BOEING COMMERCIAL JET

OVERHAUL MANUAL

TO: ALL HOLDERS OF AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSEMBLY OVERHAUL MANUAL, 52-64-05

REVISION NO. 3 DATED JUL 5/81

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
Changed Item 24 Bushing number to agree with IPC												X	

AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSEMBLY

52-64-05

BOEING P/N 65-67303-5, -6, -7, -9

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30012-17	Feb 15/69
52-1010		PRR 30012-19	Feb 15/69
52-1017		PRR 30012-20	Mar 10/70
52-1036		PRR 31988	Jun 10/72

LIST OF EFFECTIVE PAGES

* Indicates pages revised, added or deleted in latest revision

F Indicates foldout pages - print one side only

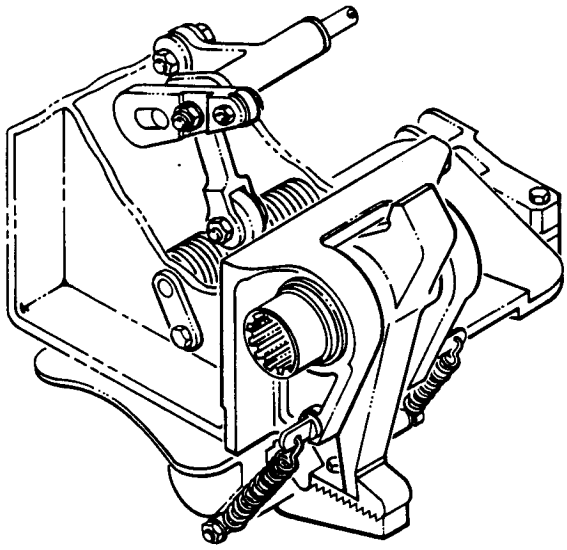
	PAGE	DATE		PAGE	DATE	PAGE	DATE
	52-64-05		*	1104	Jul 5/81		
	T-1	Jun 10/72		1105	Jun 10/72		
	T-2	BLANK		1106	Jun 10/72		
*	LEP-1	Jul 5/81		1107	Jun 10/72		
	LEP-2	BLANK		1108	Jun 10/72		
	T/C-1	Jun 10/72					
	T/C-2	BLANK					
	1	Jun 10/72					
	2	Feb 15/69					
	101	Jun 10/72					
	102	Mar 10/70					
	201	Jun 10/72					
	202	BLANK					
	301	Jun 10/72					
	302	Feb 15/69					
	401	Jun 10/72					
	402	Jun 10/72					
	403	Feb 15/69					
	404	Jun 10/72					
	405	Feb 15/69					
	406	BLANK					
	501	Jul 5/79					
	502	Jun 10/72					
	503	Jun 10/72					
	504	BLANK					
	601	Jun 10/72					
	602	Jun 10/72					
	603	Jun 10/72					
	604	Jun 10/72					
	605	Jun 10/72					
	606	Jun 10/72					
	607	Jul 5/76					
	608	BLANK					
	701	Feb 15/69					
	702	BLANK					
	901	Feb 15/69					
	902	BLANK					
	1001	Feb 15/69					
	1002	BLANK					
	1101	Feb 15/69					
	1102	Jun 10/72					
	1103	Jun 10/72					

TABLE OF CONTENTS

Paragraph Title	Page
Description and Operation	1
Disassembly	101
Cleaning	201
Inspection/Check	301
Repair	401
Assembly	501
Fits and Clearances	601
Testing	701
Trouble Shooting	None
Storage Instructions	901
Special Tools, Fixtures, and Equipment	1001
Illustrated Parts List	1101

AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSEMBLY

Boeing Part Numbers: 65-67303-5, -6, -7 and -9



Aft Airstair Drive Emergency Extension Latch and Lockout Mechanism Assembly
Figure 1

DESCRIPTION AND OPERATION

1. Description

   A. The aft airstair drive emergency extension latch and lockout mechanism assembly is a system of cams, links, cranks, and springs designed to control a latch which in turn controls the energy stored in a torsion bar. The stored energy of the torsion bar is used to initiate the emergency extension of the aft airstair. The assembly is located at the hinge support fitting of the aft airstair door.

2. Operation

A. Emergency extension of the aft airstair is initiated by moving the handle on a control console to the emergency detent position. This action pulls a control rod which releases an actuating arm attached to a torsion bar. Energy previously stored in the torsion bar by an arming process causes the actuating arm to react against a roller on the aft hinge member with sufficient force to overcome the friction of the drive and to start the free fall of the stair.

B. To prevent inadvertent operation of the emergency system during a normal extension of the stair, a cam follower arrangement on the aft door hinge collapses the overcenter linkage which locks out the emergency latch mechanism after the stair has opened approximately 15 degrees.

C. During normal retraction of the airstair with the roller in the normal position, the actuating arm restresses the torsion bar and, with the latch in place, the assembly is armed for the next emergency extension.

3. Leading Particulars

Width -- 12.0 inches (approximately)
Length -- 8.0 inches (approximately)
Height -- 12.0 inches (approximately)
Weight -- 4.8 pounds

DISASSEMBLY

NOTE: It is necessary to remove some of the assembly parts during removal of mechanism from the airplane; therefore, applicable items removed in the following procedure may be disassembled prior to receiving the mechanism assembly for overhaul.

1. Remove nuts (1, figure 1101), washers (2), bolts (3), and link (4).

2. Remove nut (5), washer (6), and cam follower assembly (7).

3. Disassemble cam follower assembly (7) by removing nut (8), washer (9), bolt (10), and bearing (11) from cam follower (12).

4. Remove eccentric (13) and adjustment plate (14).

5. Remove cotter pin (15), washers (16 and 18), spindle (17), crank assembly (19), and bushings (21A and 21B), if installed.

   CAUTION: Deleted.

   NOTE: Do not remove self-lubricated bearing (20) from crank (21) unless repair or replacement is necessary.

6. Remove nut (33), washers (23 and 34), bolts (22 and 35), spacer (24), spindle (25), crank assembly (26), and torsion springs (31 and 32).

   CAUTION: BUSHINGS (30A) ARE NOT SELF-RETAINING IN CRANK ASSEMBLY (26).

   NOTE: Do not remove bushings (29) or bearing (27) from crank (30) unless repair or replacement is necessary.

7. Remove nuts (39 and 43), washers (40, 41, and 44), bolts (42 and 45), bushing (46), link assembly (36), link (47), and plate assembly (48).

   CAUTION: Deleted.

   NOTE: Do not remove bearing (37) from link (38) or bearings (49) from plate (50) unless repair or replacement is necessary.

8. Remove pivot link (51), screw (52), washer (53), and splined pivot link (54).

9. Remove nuts (55), washers (56 and 57), bolts (58 and 59), latch crank (60), and latch shaft assembly (61).

   NOTE: Do not remove insert (62) from shaft (63) unless replacement is necessary.

10. Remove nut (64), washers (65), spacers (66 and 67), bolt (68), and springs (69).

11. Remove nuts (70), washers (71), bolts (72 and 73), latch shaft (74), latch crank (75), and latch assembly (76).

12. Remove lockwire from bolts (77) and remove bolts (77), washers (78), latch arm (79), and latch (80).

    CAUTION: AVOID DAMAGE TO DRY FILM-LUBRICATED SURFACE OF LATCH (80).

13. Remove nuts (81), washers (82), and eyebolts (83 and 84), if with assembly.

14. Remove nut (85), washers (86 and 87), bolt (88), retaining cap (89), adapter (90), and actuating arm (91).

    NOTE: Do not remove pin (90A) from adapter (90) or items (94 through 108) from baseplate assembly (92 or 93) unless repair or replacement is necessary.

CLEANING

1. General

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

      NOTE: Use a stiff-bristle brush to remove dirt and grease. Clean all passages and bores.

   B. Dry all parts with clean, lint-free cloth or with clean, moisture-free air.

   C. Wash nonmetalic parts in mild solution of soap and water; dry with clean, lint-free cloth.

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

2. Bearings (See figure 1101.)

   A. Clean all bearings per 20-30-01, Cleaning and Relubricating Anti-Friction Bearings.

      CAUTION: BEARINGS (20, 27, 37, AND 49) ARE TEFLON LINED. CLEAN ONLY BY SPECIAL METHOD GIVEN IN REFERENCE SUBJECT.

INSPECTION/CHECK

1. Visual Check (See figure 1101.)

   A. Examine all parts for cracks, scratches, corrosion and damage. Use strong light and minimum of 10-power magnification.

   B. Examine all threaded areas for cross-threading and stripping.

   C. Check all plated and painted surfaces for blistering, chipping, and flaking.

   D. Check splines for broken, chipped, and cracked areas, and for areas of uneven wear.

   E. Check bearings for rough movement, binding, or excessive radial or axial play. Maximum radial play for bearings (11, 20, 27, 37 and 49) is 0.0020 inch.

   F. Examine all bearing, bushing and bolt holes for corrosion and excessive or excentric wear.

   G. Check teflon linings of bearings (20, 27, 37, and 49) for wear or softening. (Refer to 20-50-03, Bearing Installation and Retention for bench inspection procedures.

   H. For parts subject to wear, check for wear beyond allowable limits shown in Fits and Clearances.

2. Special Check (See figure 1101.)

   A. If visual examination discloses evidence of defects in any of listed parts, perform following checks:

      (1) Magnetic particle check -- spindle (17), springs (31 and 32), shafts (63 and 74), arms (79 and 91), latch (80), and adapter (90).

         NOTE: Refer to 20-20-01 for information on magnetic particle inspection methods.

      (2) Dye penetrant check -- links (4, 38, 47, 51, and 54), cam follower (12), eccentric (13), plates (14 and 50), cranks (21, 30, and 60), spindle (17), cap (89), baseplate (99 or 106), and stop (108).

         NOTE: Refer to 20-20-02 for information on dye penetrant inspection methods.

B. Check that springs meet requirements of figure 301 with no permanent set resulting.

Item Number (Fig. 1101)	Type Load	Angular Rotation (Degrees)	Free Length (Inches)	Test Length (Inches)	Load Limits (Pounds)	Load Limits (Pound-Inches)
31	Torsion	120				11.70 to 14.30
		210				19.80 to 25.20
32	Torsion	30				4.95 to 6.05
		120				19.80 to 25.20
69	Tension		2.000	3.480 to 3.760	13.1	

Spring Check Data
Figure 301

REPAIR

1. Repair

   A. Remove minor scratches, nicks, pitting, or corrosion by polishing lightly with 220 grit or finer abrasive cloth. Do not exceed limits given in figure 601. Refinish as necessary for protection against corrosion.

   B. Remove defects from threaded and splined areas with small triangular file or thread chaser.

2. Refinish (See figure 1101.)

   NOTE: Refer to 20-30-02 for stripping of protective finishes and to 20-41-01 for decoding of F and SRF finish symbols and their BAC equivalents.

   A. If plated or painted surfaces are worn or chipped, refinish the following parts as indicated.

      (1) Links (4 and 47) -- Apply SRF-2.30 all over.

      (2) Cam follower (12) -- Apply SRF-2.30 all over except no primer in slotted hole.

      (3) Eccentric (13) -- Apply SRF-2.30 except no primer on mating surfaces.

      (4) Adjustment plate (14) -- SRF-2.30 all over except omit primer on spline teeth.

      (5) Spindle (17) -- Apply F-1.1926 all over.

      (6) Crank (21) -- Apply SRF-2.30 all over except no primer in splined hole or in hole mating with bearing.

      (7) Spindle (25) -- Apply SRF-2.30 all over except omit primer on external surface of spindle shaft. (See figure 401.)

      (8) Crank (30) -- Apply SRF-2.30 all over except no primer on areas mating with bearings and bushings.

      (9) Torsion spring (31 and 32) -- Apply SRF-1.92 all over.

      (10) Link (38) -- Apply SRF-2.30 except no primer on surface mating with bearing.

(11) Plate (50) -- Apply SRF-2.30 all over except no primer in holes mating with bearings.

(12) Pivot link (51) -- Apply SRF-2.30 all over except no primer on external bearing surface.

(13) Splined pivot link (54) -- Apply SRF-2.30 all over except no primer in splined hole and on external bearing surface.

(14) Crank (60) -- Apply SRF-2.30 all over except no primer in splined hole.

(15) Shaft (63) -- Apply F-1.1926 on exterior surface except 0.0002 to 0.0003 single plating thickness on splined area. Apply SRF-12.205 on interior surface except apply F-12.44 on threads. (See figure 401.)

(16) Shaft (74) -- Apply F-1.1926 all over.

(17) Crank (75) -- Apply SRF-2.30 all over except no primer on splined surface.

(18) Latch arm (79) -- Apply F-1.1926 all over.

(19) Latch (80) -- Apply F-1.1926 all over except apply dry film lubricant on area indicated in figure 401.

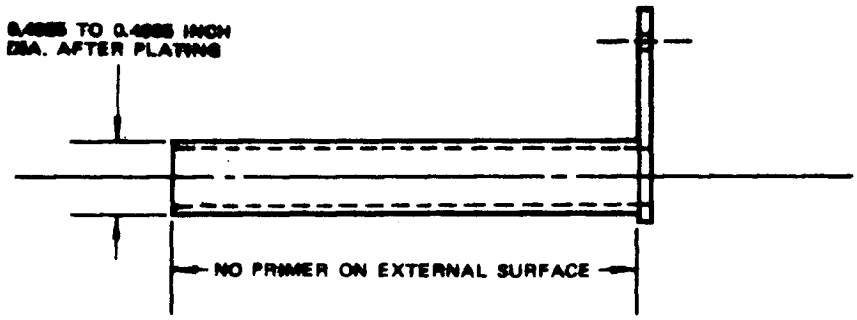
(20) Retaining cap (89) -- Apply SRF-2.30 all over.

(21) Adapter (90) -- Apply F-1.1926 to exterior surfaces and to internal spline except 0.0002 to 0.0003 single plating thickness. Apply SRF-12.206 to remaining internal surface. Material is steel, heat-treated 150 to 180 ksi. (See figure 401.)

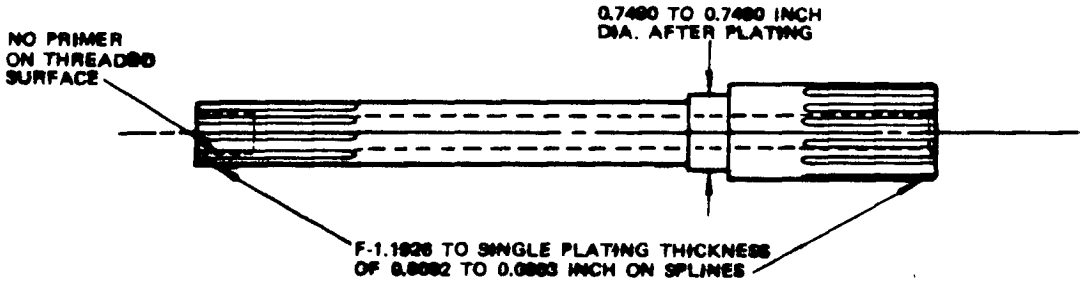
(22) Actuating arm (91) -- Apply F-1.181 plus SRF-12.205 except no primer on splined hole. Material is steel, heat-treated 180 to 200 ksi.

(23) Baseplate (99 or 106) -- Apply SRF-2.30 all over except holes for bushings.

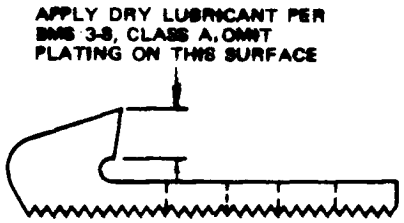
(24) Stop (108) -- Apply SRF-2.30 all over.



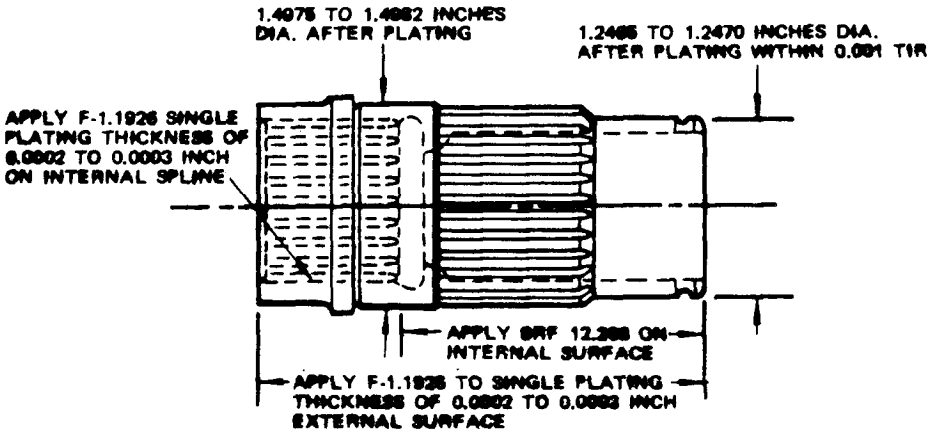
SPINDLE (25)



SHAFT (63)



LATCH (80)



ADAPTER (90)

Refinish Details
Figure 401

3. Replacement (See figure 1101.)

A. Replace any parts damaged or worn beyond allowable limits.

B. Replace all cotter pins and lockwire at each overhaul.

C. Replace springs (31, 32, or 69) if requirements of figure 301 are not met.

D. If bushings (94 through 98 or 101 through 105) are defective, replace per 20-50-03 using wet BMS 10-11, type 1 primer. Ream bushings (94, 96, 101, and 103) to inside diameter of 0.7530 to 0.7550 inch; bushings (95 and 102) to inside diameter of 1.003 to 1.005 inches; bushings (97 and 104) to inside diameter of 0.628 to 0.630 inch; and bushings (98 and 105) to inside diameter of 0.503 to 0.505 inch. Hold concentricity to within 0.002 inch TIR for all bushings.

E. Replace bushings (29), if necessary, per 20-50-03 using wet BMS 10-11, type 1 primer.

CAUTION: Deleted.

F. Remove and install bearings (20, 27, 37, and 49), if necessary, per applicable paragraph in 20-50-03, Bearing Installation and Retention. Install with BMS 10-11, type 1 primer except when installing with adhesives.

CAUTION: ROTATIONAL STARTING TORQUE OF BEARINGS SHOULD NOT EXCEED 3 POUND-INCHES.

(1) Replace bearing (20) or crank (21) on crank assembly (19, P/N 69-48260-1), per Roller Staking Procedure for Self-Lubricated (teflon-cloth lined) Spherical Bearings.

(2) Replace bearing (20) or crank (21) on crank assembly (19, P/N 69-48260-3 and -5) per Bearing Retention With Adhesives.

(3) Replace bearing (27) or crank (30) on crank assembly (26, P/N 69-48257-13) per Ball Staking. Stake at five points equally spaced within 0.03 inch. Hold concentricity of staking within 0.010 inch.

(4) Replace bearing (27) or crank (30) on crank assembly (26, P/N 69-48257-14 and -15) per Bearing Retention With Adhesives.

(5) Replace bearing (37) or link (38) on link assembly (36, P/N 69-48256-5) per Ball Staking. Stake at five points equally spaced within 0.03 inch. Hold concentricity of staking to within 0.010 inch.

(6) Replace bearing (37) or link (38) on link assembly (36, P/N 69-48256-7) per "Bearing Retention With Adhesives."

(7) Replace bearing (49) or plate (50) on plate assembly (48 , P/N 69-48251-1) per "Roller Staking Procedure for Self-Lubricated (teflon-lined) Spherical Bearings."

(8) Replace bearing (49) or plate (50) on plate assembly (48, P/N 69-48251-3) per "Bearing Retention With Adhesives."

G. Replace insert (62), if necessary, as follows:

(1) Place blade of extracting tool ST-1068-E-6 into hole so that one side of blade is a quarter turn from end of insert and strike head of tool lightly with hammer.

(2) Bear down hard on tool handle and turn slowly counterclockwise, maintaining pressure as insert backs out.

NOTE: Proper use of removal tool should not damage tapped thread.

(3) Install new insert 3/4 to 1-1/2 turns below top surface of tapped hole using installation tool ST-1068-PW-4 or ST-1068-PR-4 (optional).

(4) Break off tang with tool ST-1068-TM-4 or ST-1068-TA-5 (optional).

H. Replace stop (108), if necessary, using standard riveting procedures.

J. Materials

(1) Primer -- BMS 10-11, Type 1.

ASSEMBLY

1. Procedure (Fig. 1101)

A. Lubricate splined surfaces on actuating arm (91) and both splined and bearing surfaces on adapter (90) with Specification MIL-G-21164A grease per 20-50-07; install actuating arm (91) on splined external surface of adapter (90) and install bolt (88), washer (87), retaining cap (89), washer (86), and nut (85).

NOTE: It is not necessary to tighten nut (85) as removal is necessary during installation of assembly on airstair.

B. Package springs (69), nuts (81), washers (82), and eyebolts (83 and 84) as loose parts to be installed during final assembly on airstair.

C. Assemble latch assembly (76) as follows:

(1) Attach latch (80) to latch arm (79) with bolts (77) and washers (78). Do not tighten bolts.

CAUTION: AVOID DAMAGE TO DRY LUBRICATED SURFACE ON LATCH (80).

NOTE: Include but do not install lockwire (P/N MS20995NC32). Attach tag to bolts (77) stating, "These bolts left untightened to permit adjustment of latch assembly (76) during installation on airplane."

D. Lubricate splines and bearing surfaces of latch shaft (74), latch assembly (76), and latch crank (75) with Specification MIL-G-21164A grease per Subject 20-50-07; push small end of latch shaft (74) through applicable bushing (94 or 101), through splined holes in latch assembly (76) and latch crank (75), and through applicable bushing (98 or 105). Clamp latch assembly (76) on shaft spline with bolt (72), washer (71), and nut (70). Clamp latch crank (75) to applicable shaft (74) spline with bolt (73), washer (71), and nut (70).

NOTE: Align latch crank (75) with link (47) and plate assembly (48) so that bushing (46) will be in end of slot in link (47) farthest from clevis end of link before tightening nut on bolt (73). (Refer to Steps G through K.)

Install fasteners (70 through 72) with Specification MIL-C-11796, Class 3, corrosion-preventive compound.

Provide only enough end play for free movement.

E. Install bolt (68), spacers (66 and 67), washers (65), and nut (64). Do not tighten nut (64).

NOTE: Nut (64) is not tightened to enable springs (69) to assume natural position when attached to eyebolts (83 and 84).

F. Insert pivot link (51) into applicable bushing (97 or 104) and splined pivot link (54) into applicable bushing (95 or 102) with grease, Specification MIL-G-21164A, on bushing surfaces per 20-50-07, Lubrication.

G. Install plate assembly (48) between free ends of pivot links using bolt (42), washer (40), and nut (39) with corrosion-preventive compound, Specification MIL-C-11796, Class 3, on attaching part surfaces.

CAUTION: Deleted.

H. Lubricate splines and bearing surfaces of pivot link (54), latch shaft assembly (61), latch crank (60), and applicable bushing (96 or 103) with grease, Specification MIL-G-21164A, per 20-50-07; insert shaft assembly (61) through bushing (96 or 103) and splined pivot link (54), and secure using screw (52) and washer (53) with corrosion-preventive compound, Specification MIL-C-11796, Class 3, on attaching part surfaces.

J. Install latch crank (60), bolts (58 and 59), washers (56 and 57), and nuts (55) with corrosion-preventive compound, Specification MIL-C-11796, class 3, on attaching part surfaces.

K. Install link (47), bushing (46) with wet BMS 10-11, Type 1 primer, bolts (42 and 45), washers (41 and 44), and nuts (39 and 43) with corrosion-preventive compound, Specification MIL-C-11796, class 3, on attaching parts surfaces.

L. Push clevis end of link assembly (36) through large hole in base of applicable fitting assembly (92 or 93) and attach clevis end to plate assembly, using remaining bolt (42), washer (40); and nut (39) with corrosion-preventive compound, Specification MIL-C-11796, class 3, on at aching part surfaces.

M. On assemblies using bushings (30A) insert bushings (30A) in crank assembly (26). Insert spindle (25) in crank assembly (26) and attach crank assembly (26) to link assembly (36) using bolt (35), washer (34), and nut (33) with corrosion-preventive compound Specification MIL-C-11796, class 3, on attaching part surfaces.

CAUTION: Deleted.

N. Apply corrosion-preventive compound, Specification MIL-C-11796, class 3, to bolt (22); package with springs (31 and 32), washer (23), and spacer (24) and attach package by passing cord through spindle and tying to crank assembly (26) for use during installation of unit on airplane.

P. Lubricate splined surfaces of crank assembly (19) and spindle (17) with grease, Specification MIL-G-21164A, and install washer (18), bushing (21B) if used, crank assembly (19), and bushing (21A) if used, on spindle (17) with washer (16) and cotter pin (15).

CAUTION: Deleted.

NOTE: Removal of cotter pin (15) will be required when assembly is attached to airstair.

Q. Assemble cam follower assembly (7) by installing bearing (11), bolt (10), washer (9), and nut (8) on cam follower (12).

R. Lubricate splined and bearing surfaces of adjustment plate (14), eccentric (13), and cam follower assembly (7) with Specification MIL-G-21164A grease per 20-50-07. Install adjustment plate (14) on spline at threaded end of spindle (17); install splined end of eccentric (13) in adjustment plate (14); install cam follower assembly (7) on eccentric (13) and remaining hole on spindle (17) with washer (6) and nut (5).

NOTE: Nut (5) need not be fully tightened as removal will be necessary when assembly is installed on airplane.

S. Apply Specification MIL-C-11796, class 3, corrosion-preventive compound to bolts (3) and install link (4), bolts (3), washers (2), and nuts (1).

NOTE: Nuts (1) need not be fully tightened as removal will be necessary when assembly is installed on airplane.

2. Materials

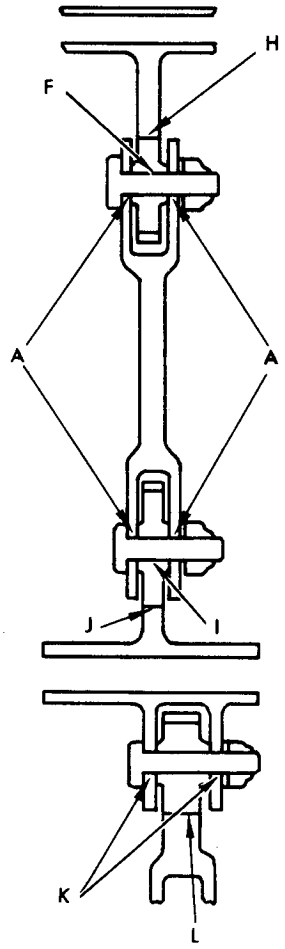
A. Grease -- Specification MIL-G-21164A

B. Corrosion-Preventive Compound -- Specification MIL-C-11796, class 3

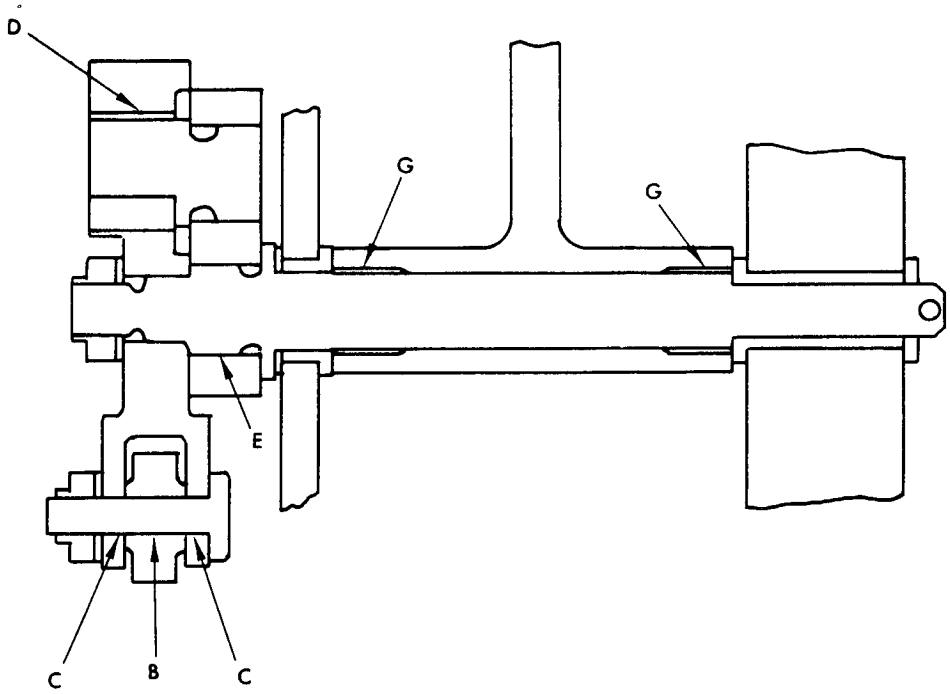
FITS AND CLEARANCES

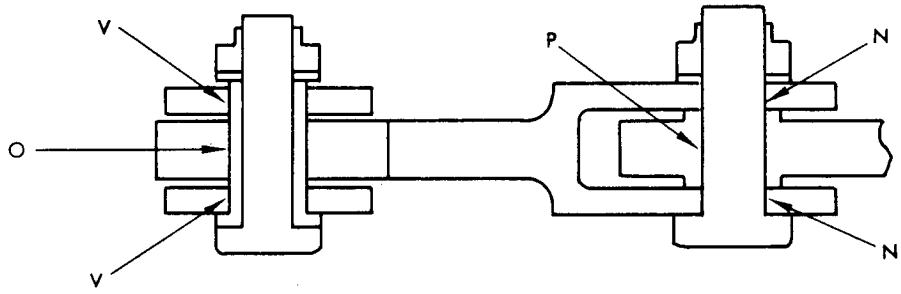
1. The fits and clearances table lists design dimensions and service wear limits for close tolerance parts of the assembly that are subject to wear or corrosion. Unless otherwise specified, parts should be returned to the design dimensions whenever rework is accomplished.

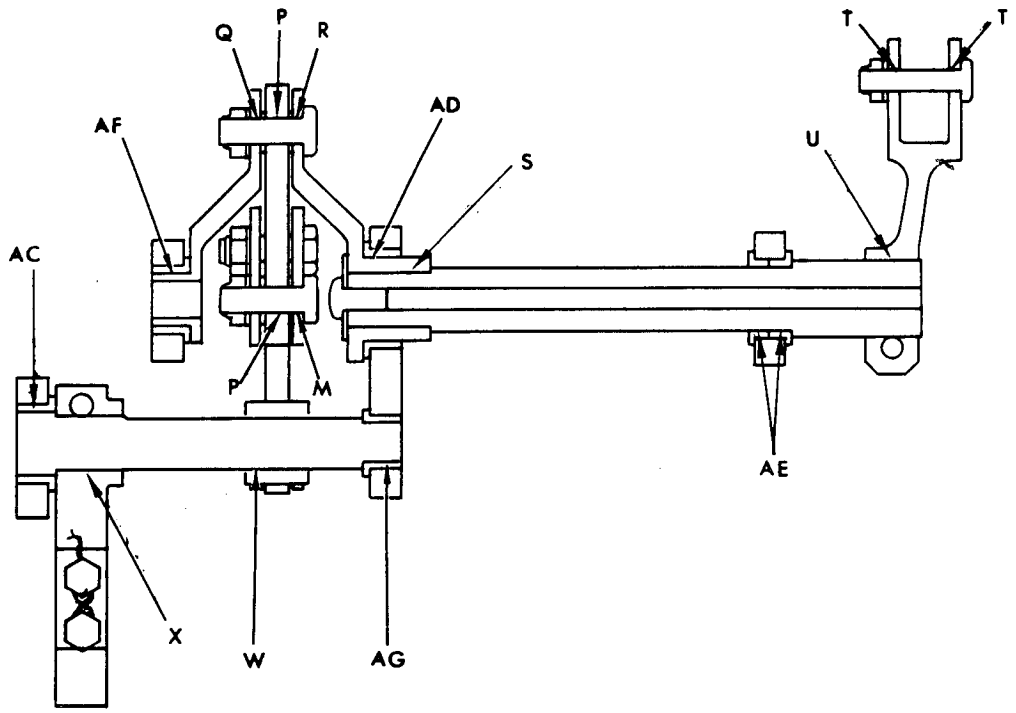
2. Clearances are given to aid assembly of the components. The values given in the Maximum Allowable Clearance column are the maximum permitted to ensure proper functioning of the unit. If assembled parts fail to meet this requirement, one or more of the parts must be rejected. Parts that are rejected 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 the design clearances be used as the guiding assembly criteria when newly reworked parts are assembled.

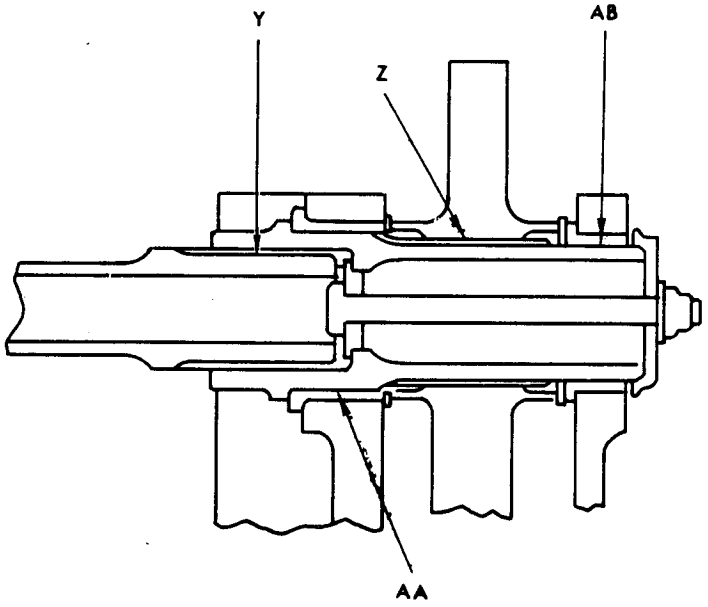


Fits and Clearances
Figure 601 (Sheet 1)


D
G
G
E
C
B
C


V
P
N
O
V
N


Q
P
R
AF
AD
S
T
T
U
AC
P
M
AE
X
W
AG


Y
AB
Z
AA

		Design Dimensions				Service Wear Limits		
Ref Letter Fig.601	Mating Item No. Fig.1101	Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
A	ID 4 OD 3	0.2495 0.2485	0.2505 0.2495	0.00	0.0020	0.2481	0.2505	0.0024
B	ID 11 OD 10	0.1895 0.1885	0.1900 0.1895	0.00	0.0015	0.1881	0.1900	0.0019
C	ID 12 OD 10	0.1895 0.1885	0.1905 0.1895	0.00	0.0020	0.1881	0.1981	0.010
D	ID 14 OD 13							*[1]
E	ID 14 OD 17							*[1]
F	ID 20 OD 3	0.2495 0.2485	0.2500 0.2495	0.00	0.0015	0.2481	0.2500	0.0019
G	ID 21 OD 17							*[1]
H	ID 21 OD 20	0.6597 0.6555	0.6607 0.6560	0.0037	0.0052	0.6555	0.6607	0.0052
I	ID 27 OD 3	0.2495 0.2485	0.2500 0.2495	0.00	0.0015	0.2481	0.2500	0.0019
J	ID 30 OD 27	0.6597 0.6557	0.6607 0.6562	0.0035	0.0050	0.6557	0.6607	0.0050

		Design Dimensions				Service Wear Limits		
Ref Letter Fig.601	Mating Item No. Fig.1101	Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
K	ID 30 OD 35	0.2495 0.2485	0.2505 0.2495	0.00	0.0020	0.2481	0.2505	0.0024
L	ID 37 OD 35	0.2495 0.2485	0.2500 0.2495	0.00	0.0015	0.2481	0.2500	0.0019
M	ID 38 OD 42	0.3120 0.3110	0.3130 0.3120	0.00	0.0020	0.3106	0.3130	0.0024
N	ID 47 OD 42	0.3120 0.3110	0.3130 0.3120	0.00	0.0020	0.3106	0.3130	0.0024
O	ID 47 OD 46	0.3850 0.3756	0.3950 0.3761	0.0089	0.0194	0.370	0.410	0.040
P	ID 49 OD 42	0.3120 0.3110	0.3125 0.3120	0.00	0.0015	0.3106	0.3125	0.0019
Q	ID 51 OD 42	0.3120 0.3110	0.3130 0.3120	0.00	0.0020	0.3106	0.3130	0.0024
R	ID 54 OD 42	0.3120 0.3110	0.3130 0.3120	0.00	0.0020	0.3106	0.3130	0.0024
S	ID 54 OD 63							*[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	
T	ID 60 OD 59	0.2495 0.2485	0.2505 0.2495	0.00	0.0020	0.2481	0.2505	0.0024
U	ID 60 OD 63							*[1]
V	ID 75 OD 46	0.3748 0.3756	0.3754 0.3761	-0.0013	-0.0002	0.3756	0.3754	-0.0002
W	ID 75 OD 74							*[1]
X	ID 79 OD 74							*[1]
Y	ID 90 OD *[2]							*[1]
Z	ID 91 OD 90							*[1]
AA	ID *[3] OD 90	1.500 1.4975	1.501 1.4982	0.0018	0.0026	1.4971	1.507	0.0036
AB	ID *[4] OD 90	1.2490 1.2465	1.2500 1.2470	0.0020	0.0035	1.2461	1.2510	0.0049

		Design Dimensions				Service Wear Limits		
Ref Letter Fig.601	Mating Item No. Fig.1101	Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
AD	ID 95,102	1.003	1.005	0.0004	0.0007		1.0080	0.010
	OD 54	0.9980	0.9990			0.9980		
AC	ID 94,101	0.7530	0.7550	0.0040	0.0070		0.7550	0.0075
	OD 74	0.7480	0.7490			0.7475		
AE	ID 96,103	0.7530	0.7550	0.0040	0.0070		0.7550	0.0080
	OD 63	0.7480	0.7490			0.7470		
AF	ID 97,104	0.6280	0.6300	0.004	0.007		0.6300	0.010
	OD 51	0.6230	0.6240			0.6200		
AG	ID 98,105	0.5030	0.5050	0.0035	0.0065		0.5050	0.0070
	OD 74	0.4985	0.4995			0.4980		

*[1] Spline backlash - 3/4 degree maximum
*[2] Torsion Bar, P/N 69-46393-1 or -2 (Ref)
*[3] Bushing, P/N 10-60516-253 (Ref)
*[4] Bushing, P/N 10-60516-244 (Ref)

TESTING

1. No functional test is required until final assembly is made during installation on airplane. However, all assembled parts must operate smoothly with a minimum of friction.

STORAGE INSTRUCTIONS

1. Package loose parts as described in ASSEMBLY and include with unit. Wrap assembly in moisture-proof paper and identify with part number and date of overhaul. Pack entire unit in suitable carton and stamp with assembly part number and date of overhaul.

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

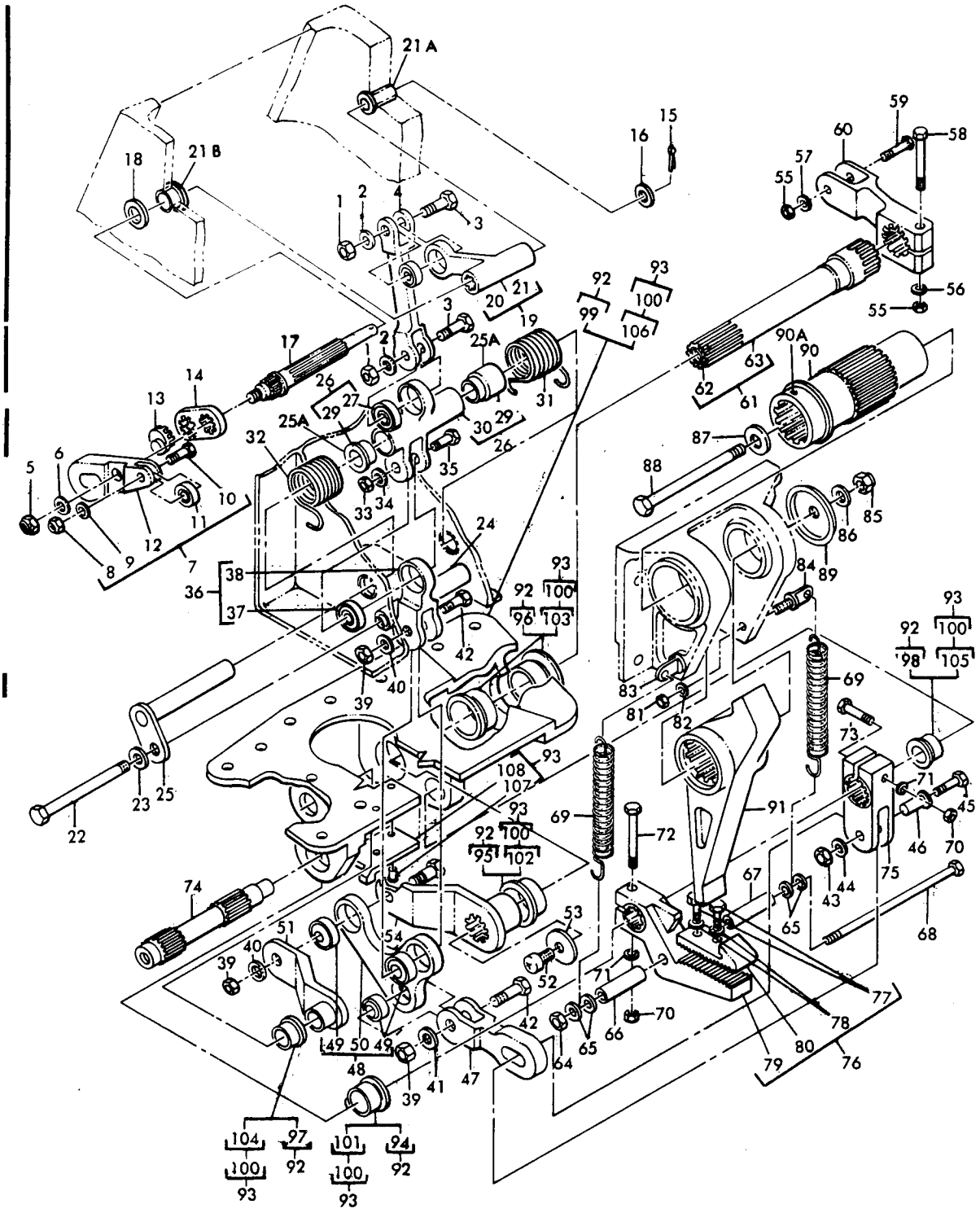
SPECIAL TOOLS

NOTE: Tools listed are Boeing tools. Equivalent tools may be used if desired.

1. ST-1068-E-6 -- Insert Removal Tool
2. ST-1068-PW-4 -- Insert Installation Tool
3. ST-1068-PR-4 -- Insert Installation Tool
4. ST-1068-TM-4 -- Tang Break-off Tool
5. ST-1068-TA-5 -- Tang Break-off Tool

ILLUSTRATED PARTS LIST

THIS PAGE
INTENTIONALLY
LEFT BLANK



Aft Airstair Drive Emergency Extension Latch
and Lockout Mechanism Assembly
Figure 1101

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101					
	65-67303-5		AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSY	A	
	65-67303-6		AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSY	B	
	65-67303-7		AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSY	C	
	65-67303-9		AFT AIRSTAIR DRIVE EMERGENCY EXTENSION LATCH AND LOCKOUT MECHANISM ASSY	D	
1	BACN10JC4		. NUT (replaces NAS679A4W)		2
2	AN960PD416L		. WASHER		2
3	BACB30NE4-8		. BOLT (replaces NAS1104-8)		2
4	69-48259-1		. LINK		1
5	BACN10JC4		. NUT (replaces NAS679A4W)		1
6	AN960-416L		. WASHER		1
7	69-48263-1		. CAM FOLLOWER ASSY		1
8	BACN10JC3		. . NUT (replaces NAS679A3W)		1
9	AN960-10		. . WASHER		1
10	BACB30NE3-9		. . BOLT (replaces NAS1103-9)		1
11	BACB10A682		. . BEARING		1
12	69-48263-2		. . CAM FOLLOWER		1
13	69-48266-1		. ECCENTRIC		1
14	69-48262-1		. PLATE, Adjustment		1
15	MS24665-134		. PIN, Cotter		1
16	AN960PD416		. WASHER *[1]	ABC	1
16	66-25175-2		. WASHER (SB 52-1036)	ABC	1
16	66-25175-2		. WASHER	D	1
17	69-48261-1		. SPINDLE		1
18	AN960-616L		. WASHER *[1]	ABC	1
18	66-25175-1		. WASHER (SB 52-1036)	ABC	1
18	66-25175-1		. WASHER	D	1
19	69-48260-3		. CRANK ASSY *[1]	ABC	1
19	69-48260-1		. CRANK ASSY (optional to 69-48260-3)	ABC	1
19	*[2]		. CRANK ASSY (reworked from 69-48260-1 by SB 52-1036)	ABC	1
19	69-48260-5		. CRANK ASSY (SB 52-1036)	ABC	1
19	69-48260-5		. CRANK ASSY	D	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101					
20	SBS8ATC21		. BEARING, V21335 (Boeing 10-60545-111S)		1
20	KSBG4N5		. BEARING, V97613 (Boeing 10-60545-111S)		1
20	YTA118		. BEARING, V77896 (Boeing 10-60545-111S)		1
20	BLFN4-061		. BEARING, V81376 (Boeing 10-60545-111S)		1
20	03-728-0250		. BEARING, V09455 (Boeing 10-60545-111S)		1
21	69-48260-4		. . CRANK (used on 69-48260-3)		1
21	69-48260-2		. . CRANK (used on 69-48260-1)		1
21	69-48260-6		. . CRANK (used on 69-48260-5)		1
21A	69-56470-6		. BUSHING (SB 52-1036)	ABC	1
21A	69-56470-6		. BUSHING	D	1
21B	69-56470-7		. BUSHING (SB 52-1036)	ABC	1
21B	69-56470-7		. BUSHING	D	1
22	BACB30NE4-48		. BOLT (replaces NAS1104-48)		1
23	AN960PD416L		. WASHER		1
24	NAS43DD4-169		. SPACER *[1]	ABC	1
24	NAS75-4-229		. BUSHING (SB 52-1036)	ABC	1
24	NAS75-4-229		. BUSHING	D	1
25	69-48258-2		. SPINDLE (SB 52-1036)	ABC	1
25	69-48258-2		. SPINDLE	D	1
25	69-48258-1		. SPINDLE *[1]	ABC	1
26	69-48257-14		. CRANK ASSY *[1]	ABC	1
26	69-48257-13		. CRANK ASSY (optional to 69-48257-14)	ABC	1
26	*[2]		. CRANK ASSY (reworked from 69-48257-13 by SB 52-1036)	ABC	1
26	69-48257-15		. CRANK ASSY (SB 52-1036)	ABC	1
26	69-48257-15		. CRANK ASSY	D	1
27	BACB10M9		. . BEARING		1
28	69-56470-4		. . DELETED		
29	69-56470-3		. . BUSHING, Flanged (used on 69-48257-13,-14)		2
30	69-48257-12		. . CRANK (used on 69-48257-14)		1
30	69-48257-10		. . CRANK (used on 69-48257-13)		1
30	69-48257-16		. . CRANK (used on 69-48257-15)		1
30A	69-56470-5		. BUSHING (used with 69-48257-15) (SB 52-1036)	ABC	2
30A	69-56470-5		. BUSHING (used with 69-48257-15)	D	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101					
31	69-53860-1		. SPRING, Torsion		1
32	69-53860-2		. SPRING, Torsion		1
33	BACN10JC4		. NUT (replaces NAS679A4W)		1
34	AN960PD416L		. WASHER		1
35	BACB30NE4-9		. BOLT (replaces NAS1104-9)		1
36	69-48256-7		. LINK ASSY (preferred)		1
36	69-48256-5		. LINK ASSY (optional)		1
37	BACB10M9		. . BEARING		1
38	69-48256-8		. . LINK (used on 69-48256-7)		1
38	69-48256-6		. . LINK (used on 69-48256-5)		1
39	BACN10JC5		. NUT (replaces NAS679A5)		3
40	AN960-516L		. WASHER		2
41	AN960PD516L		. WASHER		1
42	BACB30NE5-10		. BOLT (replaces NAS1105-10)		3
43	BACN10JC4		. NUT (replaces NAS679A4W)		1
44	AN960-416L		. WASHER		1
45	BACB30NE4-10		. BOLT (replaces NAS1104-10)		1
46	BACB28X4B63		. BUSHING, Flanged		1
47	69-48252-2		. LINK		1
48	69-48251-3		. PLATE ASSY (preferred)		1
48	69-48251-1		. PLATE ASSY (optional)		1
49	BACB10M25		. . BEARING		3
50	69-48251-4		. . PLATE (used on 69-48251-3)		1
50	69-48251-2		. . PLATE (used on 69-48251-1)		1
51	69-48250-1		. LINK, Pivot		1
52	NAS604-8P		. SCREW		1
53	BACW10P135D		. WASHER		1
54	69-48249-3		. LINK, Splined pivot		1
55	BACN10JC4		. NUT (replaces NAS679A4W)		2
56	AN960PD416		. WASHER		1
57	AN960-416		. WASHER		1
58	BACB30NE4-20		. BOLT (replaces NAS1104-20)		1
59	BACB30NE4-14		. BOLT (replaces NAS1104-14)		1
60	69-48247-1		. CRANK, Latch		1
61	69-48248-1		. SHAFT ASSY, Latch		1
62	MS21209F4-15		. . INSERT		1
63	69-48248-2		. . SHAFT		1
64	BACN10JC3		. NUT (replaces NAS679A3W)		1
65	BACW10P43AL		. WASHER		4

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101					
66	NAS43DD3-96		. SPACER		1
67	NAS43DD3-37		. SPACER *[1]		1
68	BACB30NE3-57		. BOLT (replaces NAS1103-57) *[1]		1
68	NAS1103-48		. BOLT *[1]		1
69	MS24586-684		. SPRING		2
70	BACN10JC4		. NUT (replaces NAS679A4W)		2
71	AN960PD416L		. WASHER		2
72	BACB30NE4-17		. BOLT (replaces NAS1104-17)		1
73	BACB30NE4-16		. BOLT (replaces NAS1104-16)		1
74	69-48255-1		. SHAFT, Latch		1
75	69-48253-1		. CRANK, Latch		1
76	69-53844-2		. LATCH ASSY	A	1
76	69-53844-3		. LATCH ASSY	BCD	1
77	BACB30NE4-4H		. . BOLT (replaces NAS1304-4H)		2
78	AN960PD416L		. . WASHER		2
79	69-53843-1		. . ARM, Latch		1
80	69-53843-3		. . LATCH (used on 69-53844-2) (SB 52-1010)		1
80	69-53843-4		. . LATCH (used on 69-53844-3) (SB 52-1010)		1
81	BACN10JC3		. NUT (replaces NAS679A3W)		2
82	AN960-10L		. WASHER		2
83	AN42B7		. EYEBOLT		1
84	AN42B5		. EYEBOLT		1
85	BACN10JC4		. NUT (replaces NAS679A4W).		1
86	AN960PD416L		. WASHER.		1
87	BACW10P135A		. WASHER		1
88	BACB30NE4-48		. BOLT (replaces NAS1104-48)		1
89	69-54408-1		. CAP, Retaining		1
90	69-48708-1		. ADAPTER *[1]	AB	1
90	69-48708-2		. ADAPTER (reworked from 69-48708-1 by SB 52-1017)	AB	1
90	69-48708-3		. ADAPTER (preferred)	CD	1
90	69-48708-2		. ADAPTER (optional to 69-48708-3)	CD	1
90A	MS16562-199		. . PIN (used on 69-48708-2)		1
91	69-55452-1		. ARM, Actuating *[1]	AB	1
91	69-55452-2		. ARM, Actuating (reworked from 69-55452-1 by SB 52-1017)	AB	1
91	69-55452-3		. ARM, Actuating (preferred)	CD	1
91	69-55452-2		. ARM, Actuating (optional to 69-55452-3)	CD	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101					
92	65-60963-6		. BASEPLATE ASSY *[1]	AB	1
92	65-60963-10		. BASEPLATE ASSY (reworked from 65-60963-6 by SB 52-1017)	AB	1
92	65-60963-10		. BASEPLATE ASSY (preferred)	CD	1
93	65-60963-8		. BASEPLATE ASSY *[1]	AB	1
93	65-60963-11		. BASEPLATE ASSY (reworked from 65-60963-8 by SB 52-1017)	AB	1
93	65-60963-11		. BASEPLATE ASSY (optional to 65-60963-10)	CD	1
94	NAS77A12-38P		. . BUSHING (used on 65-60963-6)		1
94	69-60432-2		. . BUSHING (used on 65-60963-10)		1
95	NAS77A16-38P		. . BUSHING (used on 65-60963-6)		1
95	69-60432-4		. . BUSHING (used on 65-60963-10)		1
96	NAS77A12-18P		. . BUSHING (used on 65-60963-6)		2
96	69-60432-1		. . BUSHING (used on 65-60963-10)		2
97	NAS77A10-38P		. . BUSHING (used on 65-60963-6)		1
97	69-60432-5		. . BUSHING (used on 65-60963-10)		1
98	NAS77A8-38P		. . BUSHING (used on 65-60963-6)		1
98	69-60432-3		. . BUSHING (used on 65-60963-10)		1
99	65-60963-7		. . BASEPLATE (used on 65-60963-6, -10)		1
100	65-60963-4		. . BASEPLATE ASSY (used on 65-65-60963-8)		1
100	*[2]		. . BASEPLATE ASSY (made from 65-60963-4)(used on 65-60963-11)		1
101	NAS77A12-38P		. . . BUSHING (used on 65-60963-4)		1
101	69-60432-2		. . . BUSHING (used on 65-60963-11)		1
102	NAS77A16-38P		. . . BUSHING (used on 65-60963-4)		1
102	69-60432-4		. . . BUSHING (used on 65-60963-11)		1
103	NAS77A12-18P		. . . BUSHING (used on 65-60963-4)		2
103	69-60432-1		. . . BUSHING (used on 65-60963-11)		2
104	NAS77A10-38P		. . . BUSHING (used on 65-60963-4)		1
104	69-60432-5		. . . BUSHING (used on 65-60963-11)		1
105	NAS77A8-38P		. . . BUSHING (used on 65-60963-4)		1
105	69-60432-3		. . . BUSHING (used on 65-60963-11)		1
106	65-60963-5		. . . BASEPLATE		1
107	MS20426D4		. . RIVET (replaces AN426D4)(used on 65-60963-8,-11)		2
108	65-60963-9		. . STOP (used on 65-60963-8,-11)		1

*[1] Limited usage

*[2] No Boeing part number assigned

VENDORS

V09455	Lear Siegler Inc., Transport Dynamics Division, 3131 West Segerstrom Avenue, Santa Ana, California 92702
V21335	Fafnir Bearing Co., Division of Textron, Incorporated, 37 Booth Street, New Britain, Connecticut 06050
V77896	Rex Chain Belt, Inc., Bearing Division, 2400 Curtiss Street, Downers Grove, Illinois 60515
V81376	Southwest Products Co., 1705 South Mountain Avenue, Monrovia, California 91016
V97613	Sargent Industries, Kahr Bearing Division, 3010 North San Fernando Boulevard, Burbank, California 91503