TO: ALL HOLDERS OF LANDING GEAR CONTROL LEVER ASSEMBLY OVERHAUL MANUAL, 32-34-02

REVISION NO. 3, DATED JUL 1/04

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 clarification to lacquer and enamel callouts					X								

LANDING GEAR CONTROL LEVER ASSEMBLY

32-34-02

BOEING P/N 65-1754-4 thru -7
65-54221-1, -2, -8, -9, -10

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT

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
	32-34-02					
	T-1	Mar 1/01				
	T-2	BLANK				
*	LEP-1	Jul 1/04				
	LEP-2	BLANK				
	T/C-1	Mar 1/01				
	T/C-2	BLANK				
	1	Mar 1/01				
*	2	Jul 1/04				
*	3	Jul 1/04				
	4	Nov 1/02				
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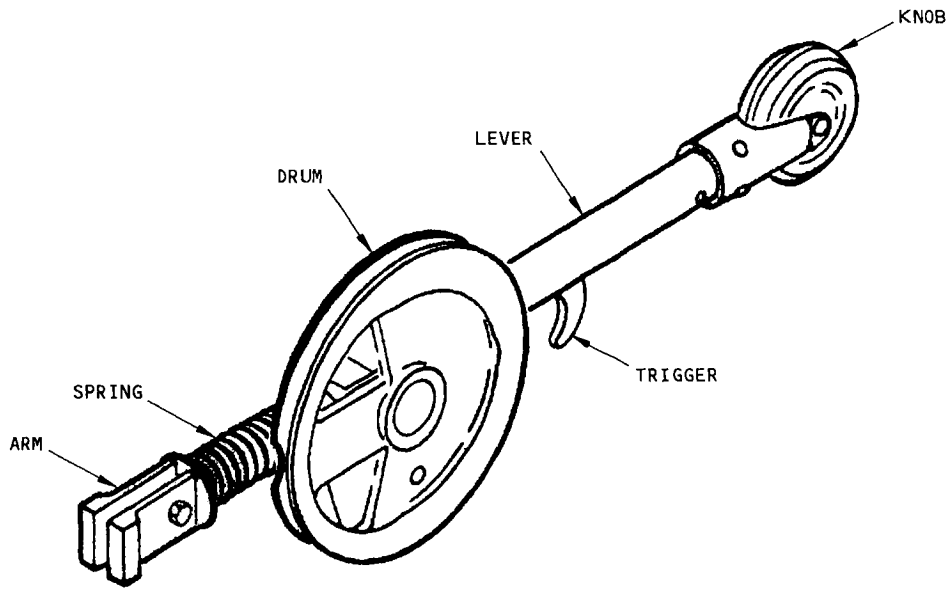
*[1[Refer to TESTING.

*[2] Special instructions are not necessary. Use standard industry practices.

LANDING GEAR CONTROL LEVER ASSEMBLY



Landing Gear Control Lever Assembly
Figure 1

1. DESCRIPTION AND OPERATION

A. The landing gear control lever assembly controls cables which operate the mechanism to raise or lower the landing gear. A lock override releases a spring-loaded roller from end detents in the control assembly. The lever assembly is a wheel-shaped knob and a lever in a drum assembly.

B. The control lever moves in a guide as the handle is moved up or down. The guide has detents to hold the control lever in the UP, OFF, or DOWN positions. A lock on the guide will not let you move the handle from the midposition to the UP position until the gear is down. The lock can be bypassed by an override trigger in the handle.

C. Leading Particulars (Approximate)

Length -- 15 inches
Weight -- 3 pounds

2. DISASSEMBLY (Fig. 3.)

A. Remove cotter pin (1), nut (2), washers (3), bolt (4), and bearing (5).

B. Push spring pin (6) from the unit and remove arm (7), and spring (8). Remove cable drum assembly (9) from lever (13). Remove trigger (14) and filler plug (15).

C. To disassemble the knob assembly from lever (13), drill out rivets (15A) and remove the knob and fork as a unit. To disassemble the knob and fork, remove the rivet and the fork from the knob.

D. Remove parts (20 thru 23) from drum (10).

3. CLEANING (Fig. 3)

A. Clean all parts but bearings by standard industry practices and the instructions in SOPM 20-30-03.

B. Clean bearings by the instructions in SOPM 20-30-01.

4. INSPECTION/CHECK (Fig. 3)

A. Examine all parts for defects by standard industry practices.

B. Magnetic particle examine spring (8).

C. Penetrant examine cable drum (10) if the visual examination finds possible defects.

D. Compress spring (8) to 1.54 inches. The load to do this must be 10.0 - 11.5 pounds. Approximate length is 5.08 inches.

5. REPAIR (Fig. 3)

A. Materials

NOTE: Equivalent substitutes can be used.

(1) Primer -- BMS 10-11, Type 1 (SOPM 20-60-02)

(2) Lacquer -- A-A-3164 (Replaces MIL-L-6805), colors 3715, 3725, 37038 (SOPM 20-60-02)

(3) Lubricant -- BMS 3-8 (SOPM 20-50-08)

(4) Red plastic coatings

(a) Barber-Webb P-30, V70849

(b) Pyroxylin 24-105-4, V73949

(5) Enamel -- (SOPM 20-60-02)

(a) BMS 10-11, Type 2, color 8924

(b) BMS 10-60, color 101

B. Repair (Fig. 3)

(1) Remove small defects by standard industry practices.

(2) Other repair is only replacement of parts and of the original finish.

C. Refinish

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

(1) Arm (7) -- Chromic acid anodize (F-2.157). Material: Al alloy.

(2) Spring (8) -- Cadmium plate (F-1.20). Material: Music wire per ASTM A228.

(3) Drum (10) -- Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer (SRF-2.30), but no primer on exterior surfaces or in bores for bearings. On exterior surfaces, apply two layers of black lacquer, color 3725. Material: Al alloy.

(4) Lever (13) -- Cadmium plate and apply BMS 10-11 Type 1 primer (SRF-1.611), but no primer on the bearing surface 4.60 inches from the end. Apply BMS 10-11 Type 1 primer (SRF-12.205) and two layers of black lacquer, color 37038 on the remaining external surfaces. Fill the engraved letters with white lacquer, color 3715. Apply BMS 3-8 solid film lubricant (F-19.10) to the internal surfaces 4.10 inches from the end, or all of the internal surfaces. Material: 8630 or 4130 steel, 125-145 steel.

(5) Trigger (14) -- Cadmium plate (F-1.20) all over. On the surfaces within 0.94 inch from the curved end, apply red plastic coating, or BMS 10-11 Type 1 primer (F-20.02) and BMS 10-60 enamel (F-14.9817-101, which replaces SRF-14.9817-101). Material: 4130 steel.

(6) Plug (15) -- Chromic acid anodize (F-17.04). Material: Al alloy.

(7) Fork (17) -- Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer (SRF-2.30). Apply two layers of black lacquer color 37038. Material: Al alloy.

(8) Knob (18) -- No finish. Material: polyester resin.

(9) Cam (20) -- No finish. Material: nylon.

(10) Knob (25) -- No finish. Material: polyester resin.

(11) Fork (26) -- Chemical treat or chromic acid anodize (F-17.01). Apply BMS 10-11 Type 1 primer (F-20.02). Apply BMS 10-11 Type 2 enamel (F-21.26-8924, which replaces SRF-14.903-8924) on external surfaces. Material: Al alloy.

D. Replacement

(1) Replace cotter pin (1) and spring pin (6) at each overhaul.

(2) Bearing (11) -- Install a replacement bearing by the procedure for sintered bearings in SOPM 20-50-03. Machine the bore to 0.7925-0.7935 inch diameter.

(3) Bushing (11) -- Install a replacement bushing by the shrink fit method (SOPM 20-50-03). Machine the bore to 0.7925-0.7935 inch diameter.

(4) Bearing (12) -- Install a replacement bearing and roller swage it (SOPM 20-50-03).

(5) Scotch-Cal (19) -- Apply a replacement above trigger (14) (SOPM 20-50-05).

6. ASSEMBLY (Fig. 3)

A. Attach knob (18) to fork (17) with rivet (16A). Then attach the unit to lever (13) with rivets (15A). If lever (13) or the fork assembly (16) is replaced, drill holes for rivets in the replacement part with the holes in the mating part as a guide, or put the parts together with 0.02-0.08 inch clearance between end of lever (13) and end of the knob before you drill the holes for the rivets.

B. If applicable, attach cam (20) to drum (10) with bolt (21), washer (23) and nut (22).

C. Install cable drum assembly (9) and spring (8) on lever (13).

D. Install arm (7), filler plug (15), trigger (14), and spring pin (6).

E. Install parts (1 thru 5) on arm (7).

7. TESTING (Fig. 3)

A. Test Equipment

NOTE: Equivalent substitutes can be used.

(1) Test fixture -- C32027 or TSJ50-3309-2, to hold the lever assembly. (See Fig 2.)

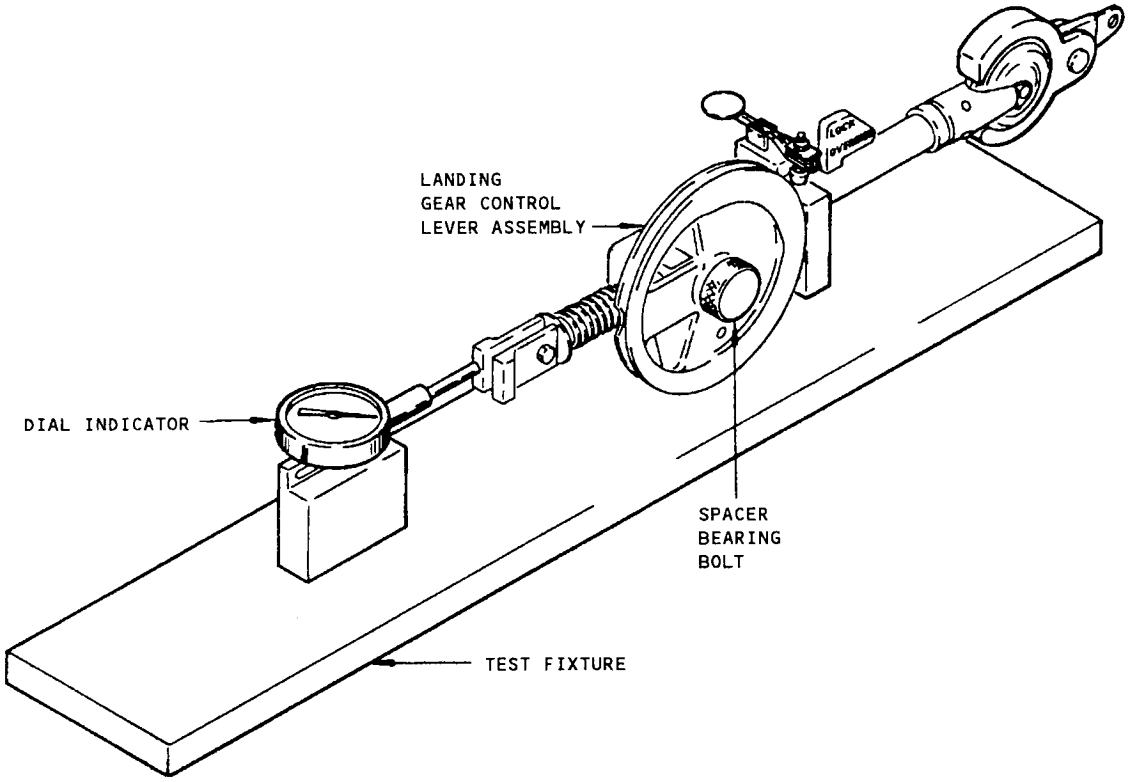
(2) Spacer -- 30-1583 (OHM 32-34-08 Fig. 1101 item 94)

(3) Bolt -- NAS6604-30 (OHM 32-34-08 Fig. 1101 item 95)

(4) Bearing -- AN201KP4A or BACB10A661 or BACB10BX4 (OHM 32-34-08 Fig. 1101 item 93)

B. Functional Test

(1) Install the lever assembly on the test fixture with the spacer, bearing and bolt.



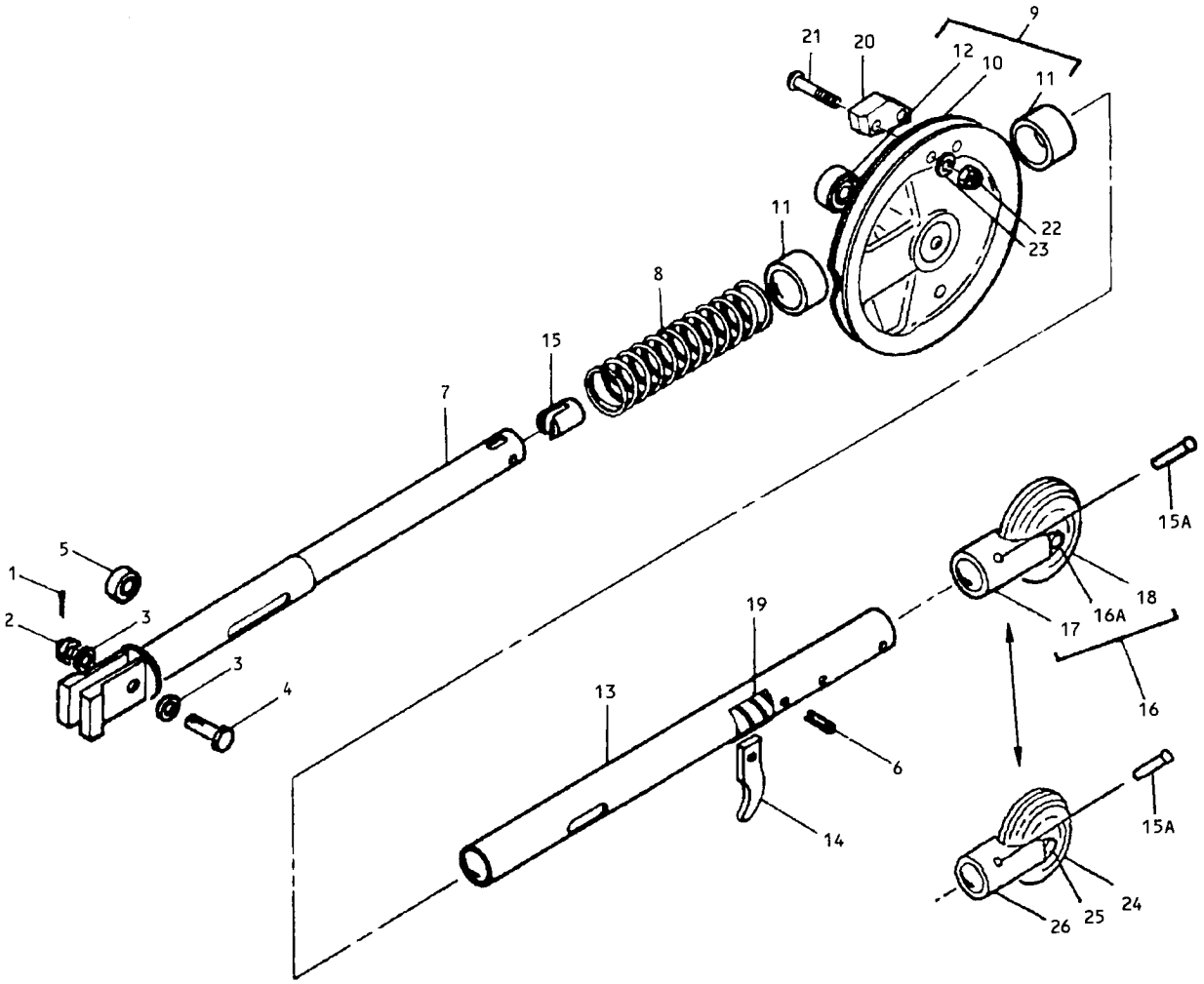
Lever Assembly Holding Fixture
Figure 2

(2) Apply an end pull load to the lever knob and make sure the force to start to move the lever is not more than 10 pounds. Make sure the lever movers smoothly. Make sure the arm (7) moves 0.70-0.77 inch.

(3) Apply an end load to trigger (14) and make sure the force to start to move the arm in the lever is not more than 12 pounds. Make sure the lever moves smoothly. The total arm travel, with the 0.70-0.77-inch arm travel of step (2), must be 1.22-1.28 inches for 65-1754 series units, and 1.21 -1.29 inches for 65-54221-series units.

8. TROUBLE SHOOTING (Fig. 3)

Trouble	Possible Cause	Correction
Too much load is necessary	Unwanted matter in mechanism	Disassemble, clean and assemble
	Defective trigger (14), plug (15) or spring pin (6)	Examine, clean and replace defective parts



Landing Gear Control Lever Assembly
Figure 3

L78337

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
	65-1754-4		LEVER ASSY, LANDING GEAR CONTROL	A	RF
	65-1754-5		LEVER ASSY, LANDING GEAR CONTROL	B	RF
	65-1754-6		LEVER ASSY, LANDING GEAR CONTROL	C	RF
	65-1754-7		LEVER ASSY, LANDING GEAR CONTROL	D	RF
	65-54221-1		LEVER ASSY, LANDING GEAR CONTROL	E	RF
	65-54221-2		LEVER ASSY, LANDING GEAR CONTROL	F	RF
	65-54221-8		LEVER ASSY, LANDING GEAR CONTROL	G	RF
	65-54221-9		LEVER ASSY, LANDING GEAR CONTROL	H	RF
	65-54221-10		LEVER ASSY, LANDING GEAR CONTROL	I	RF
1	AN380-2-3		. PIN, COTTER	A-D	1
2	AN320-3		. NUT	A-D	1
2	NAS679A3W		DELETED		
2	BACN10YR3CD		. NUT	E-I	1
3	AN960-10L		. WASHER		2
4	NAS1103-9DW		. BOLT	A-D	1
4	NAS1103-9		. BOLT	E-I	1
5	AN200K3L		. BEARING	A-DF	1
5	BACB10BY3L		. BEARING	EGHI	1
6	NAS561P4-9		. PIN, SPRING		1
7	69-9045		. ARM	ABC	1
7	69-9045-1		. ARM	D-I	1
8	30-1513		. SPRING		1
9	65-1698		. DRUM ASSY, CABLE	A-D	1
9	65-1698-4		. DRUM ASSY, CABLE	E-I	1
10	65-1698-1		. . DRUM (USED ON 65-1698)		1
10	65-1698-3		. . DRUM (USED ON 65-1698-4)		1
11	BACB10D165		. . BEARING		2
11	257T1111-4		. . BUSHING (OPT)		2
12	AN201KP4A		. . BEARING		1
13	69-9049		. LEVER	AC-FH	1
13	69-9049-1		. LEVER	BGI	1
14	66-8759		. TRIGGER		1
15	63-1862		. PLUG, FILLER		1
15A	MS20470B5		. RIVET		4
16	66-1333		. KNOB ASSY	A-G	1
16A	AN426D6		. . RIVET		1
17	69-1315		. . FORK		1
18	90-1563		. . KNOB		1
19	BACM9S001E		. SCOTCH-CAL	C	2
20	69-40860-1		. CAM	EH	1
21	NAS623-2-12		. BOLT	EH	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
3-					
22	NAS679A08W		DELETED		
22	BACN10YR08CD		. NUT	EH	2
23	AN960PD8L		. WASHER	EH	2
24	BACR15BA5B		. RIVET	HI	1
24	BACR15BA5AD		. RIVET (OPT)	HI	1
25	69B82316-2		. KNOB	HI	1
26	69B82321-2		. FORK	HI	1

VENDORS

V70849 BARBER-WEBB CO., INC., 3833 E. MEDFORD ST., LOS ANGELES, CALIFORNIA 90063-1940

V73949 GUARDIAN ELECTRIC MFG., CO., 1425 LAKE AVE., WOODSTOCK, ILLINOIS 60098