

35 TAPE READER\*BASES (FOR ASR SETS)

ADJUSTMENTS AND LUBRICATION

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1. GENERAL

1.01 This section is reissued to include information pertinent to new models, and to rearrange text. Since this is a gen-

eral revision, marginal arrows are omitted.

1.02 The primary concern of this section is the description, adjustment and lubrication of the bases which mount 35 tape readers and answer-back or distributor units in ASR sets. For information regarding principles of operation and description, refer to other related 574-223-series sections.

2. ADJUSTMENTS

2.01 General. Gear arrangements vary from base to base depending upon the type of drive motor and the number and types of equipment mounted on the base. The gear adjustments following treat the bases in four major groups; single reader (low speed motor), double reader (low speed motor), single reader (high speed motor), and double reader (high speed motor).

\* "Tape reader" is a general term applying to units often referred to as transmitters or transmitter distributors.

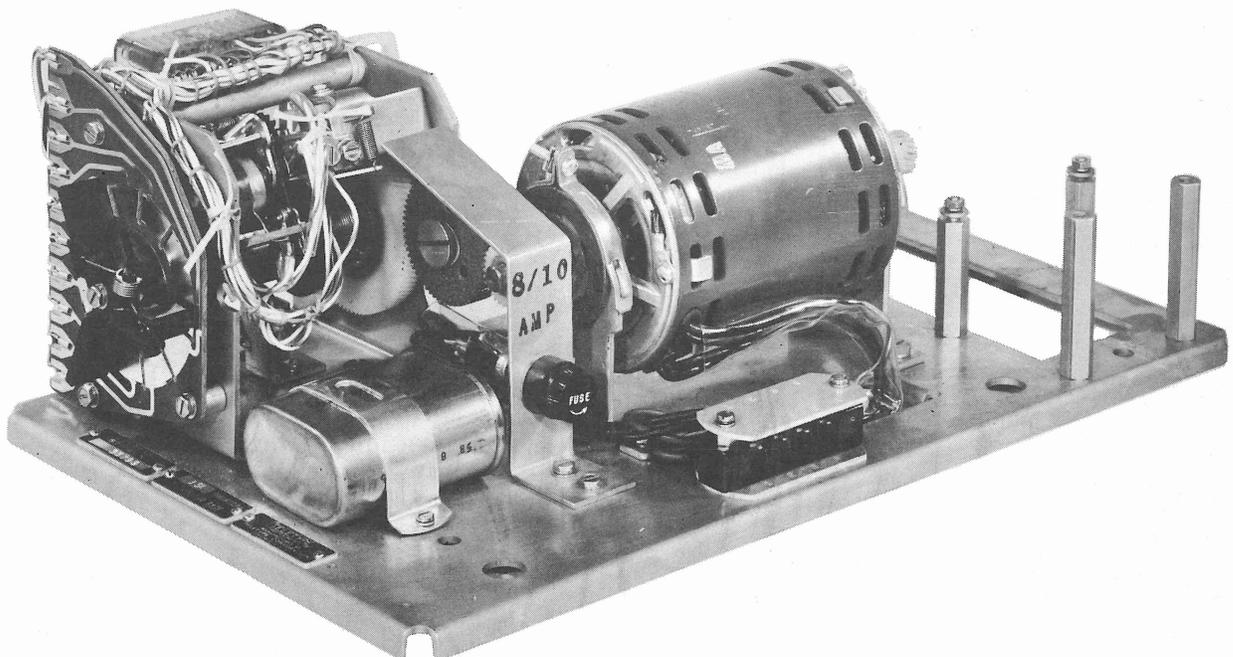


Figure 1 - 35 Tape Reader Base (Typical)

2.02 Single Reader Bases (Low Speed Motor)

Note: The procedure following is for a complete adjustment. Removal of a single component (motor, reader, or answer-back) will not normally require a complete re-adjustment. Perform adjustment in order given ((A), (B), (C), etc). Loosen reader, motor, and answer-back mounting screws before beginning a complete adjustment.

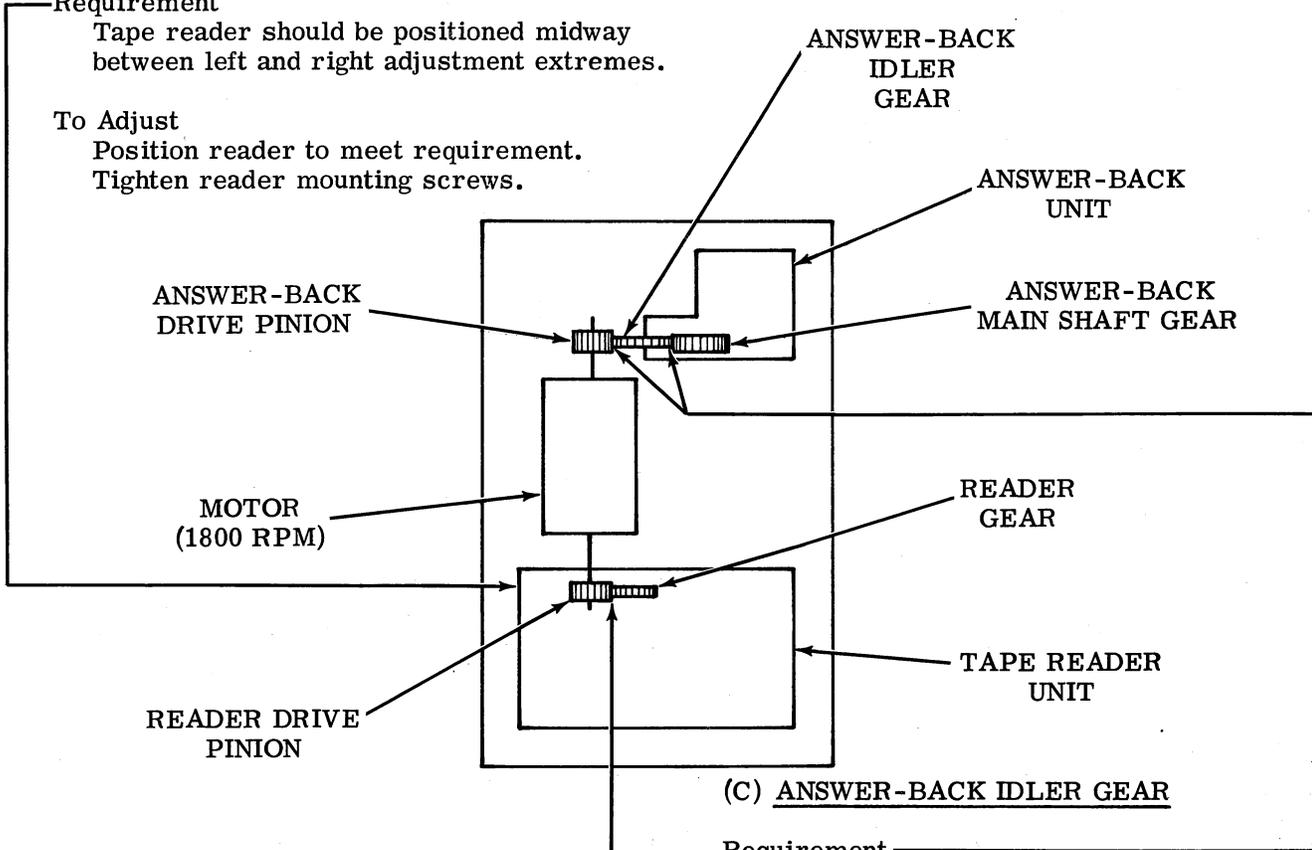
(A) TAPE READER

Requirement

Tape reader should be positioned midway between left and right adjustment extremes.

To Adjust

Position reader to meet requirement. Tighten reader mounting screws.



(C) ANSWER-BACK IDLER GEAR

Requirement

With all play in answer-back mounting holes taken up in the direction toward the motor. There should be

Min 0.004 inch---Max 0.008 inch backlash between idler gear and answer-back mainshaft gear and between idler gear and answer-back drive pinion, at the point of minimum clearance.

To Adjust

Loosen answer-back idler gear bracket. Take up adjustment play toward motor and tighten answer-back mounting screws. Position idler gear to meet requirement and tighten bracket locking screws.

(B) READER DRIVE PINION

Requirement

There should be a  
Min 0.004 inch---Max 0.008 inch backlash between the reader drive pinion and reader gear at the point of minimum clearance.

To Adjust

Position motor to meet requirement. Tighten motor mounting screws.

2.03 Double Reader Bases (Low Speed Motor)

(A) READER IDLER GEARS

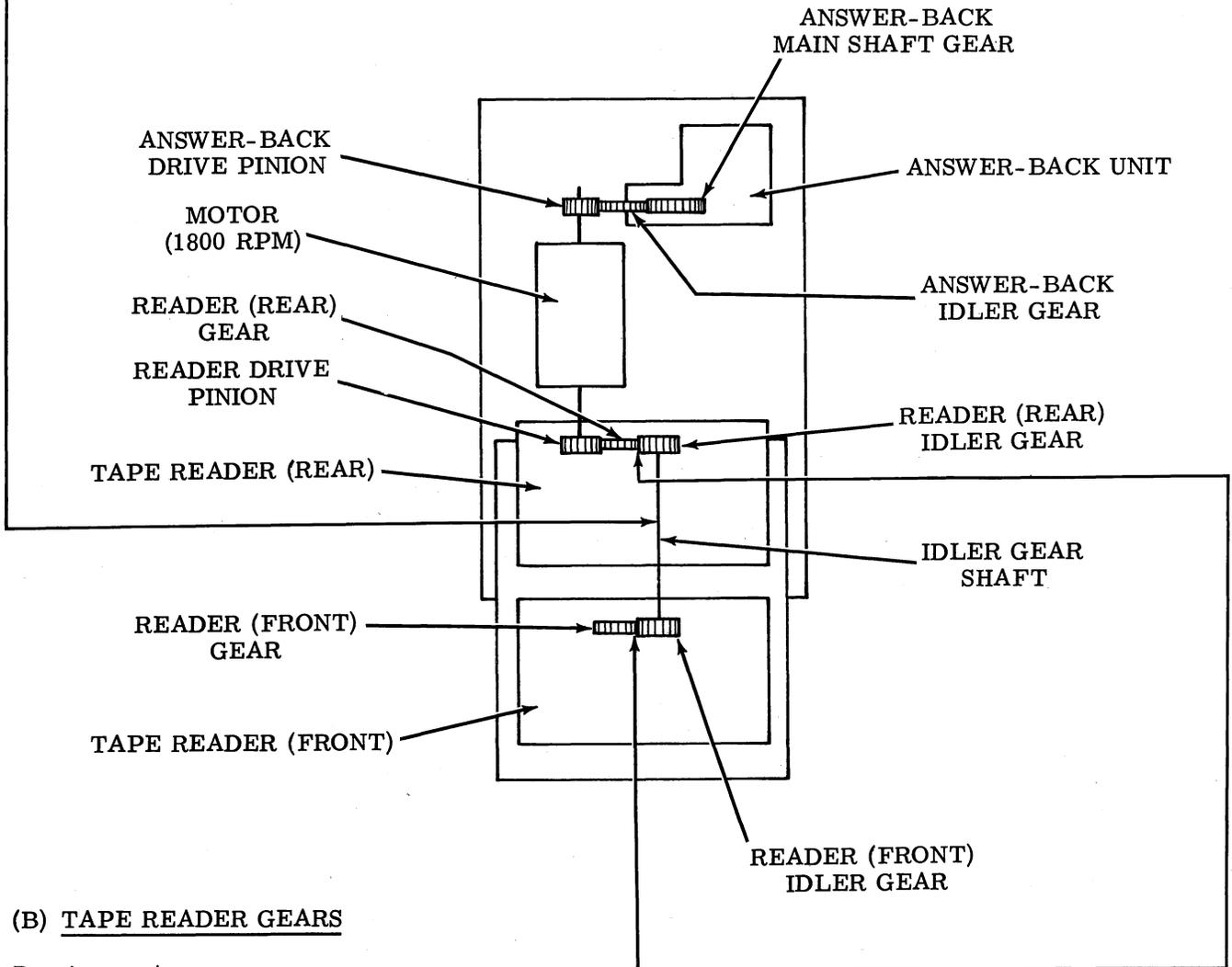
Requirement

Reader idler gear shaft should be positioned midway between left and right extremes.

To Adjust

Position the shaft brackets at their mid-adjustment position and tighten bracket mounting screws.

Note: The procedure following is for a complete adjustment. Removal of a single component (motor, reader, or answer-back) will not normally require a complete readjustment. Perform adjustment in order given ((A), (B), (C), etc). Loosen reader, idler gear shaft, motor, and answer-back mounting screws before beginning complete adjustment.



(B) TAPE READER GEARS

Requirement

There should be a  
Min 0.004 inch---Max 0.008 inch backlash  
between the reader idler gear and its associated reader gear at the point of minimum clearance.

To Adjust

Position each reader to meet requirement and tighten reader mounting screws.

2.03 Double Reader Bases (Low Speed Motor) (Continued)

(C) READER DRIVE PINION

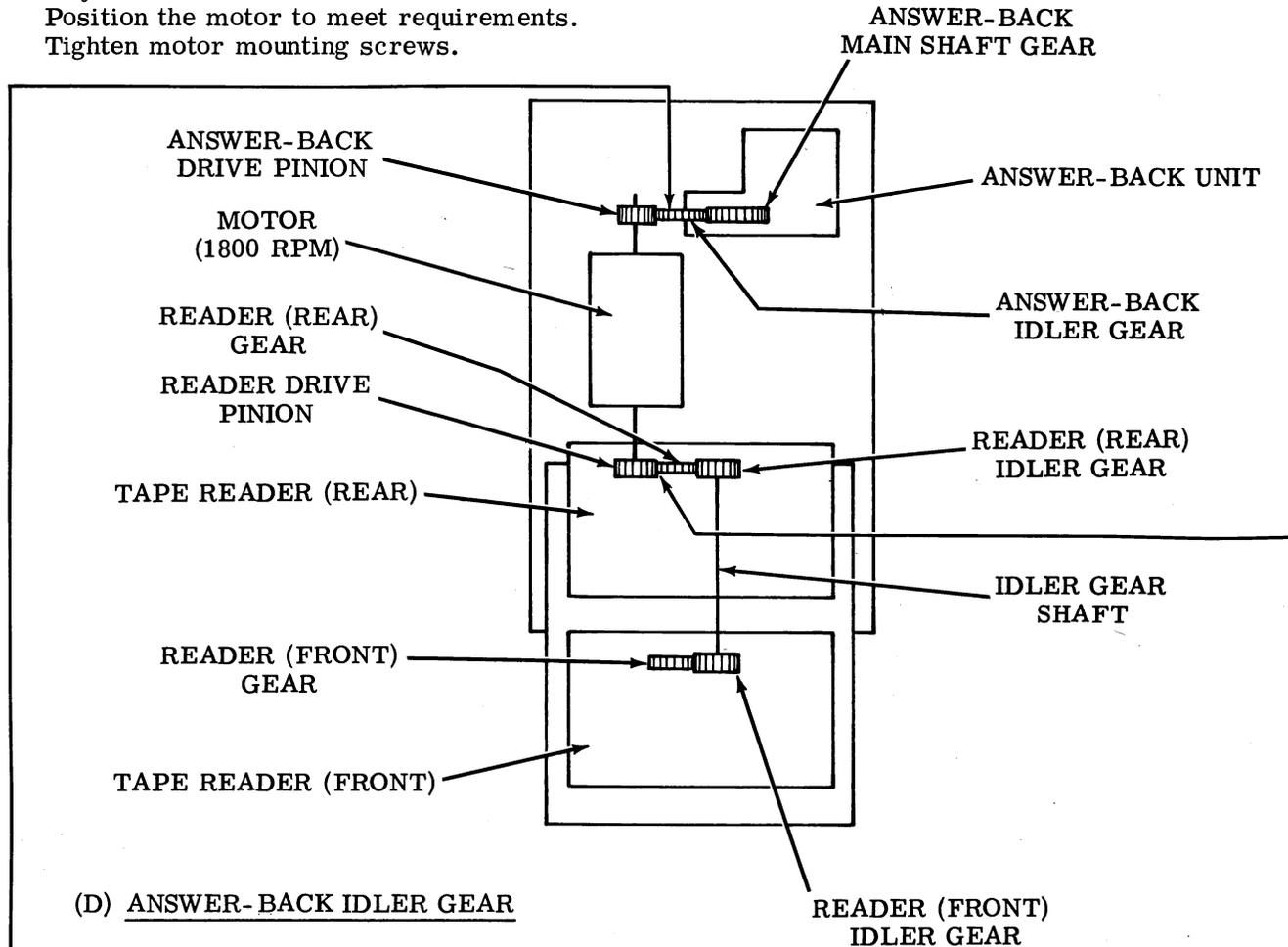
Requirement

There should be

Min 0.004 inch---Max 0.008 inch backlash between the rear reader gear and the reader drive pinion at the point of minimum backlash.

To Adjust

Position the motor to meet requirements.  
Tighten motor mounting screws.



(D) ANSWER- BACK IDLER GEAR

Requirement

With all play in answer-back mounting holes taken up in the direction toward the motor, there should be

Min 0.004 inch---Max 0.008 inch backlash between idler gear and answer-back mainshaft gear and between idler gear and answer-back drive pinion measured at point of minimum clearance.

To Adjust

Loosen answer-back idler gear bracket locking screw. Take up play and tighten mounting screws. Position idler gear to meet requirements and tighten locking screw.

2.04 Single Reader Bases (High Speed Motor)

Note: The procedure following is for a complete adjustment. Removal of a single component (motor, reader, or answer-back, or distributor) will not normally require a complete readjustment. Perform adjustments in the order given ((A), (B), (C), etc). Loosen reader, connector bracket (if so equipped), drive shaft bracket, motor, and answer-back or distributor unit mounting screws before beginning a complete adjustment.

(A) DRIVE GEAR SHAFT

Requirement

The drive gear shaft should be positioned midway between left and right mounting extremes.

To Adjust

Position the shaft brackets at their mid-adjustment position and tighten bracket mounting screws.

(C) CONNECTOR BRACKET ADJUSTMENT

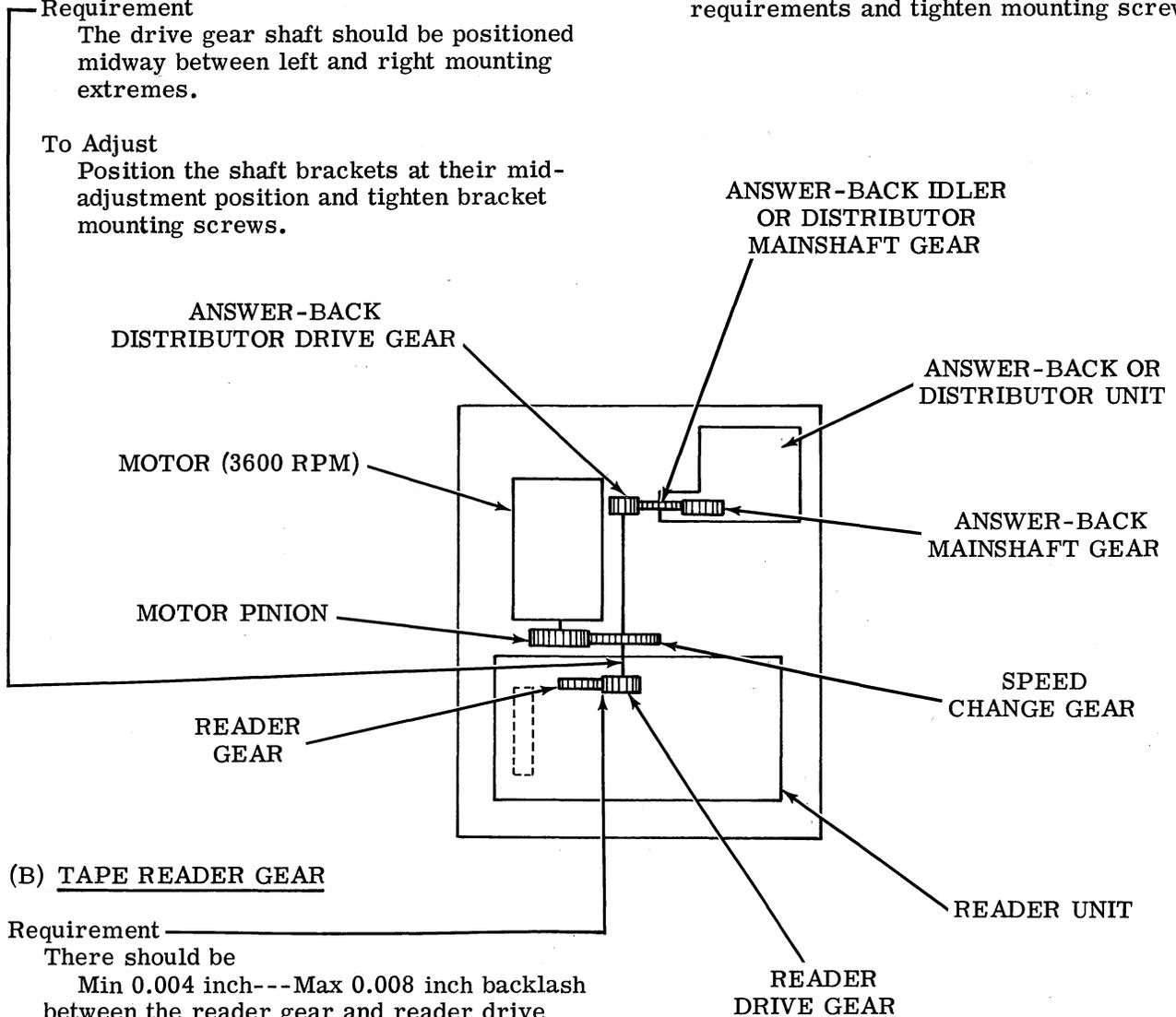
(For those bases on which the reader mating connector is rigidly fixed)

Requirement

The connector should mate with the connector on the bottom of the reader and be fully engaged.

To Adjust

Position connector bracket to meet requirements and tighten mounting screws.



(B) TAPE READER GEAR

Requirement

There should be  
Min 0.004 inch---Max 0.008 inch backlash  
between the reader gear and reader drive  
gear at the point of minimum clearance.

To Adjust

Position reader to meet requirement and  
tighten reader mounting screws.

2.04 Single Reader Bases (High Speed Motor) (Continued)

(D) MOTOR PINION

Requirement

There should be

Min 0.004 inch---Max 0.008 inch backlash between the reader gear and motor pinion at the point of minimum clearance.

To Adjust

Position motor to meet requirements and tighten motor mounting screws.

(E) DISTRIBUTOR MAINSHAFT GEAR

(Applies only to bases which mount distributor units)

Requirement

There should be

Min 0.004 inch---Max 0.008 inch backlash between answer-back/distributor drive gear and distributor mainshaft gear at the point of minimum clearance.

To Adjust

Position distributor unit to meet requirements and tighten mounting screws.

(F) ANSWER-BACK IDLER GEAR

(Applies only to bases which mount answer-back units)

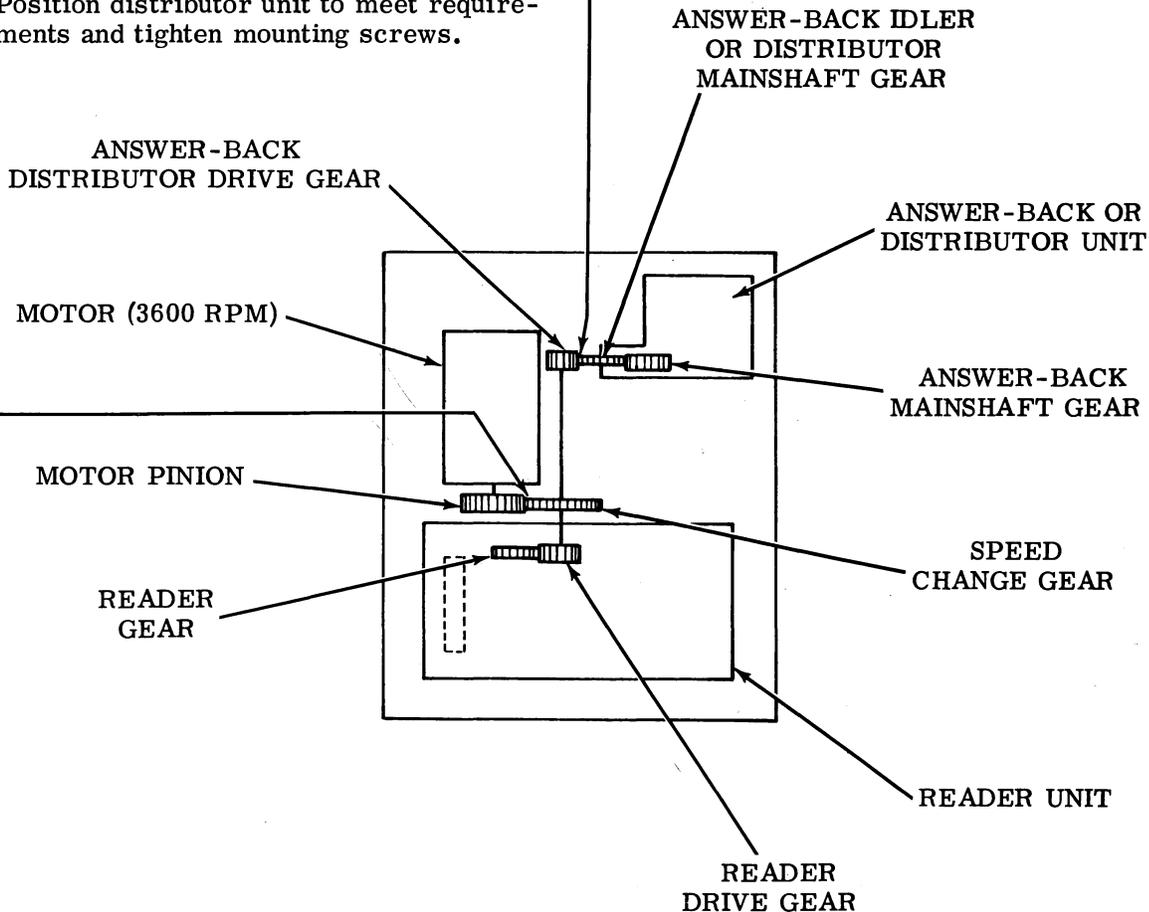
Requirement

With all play in answer-back mounting holes taken up in the direction toward the motor, there should be

Min 0.004 inch---Max 0.008 inch backlash between idler gear and answer-back/distributor drive gear measured at the point of minimum clearance.

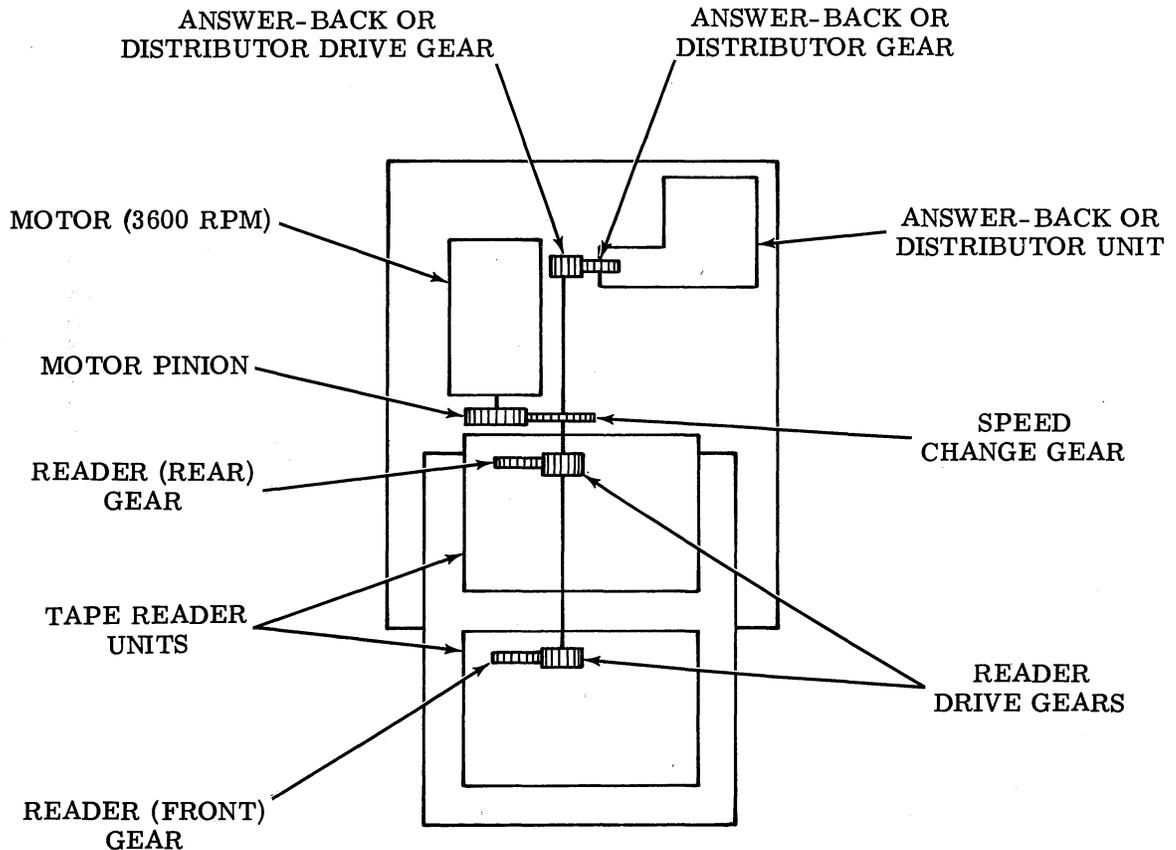
To Adjust

Loosen answer-back idler gear bracket locking screw. Take up play and tighten unit mounting screws. Position idler gear to meet requirement and tighten locking screws.



### 2.05 Double Reader Bases (High Speed Motor)

Adjustment of gears on double reader bases (below) is the same as for single unit bases (2.04) except that one additional reader must be positioned.



### 3. LUBRICATION

3.01 The tape reader base should be lubricated just prior to placing the unit in service. Thereafter, lubricate every 1500 hours of operation or every six months, whichever occurs first.

3.02 Apply a thin film of KS7471 grease to the surface of all gears EXCEPT THE ANSWER-BACK DRIVE GEAR (OR PINION),

THE ANSWER-BACK IDLER GEAR, AND THE ANSWER-BACK MAIN SHAFT GEAR (see adjustment illustrations). On those bases which mount a distributor unit rather than an answer-back, both the distributor drive gear and main-shaft gear should be lubricated along with all other gears.

3.03 Apply a few drops of KS7470 oil to the oiler holes at each end of the motor.