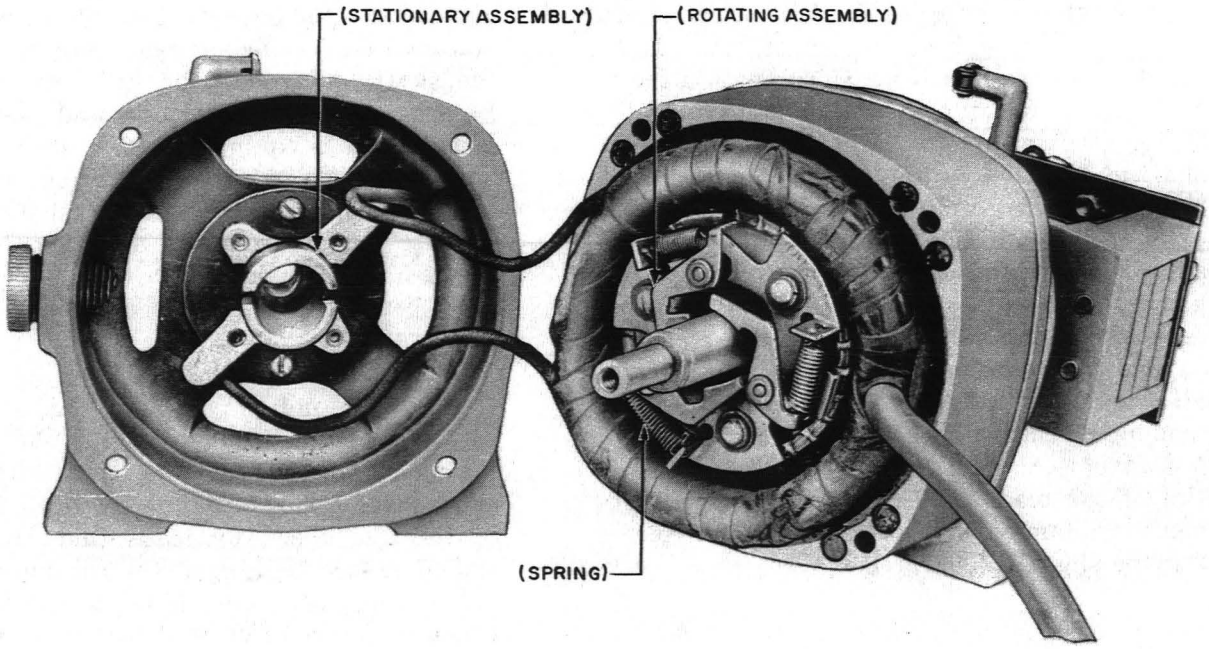

Fig. 3 – KS-5472 — AC Motor-driven 1000-Cycle Machine (End Shield Removed to Show the Starting Field Switch)

3. REPLACEMENT PROCEDURES

3.01 *List of Tools and Materials*

CODE OR SPEC NO.	DESCRIPTION
TOOLS	
40	Double-end Offset Screwdriver
KS-6854	3-1/2 inch Screwdriver
R-1005	Jeweler's Screwdriver
R-2959	Allen Socket Screw Wrench
—	Long-nose Pliers
—	4-inch E Screwdriver
MATERIALS	
KS-7860	Petroleum Spirits
KS-14666	Cleaning Cloth

3.02 Remove the apparatus from service before making any replacements.

3.03 After making any replacement of parts, the part or parts replaced shall meet the readjust requirements involved, as specified in Section 155-609-701. 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 before restoring it to service.

3.04 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.

3.05 *End Play Adjustment*

(1) To center the rotor of the KS-5472 and KS-5472-01 1000-cycle machines so that it extends on both sides of the stator, remove the machine from the carrying case if one is provided. Take off the nameplate using the KS-6854 screwdriver and with the R-2959 wrench loosen the Allen setscrew holding the generator rotor to the shaft. Move the rotor as necessary; tighten the setscrew lightly, mak-

ing sure that it engages the flat on the shaft, and push the end of the shaft toward the motor as far as it will go. Check with a feeler that the rotor stacking extends beyond the stator stacking on each side. Then move the shaft as far as it will go in the opposite direction and recheck that the rotor stacking still extends beyond the stator stacking on each side. Tighten the setscrew securely and reassemble in the reverse order. Although it is desirable that both edges of the rotor project beyond the stator pole pieces on both sides at all times, slight misalignment of the top stator pole piece relative to the bottom pole piece will not adversely affect the electrical characteristics of the machine. In addition to misalignment, the laminations of the stator pole pieces may be slightly separated.

(2) To add end play washers, remove the machine from the carrying case if one is provided. Take off the nameplate and loosen the Allen setscrew holding the generator rotor to the shaft. Unscrew the four screws holding the bearing brackets to the frame and pry off the bracket to which the generator is attached, first marking it and the frame so that it may be put back in the correct position. Leave the generator rotor between the pole pieces of the stator. Place sufficient end play washers on the shaft to take up the excessive end play. Be sure, however, that some end play is left. If the rotor is equipped with a spring washer and it appears worn or distorted, remove it and add sufficient end play washers to compensate for its removal. Reassemble in the reverse order, making sure that the rotor has been centered as described in the previous paragraph.

(3) To add end play washers to a machine mounted on a panel, such as the 2A sending panel (see Fig. 4), the panel will have to be removed from the bay to facilitate handling of the machine. Any leads that are disconnected should be tagged for reconnection. On a suitable work table place a wooden block beneath the panel so that the panel lays flat, motor upwards. With the offset screwdriver, remove the four mounting screws holding the machine to the panel. In shifting the machine to gain access to parts, care should be exercised so that excessive strain is not placed on connected leads. Continue the procedure as covered in (2) beginning with "Take off nameplate — etc."

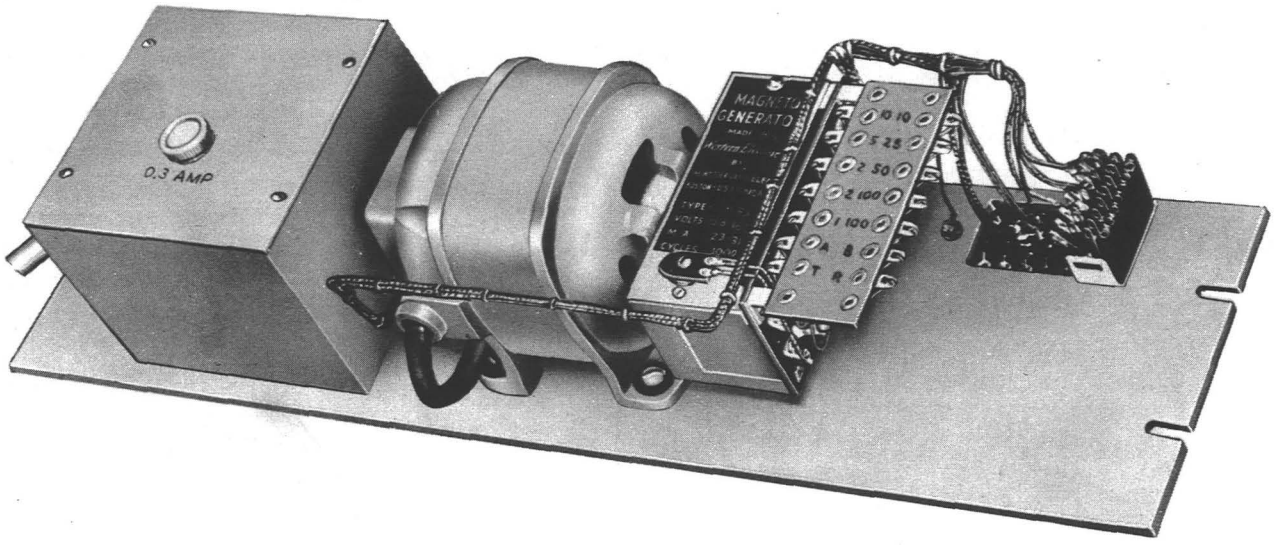

Fig. 4 – Typical 2A Sending Panel (Rear View Shown)