

PREVENTIVE MAINTENANCE

This Section contains Lubrication and Preventive Maintenance Instructions on the ROYTRON 500 Series Reader/Punch Mechanisms.

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GENERAL INSTRUCTIONS
500 SERIES PREVENTIVE MAINTENANCE

Initial Preventive Maintenance

After 40 million Punch or Read cycles of operation, or 360 million total cycles including idling, or after four months elapsed time, whichever occurs first.

Second Preventive Maintenance

After 80 million Punch and/or Read cycles of operation, or after 720 million total cycles including idling, or after four months elapsed time from the initial Preventive Maintenance, whichever occurs first.

Preventive Maintenance should consist of the following:

1. All adjustments and timing requirements described in the 500 Series Service Manual should be checked. Perform adjustments and replace worn parts as required.
2. It will be necessary to remove some parts in order to properly effect inspection and lubrication and to examine parts for wear.
3. Parts to be removed for proper inspection are indicated at the beginning of the Section pertaining to the unit under inspection.
4. Any parts removed or replaced during Preventive Maintenance must be lubricated with the specified lubricant and installed in their original location.
5. Use a soft, clean brush to remove dirt, paper dust, chad, and other foreign matter from the unit. A blower may be used but only with caution.
6. Use a lint-free cleaning cloth to remove excessive or dried lubricants.
7. CAUTION - Lubricants must not come in contact with solenoid cores or armature surfaces. Lubricants and accumulated lint, paper dust, etc., cause an adhesive condition which affects proper operation.
8. After completion of the Preventive Maintenance, reassemble and install the unit. Perform a functional test of sufficient duration to insure error free operation.

STEP 1 Preparatory Disassembly (Figure 1)
 Remove Unit from Housing and remove the following to gain access to areas of Cleaning, Inspection and Lubrication:

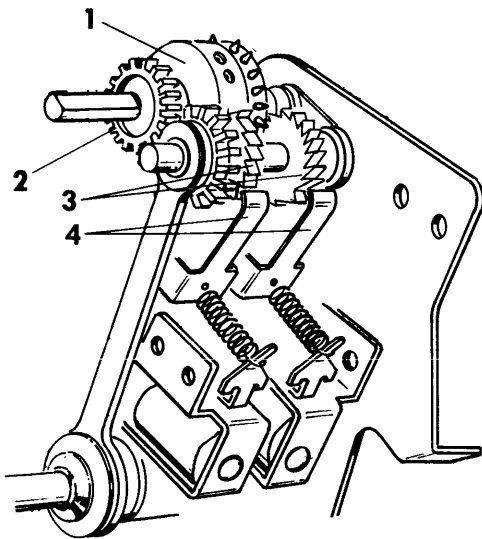
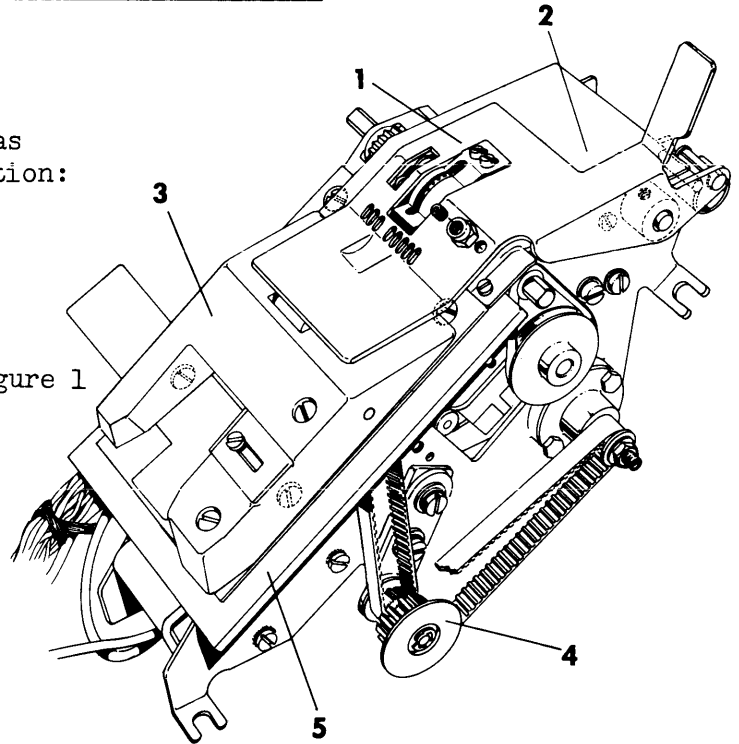
- (1) Tape Deflector Plate
- (2) Platen
- (3) Tape Guide
- (4) Idler Pulley Assembly
- (5) Tape Guide Support

CAUTION Note the amount and position of Shims held in place by Support Screws.

STEP 2 Cleaning
 Clean Unit as described under General Instructions (opposite page).

STEP 3 Parts Check (Figure 2)
 Check the following for worn or broken parts:

Figure 1

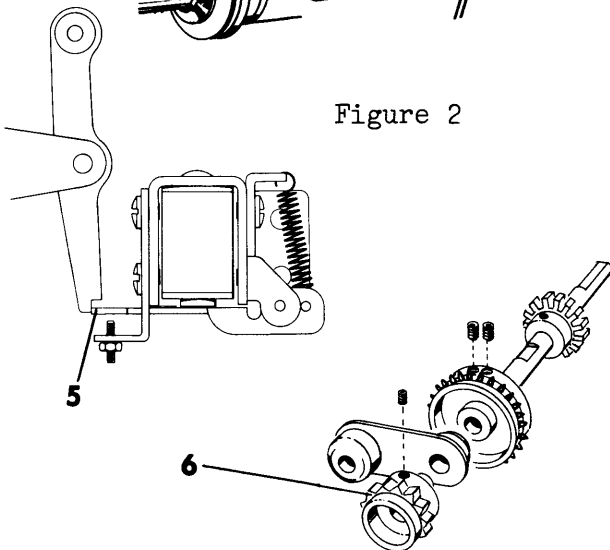


- (1) Sprocket Wheel
- (2) Index Gears
- (3) Index Ratchet Wheels
- (4) Index Magnet Interposer Tips
- (5) Retract Magnet Interposers and Links
- (6) Detent Wheel

In addition to the preceding step, visually check the entire Unit paying particular attention to the following:

1. Main Shaft Bearings
 (excessive play or binding)
2. Contact Block Wire Connections
 (frayed wires, insulation, etc.)
3. Sensing Pins
 (play in Guide or Shaft, worn, etc.)
4. Wiring, Solder Points, Crimp Terminals
 (frayed wiring, insulation, etc.)
5. Input Pulley & Generator Disc
 (loose set screws, proper adjustment)
6. Tape Deflector & Control Spring
 (distorted Deflector, proper clearance, secure holding of Tape against Sprocket)

Figure 2



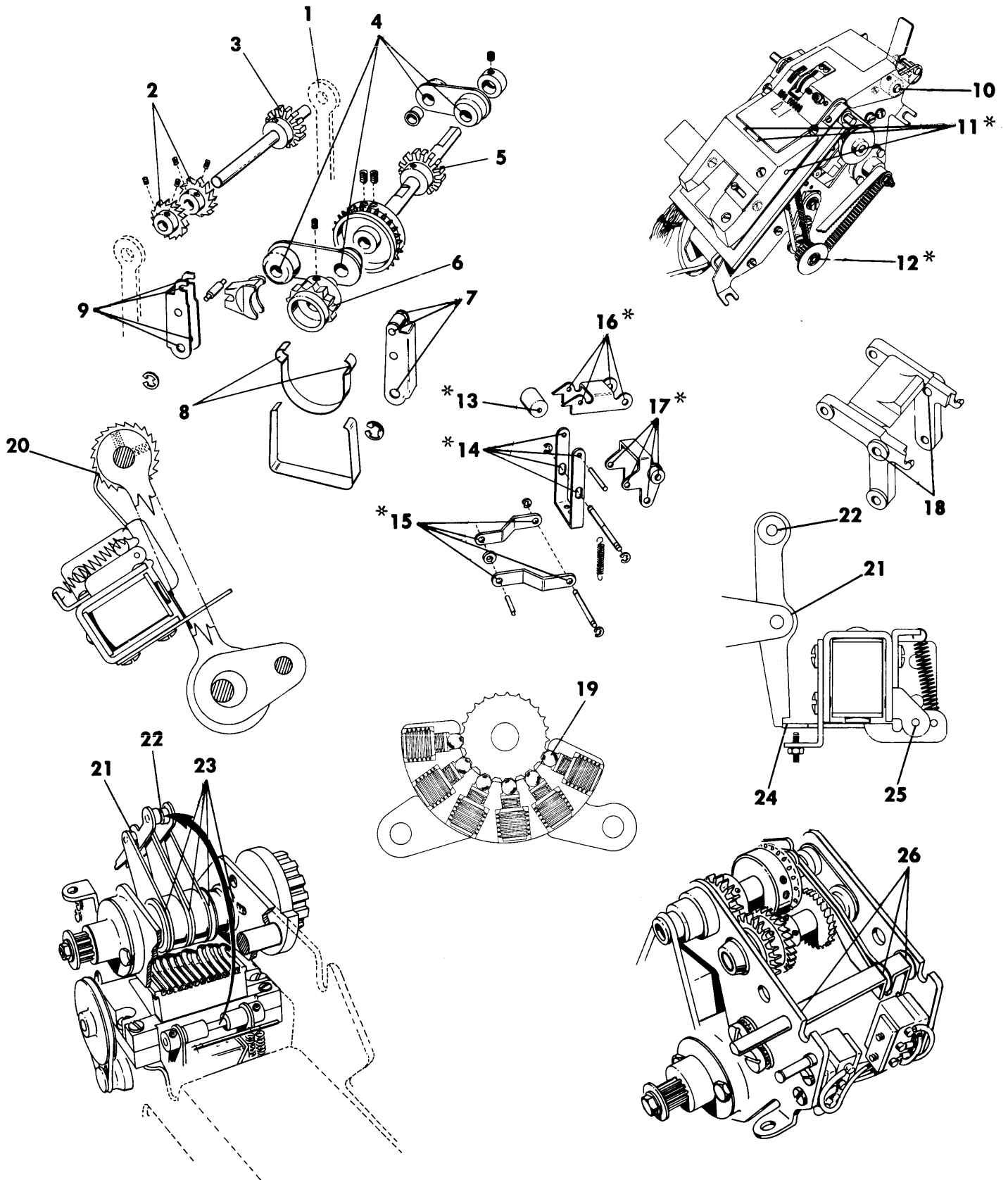
STEP 4 Lubrication
 Lubricate the Unit as described and illustrated on Pages PM5-4 & 5.

STEP 5 Reassembly
 Install the previously removed parts carefully noting that the parts are clean and that the Support Shims are in the proper location.

1. Index Link - Custom Lube 700 in Link Hole.
2. Forward and Reverse Tape Feed Ratchets - Gulflex A Grease on all teeth.
3. Ratchet Gear - Gulflex A Grease on all teeth.
4. Ratchet Shaft Pivot Link - Custom Lube 700 inside bearing hole and on link surface.
5. Sprocket Gear - Gulflex A Grease on all teeth.
6. Detent Wheel - Gulflex A Grease on all teeth.
7. Detent Arm and Roll Assembly - Custom Lube 700 on Roll and pivot points.
8. Detent Spring - Custom Lube 700 at two points indicated.
9. Detent Arm Assembly - Custom Lube 700 on four holes shown.
10. Hold Down Plate Shaft - Custom Lube 700.
11. Tape Feed Roll Shaft - Custom Lube 700 (not excessively).
12. Idler Pulley - Custom Lube 700.
13. Pressure Roll - Custom Lube 700 on bearing hole.
14. Tape Feed Roll Link - Custom Lube 700 in all holes.
15. Solenoid Link - Custom Lube 700 in all holes.
16. Pressure Roll Arm - Custom Lube 700 in four holes shown.
17. Tape Feed and Pin Retract Assembly - Custom Lube 700 in six holes on both sides.
18. Reader Bracket Arm Assembly - Custom Lube 700 on two pivot points shown.
19. Detent Assembly-New Style - Gulflex A Grease packed within recess of Housing.
20. Forward and Reverse Index Magnet Interposers - Gulflex A Grease on the tip of both Interposers.
21. Interposer Arm Assembly Left and Right - Custom Lube 700 at points shown on both sides.
22. Reader Bracket Arm Assembly Shaft - Custom Lube 700.
23. Eccentric Shaft Washers and Spacers - Custom Lube 700 on both sides between Arms and Side Plates.
24. Interposer Arm Notch - Gulflex A Grease.
25. Interposer Magnet Armature Pivot - Custom Lube 700 on both ends.
26. Reader Switch Blades (In Position and Auto-Feed) - Custom Lube 700 in shaft holes.

READER PREVENTIVE MAINTENANCE LUBRICATION CHART

PM5-5



* Does not apply to Model 552

STEP 1 Preparatory Disassembly (Figure 1)

Remove Unit from Housing and remove the following to gain access to areas of Cleaning, Inspection and Lubrication:

- (1) Punch Cover (3) Platen
- (2) Tape Deflector (4) Chad Tube
- (5) Forward & Reverse Index Magnet Screws, (to remove Magnet Assemblies on both sides).

STEP 2 Cleaning

Clean Unit as described under General Instructions (Page PM5-2).

STEP 3 Parts Check (Figures 1 & 2)

Check the following for worn or broken parts - Figure 1:

- (6) Punch Driver Arms (wear at point of contact with Pawls or Punches)
- (7) Punch Pawls (side play or wear at contact with Driver Arms and Over-centering Springs)
- (8) Punch Magnet Armature Links (side play)
- (9) Punch Driver Arm Springs (wear at Anchor Points or weak Springs)
- (10) Punch Pawl Yoke Spring (wear at Anchor Points or weak Springs)

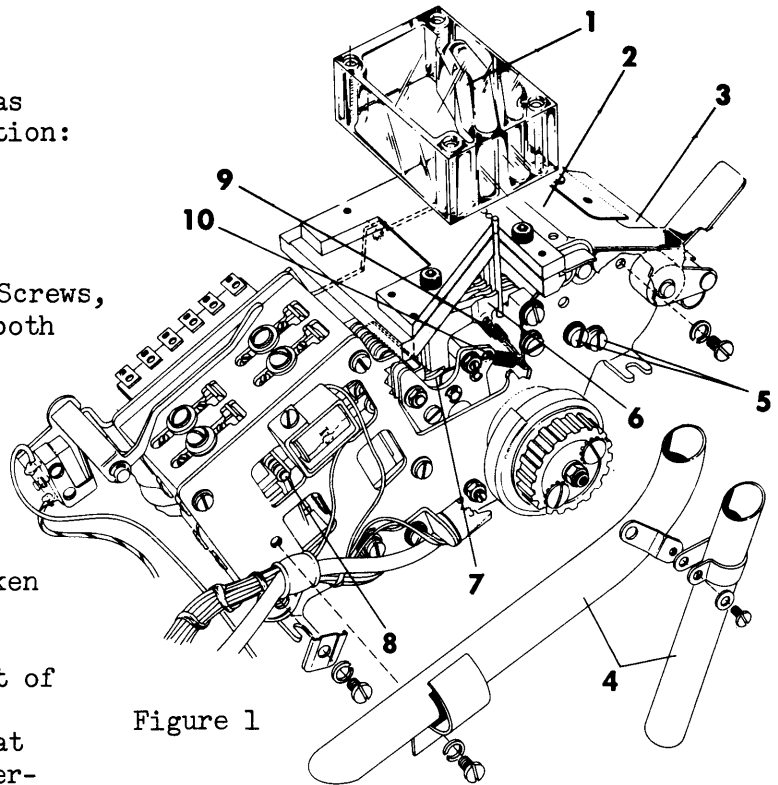


Figure 1

Figure 2:

- (11) Sprocket Wheel
- (12) Index Gears
- (13) Index Ratchet Wheels
- (14) Index Magnet Interposer Tips
- (15) Detent Wheel

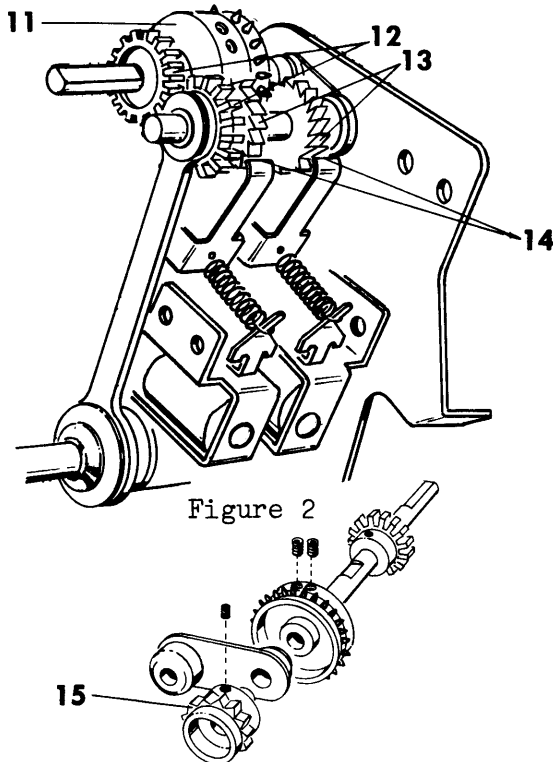


Figure 2

In addition to the preceding; visually check the Unit, with emphasis on the following:

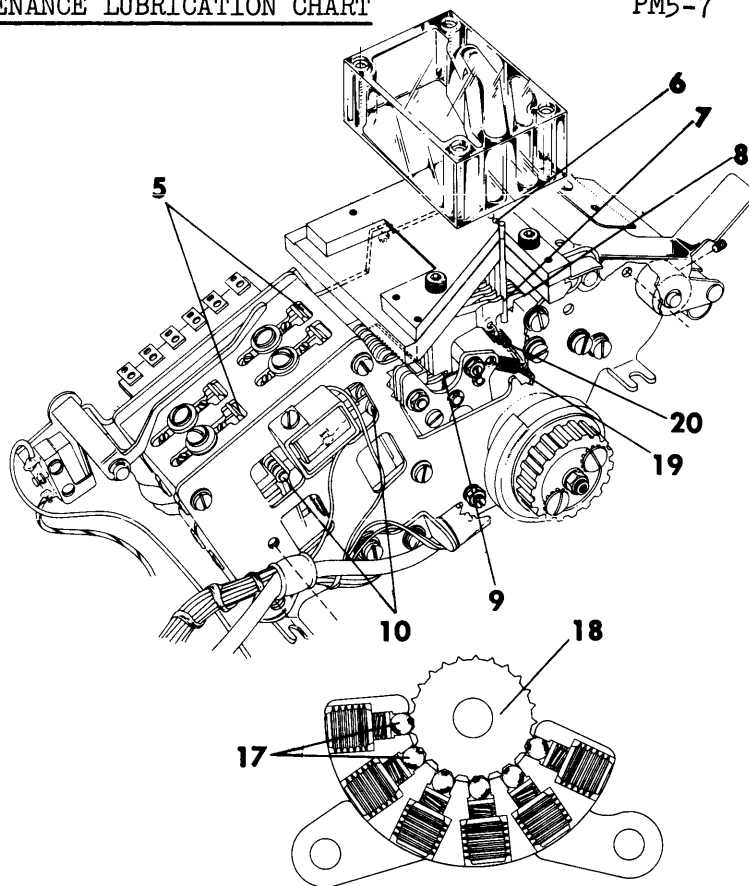
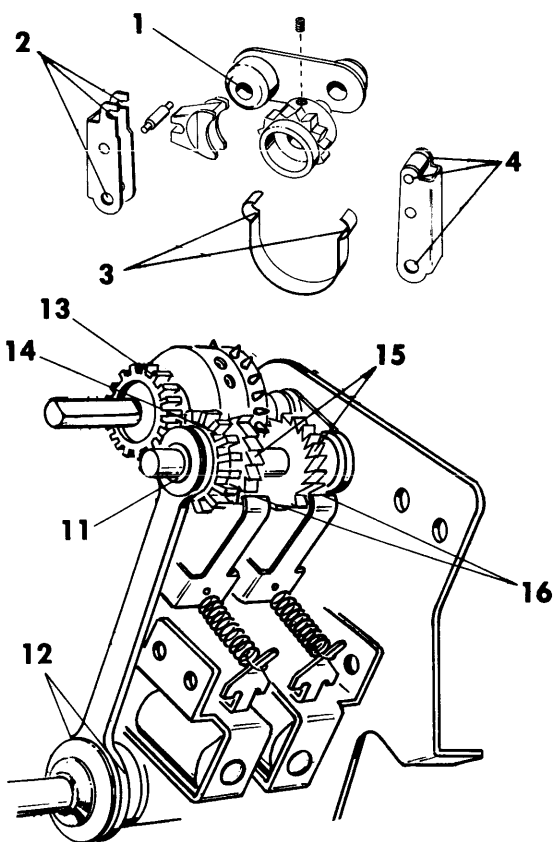
- 1. Main Shaft Bearings (excessive play or binding)
- 2. Punches and Die Block (side play or wearing of Punches or Die Block)
- 3. Punch Magnet Armature Spring & Spacer (wear and correct location)
- 4. Wiring, Solder Points, Crimp Terminals (frayed wiring, insulation, etc.)
- 5. Input Pulley and Generator Disc (loose Screws, proper adjustment)
- 6. Tape Deflector Plate and Tear Plate (distortion, proper clearance and adjustment)

STEP 4 Lubrication

Lubricate the Unit as described and illustrated on Page PM5-7.

STEP 5 Reassembly

Clean and install the previously removed parts.



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| <p>1. <u>Ratchet Shaft Pivot Link</u> - Custom Lube 700 inside hole and surface of Link.</p> <p>2. <u>Detent Arm Assembly</u> - Custom Lube 700 in four holes.</p> <p>3. <u>Detent Spring</u> - Custom Lube 700 at two points indicated.</p> <p>4. <u>Detent Arm and Roll</u> - Custom Lube 700 on Roll and pivot point.</p> <p>5. <u>Punch Magnet Armature Spring and Spacer</u> - Custom Lube 700 on both sides.</p> <p>6. <u>Punch Pin Guide Block</u> - Custom Lube 700 very sparingly.</p> <p>7. <u>Punches</u> - Custom Lube 700 top and bottom of slot.</p> <p>8. <u>Punch Driver Arm</u> - Custom Lube 700 on side of Arms.</p> <p>9. <u>Punch Pawl and Driver Arm Contact Points</u> - Custom Lube 700 on all nine points.</p> <p>10. <u>Punch Magnet Armature Link Pivots</u> - Custom Lube 700 lightly on all nine pivot points.</p> | <p>11. <u>Index Link</u> - Custom Lube 700 on inside bearing surface, upper hole only.</p> <p>12. <u>Input Shaft Washers and Spacers</u> - Custom Lube 700 on both sides of Washers and Spacers.</p> <p>13. <u>Sprocket Gear</u> - Gulflex A on all teeth.</p> <p>14. <u>Ratchet Gear</u> - Gulflex A on all teeth.</p> <p>15. <u>Feed Ratchets</u> - Gulflex A on all teeth.</p> <p>16. <u>Index Magnet Interposers</u> - Gulflex A Grease on tip of Interposers.</p> <p>17. <u>Ball Detent Assembly</u> - Gulflex A Grease packed within entire recess of Housing.</p> <p>18. <u>Detent Wheel</u> - Gulflex A on all teeth.</p> <p>19. <u>Punch Pawl Yoke Spring Anchors</u> - Gulflex A Grease.</p> <p>20. <u>Punch Pawl Spring Anchor Points</u> - Gulflex A Grease.</p> |
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