BELL SYSTEM PRACTICES Plant Series

#### HIGH SPEED TAPE PUNCH UNIT (DRPE TYPE)

#### LUBRICATION

PAGE

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#### 1. GENERAL

1.01 This section provides lubrication information for the high speed tape punch (DRPE type). It is reissued to add and revise lubrication information according to the latest engineering changes. These include new 2400 word per minute models and variable features such as a backup mechanism, photoelectric reader (verifier), and universal punch block. Because this is a general revision, marginal arrows which indicate change have been omitted.

1.02 The high speed tape punch should be lubricated as directed in this section. The figures indicate points to be lubricated and the kind and quantity of lubricant to be used. Lubricate the unit just prior to placing it in service. After a few weeks of service, relubricate to make certain that all points receive lubrication. Thereafter, the lubrication interval is:

Lubrication Interval
2000 hr or 6 mo*
400 hr or 3 mo*
200 hr or 2 mo*
150 hr or $1-1/2$ mo*
75 hr or 1 mo*
40 hr or 1 mo*

\*Whichever occurs first.

1.03 Use KS7470 oil and Mobil #2 grease when lubricating this unit. See section 570-005-800TC for complete list of tools.

Note: TP143484 is a 1 lb can of Mobil #2 grease. TP145867 is the same grease in a 4 oz tube.

1.04 Saturate all spring wicks and felt oilers; lubricate friction surfaces of all moving parts. Avoid overlubrication. Prevent lubricant from getting between electrical contacts or between stepper magnet coils and armature.

1.05 The photographs indicate paragraph numbers that refer to specific line drawings of mechanisms and where these mechanisms are located on the equipment. Mechanisms in line drawings are shown upright unless otherwise specified.

- 1.06 The illustration symbols indicate the following lubrication directions:
  - O1 Apply one drop of oil.
  - O2 Apply two drops of oil, etc.
- SAT Saturate with oil (felt oilers, washers, and wicks).
- FILL Fill with oil (oil holes and oil cups).
  - G Apply 1/64-inch film of grease unless directed otherwise.
- 1.07 After each lubrication interval, wipe off excess lubricant from upper tape guideplate and punch pins.

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## 2. BASIC UNIT

2.01 Front of Unit



2.02 Links and Reed Tips



Links, Guides, and Posts	Links
Contacting Surfaces (To be coated with 1/32 inch of grease)	Reed Tips, Dampers, Links, and Bumpers
Links, Guides, and Posts	Links
Contacting Surfaces (To be coated with 1/32 inch of grease)	Reed Tips, Dampers, Links, and Bumpers
Links, Guides, and Posts	Links
Contacting Surface	Punch Pins
Sliding Surface	Punch Pins

Escapement

2.03 Escapement Pawls, Ratchet, and Grease Retainer



	ren wasners	Pawl Shaft	
	Contact Surfaces	Escapement Pawl	
L	Fill Grease Retainer if Present	Escapement Ratchet	
	Shaft Hole - See Note	Feed Wheel Shaft	
	Spring Coils, Feed Wheel Shaft Surface	Feed Wheel Shaft and Yield Spring	
[	Felt Washer (Late Design)	Feed Wheel Shaft	
	Note: If there is a hole through feed wheel shaft, apply lubricant to hole until it flows through to hole on ratchet. If there is no hole, disassemble feed and ratchet wheel assemblies as out-		

lined in disassembly section. After reassembly, block feed wheel center hole and two cross holes in ratchet sleeve. Apply lubricant against end of ratchet sleeve until it flows from hole in ratchet sleeve.

**Contact Surface** 

02

Feed Wheel Spoke and Ratchet

Each Pivot Bearing	Pressure Roller Bail
Oilite Bearing	Pressure
(Each End)	Roller

2.05 Tape Guide Shaft



**Tape Guide** Shaft

Felt Washer

## Bearing

### 2.06 Bottom of Unit



2.07 Tape Guide Spring and Spur Gear



2.09 Tape Feed Motor

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2.10 Tape Puller Motor





#### 2.12 Antireverse Pawl and Pulley



2.13 Tape Sensing Lever



Note: The antireversal pawl is intended  $\overline{to}$  operate without lubrication. Clean pawl and V-groove pulley with suitable solvent at lubricating intervals.

Spring Hooks (Each End) Lever Pivot Spring Hooks (Each End) Cam Shaft

Switch Cam

Spring Hooks and Coils

Lever Bearings

Antireverse Pawl Spring

Antireverse Pawl and Pulley

Idler Lever Spring

Contact Arm

Tape Sensing Lever Switch

Tape Sensing Lever Spring

Sensing Lever

### 3. VARIABLE FEATURES

#### 3.01 High Speed Tape Punch



3.02 Universal Punch Block

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Note: The universal punch block lubrication procedures are the same as the standard punch mechanism. See 2.02 and 2.03.

CAUTION 1: EXCESS OIL ON PAPER TAPE MAY PREVENT DATA FROM BEING SENSED CORRECTLY.

CAUTION 2: WHEN LUBRICATING UNIVERSAL PUNCH BLOCK, DO NOT SPRAY LUBRI-CANT ON COVER OF LIGHT SOURCE.

3.03 Photoelectric Reader (Verifier)

Note: The photoelectric reader (verifier) does not require lubrication.

3.04 Backup Mechanism





## 3.07 Detent Lever and Reverse Feed Wheel



## 3.08 Detent Lever Assembly

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3.09 Reverse Feed Wheel Assembly



Bearing Point (Hole in shaft must be upright)

Fiber Gear Teeth Mating Surface Reverse Feed Wheel Driving Gear

Reverse Feed Wheel Driving Gear

# 3.10 Tape Guide Assembly

See 2.05 through 2.07

# 3.11 Escapement, Drive Shaft, and Trip Magnet Assemblies

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(Bottom View)

- 3.12 Escapement Assembly (Forward Feed Wheel) See 2.03 through 2.13
- 3.13 Drive Shaft Assembly



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3.14 Trip Magnet Assembly

