

REPLACING PAGE ADDENDUM

Filing Instructions:

1. REMOVE FROM THE SECTION THE PAGES NUMBERED THE SAME AS THOSE ATTACHED TO THIS PINK SHEET.
2. INSERT THE ATTACHED PAGES INTO THE SECTION IN THEIR PLACE.
3. PLACE THIS PINK SHEET AHEAD OF PAGE 1 OF THE SECTION.

RECORDER-REPRODUCERS

KS-12055 L4 AND L6

PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.001 This addendum supplements Section 034-350-801, Issue 4 and Addendum 1. The attached pages must be inserted in the section in accordance with the filing instructions above.

1.002 This addendum is issued to replace SF-96-500 silicone fluid with SF-1147 silicone fluid.

3. REPLACEMENT PROCEDURES

The following changes apply to Part 3 of the section:

(a) 3.01—revised

(b) 3.06(4)—revised

Attached:

Page 1 dated September 1971, reissued
Page 2 dated September 1971, revised
Page 3 dated September 1971, revised
Page 4 dated September 1971, reissued
Page 11 dated March 1973, reissued
Page 12 dated March 1973, revised
Page 13 dated March 1973, revised
Page 14 dated March 1973, reissued
Page 14.1 dated September 1971, added

RECORDER-REPRODUCERS
KS-12055 L4 AND L6
PIECE-PART DATA AND REPLACEMENT PROCEDURES

1. GENERAL

1.01 This section covers the information for ordering parts to be used in the maintenance of KS-12055 L4 and L6 recorder-reproducers. It also covers approved procedures for replacing these parts.

1.02 This section is reissued to incorporate changed and additional information pertaining to maintenance and piece-part data for the recorder-reproducers. The changes include information about machine conversions that incorporate new and improved piece-part components related to a redesign in the oil draining system and to the addition of a recording band wiper-lubrication assembly. The fan is deleted as a recommended replacement part. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practicable to replace in the field in the maintenance of the KS-12055 L4 and L6 recorder-reproducers (subsequently referred to as the L4 and L6 machines). No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts.

1.04 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2.

1.05 *Make-Busy Information:* Before performing any work on the machine, remove it from service in accordance with local instructions.

1.06 *One drop of KS-16326 L1 oil* for the purpose of this section is the amount of oil discharged from the nozzle of a 486A oil can when the sides are depressed until a drop is released.

1.07 *Manual Rotation of Drum:* If it should become necessary at any time to manually rotate the record drum, the belt tension shall be relieved. This shall be accomplished by either tilting the motor on its pivot, as required, or by removing the driving belt from the pulleys.

2. PIECE-PART DATA

2.01 The figures included in this part show the various piece parts in their proper relation to other parts of the machine. The piece-part numbers of the various parts are given, together with the names of the parts as listed by the Western Electric Company Merchandise Department. Where these names differ from those in general use in the field, the latter names in some cases are shown in parentheses.

2.02 When ordering parts for replacement purposes, give both the piece-part number and the name of the piece part as follows:

P-297395 Screw

If a part identified by other than a piece-part number is required, order the part by the drawing and detail number and the part name and specify that the part is for KS-12055 L4 or L6 recorder-reproducer as follows:

B-178195 Det 3 Pad for
KS-12055 L4 Recorder-Reproducer

If the manufacturer's name is given in connection with the ordering information, include this when ordering the part. Do not refer to the section number or to any information shown in parentheses following the piece-part number.

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.

2.04 Converted Machines: Several design changes have been introduced to provide new mechanical features such as improved oil drain fittings, a recording band wiper for continuous lubrication of the band, and the removal of the cooling fan to reduce flutter. The changes described in (a), (b), and (c) are incorporated by the manufacturer on current production. These design improvements should be incorporated on unmodified machines in service by the on-site installation of modification kits.

(a) **Oil Drain Conversion:** To facilitate oil change procedure and to reduce the possibility of oil leak conditions, an improved oil drain valve, 14-inch drain hose, and associated fittings have been installed on some machines. This design change has been incorporated by the manufacturer on machines made after March 1967. Unconverted machines in service should be modified locally with a kit of parts complete with installation instructions. Requisitions for kits should be worded as follows:

(Qty) Modification Kit, No. 1A-KS-12068
KS-12055 Oil Drain Valve and Hose Assembly

(b) **Elimination of the Cooling Fan:** In order to reduce flutter caused by unbalanced fan blades and to reduce the amount of dust drawn into the machine, modifications have been made to eliminate the fan and fan guard and to block the ventilation holes in the front cover. Recorder-reproducers in service that are not modified in this respect should be converted. Instructions for removing the fan and fan guard are given in this section. To block the front cover ventilation holes, simply secure a 5-inch square of thin sheet fiber inside the cover over the holes.

(c) **Recording Band Wiper-Lubrication Assembly**

Conversion: A dirty, inadequately lubricated magnetic recording band causes poor recordings, vibration of the head, and excessive wear on head and band. To minimize this problem, a recording band wiper-lubrication assembly was developed to provide continuous cleaning and lubrication of the recording band. This device has been installed by the manufacturer on

machines made after October 1968. The wiper assembly is available for on-site installation and should be installed on machines not so equipped. ♦As of January 1971, this modification kit includes instructions for cementing the magnetic recording band, KS-12076 L16, onto the recorder drum. For recorder-reproducers modified prior to this time, reference should be made to 3.08 for the procedure for cementing the magnetic recording band to the recorder drum. ♦ This section illustrates the wiper assembly and gives replacement procedures. Requisitions for the wiper assembly should be worded as follows:

(Qty) Modification Kit, No. 2A-

KS-12068/KS-12055 Wiper-Lubrication Assembly

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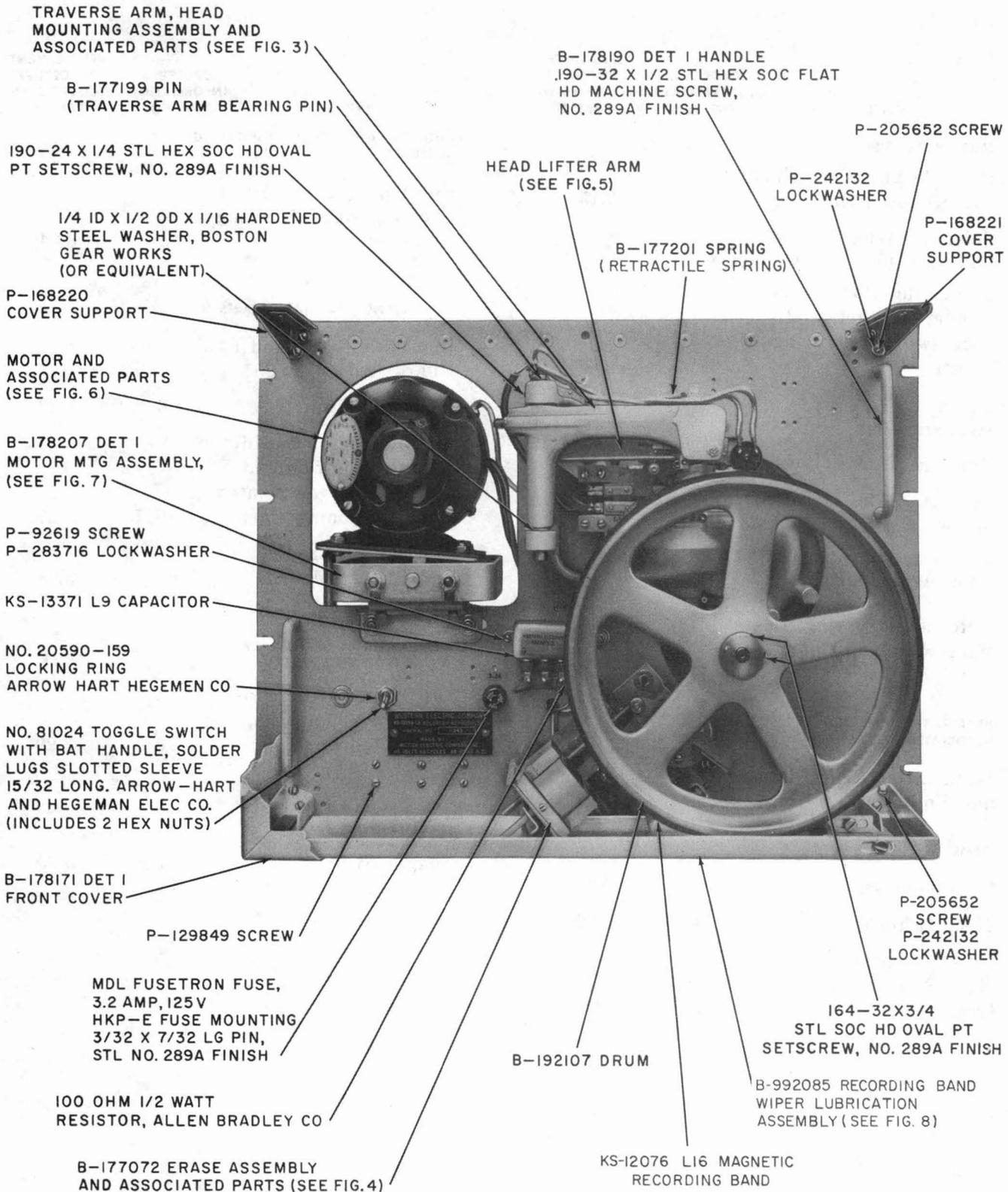
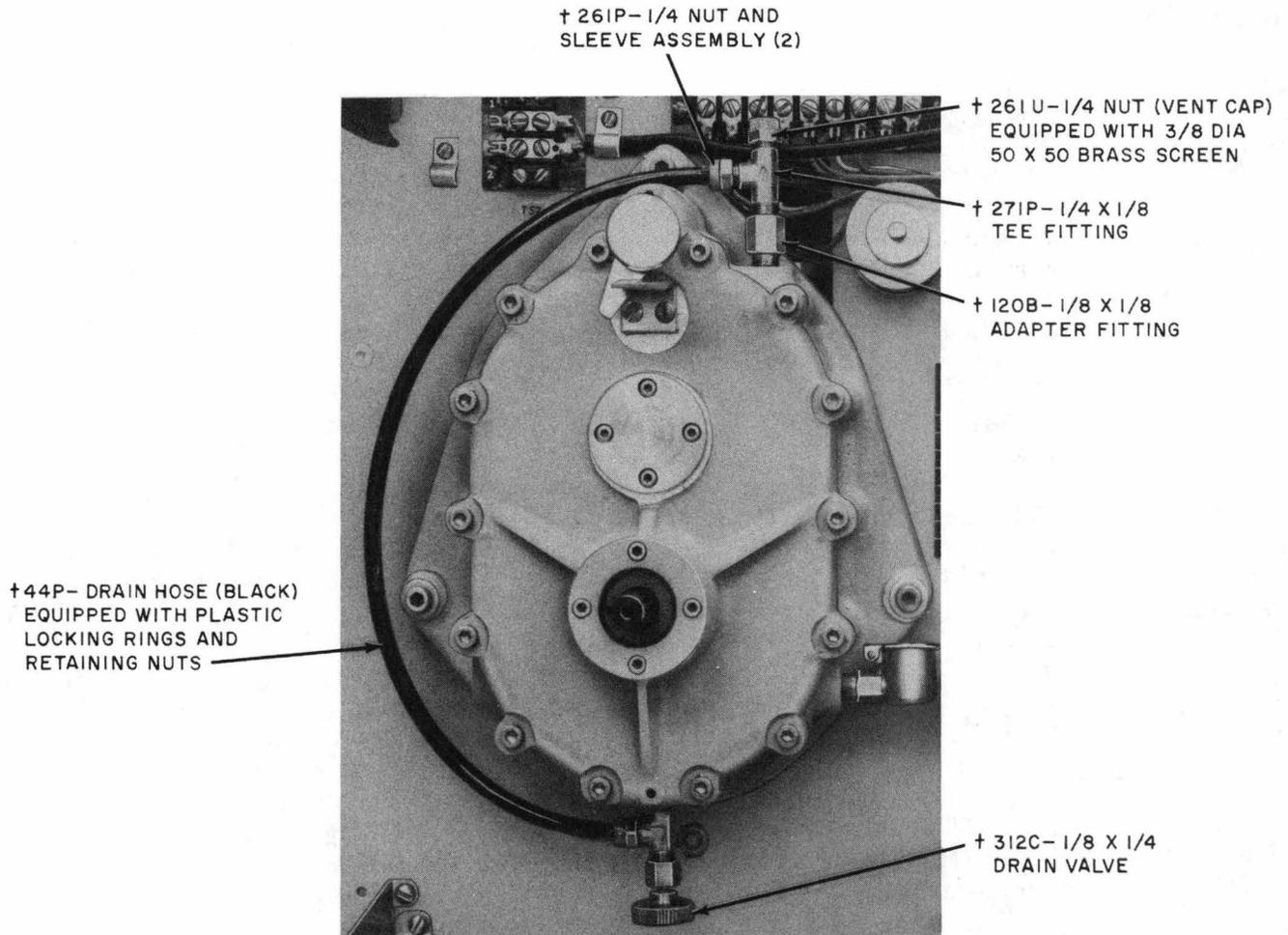


Fig. 1—KS-12055 L4 and L6 Recorder-Reproducer—Front View



† WHEN ORDERING INDIVIDUAL PARTS, GIVE THE PART NUMBER AND PART NAME AND SPECIFY THAT THE PART IS FOR NO. 1A-KS-12068/KS-12055 MODIFICATION KIT.

Fig. 9—Gear Case—Showing Oil Drain Valve, Hose Assembly, and Associated Parts

3. REPLACEMENT PROCEDURES

3.01 *List of Tools, Materials, and Test Apparatus*

CODE OR SPEC NO.	DESCRIPTION	CODE OR SPEC NO.	DESCRIPTION
		TOOLS (Cont)	
		486A	Oil can
245	3/8- and 7/16-Inch hex open double-end flat wrench (2 reqd)	KS-8511	Tweezers
417A	Wrench	KS-6320	◆Orange stick◆
418A	Wrench	R-1060	Putty knife
485A	Pliers	R-1770	1/2- and 9/16-Inch hex open double-end flat wrench

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TOOLS (Cont)

R-2670	3/32-Inch Allen socket screw wrench
R-2671	1/8-Inch Allen socket screw wrench
R-2812	3/16-Inch Allen socket screw wrench
R-2958	5/64-Inch Allen socket screw wrench
R-2959	1/16-Inch Allen socket screw wrench
R-2961	0.050-Inch Allen socket screw wrench
R-3415	7/64-Inch Allen socket screw wrench
—	1/2-Pint oiler, Gem No. 1706, Gem Div. Plews Oiler Co, (or equivalent)
—	No. 555E Jewelers screwdriver, L. S. Starrett Company (or equivalent)
—	3-Inch C screwdriver
—	4-Inch E screwdriver
—	0012 Truarc Pliers for 5100-12 and 5100-18 Retaining Rings, Waldes-Kohinoor Company

CODE OR SPEC NO.

DESCRIPTION

MATERIALS (Cont)

— Teflon tape, Antiseizing Size II, 25 Foot Length, Hercules Chemical Co., Inc., 416 Broadway, New York, N. Y. (or equivalent)

— General Electric ◆SF-1147◆ Silicone Fluid ◆(200 centistokes viscosity)◆ Silicone Products Dept, General Electric Co.

TEST APPARATUS

3P15B Cord (one P3K cord, 12 feet long, equipped with two 310 plugs)

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

3.03 Before replacing any parts, remove power from the machine.

3.04 After replacing any parts of a machine, the part or parts replaced shall meet the adjustment requirements involved as specified in Section 034-350-701. Other parts whose adjustments may have been directly disturbed by the replacement operations shall be checked by the adjustment requirements, and an overall check shall be made of the machine before restoring it to service.

3.05 Covers

(a) **Front Cover:** Where the front cover has open ventilation holes, refer to 2.04(b) and block the holes as described.

(b) **Rear Cover:** Mount the rear cover so that the ventilation holes are adjacent to the motor.

MATERIALS

KS-2423	Twill cloth
KS-7860	Petroleum spirits
KS-16326 L1	Oil
KS-13148 L1	Abrasive paper
KS-19578	Trichloroethane
—	EC-1711 Scotch Grip Rubber Adhesive, 3M Company

RECORDING BAND WIPER-LUBRICATION ASSEMBLY AND ASSOCIATED PARTS

3.06 Recording Band Wiper-Lubrication

Assembly: If the machine is not equipped with a wiper assembly, refer to 2.04(c) for information pertaining to the on-site installation of the wiper assembly. If the machine is equipped with a wiper assembly (Fig. 1), proceed as follows.

Caution: During handling, exercise care to avoid spillage of the liquid lubricant in the wiper assembly. Do not permit wiper assembly to strike or scrape the recording band.

- (1) Using the 4-inch E screwdriver, remove the four mounting screws and lockwashers securing the wiper assembly on the panel and carefully remove the assembly.
- (2) Before installing the wiper assembly, loosen the two adjustment screws (Fig. 8) which secure the slide (reservoir) assembly in position on the wiper bracket assembly; then push the slide assembly left (toward the center of wiper bracket) as far as the slotted mounting holes will permit.
- (3) Using the four mounting screws and lockwashers, install the wiper assembly in reverse order of removal.

Caution: Erase magnet assembly must clear the installed wiper lubrication bracket (Fig. 1) and meet the requirements in Section 034-350-701 for 2.12, 2.13 and 2.14.

- (4) Place one tablespoonful of SF-1147 silicone fluid in the bottom of the slide assembly. Make sure the felt wiping pad is uniformly saturated with silicone fluid.
- (5) Adjust the slide assembly so that the felt wiping pad fits snugly with light pressure against the recording band. Ensure that no metallic portion of the wiper assembly comes in contact with the recording band (Fig. 1). Secure the slide assembly by firmly tightening the two adjustment screws in the end of the slide. Manually rotate the drum clockwise as described in 1.07. As the drum is rotating, silicone fluid shall be uniformly distributed over the entire recording surface of the band.

Caution: Remounting of the front cover may deflect the lubrication tray and, in turn, change the light pressure adjustment of the felt wiping pad against the recording band. Make sure that the lubrication tray is not deflected when the front cover is remounted.

3.07 Felt Wiping Pad: To replace the felt pad in the wiper assembly, proceed as follows.

- (1) Remove the recording band wiper-lubrication assembly (Fig. 1) as described in 3.06(1).
- (2) Place the assembly on a clean flat surface and, using the 4-inch E screwdriver, remove the two adjustment screws (Fig. 8) and the slide assembly from the wiper bracket.
- (3) Using the R-1060 putty knife, scrape the old felt pad off the slide assembly; then, using a KS-2423 cloth moistened with KS-19578 L1 trichloroethane, thoroughly clean the slide to remove any remaining bits of felt, old adhesive, and silicone fluid.
- (4) Apply a thin coating of EC-1711 adhesive to the mounting surface of the new pad and then position a new pad on the mounting surface of the slide as shown in Fig. 8. Center the pad so that there are equal spaces between each side of the pad and the slide. The end of the pad should just touch the deepest part of the slide. Gauge by eye. Allow the adhesive to dry for at least 24 hours.
- (5) Using the two adjustment screws removed in (2), reinstall the slide assembly on the wiper bracket.
- (6) Remount the wiper assembly; put in one tablespoonful of fresh silicone fluid; and adjust slide assembly as described in 3.06(2) through (5).

RECORDING BAND AND DRUM

3.08 Recording Band: To replace a worn recording band or to cement a recording band to the drum (Fig. 1), proceed as follows.

- (1) If applicable, remove the recording band wiper-lubrication assembly as described in 3.06(1).

- (2) Raise the record head to its highest position.
- (3) Remove the driving belt (Fig. 2) from the driven pulley and manually rotate the drum as required to gain access to the two setscrews in the hub of the drum.
- (4) Using the proper size Allen wrench, loosen the two setscrews (Fig. 1) in the hub of the drum and carefully remove the drum from the drum shaft; place the drum on a clean work surface.
- (5) Remove the old recording band by inserting the end of a KS-6230 orange stick under it and gradually working the band across and off the surface of the drum. If the band has been cemented on and it is necessary to remove it because it has been damaged or worn, it is permissible to cut the band off the drum. Care should be taken not to scar or damage the drum surface.

Note: The inner surface of the KS-12076 L16 band is coated with a red or gray lining which provides for good adhesion between the band and the recording drum. This red lining is a softer material than the rest of the band and care must be taken when removing or mounting the band to avoid damaging the lining.

Caution: When cleaning a KS-12055 L20 drum, take care that the petroleum spirits do not contact the hub of the drum.

- (6) Before mounting a recording band on the drum, clean the magnetic band inner surface and drum outer surface with a clean lint-free KS-2423 twill cloth *slightly moistened* with trichloroethane (KS-19578). Do not saturate the KS-2423 twill cloth with trichloroethane. Wipe thoroughly with a clean, dry KS-2423 twill cloth.

Caution: During handling, exercise care to avoid bending the band sharply. Also, while mounting the band, take care not to scrape the edge or inner surface of the band against the edge of the drum. Make sure that the hands are free of dirt and grease and that they come into contact with the top surface of the band as little as possible.

- (7) Mount the new band on the drum as follows.
Place the drum near the front edge of a clean table or bench with the rim of the drum in a vertical position. Place approximately half the width of the band on the portion of the rim adjacent to the edge of the table or bench. Then draw the drum to the edge and, using the body as a support, stretch the band around the drum, working simultaneously on both sides of the starting point. During this process, it is advisable to use the arms to hold on the drum that part of the band which has already been mounted on it. After the entire periphery of the band has been partially mounted on the drum, gradually work the band across the surface of the drum until, as determined by eye, the band is centrally located on the drum.
- (8) Using the KS-6320 orange stick, gradually peel the magnetic band back from the drum while inserting the nozzle of the tube of adhesive into the gap and apply the adhesive. Continue this process around the circumference of the drum.

Caution: As the band falls back in place on the drum, the excess adhesive that is squeezed out from under the magnet band should be wiped off. Adhesive should not be allowed to touch the recording surface of the magnetic band.

- (9) Repeat (8) for the other side of the magnet band. Allow 24 hours for the adhesive to cure prior to placing the drum back on the machine and restoring to service.
- (10) Remount the drum as follows. Make sure that the record head is tilted upward. Guide the drum onto the shaft carefully so that the slot in the drum engages the pin on the shaft, rotating the shaft if necessary. Tighten the setscrews on the hub of the drum securely.
- (11) Remove finger marks and foreign matter from the band by cleaning the band as described in Section 034-350-701.
- (12) Reinstall the driving belt onto the driven pulley.
- (13) If applicable, reinstall the recording band wiper-lubrication assembly as described in 3.06(2) through (5).

- (14) Lower the record head onto the surface of the band.

Note: Improved reproduction may be obtained if, after a recording band has been replaced, the machine can be run in the normal operating mode for 2 or 3 hours before it is restored to service.

3.09 Drum: If the drum (Fig. 1) is being replaced and the recording band is in satisfactory condition, proceed as follows.

- (1) Perform procedures described in 3.08(1) through (5), being careful to protect the reusable band as it is removed from the drum.

- (2) Install the old band on a new drum by following procedure in 3.08(6) through (9).
- (3) Complete the procedures described in 3.08 (10) through (14).

RECORD HEAD ASSEMBLY AND ASSOCIATED PARTS

3.10 Head Tension Spring

- (1) If applicable, remove the recording band wiper-lubrication assembly as described in 3.06(1).
- (2) Carefully remove the drum as described in 3.08(2) through (4).