1. GENERAL

This section contains the requirements and adjustments for the 28 reperforator-transmitter set. This section, the section covering teletypewriter general requirements and adjustments, and associated sections referred to in this section provide the complete adjusting information for the reperforator-transmitter set.

2. REQUIREMENTS AND ADJUSTMENTS

A. Reperforator-transmitter Unit

B. Tape-winder Mechanism

Chad depressor spring tension
Clutch torque
Drive shaft end play
Drive shaft gear - intermediate gear mesh
Intermediate gear alignment
Pinion - reel drive gear mesh
Stop lever eccentric stud
Stop lever release arm
Tape arm

C. Tape Supply Mechanism

Actuator spring tension
Bin full alarm actuator
Full take-up reel alarm
Low tape alarm (preliminary)
Low tape alarm (final)
Stop lever spring tension
Tape arm spring tension
Tape bin full switch
Tape supply reel alignment
Tape supply reel shaft end play
Tight tape alarm (preliminary)
Tight tape alarm (final)

D. Tape Storage Bin Mechanism

Blade position
Full take-up reel switch

1. GENERAL

1.01 This section contains the requirements and adjustments for the 28 reperforator-transmitter set. This section, the section covering teletypewriter general requirements and adjustments, and associated sections referred to in this section provide the complete adjusting information for the reperforator-transmitter set.

1.02 The 28 reperforator-transmitter set consists of a reperforator-transmitter unit and a reperforator stand. The stand provides the tape handling facilities and the framework to hold the unit.

1.03 The figures in this section show the adjusting tolerances, positions of moving parts, and spring tensions. The illustrations are arranged so that the adjustments are in the sequence that would be followed if a complete readjustment of the apparatus were being made.

1.04 When rotating the drive-shaft gear by hand, rotate in a counterclockwise direction as viewed from the exposed side of the drive-shaft gear.

2. REQUIREMENTS AND ADJUSTMENTS

A. Reperforator-transmitter Unit

2.01 Refer to the section covering 28 reperforator-transmitter unit for the requirements and adjustments of the unit.
B. Tape-winder Mechanism

2.02 Pinion – Reel Drive Gear and Intermediate Gear

**INTERMEDIATE GEAR ALIGNMENT**

**REQUIREMENT** — INTERMEDIATE GEAR SHOULD BE APPROXIMATELY PARALLEL TO OUTER PLATE.

**TO ADJUST** — POSITION MOUNTING BRACKET WITH MOUNTING SCREWS LOOSENED.

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**PINION – REEL DRIVE GEAR MESH**

**REQUIREMENT** — WITH TAPE WINDER REEL IN POSITION, THERE SHOULD BE BARELY PERCEPTIBLE BACKLASH BETWEEN PINION AND REEL DRIVE GEAR THROUGHOUT ONE REVOLUTION OF THE DRIVE GEAR.

**TO ADJUST** — POSITION BEARING PLATE WITH MOUNTING SCREWS LOOSENED. (MOUNTING SCREWS ARE ACCESSIBLE THROUGH HOLES IN INTERMEDIATE GEAR).

**NOTE**

THIS ADJUSTMENT SHOULD BE RECHECKED IF TAPE WINDER REELS ARE INTERCHANGED BETWEEN UNITS.
2.03 Drive Shaft Gear and Intermediate Gear

**Drive Shaft End Play**

Requirement - With felt washer compressed, drive shaft should have some end play. Max. 0.010 inch. To adjust—position drive shaft gear hub with hub mounting screws loosened.

**Drive Shaft Gear - Intermediate Gear Mesh**

Requirement—there should be barely perceptible backlash between drive shaft gear and intermediate gear throughout one revolution of the drive shaft gear. To adjust—position drive shaft gear mounting bracket with mounting screws loosened.
2.04 Tape-winder Control Mechanism

**STOP LEVER RELEASE ARM**

**REQUIREMENT**—STOP LEVER RELEASE ARM SHOULD BE APPROXIMATELY AT RIGHT ANGLE TO OUTER PLATE.

TO ADJUST—POSITION STOP LEVER RELEASE ARM WITH LOCK NUT LOOSENED.

**OUTER PLATE**

**TAPE ARM**

**LOCK NUTS**

**TAPE ARM**

**REQUIREMENT**—BOTTOM OF TAPE ARM SHOULD BE APPROXIMATELY PARALLEL TO MOUNTING BRACKET.

TO ADJUST—POSITION TAPE ARM WITH LOCK NUT LOOSENED.

**MOUNTING BRACKET**

**APPROXIMATELY PARALLEL**

**STOP LEVER ECCENTRIC STUD**

(1) **REQUIREMENT**—TAPE ARM RESTING AGAINST MOUNTING BRACKET. CLEARANCE BETWEEN HIGH PART OF STOP CAM AND TOP OF STOP LEVER PROJECTING EAR.

MIN. 0.005 INCH

MAX. 0.015 INCH

TO ADJUST—POSITION STOP LEVER ECCENTRIC STUD (HIGH PART TOWARD REAR OF UNIT) WITH ITS LOCK NUT LOOSENED.

(2) **REQUIREMENT**—IF THIS CLEARANCE CANNOT BE MET, REFINE STOP LEVER RELEASE ARM ADJUSTMENT ABOVE.

**NOTE**

CHECK THAT THERE IS SOME CLEARANCE BETWEEN BOTTOM OF SLOT IN STOP LEVER GUIDE AND STOP LEVER. IF NECESSARY, LOWER STOP LEVER GUIDE WITH MOUNTING SCREWS LOOSENED.
2.05 Clutch Torque and Chad Depressor

**Clutch Torque Requirement**
- Power applied to unit, stop lever held out of engagement with stop cam.
- Min. 14 OZS.
- Max. 16 OZS.
- To keep clutch friction disk from moving.

**To Adjust** — Position capstan nut with lock nut loosened: clockwise to increase tension, counterclockwise to decrease tension.

**Note**
- This measurement should be made when unit is warm from operation.

**Chad Depressor Spring Tension Requirement**
- Min. 4 OZS.
- Max. 5 OZS.
- To start depressor moving away from depressor stud.

**To Adjust** — Position spring post with lock nut loosened.
C. Tape Supply Mechanism

2.06 Tape Supply Reel

**INNER BEARING PLATE TAPE SUPPLY REEL**

**OUTER BEARING PLATE BRACKET**

**TAPE SUPPLY REEL SHAFT END PLAY**

**REQUIREMENT—WITH TAPE SUPPLY REEL IN PLACE, SHAFT SHOULD HAVE SOME END PLAY**
MAX. 0.100 INCH

**TO ADJUST—POSITION OUTER BEARING PLATE BRACKET WITH MOUNTING SCREWS LOOSENED.**

**TAPE SUPPLY REEL ALIGNMENT**

**REQUIREMENT—TAPE SUPPLY REEL SHOULD BE PARALLEL TO FRAME CROSS MEMBER IN BOTH HORIZONTAL AND VERTICAL PLANES.**

**TO ADJUST (HORIZONTAL) POSITION OUTER BEARING PLATE TO LEFT OR RIGHT WITH MOUNTING SCREWS LOOSENED.**

**TO ADJUST (VERTICAL) POSITION OUTER BEARING PLATE UP OR DOWN WITH MOUNTING SCREWS LOOSENED.**

**NOTE**

IF THESE REQUIREMENTS CANNOT BE MET BY POSITIONING THE OUTER BEARING PLATE, POSITION THE INNER BEARING PLATE IN A SIMILAR MANNER. CHECK SUPPLY REEL END PLAY.
2.07 Tape Alarm (Low Tape or Tight Tape)

**Low Tape Alarm—Preliminary or Tight Tape Alarm—Preliminary**

Requirement—With tape supply arm positioned so tape roller and trip bracket lock nut are on same horizontal level, top of switch trip bracket should be approximately horizontal.

To adjust—Position switch trip bracket with lock nut loosened.

**Tight Tape Alarm—Final**

Requirement—With tape supply arm positioned so there is clearance between edge of tape reel and tape supply arm

- Min. 3/4 inch
- Max. 1 inch

Tight tape adjusting screw should just close tape alarm switch.

To adjust—Position tight tape adjusting screw with lock nut loosened.
2.08 Tape Alarm (Low Tape or Tight Tape)

**LOW TAPE ALARM-FINAL**

REQUIREMENT—WITH TAPE SUPPLY ARM POSITIONED SO THERE IS CLEARANCE BETWEEN EMPTY TAPE REEL CORE AND TAPE SUPPLY ARM

- MIN. 1/2 INCH
- MAX. 3/4 INCH

LOW TAPE ADJUSTING SCREW SHOULD JUST CLOSE TAPE ALARM SWITCH.

TO ADJUST—POSITION LOW TAPE ADJUSTING SCREW WITH LOCK NUT LOOSENED.

**TAPE ARM SPRING TENSION**

REQUIREMENT—STOP LEVER HELD AGAINST BOTTOM OF SLOT IN STOP LEVER GUIDE.

- MIN. 1 1/2 OZS.
- MAX. 2 1/2 OZS.

TO START TAPE ARM MOVING.

**STOP LEVER SPRING TENSION**

REQUIREMENT—TAPE ARM HELD UP AND STOP LEVER RESTING ON LOW PART OF STOP CAM

- MIN. 1 OZ.
- MAX. 2 OZS.

TO START STOP LEVER MOVING AWAY FROM STOP CAM.
2.09 Full Take-up Reel Alarm and Tape Bin Full Alarm Mechanisms

**Full Take-up Reel Alarm Requirement**

With arm positioned so there is approximately 1/2 inch between portion of arm that rests on tape and edge of take-up reel, adjusting screw should just close contacts of alarm switch.

To adjust position adjusting screw with its lock nut loosened.

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**Actuator Spring Tension Requirement**

With actuator spring hooked in first hole
- Min. 2-1/4 ozs.
- Max. 2-1/2 ozs.

To separate actuator extension from leaf spring operating button.

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**Tape Bin Full Switch Requirement**

With leaf spring approximately parallel to mounting bracket and actuator extension held away from operating button,
- Min. 3/4 ozs.
- Max. 1-1/4 ozs.

To open contacts.

To adjust bend leaf springs.
D. Tape Storage Bin Mechanism

2.10 Tape Storage Bin

TAPE STORAGE BIN

TAPE STORAGE BIN SUPPORT BRACKET

MOUNTING SCREWS

RIGHT SUPPORT BRACKET

TOADJUST—POSITION RIGHT SUPPORT BRACKET WITH MOUNTING SCREWS LOOSEND.

STORAGE BIN DETENT SPRINGS

DETENT SPRING

DETENT KNOB

LOCK NUT

TO ADJUST—POSITION DETENT SPRING WITH ITS LOCK NUT LOOSEND.

REQUIREMENT—DETENT SPRINGS ALIGNED APPROXIMATELY VERTICAL.
DETENT SPRINGS SHOULD BE HORIZONTALLY CENTERED ON THEIR CORRESPONDING DETENT KNOBS.

REQUIREMENT—TAPE STORAGE BIN IN PLACE. SOME CLEARANCE BETWEEN TAPE STORAGE BIN AND RIGHT SUPPORT BRACKET
MAX. .030 INCH.

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2.11 Tape Stuffer Assembly

BLADE POSITION
REQUIREMENT — BLADES SHOULD BE APPROXIMATELY CENTERED IN SLOT IN SEPARATOR. CHECK FOUR BLADES.
TO ADJUST — POSITION BLADES WITH MOUNTING SCREWS LOOSENED.
2.12 Tight and Low Tape Switch and Full Take-up Reel Switch Mechanisms

TIGHT AND LOW TAPE SWITCH
REQUIREMENT
WITH CENTER LEAF SPRING IN NEUTRAL POSITION AND APPROXIMATELY PARALLEL TO MOUNTING BRACKET
MIN. 0.015 INCH
MAX. 0.030 INCH
GAP BETWEEN BOTH LEFT AND RIGHT SPRING CONTACTS AND CENTER SPRING CONTACT.
TO ADJUST BEND LEAF SPRINGS.

FULL TAKE-UP REEL SWITCH
REQUIREMENT
WITH LEAF SPRINGS APPROXIMATELY PARALLEL TO MOUNTING BRACKET AND TAKE-UP REEL EMPTY
MIN. 0.015 INCH
MAX. 0.030 INCH
GAP BETWEEN BOTH LEFT AND RIGHT SPRING CONTACTS AND CENTER SPRING CONTACT.
TO ADJUST BEND LEAF SPRINGS.