

GEAR REPLACEMENT KIT
for 1400L EME Electrical to Motion Elements
155S128-2

1 INTRODUCTION

These instructions cover the field replacement of the servo idler gear and the idler gear in a 1400L Series EME Element. The contents of the kit are shown in Table 1.

Table 1. Contents of Kit

Part No.	Description	Quantity
6P4028	Gear Retaining Plate	1
33S238	Grease Capsule	1
62S298	Motor Idler Gear	1
62S299	Idler Gear	1
533M163	#4-40 x 3/8" Pan Hd Sheet Metal Screw	2
546M4	#4 Flat Washer	2
95963-106	Kit No. Label	1

2 GEAR REPLACEMENT

NOTE

Do not loosen the motor mounting screws.

1. If the EME is a 1400L, 1403L or 1406L, go to Step 2. If the EME is a 1401L, 1402L, 1404L or 1405L, remove the three screws which retain the base plate to the servo frame.

CAUTION

Handle EME with care. Careless handling can break the transformer wires at the circuit board.

2. Remove two screws and remove sector cover, Figure 1.
3. Loosen screw holding tape to hub of large gear and remove end of tape.
4. Turn gear on motor shaft until setscrew in hub of large gear is accessible as shown in Figure 2. Loosen setscrew and remove large gear.

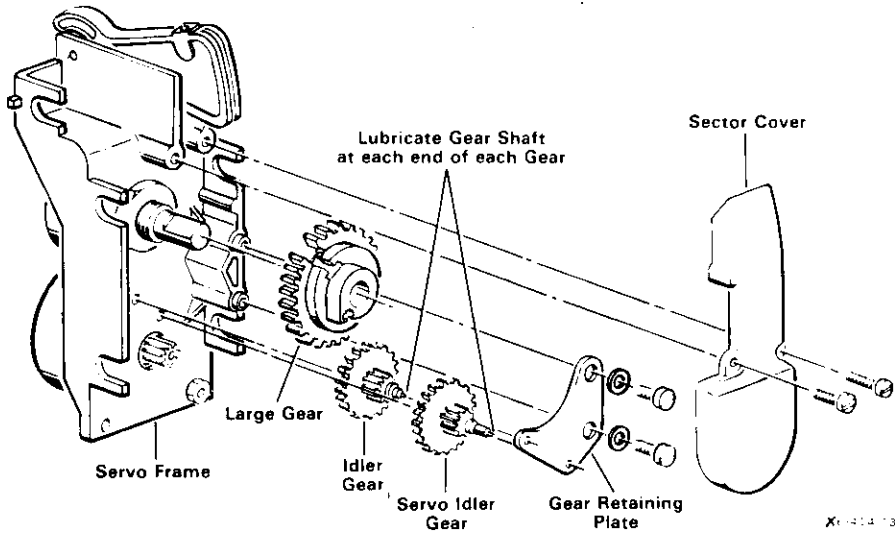


Figure 1. Gear Assembly

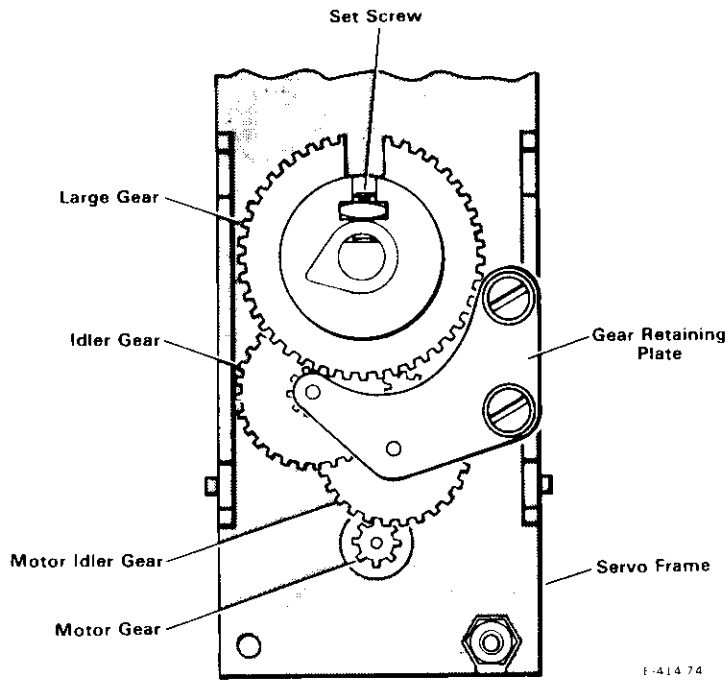


Figure 2. Position of Large Gear for Access to Setscrew

5. Remove two screws and remove gear retaining plate, Figure 1.
6. Remove servo idler gear and idler gear, Figure 1.
7. Use grease from grease capsule to lubricate gear shafts on new servo idler and idler gears. Assemble new gears as shown in Figure 1. Retain gears with new gear retaining plate from kit and two screws and flat washers. Do not tighten screws completely.

CAUTION

Start these screws by hand. They are a thread cutting type of screw.

8. Reassemble large gear to potentiometer shaft, Figure 1. Locate large gear 0.295 inch ± 0.005 (7.5 mm ± 0.13) from surface of servo frame as shown in Figure 3. If large gear is too close to servo frame, gear will rub on gear stop located under large gear. If large gear is too far from servo frame, gear will rub on sector cover. Tighten setscrew in hub of gear to 3 in. lb (0.34 N m) torque.
9. Tighten the two gear retaining plate screws to 3 in. lb (0.34 N m) torque.
10. Turn gear on motor shaft counterclockwise until large gear hits stop. Then, assemble end of tape to hub of large gear and retain with screw and nut.

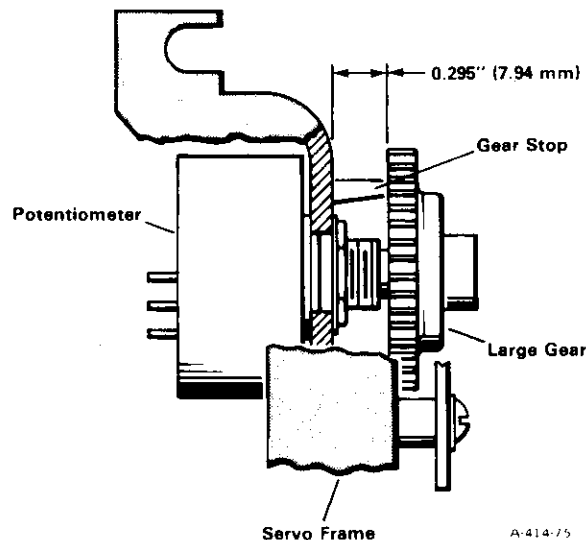


Figure 3. Position of Large Gear in Relation to Surface of Servo Frame

INSTRUCTIONS

11. Assemble sector cover and retain with two screws.

<p style="text-align: center;">CAUTION</p> <p>Start these screws by hand. They are a thread cutting type of screw.</p>
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Tighten screws to 5.5 in. lb (0.62 N m) torque.

12. Reassemble base plate to servo frame and retain with three screws. There are two pins on servo frame which fit into holes in base plate.
13. Write kit number on label and attach label to base plate of EME. When contacting Taylor regarding this EME, always refer to both the EME serial number and the kit number.