TO: ALL HOLDERS OF ENGINE CONTROLS COMPONENTS ASSEMBLY OVERHAUL MANUAL, 76-14-11

REVISION NO. 11, DATED NOV 1/02

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
Revised the finishes for 65-45136-( ) drum assemblies					X								
Edited without technical change					X								
Added 65-45136-17, -18, -19 drum assemblies with changed cams per PRR 34640, and 65-45136-20 drum assembly without a cam												X	
Updated the vendors list												X	

ENGINE CONTROL COMPONENTS

76-14-11

BOEING P/N 65-23761-4, -5, -15 thru -20
65-45136-1, -4, -6, -7 thru -15, -17 thru -20
65-46506-1 thru -10, -21, -22, -29, -30, -35 thru -48
65C16481-301 thru -328, -330 thru -357
65-35354-3 thru -6

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30795	May 15/69
76-1002		PRR 31270	May 15/69
		PRR 31030-14	Aug 15/69
		PRR 31113	Aug 15/69
		PRR 31231	Aug 15/69
71-1016		MC 3510-4K	Jun 10/70
71-1016, Rev 1		MC 3510-4K	Jun 10/70
		PRR 31883	Jun 10/70
		PRR 31926	Jun 10/70
22-1011			Sep 10/71
22-1012			Sep 10/71
28-1020		PRR 32056	Sep 25/73
		PRR 32388	Dec 25/74
		PRR 32885-10	Jun 25/75
		PRR 32540	Dec 25/75
		PRR 32747	Jul 5/78
		PRR 32755	Jul 5/78
76-1006		PRR 32755-R	Jul 5/78
		PRR 32811	Jul 5/78
28-1035		PRR 33076	Jul 5/78
76-1007		PRR 32902-R	Jul /582
76-1006 R2			Dec 5/83
		PRR 34640	Nov 1/02

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
76-14-11				1120	Jun 5/88			
*	T-1	Nov 1/02		1121	BLANK			
	T-2	BLANK		1122	Jun 5/88			
*	LEP-1	Nov 1/02	*	1123	Nov 1/02			
	LEP-2	BLANK	*	1124	Nov 1/02			
	T/C-1	Jun 5/88						
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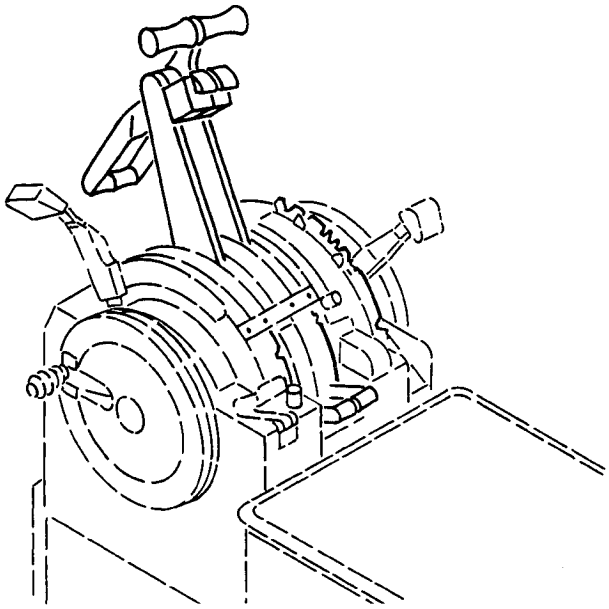
ENGINE CONTROL COMPONENTS



Engine Control Components
Figure 1

DESCRIPTION AND OPERATION

1. The engine control components consist of thrust handle assemblies, reverse-thrust-detent roller assemblies, start system lever assemblies, and engine start drum assemblies. Linkages between components are made in the control stand upper mechanism assembly (Ref 27-16-11).

2. The thrust handle assembly includes a reverse thrust lever with: an interlock which permits movement of a reverse thrust lever only when the thrust lever is in forward idle position, a stow detent/stop function. The reverse-thrust-detent roller assembly engages the thrust drums, allowing a feel of the position of thrust or reverse thrust levers. Each start lever connects to a start drum through linkage, and lever action is transmitted through the linkage to rotate the drum.

3. Leading Particulars (Approximate)

A.	Component	Length	Width	Height
(1)	Thrust handle assy	8 in	4 in	
(2)	Reverse-thrust-detent roller assy	2 in	2 in	3 in
(3)	Start system lever assy	5 in	5 in	
(4)	Engine start drum assy	3 in	2 in	3 in

DISASSEMBLY

NOTE: Identify assemblies and parts, including washers, shims and spacers, to facilitate reassembly.

1. Disassemble thrust handle assembly (1) (IPL Fig. 1101):

   NOTE: Refer to use codes in parts list to determine applicability of items to configuration being disassembled.

   A. Use standard industry practices to disassemble thrust handle assembly.

      CAUTION: USE CARE TO AVOID DAMAGE TO WIRE INSULATION.

      NOTE: Do not remove or disassemble the following parts unless necessary for repair or replacement:

      Drum (5) from drum brake (59). Inserts (9, 112) from drum (11, 111). Bearing (12, 12A) from drum (10, 5). Rivet (18) and link (19) from lever (22). Rivets (31) or housing (33) from handle or lever (58). Rivet (46), washer (47), pawl (48) or pin (43A), rocker arm (43B) from lever (58). Wire bundle (49), terminal (50), rivets (51), wire guide (52), nut (53), screw (54), clamp (55), conduit (56), rivet (57), lever (58), drum (59) or bearing (60).

2. Disassemble reverse-thrust-detent roller assembly (1) (IPL Fig. 1102):

   A. Remove spring (5), nut (10), washer (20), eyebolt (25), and spacer (30) or nut (15).

   B. Remove nut (35), washer (40), bolt (45), spacer (50), and cam arm assemblies (55) from bracket assembly (95).

      NOTE: Do not remove rivets (60), cam (65), bearing (85), and cam arm (90) from cam arm assemblies (55); or rivet (70), bearing (75), and cam arm (80) from cam assembly (65) unless necessary for repair.

      Do not remove rivets (100), bracket (105), and support (110) from bracket assembly (95) unless necessary for repair.

3. Disassemble start system lever assembly (1) (IPL Fig. 1103):

   A. Remove screw (5), knob (10), rivet (15), washers (20), spacer (25), and rod assembly or link assembly (30).

      NOTE: Do not separate tube (60) from fork (65) and rod end assembly (70) or remove bearing (80) from rod end (75) unless necessary for repair.

      NOTE: Do not separate links (40, 45) or remove bearing (50) and sleeve (52) unless necessary for repair.

   B. Align levers (90, 105) as necessary; use punch to remove pin (85). Remove engine start lever (90), spring (95), and stop (100) from lever assembly (105).

      NOTE: Do not remove bearing (115), rivet (120), or handle stop (125) from lever (110) unless necessary for repair.

4. Disassemble drum assembly (1) (IPL Fig. 1104):

   A. Remove bolts (5, 65), washers (10, 70), nuts (60), cams (15, 20, 25) and plate (30).

   NOTE: Do not remove bearings (35, 40) and insert (55) from drum (50) unless necessary for repair.

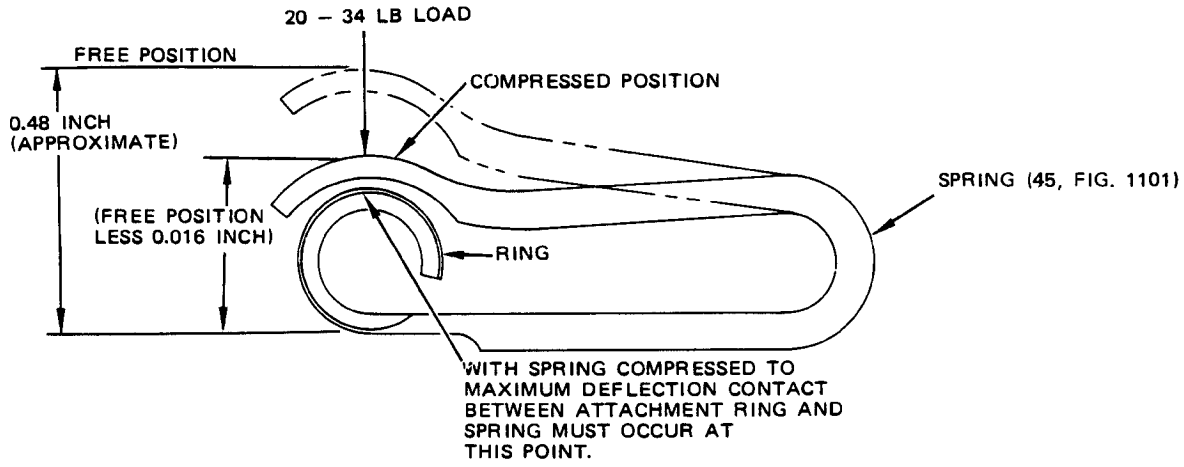
INSPECTION/CHECK

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

2. Penetrant examine per 20-20-02 -- (Fig. 1101) Drum (11), reverse thrust lever (22), rocker arm (43B), lever (58), thrust brake drum (59); (Fig. 1103) Engine-start lever (90), start-lever assy (110); (Fig. 1104) Drum (45).

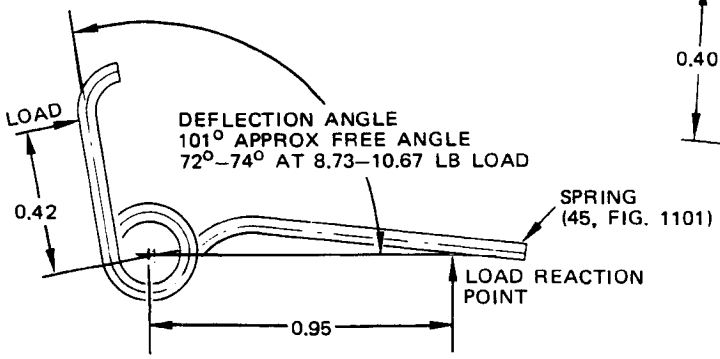
3. Magnetic particle examine per 20-20-01 -- (Fig. 1101) Pawl (48).

4. Check springs (45, Fig. 1101) (5, Fig. 1102) (95, Fig. 1103) per Fig. 301.

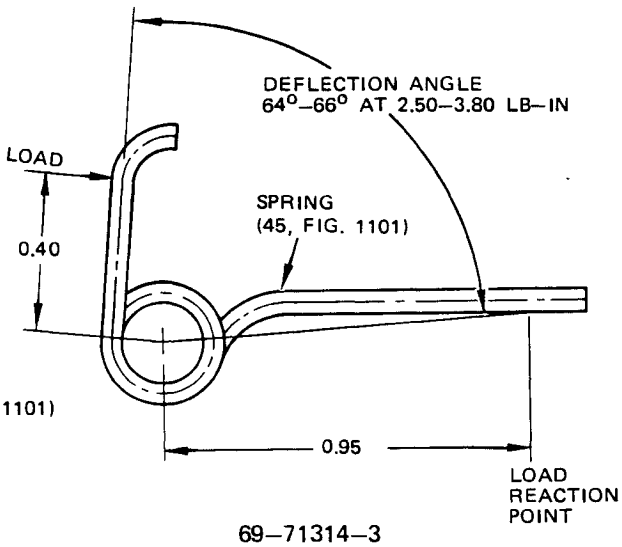


65–74599–1, 69–35369–1

Spring Check Data
Figure 301 (Sheet 1)



69–69919–1



69–71314–3

Fig. and Index No.	Approximate Free Length (Inches	Test Length (Inches)	Allowable Load Limits (Pounds)
1102-5	1.80	2.46 2.67	21.6 - 26.4 27.0 - 33.0
1102-5	1.80	2.45 2.65	11.5 - 12.5 14.5 - 15.5
1103-95	1.29	0.94 0.56	0.81 - 1.81 2.24 - 3.24

Spring Check Data
Figure 301 (Sheet 2)

REPAIR

1. Materials

   A. Solvent, Methyl Ethyl Ketone -- TT-M-261 (Ref 20-60-01)

   B. Bonding Adhesive -- BMS 5-31, Type 51 (Ref 20-50-12)

   C. Electrical Insulating Sealant Compound -- BMS 5-37, Class B (Ref 20-60-04)

   D. Lacquer -- Flat black color 37038, TT-L-20 (Ref 20-60-02)

   E. Primer -- BMS 10-11, Type 1 (Ref 20-60-02)

   F. Solvent -- P-D-680 (Ref 20-60-01)

   G. Dry Film Lube -- BMS 3-8, Class A (Ref 20-50-08)

2. Repair minor defects in accordance with standard industry practices.

3. Refinish

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

   A. Reverse thrust special bolt (3, Fig. 1101) -- Cadmium plate (F-1.1913) all over. Hold diameter of shank to 0.3108- to 0.3117 inch after plating. Material: 8630 steel (160-180 ksi).

   B. Bearing retainer (7, Fig. 1101), retainer (38, Fig. 1101), drum brake (59, Fig. 1101) (65-1634-1, -2, -5, -6), bracket (105, Fig. 1102), support (110, Fig. 1102), tube (60, Fig. 1103), fork (65, Fig. 1103) -- Alodize and apply one coat primer BMS 10-11, Type 1 (SRF-2.30) all over except no primer in bearing bore or grooves, or on faying surfaces. Material: Al alloy.

   C. Drum (11, Fig. 1101) -- Alodize and apply one coat primer BMS 10-11, Type 1 (SRF-2.19) all over except faying surfaces of bearing bore and cam detent seats. Material: Al alloy.

   D. Special Bolt (15, Fig. 1101) -- Cadmium plate (F-1.1913) all over. Hold diameter of shank to 0.1885- to 0.1894 inch after plating. Apply dry lubricant (F-19.10) to shank 0.0002- to 0.0005 inch thick, except in no case shall there be an interference between special bolt (15) and bushing (16). Material: 8630 steel (160-180 ksi).

   E. Reverse thrust link (19, Fig. 1101), reverse thrust lever (22, Fig. 1101), housing (33, Fig. 1101), cover (35, Fig. 1101), stop bolt (43, Fig. 1101), lever (58, Fig. 1101), engine-start lever (110, Fig. 1103). Material: CRES (301, 302, 347, 17-4, 17-7) (150-200 ksi) and 4340 steel (125-145 ksi).

(1) Apply dull-matte finish, dry abrasive blast, all over per 20-30-03. Use 180 or finer garnet, aluminum oxide or silicon carbide grit for dry blasting.

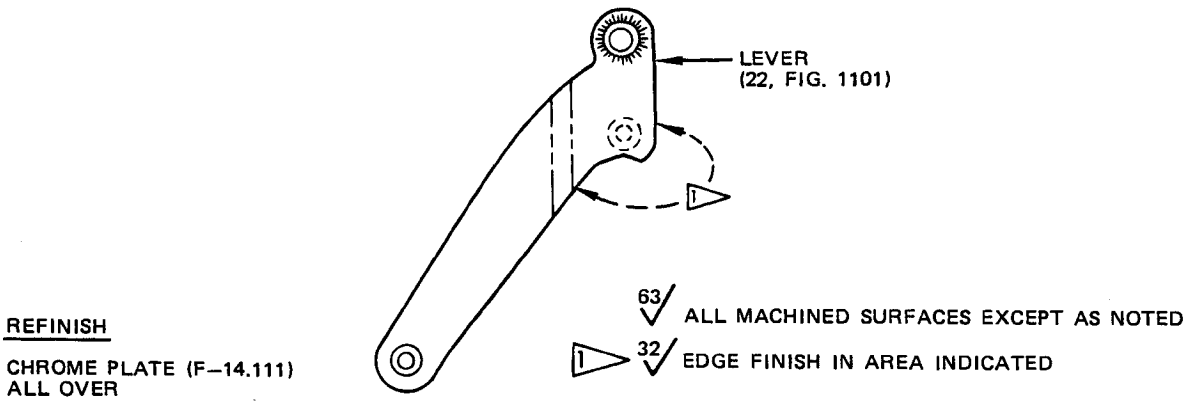
(2) Apply additional finish to the following:

(a) Reverse thrust link (19, Fig. 1101) -- Apply dry lubricant (F-19.10) to all surfaces included in "S-curve" portion which have rounded edge (throughout approximate 4-inch total length).

(b) Lever (58, Fig. 1101) -- Nickel plate (F-1.803) all over. Optional finish chrome plate (F-14.111).

(c) Engine start lever (90, Fig. 1103) -- Apply dry lubricant (F-19.10) to all sliding surfaces, approximately 2.5 inches.

(d) Reverse thrust lever (22, Fig. 1101) -- Refinish per Fig. 401.



Lever Refinish
Figure 401

F. Control lever knob (21, Fig. 1101), knob assembly (24, Fig. 1101), paddle (41, Fig. 1101), knob (10, Fig. 1103) -- Apply lacquer per TT-L-20, flat black color 37038, Federal Standard 595, to fill letters. Material: Plastic.

G. Retainer (28, Fig. 1101) -- Alodize and apply one coat primer BMS 10-11, Type 1 (F-2.31) plus lacquer (F-14.903-705) all over except omit primer on threads. Material: Al alloy.

H. Spring (45, Fig. 1101, 65-74599-1) -- Chrome plate (F-15.04), 0.003- to 0.004-inch thick, a length of 0.65- to 0.75 inch on spring-end which will contact reverse thrust lever (22). Do not plate flexing end which is supported by pin (44). Maintain 32-microinch finish on plated part; grinding permitted. Passivate (F-8.07) all over except on plated area. Material: 17-7PH CRES (TH1050 per BAC5619).

I. Spring (45, Fig. 1101, 69-35369-1) -- Chrome plate (F-15.02) external surface of spring tongue. Maintain 32-microinch finish on plating, grinding permitted. Apply dry film lube (F-19.10) over plated area and edges, overspray permitted. Plate to within approximately 0.32 inch of 180-degree bend (flexing end). Material: CRES AISI, Type 302, spring temper per QQ-V1-423, comp 302, cond B.

J. Spring (45, Fig. 1101, 69-69919-1, 69-71314-3) -- Apply two coats primer, BMS 10-11, Type 1 (F-20.03) all over. Material: 9254 chrome-silicon wire per QQ-W-412 comp 2, Type 1.

K. Rocker arm (43, Fig. 1101) -- Cadmium plate (F-15.06) all over, except no plating in hole. Apply solid film lubricant (F-19.10). Material: Manganese bronze per AMS 4862, opt Al-Ni-Br per AMS 4640.

L. Spacer (44A, Fig. 1101) -- Cadmium plate (F-15.06) all over, except no plating in hole. Material: Al-Ni-Br per AMS 4640.

M. Pawl (48, Fig. 1101) -- Cadmium plate (F-1.20) or zinc plate (F-1.205) all over. Material: 17-4PH CRES (160-220 ksi).

N. Spring (5, Fig. 1102) -- Cadmium plate and apply two coats primer (SRF-1.92) all over, except omit primer from 69-34830. Bake 3 hours at 350-400°F after plating. Material: Music wire.

O. Eyebolt (25, Fig. 1102, 66-1551) -- Cadmium plate (F-1.20) or zinc plate (F-1.205) all over. Material: 8630 or 4130 steel.

P. Cam arm (80, Fig. 1102) -- Cadmium plate and apply one coat primer BMS 10-11, Type 1 (SRF-1.285) all over. Material: 8630 steel.

Q. Cam arm (90, Fig. 1102) -- Anodize and apply one coat primer BMS 10-11, Type 1 (SRF-2.19) all over except in bearing bore. Material: Al alloy.

R. Rod end (75, Fig. 1103) -- Cadmium plate and apply one coat primer BMS 10-11, Type 1 (F-1.30) all over except no primer in bearing bore. Material: 8630 or 4130 steel.

S. Spring (95, Fig. 1103), stop (100, Fig. 1103) -- Cadmium plate (F-1.20) all over. Bake 3 hours at 350-400°F. Material: Music wire.

T. Lever (110, Fig. 1103) -- Alodize (SRF-2.30) all over except in bearing bore, plus dry lubricant (F-19.10) in slotted area which mates and slides on engine-start lever (90, Fig, 1103). Material: Al alloy.

U. Handle stop (125, Fig. 1103) -- Apply primer BMS 10-11, Type 1 (SRF-12.206) all over. Material: 17-4 PH CRES (180-200 ksi).

V. Links (40, 45, Fig. 1103) -- Anodize (F-2.20) all over. Material: Al alloy.

W. Drum (50, Fig. 1104) -- Anodize (F-17.05). Apply BMS 10-11, Type 1 primer (F-20.02) all over but not in bearing bore and groove. Material: Al alloy.

X. Link assembly (30, Fig. 1103) -- Apply BMS 10-11, Type 1 primer (SRF-12.205) but not in holes or on bearing (50, Fig. 1103). Material: Al alloy.

Y. Plate (30, Fig. 1104) -- Chromic acid anodize (F-17.04). Material: Al alloy.

Z. Drum brake (59, Fig. 1101) (65-1634-11, -12) -- Chemical treat surface or chromic acid anodize (F-18.05). Apply BMS 10-11, Type 1 primer. Material: Al lloy.

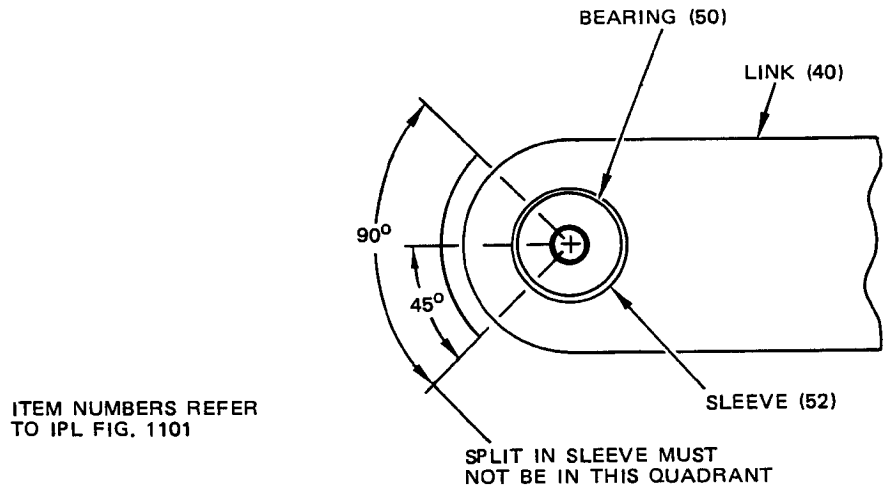
4. Replacement

A. Bearings (12, 12A, Fig. 1101) (85, Fig. 1102) (80, Fig. 1103) -- Install replacement bearings (SOPM 20-50-03). Roller swage bearings (12, 12A, 85), and press fit bearing (8).

B. Bearings (60, Fig. 1101) (115, Fig. 1103) (35, 40, Fig. 1104) -- Install replacement bearings and roller swage them per SOPM 20-50-03.

C. Cam follower bearing (75, Fig. 1102) and retaining rivet (70, Fig. 1102) -- Install in cam arm (80, Fig. 1102). If the lube fitting in the cam follower bearing is out above the bearing, remove the fitting and plug the hole with CRES plug 66-13328-3.

D. Bearing (50, Fig. 1103) -- Install with sleeve (52) in link (40) and roller swage per SOPM 20-50-03. Be sure to turn the split in sleeve (52) as shown in Fig. 402. Sleeve must be flush with bearing 0.005 inch after swaging.



Bearing Replacement
Figure 402

E. Helical coil insert (9, Fig. 1101) (55, Fig. 1104) -- Install with wet primer, BMS 10-11, Type 1, 1/4 to 1/2 turn below surface of part. Remove tang.

F. Thrust knob insulating disk (25, Fig. 1101).

(1) Remove all remnants of defective part from knob assembly (24, Fig. 1101). Clean replacement contact areas with methyl ethyl ketone. Dry the surfaces.

(2) Prepare BMS 5-31, Type 51 adhesive. Thoroughly blend 30 parts by weight of accelerator to 100 parts by weight of base resin.

NOTE: Pot life is 1-1/2 hours at 60°F or 20 minutes at 77°F.

(3) Apply adhesive to contact surface of thrust knob insulating disk (25, Fig. 1101) and knob assembly (24, Fig. 1101). Assemble and apply sufficient pressure to ensure contact throughout contact area. There should be evidence of extruding excess adhesive. Wipe out excess adhesive, but do not smear adjacent surfaces. Maintain only sufficient pressure to hold parts in place until adhesive sets.

NOTE: Methyl ethyl ketone may be used in minimum amount to clean out excess adhesive. Avoid contamination of bonding adhesive.

(4) Cure 12 hours at 70°F, or 2 hours at 150 to 160°F or 4 hours at 120 to 130°F.

G. Switch (29, 39, Fig. 1101) -- Remove solder-terminal lugs and replace with crimp lugs (50, Fig. 1101). Salvage terminal screws and lockwashers to connect wiring. Salvage mounting nut and lockwasher to use for installation with retainer (28, Fig. 1101).

H. Wire bundle assembly (49, Fig. 1101).

(1) Remove defective wire bundle assembly (49) and remnants of potting material to permit installation of replacement wire bundle assembly. Clean potting areas with solvent, Specification P-D-680 or equivalent. Dry with clean cloth or dry air.

(2) Remove wire bundle outer teflon covering from that portion of wiring which will be in switch assembly (32) or knob assembly (24). Remove sufficient covering to provide slack for installation and removal of switch (29) in knob assembly (24).

(3) Pull wire bundle assembly (49) through wire guide (52), conduit (56), lever (58), and into switch housing (33). Stripped wire must be pulled entirely through lever (58) and entrance hole in switch housing (33) so that teflon bundle covering will protect wiring from insulating compound.

(4) Form a suitable dam in lever (58) where wire bundle (49) passes through lever (58) to restrict entrance of insulating compound. Provide enough area to bond cable to lever, but limit total bulk of compound to prevent interference with function of lever and components.

(5) Measure and prepare sealant BMS 5-37, Class B, electrical insulating sealant compound in accordance with manufacturer's instructions.

(6) Inject insulating compound into prepared areas in lever (58) to fill cavity; build up a fillet around cable in switch housing (33). Use care to prevent excess compound entering lever areas and switch housing.

(7) Inject sufficient compound into top end of conduit (56) to seal it; mold it flush with top.

(8) Cure according to manufacturer's instructions.

(9) When cure is complete, remove dam. Remove excess compound.

I. Rocker arm (43B, Fig. 1101) -- Install in lever (58, Fig. 1101) with pin (43A, Fig. 1101).

ASSEMBLY

1. Assemble Engine-Start Drum Components (Fig. 1104)

   A. Install cams (15) with bolts (5) and washers (10).

   B. Install cams (20, 25) and plate (30) with bolts (65), washers (70) and nuts (60).

2. Assemble Start System Lever Assembly (Fig. 1103)

   A. Position spring (95) on stop (100) and place in start lever assembly (105), aligning hole in stop (100) with that in lever assembly (105). Slide engine-start lever (90) into place in start lever assembly (105), aligning holes in each with that in stop (100). Insert pin (85) through hole in start lever assembly (105) and into position free of lever assembly, but pinning engine-start lever (90) to stop (100).

   B. Install knob (10) with screw (5).

   C. Install rod or link assembly (30), spacer (25), washers (20), and rivet (15).

3. Assemble Control Stand Reverse-Thrust-Detent Roller Assembly (Fig. 1102)

   A. Position cam arm assemblies (55) and spacer (50) in bracket assembly (95); install bolt (45), washer (40) and nut (35).

   B. Install spacers (30) or nut (15), if applicable, eyebolts (25), washers (20), and nuts (10) as necessary.

   C. Attach springs (5) to eyebolts (25) and cam arm assemblies (55).

4. Assemble Thrust Handle Assembly (Fig. 1101)

   A. Use standard industry practices for assembly of this component, and the following additional procedures.

   B. Position switch (39) so that paddle (41) contacts stop on housing and switch actuates when paddle is pressed. Tighten screw until switch cannot be rotated. Paddle must rotate freely without binding.

   C. Install bearing (8) per 20-50-03.

   D. Install link (19) and attach lever (22) on drum (59) with bolt (3), washer(s) (4) and nut (3). Use washers as required for clearance. Use MS20995NC40 lockwire to secure nut (3), install lockwire per 20-50-02, single method.

      CAUTION: LOCKWIRE SHALL NOT EXTEND ABOVE SURFACE OF DRUM.

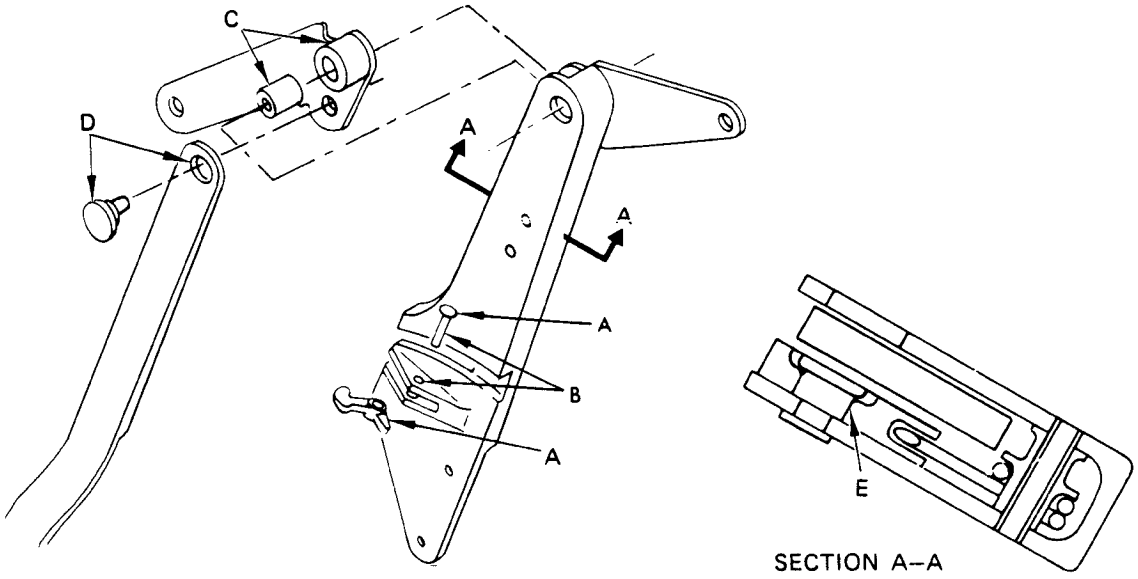
E. For all thrust handle assemblies:

(1) Reverse thrust lever stow detent/stop components.

(a) Position spring (45, 65-74599-1 or 69-35369-1) in lever (58) and install pin (44), stop bolt (43), and nut (42). Tighten nut to 4-6 lb-in. Align pin (44) so that chamfered ends protrude equally from each side. Grind or file chamfered ends until they are flush with lever sides. Touch up finish on lever (58) as necessary.

(b) Position spring (45, 69-69919-1, 69-71314-3) in lever (58), with arched end in rocker arm (43B) slot, and install pin (44). Pull other end of spring forward sufficiently to clear 0.094- to 0.097-inch hole and install pin (44). Install pins (44) as in (a) above.

FITS AND CLEARANCES



THRUST HANDLE ASSEMBLY
ENGINE NO. 1 SHOWN

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 48	0.125	0.130	*[1] 0.004	0.009		0.143	0.014
	OD 46	0.121	0.129			0.117		
B	ID 58	0.1285	0.1335	*[1] 0.0005	0.0125		0.1490	0.020
	OD 46	0.1210	0.1290			0.117		
C	ID 22	0.3150	0.3160	0.0014	0.0029		0.3215	0.0079
	OD 16	0.3131	0.3136			0.3101		
D	ID 19	0.375	0.379	0.002	0.009		0.389	0.016
	OD 18	0.370	0.373			0.366		
E	ID 43B	0.190	0.191	0.003	0.005			
	OD 43A	0.186	0.187					

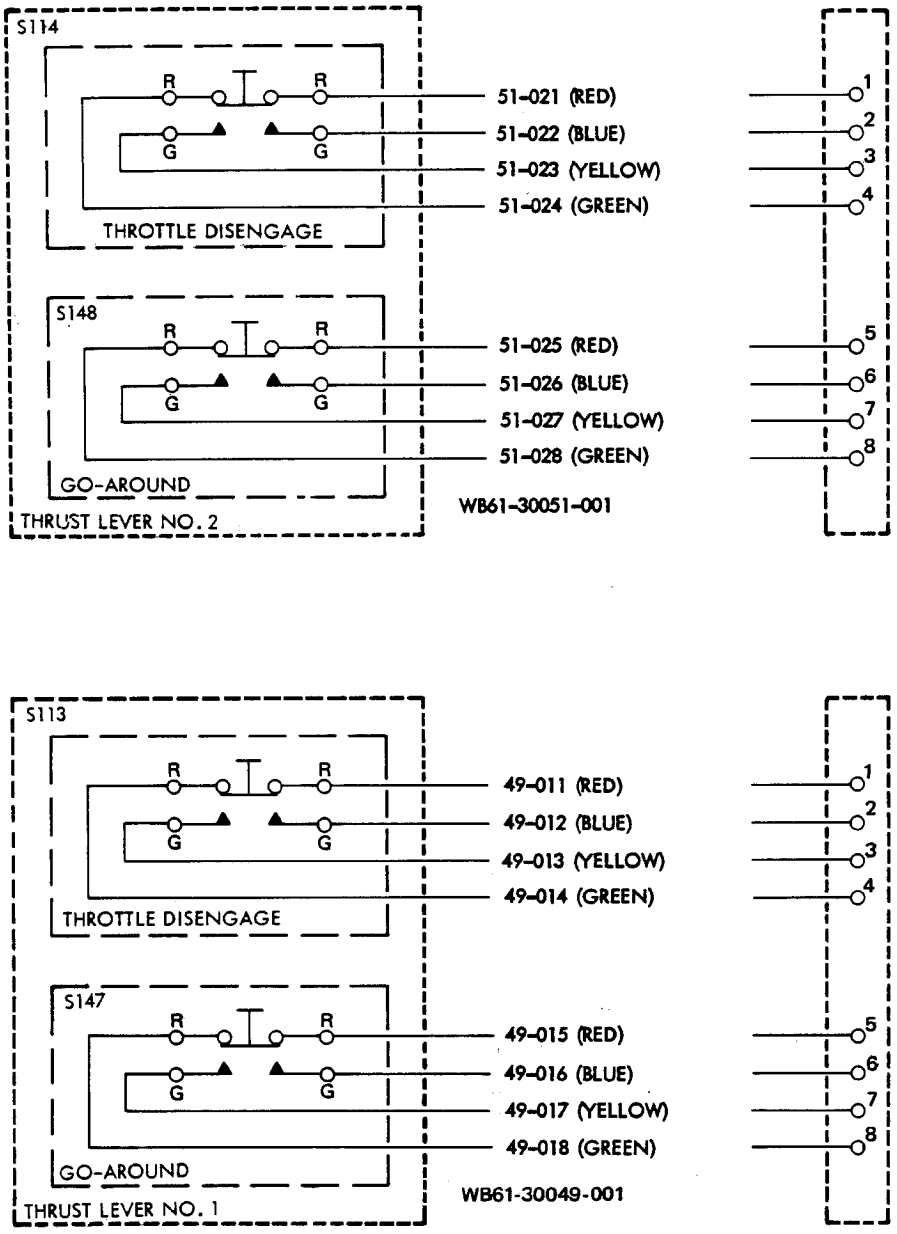
*[1] Interference fit

Fits and Clearances
Figure 601 (Sheet 2)

TESTING

1. Test electrical continuity through switches (29, Fig. 1101), (if applicable, 39, Fig. 1101) and wire bundle assemblies (49, Fig. 1101) (Fig. 701).

2. Verify continuity (less than 1 ohm) or no continuity (infinite resistance) between pins (Fig. 702).



Wire Bundle Schematic
Figure 701

Switch Position	From Pin	To Pin	Reading
Released	1	4	Continuity
	2	3	No Continuity
	5	8	Continuity
	6	7	No Continuity
Depressed	1	4	No Continuity
	2	3	Continuity
	5	8	No Continuity
	6	7	Continuity

Continuity Check
Figure 702

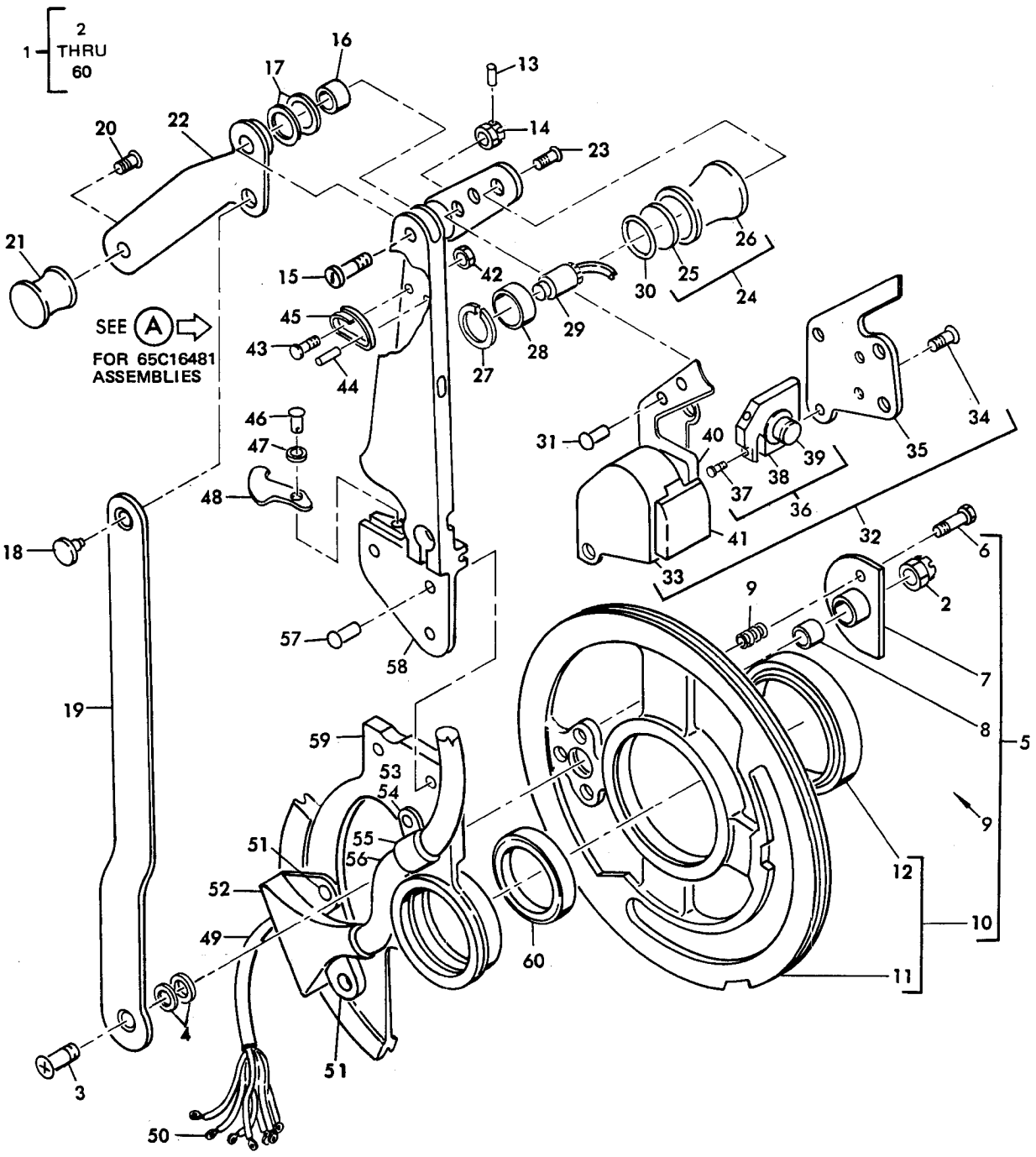
3. Check mechanical operation (Fig. 1101)

   A. Operate thrust lever and reverse thrust lever through full travel and verify mechanism, including pawl (48) and rocker arm (43B), operates freely without binding.

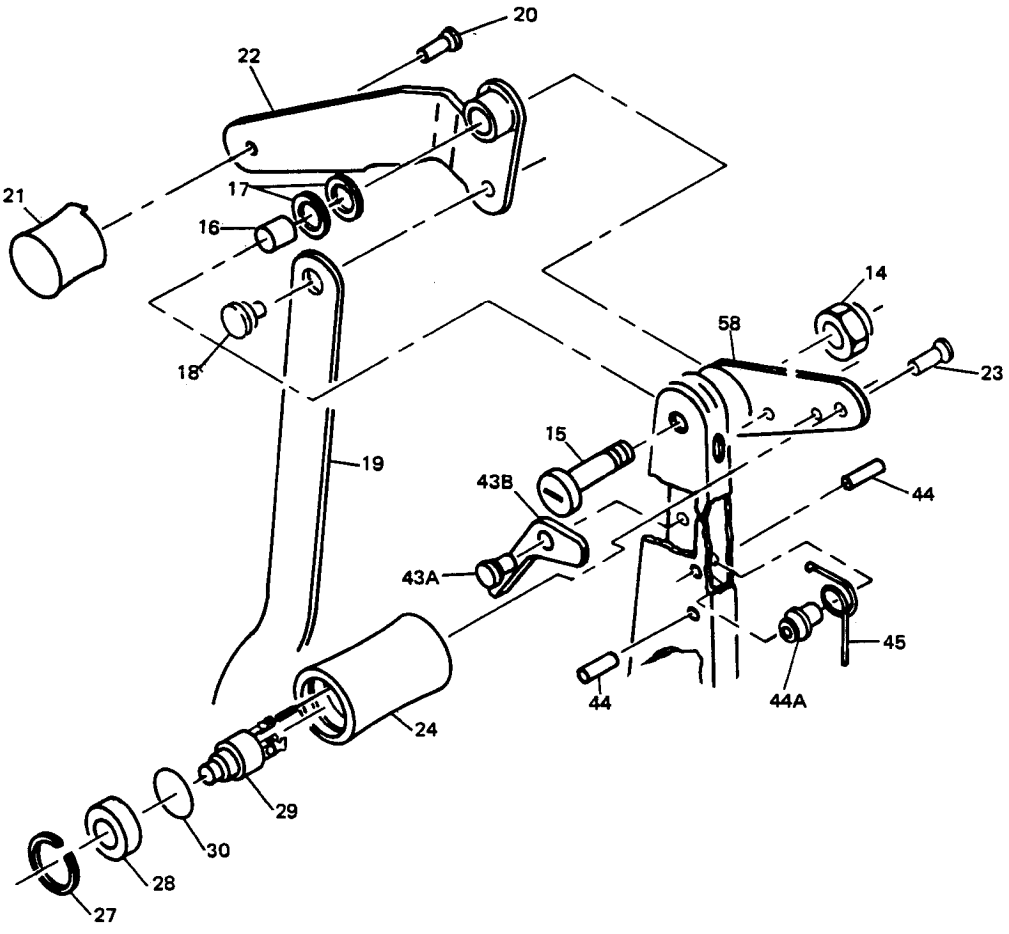
   B. Slowly move lever (22) from stowed position to clear rocker arm (43B). Force required to move the lever shall be 1.5-4.5 lbs measured at knob (21), 90 degrees to a line through the knob centerline and lever pivot point (bolt (15)).

   C. Slowly move lever (22) to stowed position. Force required to rotate rocker arm shall not exceed 4.5 lbs, measured as in step (2).

ILLUSTRATED PARTS LIST



Handle Assemblies
Figure 1101 (Sheet 1)



65C16481 ASSEMBLIES

(A)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-			ENGINE CONTROL COMPONENTS		
1	65-46506-1		HANDLE ASSY, LH (PRE SB 76-1006)	A	RF
1	65-46506-3		HANDLE ASSY, LH (PRE SB 76-1006)	B	RF
1	65-46506-5		HANDLE ASSY, LH (PRE SB 76-1006)	C	RF
1	65-46506-7		HANDLE ASSY, LH (PRE SB 76-1006)	D	RF
1	65-46506-9		HANDLE ASSY, LH (PRE SB 76-1006)	E	RF
1	65-46506-21		HANDLE ASSY, LH (PRE SB 76-1006)	F	RF
1	65-46506-29		HANDLE ASSY, LH (SB 22-1012, 76-1002) (PRE SB 76-1006)	G	RF
1	65-46506-35		HANDLE ASSY, LH (SB 76-1002) (PRE SB 76-1006)	H	RF
1	65-46506-37		HANDLE ASSY, LH (SB 76-1002) (PRE SB 76-1006)	I	RF
1	65-46506-39		HANDLE ASSY, LH (SB 76-1002) (PRE SB 76-1006)	J	RF
1	65-46506-41		HANDLE ASSY, LH (SB 22-1011, 22-1012, 76-1002) (PRE SB 76-1006)	K	RF
1	65-46506-43		HANDLE ASSY, LH (SB 22-1012, 76-1002, 76-1002) (PRE SB 76-1006)	L	RF
1	65-46506-45		HANDLE ASSY, LH (PRE SB 76-1006)	M	RF
1	65-46506-47		HANDLE ASSY, LH (PRE SB 76-1006)	N	RF
1	65C18257-7		DELETED		
1	65C18257-11		DELETED		
1	65C18257-13		DELETED		
1	65C18257-15		DELETED		
1	65C18257-17		DELETED		
1	65C16481-301		HANDLE ASSY, LH (PRE SB 76-1006)	T	RF
1	65C16481-303		HANDLE ASSY, LH (PRE SB 76-1006)	U	RF
1	65C16481-305		HANDLE ASSY, LH (PRE SB 76-1006)	V	RF
1	65C16481-307		HANDLE ASSY, LH (PRE SB 76-1006)	W	RF
1	65C16481-309		HANDLE ASSY, LH (PRE SB 76-1006)	X	RF
1	65C16481-311		HANDLE ASSY, LH (PRE SB 76-1006)	Y	RF
1	65C16481-313		HANDLE ASSY, LH (PRE SB 76-1006)	Z	RF
1	65C16481-315		HANDLE ASSY, LH (PRE SB 76-1006)	BA	RF
1	65C16481-317		HANDLE ASSY, LH (PRE SB 76-1006)	CA	RF
1	65C16481-319		HANDLE ASSY, LH (PRE SB 76-1006)	DA	RF
1	65C16481-321		HANDLE ASSY, LH (PRE SB 76-1006)	EA	RF
1	65C16481-323		HANDLE ASSY, LH (PRE SB 76-1006)	FA	RF
1	65C16481-325		HANDLE ASSY, LH (PRE SB 76-1006)	GA	RF
1	65C16481-327		HANDLE ASSY, LH (PRE SB 76-1006)	HA	RF
1	65C16481-331		HANDLE ASSY, LH (POST SB 76-1006)	IA	RF
1	65C16481-333		HANDLE ASSY, LH (POST SB 76-1006)	JA	RF
1	65C16481-335		HANDLE ASSY, LH (POST SB 76-1006)	KA	RF

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
1	65C16481-337		HANDLE ASSY, LH (POST SB 76-1006)	LA	RF
1	65C16481-339		HANDLE ASSY, LH (POST SB 76-1006)	MA	RF
1	65C16481-341		HANDLE ASSY, LH (POST SB 76-1006)	NA	RF
1	65C16481-343		HANDLE ASSY, LH (POST SB 76-1006)	OA	RF
1	65C16481-345		HANDLE ASSY, LH (POST SB 76-1006)	PA	RF
1	65C16481-347		HANDLE ASSY, LH (POST SB 76-1006)	QA	RF
1	65C16481-349		HANDLE ASSY, LH (POST SB 76-1006)	RA	RF
1	65C16481-351		HANDLE ASSY, LH (POST SB 76-1006)	SA	RF
1	65C16481-353		HANDLE ASSY, LH (POST SB 76-1006)	TA	RF
1	65C16481-355		HANDLE ASSY, LH (POST SB 76-1006)	UA	RF
1	65C16481-357		HANDLE ASSY, LH (POST SB 76-1006)	VA	RF
1	65-46506-2		HANDLE ASSY, RH (PRE SB 76-1006)	WA	RF
1	65-46506-4		HANDLE ASSY, RH (PRE SB 76-1006)	XA	RF
1	65-46506-6		HANDLE ASSY, RH (PRE SB 76-1006)	YA	RF
1	65-46506-8		HANDLE ASSY, RH (PRE SB 76-1006)	ZA	RF
1	65-46506-10		HANDLE ASSY, RH (PRE SB 76-1006)	CB	RF
1	65-46506-22		HANDLE ASSY, RH (PRE SB 76-1006)	DB	RF
1	65-46506-30		HANDLE ASSY, RH (SB 22-1012, 76-1002) (PRE SB 76-1006)	EB	RF
1	65-46506-36		HANDLE ASSY, RH (SB 76-1002) (PRE SB 76-1006)	FB	RF
1	65-46506-38		HANDLE ASSY, RH (SB 76-1002) (PRE SB 76-1006)	GB	RF
1	65-46506-40		HANDLE ASSY, RH (SB 76-1002) (PRE SB 76-1006)	HB	RF
1	65-46506-42		HANDLE ASSY, RH (SB 22-1011, 22-1012, 76-1002)(PRE SB 76-1006)	IB	RF
1	65-46506-44		HANDLE ASSY, RH (SB 22-1012, 76-1002 (PRE SB 76-1006)	JB	RF
1	65-46506-46		HANDLE ASSY, RH (PRE SB 76-1006)	KB	RF
1	65-46506-48		HANDLE ASSY, RH (PRE SB 76-1006)	LB	RF
1	65C18257-8		DELETED		
1	65C18257-12		DELETED		
1	65C18257-14		DELETED		
1	65C18257-16		DELETED		
1	65C18257-18		DELETED		
1	65C16481-302		HANDLE ASSY, RH (PRE SB 76-1006)	RB	RF
1	65C16481-304		HANDLE ASSY, RH (PRE SB 76-1006)	SB	RF
1	65C16481-306		HANDLE ASSY, RH (PRE SB 76-1006)	TB	RF
1	65C16481-308		HANDLE ASSY, RH (PRE SB 76-1006)	UB	RF
1	65C16481-310		HANDLE ASSY, RH (PRE SB 76-1006)	VB	RF
1	65C16481-312		HANDLE ASSY, RH (PRE SB 76-1006)	WB	RF
1	65C16481-314		HANDLE ASSY, RH (PRE SB 76-1006)	XB	RF
1	65C16481-316		HANDLE ASSY, RH (PRE SB 76-1006)	YB	RF

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
1	65C16481-318		HANDLE ASSY, RH (PRE SB 76-1006)	ZB	RF
1	65C16481-320		HANDLE ASSY, RH (PRE SB 76-1006)	DC	RF
1	65C16481-322		HANDLE ASSY, RH (PRE SB 76-1006)	EC	RF
1	65C16481-324		HANDLE ASSY, RH (PRE SB 76-1006)	FC	RF
1	65C16481-326		HANDLE ASSY, RH (PRE SB 76-1006)	GC	RF
1	65C16481-328		HANDLE ASSY, RH (PRE SB 76-1006)	HC	RF
1	65C16481-330		HANDLE ASSY, RH (POST SB 76-1006)	IC	RF
1	65C16481-332		HANDLE ASSY, RH (POST SB 76-1006)	JC	RF
1	65C16481-334		HANDLE ASSY, RH (POST SB 76-1006)	KC	RF
1	65C16481-336		HANDLE ASSY, RH (POST SB 76-1006)	LC	RF
1	65C16481-338		HANDLE ASSY, RH (POST SB 76-1006)	MC	RF
1	65C16481-340		HANDLE ASSY, RH (POST SB 76-1006)	NC	RF
1	65C16481-342		HANDLE ASSY, RH (POST SB 76-1006)	OC	RF
1	65C16481-344		HANDLE ASSY, RH (POST SB 76-1006)	PC	RF
1	65C16481-346		HANDLE ASSY, RH (POST SB 76-1006)	QC	RF
1	65C16481-348		HANDLE ASSY, RH (POST SB 76-1006)	RC	RF
1	65C16481-350		HANDLE ASSY, RH (POST SB 76-1006)	SC	RF
1	65C16481-352		HANDLE ASSY, RH (POST SB 76-1006)	TC	RF
1	65C16481-354		HANDLE ASSY, RH (POST SB 76-1006)	UC	RF
1	65C16481-356		HANDLE ASSY, RH (POST SB 76-1006)	VC	RF
1	65C18257-67		DELETED		
1	65C18257-68		DELETED		
1	65C18257-71		DELETED		
1	65C18257-72		DELETED		
1	65c18257-73		DELETED		
1	65C18257-74		DELETED		
1	65C18257-75		DELETED		
1	65C18257-76		DELETED		
1	65C18257-77		DELETED		
1	65B18257-78		DELETED		
2	BACN10JD105		. NUT (REPL AN320-5)		1
3	63-1669		. BOLT		1
3	66-26135-1		. BOLT (OPT)	NT-VA RB-VC	1
4	AN960PD516		. WASHER		AR
4	AN960PD516L		. WASHER		AR
5	65-73668-1		. DRUM ASSY (SB 71-1016)(USED ON 65-46506-5,-7,-21; 65C16481-305, -307,-311,-334,-336,-340)		1
5	65-73668-2		. DRUM ASSY (SB 71-1016)(USED ON 65-46506-6,-8,-22; 65C16481-306, 308,-312,-335,-337,-341)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
5	65-73668-7		. DRUM ASSY (SB 78-1005)(USED ON 65-46506-35,-37,-39; 65C16481--315,-317,-319,-344,-346,-348)		1 1
5	65-73668-8		. DRUM ASSY (SB 78-1005)(USED ON 65-46502-36,-38,-40; 65C16481--316,-318,-320,-345,-347,-349)		1
5	65-73668-13		. DRUM ASSY (SB 78-1005, 22-1011, 22-1012)(USED ON 65-46506-29,-41,-43,-45; 65C16481-313,-321,-323,-325,-342,-350,-352,-354)		1
5	65-73668-14		. DRUM ASSY (SB 78-1005, 22-1011) (USED ON 65-46506-30,-42,-44,-46; 65C16481-314,-322,-324,-326,-343,-351,-353,-355)		1
5	65-33892-1		. DRUM ASSY (SB 22-1012)(USED ON 65-46506-1,-3,-9; 65C16481-301,-303,-309,-330,-332,-338)		1
5	65-33892-2		. DRUM ASSY (USED ON 65-46506-2,-4,-10; 65C16481-302,-304,-310,-331,-333,-339)		1
5	65-88646-4		. DRUM ASSY	N HA VC	1
5	65-88646-5		. DRUM ASSY	VA LB HC	1
5	65-88646-4		DELETED		
5	65-88646-5		DELETED		
5	65-88646-9		. DRUM ASSY	ED GD	
5	65-88646-10		. DRUM ASSY	FD HD	1
5	65-88646-14		DELETED		1
5	65-88646-17		. DRUM ASSY	ID	1
5	65-88646-18		. DRUM ASSY	JD	1
5	65-88646-22		DELETED		
5	65-73668-13		. DRUM ASSY (OPT TO 65-88646-9)	ED GD	1
5	65-73668-14		. DRUM ASSY (OPT TO 65-88646-10)	FD HD	1
6	BACB30LU3-1		. . BOLT	*[1]	3
6	BACB30LU3-2		. . BOLT	*[2]	3
6	NAS514P1032-6		. . SCREW	*[14]	3
7	66-1523-1		. . RETAINER, BEARING		1
8	BACB10A683		. . BEARING (REPLS AN201KP5A, BACB10BX5)		1
9	MS21209F1-15		. . INSERT, HELICAL COIL (REPLS BACS13W3CN3)		3
10	65-33892-3		. . DRUM ASSY	ABE	1
10	65-33892-4		. . DRUM ASSY (USED ON 65-46506-2,-4,-10; 65C16481-302,-304,-310,-331,-333,-339)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
10	65-73668-3		. . DRUM ASSY (USED ON 65-46506-5,-7, -21; 65C16481-305,-307,-311, -334,-336,-340)		1
10	65-73668-4		. . DRUM ASSY (USED ON 65-46506-2,-4, -10; 65C16481-302,-304,-310, -331,-333,-339)		1
10	65-73668-9		. . DRUM ASSY (USED ON 65-46506-35, -37,-39; 65C16481-315,-317, -319,-344,-346,-348)		1
10	65-73668-10		. . DRUM ASSY (USED ON 65-46506-36, -38,-40; 65C16481-316,-318, -320,-345,-347,-349)		1
10	65-73668-15		. . DRUM ASSY (USED ON 65-46506-29, -41,-43,-45; 65C16481-313,-321, -323,-325,-342,-350,-352,-354)		1
10	65-73668-16		. . DRUM ASSY (USED ON 65-46506-30, -42,-44,-46; 65C16481-314,-322, -324,-326,-343,-351,-353,-355)		1
10	65-88646-6		. . DRUM	NS VC	1
10	65-88646-7		. . DRUM	VA LB HC	1
10	65-88646-11		. . DRUM ASSY	ED GD	1
10	65-88646-12		. . DRUM ASSY	FD HD	1
10	65-88646-16		DELETED		
10	65-88646-19		DELETED		
10	65-88646-20		DELETED		
10	65-88646-24		DELETED		
11	65-33892-5		. . . DRUM (USED ON 65-46506-1,-3,-9; 65C16481-301,-303,-309,-330, -332,-338)		
11	65-33892-6		. . . DRUM (USED ON 65-46506-2,-4, -10; 65C16481-302,-304,-310, -331,-333,-339)		
11	65-73668-5		. . . DRUM (USED ON 65-46506-5,-7, -21; 65C16481-305,-307,-311, -334,-336,-340)		1
11	65-73668-6		. . . DRUM (USED ON 65-46506-6,-8, -22; 65C16481-306,-308,-312, -335,-337,-341)		1
11	65-73668-11		. . . DRUM (USED ON 65-46506-35,-37, -39; 65C16481-315,-317,-319, -344,-346.-348)		1
11	65-73668-12		. . . DRUM (USED ON 65-46506-36,-38, -40; 65C16481-316,-318,-320, -345,-347,-349)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
11	65-73668-17		. . . DRUM (USED ON 65-46506-29,-41, -43,-45; 65C16481-313,-321, -323,-325,-342,-350,-352, -354)		1
11	65-73668-18		. . . DRUM (USED ON 65-46506-30,-42, -44,-46; 65C16481-314,-322, -324,-326,-343,-351,-353, -355)		1
12	BACB10A825		. . . BEARING (REPLS BACB10BW37, MS20202KP37B, AN202KP37B)	*[13]	1
12A	BACB10BW37		. . BEARING	N HA VA LB HC	1
12A	BACB10AU37		. . BEARING (OPT)	N HA VA LB HC	1
13	NAS561C2-5		. PIN, SPRING (PRE SB 76-1006)	*[11]	1
14	BACN10JD103AU		. NUT (REPLS AN320C3 (PRE SB 76-1006)	*[11]	1
14	BACN10JC3		. NUT (POST SB 76-1006)	*[15]	1
15	63-1409-1		. BOLT, SPECIAL (PRE SB 76-1006)	*[11]	1
15	BACB30FM6A7U		. BOLT (POST SB 76-1006)	*[15]	1
16	NAS75-3-012		. BUSHING (PRE SB 76-1006)	*[11]	1
16	BACB28Y3M040		. BUSHING (OPT)	*[11]	1
16	BACB28Y3M040		. BUSHING (POST SB 76-1006)	*[15] *[14]	1
17	BACW10P24C		. WASHER (PRE SB 76-1006)		AR
17	AN960C516L		. WASHER (PRE SB 76-1006)		AR
17	69-69916-1		. WASHER (4 MAX) (POST SB 76-1006)	*[15]	AR
17	69-69916-2		. WASHER (POST SB 76-1006)	*[15]	1
18	66-11520		. RIVET		1
19	69-1572-1		. LINK, REVERSE THRUST	A-N T-HA IC-VC	1
19	69-1572-2		. LINK, REVERSE THRUST	IA-LB RB-VC	1
20	BAS12BP3-8		. SCREW		1
21	65C14183-15		. KNOB, CONTROL LEVER	A-N T-HA IC-VC	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
21	65-2343-15		. KNOB, CONTROL LEVER (OPT)	A-N T-HA IC-VC	1
21	65C14183-16		. KNOB, CONTROL LEVER	IA-LB RB-VC	1
21	65-2343-16		. KNOB, CONTROL LEVER (OPT)	IA-LB RB-VC	1
22	69-1819-17		. LEVER, REVERSE THRUST (PRE SB 76-1006)	A-F	1
22	69-1819-18		. LEVER, REVERSE THRUST (PRE SB 76-1006)	WA-DB	1
22	69-1819-21		. LEVER, REVERSE THRUST (SB 76-1002)	G-N	1
22	69-1819-22		. LEVER, REVERSE THRUST (SB 76-1002)	EB-LB	1
22	69-1819-27		. LEVER, REVERSE THRUST (POST SB 76-1006)	T-HA IC-VC	1
22	69-1819-28		. LEVER, REVERSE THRUST (POST SB 76-1006)	DB-LB IA-VA	1
22	69-1819-37		DELETED		
22	69-1819-38		DELETED		
22A	BACS12BP04A4		DELETED		
22A	BACS12BP04C		DELETED		
22B	65C18253-1		DELETED		
22B	65C18253-2		DELETED		
22C	65C18257-19		DELETED		
22C	65C18257-22		DELETED		
22C	65C18257-20		DELETED		
22C	65C18257-46		DELETED		
22C	65C18257-47		DELETED		
22D	66-25944-2		DELETED		
22D	69-70862-1		DELETED		
22E	65C18255-5		DELETED		
22E	65C18255-6		DELETED		
22E	65C19962-1		DELETED		
22E	65C19962-2		DELETED		
22F	66-25946-1		DELETED		
22F	69-70866-1		DELETED		
22G	66-25939-1		DELETED		
22H	69-69983-1		DELETED		
22H	69-69983-2		DELETED		
22I	65C-18254-5		DELETED		
22I	65C-18254-6		DELETED		
22I	69-70867-1		DELETED		
22I	69-70867-1		DELETED		
22I	69-70867-2		DELETED		

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
22J	W0731-009		DELETED		
22K	69-69983-1		DELETED		
22K	69-69983-2		DELETED		
22L	BACS12BP04A4		DELETED		
22L	BACS12BP04C4		DELETED		
22M	69-69984-8		DELETED		
22M	69-69984-9		DELETED		
22M	69-69984-11		DELETED		
22M	69-69984-12		DELETED		
22N	69-69984-3		DELETED		
22N	69-69984-4		DELETED		
22N	69-69984-15		DELETED		
22N	69-69984-16		DELETED		
22O	69-69984-7		DELETED		
22O	69-69984-17		DELETED		
22P	MS21209C0410		DELETED		
22Q	66-25945-1		DELETED		
22R	65C18257-5		DELETED		
22R	65C18257-6		DELETED		
22R	65C18257-48		DELETED		
22R	65C18257-49		DELETED		
22S	69-69981-1		DELETED		
22S	69-69981-2		DELETED		
22S	69-69981-5		DELETED		
22S	69-69981-6		DELETED		
22T	66-25941-1		DELETED		
22U	69-69985-1		DELETED		
22U	69-70861-1		DELETED		
22V	66-25940-1		DELETED		
22W	61-32157-2		DELETED		
22W	61-32157-3		DELETED		
22X	66-25942-1		DELETED		
23	BACS12BP3-5		DELETED		
24	65-45117-1		. KNOB ASSY (USED ON 65-46506-1,-5, -35,-41; 65C18257-11,-71; 65C16481-301,-305,-315,-321,-330, -334,-344,-350)		1
24	65-45117-2		. KNOB ASSY (USED ON 65-46506-2,-6, -36,-42; 65C18257-12,-72; 65C16481-302,-306,-316,-322,-331, -335,-345,-351)		1

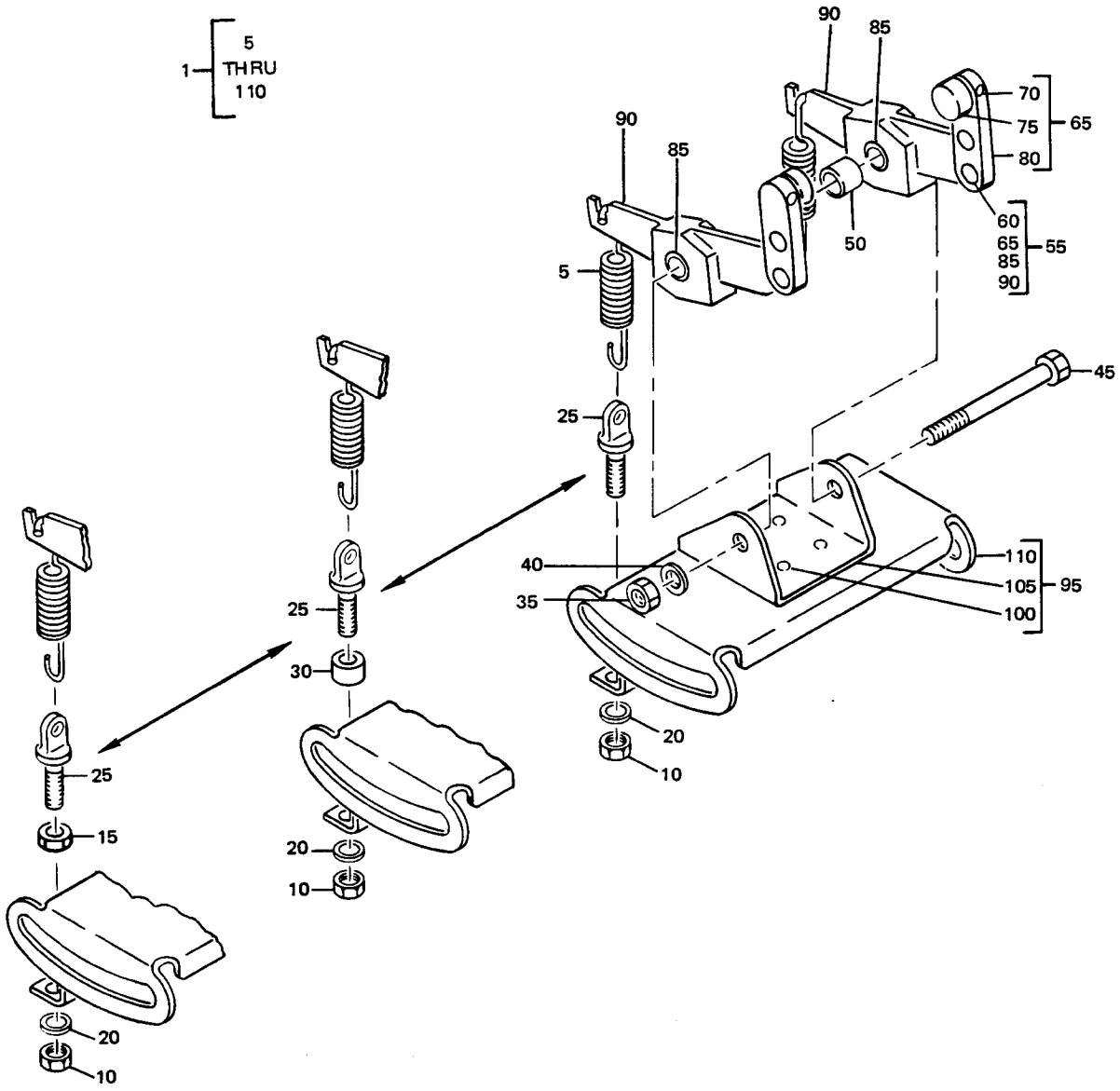
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
24	65-45117-8		. KNOB ASSY	*[3]	1
24	65-45117-9		. KNOB ASSY	*[4]	1
25	69-40892-1		. . DISK, THRUST KNOB INSULATING		1
26	65-45117-3		. . KNOB		1
27	MS16625-4086		. RING, SNAP		1
28	69-35353-1		. RETAINER	*[5]	1
28	69-35353-2		. RETAINER	*[6]	1
29	C2006		. SWITCH, V81640	*[7]	1
30	AN6227-12		. O-RING		1
31	BACR15BA4D		. RIVET		3
32	65-45115-1		. SWITCH ASSY	A-D HIK LT-W BA	1
32	65-45115-2		. SWITCH ASSY	*[8]	1
32	65-45115-6		. SWITCH ASSY (USED ON 65-46506-9, -21,-39; 65C16481-309,-311,-319)		1
32	65-45115-7		. SWITCH ASSY (USED ON 65-46506-10, -22,-30; 65C16481-310,-312,-320)		1
32	65-45115-12		. SWITCH ASSY	M GA	1
32	65-45115-13		. SWITCH ASSY	UA KB GC	1
32	65-45115-8		. SWITCH ASSY (USED ON 65-46506-37, -41,-43,-47; 65C16481-317,-321, -323,-327,-346,-350,-352,-356)		1
32	65-45115-9		. SWITCH ASSY (USED ON 65-46506-38, -42,-44,-48; 65C16481-318,-322, -324,-328,-347,-351,-353,-357)		1
32	65-45115-10		. SWITCH ASSY	GJZ	1
32	65-45115-11		. SWITCH ASSY	OA EB HB XB	1
32	65-45115-14		DELETED		
32	65-45115-15		DELETED		
32	65-45115-16		DELETED		
32	65-45115-17		DELETED		
33	65-51320-5		. . HOUSING (USED ON 65-45115-1,-6, -8,-10,-12)		
33	65-51320-6		. . HOUSING (USED ON 65-45115-2,-7, -9,-11,-13)		1
34	BACS12BP04C4		. . SCREW		6
35	69-38721-1		. . COVER (USED ON 65-45115-1,-6)		1
35	69-38721-2		. . COVER (USED ON 65-45115-2,-7)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
35	69-38721-3		. . COVER (USED ON 65-45115-8,-10, -12)		1
35	69-38721-4		. . COVER (USED ON 65-45115-9,-11, -13)		1
35	69-38721-5		DELETED		
35	69-38721-6		DELETED		
36	65-45115-3		. . MOUNT ASSY		1
37	NAS514P440-5P		. . . SCREW		1
38	69-38734-1		. . . RETAINER		1
39	C2006		. . . SWITCH, V81640		1
40	MS20392-1C19		. . PIN		1
41	69-38720-1		. . PADDLE (USED ON 65-45115-1,-2,-8, -9)		1
41	65-38720-2		. . PADDLE (USED ON 65-45115-12,-13)		1
41	65-38720-3		. . PADDLE (USED ON 65-45115-6,-7, -10,-11)		1
42	22LH1660-40		. NUT, V72962 (PRE SB 76-1006)	*[9]	1
42	92-1660-40		. NUT, V72962 (OPT) (PRE SB 76-1006)	*[9]	1
42	BAC10DN40		. NUT (OPT)(USED ON 65-46506-1 THRU -10,-21,-22) (PRE SB 76-1006)		1
43	66-1624-1		. STOP BOLT, REVERSE THRUST (PRE SB 76-1006)	A-F WA-DB	1
43	66-1624-2		. STOP BOLT, REVERSE THRUST (PRE SB 76-1006)	G-M EB-LB	1
43A	69-69917-1		. PIN	*[15]	1
43B	65C16476-1		. ARM, ROCKER	*[15]	1
44	MS39086-130		. PIN	*[11]	1
44	MS39086-130		. PIN	*[15]	2
44A	69-69918-1		. SPACER	*[15]	1
45	69-69919-1		. SPRING (PRE SB 76-1006)	*[12]	1
45	65-74599-1		. SPRING (SB 76-1002) (PRE SB 76-1006)	*[9]	1
45	69-35369-1		. SPRING (OPT) (PRE SB 76-1006)	A-D WA-ZA	1
45	69-35369-1		. SPRING (USED ON 65-46506-1 THRU -10,-21,-22) (PRE SB 76-1006)		1
45	69-71314-3		. SPRING (POST SB 76-1006)	IA-VA IC-VC	1
46	63-1440		. RIVET		1
47	5804-8-2		. WASHER, V86928		1
48	69-1066-2		. PAWL, THRUST LEVER LOCK		1
49	61-30049-001		. BUNDLE ASSY, WIRE	A-N T-HA	1
49	61-30051-001		. BUNDLE ASSY, WIRE	IA-LB RB-HC	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
50	BACT12AC43		. . TERMINAL, CRIMP		AR
51	BACR15BA5B		. RIVET (REPLS MS20426B5)		2
52	65-58259-1		. GUIDE, WIRE	A-M T-GA	1
52	65-58259-2		. GUIDE, WIRE	IA-UA WA-KB RB-GC	1
52	69-67277-1		. GUIDE, WIRE	N HA	1
52	69-68123-1		. GUIDE, WIRE	VA LB HC	1
53	BACN10JC3		. NUT (REPLS NAS679A3W)		1
54	BACB30LU3-1		. SCREW (REPLS NAS514P1032-6)		1
55	BACC10DK6		. CLAMP	*[10]	1
55	AN742D6		DELETED		
56	69-45733-1		. CONDUIT		1
57	BACR15BA6D		. RIVET (REPLS MS20426D6)		3
58	69-40474-5		. LEVER	A-N T-HA	1
58	69-40474-6		. LEVER	IA-VA WA-LB RB-HC	1
58	69-40474-9		. LEVER (OPT TO 69-40474-5)	A-N T-HA	1
58	69-40474-10		. LEVER (OPT TO 69-40474-6)	IA-VA WA-LB RB-HC	1
58	65C18256-4		DELETED		
58	65C18256-5		DELETED		
58	65C18256-24		DELETED		
58	65C18256-25		DELETED		
58A	66-25938-1		DELETED		
58A	66-25938-2		DELETED		
58B	65C18252-1		DELETED		
58B	65C18252-2		DELETED		
58B	65C18252-7		DELETED		
58B	65C18252-8		DELETED		
58C	65C18252-3		DELETED		
58C	65C18252-4		DELETED		
58C	65C18252-9		DELETED		
58C	65C18252-10		DELETED		
58D	MS21209C0410		DELETED		
58D	MS21209C0410		DELETED		

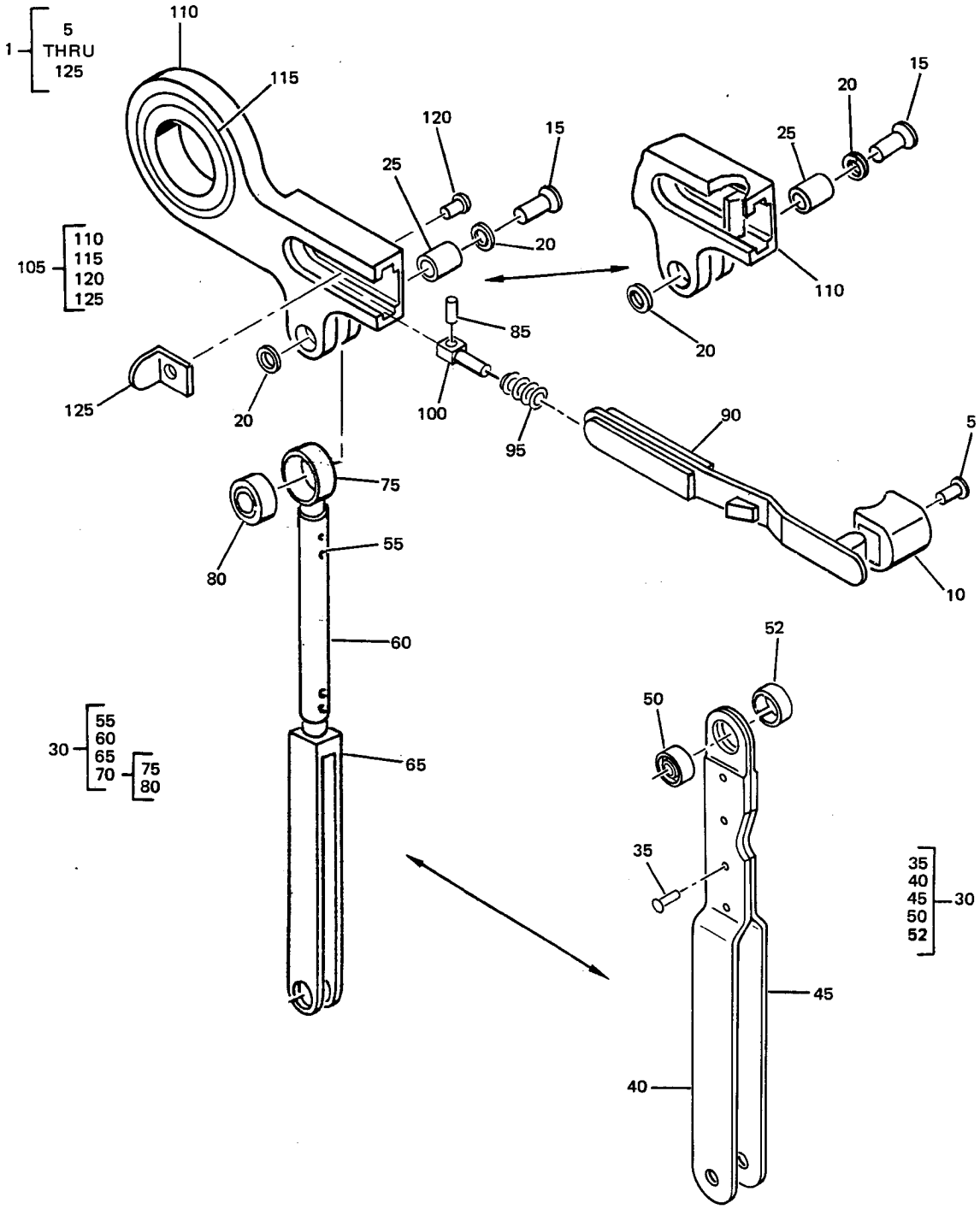
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
58E	MS21209C0415		DELETED		
58F	MS240273M		DELETED		
58G	MS206153M		DELETED		
58H	65C1825-13		DELETED		
58H	65C18256-13		DELETED		
58H	65C18256-9		DELETED		
58H	65C18256-14		DELETED		
58H	65C18256-10		DELETED		
58I	66-25943-2		DELETED		
59	65-1634-5		. DRUM BRAKE	A-NT-HA	1
59	65-1634-1		. DRUM BRAKE (OPT)	A-M T-GA	1
59	65-1634-6		. DRUM BRAKE	IA-LB RB-HC	1
59	65-1634-2		. DRUM BRAKE (OPT)	IA-UA WA-KB RB-HC	
59	65-1634-11		DELETED		
59	65-1634-12		DELETED		
60	BACB10CF25PP		DELETED		
60	BACB10AS25		DELETED		
60	BACB10A300DD		. BEARING	A-N T-HA	1
60	BACB10BW37		DELETED		
60	BACB10AU37		DELETED		

*[1] ABEN JA MA XA CB IC JC MC VC
*[2] CDF-L KA LA NA-UA YA ZA DB-KB KC LC NC-TC
*[3] BD-GIJL-NUW-Z CA DA FA GA HA
*[4] JA LA-OA QA RA TA UA VA XA ZA CB DB EB GB HB JB KB LB SB UB-XB ZB DC FC GC HC
*[5] ACHKPQTV BA-GA IA-UA WA-KB NB RB-GC YC ZC
*[6] BD-GIJL-NUW-Z CA DA FA GA HA JA-OA QA RA TA UA VA XA-EB GB HB JB-LB SB UB-XB ZB DC FC GC HC
*[7] ACHKTV BA EA IA KA PA SA RB TB YB EC
*[8] IA-LA PA QA SA TA WA-ZA FB GB IB JB RB-UB YB
*[9] A-D G-N WA-ZA EB-LB
*[10] A-N T-LB RB-HC
*[11] A-N WA-KB
*[12] T-HA RB-HC
*[13] A-M T-Z BA-GA IA-UA WA-LB RB-GC
*[14] VA-CB RB-ZB DC LB HC
*[15] T-HA RB-HC IA-VA IC-VC



Control Stand Roller Assembly
Figure 1102

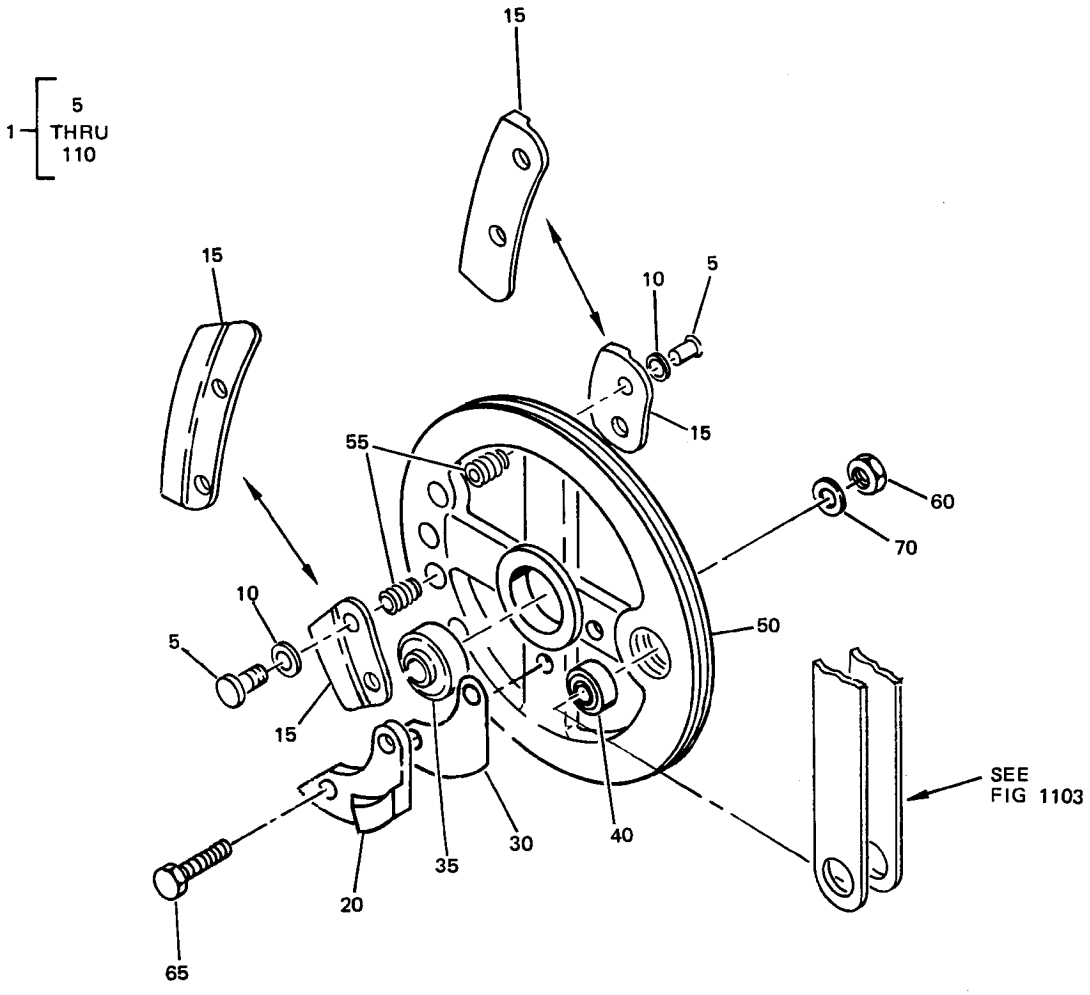
FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
1	69-35354-3		ROLLER ASSY, CONTROL STAND	A	RF
1	69-35354-4		ROLLER ASSY, CONTROL STAND	B	RF
1	69-35354-5		ROLLER ASSY, CONTROL STAND	C	RF
1	69-35354-6		ROLLER ASSY, CONTROL STAND (SB 71-1016)	D	RF
5	69-34830-1		. SPRING	A	2
5	69-55932-1		. SPRING	BCD	2
10	BACN10JC3		. NUT (REPLS NAS679A3W)		2
15	MS25082-3		. NUT	D	2
20	AN960PD10L		. WASHER		AR
25	AN42B3A		. EYEBOLT	AB	2
25	66-1551		. EYEBOLT (OPT)	AB	2
25	AN42B5A		. EYEBOLT	C	2
25	66-1551-1		. EYEBOLT	D	1
30	NAS43DD3-11		. SPACER	B	2
30	NAS43DD3-18		. SPACER	C	2
35	BACN10JC4		. NUT (REPLS NAS679A4W)		2
40	AN960PD10L		. WASHER		AR
45	NAS1104-30		. BOLT		1
50	NAS43DD4-32		. SPACER		1
55	69-17736-8		. ARM ASSY, CAM		1
55	69-17736-9		. ARM ASSY, CAM (OPP 69-17736-8)		1
60	MS20426D5		. . RIVET		2
65	66-13328-1		. . CAM ASSY		1
70	NAS508M2-9		. . . RIVET		1
75	BACB10B209CF3		. . . BEARING, CAM FOLLOWER		1
80	66-13328-2		. . . ARM, CAM		1
85	BACB10A127		. . BEARING		1
90	69-17736-7		. . ARM, CAM		1
95	69-35354-2		. BRACKET ASSY		1
100	BACR15BA6D		. . RIVET (REPLS MS20426D6)		AR
105	69-45173-1		. . BRACKET		1
110	69-455173-2		. . SUPPORT		1



Start System Lever Assembly
Figure 1103

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1103-					
1	65-23761-4		LEVER ASSY, START SYSTEM	A	RF
1	65-23761-5		LEVER ASSY, START SYSTEM (OPP 65-23761-4)	B	RF
1	65-23761-15		LEVER ASSY, START SYSTEM	C	RF
1	65-23761-16		LEVER ASSY, START SYSTEM (OPP 65-23761-15)	D	RF
1	65-23761-17		LEVER ASSY, START SYSTEM	E	RF
1	65-23761-18		LEVER ASSY, START SYSTEM	F	RF
1	65-23761-19		LEVER ASSY, START SYSTEM	G	RF
1	65-23761-20		LEVER ASSY, START SYSTEM	H	RF
5	BACS12BP3-8		. SCREW		1
10	65C14183-30		. KNOB	ACEG	1
10	66-14506-4		. KNOB (OPT TO 65C14183-30)	ACEG	1
10	65C14183-31		. KNOB	BDFH	1
10	66-14506-5		. KNOB (OPT TO 65C14183-31)	BDFH	1
15	MS20615-3M		. RIVET		1
20	AN960-2L		. WASHER	AB	2
20	AN960-3L		. WASHER	C-H	2
25	NAS42HT3-30		. SPACER		1
30	69-1692		. ROD ASSY	AB	1
30	69-66099-1		. LINK ASSY	C-H	1
30	69-66099-4		. LINK ASSY (PREF)	C-H	1
35	MS20615-5		. . RIVET	C-H	1
40	69-66099-2		. . LINK	C-H	1
45	69-66099-3		. . LINK	C-H	1
50	BACB10AC3L		. . BEARING	C-H	1
52	66-26136-2		. . SLEEVE	C-H	1
55	BACR15BB4D		. . RIVET (REPLS MS20470D4)	AB	AR
60	69-1692-1		. . TUBE	AB	1
65	66-1643		. . FORK	AB	1
70	66-1641		. . ROD END ASSY	AB	1
75	66-1641-1		. . . ROD END		1
80	BACB10AC3L		. . . BEARING (REPLS AN200KS3L)		1
85	NAS561C3-10		. PIN		1
90	69-17300-1		. LEVER, ENGINE START	BDF	1
90	69-17300-2		. LEVER, ENGINE START	ACE	1
90	69-17300-5		. LEVER, ENGINE START (PREF)	DFH	1
90	69-17300-6		. LEVER, ENGINE START (PREF)	CEG	1
95	63-1408		. SPRING		1
100	63-1327-1		. STOP		1
105	65-1659-8		. LEVER ASSY, START	AC	1
105	65C18080-1		. LEVER ASSY, START (PREF)	C	1
105	65-1659-9		. LEVER ASSY, START	BD	1
105	65C18080-2		. LEVER ASSY, START (PREF)	D	1
105	65C18080-7		. LEVER ASSY, START	EG	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1103-					
105	65C18080-8		. LEVER ASSY, START	FG	1
110	65-1659-3		. . LEVER (USED ON 65-1659-8)		1
110	65-1659-4		. . LEVER (USED ON 65-1659-9)		1
110	65C18080-3		. . LEVER (USED ON 65C18080-1, -7)		1
110	65C18080-4		. . LEVER (USED ON 65C18080-2,-8)		1
115	BACB10A300DD		. . BEARING (USED ON 65-1659-8,-9)		1
115	BACB10CF25PP		. . BEARING (USED ON 65C18080-1,-2)		1
115	BACB10AS25		. . BEARING (USED ON 65C18080-7,-8)		1
120	MS20470M4		. . RIVET (USED ON 65-1659-8,-9)		
125	63-1410-1		. . STOP, HANDLE (USED ON 65-1659-8, -9)		1



Engine Start Drum Assembly
Figure 1104

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1104-					
1	65-45136-1		DRUM ASSY, ENGINE START (PRE SB 28-1020)	A	RF
1	65-45136-4		DRUM ASSY, ENGINE START (PRE SB 28-1020)	B	RF
1	65-45136-7		DRUM ASSY, ENGINE START (PRE SB 28-1035)	C	RF
1	65-45136-8		DRUM ASSY, ENGINE START (PRE SB 28-1035)	D	RF
1	65-45136-9		DRUM ASSY, ENGINE START (PRE SB 28-1035)	E	RF
1	65-45136-10		DRUM ASSY, ENGINE START (PRE SB 28-1035)	F	RF
1	65-45136-11		DRUM ASSY, ENGINE START (PRE SB 28-1035)	G	RF
1	65-45136-12		DRUM ASSY, ENGINE START (PRE SB 28-1035)	H	RF
1	65-45136-13		DRUM ASSY, ENGINE START (PRE SB 28-1035)	I	RF
1	65-45136-14		DRUM ASSY, ENGINE START (PRE SB 28-1035)	J	RF
1	65-45136-15		DRUM ASSY, ENGINE START	K	RF
1	65-45136-17		DRUM ASSY, ENGINE START	L	RF
1	65-45136-18		DRUM ASSY, ENGINE START	M	RF
1	65-45136-19		DRUM ASSY, ENGINE START	N	RF
1	65-45136-20		DRUM ASSY, ENGINE START	O	RF
5	NAS623-3-3		. BOLT		4
10	AN960PD10L		. WASHER	A-L	4
10	NAS1149D0316J		. WASHER	MNO	4
15	66-23291-1		. CAM	ACDIJ	2
15	69-40908-1		. CAM	BE-H	2
15	69-40908-2		. CAM	KL	2
15	69-40908-3		. CAM	MN	2
20	69-63348-1		. CAM	CE	1
20	69-72045-1		. CAM	GI	1
-25	69-63348-2		. CAM	DF	1
-25	69-72045-2		. CAM	HJ	1
30	69-72046-1		. PLATE	G-J	1
35	BACB10A544		. BEARING (REPLS MS20201KP8A)	A-L	1
35	BACB10BX8		. BEARING (REPLS BACB10A544, MS20201KP8A)	A-L	1
35	BACB10BX8		. BEARING	MNO	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1104-					
40	BACB10A682		. BEARING (REPLS MS20201KP3A)	A-L	1
40	BACB10BX3		. BEARING (REPLS BACB10A682, MS20201KP3A)	A-L	1
40	BACB10BX3		. BEARING	MNO	1
45	65-45136-2		. DRUM ASSY (PRE SB 28-1020)	ABK	1
45	65-45136-2		. DRUM ASSY	NO	1
45	65-45136-6		. DRUM ASSY (OPT)	ABK	1
45	65-45136-6		. DRUM ASSY (POST SB 28-1020)	C-J	1
45	65-45136-16		. DRUM ASSY	LM	1
50	65-45136-3		. . DRUM CASTING (USED ON 65-45136-2, -16)		1
50	65-46136-5		. . DRUM CASTING (USED ON 65-45136-2, -6, -16)		1
55	MS21209F1-15		. . INSERT		4
60	BACN10JC3		. NUT	C-F	2
65	NAS623-3-6		. BOLT	C-F	2
65	NAS623-3-8		. BOLT	G-J	2
70	AN960PD10L		. WASHER	C-F	2

VENDORS

V72962	HARVARD INDUSTRIES, INC., 3 WERNER WAY, SUITE 210, LEBANON, NEW JERSEY 08833
V81640	EATON AEROSPACE LLC, 2250 WHITFIELD AVE., SARASOTA, FLORIDA 34243-3962
V86928	SEASTROM MANUFACTURING CO., INC., 456 SEASTROM ST., TWIN FALLS, IDAHO 83301-8526