

37 RECEIVE-ONLY TYPING REPERFORATOR (ROTR) BASE

DESCRIPTION AND OPERATION, ADJUSTMENTS, AND LUBRICATION

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1. GENERAL

1.01 This section provides the description and operation, adjustment requirements and procedures, and the lubrication intervals and procedures for the Model 37 Receive-Only Typing Reperforator (ROTR) Base.

1.02 The base provides mounting facilities for a 37 typing reperforator and associated motor unit, and is a component of the 37 Receive-Only Typing Reperforator (ROTR).

1.03 The reperforator base (Figure 1) consists of an intermediate gear mechanism, 9-pin connector, tape winder with hub and reel, and a rubber isolated base plate.

1.04 The base measures 13-9/32 inches by 12-13/16 inches. It is compatible with typing reperforators equipped with: power driven backspace, ribbon shift, tape feed-out mechanism, code reading and auxiliary contacts, and last character visibility accessories.

2. DESCRIPTION AND OPERATION

BASE PLATE

2.01 Four rubber isolators support the base plate over the lower base pan which is a part of the ROTR cover assembly. The base plate serves as a platform for the reperforator and also provides required mounting facilities for the motor unit.

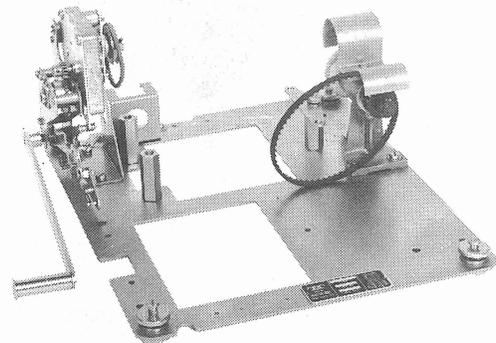


Figure 1 - ROTR Base

SECTION 574-331-101

2.02 Three mounting posts and an adjusting plate are provided for the motor unit. An intermediate gear mechanism, belt and pulleys provide the interface between the typing reperforator and the motor unit.

INTERMEDIATE GEAR MECHANISM

2.03 The intermediate gear mechanism transfers motor power from the motor through a set of gears, intermediate shaft assembly w/toothed pulley, and toothed belt, to the reperforator toothed pulley mounted on the

reperforator shaft. The intermediate shaft rotates at exactly twice the reperforator shaft speed. Proper receiving shaft speed is obtained by appropriate gear reduction through the pulleys and belt.

CONNECTOR BRACKET

2.04 A connector bracket provides mounting facilities for the 9-pin connector and associated wiring. The control switch is mounted on the receive-only reperforator table door.

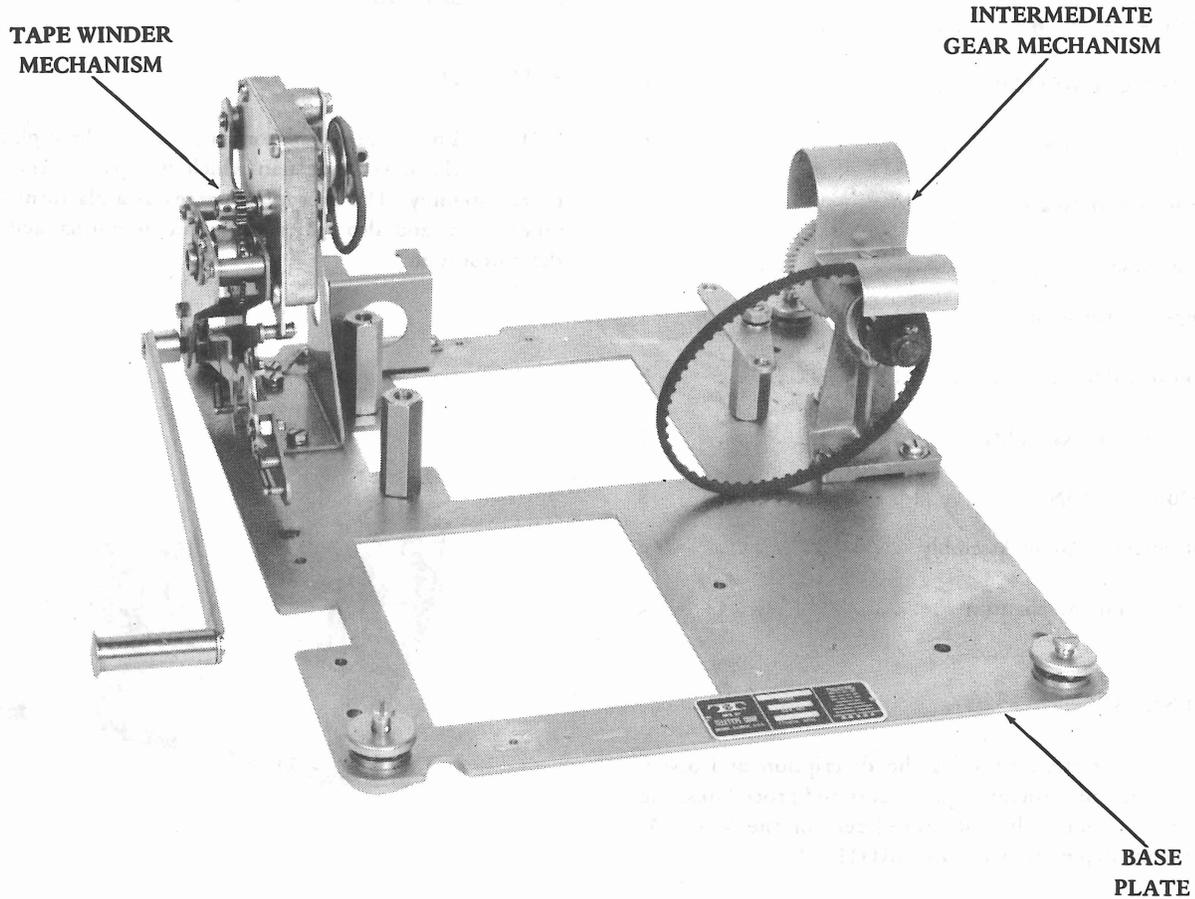


Figure 2 - Reperforator Base

TAPE WINDER ASSEMBLY

2.05 A tape winder assembly (Figure 4), mounted on the upper left rear corner of the base plate, winds the reperforator punched tape onto a plastic reel. The assembly consists of a gear reduction mechanism, tight-tape arm, latchlever, trip lever, disengaging arm, tape reel driven gear, detachable tape reel hub, and tape reel.

2.06 The winder is driven by the motor unit through a pulley/belt and gear reduction arrangement. Motor input (1800 rpm) is transferred through the gear reduction mechanism to its driving gear (60 rpm). With the driving gear and the tape reel driven gear engaged, the tape reel hub revolves (20 rpm) and the punched tape is wound onto the tape reel. Driving and driven gear engagement is controlled by the tight-tape arm position. With the arm positioned upward, the gears are disengaged and the mechanism is in its idle condition; with the arm positioned downward, the gears are engaged and the winder is operating.

2.07 The tape winder cycle from normal idle condition, to tape winding, back to idle, operates as follows: In the normal idling condition, taut tape holds the tight-tape arm and trip lever (both mounted on the same shaft) upward. The disengaging arm holds the gear reduction mechanism and its driving gear upward, out of engagement with the tape reel driven gear.

2.08 As tape feeds from the reperforator, the tight-tape arm, trip lever, and disengaging arm follow the tape loop downward. Disengaging lever rotation is soon stopped by the latchlever (upper surface) to keep the driving and driven gears out of engagement.

2.09 As the tight-tape arm continues downward, the trip lever contacts and rotates the latchlever (right surface) clockwise. The rotating latchlever releases the disengaging arm and under spring tension, the reduction

mechanism and driving gear drop into engagement with the driven gear. The tape reel shaft and its hub revolves and begins to wind the slack tape onto the tape reel.

2.10 As the tight-tape arm continues to its lowermost position, the disengaging arm is also pivoted to its lowermost position, where it is latched by the latchlever (bottom surface).

2.11 As the slack tape is taken up by the reel, the tight-tape arm and trip lever both follow the upward movement of the tape loop. While the tight-tape arm moves upward, the trip lever contacts and rotates the latchlever (rear extension bottom surface) counterclockwise. This releases the disengaging arm which then rotates and contacts the underside cam surface of the gear reduction mechanism. The mechanism and its driving gear are pivoted out of engagement with the tape reel driven gear. The tape winder is thus returned to its normal idle condition to complete one tape winder cycle.

TAPE REEL HUB

2.12 To remove the tape reel hub from the unit, depress lever extension on hub diameter and pull hub out.

TAPE REEL ASSEMBLY

2.13 The tape reel assembly (Figure 3), consists of a tape reel and a removable flange. Three slots are provided in the reel hub to permit engagement of a tape reel hub drive dog. The flange is designed so that it can be reassembled to the reel, after tape threading, whether or not the drive dog is engaged.

2.14 A tape slit is provided in the hub to facilitate quick attachment of tape to the reel. A thumb notch permits release of the entire roll of tape, if desired for use on an inside tape unwinder.

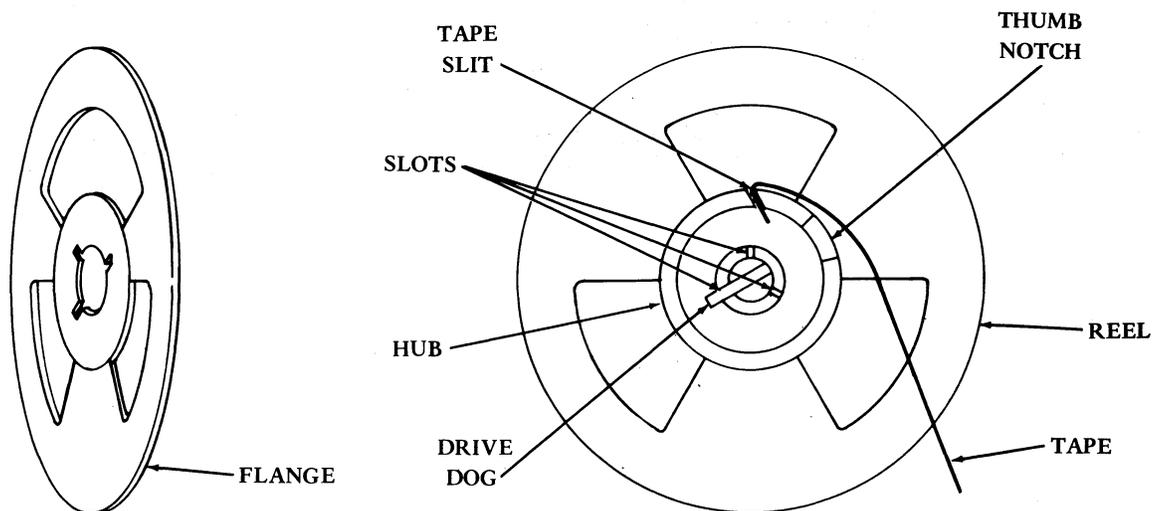


Figure 3 - Tape Reel Assembly

3. ADJUSTMENTS

3.01 Following are adjustment requirements and procedures for the 37 Receive-Only Typing Reperforator Base.

3.02 The adjustments in this section are arranged in a sequence that should be followed if a complete readjustment is undertaken. A complete adjusting procedure should be read before attempting to make the adjustment. After an adjustment is completed, be sure to tighten any nuts or screws that may have been loosened, unless otherwise instructed.

3.03 The adjusting illustrations indicate tolerances, positions of moving parts, spring tensions and the angle at which scales should be applied. The tools required to

make adjustments and check spring tensions are not supplied with the equipment, but are listed in Section 570-005-800. Springs which do not meet the requirements, and for which there are no adjusting procedures, should be discarded and replaced by new springs.

3.04 Where adjustment instructions call for removal of components, assemblies, subassemblies or parts, all adjustments which the removal of the parts might facilitate should be made before the parts are replaced or as the equipment is reassembled.

3.05 References made to left or right, up or down, front or rear apply to the unit in its normal operating position as viewed from the operator's position in front of the unit.

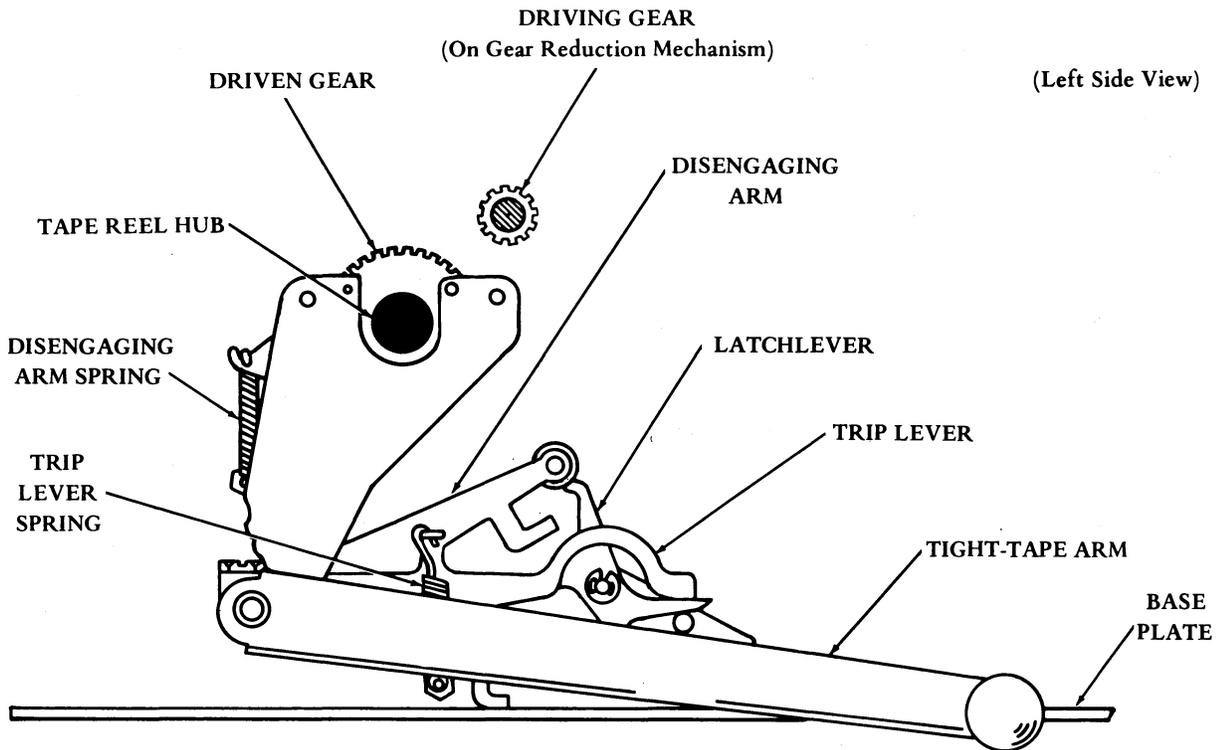


Figure 4 - Tape Winder Assembly

3.06 Reperforator Base

TOOTHED BELT

To Check

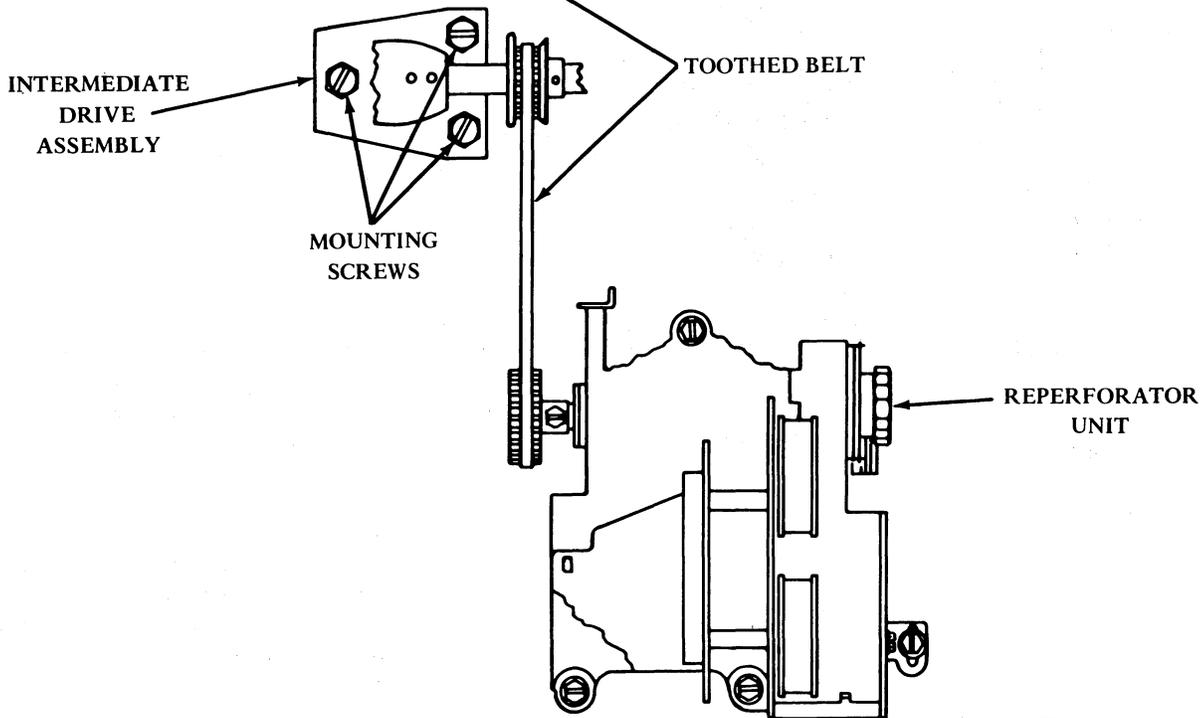
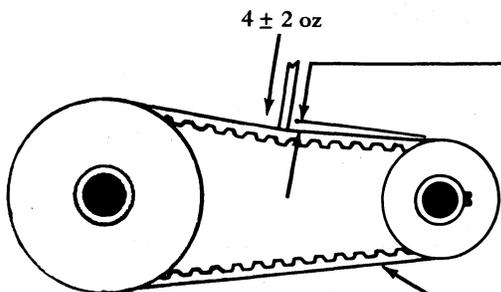
Apply approximately 4 oz pressure at center of belt span.

Requirement

Min 1/16 inch --- Max 3/16 inch belt deflection.

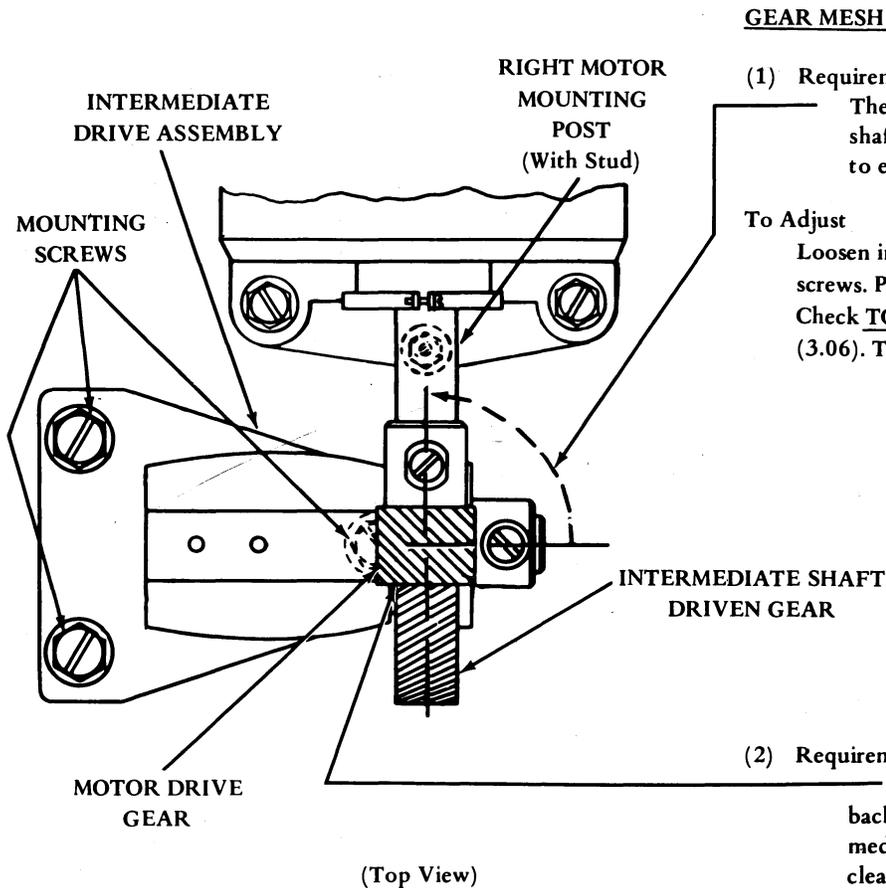
To Adjust

Loosen intermediate drive assembly mounting screws. Position assembly toward or away from reperforator unit. Tighten mounting screws. Check GEAR MESH adjustment (3.07).



(Top View)

3.07 Intermediate Gears



(Top View)

GEAR MESH

(1) Requirement

The motor drive gear and the intermediate shaft driven gear should mesh at right angles to each other.

To Adjust

Loosen intermediate drive assembly mounting screws. Position intermediate drive assembly. Check TOOTHED BELT adjustment requirement (3.06). Tighten mounting screws.

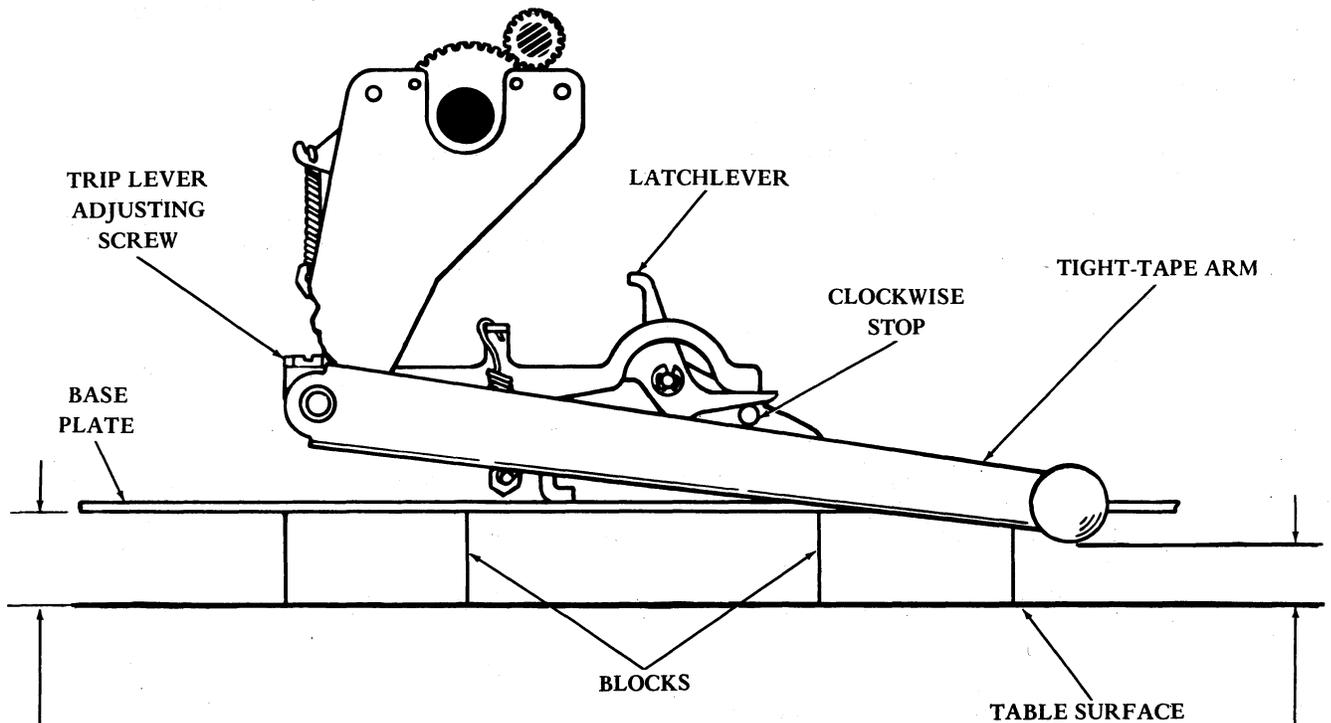
(2) Requirement

Min 0.004 inch - - - Max 0.008 inch backlash between motor drive gear and intermediate shaft driven gear, at point of least clearance.

To Adjust

Loosen nut retaining the motor right mounting post stud. Position stud up or down to meet requirement. While holding stud in its adjusted position, tighten nut. Check requirement (1), readjust if necessary.

3.08 Tape Winder Assembly



TAPE WINDER ASSEMBLY

To Check

Place base plate on blocks 7/8 to 1 inch above the table surface. Position the tight-tape arm so that it rests in its lowest position.

Requirement

Min 1/2 inch - - - Max 1 inch _____
between the table surface and the portion of the tight-tape arm which is closest to this surface.

To Adjust

Loosen the trip lever adjusting screw and place the latchlever against its clockwise stop. Position the tight-tape arm. Tighten trip lever adjusting screw.

4. LUBRICATION

4.01 The base should be lubricated before being placed in service or prior to storage. After a few weeks of service, relubricate to make sure that all specified points have received lubricant. Thereafter, lubricate the bases every 1500 operating hours, or 6 months, whichever occurs first.

4.02 Oil should be applied by means of an oiler. Over lubrication which would allow oil to drip on other parts should be avoided. Wipe off excess amounts of lubricant. Capillary action and vaporization tend to keep a film of oil on the parts. This prevents rust and provides sufficient lubrication to many points.

Note: Protective pad TP124828 is available to protect furniture and floor coverings from oil, grease and dirt while lubricating the reperforator.

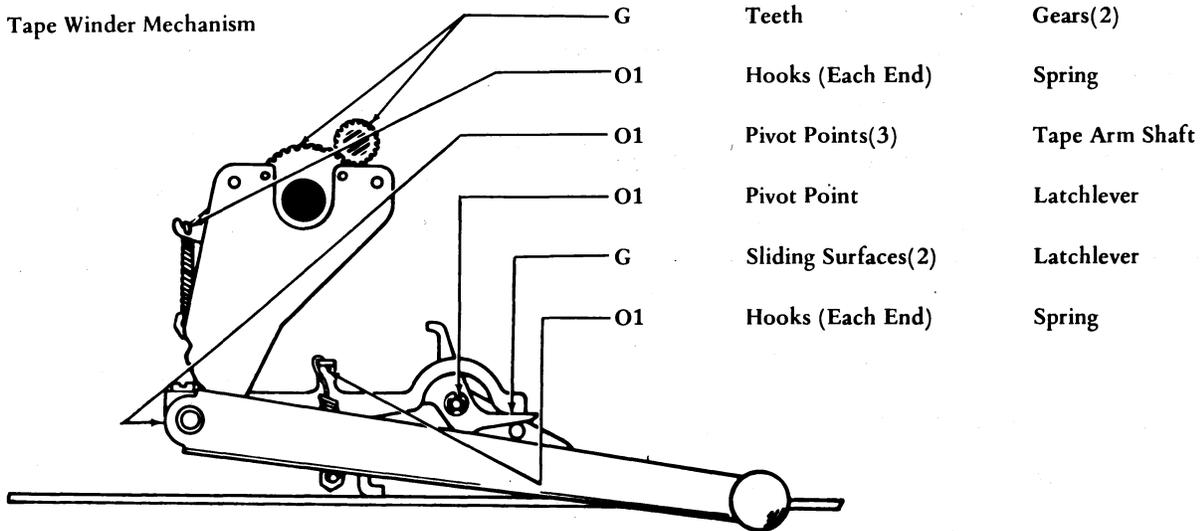
4.03 Specific points of lubrication are indicated by line drawings and descriptive text. The symbols O1 and O2 refer to 1 or 2 drops of oil. G refers to a thin application of grease. The following list of symbols apply to the lubrication instructions:

O Oil (KS7470)

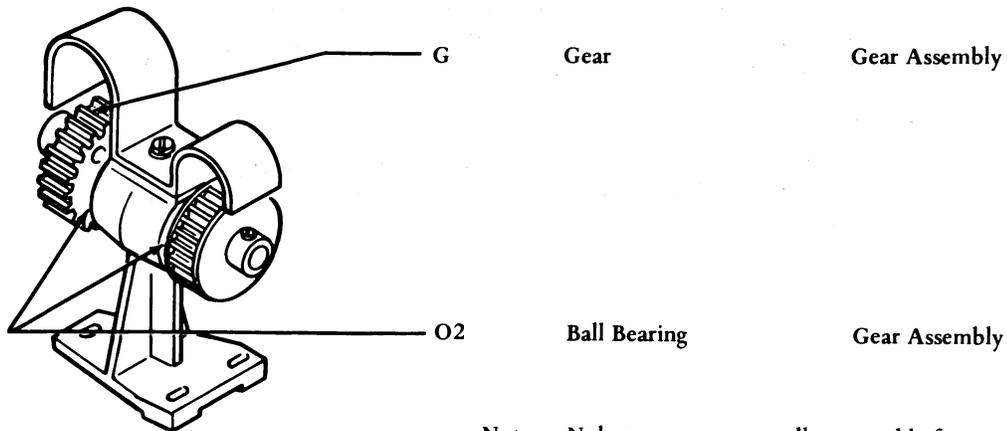
G Grease (KS7471)

CAUTION: REMOVE POWER BEFORE LUBRICATING THE EQUIPMENT.

4.04 Tape Winder Mechanism



4.05 Intermediate Drive Assembly



Note: Nylon gears are normally greased before packaging. If additional lubrication is needed, apply a thin coat of KS7471 grease to gear teeth.