TO: ALL HOLDERS OF STABILIZER TRIM ACTUATOR ASSEMBLY OVERHAUL MANUAL, 27-45-11

REVISION NO. 55, DATED JUL 1/09

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D&O	D/Assy	Cleaning	Insp/Chk	Repair	Assy	F/C	Test	T/Shooting	S/Tools	Storage	IPL	L/Overhaul
Added optional pawl assembly 69-77852-5												X	

STABILIZER TRIM ACTUATOR ASSEMBLY

27-45-11

BOEING P/N 65-49970-1 thru -3, -5, -7, -9, -10, -12 thru -15, -17 thru -29
65C34751-2 thru -11
65C36486-3, -5, -7, -9 thru -13

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30139	Aug 15/67
		PRR 30339	May 15/69
		PRR 31576	Mar 10/70
		PRR 31877	Jun 10/71
27-1046			Mar 25/74
		PRR 32070-9	Dec 10/71
		PRR 32039	Mar 25/73
		PRR 32058	Mar 25/73
		PRR 32421	Sep 25/74
		PRR 32424	Sep 25/74
		PRR 33445	Dec 5/83
		PRR 33600-7	Sep 5/85
		PRR 33600-15	Sep 5/85
		PRR 34099	Jun 5/86
27A1137			Sep 5/86
27-1142			Mar 5/88
27-1143			Mar 5/88
		PRR 33890-62	Jun 5/89
27-1161			Mar 5/91
27-1176			Sep 5/92
		PRR 35005-139	Mar 1/96
27-1161 R2			Jul 1/03
27A1278			Jul 1/07

LIST OF EFFECTIVE PAGES

* Indicates pages revised, added or deleted in latest revision
F Indicates foldout pages - print one side only

	PAGE	DATE		PAGE	DATE		PAGE	DATE
	27-45-11			508B	Mar 5/93		1116	Jul 1/03
	T-1	Jul 1/07		509	Jul 1/99		1116A	Mar 1/03
	T-2	BLANK		510	Mar 5/91		1116B	Mar 1/03
*	LEP-1	Jul 1/09		511	Jul 1/98		1116C	Mar 1/03
	LEP-2	BLANK		512	Jul 1/04		1116D	Mar 1/03
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	2	Jul 1/04		516	Mar 1/97	*	1116H	Jul 1/09
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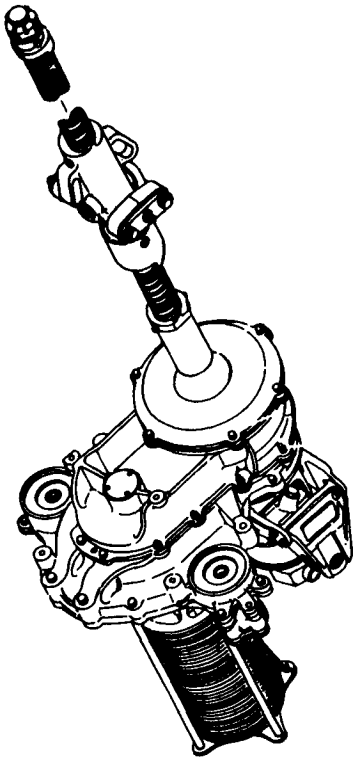
STABILIZER TRIM ACTUATOR ASSEMBLY



Stabilizer Trim Actuator Assembly
(P/N 65-49970-1 shown)
Figure 1

DESCRIPTION AND OPERATION

1. Description

   A. The stabilizer trim actuator assembly consists of a ballnut and screw assembly, safety rod, upper and lower gimbal assembly, cable drum, and a gearbox containing the gearing, disconnect clutch, and primary and secondary brakes.

   B. The stabilizer trim actuator assembly is installed in the tail section of the airplane. The lower gimbal assembly of the unit is connected to a bulkhead. The upper gimbal assembly connects the unit to the stabilizer front spar fitting.

1. Operation

A. The unit is actuated electrically either by the trim motor or the autopilot servomotor, or manually by rotating the cable drum with cables from the cockpit.

B. The cable drum serves a dual purpose. It drives the actuator for manual control of trim. When the actuator is driven electrically, rotation of the cable drum positions the stabilizer indicator on the control stand.

C. When the actuator is driven manually, initial rotation of the cable drum disengages the trim motor and the autopilot servomotor from the gearing. The motors are re-engaged when manual operation ceases.

D. The secondary brake prevents rotation of the ball screw if the primary brake should fail.

E. The safety rod installed in the ball screw shaft supports the stabilizer in case of ball screw failure.

3. Leading Particulars
Length (overall) -- 53 inches
Width (over all) -- 15.5 inches
Height (over all) -- 17.5 inches
Weight -- 117.5 pounds

DISASSEMBLY

1. Primary Brake Housing Disassembly (Fig. 1101)

   NOTE: Attach stabilizer trim actuator assembly (125) to assembly jig, F70167-1 as shown on Fig. 101.

   A. Disassemble parts (1 thru 3, and 5 thru 8).

   B. Remove ball nut assembly (9) from ball screw (10) using ball nut holder assembly, F72924-1 as shown on Fig. 102. See vendor's repair manual for inspection/overhaul of ball nut and screw assembly (4).

   C. Remove upper gimbal by disassembling parts (11 thru 15).

   D. Disassemble parts (16 thru 20).

   E. Disassemble parts (21 thru 23). Remove cover (24).

   F. Remove auxiliary brake nut (25) using spanner wrench MIT65C31565. Remove lockwasher (26).

      NOTE: Disassembly steps 1.G. thru 1.J. are applicable to 65-49970-1 thru -24 only. See steps 1.K. thru 1.M. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

   G. Remove shims (27) from above pickup dog (39). Note thickness of shims to facilitate reassembly.

   H. Pull out brake race (40) with pickup dog assembly (37) and attached parts from upper housing (130) or (153). Disassemble parts (28 thru 32 and 37) or (29, 30, 31, 32A, 32B, 37). Remove shims (27). Note shim thickness to facilitate reassembly.

   J. Remove unlock gear (45) with attached parts from upper housing (130). Disassemble parts (41 thru 45).

      NOTE: Disassembly steps 1.K. thru 1.M. are applicable to 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13. See steps 1.G. thru 1.J. for 65-49970-1 thru -24.

   K. Remove stator assembly (225). Remove items (235 thru 270) from the housing (230).

   L. Remove brake assembly (275). Remove items (280 thru 335) from the ratchet ring (340).

      NOTE: Do not remove the bushing (330) from the pawl (335) unless necessary for repair or replacement.

   M. Remove input gear (345) and bearing (41).

N. Disassemble parts (53 thru 62). Keep parts of lower gimbal assembly (52) together as a matched set.

O. Remove parts (63 thru 78) from primary brake housing assembly (121).

P. Remove nut (81). Using wrench F80053-1, remove nut (83). Detach key (82).

Q. Pull plug assembly (91) with attached parts out of primary brake housing (123). Disassemble parts (84 thru 91).

CAUTION: DURING REMOVAL BALL SCREW MUST BE HELD PARALLEL TO BORE CENTERLINE OF PRIMARY BRAKE HOUSING TO PREVENT DAMAGE OF ATTACHED PARTS.

R. Pull out ball screw (10) with attached parts from primary brake housing (121).

S. Pull out retaining pin (46) using screw with 6-32 UNC thread. Remove sleeve assembly (49) from ball screw. Disassemble packings (47, 48).

T. Disassemble parts (96, 97, 101, and 105 thru 113) from ball screw.

U. Remove spacer (95) and bearing (94) from primary brake housing (123).

V. Remove parts (114 thru 121) from housing assembly (125).

2. Gear Housing Disassembly (For P/N 65-49970-1 and 65C36486-11 only)

A. Upper and Center Housing Disassembly (Fig. 1101)

(1) Disassemble parts (126 thru 129). Remove upper housing (130).

(2) Disassemble parts (132 thru 146). Use wrench 7MIT5-88439 to unscrew nut 133. Remove center housing (153) and packings (150).

(3) Cut lockwire from bolts (154). Disassemble parts (154 thru 160, 163 and 164).

(4) Remove lockwire from bolts (165) and unscrew.

(5) Pull out clutch gear (174) with attached parts. Disassemble parts (166 thru 174). Use spanner wrench, tool No. F71290-2, to remove bearing retainer nut (166), spanner wrench, tool No. F71290-1, to remove inner retainer nut (167) (left-hand thread), and spanner wrench, tool No. F71290-7, to remove outer bearing retainer nut (168).

B. Lower Housing Disassembly (Fig. 1101)

(1) Disassemble parts (175 thru 179) to remove cable guard (180).

(2) Disassemble parts (181 thru 186) to remove cable guard support assembly (187) and washer (192).

(3) Cut lockwire from bolts (193) and disassemble parts (193 thru 196). Hold cable drum (220) with a strap wrench to unscrew cap (196).

(4) Screw spring compressor, tool No. F71291-500, into drum shaft (216) as shown on Fig. 103 and compress springs (199 and 200). Unscrew nut (197). Remove shaft (202).

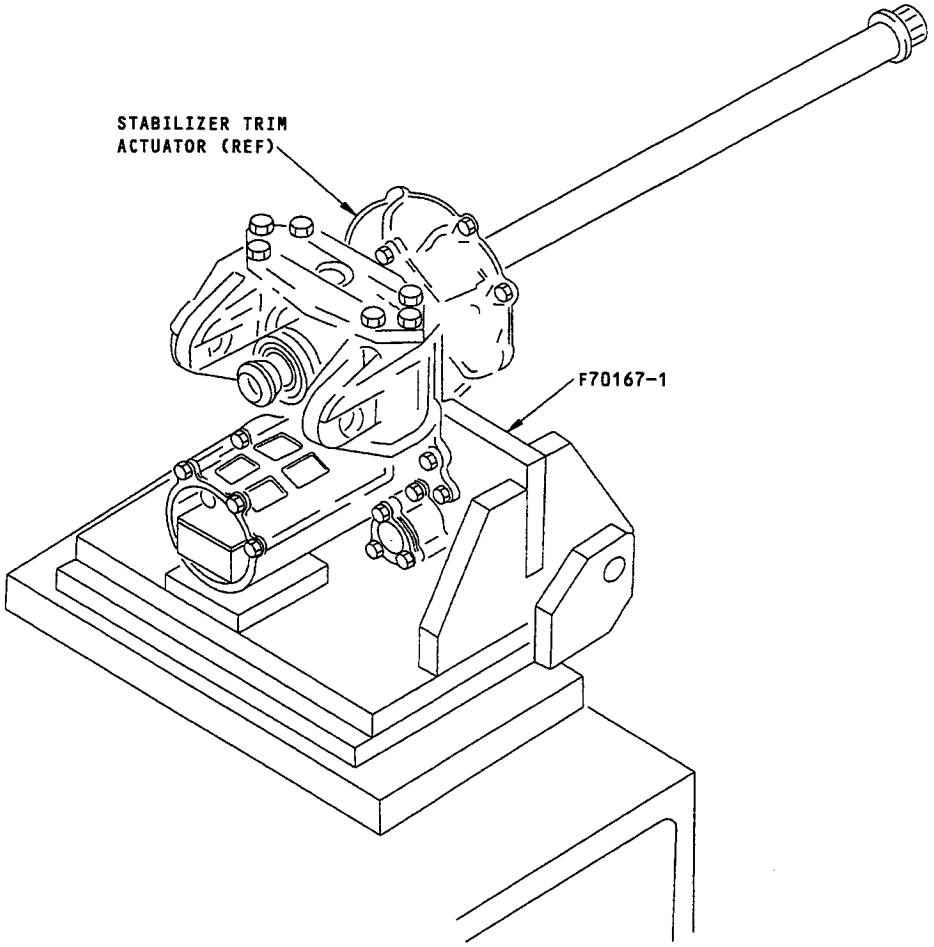
(5) Release compression on springs. Remove spring compressor, springs (199 and 200), spring spacer (201) and spring retainer (198).

(6) Remove spacer (203). Cut lockwire from bearing retainer nut (204). Unscrew nut with spanner wrench, tool No. F71290-2.

(7) Pull cable drum assembly (215) with attached parts out of lower housing (222). Disassemble parts (205 thru 215).

NOTE: Do not remove shaft (216) from cable drum unless necessary. Shaft is installed in cable drum with press fit.

Keep upper, center and lower gear housing together as a matched set.



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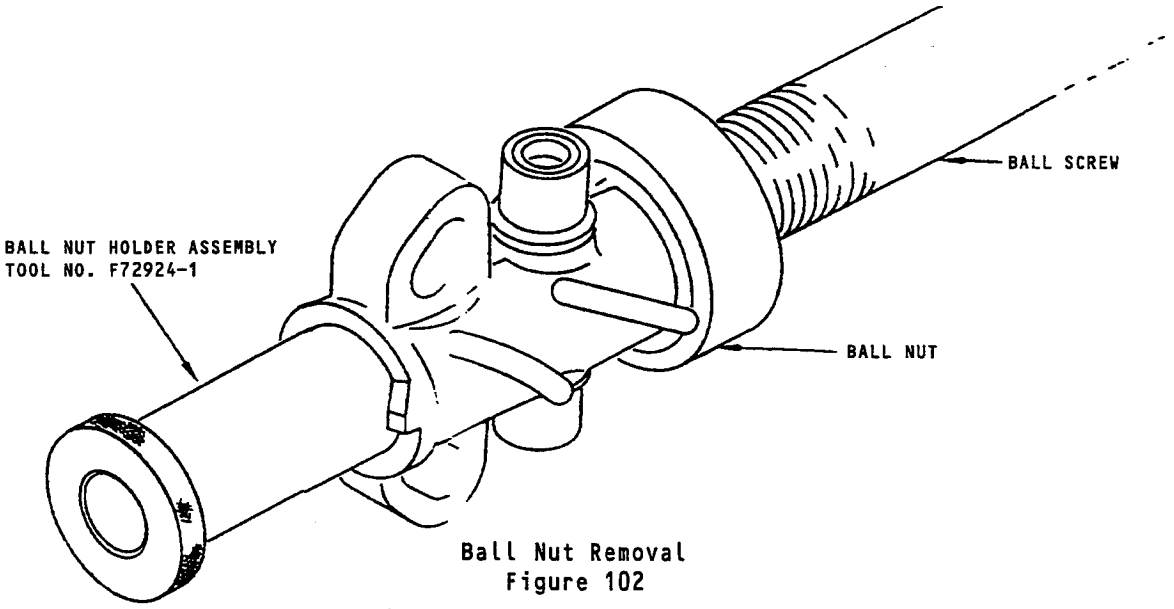
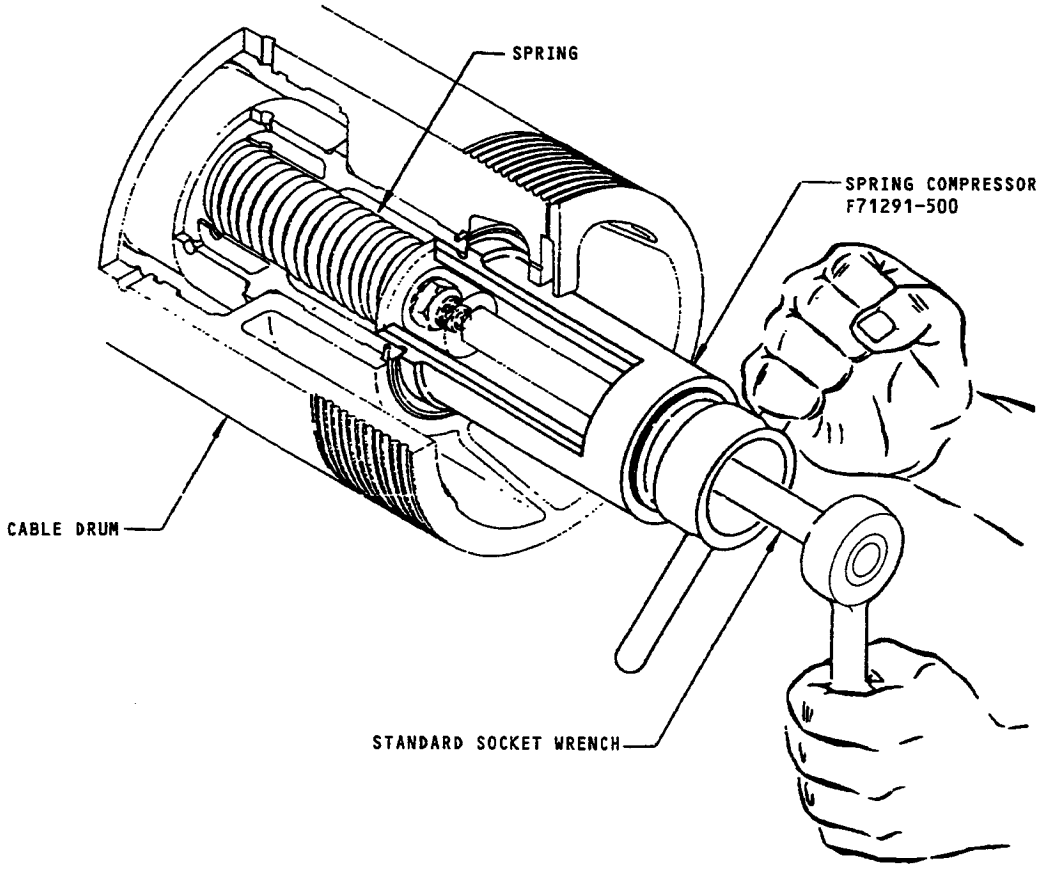
Actuator Assembly Attachment To Jig
Figure 101



Ball Nut Removal
Figure 102



Spring Removal
Figure 103

F59936

3. Gear Housing Disassembly (65-49970-2 and on, 65C34751-2 and on, and 65C36486-3 and on, except 65C36486-11)

A. Upper Housing Disassembly (Fig. 1101)

(1) Cut lockwire and unscrew cap (223).

(2) Remove cotter pin (132). Unscrew gear retainer nut (133) using wrench 7MIT5-88439.

(3) Remove parts (135 thru 139) to separate lower housing (222) with attached parts from upper housing (153).

(4) Remove parts (141, 142, 142A, 143, 145, 146, 150). Remove loose spur gear (134) thru large, upper bore of upper housing (153).

B. Lower Housing Disassembly (Fig. 1101)

(1) Cut lockwire from bolts (154). Disassemble parts (154 thru 160, 163, 164).

(2) Remove spacer (134A). Remove lockwire from screws (165) and unscrew.

(3) Pull out clutch gear (174) together with attached parts. Disassemble parts (166 thru 174). Use spanner wrench F71290-2 to remove bearing retainer nut (166); spanner wrench F71290-1 to remove inner bearing retainer nut (167) (left-hand thread); and spanner wrench F71290-7 to remove outer bearing retainer nut (168).

(4) Disassemble parts (175 thru 179) to release cable guard (180) from lower housing.

(5) Disassemble parts (181 thru 186) to release cable guard support assembly (187) and washer (192).

(6) Cut lockwire from bolts (193) and disassemble parts (193 thru 196). Hold cable drum (220) with a strap wrench to unscrew cap (196).

(7) Screw spring compressor F71291-500 into drum shaft (216) as shown on Fig. 103 and compress springs (199, 200). Unscrew nut (197). Remove shaft (202).

(8) Release compression on springs. Remove spring compressor, springs (199, 200), spring spacer (201) and spring retainer (198).

(9) Remove midbearing spacer (203). Cut lockwire from bearing retainer nut (204). Unscrew nut with spanner wrench F71290-2.

(10) Pull cable drum assembly (215) with attached parts out of lower housing (222). Disassemble parts (205 thru 215).

NOTE: Do not remove shaft (216) from cable drum unless necessary. Shaft is installed in cable drum with press fit.

Keep upper and lower gear housing together as a matched set.

CLEANING

1. General

   A. Wash and rinse parts, except bearings, in dry cleaning solvent, Specification P-D-680 or equivalent.

   B. Clean all bores, holes, threads, passages and chambers using stiff bristle brush.

   C. Dry parts with clean, lint-free cloth or moisture-free compressed air.

   D. For further information refer to 20-30-03, General Cleaning Procedures.

2. Bearings

   A. Wipe bearings with lint-free cloth moistened with dry cleaning solvent. For further information refer to 20-30-01, Cleaning and Relubricating Antifriction Bearings.

      CAUTION: DO NOT CLEAN OR RELUBRICATE ANY BEARINGS (79, 92, 94, OR 96) USED IN THE SCREW HOUSING (121). EXCESS OF GREASE OR FAULTY BEARING SEAL INSTALLATION MAY ALLOW GREASE CONTAMINATION OF PRIMARY BRAKE PLATES (107). REPLACE THESE BEARINGS AT EACH OVERHAUL.

3. Brake Plates

   CAUTION: DO NOT ATTEMPT TO CLEAN OR REWORK BRAKE PLATES (107). DISCARD BRAKE PLATES AT EACH OVERHAUL. COEFFICIENT OF FRICTION PRODUCED BY MACHINING PROCESS IS CRITICAL ON THIS PART. POROSITY OF PLATE MATERIAL PRECLUDES ACCURATE DETERMINATION OF SURFACE ROUGHNESS AFTER MACHINING.

INSPECTION/CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.

2. Magnetic particle examine pin (13), fitting (14), yoke (15), gears (45, 134, 149, 162, 174, 345), sleeve (51), ring (104, 280, 297, 340), rod (113), housing (121), springs (199, 200, 320), shaft (202), clutch (212), rotor (245, 17-7 PH CRES only), washer (255, 260, 265), pin (305, 315), pawl carrier (310), pawl (335) per SOPM 20-20-01.

3. Penetrant examine cover (24, 65C34617-1 only), yoke (58), fork (62), housing (130, 153, 222, 230), spacer (235), stator (240, 250), rotor (245, 301 CRES only), nut (270) per SOPM 20-20-02.

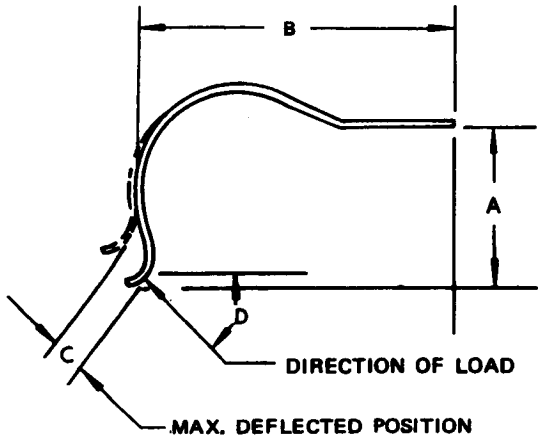
   NOTE: Housing (230) may have surface finish roughness from original sand casting and hand dressing of part.

4. Check springs (31, 74, 75, 105, 199, 200, 320) in accordance with Fig. 301, 302. No permanent set should result from test load.

5. Check safety rod (113, P/N 65C29264-1 only) for straightness. Rod to be straight within 0.050 inch.

Fig. 1101 Item No.	Approximate Free Length (inches)	Test Length (inches)	Load Limits (pounds)
31	1.250	0.704 - 0.706	8.1 - 9.9
105	0.500	0.262 - 0.264	4.20 - 5.10
199	7.42	4.99 - 5.01 4.59 - 4.61	283 - 345 330 - 402
200	6.15	4.54 - 4.56 4.14 - 4.16	115 - 141 114 - 176
320	0.983	2.7 - 3.3 11.0 - 13.0	0.91 - 0.93 0.72 - 0.74

Spring Check Data
Figure 301



INDEX NO. FIG. (1101)	A (INCHES)	B (INCHES)	C (INCHES)	D (DEGREES)	LOAD FOR DEFLECTED POSITION (POUND)
74	1.00 – 1.04	2.12 –2.14	0.217	55.5	1.33 – 1.73
75	0.99 –1.03	2.18 –2.20	0.217	55.5	1.28 – 1.68

Brake Pawl Spring Check Data
Figure 302

REPAIR

1. Repair

A. Use standard industry practices for repair for this component and additional procedure in step B.

B. Rod (113) corrosion in inner bore.

(1) Strip all protective coating per 20-30-02.

(2) Chemically remove corrosion and clean per 20-30-03, type 1. Maximum depth for corrosion removal is 0.005 inch.

(3) Refinish per par. 2.

C. Pin (13A) Fig. 403

(1) Strip plating from pin per 20-30-02.

(2) Magnetic particle check, class B per 20-20-01.

(3) Machine the entire length of the diameter to dimensions shown in Fig. 403 per 20-10-02. No step or mismatch allowed. Maintain radius dimensions.

(4) Magnetic particle check, class B per 20-20-01.

(5) Shot peen machined area per 20-10-03 using size and intensity shown in Fig. 403.

(6) Hard chrome plate machined area per 20-42-03. Stop chrome plate 0.03 inch before all radii and edges.

(7) Grind chrome plate to 0.998/0.999 inch diameter per 20-10-04. Machine finish to be 125 RHR or better. Plating thickness shall be 0.003/0.015 inch thick.

(8) Magnetic particle check, class B per 20-20-01.

(9) Refinish per par. 2.

2. Refinish

A. Refer to 20-30-02 for stripping of protective finishes and to 20-41-01 for explanation of F and SRF finish codes.

(1) Pin (13) -- Cadmium plate plus one coat primer BMS 10-11, Type 1 (SRF-1.285) except no finish on shaft OD. Material: 4340 steel (180-200 ksi).

(2) Gimbal fitting (14) -- Cadmium plate plus one coat primer BMS 10-11, Type 1 (SRF-1.285) except no finish in bores and no paint in slot. Material: 4340 steel (180-200 ksi).

(3) Yoke (15) -- Apply hard chrome plate (F-1.842) to center bore (0.005-inch minimum thickness) and cadmium plate and one coat primer MIL-P-8585 (SRF-1.285) to other surfaces except no finish on shafts and no primer on shaft shoulders. Material: 4340 steel (180-200 ksi).

(4) Screw (16) -- Apply brush cadmium plate (F-1.282) all over.

(5) Lower stop (17) -- Apply cadmium plate plus one coat primer BMS 10-11, Type 1 (SRF-1.285) except 0.002- to 0.003-inch plating thickness. Material: 4340 steel (170-190 ksi).

(6) Cover (24) housing assy (125) -- Chromic acid anodize plus one coat of primer BMS 10-11, Type 1 (SRF-2.19) except no primer on interior, faying or machined surfaces (65-49971-1, -3 only) or as indicated on Fig. 403 (65C34617-1 only). Material: Al alloy.

(7) Nut (25), pin (46), sleeve (51, 65-49975-4, -5, -7 only) -- Cadmium plate (F-1.1926). Material: 4340 steel (Items (25, 26) - 125-145 ksi; Item (51) - 170-190 ksi.

(7A) Sleeve (51, 65C34615-2 only) -- Cadmium plate 0.0002 to 0.0003 thickness (F-15.02). Apply one coat of BMS 10-11, Type 1 primer (F-20.02) except as noted in Fig. 403. Material: 4340 steel (170-190 ksi).

(8) Brake arm (36) -- Apply chrome plate (F-1.842) to lower half of back (brake shoe side) with 0.002- to 0.003-inch plating thickness after grinding; flashing is allowable on edges. Apply cadmium plate (F-1.1923) to all other surfaces. Material: 4340 steel (180-200 ksi).

(9) Pickup dog (39) (65-49960-2 only), brake race (40), springs (74, 75), -- Cadmium plate (F-1.1923) except no finish on brake surface for race (40). Material: Item (39) - 4340 steel (170-190 ksi); Item (40) - 9310 steel (150-190 ksi); Items (74, 75) - 1095 steel (180-220 ksi).

(10) Pickup dog (39) (65-49960-5 only) -- Cadmium plate (F-15.06) except 0.0002-0.0003 in. plating thickness. Material: 4340 steel (180-200 ksi).

(11) Unlock Gear (45) -- Apply hard chrome plate (F-1.842) to roller shafts (0.3745- to 0.3755-inch OD after plate grinding), and cadmium plate (F-1.1923) to other surfaces except no finish on teeth. Material: 9310 steel (150-190 ksi)

(12) Yoke (58); fork (62); caps (69, 70) -- Chromic acid anodize plus one coat primer BMS 10-11, Type 1 (SRF-2.19) except no primer in bores or on threads. Material: Al alloy.

(12A) Gimbal assembly (52; 65-49963-4 only) -- Assemble gimbal assembly and apply yellow primer to index marks to make them distinguishable (Fig. 402).

(13) Plate (73, 170) -- Chromic acid anodize or alodize plus one coat primer BMS 10-11, Type 1 (F-2.115) all over. Material: Al alloy.

(14) Pin (77) -- Cadmium plate (F-1.20) all over. Material: 4340 steel (150-170 ksi).

(15) Brake pawl (80) -- Cadmium plate (F-1.21) all over. Material: 9310 steel (150-180 ksi).

(16) Nuts (81, 83, 87) --

(a) Nuts (81, 69-40222-1; 83, 69-3952-1; 87, 69-39448-1) Cadmium plate (F-1.1926) plus one coat primer BMS 10-11, Type 1 (SRF-12.205) except no primer on threads and in bores. Material: 4340 steel, 150-170 ksi.

(b) Nuts (81, 69-40222-3; 83, 69-39652-2; 87, 69-39448-2) -- passivate (F-17.09) and apply BMS 3-8 dry film lube, class A, per 20-50-08, method 3 (F-19.10) on threads. Material: 15-5PH CRES bar, 150-170 ksi.

(17) Plug (89)

(a) 69-39447-1 -- Cadmium plate (F-1.1926). Material: 4340 steel, 150-170 ksi.

(b) 69-39447-2 -- Cadmium plate (F-15.06). Material: 15-5PH CRES, 150-170 ksi.

(18) Lower Housing Plug (93) -- P/N 65-49976-2 and 65-77422-2, Cadmium plate plus one coat primer BMS 10-11, Type 1 (SRF-1.285) except no primer on bearing surfaces, O-ring groove or key. Material: 4340 steel (150-170 ksi). P/N 65-77422-4, passivate (F-17.09). Material: 15-5PH CRES (150-170 ksi). P/N 65C31280-1, Cadmium plate plus one coat primer BMS 10-11, Type 1 (F-16.01) except no primer on interior. Material: 15-5PH CRES (180-200 ksi). P/N 65C31280-3, cadmium plate (F-15.06). Material: 15-5PH CRES (180-200 ksi).

(19) Spacer (95)

(a) 69-45122-1 -- Cadmium plate (F-1.1923). Material: 4340 steel, 125-145 ksi.

(b) 69-45122-2 -- Cadmium plate (F-15.06). Material: 15-5PH CRES, 150-170 ksi.

(20) Rings (100, 104), plate (106) -- Passivate (F-8.07). Material: steel (100, 104) 17-4PH CRES per AMS 5643 (106) AISI 440A CRES per QQ-S-763 (180-200 ksi).

(21) Seal plug (112) -- Chromic acid anodize and apply one coat primer BMS 10-11, Type 1 (SRF-2.19). Material: Al alloy.

(22) Safety rod (113) -- Cadmium plate and apply one coat primer, BMS 10-11, Type 1 (SRF-1.285) to exterior surfaces except no primer in grooves; and apply phosphate coating (F-1.303) plus two coats primer BMS 10-11, Type 1 (SRF-12.206) to interior surfaces, except no primer on faying surfaces which mate with plug (112). Material: 4340 steel (180-200 ksi).

(23) Sleeve (122)

(a) 66-24915-1 -- Hard chrome plate per SOPM 20-42-03 (F-1.842) except minimum plating thickness to be 0.005 inch. No plating on i.d. or i.d. chamfers Material: 4340 steel, 150-170 ksi.

(b) 66-24915-2 -- Chrome plate per SOPM 20-42-03 (F-15.03) except minimum plating thickness to be 0.005 inch, plus cadmium plate (F-15.06), on i.d. and i.d. chamfers only. Material: 4340 steel 150-170 ksi.

(24) Primary brake housing (123)

(a) 65-49972-4, 65-77440-2 -- Cadmium plate and apply one coat primer, BMS 10-11, Type 1 (SRF-1.285) except no primer on interior surfaces, trunnions and threads. Material: 4340 steel, 150-170 ksi.

(b) 65C31241-2, 65-77440-4 -- Cadmium plate (F-15.23) and bake 5 to 8 hours at 250 to 300°F (20-42-05). Material: 15-5PH CRES, 180-200 ksi.

(25) Nuts (133, 158, 166, 167, 168, 204); spacer (173); retainer (198); washer (214) -- Cadmium plate (F-1.20). Material: 4340 steel: (Items 133, 167, 168) - 125-145 ksi; Items (173, 198, 214) - Normalized; Items (166, 204) - 150-180 ksi. Item (158) - CRES, 321 or 347, no heat treat.

(26) Spur gear (134) -- Cadmium plate (F-1.20) except on splines and teeth; bake for 5 hours at 250 to 300°F after plating. Material: 9310 steel (150-210 ksi).

(27) Plug (144); adapter (145); spacer (172, 201, 203, 205) -- Alodize or chromic acid anodize (F-2.22). Material: Al alloy.

(28) Idler gear (149) -- Cadmium plate (F-1.20) except on interior surfaces; bake for 5 hours at 250 to 300°F after plating. Material: 9310 steel, case hardened, (150-210 ksi).

(29) End cap (156) -- Alodize or chromic acid anodize and apply one coat primer, BMS 10-11, Type 1 (SRF-2.30) except on faying surfaces. Material: Al alloy.

(30) Pinion gear (160) -- Cadmium plate and apply BMS 10-11, Type 1 primer (F-1.61) except as shown in Fig. 403. Material: 9310 steel, optional 3310 steel (150-210 ksi).

(31) Bearing spacer (164) -- Alodize or chromic acid anodize and apply one coat primer MIL-P-8585 (F-2.30). Material: Al alloy.

(32) Clutch gear (174) -- Cadmium plate (F-1.20) except on clutch and gear teeth; bake for 5 hours at 250 to 300°F after plating. Material: 4620 steel (150-210 ksi).

(33) Cable guard (180) -- Dow 17 anodize and apply 3 coats of primer, BMS 10-11, Type 1 (SRF-3.71) except on 2.781 radius and in bolt holes. Material: magnesium alloy.

(34) Spacer (186) -- Alodize and apply one coat primer, BMS 10-11, Type 1 (SRF-2.31). Material: Al alloy.

(35) Cap (196) -- Alodize and apply one coat primer, BMS 10-11, Type 1 (SRF-2.901) except no primer on threads, shaft and packing groove. Material: Al alloy.

(36) Springs (199, 200)

(a) 63-10102, 63-10130 -- Cadmium plate (F-1.20). Material: Chrome Silicone alloy, no heat treat.

(b) 69-76287, 69-76288 -- Passivate (F-17.09). Material: 17-7PH CRES wire, CH 900.

(37) Shaft (202) -- Cadmium plate exterior surfaces and apply two coats primer, BMS 10-11, Type 1 to interior surfaces (SRF-1.61) except no finish on splines. Material: 4340 steel (150-170 ksi).

(38) Jaw clutch (212) -- Cadmium plate (F-1.20) except on clutch teeth and cutout faces. Material: 4140 steel (180-200 ksi).

(39) Cable drum shaft (216) -- Alodize or chromic acid anodize and one coat primer, BMS 10-11, Type 1 (SRF-2.30) except no primer on close tolerance outside diameters, threads and small bores. Material: Al alloy.

(40) Cable drum (220) -- Alodize or chromic acid anodize and one coat primer, BMS 10-11, Type 1 (SRF-2.30) except no primer on 2.699 inch inside diameter and in cable grooves. Material: Al alloy.

(41) Housing (230), Spacer (235) and nut (270) -- Chromic acid anodize and apply one coat of BMS 10-11, Type 1 primer (F-18.13). Omit primer from 8.065-8.060 inch and 7.858-7.853 inch OD surfaces, internal threads and internal splines of housing (230). Omit primer from the outside threads of the nut (270) and mating spline surfaces of spacer (235). Apply a dry lubricant per SOPM 20-50-08, Type VIII to the outside threads of the nut (270). Material: Al alloy.

(42) Rotor (245) and spring (320) -- Passivate (F-17.09). Material: Item (245) - 17-7 PH CRES or 301 CRES; Item (320) - 17-7 PH CRES.

(43) Washer (255) -- P/N 69-77861-1, Cadmium plate and apply one coat of BMS 10-11, Type 1 primer (F-16.01). P/N 69-77861-2, cadmium plate (F-16.06), optional cadmium plate (F-16.06) and apply one coat of BMS 10-11, Type 1 primer (F-20.02). Material: 15-5 PH CRES.

(44) Washers (260, 265) Cadmium plate (F-16.06), optional cadmium plate and apply one coat of BMS 10-11, Type 1 primer (F-16.01). Material: Item (265) - 15-5 PH CRES; Item (260) - 17-7 PH CRES.

(45) Retainer ring (280), unlock ring (295) -- Cadmium plate and apply one coat of BMS 10-11, Type 1 primer (F-16.01) except as noted in Fig. 403. Material: 4340 steel (180-200 ksi).

(45A) Ratchet ring (340) -- Cadmium plate and apply one coat of BMS 10-11, Type 1 primer (F-16.01) except as shown in Fig. 403. Material: 9310 steel (150-180 ksi).

(46) Pawl carrier (310) -- Cadmium plate (F-15.06). Material: 15-5 PH CRES (180-200 ksi).

(47) Pin (305, 315) -- Cadmium plate (F-15.06) except as noted in Fig. 403. Material: 4340 steel (180-200 ksi).

(48) Pawl (335) -- Cadmium plate (F-15.06). Material: 9310 steel (150-190 ksi).

(49) Input gear (345) -- Cadmium plate (F-15.23) all over. Apply one coat of BMS 10-11, Type 1 primer, (F-20.02) omit primer from gear teeth and bearing bore as shown in Fig. 403. Material: 9310 steel (150-190 ksi).

3. Replacement

A. thru D. Deleted

E. Replace bearings (79, 92, 94, 96), brake plates (107) and brake shoes (35).

NOTE: Use of new bearings reduces possibility of faulty seals or excessive grease in bearing causing grease contamination of primary brake plates.

F. Replace brake shoes (35). Install new shoes with wet primer, BMS 10-11, Type 1, and fasten to arm (36) with bolts (33), collars (34) and washers (34A) per Fig. 401.

G. Replace worn bushings (57, 60, 61) of lower gimbal assembly (52) in pairs only. Install new bushings with wet BMS 10-11, Type 1, primer and assemble parts (53 thru 62) using care to align index holes. Machine bushings (57) to 1.100-1.101-inch diameter, bushings (61) to 0.750-0.751 inch and bushings (60) to 1.000-1.001 inch. Inside diameters of bushings (60, 61) must be concentric to each other within 0.001 inch TIR.

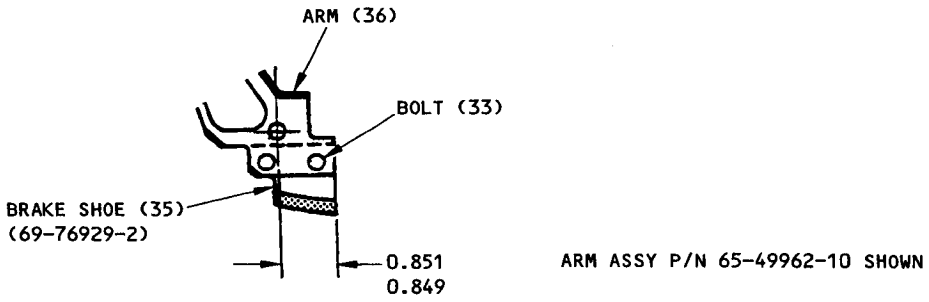
H. Replace worn sleeves (122) in pairs only. Install with wet BMS 10-11 Type 1, primer. Machine chrome plated sleeve OD to 1.098-1.099 inches and 32-microinch finish. Outside diameters of sleeves must be concentric to each other within 0.001 inch TIR.

I. If replacement of seal ring (50, 161) is required, mount ring in groove and bond seal ring in groove with adhesive Type 38 per SOPM 20-50-12.

(1) Machine OD of seal (50) to 2.871-2.873 inches and 63-microinch finish.

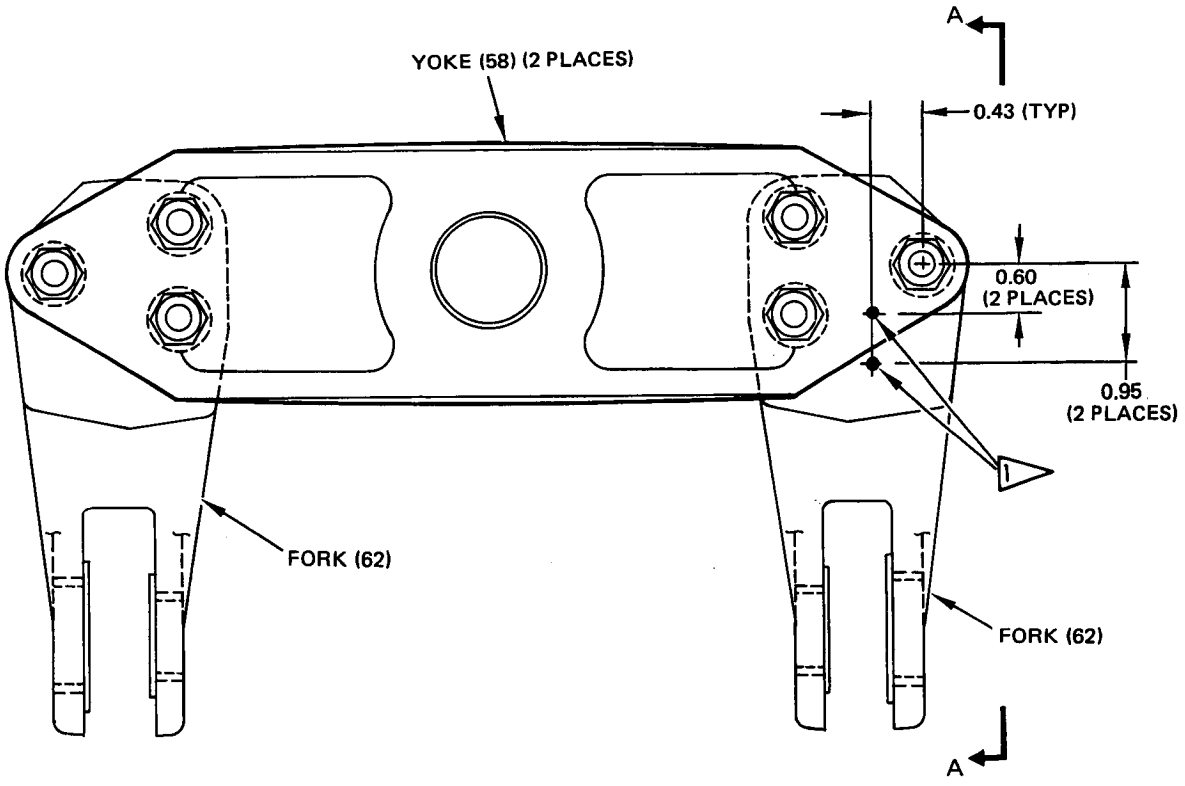
(2) Machine OD of seal (161) to 0.791-0.800 inch and 63-microinch finish. Chamfer one end 45 degrees x 0.012-0.03 inch.

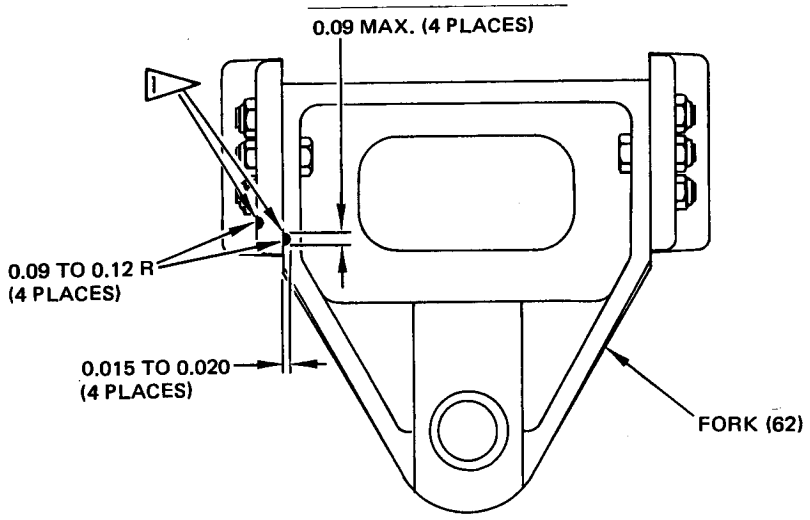
J. If replacement of nameplate (131) is required, install rivets (130A) by squeezing, do not drive. Part mark by steel stamp or rubber stamp per SOPM 20-50-10.



Brake Shoe Replacement
Figure 401

N85547



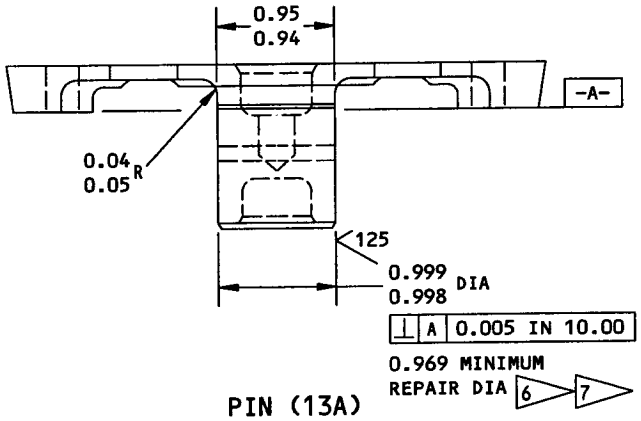


A–A

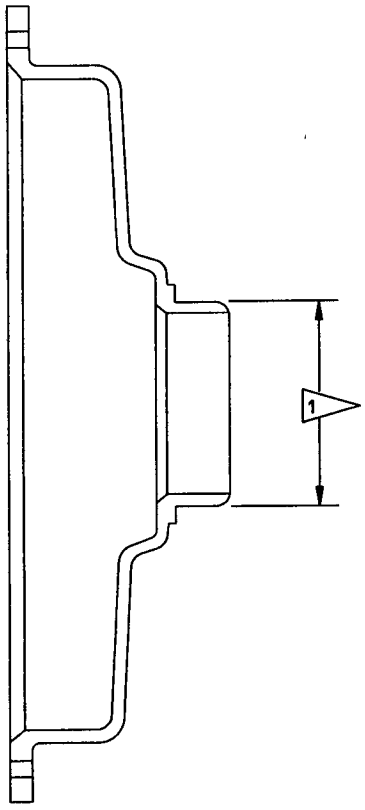
1 APPLY YELLOW PRIMER TO INDEX POINTS

65–49963–4 ONLY

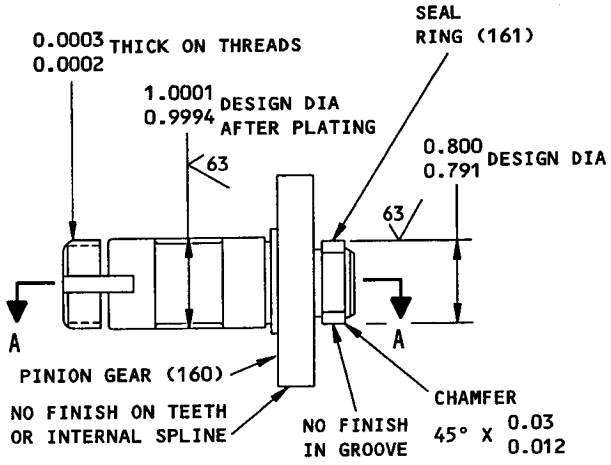
Lower Gimbal Assembly
Figure 402

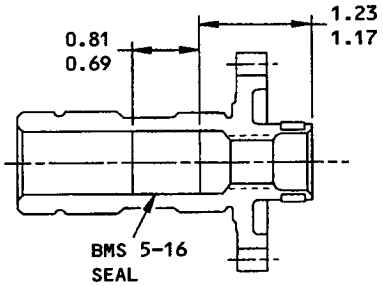


PIN (13A)



COVER (24)
(65C34617-1 ONLY)





69-44011-8 ONLY
A-A

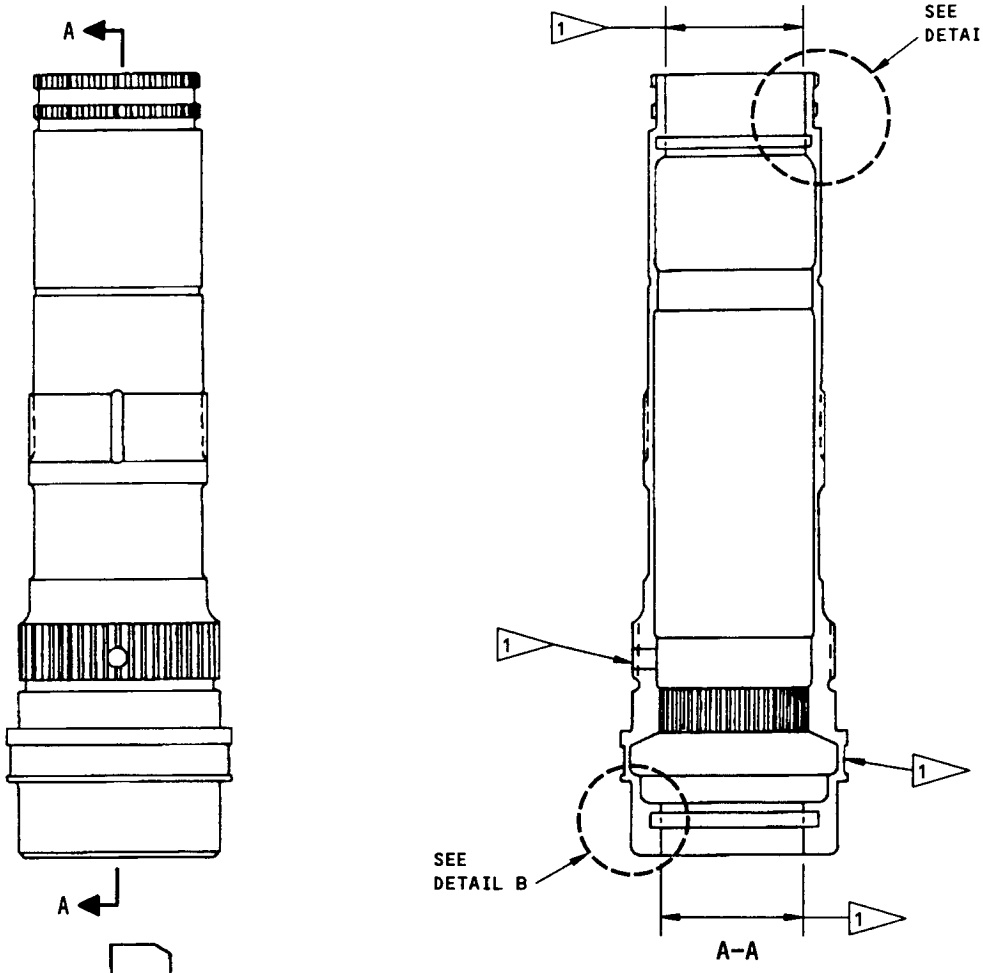
REFINISH

CADMIUM PLATE PLUS 2 COATS BMS 10-11, TYPE 1 PRIMER (SRF-1.61) EXCEPT AS NOTED.

NOTE: ALL DIMENSIONS ARE IN INCHES

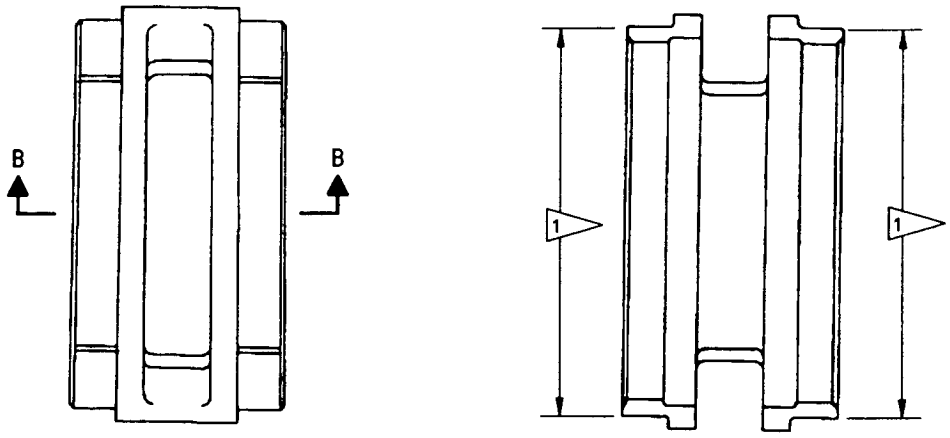
MATERIAL: 9310 STEEL PER AMS 6260, 150-210 KSI
OPTIONAL: 3310 STEEL PER AMS 6250 150-210 KSI

69-44011-6,-8
PINION GEAR (160, FIG. 1101)
Miscellaneous Parts Refinish
Figure 403 (Sheet 1)



SLEEVE (51)
(65C34615-2 ONLY)
Miscellaneous Parts Refinish
Figure 403 (Sheet 2)

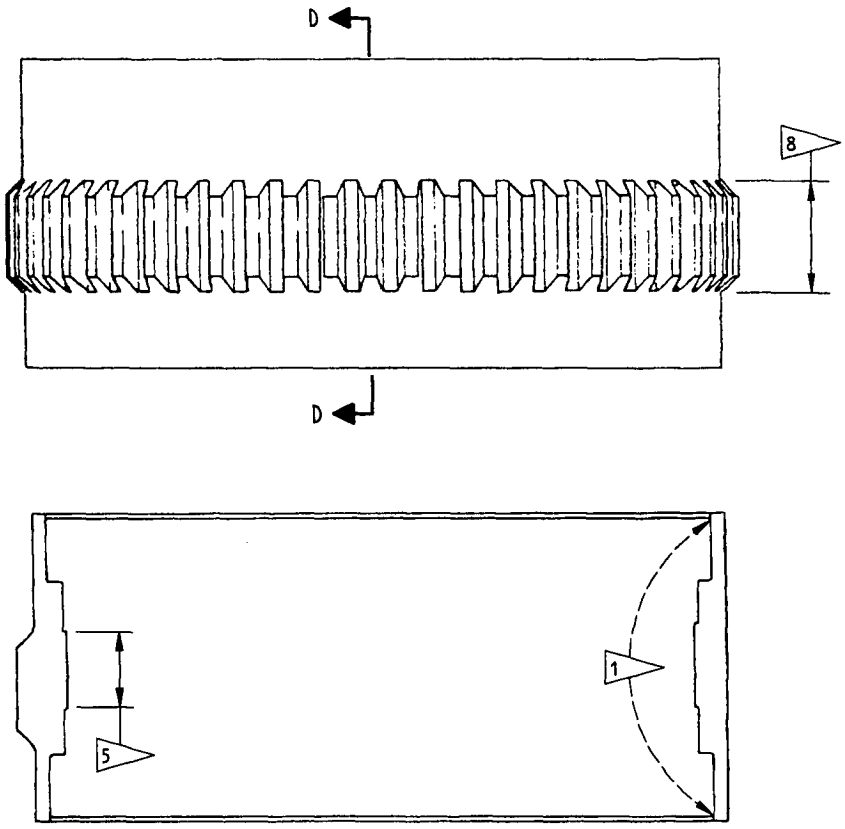
G83508



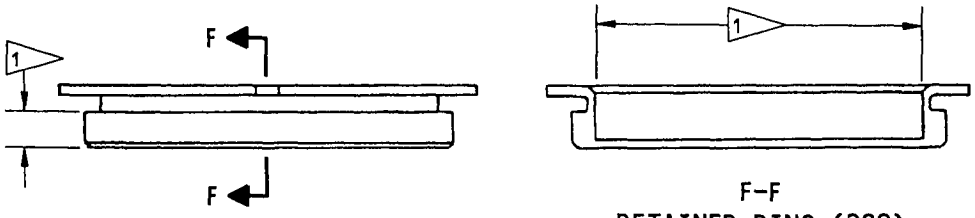
NOTE: ALL DIMENSIONS ARE IN INCHES

UNLOCK RING (295)

Miscellaneous Parts Refinish
Figure 403 (Sheet 3)

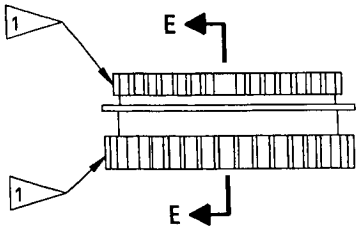


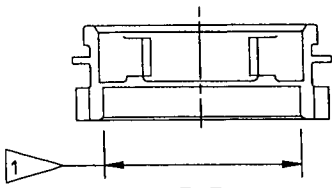
D-D
RATCHET RING (340)



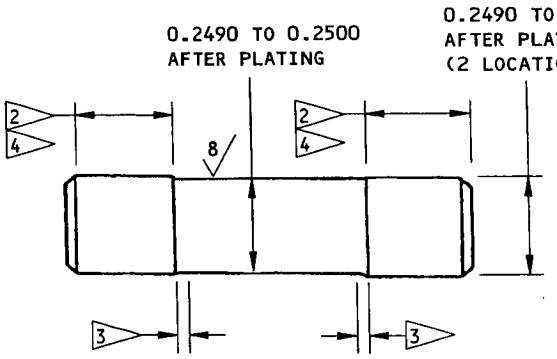
F-F
RETAINER RING (280)

Miscellaneous Parts Refinish
Figure 403 (Sheet 4)

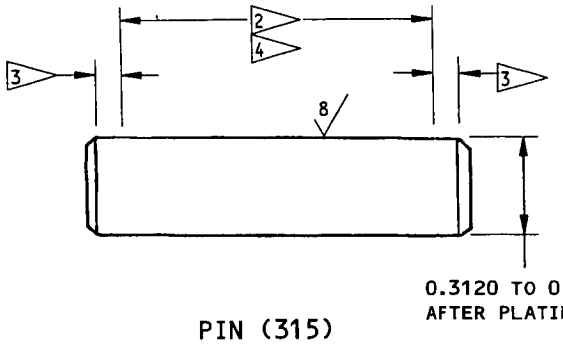




E-E
INPUT GEAR (345)



PIN (305)



PIN (315)

1. OMIT PRIMER FROM THIS SURFACE.
2. CHROMIUM PLATE (F-15.03) 0.003 TO 0.005 INCH THICKNESS THIS SURFACE.
3. 0.00 TO 0.08 INCH PLATING RUNOUT AREA.
4. SHOT PEEN THIS SURFACE (REF 20-10-03) BEFORE CHROME PLATING. SHOT NUMBER 170-460, INTENSITY 0.016A, COVERAGE 2.0.
5. OMIT PRIMER. THIS SURFACE HAS BEEN CARBURIZED.
6. SHOT PEEN THIS SURFACE (REF 20-10-03) BEFORE CHROME PLATING. SHOT PEEN SIZE 170-330. INTENSITY 0.014A, COVERAGE 2.0.
7. HARD CHROME PLATE (REF 20-42-03) THIS AREA
8. THIN DENSE CHROME PLATE 0.0001-0.00025 INCH THICK (REF 20-42-03).

NOTE: ALL DIMENSIONS ARE IN INCHES

Miscellaneous Parts Refinish
Figure 403 (Sheet 5)

ASSEMBLY

1. General

   A. Coat all packings and seal ring (50) with a light film of MIL-G-23827 grease at installation.

   B. Lubricate splines on shaft (202), jaw clutch (212), and gear and clutch teeth with MIL-G-23827 grease.

   C. Install and tighten all bolts and nuts per 20-50-01 unless otherwise specified.

2. Assembly of Gear Housing

   NOTE: Use of assembly jig, F70167-1, aids in assembly of the stabilizer trim actuator.

   CAUTION: NUT (168) MUST NOT BE INTERCHANGED WITH NUT (166, 204) OR INTERFERENCE OF PARTS MAY RESULT. INSTALLATION OF NUT (166A, 168A, 204A) IS RECOMMENDED.

   A. Lower Housing Assembly (Fig. 1101)

      (1) Install one bearing (213) against shoulder of cable drum shaft (216). Position spring seat washer (214) in jaw clutch (212). Insert jaw clutch into cable drum shaft (216). Install parts (206 thru 211).

      (2) Install spacer (205) on cable drum shaft (216). Install shaft with attached parts in lower housing (222). Install remaining bearing (213) and retainer nut (204). Tighten nut finger-tight plus one-quarter to one-half turn using spanner wrench, F71290-2. Lockwire nut to cable drum shaft in two places per Fig. 505 so that lockwire does not project beyond edge of cable drum shaft.

      (3) Install midbearing spacer (203) in lower housing (222) with rivet head positioned in housing groove.

      (4) Insert shaft (202) with spacer (214A) in jaw clutch (212) with splines of shaft and clutch mating.

      (5) Install retainer (170) and bearings (169) on clutch gear (174) and secure with nuts (166, 168). Tighten nuts (166, 168) finger-tight plus one-quarter to one-half turn using spanner wrenches, tool No. F71290-2 and F71290-7. Lockwire nut (166) to clutch gear (174) in two places as shown in Fig. 505. Lockwire must not project beyond hub end of clutch gear.

(6) Install bearings (171) and spacers (172, 173) into clutch gear (174) and secure with nut (167). Tighten nut (167) finger tight plus one-quarter to one-half turn using spanner wrench, tool No. F71290-1. Lockwire nut (167) to nut (168) in two places as shown in Fig. 505.

NOTE: Nut (167) has left-hand thread.

(7) Install clutch gear (174) with attached parts onto shaft (202) and in lower housing (222). Secure retainer (170) to lower housing (222) with bolts (165). Lockwire bolts together.

(8) Install spacer (201) and springs (199, 200) on shaft (202). Screw spring compressor F71291-500 into cable drum shaft (216). Place spring retainer (198) in spring compressor, compress springs and secure with nut (197). Remove spring compressor from cable drum shaft.

(9) Install cable drum assembly (218) onto cable drum shaft (216) using dowels (217) with BMS 10-11, Type 1 primer.

(10) Screw cap (196) into cable drum shaft (216) holding cable drum with a strap wrench. Secure with retainer (195), washers (194) and bolts (193). Lockwire bolts together.

(11) Position cable guard (180) on lower housing (222). Secure with bolts (179), washers (177) and nuts (175).

(12) Position washer (192) and cable guard support assembly (187) on the shaft of cap (196). Secure the cap and lower housing (222) with spacers (186), bolts (178, 185), washers (176, 184) and nuts (175, 183). Install and tighten nut (182) finger tight and install cotter pin (181).

(13) Butter lubricate all accessible surfaces of bearings (163), shaft of pinion gears (162), nuts (158) and inner surface of caps (156) with MIL-G-23827 grease prior to assembly.

(14) Install spacers (164), bearings (163) and pinion gear assemblies (160) in lower housing (222). Secure with washers (159), locknuts (158) and spring pins (157). Tighten locknuts within torque range of 100 to 150 pound-inches, then if necessary, back off just enough to permit installation of spring pin. Thread lockwire through spring pin and wrap half around nut. Keep knotted ends of wire within confines of nut.

(15) Install end caps (156) on lower housing. Secure with washers (155) and bolts (154). Lockwire bolts together as shown on Fig. 505.

B. Upper and Center Housing Assembly (Fig. 1101) (For 65-49970-1 and 65C36486-11 only)

NOTE: The upper housing (130), center housing (153), and lower housing (222) are a matched set. Make sure that the identification markings on the parts match before trying to assemble the housing assembly (125).

(1) Install parts (150 thru 140) in center housing (153).

NOTE: Adapter (145) is seated in housing bore with a press fit. Idler gear assembly (146) is installed with the swaged side up.

(2) Install center housing (153) on lower housing (222). Secure with parts (139 thru 135).

(3) Install spur gear (134) on shaft (202). Secure with retainer nut (133). Tighten nut to a torque range of 300 to 700 pound-inches, using wrench 7MIT5-88439. If necessary increase torque to line up next cotter pin hole, but maximum torque should not exceed 1000 pound-inches. Lock nut with cotter pin (132).

(4) Install upper housing (130) on center housing. Secure with parts (129 thru 126).

C. Upper Housing Assembly (Fig. 1101) (For 65-49970-2 and on, 65C34751-2 and on, and 65C36486-3 and on, except 65C36486-11)

NOTE: The upper housing (153) and the lower housing (222) are a matched set. Make sure that the identification markings on the parts match before trying to assemble the housing assembly (125).

(1) Install O-ring packings (150) in grooves of upper housing (153). Position spur gear (134) in cavity of upper housing through large opening.

(2) Install idler gear assembly (146), adapter (145), bearing retainer washer (143), bolt (142), washer (142A) and nut (141) in upper housing.

NOTE: Idler gear assembly (146) is installed with the swaged side down.

(3) Slide spacer (134A) on shaft (202) already installed in lower housing (222).

(4) Position lower housing with assembled parts on upper housing while sliding loose spur gear (134) in upper housing on shaft (202).

(5) Fasten lower housing on upper housing with bolts (139, 138, 137), washers (136) and nuts (135).

(6) Screw gear retainer nut (133) on shaft (202). Using wrench 7MIT5-88439, tighten nut within torque range of 500 to 700 pound-inches. If necessary, increase torque to line up next cotter pin hole, but maximum torque should not exceed 1000 pound-inches. Lock nut with cotter pin (132).

(7) Screw cap (223) in upper housing. Apply finger-tight torque. Lockwire cap to upper housing.

3. Deleted

4. Primary Brake Housing Assembly (Fig. 1101)

CAUTION: THE FACES OF RATCHET PLATES (106) AND BRAKE PLATES (107) MUST BE COMPLETELY FREE OF GREASE AND DIRT. EXTREME CARE MUST BE TAKEN TO AVOID GREASE ON EXTERIOR OF BEARINGS AND INTERIOR SURFACES OF PRIMARY BRAKE HOUSING. DO NOT GREASE BEARING BORES IN HOUSING FOR INSTALLATION PURPOSES.

A. Install packing (120) in primary brake housing (123). Apply a light coat of MIL-G-23827 grease to primary brake housing sleeve (122) to be installed nearest to cable drum. Position one yoke assy (56) onto greased sleeve (122).

B. Apply a light coating of BMS 3-24, grease, on interface of primary brake housing (123) and upper housing (130) or (153). Position primary brake housing on upper housing (130) or (153) and secure with parts (119 thru 114). Lockwire bolts (118) together as shown on Fig. 505.

C. Position parts (83, 91, 94, 95, 96, 97, 101, 106, and 107) temporarily on ball screw (10). Measure total height, dimension "A," of stacked parts, as shown on Fig. 501. Then remove parts again.

D. Measure depth of bore of primary brake housing to find dimension "B" as shown in Fig. 501.

E. Install bearing (94) and spacer (95) against shoulder in primary brake housing bore.

F. Preassemble parts (113 thru 96) on ball screw (10). Position packings (47 and 48) in grooves of sleeve (51). Slide sleeve assembly (49) on ball screw. Secure with pin (46).

NOTE: On splines of sleeve (51) one space is omitted to facilitate aligning of holes for pin (46).

Use screw with 6-32 UNC thread to install pin (46).

Lands only of safety rod (113) may be coated lightly with MIL-G-23827 grease to aid installation. Wipe off all excess grease.

Use care when installing packings (47 and 48) over threaded and splined areas of ball screw.

A quantity of 3 springs (105) and 3 collars (99) or (103) are to be positioned alternately into the 6 holes in ratchet plate (106).

CAUTION: DURING SLIDING, BALL SCREW MUST BE KEPT PARALLEL TO BORE OF PRIMARY BRAKE HOUSING TO PREVENT DAMAGE TO ATTACHED PARTS.

G. Slide ball screw with attached parts into bore of primary brake housing until bottomed against spacer (95).

H. Install parts (93 thru 83). Tighten nut (83) using spanner wrench, tool No. F80053, until dimension "C" equals dimension "A" minus dimension "B" plus 0.005 to 0.012 inch and keyway of nut (83) is in alignment with a slot in the primary brake housing.

NOTE: Key of lower housing plug (93) must fit into keyway of primary brake housing.

J. Position key (82) in spanner nut (81). Screw spanner nut on nut (83) while key slides in keyway of nut (83). Tighten within a torque range of 500 to 700 pound-inches.

K. Perform an End Play Check as described in Testing, step 4.A. and listed on Fig. 702. After the check lockwire nut (81) to key (82).

CAUTION: ENSURE THAT BRAKE PAWL ASSEMBLIES (78) ARE INSTALLED IN THE PROPER POSITION TO AVOID FAILURE OF BRAKING ACTION WITH RATCHET PLATES (106). SEE FIG. 506 FOR CORRECT POSITIONING.

L. Install parts (78 thru 68, 65, 64 and 63) on primary brake housing. Lockwire two screws (72) on each side of housing together as shown on Fig. 505. Lockwire screws (64) together and screws (63) together as shown on Fig. 505

NOTE: During installation use slots in spring (75) to locate the 0.21-inch radius on end of spring so that it touches some point of 0.26-inch radius of spring (74).

M. Install parts (67 and 66) on cap (69).

N. Apply a light coat of MIL-G-23827 grease to trunnion of primary brake housing. Install fork assemblies (59) and remaining yoke assembly (56) on primary brake housing taking care to match index marks on yokes and forks.

NOTE: All nuts (53) are located on gimbal assembly outside.

Touch up scratched or damaged primer (SRF-14.996) after assembling the gimbal assembly.

O. Install lower stop (17) on sleeve assembly (49), and ball nut assembly (9) and parts (8 thru 5) on ball screw (10).

(1) Rotate ball nut down until stops contact. If necessary reindex lower stop on sleeve splines until 0.15- to 0.17-inch gap as shown on Fig. 502 is met. Mark position of lower stop in relation to ball screw.

(2) Rotate ball nut up until stops contact. Hold ball nut against stops and rotate ball screw until trunnions of ball nut are in a position relative to the housing as shown on Fig. 502. Secure ball screw in this position.

(3) Rotate cable drum assembly (215) into the position shown on Fig. 503 and make sure the ballnut remains in the position described in 4.O.(2). Secure drum in this position.

(4) Remove parts (5 thru 9) and lower stop (17) from ball screw.

NOTE: Assembly steps 4.P. thru 4.S. are applicable to 65-49970-1 thru -24 only. See steps 4.T. thru 4.Y. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

P. Preassemble parts (41 thru 45). Install unlock gear (45) with attached parts on sleeve assembly (49) and in upper housing (130) or (153).

Q. Install shims (27) (refer to thickness noted at disassembly) on sleeve assembly (49). Apply a light coating of MIL-G-23827 grease (approximately 0.10 to 0.25 ounces) on brake race (40) V-notch surfaces (Fig. 501). Assemble parts (28 thru 32, 37) or (29, 30, 31, 32A, 32B, 37) into brake race (40). Install in upper housing and on sleeve assembly (49) so that pickup dog (39) and unlock gear (45) are oriented, with a clearance of 0.45-0.50 inch, as shown on Fig. 503. On units with 65-49962-8 thru -11 brake arms, lockwire bolts (30) to brake arms.

NOTE: Angular position of pickup dog and brake unlock gear in relation to upper housing is not important.

R. Hold brake race (40) against upper housing and pickup dog (39) against shims (27). Check that distance of 0.111-0.139 inch exists as shown on Fig. 501. Adjust shims (27) as necessary to obtain required distance.

NOTE: Shim pickup dog assembly (37) to obtain minimum possible backlash and allow freedom of shims (27), pickup dog and lockwasher after tightening nut (25).

S. Install remaining shims (27), washer (26), and nut (25) on sleeve assembly. Tighten nut (25) to 200-300 lb-in. using spanner wrench C27033-1. Check that maximum backlash does not exceed 0.027 inch.

NOTE: Replacement of nut (25) with nut (25A) is recommended to provide increased clearance with cover.

Assembly steps 4.T. thru 4.Y. are applicable to 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13. See steps 4.P. thru 4.S. for 65-49970-1 thru -24 only.

T. Assemble sleeve assembly (49) and pin (46) to the ballscrew in the housing. Install bearing (41), input gear (345) on sleeve assembly (49) with the drum (215) positioned as shown in Fig. 503. Rotate the ballscrew to position the pin (46) as shown in Fig. 501.

U. Assemble the brake assembly (275) using standard industry practices and the additional procedures in steps (1) and (2).

(1) Apply grease MIL-G-23827 to the springs (320) and grease BMS 3-24 to the inner and outer diameters of the bearing (285) prior to installation. Apply grease BMS 3-24 to the inner diameter of the bearings (290) and install with wet BMS 10-11, type 1primer (F 20.06) on the outside diameter.

(2) Apply grease MIL-G-23827 to the threads of the nut (280) and ratchet ring (340). Tighten the nut (280) 200 to 300 pound-inches.

V. Assemble the stator assembly (225) as shown in Fig. 504 using standard industry practices and the additional procedures in steps (1) thru (5).

(1) For stator assembly, part number 65C34616-3, apply a light film of MIL-G-23827 grease to the threads on nut (270) and to both sides of rotors (245) prior to assembly.

(2) Tighten the nut (270) so that the rotors (245) will sustain a torque of at least 300 lb-in., but no more than 600 lb-in. before slippage occurs. Check the torque with test fixture C27026-24.

(3) After initial adjustment, rotate the rotors (245) three to four full turns in each direction to verify that no binding occurs.

(4) Readjust nut (270) so that the rotors (245) will sustain a torque of 1950 to 2150 lb-in for 65C34616-1, and 2500 to 2700 lb-in for 65C34616-3, before slippage occurs.

(5) Lockwire the nut (270) to the washer (265) as shown in Fig. 505.

W. Install brake assembly (275) and stator assembly (225) on the sleeve assembly (49) by aligning the two missing teeth on the brake assembly with pin (46) per Fig. 501.

X. Install washer (26) and nut (25A) on the sleeve assembly (49). Tighten nut (25A) 200 to 300 lb-in. using spanner wrench C27033-1.

Y. Perform an Auxiliary Brake Test as described in Testing, step 4.F.

CAUTION: CARE MUST BE TAKEN THAT O-RING (18) IS NOT DAMAGED WHEN SLID OVER JACKSCREW (10). IF O-RING IS DAMAGED, MOISTURE WILL CAUSE EXTENSIVE DAMAGE TO JACKSCREW.

Z. Install parts (24 thru 18) on upper housing. On O-ring packing (18) coat with a light film of SAE-AMS-G-4343 grease at installation, and use care when installing O-ring over splined area. Place lower stop (17) on ball screw in marked position. Check that the cable drum is positioned as shown in Fig. 503 and that the ball nut is positioned as shown in Fig. 502. Secure with screws (16). Lockwire screws together.

AA. Assemble parts (15 thru 11) on trunnions of ball nut assembly (9). Lubricate surfaces with light coat of MIL-G-23827 grease.

AB. Install parts (10 thru 1) on ball screw aligning drain hole in upper end of safety rod with drain hole in ball screw.

AC. Check that dimension T (Fig. 601) is as follows:

(1) 21.22-21.42 inches with ball nut against the lower stop.

(2) 45.74-45.94 inches with ball nut against the upper stop.

5. On units incorporating SB 27-1046, install items (10A thru 10D) on ball nut per Fig. 506.

6. Materials

NOTE: Use materials listed or equivalent substitute.

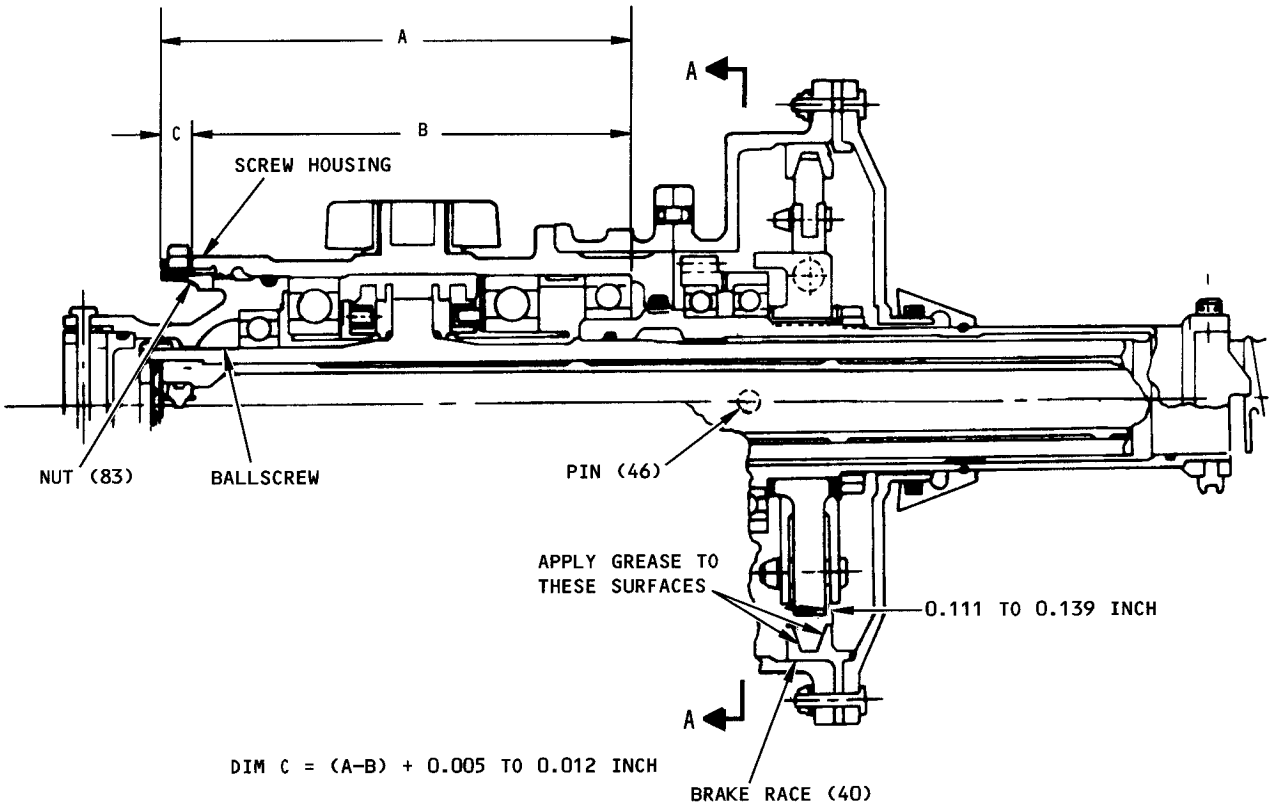
A. Grease -- SAE-AMS-G-4343

B. Primer -- BMS 3-33 or BMS 10-11, Type 1

C. Grease -- MIL-G-23827

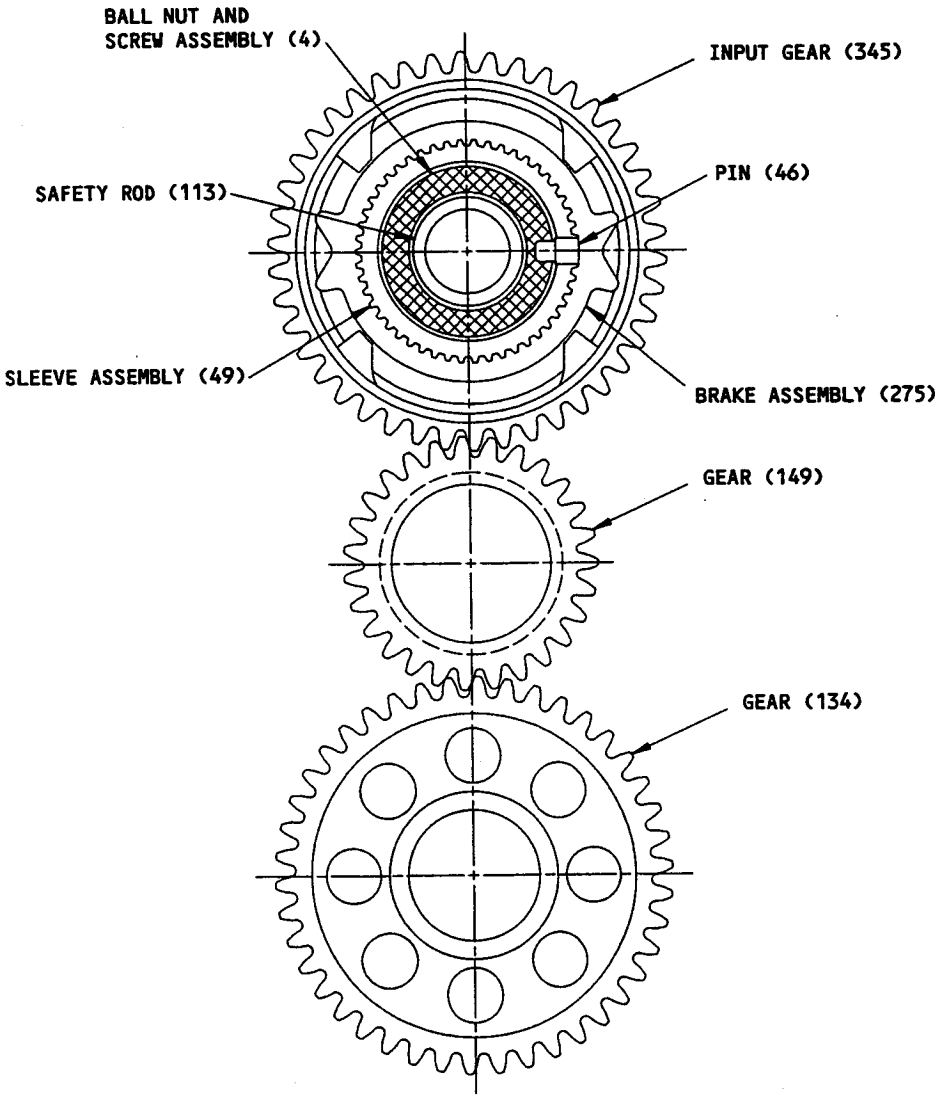
D. Lockwire -- MS20995NC32

E. Grease -- BMS 3-24



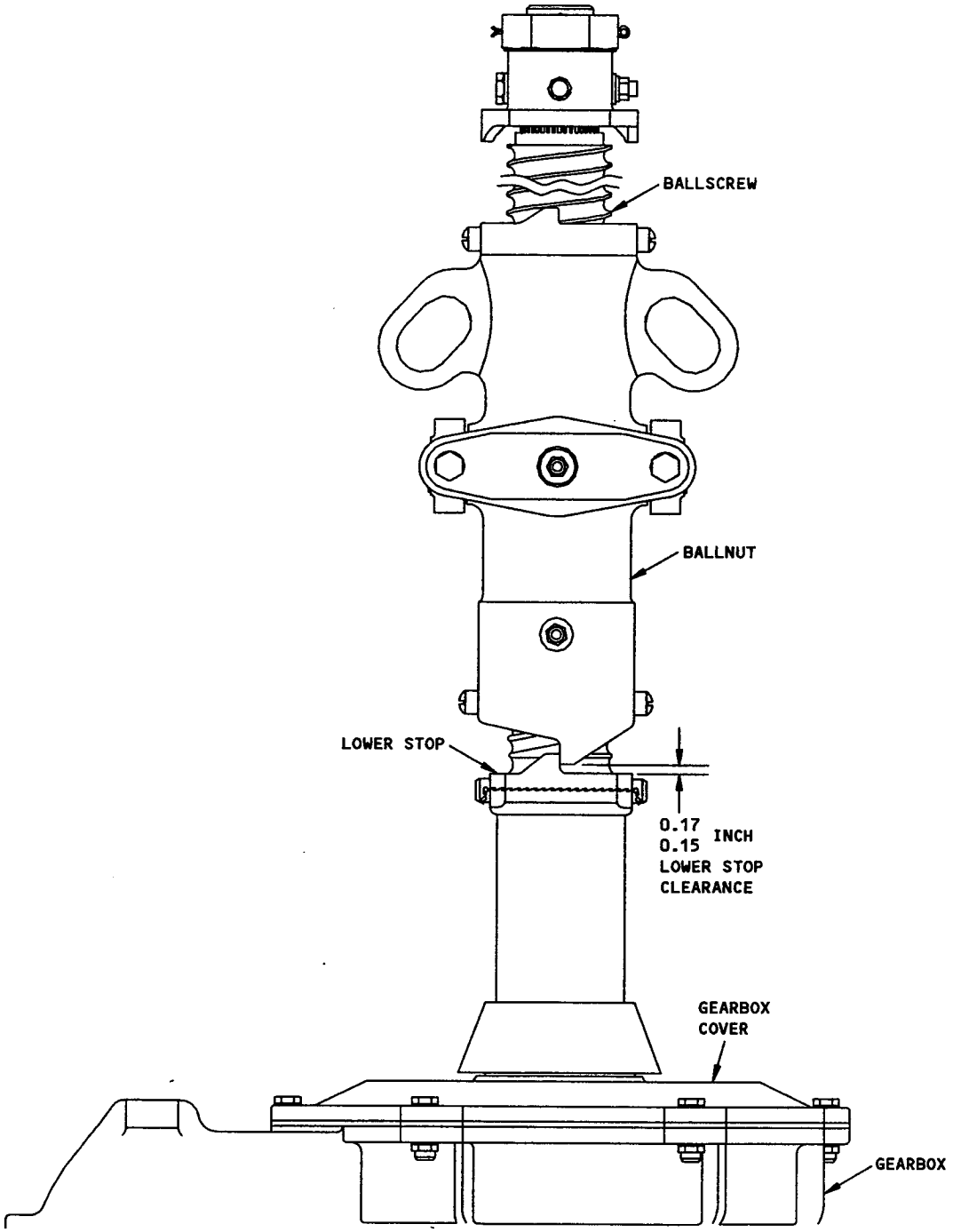
Primary Brake Installation
Figure 501 (Sheet 1)

W21673

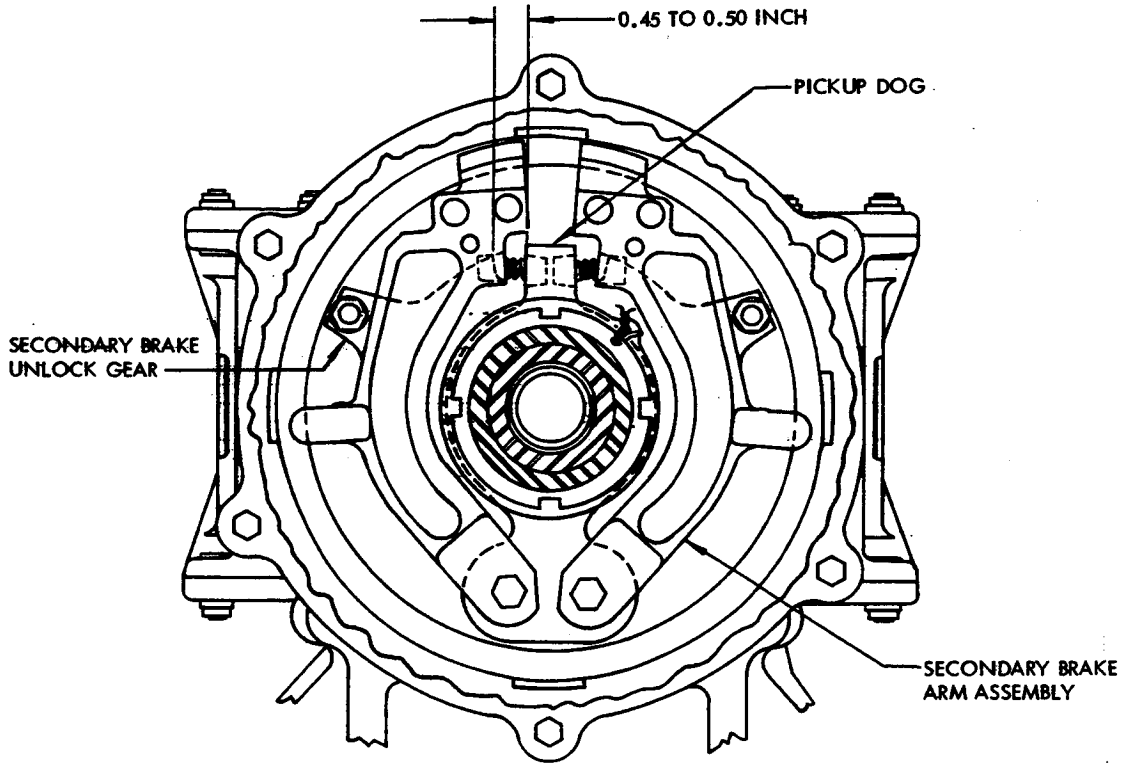


A-A

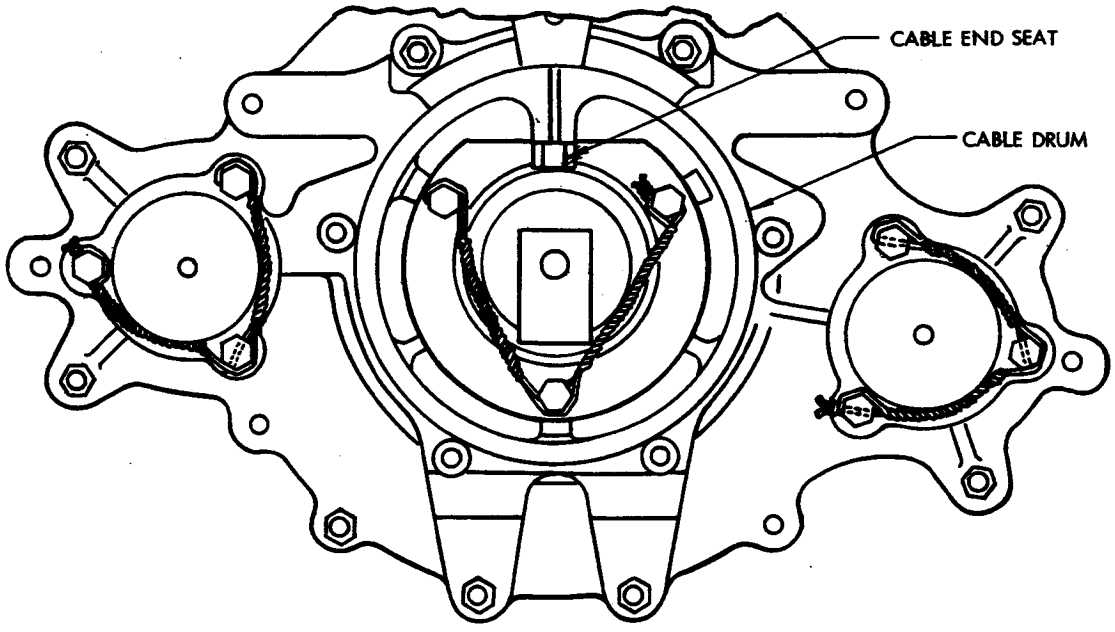
Primary Brake Installation
Figure 501 (Sheet 2)



Upper and Lower Stop Installation
Figure 502

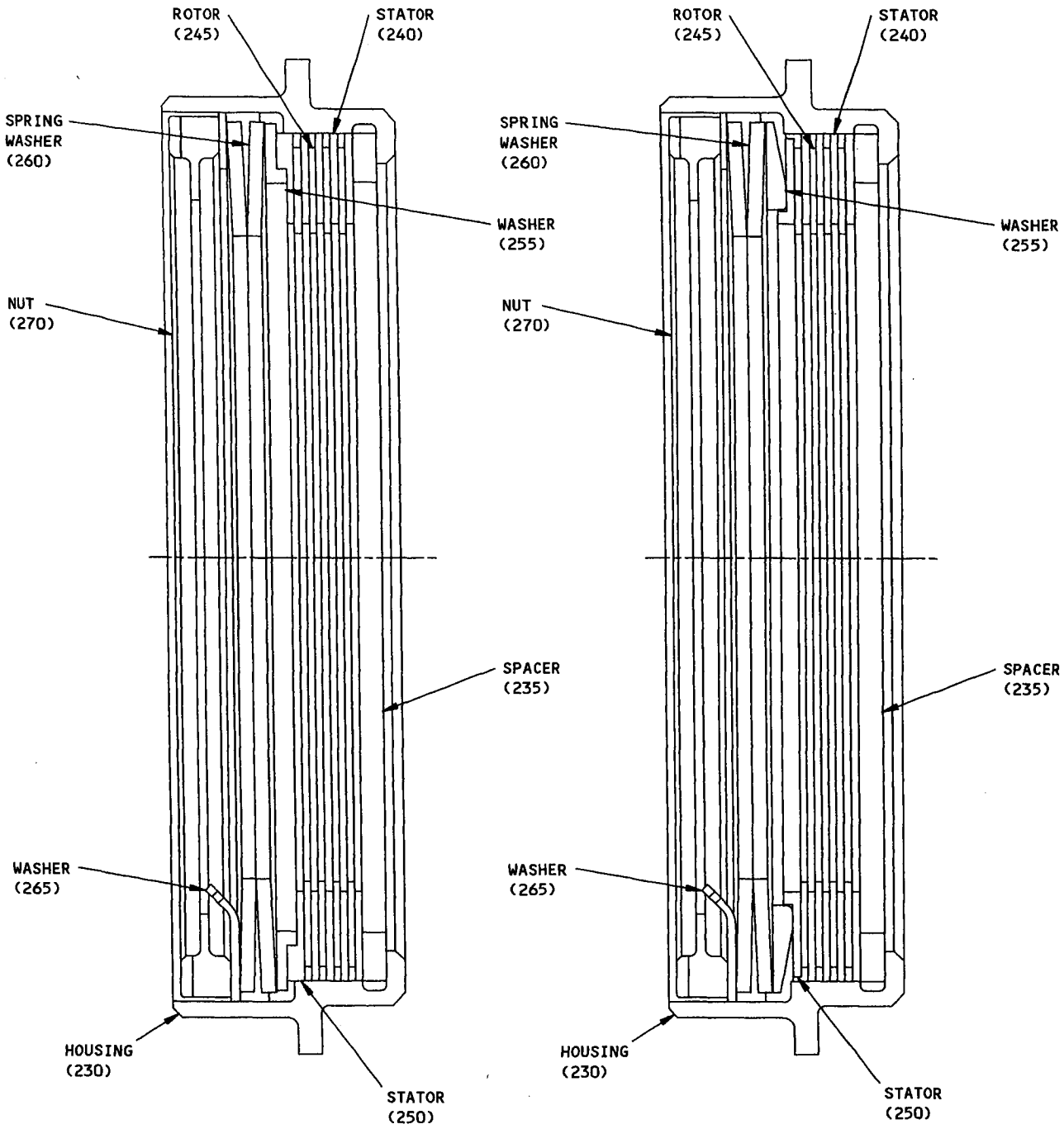


TOP VIEW

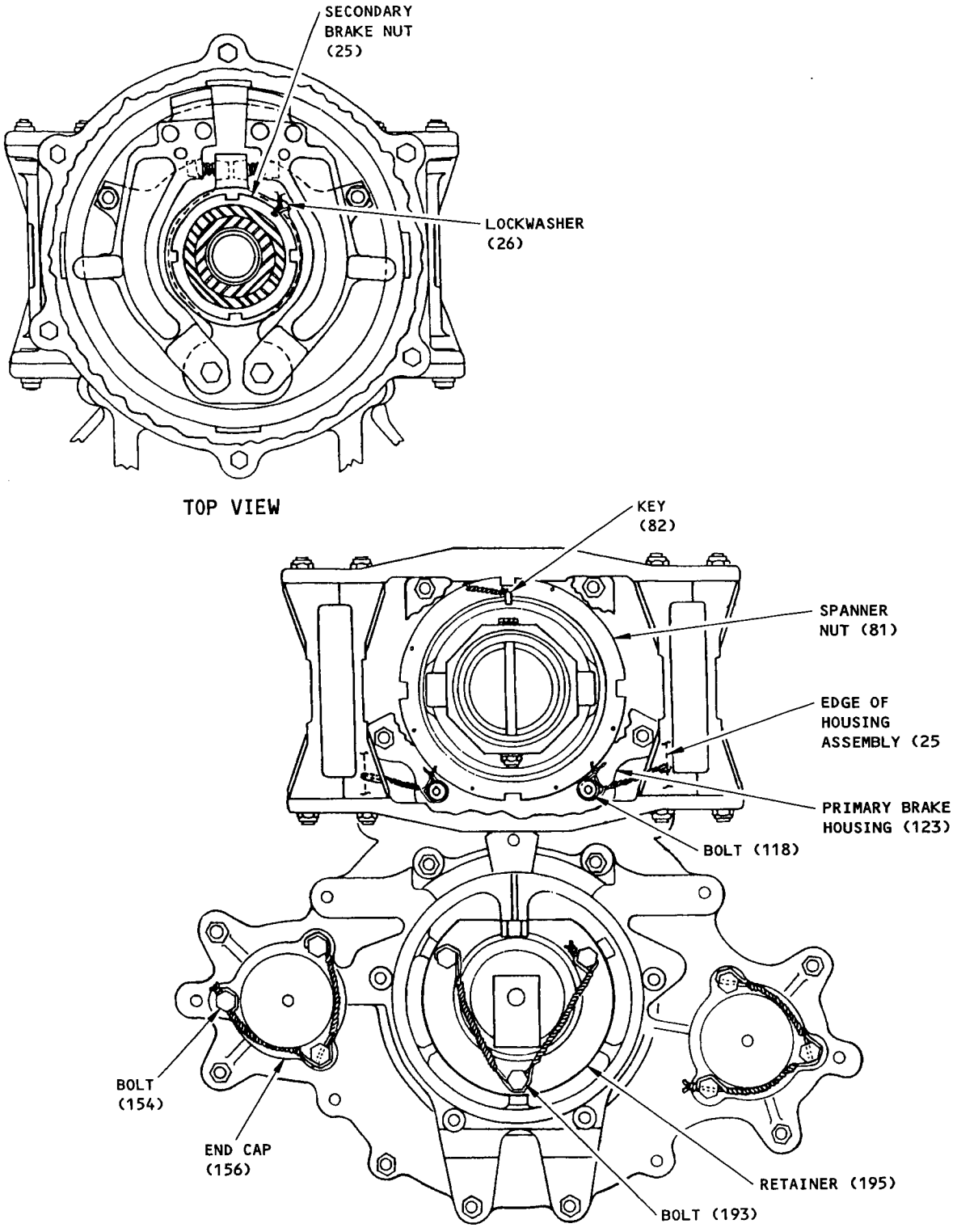


BOTTOM VIEW

Positioning of Pickup Dog, Brake Unlock Gear and Cable Drum
Figure 503

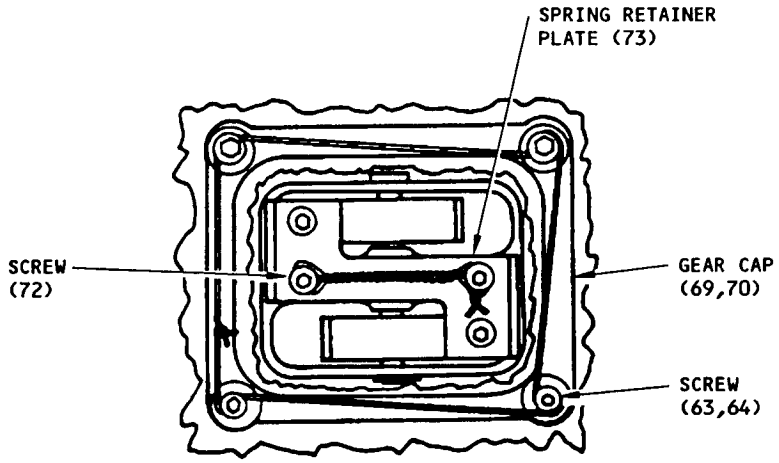


Stator Assembly
Figure 504

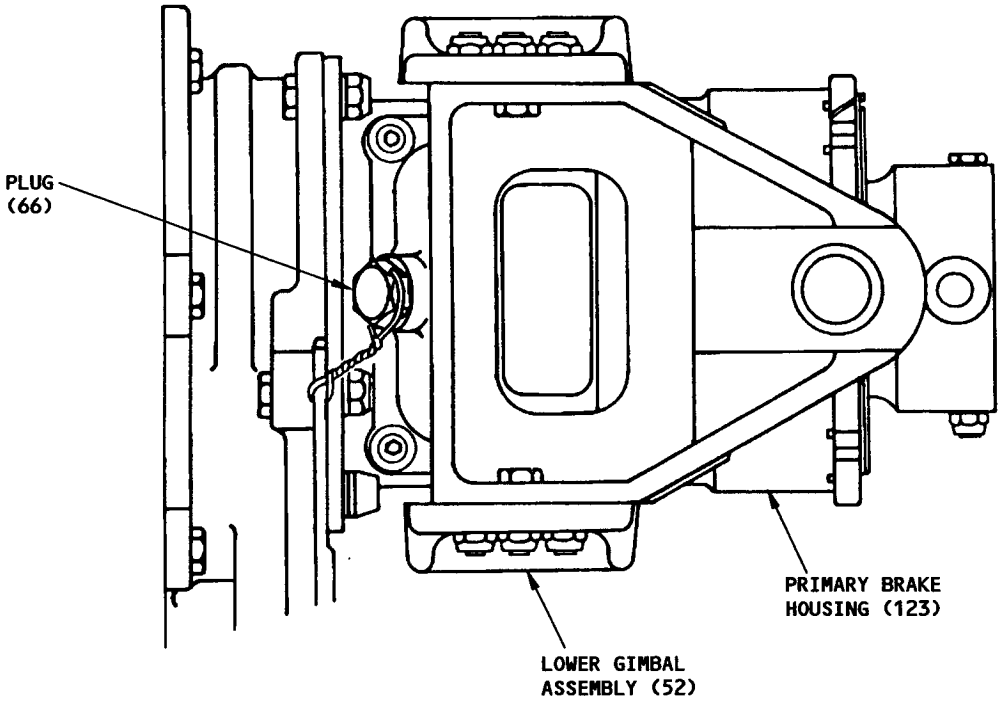


Lockwiring Diagram
Figure 505 (Sheet 1)

G36635

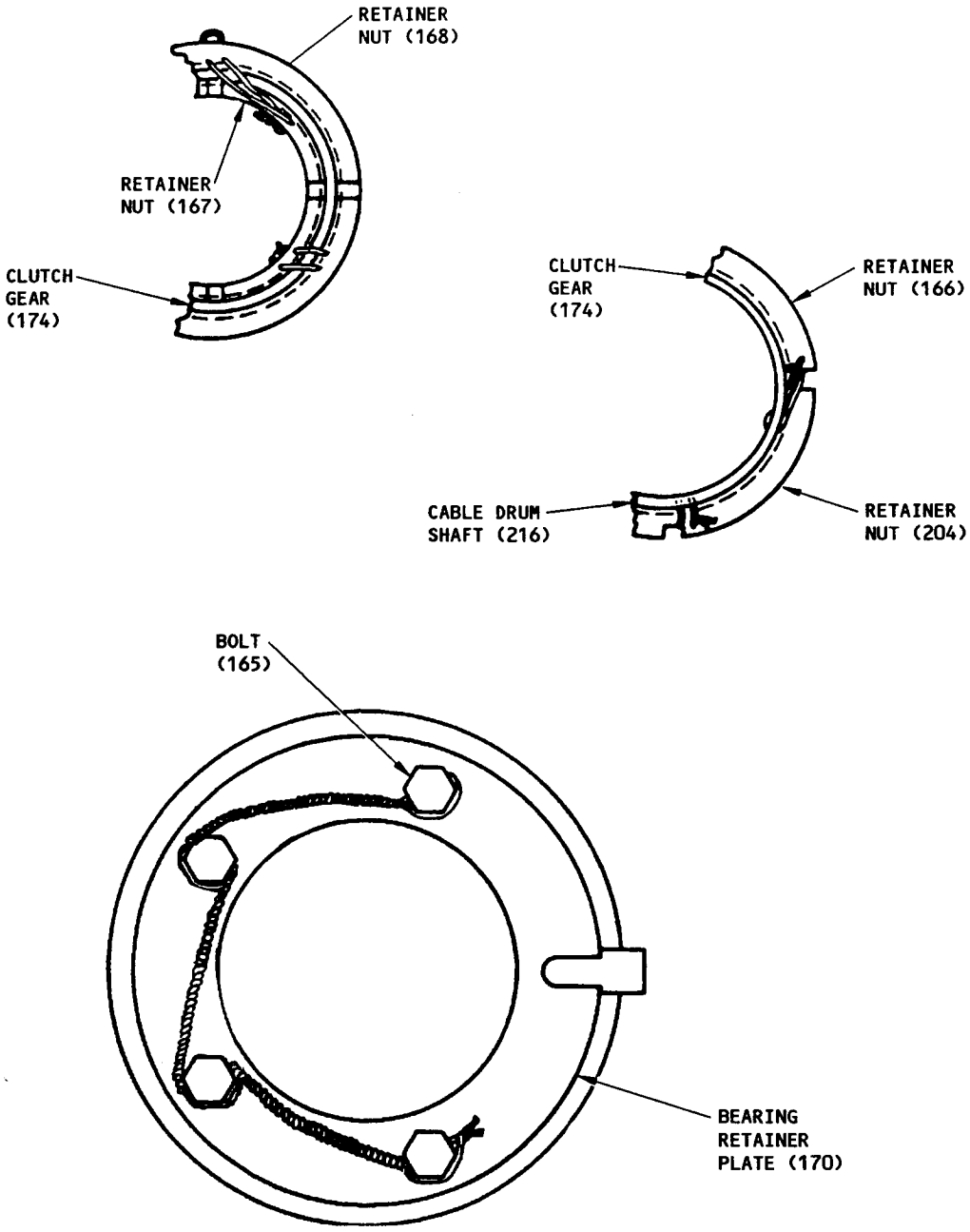


PRIMARY BRAKE PAWL ASSEMBLY



Lockwiring Diagram
Figure 505 (Sheet 2)

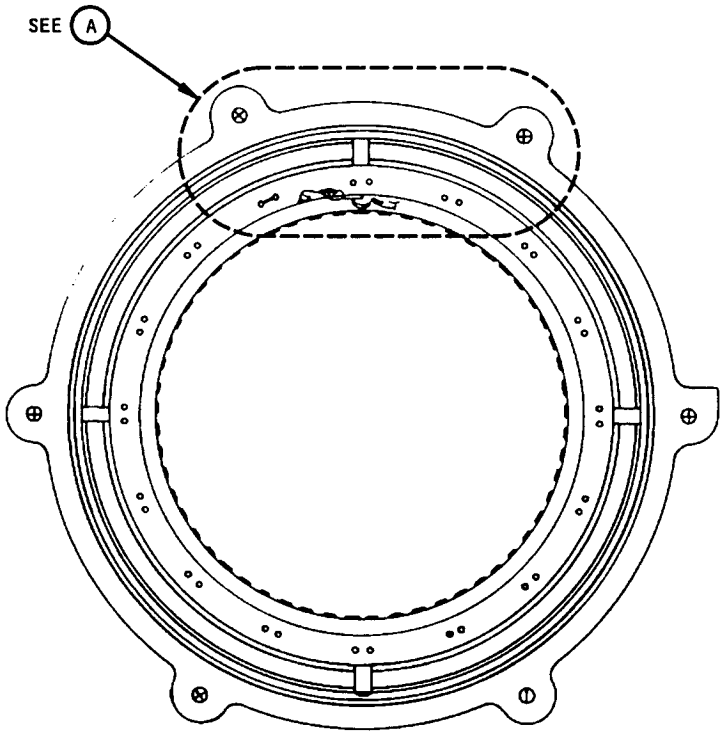
G36663

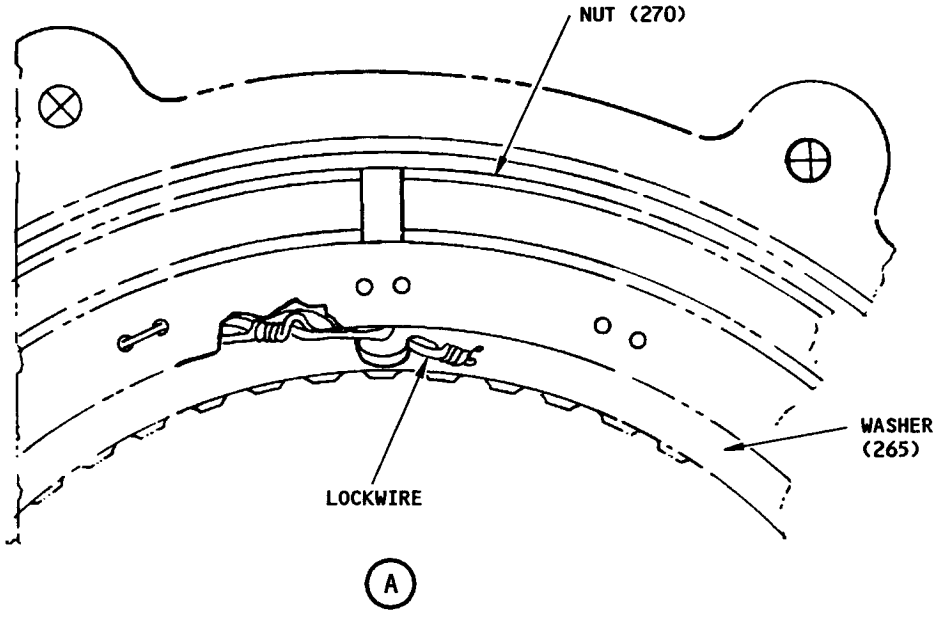


INTERNAL LOCKWIRING

Lockwiring Diagram
Figure 505 (Sheet 3)

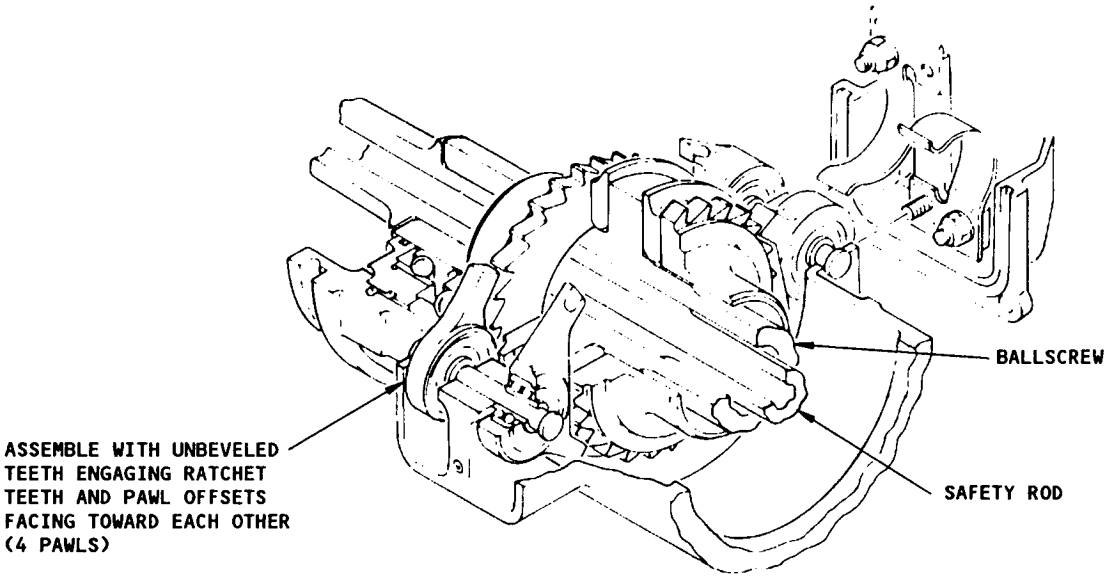
G36670



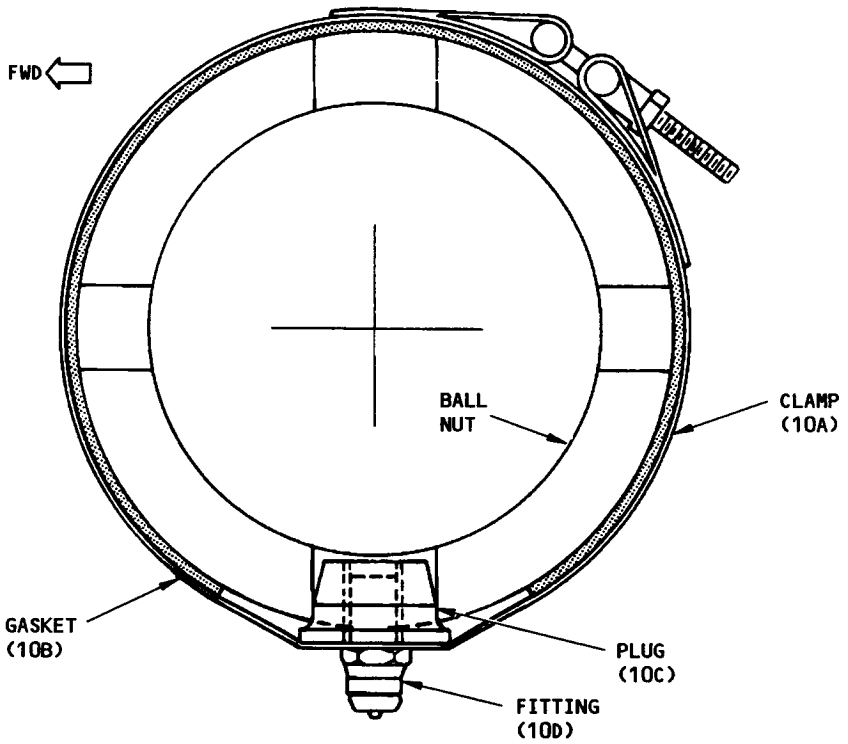


Lockwiring Diagram
Figure 505 (Sheet 4)

G36688



Primary Brake Arrangement
Figure 506



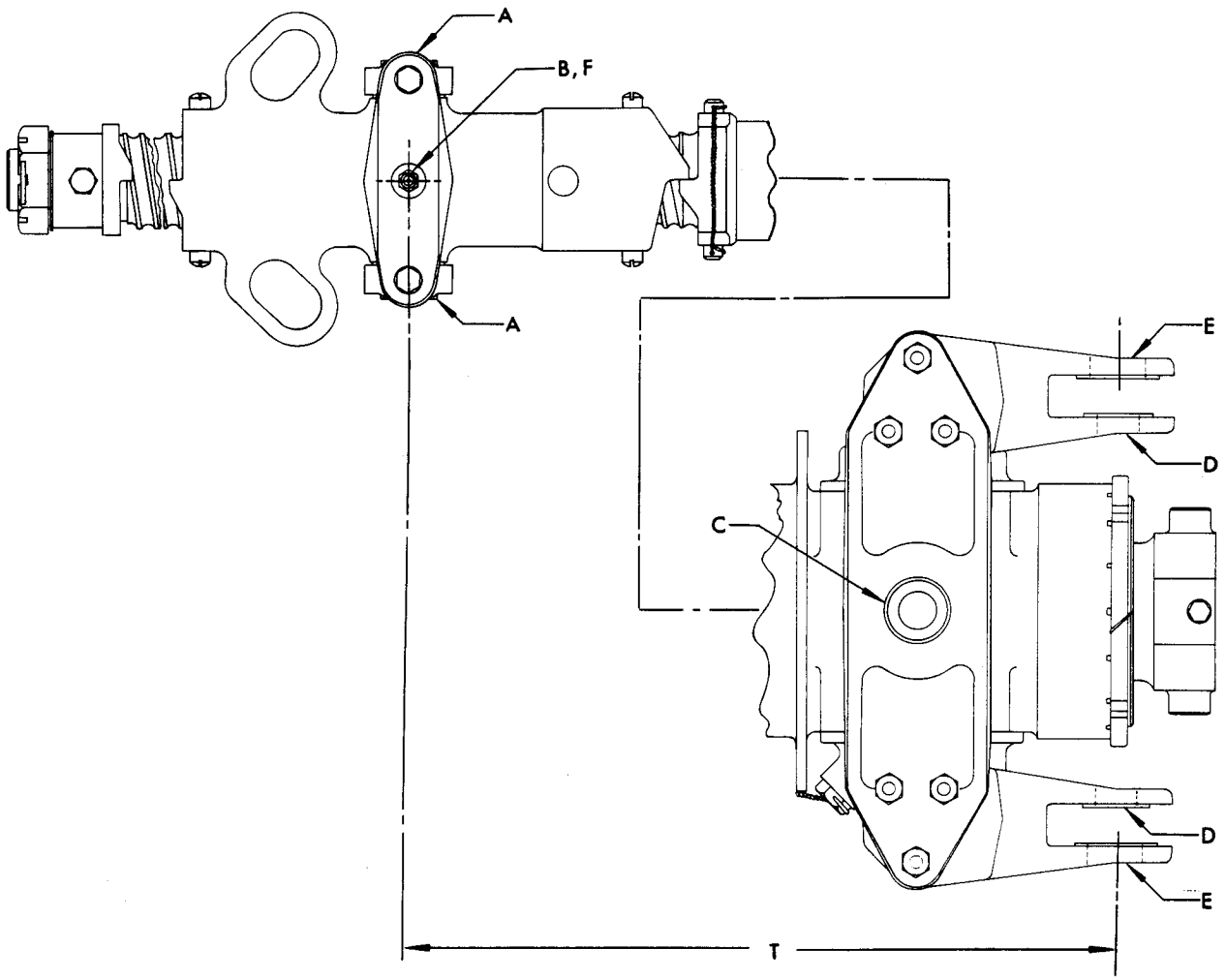
Ball Nut Lubricator Installation (SB 27-1046)
Figure 507

G36710

FITS AND CLEARANCES

1. The Fits and Clearances table lists original design dimensions and service wear limits for certain close tolerance parts of the assembly. The original design dimensions are to be used as a guide for rework of parts which fail to meet the wear tolerance requirements. Unless otherwise specified in the rework procedure, a part should be returned to the design dimensions whenever rework is accomplished.

2. Clearances are given to aid assembly of the component. The value given in the Maximum Allowable Clearance column is the maximum permitted to ensure proper functioning until the next overhaul cycle of the component. If assembled parts fail to meet these requirements, one or more of the parts must be rejected. Parts that are rejected should be reworked if within the rework limits given in the repair procedure; if not within rework limits, the parts should be scrapped. It is recommended that whenever newly reworked parts are assembled, the design clearances should be used as the guiding assembly criteria.



Fits and Clearances
Figure 601 (Sheet 1)

Ref Letter Fig.601	Mating Item No. Fig.1101	Design Dimensions				Service Wear Limits		
		Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
A	ID 15 OD 9	1.000 0.998	1.001 0.999	0.001	0.003	0.996	1.002	0.005
B	ID 14 OD 13	1.000 0.998	1.001 0.999	0.001	0.003	0.997	1.002	0.005
C	ID 57 OD 122	1.100 1.098	1.101 1.099	0.001	0.003	1.097	1.104	0.005
D	ID 61 OD *[1]	0.750 0.748	0.751 0.749	0.001	0.003	0.744	0.755	0.006
E	ID 60 OD *[1]	1.000 0.998	1.001 0.999	0.001	0.003	0.994	1.005	0.006
F	ID *[2] OD 13	1.000 0.998	1.001 0.999	0.001	0.003	0.997	1.003	0.005
-	- 107	0.270 Thickness	0.275			0.260		
-	- 39	0.70 Leg Thickness	0.72			0.66		
-	- 45	1.57 Slot Width (Max)	1.67				1.72	

*[1] Lower Gimbal Pin Assy, 69-40381-1 (Ref)

*[2] Bushing 69-37464-1 in Jackscrew Fitting Assembly 65-46847-2 (Ref)

TESTING

1. Test Equipment

   A. Deleted

   B. End play checking fixture F71421-501, to provide loading of ballscrew in both directions. Replaces F71421-500.

   C. Cable drum wrench assembly F70109, to rotate cable drum for friction test of unit.

   D. Adapter F71252 or pinion gear wrench assembly F71267 to secure one pinion gear against rotation for disconnect clutch test.

   E. Deleted.

   F. Pneumatic test stand capable of delivering controlled pressure up to 20 psi for pressure testing of primary brake housing.

   G. Hydraulic test stand capable of delivering controlled pressure to 110 psi for end play testing of primary brakes.

   H. Test fixture F71422-839 for 737-100 thru -500 models, or -829 for 737-100/-200 models only, to hold unit and sustain reaction torque and apply rigging loads during testing. F71422-839 supersedes F71422-200 for all 737 models. F71422-829 supersedes F71422-501 for 737-100/-200 models.

   I. Torque socket F80249-7 to apply torque to ballscrew.

2. Before test, apply a light coat of MIL-L-7870 oil on all ball screw threads. Using lube fitting 10D apply MIL-G-23827 grease to the ball nut assembly.

3. DELETED

4. Functional Tests

   NOTE: Clockwise (CW) and counterclockwise (CCW) direction referred to in these tests are as viewed from top (screw end) of actuator assembly.

   A. End Play Test (Fig. 702)

      (1) Install primary brake housing assembly (121) with attached parts in Fixture F71421-501 or -500, as shown in Fig. 702.

      (2) Apply 388-412 lb tension load to ball screw, then apply equivalent compression load. Check that axial play is 0.008-0.015 in. Adjust nuts (81, 83) as required to obtain specified end play. Lockwire nut (81) to key (82) per 20-50-02.

      (3) With axial load removed, check that torque required to rotate ball screw does not exceed 40 lb-in.

B. Primary Brake Test

(1) Run-in the primary brake.

(a) Check the rotational torque in the CW direction with a 776-824 lb tension load applied. If the torque is less than 130 lb-in. perfom B.(1)(c) run-in procedure.

(b) Check the rotational torque in the CCW direction with a 776-824 lb compression load applied. If the torque is less than 130 lb-in. perform B.(1)(d) run-in procedure.

(c) With 200 lb minimum tension load applied to the ballscrew, rotate ballscrew CW for a minimum of 30 seconds at 30 to 100 RPM.

(d) With 200 lb minimum compression load applied to the ballscrew, rotate ballscrew CCW for a minimum of 30 seconds at 30 to 100 RPM.

(2) Apply 776-824 lb tension load to ball screw.

(3) Rotate ball screw CW (brake slipping, not ratcheting) at maximum rate of 30 rpm for 20 revolutions and measure torque.

(4) Repeat step (3) except in CCW (brake ratcheting) direction and measure torque.

(5) Check that CCW torque is between 120-186 lb-in. less than CW torque.

(6) Apply 776-824 lb compression load to ball screw.

(7) Rotate ball screw CCW (brake slipping, not ratcheting) at maximum rate of 30 rpm for 20 revolutions and measure torque.

(8) Repeat step (7) except in CW (brake ratcheting) direction and measure torque.

(9) Check that CW torque is between 120-186 lb-in. less than CCW torque.

C. Pressure Test of Primary Brake Housing

NOTE: Actuator assembly is to be complete for this and subsequent tests, except pin assembly (13), gimbal fitting (14), and yoke (15) may be removed.

(1) Install unit in test fixture F71422-839 (F71422-829 modified with additional pulleys for applying loads in tension and compression, optional for 737-100/-200 only).

(2) Remove plug (66) from primary brake housing assembly (121), and apply 15-17 psi air pressure for 3 minutes.

(3) Rotate cable drum through full screw travel while under pressure. Check that there is no leakage.

(4) After test, install plug with new packing (67) for top assemblies 65-49970-1 thru -24 and with new packing (67), washer (67B) and capscrew (67A) for top assemblies 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13. Lockwire plug to lower housing (222) per 20-50-02, double-twist method.

D. Sleeve Backlash Check

(1) Apply approximately 20 lb axial load to sleeve assembly (49) in both directions.

(2) Measure axial movement between sleeve and ball screw. Check that axial play does not exceed 0.030 in.

E. Friction Check

(1) Apply 107-113 lb rigging load to cable.

(2) Rotate cable drum through full screw travel in both CW and CCW directions. Check that torque required to rotate drum does not exceed 84 lb-in. for 65-49970-1 thru -24 and 121 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(3) Measure and record torque required to rotate drum CW at approximately mid-travel.

(4) Measure and record torque required to rotate drum CCW at approximately mid-travel.

F. Secondary Brake Test

(1) Check brake slippage for 65-49970-1 thru -24.

(a) Apply 107-113 lb rigging load to cable.

(b) Apply 100 lb-in. torque to ball screw in both CW and CCW directions using torque socket F80249-7. Check that no slippage of secondary brake (32) occurs.

(c) Repeat step (1) with 300 and 500 lb-in. torques.

(2) Check brake slippage for 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(a) Apply 107-113 lb rigging load to cable.

(b) Apply 1950 lb-in torque when the 65C34616-1 stator item (225) is used and 2500 lb-in torque when the 65C34616-3 stator item (225) is used. Apply torque to the ball screw in both CW and CCW directions using torque socket F80249-7. Check that no slippage of auxiliary brake (275) occurs.

(3) Check brake slippage for 65-49970-25 thru -29.

(a) Optional: Apply 107-113 lb rigging load to cable.

(b) Apply 1950 lb-in torque when the 65C34616-1 stator item (225) is used and 2500 lb-in torque when the 65C34616-3 stator item (225) is used. Apply torque to the ball screw in both CW and CCW directions using torque socket F80249-7. Check that no slippage of auxiliary brake (275) occurs.

(c) Apply 2500-3000 lb-in. torque for 65-49970-26 thru -29 using torque socket F80249-7. Check that secondary brake (275) slips in both CW and CCW directions.

(4) Check brake release for 65-49970-1 thru -24.

(a) Apply 107-113 lb rigging load to cable and 485-515 lb tension load to ball screw through ball nut.

(b) With 100 lb-in. CW torque applied to ball screw, apply CW torque to cable drum. Check that torque required to release secondary brake does not exceed 147 lb-in.

(c) Repeat step (b) in CCW direction.

(d) With 300 lb-in CW torque applied to ball screw, apply CW torque to cable drum. Check that torque required to release secondary brake does not exceed 313 lb-in.

(e) Repeat step (d) in CCW direction.

(f) With 500 lb-in. torque applied to ball screw, apply CW torque to cable drum. Check that torque required to release secondary brake does not exceed 478 lb-in.

(g) Repeat step (f) in CCW direction.

(h) Rotate cable drum until ball nut just contacts up stop on ball screw.

(i) Apply 430 lb-in. CCW torque to motor input shaft.

(j) Release CCW torque and apply CW torque to motor input shaft. Check that torque required to release secondary brake does not exceed 200 lb-in.

(k) Repeat steps (h) thru (j) 4 times.

(5) Check brake release for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(a) Optional: Apply 107-113 lb rigging load to cable.

(b) With 500 lb-in. CW torque applied to ball screw, apply CW torque to cable drum. Check that torque required to release secondary brake does not exceed 185 lb-in.

(c) Repeat step (a) in CCW direction.

(d) Rotate cable drum until ball nut just contacts up stop on ball screw.

(e) Apply 660 lb-in. CCW torque to motor input shaft.

(f) Apply a CW torque to motor input shaft. Check that torque required to release secondary brake does not exceed 200 lb-in.

(6) Check ball screw angular displacement for 65-49970-1 thru -24.

(a) Optional: Apply 107-113 lb rigging load to cable.

(b) Rotate cable drum, one turn minimum, in CCW direction.

(c) Apply a CW torque of 450-550 lb-in. to ball screw. Release torque and note ball screw position.

(d) Apply a CCW torque of 450-550 lb-in. to ball screw. Release torque and check that ball screw rotation from step (c) position does not exceed 12.5 degrees.

(e) Rotate cable drum, one turn minimum, in CW direction.

(f) Apply a CCW torque of 450-550 lb-in. to ball screw. Release torque and note ball screw position.

(g) Apply a CW torque of 450-550 lb-in. to ball screw. Release torque and check that ball screw rotation from step (f) position does not exceed 12.5 degrees.

G. Load Check

(1) Check operation under tension.

(a) Apply 107-113 lb rigging load to cable and 485-515 lb tension load to ball screw through ball nut.

(b) Rotate cable drum through full CCW screw travel. Check that torque required to rotate drum does not exceed 147 lb-in. for 65-49970-1 thru -24 and 193 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(c) Measure required torque at approximately mid-travel and subtract torque recorded in friction test, step E.(4). Check that difference is not greater than 68 lb-in. for 65-49970-1 thru -24 and 88 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(d) Rotate cable drum through full CW screw travel. Check that torque required to rotate drum does not exceed 160 lb-in. for 65-49970-1 thru -24 and 200 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(e) Measure required torque at approximately mid-travel and subtract torque recorded in friction test, step E.(3). Check that difference is 20-76 lb-in. for 65-49970-1 thru -24 and not less than 25 lb-in. and not more than 102 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(2) Check operation under compression.

(a) Apply 107-113 lb rigging load to cable and 485-515 lb compression load to ball screw through ball nut.

(b) Rotate cable drum through full CW screw travel. Check that torque required to rotate drum does not exceed 147 lb-in. for 65-49970-1 thru -24 and 193 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(c) Measure required torque at approximately mid-travel and subtract torque recorded in friction test, step E.(3). Check that difference is not greater than 68 lb-in. for 65-49970-1 thru -24 and 88 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(d) Rotate cable drum through full CCW screw travel. Check that torque required to rotate drum does not exceed 160 lb-in. for 65-49970-1 thru -24 and 200 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

(e) Measure required torque at approximately mid-travel and subtract torque recorded in friction test, step E.(4). Check that difference is 20-76 lb-in. for 65-49970-1 thru -24 and not less than 25 lb-in. and not more than 102 lb-in. for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13.

H. Disconnect Clutch Test

(1) Apply 107-113 lb rigging load to cable.

(2) Secure one motor input pinion gear (162) against rotation using adapter F71252 or wrench assembly F71267. Secure ball screw against rotation.

(3) Apply CCW torque to cable drum (Fig. 702). Check that torque required to disconnect manual clutch does not exceed 780 lb-in. (Approximately 20 degrees of cable drum rotation is required to disengage clutch).

(4) Remove the device used to secure one motor input pinion gear. Hold cable drum in disconnect position and check that pinion gears (162) rotate freely.

(5) Repeat step (2).

NOTE: This is a static test.

(6) Repeat step (3) with CW torque applied to cable drum.

(7) Check torque required to ratchet manual clutch for 65-49970-1 thru -12, and 65C36486-3, -5, -7, -9 thru -13. The torque check can be done as a dynamic test or as an option can be done as a static test.

(a) Do the dynamic test as shown below (Optional to the static test).

1) Secure the motor input shaft against turning. Leave the ballscrew free to turn.

2) Rotate cable drum CW and ratchet manual clutch. Check that torque required to ratchet clutch does not exceed 596 lb-in. for 65-49970-1 thru -12 and 617 lb-in. for 65C36486-3, -5, -7, -9 thru -13.

3) Repeat step (b) in CCW direction.

(b) Do the static test as shown below (Optional to the dynamic test). This test verifies that the breakout torque is less than the acceptable maximum. Breakout torque is defined as the maximum torque required to ratchet the clutch one detent. Turn the drum slowly, so that the dial indicator on the torque wrench can be observed to increase in value to a point when the clutch ratchets into the next clutch detent. The maximum torque value observed shall be referred to as the breakout torque.

1) Secure the motor input shaft against rotation.

2) Rotate the cable drum CW. Check that breakout torque is less than 750 lb-in. for each of the 20 clutch detent positions. Make sure to relax torque after advancing to each detent position.

3) Repeat step (b) in CCW direction.

(8) Use a static test to check the torque required to ratchet manual clutch for 65-49970-13 thru -29 and 65C34751-2 thru -11. This test is verifies that the breakout torque is less than the acceptable maximum. Breakout torque is defined as the maximum torque required to ratchet the clutch one detent. Turn the drum slowly, so that the dial indicator on the torque wrench can be observed to increase in value to a point when the clutch ratchets into the next clutch detent. The maximum torque value observed shall be referred to as the breakout torque.

(a) Secure the motor input shaft against rotation.

(b) Rotate the cable drum CW. Check that breakout torque is less than 750 lb-in. for each of the 20 clutch detent positions. Make sure to relax torque after advancing to each detent position.

(c) Repeat step (b) in CCW direction.

I. Timing Check for 65-49970-25 thru -29, 65C34751-2 thru -11 and 65C36486-3, -5, -7, -9 thru -13

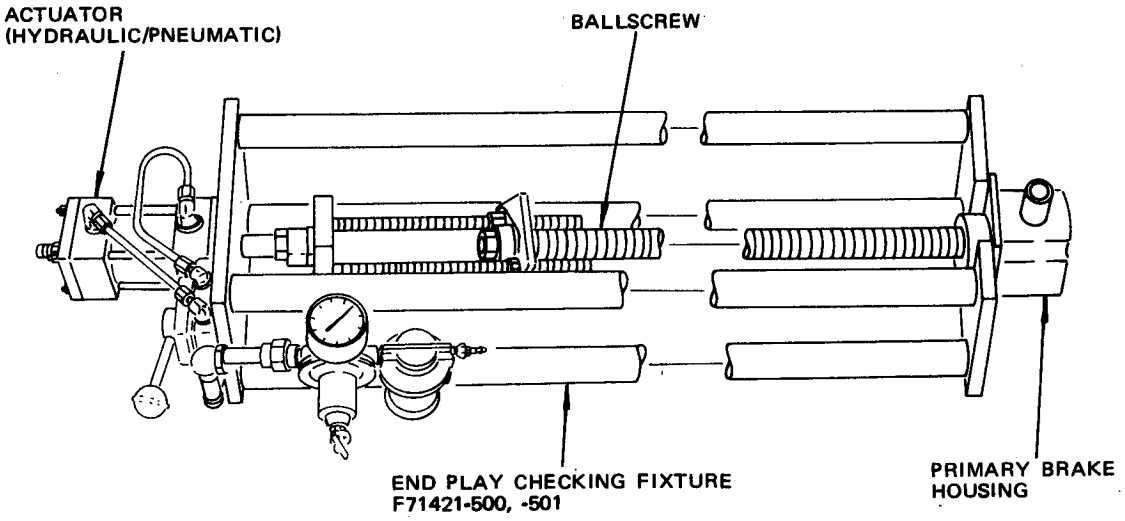
(1) Position the cable drum until the ballnut contacts the lower stop. The gap between the lower stop and the ballnut shall not be less than 0.15 inch or more than 0.17 inch (Fig. 502).

(2) With the ballnut against the lower stop, the ballnut shall be positioned as shown in Fig. 502 and the drum shall be within 10 degrees of position shown in the bottom view of Fig. 503.

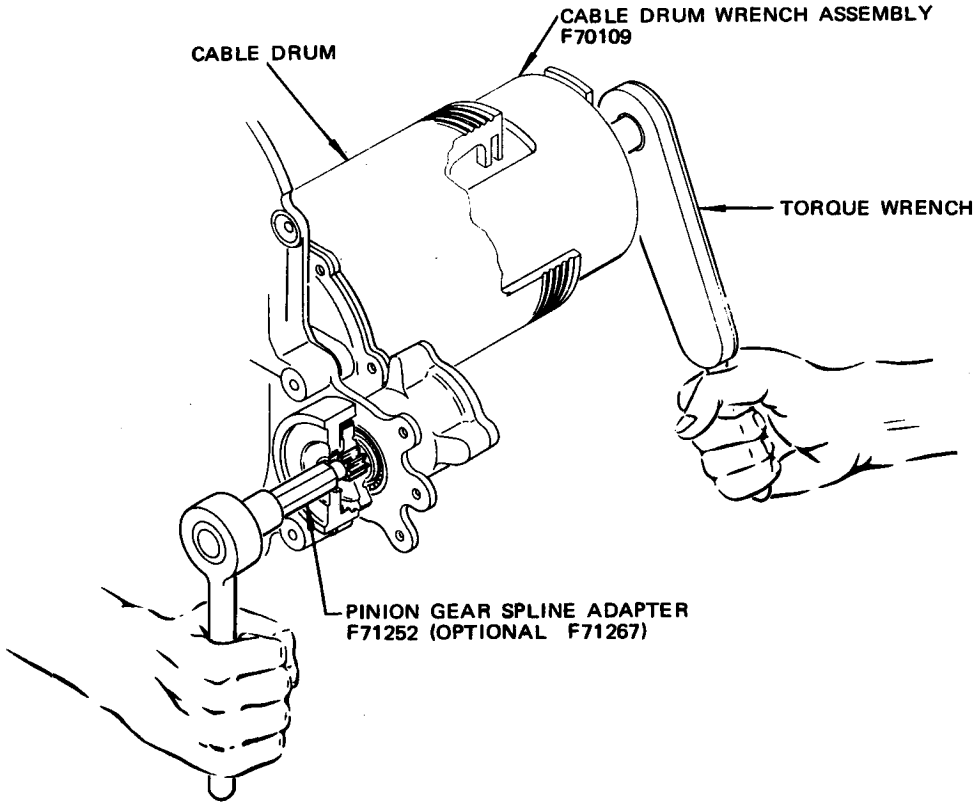
5. Post-Test Procedures

A. Remove test unit from test fixture.

B. Prepare unit for storage per Storage Instructions, page 901.



END PLAY TEST



DISCONNECT CLUTCH TEST

TROUBLE SHOOTING

1. Trouble During Test After Overhaul

Trouble	Possible Cause	Correction
A. Cable drum (220) sticks or is hard to rotate	Ball bearings binding.	Check, repair or replace defective parts
	Foreign matters in gear housing	
	Lockwire inside gear housing interferes	
B. Auxiliary brake (32, 65-49970-1 thru -24 only) slips upon application of torque	Worn shoes (35)	Check, repair or replace defective parts
	Springs (31) defective or worn	
	Worn brake race (40)	
C. Auxiliary brake(275, 65-49970-25 thru -29, 65C34751-2 thru -11, and 65C36486-3, -5, -7, -9 thru -11 slips upon application of torque	Nut (270) not adjusted properly	Check and readjust nut. Repair or replace defective parts
	Rotors (245) defective or worn	
D. Air leakage on primary brake housing (123)	Packing (48, 90, or 120) defective or not properly installed	Check and replace defective parts
	Seal ring (50) defective	
	Crack in housing	

STORAGE INSTRUCTIONS

1. After completion of tests, apply light coat of MIL-L-7870 oil on all ballscrew threads. Protect lubricated screw suitably during storage to prevent loss of oil film.

2. Wrap unit and tag with test data and date.

3. For further storage information refer to Subject 20-44-02, "Temporary Protective Coatings."

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

NOTE: Equivalent substitutes may be used for listed items.

1. Tools

   A. F70109 -- Cable drum wrench assembly

   B. F71252 -- Adapter (optional F71267)

   C. F71267 -- Pinion gear wrench assembly

   D. F71290-1 -- Bearing retainer nut spanner wrench

   E. F71290-2 -- Bearing retainer nut spanner wrench

   F. F71290-7 -- Bearing retainer nut spanner wrench

   G. F71291-500 -- Spring compressor

   H. F80053-1 -- Nut spanner wrench

   I. 7MIT5-88439 -- Gear retainer nut spanner wrench

   J. C27033-1 -- Retainer nut spanner wrench *[1]

   K. F80249-7 (Replaces -4, which replaced the CF5-88439-1) -- Torque socket

   L. C27026-24 (Replaces -1) -- Brake assembly test fixture

2. Fixtures

   A. Deleted.

   B. F71421-500, -501 -- End play checking fixture

   C. Deleted.

   D. F72924-1 -- Ball nut holder assembly (replaces SE27-4503)

   E. F71422-839 -- Cable tension test fixture (supersedes F71422-200) for 737-100 thru -500 models, or F71422-829 (supersedes F71422-501) for 737-100/-200 models only.

   F. F70167-1 -- Assembly Jig - Stablizer Trim Actuator

*[1] C27033-1 replaces NTMIT65C31565, for future procurement. Wrench NTMIT65C31565 is part of Service Bulletin Kit 65C31565-1 (Ref SB 27A1137)

ILLUSTRATED PARTS LIST

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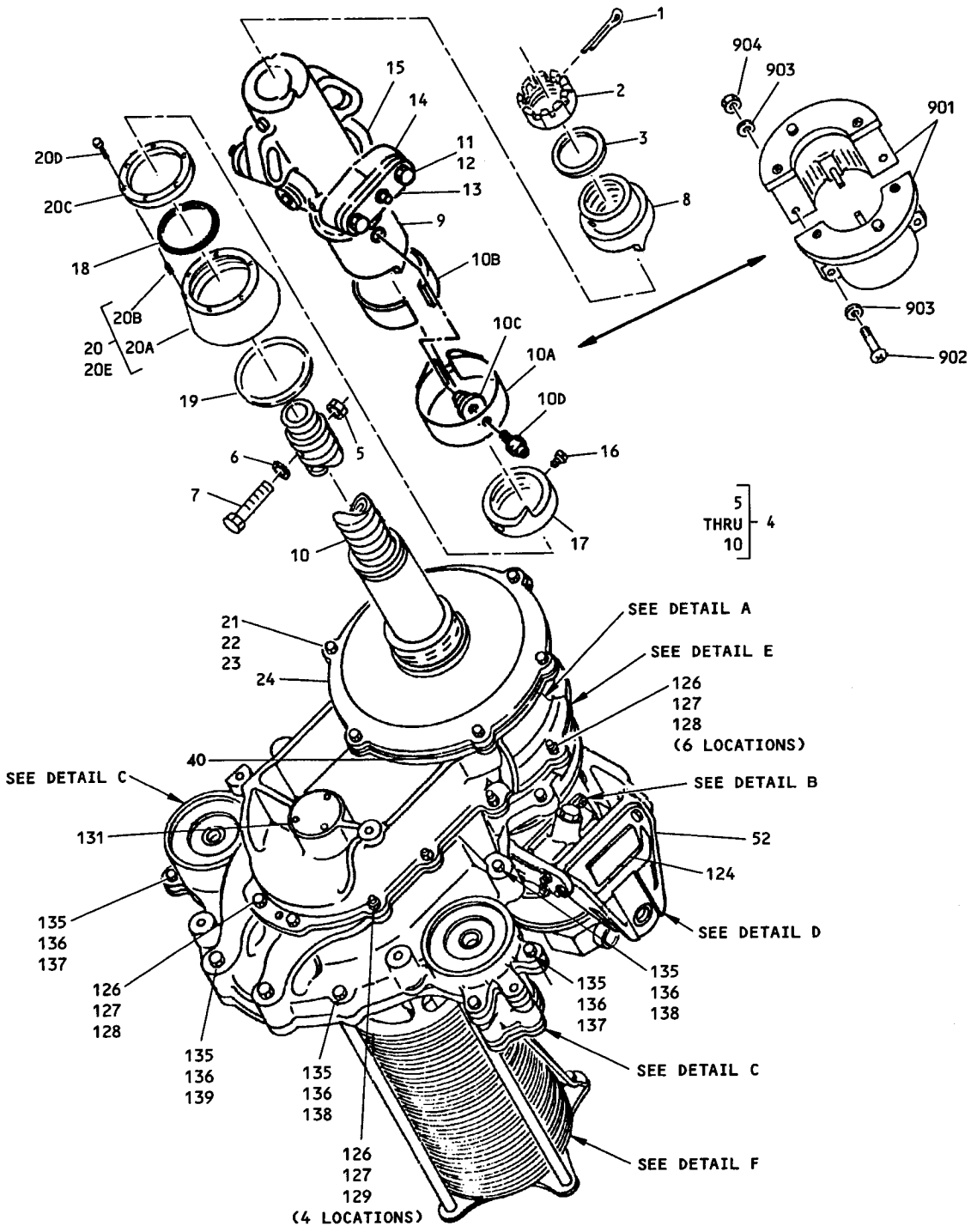
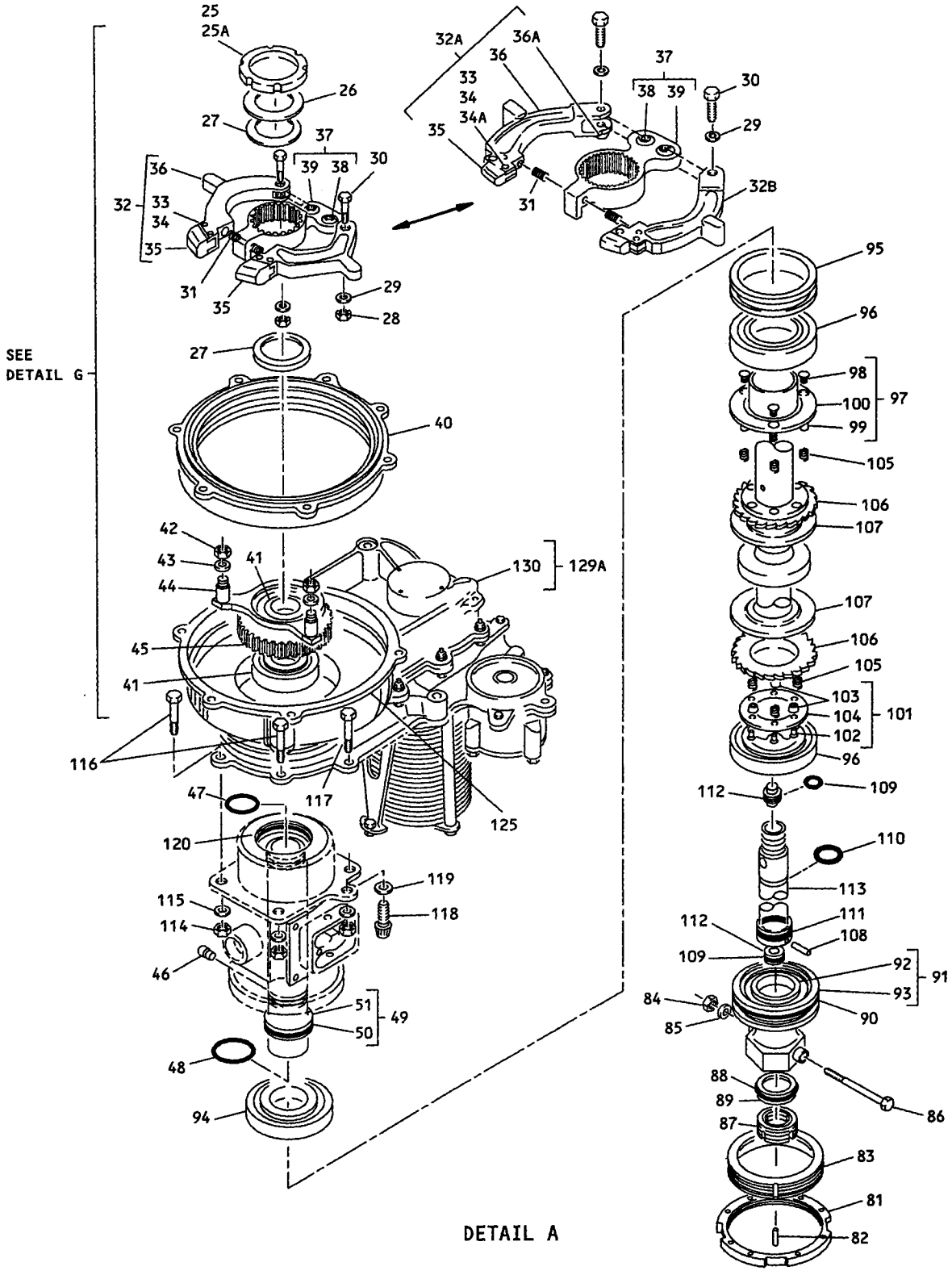
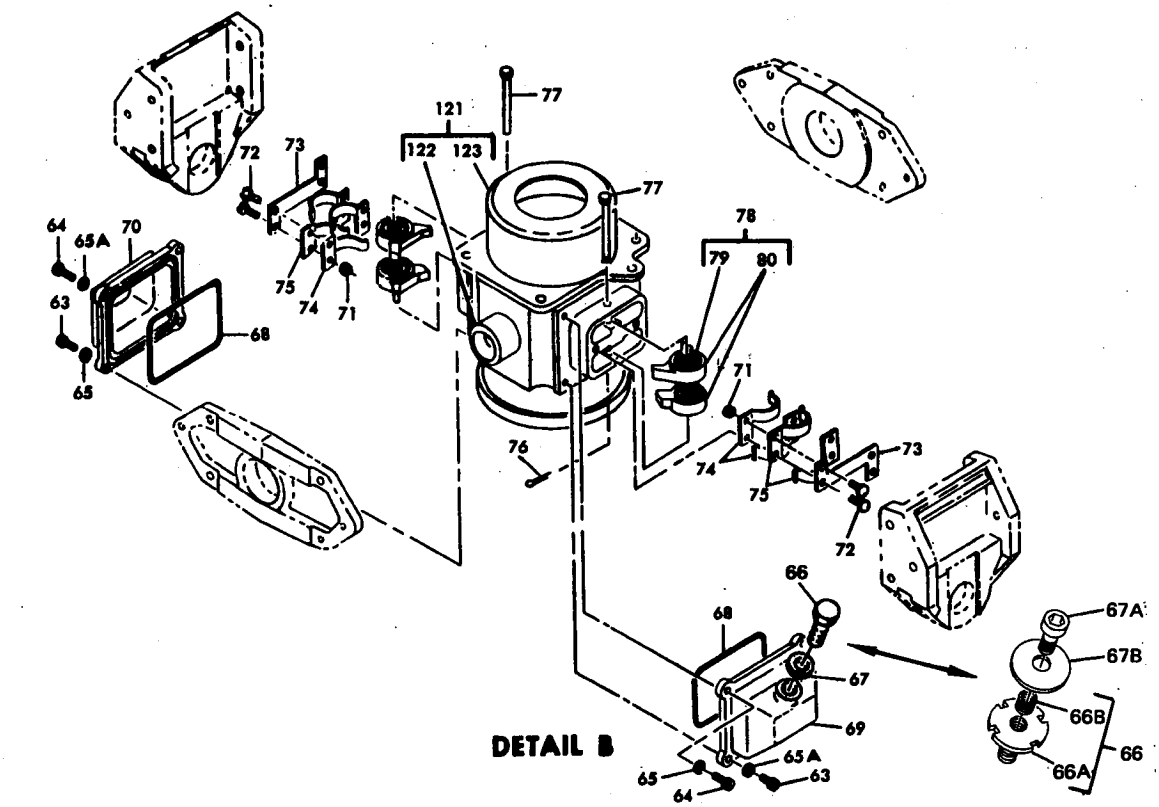
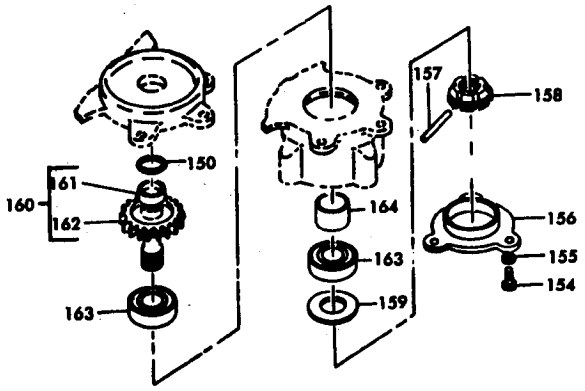


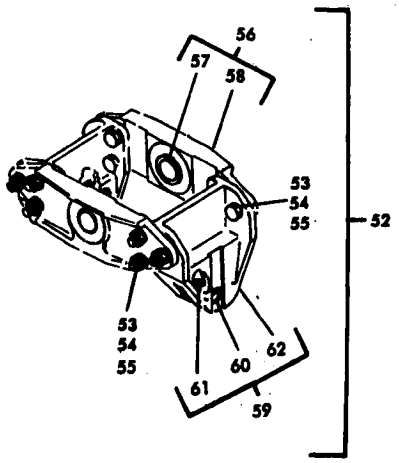
Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 1)



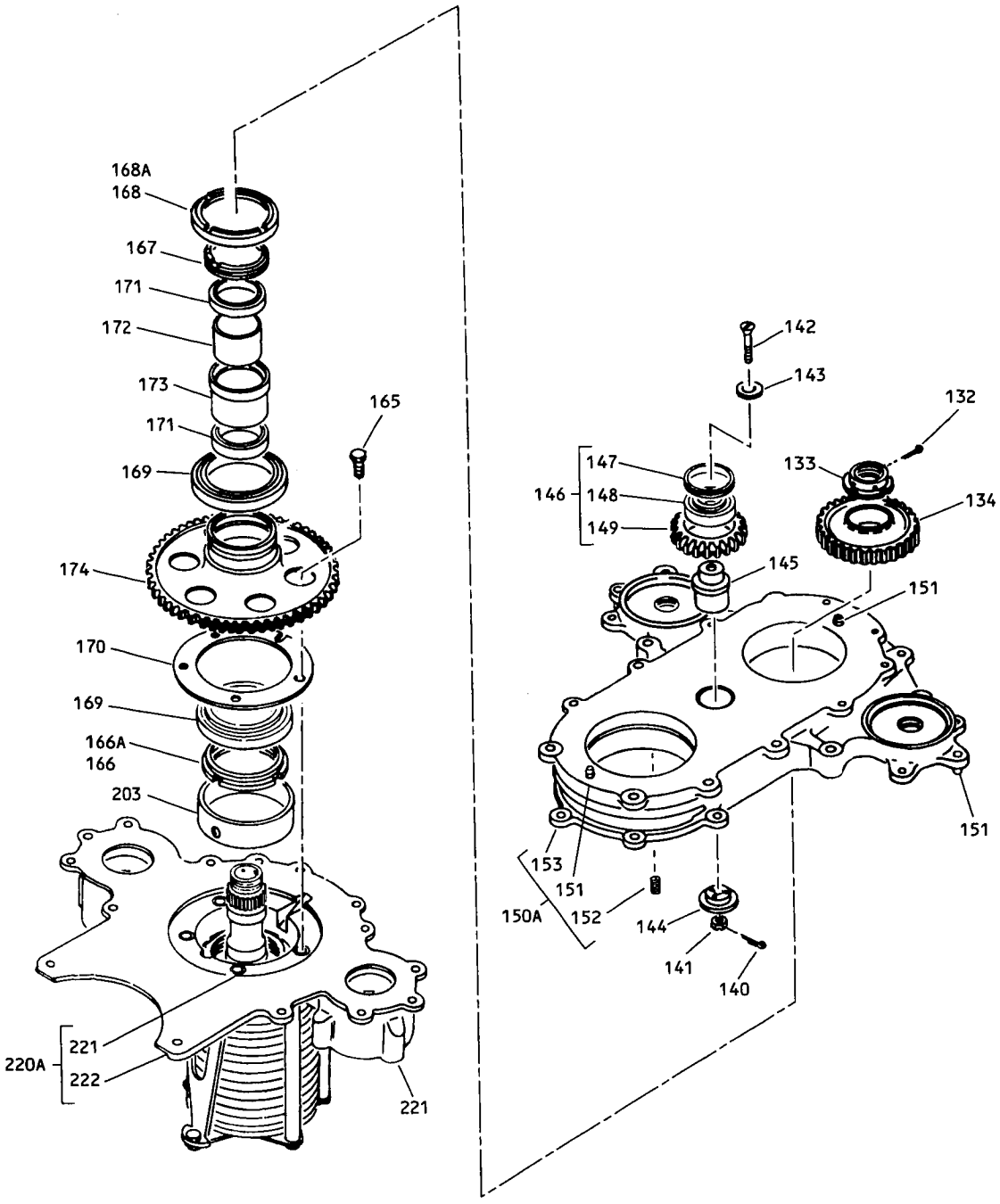
Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 2)







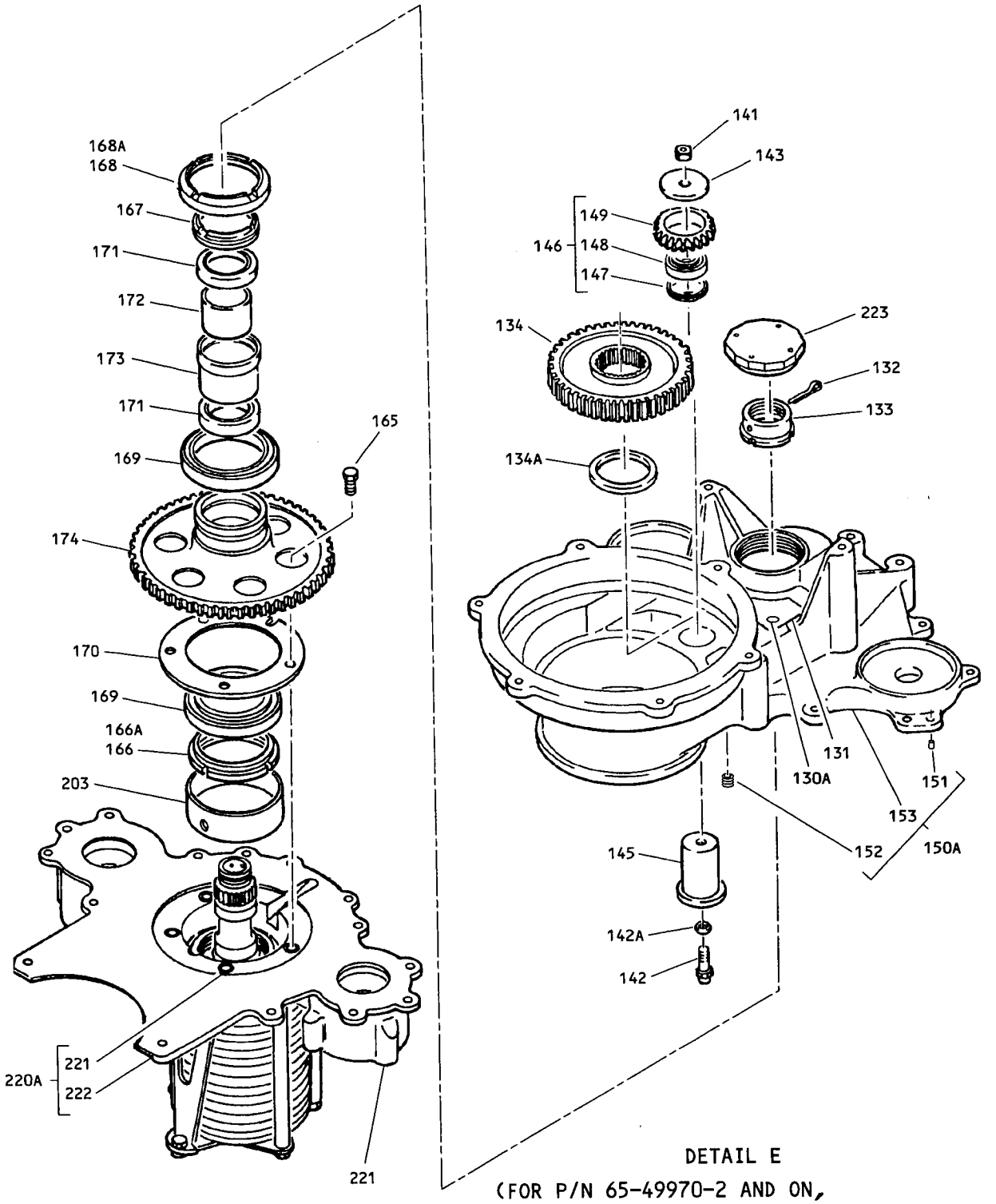
Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 3)



DETAIL E

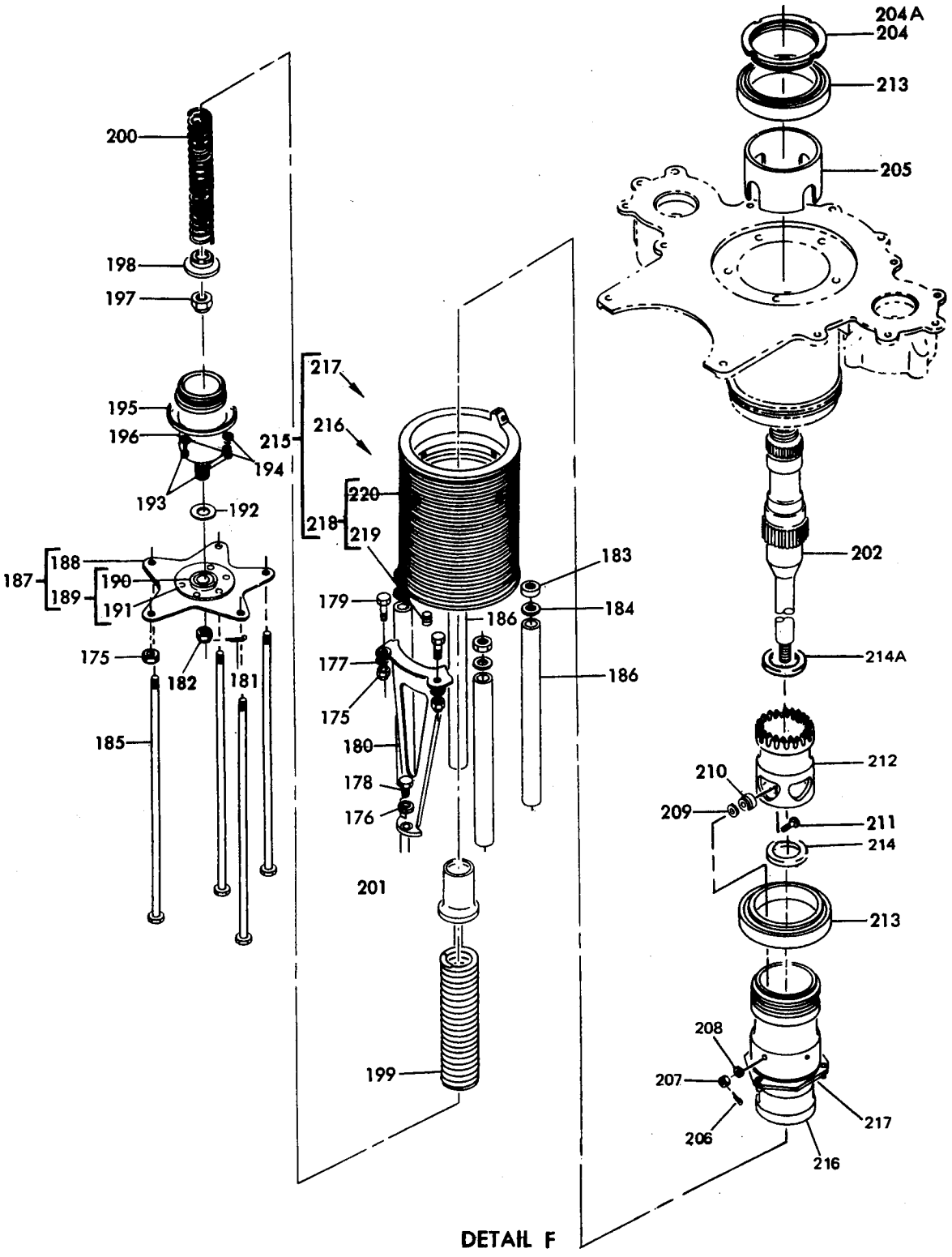
(FOR P/N 65-49970-1, 65C36486-11)

Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 4)



Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 5)

N84598


204A
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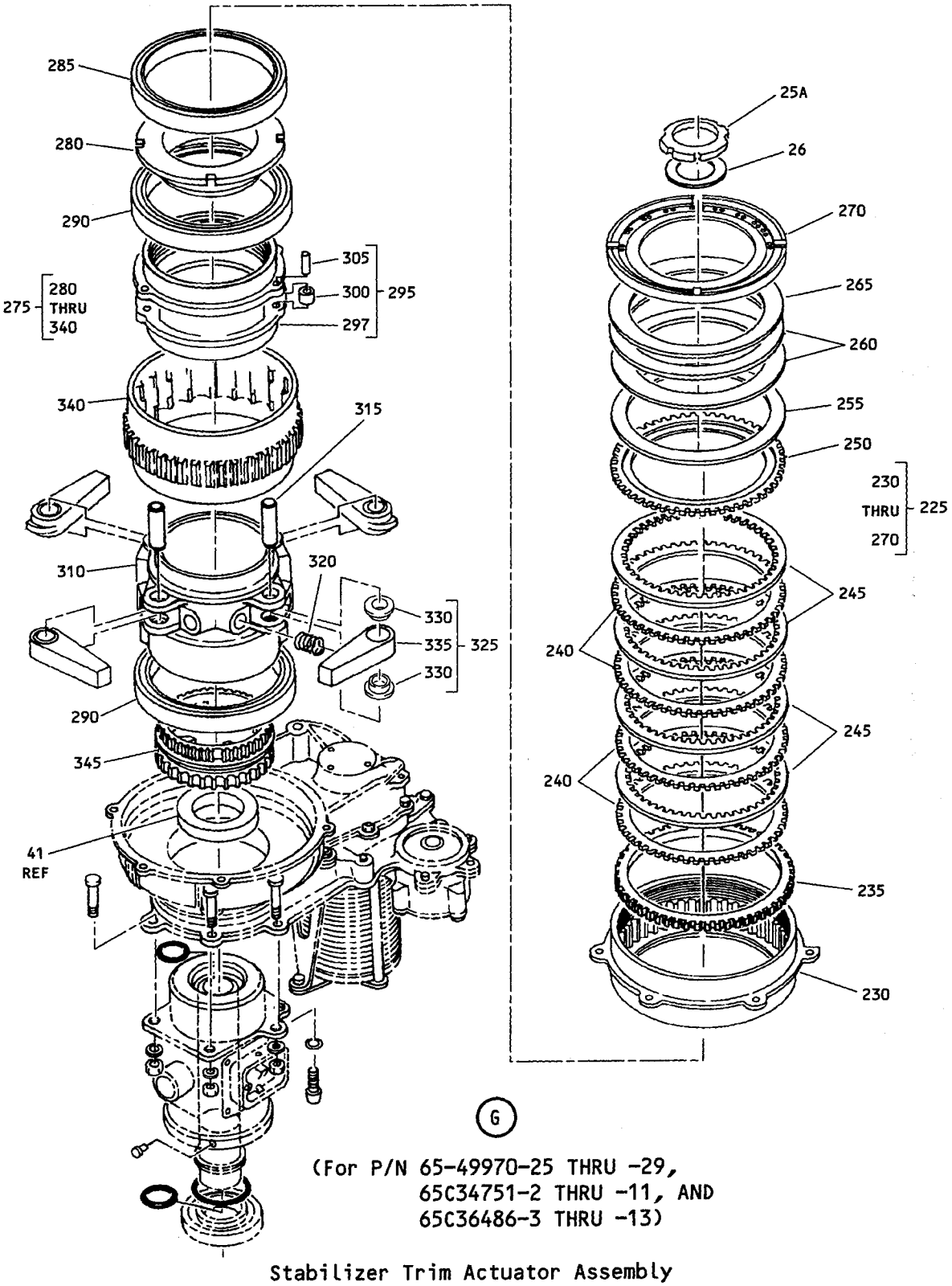
DETAIL F



(For P/N 65-49970-25 THRU -29,
65C34751-2 THRU -11, AND
65C36486-3 THRU -13)

Stabilizer Trim Actuator Assembly
Figure 1101 (Sheet 7)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
	65-49970-1		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	A	RF
	65-49970-2		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	B	RF
	65-49970-3		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	C	RF
	65-49970-4		DELETED		
	65-49970-5		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	D	RF
	65-49970-6		DELETED		
	65-49970-7		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	E	RF
	65-49970-9		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	F	RF
	65-49970-10		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	G	RF
	65-49970-12		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1176)	H	RF
	65-49970-13		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	I	RF
	65-49970-14		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	J	RF
	65-49970-15		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	K	RF
	65-49970-16		DELETED		
	65-49970-17		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	M	RF
	65-49970-18		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	N	RF
	65-49970-19		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	O	RF
	65-49970-20		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	P	RF
	65-49970-21		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	Q	RF
	65-49970-22		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	R	RF
	65-49970-23		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161)	S	RF
	65-49970-24		STABILIZER TRIM ACTUATOR ASSY (PRE SB 27-1161, 27-1176)	T	RF
	65-49970-25		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	U	RF

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
	65C34751-2		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	V	RF
	65C34751-3		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	W	RF
	65C34751-4		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	X	RF
	65C34751-5		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161)	Y	RF
	65C34751-6		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	Z	RF
	65C34751-7		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	BA	RF
	65C34751-8		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	CA	RF
	65C34751-9		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	DA	RF
	65C34751-10		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	EA	RF
	65C34751-11		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1161, 27-1176)	FA	RF
	65C36486-3		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	GA	RF
	65C36486-5		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	HA	RF
	65C36486-7		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	IA	RF
	65C36486-9		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	JA	RF
	65C36486-10		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	KA	RF
	65C36486-11		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	LA	RF
	65C36486-12		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	MA	RF
	65C36486-13		STABILIZER TRIM ACTUATOR ASSY (POST SB 27-1176)	NA	RF
	65-49970-26		STABILIZER TRIM ACTUATOR ASSY	OA	RF
	65-49970-27		STABILIZER TRIM ACTUATOR ASSY	PA	RF
	65-49970-28		STABILIZER TRIM ACTUATOR ASSY	QA	RF
	65-49970-29		STABILIZER TRIM ACTUATOR ASSY	RA	RF
1	MS24665-360		. PIN, COTTER		1
2	BACN10JD118		. NUT (REPLS AN320-18)		1
3	AN960-1816L		. WASHER		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
4	102J033-1		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-1) *[5]*[8] (PRE ALERT SB 737-27A1278)	A-E GA-IA LA NA	1
4	102J033-2		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-6) (POST ALERT SB 737-27A1278)	A-E GA-IA LA NA	1
4	102J033-3		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-1) *[5]*[8] (PRE ALERT SB 737-27A1278)	A-E GA-IA LA NA	1
4	102J033-502		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-7) (POST ALERT SB 737-27A1278)	A-E GA-IA LA NA	1
4	102J033-5		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-2) *[5]*[6]*[8]*[12] (PRE ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	102J033-502		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-7) (POST ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	102J033-501-6250		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-2) *[5]*[6]*[8]*[12] (PRE ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	102J033-502-6250		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-7) (POST ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	102J033-501-6243		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-2) *[5]*[6]*[8]*[12] (PRE ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	102J033-502-6243		. BALL NUT AND SCREW ASSY, V16553 (BOEING 10-61302-7) (POST ALERT SB 737-27A1278)	F-KNV WX BA JA KA MA	1
4	54032-003		. BALL NUT AND SCREW ASSY, V78062 (BOEING 10-61302-3) *[5] (PRE ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	7901701		. BALL NUT AND SCREW ASSY, V78062 (BOEING 10-61302-8) (POST ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	54032-003		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-3) *[5] (PRE ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-4	7901701		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-8) (POST ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	54032-005		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-3) *[5]*[12] (PRE ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	7901702		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-8) (POST ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	54032-006		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-3) *[5]*[12] (PRE ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	7901695		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-8) (POST ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	54032-006		. BALL NUT AND SCREW ASSY, V0A335 (BOEING 10-61302-3) *[5]*[12] (PRE ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	7901695		. BALL NUT AND SCREW ASSY, V0A335 (BOEING 10-61302-8) (POST ALERT SB 737-27A1278)	MPRTU Z DA FA OA	1
4	54032-004		. BALL NUT AND SCREW ASSY, V78062 (BOEING 10-61302-4) *[2]*[6] (PRE ALERT SB 737-27A1278)	OQSY CA EA	1
4	7901696		. BALL NUT AND SCREW ASSY, V78062 (BOEING 10-61302-9) (POST ALERT SB 737-27A1278)	OQSY CA EA	1
4	54032-004		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-4) *[2]*[6] (PRE ALERT SB 737-27A1278)	OQSY CA EA	1
4	7901696		. BALL NUT AND SCREW ASSY, V0KCH8 (BOEING 10-61302-9) (POST ALERT SB 737-27A1278)	OQSY CA EA	1
4	7826837		. BALL NUT AND SCREW ASSY, V0A335 (BOEING 10-61302-5) *[5]*[6]*[12] (PRE ALERT SB 737-27A1278)	PA	1
4	7901697		. BALL NUT AND SCREW ASSY, V0A335 (BOEING 10-61302-10) (POST ALERT SB 737-27A1278)	PA	1
4	07322P000-01		. BALL NUT AND SCREW ASSY, VA4147 (BOEING 10-62210-2) *[5]*[6]*[12] (PRE ALERT SB 737-27A1278)	QA	1
4	07322P000-02		. BALL NUT AND SCREW ASSY, VA4147 (BOEING 10-62210-3) *[5]*[6]*[12] (PRE ALERT SB 737-27A1278)	RA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
4	07322P000-06		. BALL NUT AND SCREW ASSY, VA4147 (BOEING 10-62210-5) (POST ALERT SB 737-27A1278)	QA	1
4	07322P000-04		. BALL NUT AND SCREW ASSY, VA4147 (BOEING 10-62210-7) (POST ALERT SB 737-27A1278)	RA	1
5	BACN10JC4		. . NUT		1
6	AN960-416		. . WASHER		2
7	NAS1104-29		. . BOLT		1
8	102C034-1		. . STOP	*[10]	1
8	54032-1060-1		. . STOP	*[10]	1
8	102C237-1		. . STOP	*[10]	1
8	07322P102-70		. . STOP	*[10]	1
9	102J050-1		. . BALL NUT ASSY	*[10]	1
9	54032-1011-1		. . BALL NUT ASSY	*[10]	1
9	102J234-1		. . BALL NUT ASSY	*[10]	1
9	102J234-501		. . BALL NUT ASSY	*[10]	1
9	102J234-503.6250		. . BALL NUT ASSY	*[10]	1
9	102J234-503.6243		. . BALL NUT ASSY	*[10]	1
9	07322P201-70		. . BALL NUT ASSY	*[10]	1
10	102J043-1		. . BALL SCREW	*[10]	1
10	54032-1000-1		. . BALL SCREW	*[10]	1
10	54032-1000-2		. . BALL SCREW	*[10]	1
10	102J235-1		. . BALL SCREW	*[10]	1
10	102J235-501.6250		. . BALL SCREW	*[10]	1
10	102J235-501.6243		. . BALL SCREW	*[10]	1
10	7826773		. . BALL SCREW	*[10]	1
10	07322P101-7		. . BALL SCREW	*[10]	1
10	07322P110-7		. . BALL SCREW	*[10]	1
10A			. CLAMP (ADDED BY SB 27-1046)	A-C GA LA NA	1
10B			. GASKET (ADDED BY SB 27-1046)	A-C GA LA NA	1
10C			. PLUG (ADDED BY SB 27-1046)	A-C GA LA NA	1
10D	MS15001-1		. FITTING, LUBE (ADDED BY SB 27-1046)	A-C GA LA NA	1
11	BACB30NE4H7		. BOLT (REPLS NAS1304-7H)	A-T V-NA	4
11	NAS6604H7		. BOLT	UOA-RA	4
12	AN960D416		. WASHER		4
13	65-49966-1		. PIN ASSY		2
13A	65-49966-2		. . PIN		1
13B	MS15001-2		. . FITTING, LUBE		1
14	69-37970-1		. FITTING, GIMBAL		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
15	69-37969-1		. YOKE		2
16	69-43426-1		. SCREW		2
17	65-56636-1		. STOP, LOWER		1
18	MS29513-137		. PACKING, O-RING		1
19	AR10104-33MH		. SEAL, V05939	A-T	1
19	AR10104-33MH		. SEAL, V05939 *[11]	U-RA	1
19	AR10104-333M1H		. SEAL, V00624	A-T	1
19	AR10104-333M1H		. SEAL, V00624 *[11]	U-RA	1
20	69-42134-1		. SEAL	A-T	1
20	69-77931-1		. UMBRELLA ASSY *[11]	U-RA	1
20A	69-77931-2		. . UMBRELLA	U-RA	1
20B	MS21209C0410		. . INSERT	U-RA	6
20C	69-77932-1		. CAP	U-RA	1
20D	NAS1352C04H6P		. SCREW	U-RA	6
20E	480147550-1		. SEAL ASSY, V05939 *[11]	U-RA	1
21	BACN10JC3		. NUT (REPLS NAS679A3W)	A-T	5
21	MS21042L3		. NUT	U-RA	6
22	AN960D10		. WASHER	A-T	5
22	AN960D10		. WASHER	U-RA	6
23	BACB30NE3-10		. BOLT (REPLS NAS1103-10)	A-T	5
23	NAS623-3-12		. BOLT	U-RA	6
24	65-49971-3		. COVER	A-T	1
24	65-49971-1		. COVER (OPT)	A	1
24	65C34617-1		. COVER	U-RA	1
25	69-39699-1		. NUT	A-F GA-JA LA NA	1
25A	69-67299-1		. NUT	G-FA KA MA OA-RA	1
25A	69-67298-1		. NUT (OPT)	G-FA KA MA	1
26	69-39491-2		. WASHER	A-T	1
26	69-77851-1		. WASHER	U-RA	1
27	69-45171-1		. SHIM	A-T	AR
28	BACN10JC4		. NUT (USED WITH 65-49962-5, ITEM 32)	A-F	2
29	AN960D416		. WASHER	A-T	2
30	BACB30NF4-15		. BOLT (USED WITH 65-49962-5, ITEM 32) (REPLS NAS1104-15)	A-F	2
30	BACB30NE4H15		. BOLT (USED WITH 65-49962-8, THRU -11)(REPLS NAS1304-15H)	A-T	2
31	MS24585-1179		. SPRING	A-T	2
32	65-49962-5		. ARM ASSY, SECONDARY BRAKE (OPT TO 65-49962-8, -9) (REPLD BY 65-49962-10,-11)	A-F	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
32A	65-49962-8		. ARM ASSY, SECONDARY BRAKE (PREF OPT TO 65-49962-5) (USED WITH 65-49962-9)(REPLD BY 65-49962-10)	A-Q	1
32A	65-49962-10		. ARM ASSY, SECONDARY BRAKE (USED WITH 65-49962-11) (SB 27-1142, SB 27-1143) (REPLS 65-49962 -5,-8)	A-T	1
32B	65-49962-9		. ARM ASSY, SECONDARY BRAKE (PREF OPT TO 65-49962-5)(USED WITH 65-49962-8)(REPLD BY 65-49962-11)	A-Q	1
32B	65-49962-11		. ARM ASSY, SECONDARY BRAKE (USED WITH 65-49962-10)(SB 27-1142, SB 27-1143)(REPLS 65-49962-5,-9)	A-T	1
33	BACB30GW6A9		. . BOLT		2
33	BACB30FM6-9		. . BOLT (USED ON ITEMS 32A,32B) *[1] (SB 27A1137, SB 27-1142, SB 27-1143)		2
33	BACB30KK6-9		. . BOLT (USED ON ITEMS 32A,32B) *[1] (SB 27A1137, SB 27-1142, SB 27-1143)		2
34	BACC30K6		. . COLLAR (REPLS NAS1080E6)		2
34	BACC30M6		. . COLLAR (USED ON ITEMS 32A,32B) (SB 27A1137, SB 27-1142, SB 27-1143) *[1]		2
34	BACC30R6		. . COLLAR (USED ON ITEMS 32A,32B) (SB 27A1137, SB 27-1142, SB 27-1143) *[1]		2
34A	BACW10AW103S		. . WASHER (USED ON ITEMS 32A,32B) (SB 27A1137, SB 27-1142, SB 27-1143) *[1]		2
35	69-37485-2		. . SHOE, BRAKE (USED ON 65-49962-5, -8,-9)(REPLD BY 69-76929-2)		1
35	69-76929-1		. . SHOE, BRAKE (USED ON 65-49962-8, -9)(OPT)(SB-27A1137)(REPLD BY 69-76929-2)		1
35	69-76929-2		. . SHOE, BRAKE (REPLS 69-37485-2, 69-76929-1)		1
36	65-49962-6		. . ARM, BRAKE		1
36A	BACN10JN4		. . NUTPLATE (USED ON 65-49962-8 THRU -11)(REPLS NAS1068A4)		1
37	65-49960-1		. DOG ASSY, PICKUP	A-H	1
37	65-49960-4		. DOG ASSY, PICKUP	I-T	1
38	BACB10C160H		. . BEARING		2
39	65-49960-2		. . DOG, PICKUP	A-H	1
39	65-49960-5		. . DOG, PICKUP	I-T	1
40	65-49979-1		. RACE, BRAKE	A-T	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
41	9240		. BEARING, BALL, V06144	A-T	2
41	XJ88KK		. BEARING, BALL, V43991 (OPT)	A-T	2
41	BACB10BB65PP		. BEARING, BALL (OPT)	A-T	2
41	BACB10BB65PP		. BEARING, BALL	U-RA	1
41	XJ88KK		. BEARING, BALL, V43991 (OPT)	V-NA	1
41	9240		. BEARING, BALL, V06144 (OPT)	V-NA	1
42	BACN10JC4		. NUT (REPLS NAS679A4W)	A-T	2
43	AN960D416		. WASHER	A-T	2
44	10-60516-234		. ROLLER	A-T	2
45	65-49961-1		. GEAR, UNLOCK	A-T	1
46	69-45130-1		. PIN, RETAINING		1
47	MS29513-132		. PACKING, O-RING		1
48	MS29513-225		. PACKING, O-RING		1
49	65-49975-3		. SLEEVE ASSY	AB	1
49	65-49975-6		. SLEEVE ASSY (OPT TO 65-49975-3)	C-IK	1
49	65-49975-8		. SLEEVE ASSY	JM-T	1
49	65C34615-1		. SLEEVE ASSY	U-RA	1
50	69-36083-14		. . RING, SEAL		1
51	65-49975-4		. . SLEEVE, LOWER	AB	1
51	65-49975-5		. . SLEEVE, LOWER	C-IKT	1
51	65-49975-7		. . SLEEVE, LOWER	JM-S	1
51	65C34615-2		. . SLEEVE, LOWER	U-RA	1
52	65-49963-1		. GIMBAL ASSY, LOWER (MATCHED SET)	A-C GA LA NA	1
52	65-49963-2		. GIMBAL ASSY, LOWER (MATCHED SET)	DE HA IA	1
52	65-49963-3		. GIMBAL ASSY, LOWER (MATCHED SET)	F-SV-FA JA KA MA	1
52	65-49963-4		. GIMBAL ASSY, LOWER (MATCHED SET)	TU OA-RA	1
53	BACN10JC4		. . NUT (REPLS NAS679A4W)		12
54	AN960D416		. . WASHER		12
55	BACB30NF4-9		. . BOLT (REPLS NAS1104-12)		12
56	65-49964-1		. . YOKE ASSY	A-C GA LA NA	2
56	65-49964-4		. . YOKE ASSY	D-FA HA-KA MA OA-RA	2
57	66-23587-1		. . . BUSHING		1
58	65-49964-2		. . . YOKE	A-C GA LA NA	1
58	65-49964-5		. . . YOKE (PREF)	D-FA HA-KA MA OA-RA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-58	65-49964-10		. . . YOKE (OPT 65-49964-5)	D-FA HA-KA MA OA-RA	1
59	65-49965-1		. . FORK ASSY	A-E GA-IA LA NA	2
59	65-49965-4		. . FORK ASSY	F-FA JA KA MA OA-RA	2
60	66-23586-1		. . . BUSHING		1
61	66-23586-2		. . . BUSHING		1
62	65-49965-2		. . . FORK	A-E GA-IA LA NA	1
62	65-49965-5		. . . FORK	F-FA JA KA MA OA-RA	1
63	MS24678-10		. SCREW	A-T	4
63	MS24678-10C		. SCREW	U OA-RA	4
63	NAS1351-3H8P		. SCREW (OPT)	U OA-RA	4
64	MS24678-20		. SCREW	V-NA	4
64	MS24678-20C		. SCREW	U OA-RA	4
64	NAS1351-4H8P		. SCREW (OPT)	U OA-RA	4
65	AN960D416		. WASHER		4
65A	AN960D10		. WASHER		4
66	AN814-4DL		. PLUG	A-S	1
66	69-77732-1		. PLUG ASSY (OPT)	A-S	1
66	69-77732-1		. PLUG ASSY	T-RA	
66A	69-77732-2		. . PLUG		
66B	MS21209F1-10		. . INSERT		
67	MS28778-4		. PACKING, O-RING		
67A	NAS1351-3H6		. BOLT	T-RA	
67B	BACW10P69S		. WASHER	T-RA	
68	AN6230B16		. GASKET, O-RING (REPLS AN6230-16)		
69	65-49974-1		. CAP		
70	65-49974-2		. CAP		
71	BACN10JC3		. NUT	A-TV-NA	
71	MS21042L3		. NUT	U OA-RA	
72	MS24678-10		. SCREW (REPLS BACS12AG8F)	A-T V-NA	
72	MS24678-10C		. SCREW	U OA-RA	8
72	NAS1351-3H8P		. SCREW (OPT)	U OA-RA	8
73	60-4005		. PLATE, SPRING RETAINER		
74	69-13364-1		. SPRING, INNER BRAKE PAWL		

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
75	69-13364-2		. SPRING, OUTER BRAKE PAWL		
76	MS24665-3		. PIN, COTTER		
77	30-2668-1		. PIN, BRAKE PAWL PIVOT		
78	60-4003		. PAWL ASSY, BRAKE		
79	BACB10CB4		. . BEARING (REPLS AN207DPP4)		
80	60-4003-1		. . PAWL, BRAKE		
81	69-40222-1		. NUT	A-KNVW X BA GA-NA	
81	69-40222-3		. NUT	MO-UYZ CA-FA OA-RA	
82	NAS559-3		. KEY		
83	69-39652-1		. NUT	A-KNVW X BA GA-NA	
83	69-39652-2		. NUT	MO-UYZ CA-FA OA-RA	
84	BACN10JC3		. NUT (REPLS NAS679A3W)	A-TV-NA	
84	MS21042L3		. NUT	U OA-RA	
85	AN960D10		. WASHER		
86	BACB30NE3-46		. BOLT (REPLS NAS1103-46)		
86	BACB30NE3-44		DELETED		
87	69-39448-1		. NUT	A-KNVW X BA GA-NA	
87	69-39448-2		. NUT	MO-UYZ CA-FA OA-RA	1
88	MS29513-138		. PACKING, O-RING		1
89	69-39447-1		. PLUG	A-KNVW X BA GA-NA	1
89	69-39447-2		. PLUG	MO-UYZ CA-FA OA-RA	1
90	MS29513-240		. PACKING, O-RING		1
91	65-49976-1		. PLUG ASSY, HOUSING	AB LA NA	1
91	65-77422-1		. PLUG ASSY, HOUSING	C-KNVW X BA GA-KA MA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-91	69-76300-1		. PLUG ASSY, HOUSING	MO-UYZ CA-FA OA-RA	1
91	65-77422-1		. PLUG ASSY, HOUSING (OPT)	U	1
91	65-77422-3		. PLUG ASSY, HOUSING (OPT)	U OA-RA	1
92	BACB10BA45PP		. . BEARING (REPLS BACB10A137)		1
93	65-49976-2		. . PLUG (USED ON 65-49976-1)	AB LA NA	1
93	65-77422-2		. . PLUG (USED ON 65-77422-1)	C-KNUV WX BA GA-KA MA	1
93	65-77422-4		. . PLUG (USED ON 65-77422-3)	U OA-RA	1
93	65C31280-3		. . PLUG (OPT) (USED ON 69-76300-1)	MO-UYZ CA-FA OA-RA	1
93	65C31280-1		. . PLUG (USED ON 69-76300-1)	MO-UYZ CA-FA OA-RA	1
94	BACB10BA65PP		. BEARING (REPLS BACB10A525)		1
95	69-45122-1		. SPACER	A-KNVW X BA GA-NA	1
95	69-45122-2		. SPACER	MO-UYZ CA-FA OA-RA	1
96	211NPPE8183		. BEARING, V21335		2
97	69-39410-3		. RING ASSY, RATCHET SUPPORT		1
98	BACB30DY6-2		. . BOLT		3
99	BACC30K6		. . COLLAR (REPLS NAS1080-6)		3
100	69-39410-4		. . RING		1
101	69-39411-1		. RING ASSY, RATCHET SUPPORT		1
102	BACB30DY6-2		. . BOLT		3
103	BACC30K6		. . COLLAR (REPLS NAS1080-6)		3
104	69-39411-2		. . RING		1
105	MS24585C158		. SPRING, COMPRESSION		6
106	69-39412-1		. PLATE, RATCHET		2
107	69-39413-1		. PLATE, BRAKE		2
108	MS16562-51		. PIN		1
109	MS29513-113		. PACKING, O-RING		2
110	MS29513-120		. PACKING, O-RING		1
111	MS29513-123		. PACKING, O-RING		1
112	66-24938-1		. PLUG		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-113	65-49977-1		. ROD, SAFETY *[6]	A-NPR T-XZ BA DA FA-RA	1
113	65-58102-1		. ROD, SAFETY (OPT)	A-F GA-JA LA NA	1
113	65C29264-1		. ROD, SAFETY (OPT) *[6]	JMNPRT UWZ BA DA FA	1
113	65C29264-5		. ROD, SAFETY *[2] *[6]	OQSY CA EA	1
114	BACN10JC4		. NUT (REPLS NAS679A4W)	A-TV-NA	4
114	MS21042L4		. NUT	U OA-RA	4
115	AN960D416		. WASHER		4
116	BACB30NF4-6		. BOLT (REPLS NAS1104-6)	A LA	2
116	BACB30NF4-8		. BOLT (REPLS NAS1104-8)	B-KA MA-RA	2
117	BACB30NF4-10		. BOLT (REPLS NAS1104-10)	A LA	2
117	BACB30NF4-8		. BOLT (REPLS NAS 1104-8)	B-KA MA-RA	2
118	MS20005H6		. BOLT	A LA	2
118	NAS1351-5H14		. SCREW	B-KA MA-RA	2
119	MS20002C5		. WASHER		2
120	MS29513-336		. PACKING, O-RING		1
121	65-49972-3		. HOUSING ASSY, PRIMARY BRAKE	AB LA NA	1
121	65-77440-1		. HOUSING ASSY, PRIMARY BRAKE	C-KN V-X BA GA-KA MA	1
121	65C31241-1		. HOUSING ASSY, PRIMARY BRAKE	MO-UYZ CA-FA OA-RA	1
121	65-77440-3		. HOUSING ASSY, PRIMARY BRAKE (OPT)	U OA-RA	1
122	66-24915-1		. . SLEEVE	A-KN V-X BA GA-NA	2
122	66-24915-2		. . SLEEVE	MO-UYZ CA-FA OA-RA	2
123	65-49972-4		. . HOUSING	AB LA NA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-123	65-77440-2		. . HOUSING	C-KN V-X BA GA-KA MA	1
123	65-77440-4		. . HOUSING (USED ON 65-77440-3)	U OA-RA	1
123	65C31241-2		. . HOUSING (USED ON 65C31241-1)	MO-UYZ CA-FA OA-RA	1
124	BACM9C5BR		. MARKER *[7] USED WITH AN814-4DL)	A-S	1
125	65-49978-1		. HOUSING ASSY (MATCHED SET) *[9]	A LA	1
125	65-63610-1		. HOUSING ASSY (MATCHED SET) *[9]	B-KA MA-RA	1
126	BACN10JC4		. NUT (REPLS NAS679A4W)	A LA	12
127	AN960D416		. WASHER	A LA	12
128	BACB30NF4-9		. BOLT (REPLS NAS1104-9)	A LA	8
129	BACB30NF4-11		. BOLT (REPLS NAS1104-11)	A LA	4
129A	65-49978-1		. HOUSING ASSY (MATCHED SET) (REF ITEM 125)	A LA	RF
130	65-49978-4		. . HOUSING, UPPER		1
130A	BACR15BB-3		. RIVET	A LA	3
130A	BACR15BB-3		. RIVET	B-KA MA-RA	2
131	69-43407-1		. NAMEPLATE	A LA	1
131	69-43407-2		. NAMEPLATE	B-KA MA-RA	1
132	MS24665-281		. PIN		1
133	30-2661		. NUT		1
134	90-3583		. GEAR, SPUR	A LA	1
134	90-3583-1		. GEAR, SPUR	B-KA MA-RA	1
134A	69-50832-1		. SPACER	B-KA MA-RA	1
135	BACN10JC4		. NUT (REPLS NAS479A4W)	A LA	7
135	BACN10JC4		. NUT (REPLS NAS679A4W)	B-T V-KA MA NA	8
135	MS21042L4		. NUT	U OA-RA	8
136	AN960D416		. WASHER	A LA	7
136	AN960D416		. WASHER	B-KA MA-RA	8
137	BACB30NF4-7		. BOLT (REPLS NAS1104-7)		4
138	BACB30NF4-17		. BOLT (REPLS NAS1104-17)	A LA	1
138	BACB30NF4-15		. BOLT (REPLS NAS1104-15)	B-KA MA-RA	2
139	BACB30NF4-25		. BOLT (REPLS NAS1104-25)	A LA	2
139	BACB30NF4-26		. BOLT (REPLS NAS1104-26)	B-KA MA-RA	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
140	MS24665-134		. PIN	A LA	1
141	BACN10JD4		. NUT (REPLS AN310-4)	A LA	1
141	BACN10JC4		. NUT (REPLS NAS679A4W)	B-T V-KA MA NA	1
141	MS21042L4		. NUT	U OA-RA	1
142	BACB30LU4-24		. BOLT (REPLS NAS334CP17-5)	A LA	1
142	MS20004-4		. BOLT	B-KA MA-RA	1
142A	AN960D416		. WASHER	B-KA MA-RA	1
143	30-2479		. WASHER	A LA	1
143	BACW10CP4		. WASHER (REPLS AN970-4)	B-KA MA-RA	1
144	30-2480-1		. PLUG	A LA	1
145	60-3259		. ADAPTER	A LA	1
145	69-50831-1		. ADAPTER	B-KA MA-RA	1
146	90-3590		. GEAR ASSY, IDLER		1
147	BACR12Y23		. . RING, STAKING		1
148	BACB10FS16		. . BEARING (OPTIONAL TO BACB10BX16)		1
148	BACB10BX16		. . BEARING (REPLS BACB10A686)		1
148	BACB10A686		. . BEARING (REPL BY BACB10BX16) (REPLS AN201KP16A)		1
148	AN201KP16A		. . BEARING (REPL BY BACB10A686)		1
149	90-3590-1		. . GEAR, IDLER		1
150	AN6227B16		. PACKING, O-RING (REPLS AN6227-16)		2
150A	65-49978-1		. HOUSING ASSY (MATCHED SET)(REFER TO ITEM 125)	A LA	RF
150A	65-63610-1		. HOUSING ASSY (MATCHED SET)(REFER TO ITEM 125)	B-KA MA-RA	RF
151	NAS607-4-5P		. . PIN	A LA	4
151	NAS607-4-5P		. . PIN	B-KA MA-RA	2
152	MS21208F5-20		. . INSERT		2
153	65-49978-3		. . HOUSING, CENTER	A LA	1
153	65-63610-2		. . HOUSING, UPPER	B-KA MA-RA	1
154	BACB30NE4H3		. BOLT (REPLS NAS1304-3H)	A-T V-NA	6
154	NAS6604H3		. BOLT	U OA-RA	6
155	AN960D416		. WASHER		6
156	90-3272-2		. CAP, END		2
157	NAS561CF5-22		. PIN		2
158	66-19334-1		. NUT, LOCK		2
159	3515-36-02-0541		. WASHER, V78189		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
160	69-44011-8		. GEAR ASSY, PINION		2
160	69-44011-6		. GEAR ASSY, PINION (OPT)	A-F GA-JA LA NA	2
161	69-36083		. . RING, SEAL		1
162	69-44011-7		. . GEAR		1
163	BACB10BX16		. BEARING (REPLS BACB10A686)		4
164	30-2414-1		. SPACER		2
165	BACB30NE4H1		. BOLT (REPLS NAS1304-1H)	A-TV-NA	5
165	NAS6604H1		. BOLT	U OA-RA	5
166	60-3113-1		. NUT	A-F GA-JA LA NA	1
166A	69-67128-1		. NUT	G-FA KA MA OA-RA	1
167	60-3114		. NUT		1
168	60-3115		. NUT	A-F GA-JA LA-NA	1
168A	69-67128-1		. NUT	G-FA KA MA OA-RA	1
169	BACB10BW49		. BEARING (REPLS BACB10A557)		2
169	BACB10FL49		. BEARING (OPT)		2
170	60-3286-1		. PLATE, BEARING RETAINER		1
171	BACB10BW25		. BEARING (REPLS BACB10A824)		2
172	30-2493-1		. SPACER		1
173	30-2538-1		. SPACER		1
174	50-3132-2		. GEAR, CLUTCH	A-IV GA-NA	1
174	50-3132		. GEAR, CLUTCH (OPT)	A LA	1
174	50-3132-3		. GEAR, CLUTCH	J-UW-FA OA-RA	1
175	BACN10JC4		. NUT (REPLS NAS679A4W)	A-TV-NA	3
175	MS21042L4		. NUT	U OA-RA	3
176	NAS1197-416L		. WASHER		1
177	NAS1197-416		. WASHER		2
178	BACB30NF4-4		. BOLT (REPLS NAS1104-4)		1
179	BACB30NF4-7		. BOLT (REPLS NAS1104-17)	A LA	2
179	BACB30NF4-5		. BOLT (REPLS NAS1104-5)	B-KA MA-RA	2
180	65-19383-1		. GUARD	A-D GA HA LA NA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-180	65-19383-3		. GUARD	E-FA IA-MA OA-RA	1
181	MS24665-287		. PIN		1
182	BACN10JD6		. NUT (REPLS AN310-6)		1
183	BACN10JC4		. NUT (REPLS NAS679A4)	A-TV-NA	4
183	MS21042L4		. NUT	U OA-RA	4
184	AN960D416		. WASHER		4
185	BACB30NF4-172		. BOLT (REPLS NAS1104-172)		4
186	66-13760-1		. SPACER	A-G GA-LA NA	4
186	66-13760-2		. SPACER	H-FA MA OA-RA	4
187	69-14878-1		. SUPPORT ASSY, CABLE GUARD		1
188	66-12616-1		. . SUPPORT		1
189	66-12615-1		. . BEARING ASSY		1
190	BACB10A543		. . . BEARING, BALL (REPLS AN201KP6A)		1
191	66-12615-2		. . . HOUSING		1
192	BACW10P73S		. WASHER		1
193	BACB30NE4H4		. BOLT (REPLS NAS1304-4H)	A-TV-NA	3
193	NAS6604H4		. BOLT	U OA-RA	3
194	AN960D416		. WASHER		3
195	66-13875-1		. RETAINER		1
196	65-39591-3		. CAP		1
197	BACN10JC6		. NUT (REPLS AN310-6)	A-TV-NA	1
197	MS21042L6		. NUT	U OA-RA	1
198	66-9676		. RETAINER, SPRING		1
199	63-10102		. SPRING (REPLD BY 69-76287-1)	A-KNVW X BA GA-NA	1
199	69-76287-1		. SPRING (REPLS 63-10102)	MO-UYZ CA-FA OA-RA	1
200	63-10130		. SPRING (REPLD BY 69-76288-1)	A-KNVW X BA GA-NA	1
200	69-76288-1		. SPRING (REPLS 63-10130)	MO-UYZ CA-FA OA-RA	1
201	66-9677-1		. SPACER		1
201	66-9677		. SPACER (OPT)	A LA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
202	69-10020-2		. SHAFT		1
202	69-10020-1		. SHAFT (OPT)	A LA	1
203	30-2531-1		. SPACER		1
204	60-3113-1		. NUT	A-F GA-JA LA NA	1
204A	69-67128-1		. NUT	G-FA KA MA OA-RA	1
205	66-12856-2		. SPACER		1
206	MS24665-134		. PIN, COTTER		4
207	BACN10JD103		. NUT (REPLS AN320-3)		4
208	AN960D10L		. WASHER		4
209	30-3564		. WASHER		4
210	BACB10BN03		. BEARING (REPLS BACB10B130)(REPLD BY BACB10ET03)		4
210	BACB10ET03		. BEARING (REPLS BACB10BN03)		4
211	30-3565		. SCREW		4
212	90-4037-3001		. CLUTCH		1
213	BACB10BW49		. BEARING (REPLS BACB10A557)		2
213	BACB10FL49		. BEARING (OPT)		2
214	30-2489		. WASHER *[3]		1
214A	69-77238-1		. SPACER *[3]	P-UY DA-FA OA-RA	1
215	65-19590-5		. DRUM ASSY (MATCHED SET)		1
215	65-19590-4		. DRUM ASSY (MATCHED SET) (OPT)	A-TV-NA	1
215	65-19590-3		. DRUM ASSY (MATCHED SET) (OPT)	A LA	1
216	65-19471-3		. . SHAFT (USED ON 65-19590-3)	A LA	1
216	65-19471-4		. . SHAFT (USED ON 65-19590-4)		1
216	65-19471-5		. . SHAFT (USED ON 65-19590-5)		1
217	NAS607-4-6P		. . PIN, DOWEL		3
218	65-18763-1		. . DRUM ASSY		1
219	MS21208F4-15		. . . INSERT		3
220	65-18763-2		. . . DRUM		1
220A	65-49978-1		. HOUSING ASSY (MATCHED SET) (REF ITEM 125)	A LA	RF
220A	65-63610-1		. HOUSING ASSY (MATCHED SET) (REF ITEM 125)	B-KA MA-RA	RF
221	MS21208F4-20		. . INSERT		10
222	65-49978-2		. . HOUSING, LOWER	A LA	1
222	65-63610-3		. . HOUSING, LOWER	B-KA MA-RA	1
223	69-50913-1		. CAP	B-KA MA-RA	1
225	65C34616-3		. STATOR ASSY (PREF)	U-NA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
225	65C34616-1		. STATOR ASSY (OPT)	U-NA	1
225	65C34616-3		. STATOR ASSY	OA-RA	1
230	65C34618-1		. . HOUSING		1
235	69-77856-2		. . SPACER (USED ON 65C34616-3)		1
235	69-77856-1		. . SPACER (USED ON 65C34616-1)		1
240	69-77862-1		. . STATOR		4
245	69-77857-1		. . ROTOR		4
250	69-77862-3		. . STATOR (USED ON 65C34616-3)		1
250	69-77862-2		. . STATOR (USED ON 65C34616-1)		1
255	69-77861-2		. . WASHER (USED ON 65C34616-3)		1
255	69-77861-1		. . WASHER (USED ON 65C34616-1)		1
260	69-77860-1		. . SPRING WASHER		2
265	69-77858-1		. . WASHER		1
270	69-77859-1		. . NUT		1
275	65C34609-2		. BRAKE ASSY (OPT)	U-RA	1
275	65C34609-1		. BRAKE ASSY	U-RA	1
280	65C34610-1		. . RETAINER RING		1
285	BACB10BB65PP		. . BEARING		1
290	BACB10BW68		. . BEARING		2
295	65C34612-1		. . RING ASSY, UNLOCK		1
297	65C34612-2		. . . UNLOCK RING		1
300	KJB314704V		. . . ROLLER		4
305	69-77854-1		. . . PIN		4
310	65C34613-1		. . PAWL CARRIER (USED ON 65C34609-1)		1
310	65C34613-3		. . PAWL CARRIER (OPT)(USED ON 65C34609-1)		1
310	65C34613-5		. . PAWL CARRIER (USED ON 65C34609-2)		1
310	65C34613-6		. . PAWL CARRIER (OPT) (USED ON 65C34609-2)		1
310	65C34613-7		. . PAWL CARRIER (OPT) (USED ON 65C34609-1,-2)		1
315	69-77853-1		. . PIN		4
320	69-77855-2		. . SPRING (OPT)		4
320	69-77855-1		. . SPRING		4
325	69-77852-1		. . PAWL ASSY (USED ON 65C34609-1)		4
325	69-77852-3		. . PAWL ASSY (USED ON 65C34609-2) (OPT)		4
325	69-77852-5		. . PAWL ASSY (USED ON 65C34609-1, -2) (OPT)		4
330	KJB313905V		. . . BUSHING		2
335	69-77852-2		. . . PAWL (USED ON 69-77852-1)		1
335	69-77852-4		. . . PAWL (USED ON 69-77852-3)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
335	69-77852-6		. . . PAWL (USED ON 69-77852-5)		1
340	65C34611-1		. . RATCHET RING (USED ON 65C34609-1)		1
340	65C34611-2		. . RATCHET RING (USED ON 65C34609-2)		1
345	65C34614-1		. INPUT GEAR	U-RA	1
			INSTALLATION PARTS		
901	69-33657-2		RESERVOIR ASSY - LUBRICATOR *[4]		2
902	NAS601-20P		SCREW *[4]		2
903	AN960D6		WASHER *[4]		4
904	MS21042L06		NUT *[4]		2

*[1] USED ON ARM ASSEMBLIES MODIFIED BY SERVICE BULLETINS ONLY. OVERSIZE BOLT BACB30KK6-9 USED WITH COLLAR BACC30R6 OPTIONAL TO BOLT BACB30FM6-9 USED WITH COLLAR BACC30M6.

*[2] BALL NUT AND SCREW ASSEMBLY 10-61302-4 AND SAFETY ROD 65C29264-5 COMPOSE A MATCHED SET. DRAWING 65-49970 IDENTIFIES THIS MATCHED SET AS 65-49970-5001.

*[3] WASHER 30-2489 USED WITH SPACER 69-77238-1 ON ASSEMBLIES P-U,Y,DA-FA,OA-RA.

*[4] USED WITH BALL NUT AND SCREW ASSY (ITEM 4) 10-61302-1 ONLY. DELETED BY SB 27-1046.

*[5] BALL NUT AND SCREW ASSEMBLIES 10-61302-2, -3, -5, AND 10-62210-2, -3 ARE OPTIONAL TO ASSEMBLY 10-61302-1 (PRE- OR POST-SERVICE BULLETIN 27-1046 CONFIGURATION).

*[6] BALL NUT AND SCREW ASSEMBLIES 10-61302-2, -5, AND 10-62210-2, -3, USED WITH SAFETY ROD 65C29264-1 OR 65-49977-1, ARE OPTIONAL TO ASSEMBLY 10-61302-4, USED WITH SAFETY ROD 65C29264-5 (MATCHED SET 65-49970-5001).

*[7] IF PLUG AN814-4DL IS REPLACED BY PLUG ASSEMBLY 69-77732-1 ON ASSEMBLIES 65-49970-1 THRU -24, MARKER BACM9C5BR MUST BE REMOVED.

*[8] 102J033-1 AND -3 ARE OPTIONAL TO EACH OTHER AND AS ASSEMBLIES ARE FULLY INTERCHANGEABLE. 102J033-5, -501.6250 AND -501.6243 ARE OPTIONAL TO EACH OTHER AND AS ASSEMBLIES ARE FULLY INTERCHANGEABLE.

*[9] SEE ITEMS 129A, 150A, 220A FOR BREAKDOWN OF ITEM 125.

*[10] SEE THE VENDOR'S REPAIR MANUAL TO DETERMINE THE APPLICABILITY OF THE DETAILED PART.

*[11] UMBRELLA ASSEMBLY 69-77931-1 AND SEAL AR10104-333M1H OR AR10104-333MH OPTIONAL TO 480-147550-1.

*[12] BALL NUT AND SCREW ASSEMBLIES 10-61302-2, -3, -5, AND 10-62210-2, -3 ARE OPTIONAL TO EACH OTHER. BALL NUT AND SCREW ASSEMBLIES 10-62210-5, -7 ARE ONE WAY FORWARD INTERCHANGEABLE AND REPLACE 10-61302-2, -3, -5 AND 10-62210-2, -3.

VENDORS

V00624	EATON AEROQUIP, INC., ENGINEERED SYSTEMS DIV., 300 S. EAST AVE., JACKSON, MICHIGAN 49203-1972
V05939	FURON CO., MECHANICAL SEAL DIV., 7301 ORANGEWOOD AVE., GARDEN GROVE, CALIFORNIA 92841-1411
V06144	INDUSTRIAL TECTONICS, BEARING CORP., 18301 S. SANTA FE AVE., RANCHO DOMINGUEZ, CALIFORNIA 90221
V0A335	THOMPSON SAGINAW BALLSCREW CO., 628 N. HAMILTON, SAGINAW, MICHIGAN 48602 (FORMERLY GENERAL MOTORS CORP.)
V0KCH8	PRECISION KINETICS, 2533 E. 56TH ST., HUNTINGTON PARK, CALIFORNIA 90255 (FORMERLY SARGENT INDUSTRIES)
V16553	SKYTRONICS, 227 OREGON ST., EL SEGUNDO, CALIFORNIA 90245 (FORMERLY BFM ENERGY PRODUCTS CORP., V62793)
V21335	TORRINGTON CO., FAFNIR BEARING DIV., 59 FIELD ST., TORRINGTON, CONNECTICUT 06790-1008
V43991	FAG BEARING, INC., 118 HAMILTON AVE., STAMFORD, CONNECTICUT 06904
V78062	SARGENT CONTROLS, 5675 W. BURLINGAME RD., TUCSON, ARIZONA 85743 (FORMERLY SARGENT INDUSTRIES)
V78189	ILLINOIS TOOL WORKS, INC., SHAKEPROOF DIVISION, ST. CHARLES ROAD, ELGIN, ILLINOIS 60120
VA4147	UMBRA CUSCINETTI SPA, VIA PIAVE 12, 06034 FOLIGNO, ITALY
VA4247	TIGULLIO SUB SRL, VIA PRIVATA COTELLA 19, RECCO (GENOVA), ITALY 16036

Part No.	Fig. and Index No.	Qty. per Assy.
AN1103-46	1101-	
AN201KP16A		AR
AN201KP6A		AR
AN207DPP4		AR
AN310-4		AR
AN310-6		AR
AN320-18		AR
AN320-3		AR
AN6227-16		AR
AN6227B16		AR
AN6230-16		AR
AN6230B16		AR
AN814-4DL		AR
AN960-1816L		AR
AN960-416		AR
AN960D10		AR
AN960D101		AR
AN960D416		AR
AN960D6	903	4
AN970-4		AR
AR10104-333M1H	19	1
BACB10A137	92	1
BACB10A525	94	1
BACB10A543	190	1
BACB10A557	169	2
BACB10A557	213	2
BACB10A686	148	1
BACB10A686	163	4
BACB10A824	171	2
BACB10BA45PP	92	1
BACB10BA65PP	94	1
BACB10BB65PP	41	2
BACB10BB65PP	41	1
BACB10BB65PP	285	1
BACB10BN03	210	4
BACB10BW25	171	2
BACB10BW49	169	2
BACB10BW49	213	2
BACB10BW68	290	2
BACB10BX16	163	4
BACB10B130	210	4
BACB10CB4	79	1
BACB10C160H	38	2
BACB10ET03	210	4
BACB10F149	169	2
BACB10F149	213	2
BACB30DY6-2	98	3
BACB30DY6-2	102	3

Part No.	Fig. and Index No.	Qty. per Assy.
BACB30GW6A9	33	2
BACB30LU4-24	142	1
BACB30NE3-10	23	5
BACB30NE4H1	165	4
BACB30NE4H1	193	3
BACB30NE4H15	30	2
BACB30NE4H3	154	6
BACB30NE4H4	193	3
BACB30NE4H7	11	4
BACB30NE3-44	86	1
BACB30NE3-46	86	1
BACB30NF4-9	55	12
BACB30NF4-10	117	1
BACB30NF4-11	129	4
BACB30NF4-15	138	2
BACB30NF4-17	138	1
BACB30NF4-172	185	4
BACB30NF4-25	139	2
BACB30NF4-26	139	2
BACB30NF4-4	178	1
BACB30NF4-5	179	2
BACB30NF4-6	116	2
BACB30NF4-7	179	2
BACB30NF4-7	137	4
BACB30NF4-8	116	2
BACB30NF4-8	117	2
BACC30K6	34	2
BACC30K6	99	3
BACC30K6	103	1
BACM9C5BR	124	1
BACN10JC3	21	5
BACN10JC3	71	4
BACN10JC4	5	1
BACN10JC4	28	2
BACN10JC4	42	2
BACN10JC4	53	12
BACN10JC4	84	1
BACN10JC4	114	4
BACN10JC4	126	12
BACN10JC4	135	7
BACN10JC4	175	3
BACN10JC4	183	4
BACN10JC6	197	1
BACN10JD103	207	4
BACN10JD118	2	1
BACN10JD4	141	1
BACN10JD6	182	1
BACN10JN4	36A	1

Part No.	Fig. and Index No.	Qty. per Assy.
BACR12Y23	1101-147	1
BACS12AG8F	72	8
BACW10CP4		AR
BACW10P69S	67B	1
BACW10P73S	192	1
BACW10T416L	177	2
BACW10T416L		
KJB313905V	330	2
KJB314704V	300	4
MS15001-1		AR
MS15001-2	13B	1
MS16562-51		AR
MS20002C5		AR
MS20004-4		AR
MS20005H6		AR
MS21042C3	21	6
MS21042L3	71	4
MS21042L4	84	1
MS21042L4	114	4
MS21042L4	135	8
MS21042L4	141	1
MS21042L4	175	3
MS21042L4	183	4
MS21042L4	197	1
MS21042L6	904	2
MS21208F4-15		AR
MS21208F4-20		AR
MS21208F5-20		AR
MS21209C0410	20B	6
MS21209F1-10	66B	1
MS24585-1179		AR
MS24585C158		AR
MS24665-134		AR
MS24665-281		AR
MS24665-287		AR
MS24665-3		AR
MS24665-360		AR
MS24678-10C		AR
MS24678-20C		AR
MS28778-4		AR
MS29513-113		AR
MS29513-120		AR
MS29513-123		AR
MS29513-132		AR
MS29513-137		AR
MS29513-138		AR
MS29513-225		AR
MS29513-240		AR

Part No.	Fig. and Index No.	Qty. per Assy.
MS29513-336		AR
NAS1068A4		AR
NAS1080-6		AR
NAS1080E6		AR
NAS1103-10		AR
NAS1103-46		AR
NAS1104-10		AR
NAS1104-11		AR
NAS1104-12		AR
NAS1104-15		AR
NAS1104-17		AR
NAS1104-172		AR
NAS1104-25		AR
NAS1104-26		AR
NAS1104-29		AR
NAS1104-4		AR
NAS1104-6		AR
NAS1104-7		AR
NAS1104-9		AR
NAS1197-416L		AR
NAS1197-416		AR
NAS1304-1H		AR
NAS1304-15H		AR
NAS1304-3H		AR
NAS1304-4H		AR
NAS1304-7H		AR
NAS1351-3H6	67A	1
NAS1351-3H8P		AR
NAS1351-4H8P		AR
NAS1351-5H14		AR
NAS1352C04H6P	20D	6
NAS334CP17-5		AR
NAS559-3		AR
NAS561CF5-22		AR
NAS601-20P	902	2
NAS607-4-5P		AR
NAS607-4-6P		AR
NAS6604H1	165	5
NAS6604H3	154	6
NAS6604H4	193	3
NAS6604H7	11	4
NAS623-3-12	23	6
XJ88KK	41	2
07322P000-01	4	1
07322P000-02	4	1
07322P101-7	10	1
07322P102-70	8	1
07322P110-7	10	1

Part No.	Fig. and Index No.	Qty. per Assy.
07322P201-70	1101-9	1
10-60516-234	44	2
10-61302-1	4	1
10-61302-2	4	1
10-61302-3	4	1
10-61302-4	4	1
102C034-1	8	1
102C237-1	8	
102J033-1	4	1
102J033-3	4	1
102J033-5	4	1
102J033-501.6243	4	1
102J033-501.6250	4	1
102J043-1	10	1
102J050-1	9	1
102J234-501	9	
102J234-503.6243	9	
102J234-503.6250	9	
102J235-1	10	
102J235-501.6243	10	
102J235-501.6250	10	
211NPPE8183	96	2
30-2414-1	164	2
30-2479	143	1
30-2480-1	144	1
30-2489	214	1
30-2493-1	172	1
30-2531-1	203	1
30-2538-1	173	1
30-2661	133	1
30-2668-1	77	2
30-3564	209	4
30-3565	211	4
3515-36-02-054-0541	159	2
480147550-1	20E	1
50-3132	174	1
50-3132-2	174	1
50-3132-3	174	1
54032-003	4	1
54032-004	4	1
54032-1000-1	10	1
54032-1000-2	10	1
54032-1011-1	9	1
54032-1060-1	8	1
60-3113-1	166	1
60-3113-1	204	1
60-3114	167	1
60-3115	168	1

Part No.	Fig. and Index No.	Qty. per Assy.
60-3259	145	1
60-3286-1	170	1
60-4003	78	4
60-4003-1	80	1
60-4005	73	2
63-10102	199	1
63-10130	200	1
65-18763-1	218	1
65-18763-2	220	1
65-19383-1	180	1
65-19383-3	180	1
65-19471-3	216	1
65-19471-4	216	1
65-19471-5	216	1
65-19590-3	215	1
65-19590-4	215	1
65-19590-5	215	1
65-39591-3	196	1
65-49960-1	37	1
65-49960-2	39	1
65-49960-4	37	1
65-49960-5	39	1
65-49961-1	45	1
65-49962-10	32A	2
65-49962-11	32B	2
65-49962-5	32	2
65-49962-6	36	1
65-49962-8	32A	1
65-49962-9	32B	1
65-49963-1	52	1
65-49963-2	52	1
65-49963-3	52	1
65-49963-4	52	1
65-49964-1	56	2
65-49964-2	58	1
65-49964-4	56	2
65-49964-5	58	1
65-49965-1	59	2
65-49965-2	62	1
65-49965-4	59	2
65-49965-5	62	1
65-49966-1	13	2
65-49966-2	13A	1
65-49970-1		RF
65-49970-10		RF
65-44970-12		RF
65-44970-13		RF
65-49970-14		RF

Part No.	Fig. and Index No.	Qty. per Assy.
65-49970-15	1101-	RF
65-49970-17		RF
65-49970-18		RF
65-49970-19		RF
65-49970-2		RF
65-49970-20		RF
65-49970-21		RF
65-49970-22		RF
65-49970-23		RF
65-49970-24		RF
65-49970-25		RF
65-49970-26		RF
65-49970-27		RF
65-49970-28		RF
65-49970-29		RF
65-49970-3		RF
65-49970-4		RF
65-49970-5		RF
65-49970-6		RF
65-49970-7		RF
65-49970-9		RF
65-49971-1	24	1
65-49971-3	24	1
65-49972-3	121	1
65-49972-4	123	1
65-49974-1	69	1
65-49974-2	70	1
65-49975-3	49	1
65-49975-4	51	1
65-49975-5	51	1
65-49975-6	49	1
65-49975-7	51	1
65-49975-8	49	1
65-49976-1	91	1
65-49976-2	93	1
65-49977-1	113	1
65-49978-1	125	1
65-49978-2	222	1
65-49978-3	153	1
65-49978-4	130	1
65-49979-1	40	1
65-56636-1	17	1
65-58102-1	113	1
65-63610-1	125	1
65-63610-2	153	1
65-63610-3	222	1
65-77422-1	91	1
65-77422-2	93	1

Part No.	Fig. and Index No.	Qty. per Assy.
65-77422-3	91	1
65-77422-4	93	1
65-77440-1	121	1
65-77440-2	123	1
65-77440-3	121	1
65-77440-4	123	1
65C29264-5	113	1
65C31241-1	121	1
65C29264-1	113	1
65C31241-1	121	1
65C31241-2	123	1
65C31280-1	93	1
65C31280-3	93	1
65C34609-1	275	1
65C34609-2	275	1
65C34610-5	280	1
65C34611-1	340	1
65C34611-2	340	1
65C34612-1	295	1
65C34612-2	297	1
65C34613-1	310	1
65C34613-3	310	1
65C34613-5	310	1
65C34613-6	310	1
65C34613-7	310	1
65C34614-1	345	1
65C34615-1	49	1
65C34615-2	51	1
65C34616-1	225	1
65C34616-3	225	1
65C34617-1	24	1
65C34618-1	230	1
65C34751-10		RF
65C34751-11		RF
65C34751-2		RF
65C34751-3		RF
65C34751-4		RF
65C34751-5		RF
65C34751-6		RF
65C34751-7		RF
65C34751-8		RF
65C34751-9		RF
65C36486-10		RF
65C36486-11		RF
65C36486-12		RF
65C36486-13		RF
65C36486-3		RF
65C36486-5		RF

Part No.	Fig. and Index No.	Qty. per Assy.
65C36486-7	1101-	RF
65C36486-9		RF
66-12615-1	189	1
66-12615-2	191	1
66-12616-1	188	1
66-12856-2	205	1
66-13760-1	186	4
66-13760-2	186	4
66-13875-1	195	1
66-19334-1	158	2
66-23586-1	60	1
66-23586-2	61	1
66-23587-1	57	1
66-24915-1	122	2
66-24915-2	122	2
66-24938-1	112	2
66-9676	198	1
66-9677	201	1
66-9677-1	201	1
69-10020-1	202	1
69-10020-2	202	1
69-13364-1	74	4
69-13364-2	75	4
69-14878-1	187	1
69-33657-2	901	2
69-36083	161	1
69-36083-14	50	1
69-37485-2	35	1
69-37969-1	15	2
69-37970-1	14	2
69-39410-3	97	1
69-39410-4	100	1
69-39411-1	101	1
69-39411-2	104	1
69-39412-1	106	2
69-39413-1	107	2
69-39447-1	89	1
69-39447-2	89	1
69-39448-1	87	1
69-39448-2	87	1
69-39491-2	26	1
69-39652-1	83	1
69-39652-2	83	1
69-39699-1	25	1
69-40222-1	81	1
69-40222-3	81	1
69-42134-1	20	1
69-43407-1	131	1

Part No.	Fig. and Index No.	Qty. per Assy.
69-43407-2	131	1
69-43426-1	16	2
69-44011-6	160	2
69-44011-7	162	1
69-44011-8	160	2
69-45122-1	95	1
69-45122-2	95	1
69-45130-1	46	1
69-45171-1	27	AR
69-50831-1	145	1
69-50832-1	134A	1
69-50913-1	223	1
69-67128-1	166A	1
69-67128-1	168A	1
69-67128-1	204A	1
69-67298-1	25A	1
69-67299-1	25A	1
69-76287-1	199	1
69-76288-1	200	1
69-76300-1	91	1
69-76929-2	35	1
69-77238-1	214A	1
69-77232-1	66	1
69-77232-2	66A	1
69-77732-1	66	1
69-77851-1	26	1
69-77852-1	325	4
69-77852-2	335	1
69-77852-3	325	4
69-77852-4	335	1
69-77852-5	325	4
69-77852-6	335	1
69-77853-1	315	4
69-77854-1	305	4
69-77855-1	320	4
69-77855-2	320	4
69-77856-1	235	1
69-77856-2	235	1
69-77857-1	245	4
69-77858-1	265	1
69-77859-1	270	1
69-77860-1	260	2
69-77861-1	255	1
69-77861-2	255	1
69-77862-1	240	4
69-77862-2	250	1
69-77862-3	250	1
69-77931-1	20	1

Part No.	Fig. and Index No.	Qty. per Assy.
69-77931-2	1101-20A	1
69-77932-1	20C	1
7826773	10	1
7826837	4	1
90-3272-2	156	2
90-3583	134	1
90-3583-1	134	1
90-3590	146	1
90-3590-1	149	1
90-4037-3001	212	1
9240	41	2

Part No.	Fig. and Index No.	Qty. per Assy.