# KS-15632 DYNAMOTOR
# 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-15632 dynamotor. 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-15632 dynamotor. 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 apparatus, 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 dynamotor for which the part is ordered, including the manufacturer's name, type designation, serial number, and the KS specification and list number. When ordering brushes, end plates, and brush holder caps, also state whether for 24-volt or 135-volt end. For example: Two brushes, 135-volt end, for Janette Manufacturing Company dynamotor, frame CA18, 24/135 volt, 0.42-ampere output, Serial number 483145, KS-15632, List 1. Do not refer to the Section number.

2.03 Miscellaneous parts, such as screws, which are not named in the illustrations and which cannot be obtained locally should be ordered by describing the part.


Fig. 1 - KS-15632 Dynamotor

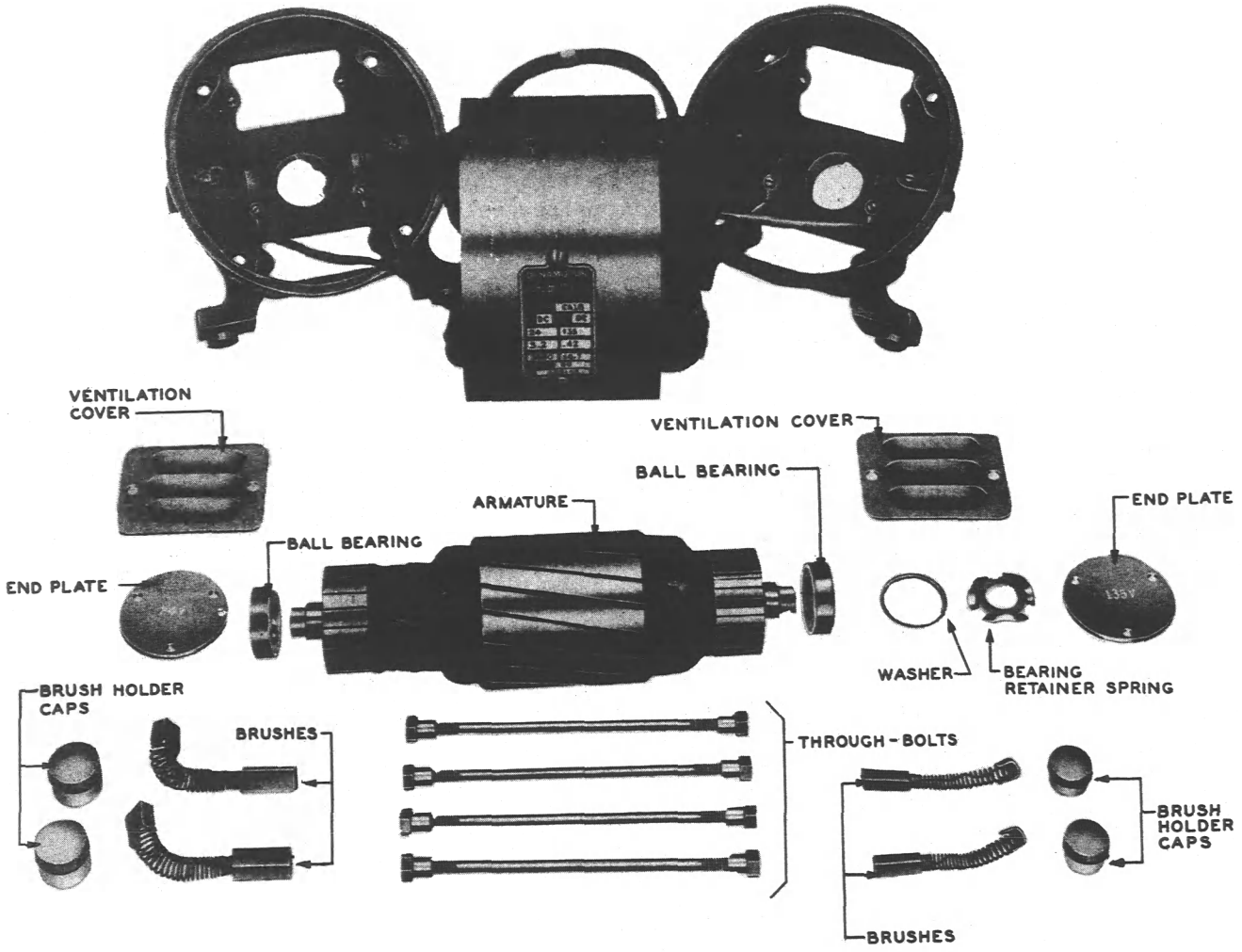


Fig. 2 - KS-15632 Dynamotor Parts

## 3. REPLACEMENT PROCEDURES

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

| Code or Spec.No. | Description |
|---|---|
| **Tools** | |
| 46 | 3/8-inch Hex Single-end Socket Wrench |
| KS-6320 | Orange Stick |
| - | Puller, Grip-O-Matic, Owatonna Tool Co. No. 1000-1/2 L |
| - | 3-inch Cabinet Screwdriver |
| **Materials** | |
| KS-7860 | Petroleum Spirits |
| KS-14666 | Cleaning Cloth |

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.

3.03 After making any replacement of parts of a dynamotor, 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 159-490-701.

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

3.05 Ventilation Covers: To replace a ventilation cover, remove the ventilation cover mounting screws with the screwdriver, remove the cover, substitute new part, make certain the openings face downward, and tighten the mounting screws securely.

3.06 End Plates: To replace an end plate, remove the end plate mounting screws with the screwdriver. Substitute the new part, taking care at the 135-volt end of the dynamotor that the bearing retainer spring and washer are in their proper places between the outer ball ring and the end plate, and tighten the screws securely.

3.07 Bearing Retainer Spring and Washer: To replace either of the above parts, remove the end plate from the 135-volt end of the dynamotor as outlined in 3.06. Remove the bearing retainer spring and washer, observing the position of each. Make the necessary replacement of parts, taking care that the bearing retainer spring and washer are in their proper places between the outer ball ring and the end plate. Remount the end plate and fasten the screws securely.

3.08 Brushes: To replace a brush, remove the brush holder cap by hand. Withdraw the old brush, insert a new brush and replace the brush holder cap. New brushes shall be fitted and cleaned as outlined in Section 159-490-701.

3.09 Ball Bearing: To replace the above part, disassemble the dynamotor as follows after disconnecting all leads. Remove the ventilation covers, end plates, bearing retainer spring, and washer as outlined in 3.05, 3.06, and 3.07. Remove the four brush holder caps and the brushes as outlined in 3.08 taking care to mark each. Remove the four through bolts using the socket wrench. Mark the end bells and frame to insure proper replacement. Carefully remove the end bells, tapping gently if necessary. Disconnect the brush leads and mark them to identify associated brush terminals. Remove the armature. Remove the ball bearings from the armature shaft using the bearing puller if necessary. Replace with new ball bearings. The new bearings shall have a light press fit on the shaft. Slip the bearing on the shaft using a short piece of clean pipe having a smooth end which will push against the inner but not the outer ball race, and tap the bearing into place, making certain that the bearing is tightly seated against the shoulder on the shaft. The bearing housings in the end bells should be cleaned with petroleum spirits and wiped with a clean cloth. An orange stick is convenient for removing hardened grease. Lubricate the bearing chamber, if any, and the bearing, if required, in accordance with Section 159-490-701. Reassemble the dynamotor in the reverse order to that specified above. Check rotation of the armature by hand before replacing the ventilation covers in accordance with 3.05.

3.10 Armature: To replace the armature, disassemble the dynamotor as outlined in 3.09. Substitute the new armature. Use new ball bearings in view of possible damage to the old bearings in removing them from the shaft. Clean the bearing housings and lubricate the bearing chambers, if any, and the bearings, if required, in accordance with Section 159-490-701. Reassemble in the reverse order.