TO: ALL HOLDERS OF LARGE CARGO DOOR LATCH LOCK CONTROL HANDLE MECHANISM ASSEMBLY COMPONENT MAINTENANCE MANUAL 52-34-43

REVISION NO. 4 DATED NOV 01/00

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. 2 dated Jul 10/84 on the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE
1007	Changed part number callout from BASC40RO8C26F to BACS40RO8CO26F for item 555A in numerical index.
1010,1017	Changed part number callout from 143T6301-5 to 143T6501-5 for item 1A.

BOEING

COMPONENT
MAINTENANCE MANUAL

LARGE CARGO DOOR LATCH LOCK CONTROL HANDLE MECHANISM ASSEMBLY

PART NUMBER 143T6501-5,-7,-8,-9,-10

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

44952

REVISION RECORD

- Retain this record in front of manual. On receipt of revision, insert revised pages in the manual, and enter revision number, date inserted and initial.

REVISION NUMBER	REVISION DATE	DATE FILED	BY	REVISION NUMBER	REVISION DATE	DATE FILED	BY

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL

PAGE	DATE	CODE
52-34-43		
TITLE PAGE		
1	SEP 01/95	01.1
2	BLANK	
REVISION RECORD		
1	JUL 10/83	01
2	BLANK	
TR & SB RECORD		
1	JUL 10/83	01
2	BLANK	
LIST OF EFFECTIVE PAGES		
*1	NOV 01/00	01
THRU LAST PAGE		
CONTENTS		
1	JUL 10/83	01.1
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1	JUL 10/83	01.1
2	BLANK	
DESCRIPTION & OPERATION		
1	JUL 10/83	01
2	BLANK	
TESTING & TROUBLE SHOOTING		
101	SEP 01/95	01.1
102	JUL 10/83	01.1
DISASSEMBLY		
301	SEP 01/95	01.1
302	SEP 01/95	01.1
CLEANING		
401	JUL 10/83	01
402	BLANK	
CHECK		
501	JUL 10/83	01.1
502	JUL 10/83	01
REPAIR-GENERAL		
601	JUL 10/83	01
602	SEP 01/95	01.1
603	SEP 01/95	01.1
604	BLANK	
REPAIR 1-1		
601	SEP 01/95	01.1
602	SEP 01/95	01.1
603	SEP 01/95	01.1
604	SEP 01/95	01.1
REPAIR 2-1		
601	JUL 10/83	01
602	BLANK	
REPAIR 3-1		
601	SEP 01/95	01.1
602	SEP 01/95	01.1
REPAIR 4-1		
601	JUL 10/83	01.1
602	BLANK	
REPAIR 5-1		
601	SEP 01/95	01.1
602	SEP 01/95	01.1
REPAIR 6-1		
601	JUL 10/83	01
602	BLANK	
REPAIR 7-1		
601	JUL 10/83	01
602	BLANK	

* = REVISED, ADDED OR DELETED

PAGE	DATE	CODE
REPAIR 8-1		
601	JUL 10/83	01.1
602	BLANK	
ASSEMBLY		
701	SEP 01/95	01.1
702	SEP 01/95	01.1
703	SEP 01/95	01.1
704	BLANK	
FITS AND CLEARANCES		
801	JUL 10/83	01
802	JUL 10/83	01
803	JUL 10/83	01
804	JUL 10/83	01
SPECIAL TOOLS		
901	JUL 10/84	01.1
902	BLANK	
ILLUSTRATED PARTS LIST		
1001	JUL 10/83	01
1002	JUL 10/83	01
1003	JUL 10/83	01.1
1004	JUL 10/83	01.1
1005	SEP 01/95	01.1
1006	SEP 01/95	01.1
*1007	NOV 01/00	01.1
1008	SEP 01/95	01.1
*1009	NOV 01/00	01.101
*1010	NOV 01/00	01.1
*1011	NOV 01/00	01.101
1012	SEP 01/95	01.1
1013	SEP 01/95	01.1
1014	SEP 01/95	01.1
1015	SEP 01/95	01.1
1016	SEP 01/95	01.1
*1017	NOV 01/00	01.1
1018	SEP 01/95	01.1
1019	SEP 01/95	01.1
1020	SEP 01/95	01.1
1021	SEP 01/95	01.1
1022	SEP 01/95	01.1

PAGE	DATE	CODE
ILLUSTRATED PARTS LIST		CONT.
1023	SEP 01/95	01.1
1024	SEP 01/95	01.1
1025	SEP 01/95	01.1
1026	SEP 01/95	01.1
1027	SEP 01/95	01.1
1028	SEP 01/95	01.1
1029	SEP 01/95	01.1
1030	BLANK	

* = REVISED, ADDED OR DELETED

TABLE OF CONTENTS

INTRODUCTION

The instructions in this manual provide the information necessary to perform maintenance functions ranging from simple checks and replacement to complete shop-type repair.

This manual is divided into separate sections:

1. Title Page
2. Record of Revisions
3. Temporary Revision & Service Bulletin Record
4. List of Effective Pages
5. Table of Contents
6. Introduction
7. Procedures & IPL Sections

Refer to the Table of Contents for the page location of applicable sections. An asterisked flagnote *[ ] in place of the page number indicates that no special instructions are provided since the function can be performed using standard industry practices.

The beginning of the REPAIR section includes a list of the separate repairs, a list of applicable standard Boeing practices, and an explanation of the True Position Dimensioning symbols used.

An explanation of the use of the Illustrated Parts List is provided in the Introduction to that section.

All weights and measurements used in the manual are in English units, unless otherwise stated. When metric equivalents are given they will be in parentheses following the English units.

Design changes, optional parts, configuration differences and Service Bulletin modifications create alternate part numbers. These are identified in the Illustrated Parts List (IPL) by adding an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless otherwise indicated.

Verification:

Testing/Trouble Shooting
Disassembly
Assembly

LARGE CARGO DOOR LATCH LOCK CONTROL HANDLE MECHANISM ASSEMBLY

DESCRIPTION AND OPERATION

1. The handle mechanism assembly consists of a handle assembly, a catch assembly, a clevis fitting assembly, and a housing assembly.

2. The handle mechanism assembly is a part of latch lock control mechanism used for opening and closing the cargo door. The handle mechanism can be operated from either inside or outside the airplane as follows:

   A. To unlock the handle assembly:

      (1) From outside the airplane: pressing the button on the catch assembly releases the handle assembly. The handle will travel to the door open position by spring force and unlock the latch mechanism.

      (2) From inside the airplane: the cable input rotates the lever which is connected to the catch assembly and releases the handle assembly in the same manner as pressing the button on the outside of the airplane.

   B. To lock the handle assembly: the handle assembly can only be closed manually from the outside by moving the handle back to the handle lock position. The load limiter system is built into the mechanism assembly so that jamming of the latch lock control will lock the handle assembly in the partially open position and prevent false indication in the cockpit.

3. Leading Particulars (Approximate)

   A. Height -- 17 inches.

   B. Width -- 5 inches

   C. Depth -- 6 inches.

   D. Handle Assembly Travel Arc -- 80 degrees

   E. Weight -- To be provided.

TESTING AND TROUBLE SHOOTING

1. Equipment

   NOTE: Equivalent substitutes may be used.

   A. Test Equipment -- A52018-1

2. Test (IPL Fig. 1)

   A. Remove bolt (205), washers (210, 215), nut (220) and crank assembly (225) from shaft (275) to facilitate application of torque. Mount unit in test frame assembly, A52018-2 and attach adapter, A52018-13 to shaft (275). Attach suitable torque wrench to adaptor, A52018-13.

   B. Push catch assembly (120) to release handle assembly (330A).

   C. With handle assembly (330A) at approximately mid-point of travel, apply a torque to shaft (275) in either direction and simultaneously apply a reacting force at the end of handle assembly (330A).

   D. Increase torque at shaft (275) until pawl assembly (400A) fully engages stop (535A) in housing assembly (515A). Check that the torque at which pawl assembly engages stop is 325-530 lb-ins.

   E. Increase torque at shaft (275) to 700 lb-ins. while reacting the torque at the handle.

   F. Hold the torque at shaft (275) at 700 lb-ins. and release the handle assembly (330A). Check that pawl assembly (400) disengages from stop (535A) and torque at shaft (275) drops to less than 30 lb-ins. Hand tapping on the handle assembly (330A) to cause the release is allowed.

   G. Repeat test step 2.C. thru 2.F. except apply torque in the opposite direction.

   H. With the housing assembly (515A) in the horizontal position and handle assembly (330A) is down and open, measure the force required to move the handle assembly toward the closed position.

   I. Check that the force measured normal to the handle assembly (330A) at 0.25-0.75 inch from the end is 2.5-4.5 lbs when the handle is 1 inch from the closed position.

3. After completing the test and no correction is required, reinstall crank assembly (225) on shaft (275) and secure with bolt (205), washers (210, 215) and nut (220) (Ref Fig. 701).

TROUBLE	PROBABLE CAUSE	CORRECTION
Step 2.D., 2.F. or 2.G.	Defective pawl assembly (400A) Defective stop (535A)	Disassemble and replace part per par. 4.A. Disassemble and replace part per par. 4.B.
Step 2.I.	Defective bearings (585, 595) Disassemble bushings (505)	Disassemble and replace parts per par. 4.B. Disassemble and replace parts per par. 4.C.

NOTE: Trouble shooting is keyed to the step of the test procedures.

Trouble Shooting Chart
Figure 101

4. Corrective Procedures

A. Replacement of defective pawl assembly (400A)

(1) Disassemble unit per DISASSEMBLY par. 2.B. thru 2.D. and 2.I.

(2) Repair pawl assembly (400A) per REPAIR 4-1 or replace part.

(3) Assemble unit per ASSEMBLY par. 2.A., 2.G., 2.H. and retest unit.

B. Replacement of stop (535A), and bearings (585, 595).

(1) Completely disassemble unit per DISASSEMBLY par. 2.

(2) Replace parts per REPAIR 1-1.

(3) Assemble parts per ASSEMBLY par. 2. and retest unit.

C. Replacement of bushings (505).

(1) Remove fitting assembly (485) per DISASSEMBLY par. 2.B., 2.C., 2.D. and 2.G.

(2) Replace bushings per REPAIR 2-1.

(3) Assemble parts per ASSEMBLY par. 2.B. thru 2.H. and retest unit.

DISASSEMBLY

1. Parts Replacement

   NOTE: The following parts are recommended for replacement. Unless otherwise specified, actual replacement of parts may be based on in-service experience.

   A. Packings (85, 110, 315)

2. Disassembly (IPL Fig. 1)

   A. Remove screws (5A) and cover (20A) from housing assembly (515A).

   WARNING: STAY CLEAR FROM HANDLE ASSEMBLY TRAVEL PATH. HANDLE ASSEMBLY (330A) WILL TRAVEL TO OPEN POSITION WHEN PRESSING THE CATCH ASSEMBLY (120) OR ROTATING CRANK ASSEMBLY (50) COUNTERCLOCKWISE.

   B. Press catch assembly (120) or rotate crank assembly (50) counterclockwise and let handle assembly (330A) travel to the unlock position.

   WARNING: USE CARE TO AVOID INJURY WHEN LETTING SPRING (285) UNWIND.

   C. Remove nut (305), washer (295A). Slowly remove bolt (290), washers (300A), bushing (310) and carefully let spring (285) unwind to the free position.

   D. Rotate handle assembly (330A) to expose bolt (325) heads. Remove bolts (325) and remove handle assembly (330A) from fitting assembly (485).

   E. Remove nut (35), washer (45) and remove bolt (30) and washer (40) from shaft (80) thru hole in housing assembly (515A).

   CAUTION: CRANK ASSY (50), LEVER (75) AND SHAFT (80) ARE MATCHED PARTS AND MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY.

   F. Remove nut (15A), washer (20A). Remove shaft assembly (25) crank assembly (120), washers (90A, 105), bushing (95) and springs (100, 115). Remove packings (85, 110) from shaft (80).

CAUTION: CRANK ASSEMBLY (225), CRANK (270) AND SHAFT (275) ARE MATCHED PARTS AND MUST BE KEPT TOGETHER TO ENSURE PROPER OPERATION AFTER ASSEMBLY.

G. Remove nut (265), washer (260) and bolt (250). Remove nut (195A), washer (190A) and remove shaft assembly (200) and fitting assembly (485) from housing assembly (515A). Remove spring (285). Remove bolt (197) from crank assembly (225). Remove packings (315) from housing assembly (515A).

H. Remove stop (620), bolts (600), washers (605A, 610A) and nuts (615A) from housing (780).

I. Disassemble handle assembly (330A).

(1) Remove nut (350A), washers (345A, 360), bolt (340A), bushings (355) and bearing (365).

(2) Remove parts (370, 375, 380A), bushings (385), springs (390, 395) and pawl assembly (400A) from handle assembly (420A).

NOTE: Do not disassemble pawl assembly (400A) or handle assembly (420A) unless necessary for repair or replacement.

CLEANING

1. Clean all parts except sealed bearings using standard industry practices and information contained in 20-30-03.

2. Clean sealed bearings per manufacturer's instructions.

CHECK

1. Check all parts for obvious defects in accordance with standard industry practices. Refer to Fits and Clearances for design dimensions.

2. Magnetic particle check per 20-20-01 the following listed parts.

   A. Springs (100, 115, 285, 390, 395, IPL Fig. 1)

   B. Shafts (80, 275, 375).

   C. Hook (145)

   D. Crank (270)

   E. Pawl (415A)

   F. Stop (535A)

3. Penetrant check per 20-20-02 the following listed parts.

   A. Lever (75)

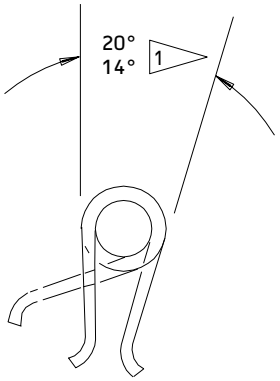
   B. Catch (185)

   C. Crank (245)

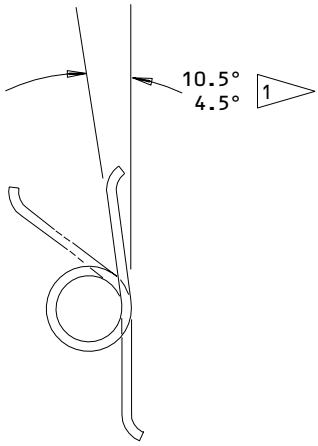
   D. Handle (480A)

   E. Housing (780)

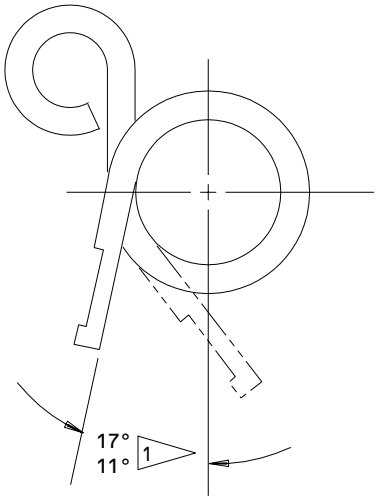
4. Check springs (100, 115, 285, 390, 395) per Fig. 501.



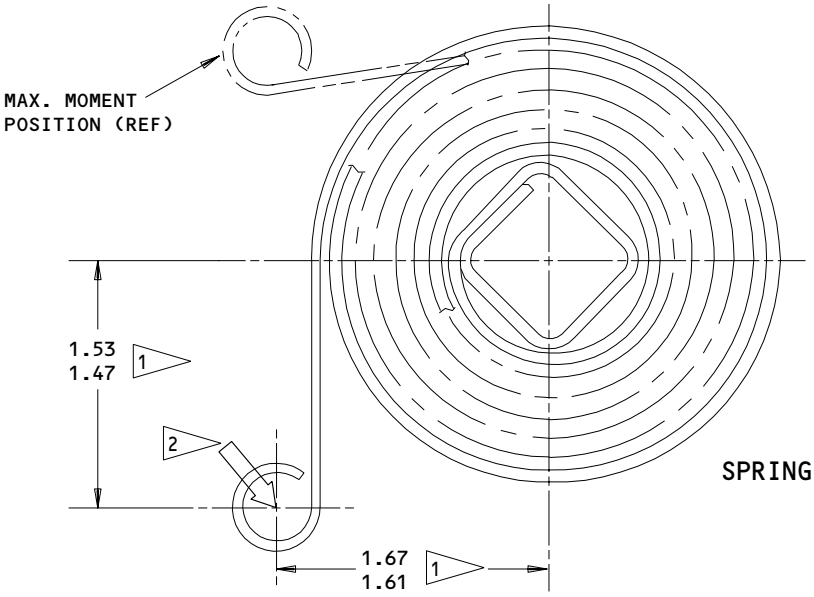
SPRING (100)



SPRING (115)



SPRING (390)
SPRING (395) OPPOSITE



SPRING (285)

ITEM NO. IPL FIG. 1	TEST DEFLECTION (DEGREES)	ALLOWABLE MOMENT (POUND-INCHES)
100	45.7 52.7	15.84-19.36 18.27-22.33
115	44 64	6.93-8.47 10.08-12.32
285	198 278	12.06-14.74 16.92-20.68
390,395	45.1 52.1	29.34-35.86 33.93-41.47

1 FREE POSITION
2 POINT AND DIRECTION OF LOAD APPLICATION

Spring Check
Figure 501

44985

REPAIR - GENERAL

1. Content

   A. Repair, refinish and replacement procedures are included in separate repair sections as follows:

P/N	NAME	REPAIR
143T6451	HOUSING	1-1
143T6516	FITTING	2-1
143T6517	HANDLE	3-1
143T6519	PAWL	4-1
143T6524	CATCH	5-1
143T6532	SHAFT	6-1
143T6533	SHAFT	7-1
- -	MISC. PARTS REFINISH	8-1

2. Standard Practices

   A. Refer to the following standard practices as applicable, for details of procedures in individual repairs.

   20-30-02 Stripping of Protective Finishes
   20-30-03 General Cleaning Procedures
   20-41-01 Decoding Table for Boeing Finish Codes
   20-41-02 Application of Chemical and Solvent Resistant Finishes
   20-43-01 Chromic Acid Anodizing
   20-50-03 Bearing Installation and Retention

3. Materials

   NOTE: Equivalent substitutes may be used.

   A. Sealant -- BMS 5-95 (Ref 20-60-04)

   B. Primer -- BMS 10-11, type 1 (Ref 20-60-02)

   C. Compound -- BMS 5-28 (Ref 20-60-04)

D. Grease -- BMS 3-24 (Ref 20-60-03)

E. Solid Film Lubricant -- Vitrolube 1220

F. Solid Film Lubricant -- BMS 3-8, type 8 (Ref 20-60-04)

G. Enamel -- BMS 10-60, color gray gloss BAC707 (Ref 20-60-02)

H. Enamel -- BMS 10-60, color yellow gloss BAC302 (Ref 20-60-02)

I. Enamel -- BMS 10-11, type 2, color white gloss BAC702 (Ref 20-60-02)

J. Enamel -- BMS 10-60, color insignia red (BAC101) (Ref 20-60-02)

4. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols used in applicable repair procedures are shown in Fig. 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
≡	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
↗↗	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
∨	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
S ∅	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE FROM WHICH PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT

EXAMPLES

[— | 0.002]	STRAIGHT WITHIN 0.002
[⊥ | 0.002 | B]	PERPENDICULAR TO B WITHIN 0.002
[// | 0.002 | A]	PARALLEL TO A WITHIN 0.002
[○ | 0.002]	ROUND WITHIN 0.002
[⌭ | 0.010]	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
[⌒ | 0.006 | A]	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM PLANE A
[⌓ | 0.020 | A]	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.02 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
[◎ | ∅ 0.0005 | C]	CONCENTRIC TO C WITHIN 0.0005 DIAMETER
[≡ | 0.010 | A]	SYMMETRICAL WITH A WITHIN 0.010
[∠ | 0.005 | A]	ANGULAR TOLERANCE 0.005 WITH A
[⌖ | ∅ 0.002 Ⓢ | B]	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
[⊥ | ∅ 0.010 Ⓜ | A] [0.510 Ⓟ]	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010-INCH DIAMETER, PERPENDICULAR TO, AND EXTENDING 0.510-INCH ABOVE, DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

NOTE: DATUM MAY APPEAR AT EITHER SIDE OF TOLERANCE FRAME [0.020 | A] [A | 0.020]

True Position Dimensioning Symbols
Figure 601

HOUSING ASSEMBLY - REPAIR 1-1

143T6451-5, -7, -9

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

1. Bushing Replacement (Fig. 601)

   A. Remove bushings

   B. Install replacement bushing per 20-50-03 except use wet sealant, BMS 5-95.

   C. Fillet seal bushing flange with sealant, BMS 5-95.

2. Bearing Replacement (Fig. 601)

   A. Remove bearings.

   B. Install replacement bearing per 20-50-03 except use wet sealant, BMS 5-95.

3. Stop (535A, IPL Fig. 1) Replacement (Fig. 601)

   CAUTION: TOOTH SURFACES OF STOP (535A) ARE POLISHED TO 8 MICROINCHES AND COATED WITH DRY FILM LUBRICANT. USE CARE WHILE HANDLING PART TO AVOID DAMAGE.

   A. Remove bolts (540A), collars (545A), shims (550B, 555A) and stop (535A).

   B. Position replacement stop (535A) and shims (550B, 555A) at dimension shown. Delaminate shims (550B, 555A) as required to obtain dimensions specified in Fig. 601.

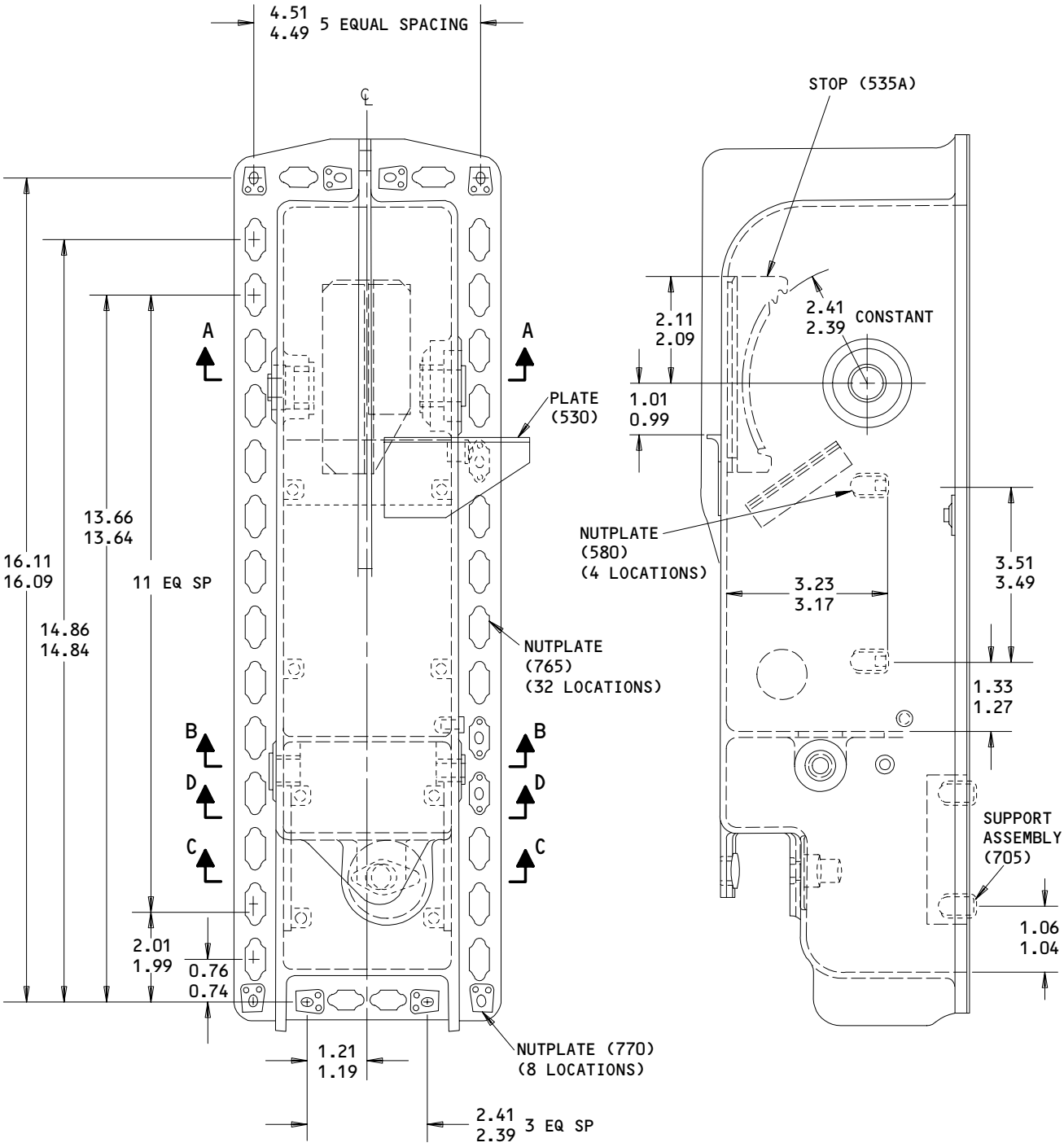
   C. Install stop (535A) and shims (550B, 555A) on housing (780) and secure with bolts (540A) and collars (545A). Install shims (550B, 555A) with primer, BMS 10-11, type 1 per 20-41-02.

4. Support assembly (705) Replacement (Fig. 601)

A. Remove rivets (695), shims (700A) and support assemblies (705) from housing (780).

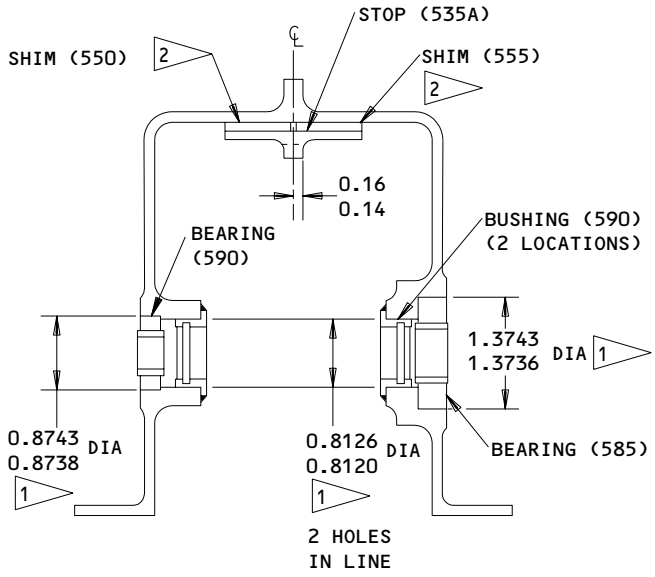
B. Position replacement support assemblies (705) and shims (700) on housing (780). Delaminate shims (700) as required to obtain dimensions shown.

C. Secure support assemblies (705) and shims (700) to housing (780) with rivets (695). Install shims (700) with primer per 20-41-02.

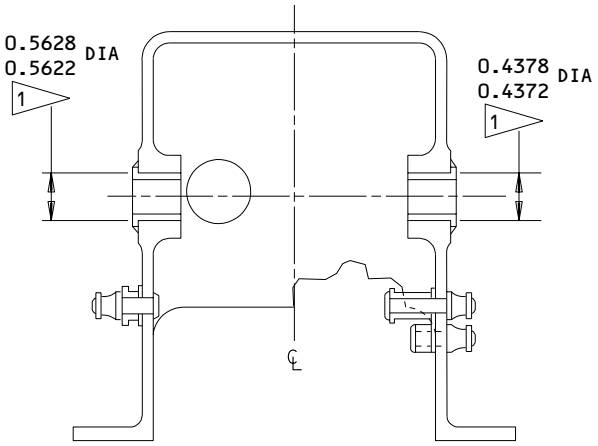


143T6451-5,-7,-9
Part Replacement and Housing Refinish
Figure 601 (Sheet 1)

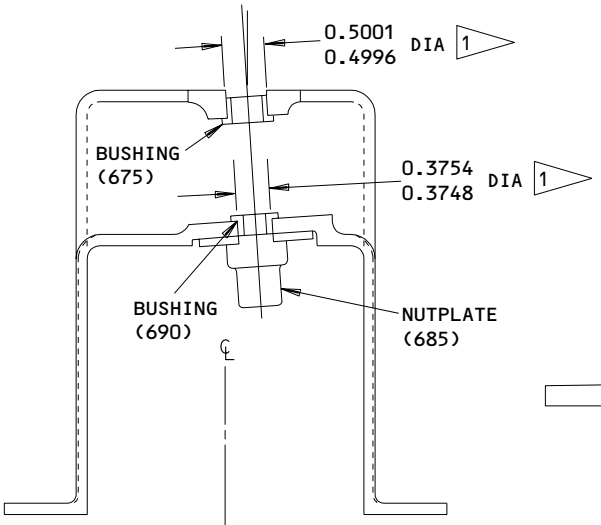
44993



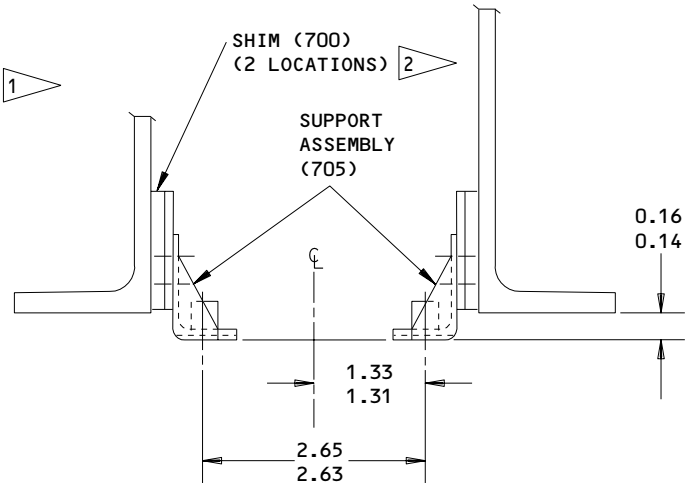
A-A



B-B



C-C



D-D

REFINISH

HOUSING (780) -- CHROMIC ACID ANODIZE (F-17.04) AND APPLY 1 COAT OF PRIMER, BMS 10-11, TYPE 1 (F-20.02). APPLY 1 COAT OF ENAMEL, BMS 10-11, TYPE 2, COLOR WHITE (702) GLOSS (SRF-14.905-702) EXCEPT OMIT PRIMER AND ENAMEL AS INDICATED

1 OMIT PRIMER AND ENAMEL THIS SURFACE

2 DELAMINATE SHIM AS REQUIRED. INSTALL SHIM WITH PRIMER (F-20.05)

MATERIAL: AL ALLOY

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

143T6451-5,-7,-9
Parts Replacement and Housing Refinish
Figure 601 (Sheet 2)

FITTING ASSEMBLY - REPAIR 2-1

143T6516-1

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of parts which may only consist of stripping and restoration of original finish, refer to Refinish instructions.

1. Bushing (505) Replacement

   A. Remove bushings

   B. Install replacement bushings per 20-50-03 except use wet sealant.

   C. Fillet seal bushing flange with sealant.

2. Nutplate (500) Replacement

   A. Remove rivets (495) and damaged nutplates (500).

   B. Install replacement nutplates and secure with rivets.

3. Refinish

   A. Fitting (510) -- Chemical treat and apply 2 coats of primer, BMS 10-11, type 1 (F-18.03). Apply enamel, BMS 10-11, type 2 gloss white (BAC702) (SRF-14.905-702) except omit primer and enamel in bores for bushings.

HANDLE ASSEMBLY - REPAIR 3-1

143T6517-7, -9

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which only consists of stripping and restoration of original finish, refer to Refinish instruction, Fig. 601.

1. Bushing (475, IPL Fig. 1) Replacement (Fig. 601)

   A. Remove bushings.

   B. Install replacement bushings per 20-50-03 except use wet sealant.

   C. Fillet seal bushing flanges with sealant.

2. Bolt (445) Replacement (Fig. 601)

   A. Remove potting compound from recesses.

   B. Remove bolt (445), washers (450, 455), and nut (460).

   C. Install replacement bolt (445), washers (450, 455) and nut (460). Tighten nut to 20-30 lb-in.

   D. Completely fill recesses with potting compound, BMS 5-28. Finish the compound to 250 microinches or better, flush to handle contour.

3. Nutplate (430) Replacement

   A. Remove rivets (425) and nutplate (430).

   B. Install replacement nutplate and secure with rivets.

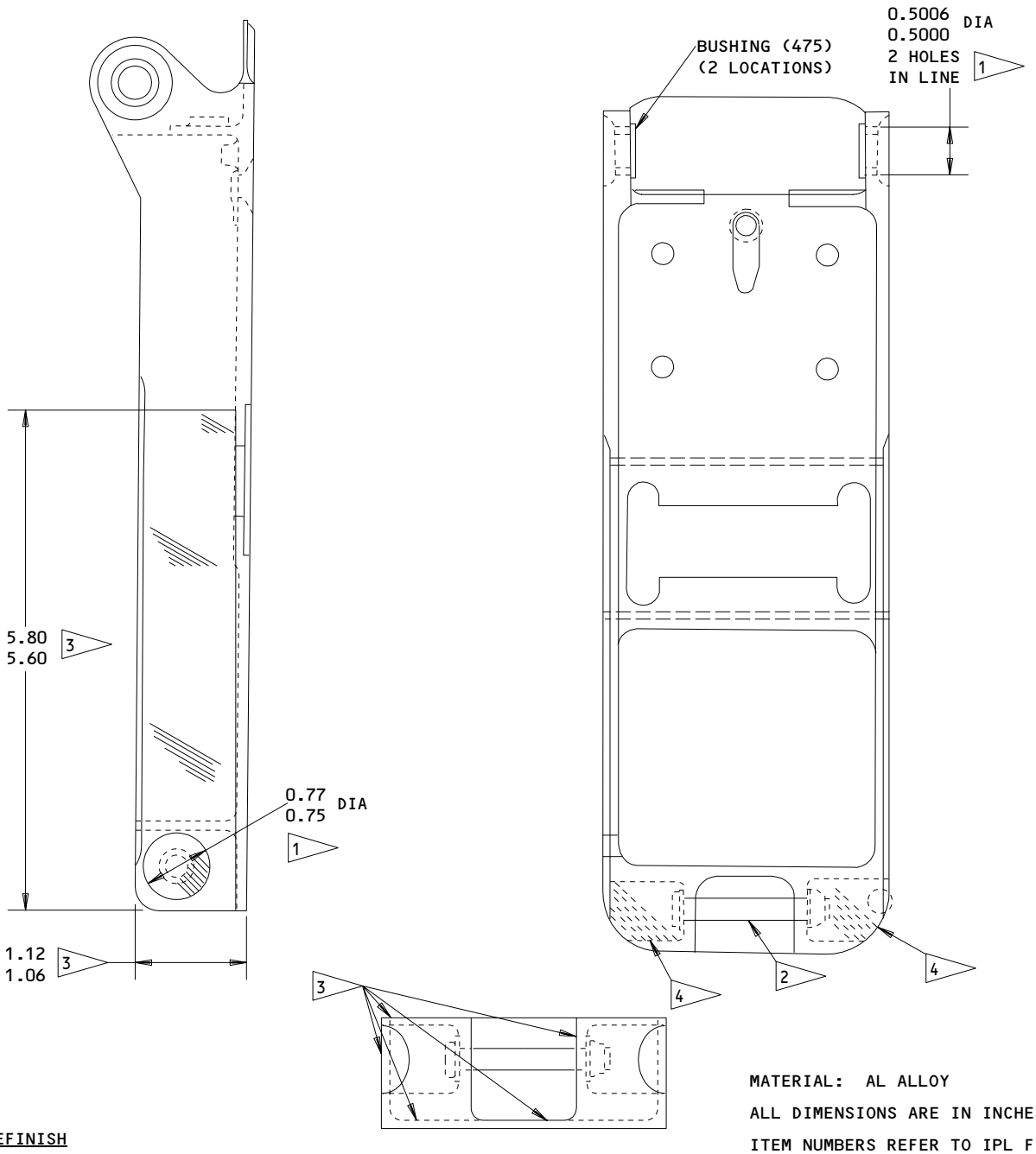
4. Plate (440) Replacement

   A. Remove rivets (435) and plate (440).

   B. Position plate (440) so that edge of plate does not extend beyond edge of handle (480A).

   C. Drill 0.128-0.135 dia. rivet holes thru plate using holes in handle.

   D. Install plate with primer and secure with rivets.



MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

REFINISH

HANDLE (480A) -- CHROMIC ACID ANODIZE (F-17.04) AND APPLY 1 COAT OF PRIMER, BMS 10-11, TYPE 1 (F-20.02). HANDLE ASSEMBLY (420) -- APPLY ENAMEL, BMS 10-60, COLOR GRAY GLOSS (707) (SRF-14.9813) EXCEPT AS NOTED IN 1 2

1 OMIT PRIMER AND ENAMEL THIS DIAMETER

2 NO FINISH ON BOLT

3 APPLY ENAMEL, BMS 10-60, COLOR YELLOW GLOSS (302) (SRF-14.9814-302) TO EDGES, EXTERIOR AND INTERIOR IN ADDITION TO THE ABOVE FINISH IN AREA INDICATED

4 FILL RECESS WITH POTTING COMPOUND, BMS 5-28 FINISH TO 250 FLUSH TO HANDLE CONTOUR

143T6517-7,-9
Parts Replacement and Handle Refinish
Figure 601

45304

PAWL ASSEMBLY - REPAIR 4-1

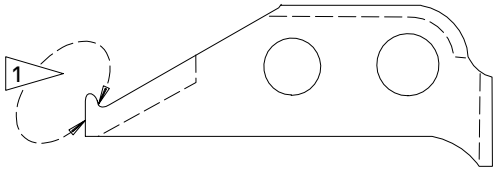
143T6519-5

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surfaces which may only consist of stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Bushing (405, 410, IPL Fig. 1) Replacement

   A. Remove bushings.

   B. Install replacement bushing per 20-50-03 except use grease, BMS 3-24.



REFINISH

PAWL (415A) -- PASSIVATE (F-17.09) ALL OVER AND APPLY DRY FILM LUBRICANT BMS 3-8 PER 20-50-08, TYPE 8 TO AREA INDICATED BY 1

OPTIONAL: APPLY DRY FILM LUBRICANT ALL OVER

MATERIAL: 15-5PH CRES, 180-200 KSI

Pawl Refinish
Figure 601

91550

CATCH ASSEMBLY - REPAIR 5-1

143T6524-1, -3

NOTE: Refer to REPAIR-GEN for list of applicable standard practices. For repair of surface which may only consist of stripping and restoration of original finish, refer to Refinish instructions, Fig. 601.

1. Bushing (180, IPL Fig. 1) Replacement (Fig. 601)

   A. Remove bushings

   B. Install replacement bushings per 20-50-03 except use grease BMS 3-24.

   C. Machine bushings to dimension shown.

   D. Fillet seal flange of bushings with sealant.

2. Hook replacement (Fig. 601)

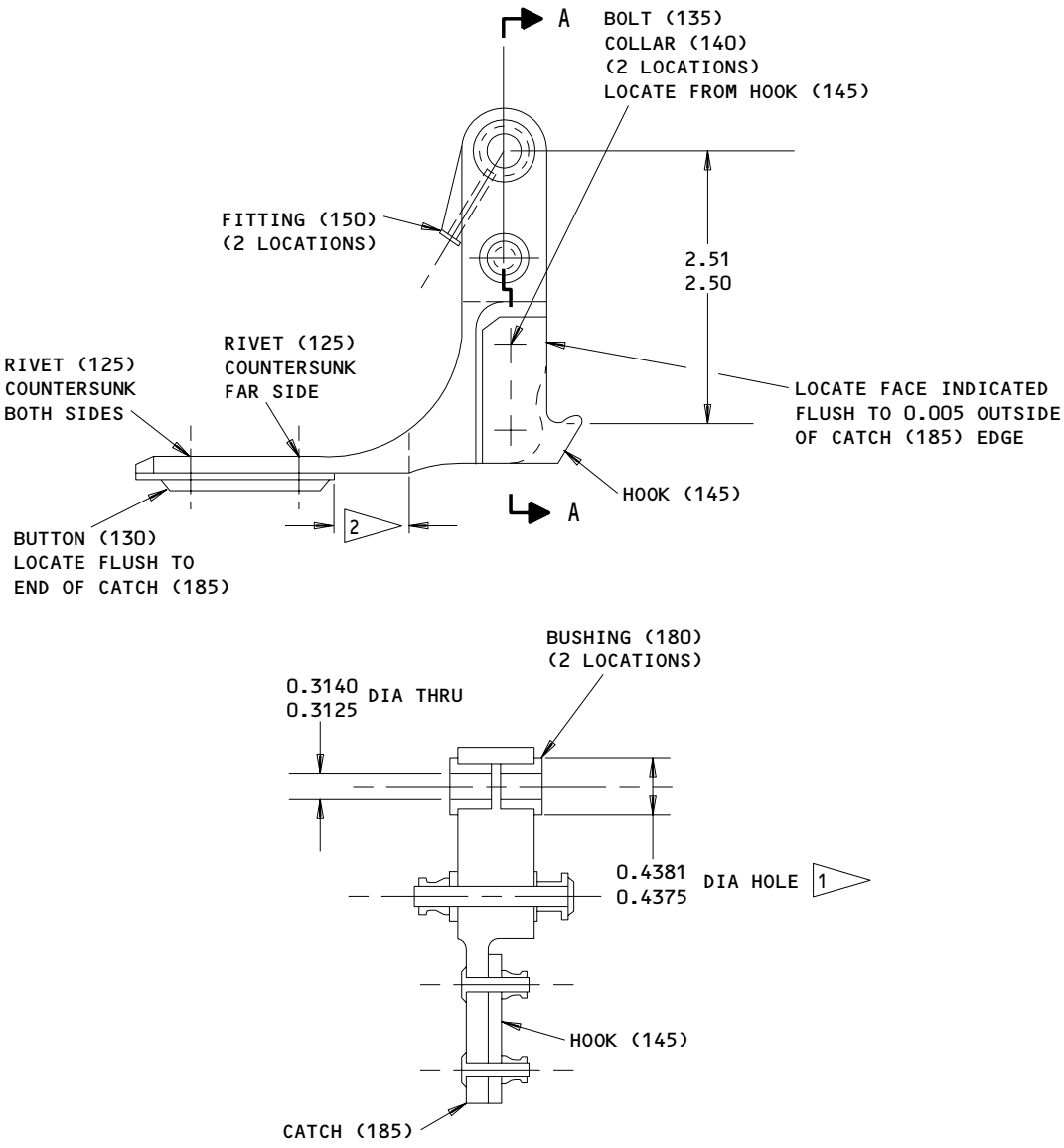
   A. Remove bolts (135A), collars (140A) and hook (145).

   B. Install replacement hook with sealant on faying surfaces and secure with bolts (135A) and collars (140A).

3. Button (130) Replacement (Fig. 601)

   A. Remove rivets (125) and button (130).

   B. Position replacement button on catch (185) and secure with rivets (125).



A-A

REFINISH

CATCH (185) -- CHROMIC ACID ANODIZE (F-17.04) FOLLOWED BY 1 COAT OF PRIMER, BMS 10-11, TYPE 1 (F-20.02). APPLY 1 COAT OF BMS 10-11, TYPE 2 ENAMEL GLOSS, COLOR WHITE (BAC702) (SRF-14.905.702) (REF 20-41-02) EXCEPT AS NOTED

1 OMIT PRIMER AND ENAMEL

2 APPLY BMS 10-60 GLOSS ENAMEL COLOR INSIGNIA RED (BAC101) (SRF-14.9815-BAC101) AREA INDICATED

125 MACHINED SURFACES

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

ITEM NUMBERS REFER TO IPL FIG. 1

143T6524-1,-3
Parts Replacement and Catch Refinish
Figure 601

45308

SHAFT ASSEMBLY - REPAIR 6-1

143T6532-1

CAUTION: CRANK ASSEMBLY (225, IPL FIG. 1), CRANK (270) AND SHAFT (275) COMPOSE A MATCH SET. DO NOT REPLACE PARTS INDIVIDUALLY.

1. Bushing (225) Replacement

NOTE: Refer to REPAIR-GEN for list of applicable standard practices.

A. Remove bolt (205), washers (210, 215) and nut (220) and remove crank assembly (225) from shaft (275).

B. Remove bushings (230, 235, 240) as applicable, from crank (245).

C. Install replacement bushings per 20-50-03 except use wet sealant.

D. Fillet seal bushing flange with sealant.

CAUTION: DO NOT OVER-TIGHTEN BOLT (205) OR DAMAGE TO SHAFT (275) MAY RESULT.

E. Position crank assembly (225) on shaft (275) and install bolt (205), washers (210, 215) and nut (220). Tighten nut 5-15 lb-in. over run-on torque.

SHAFT ASSEMBLY - REPAIR 7-1

143T6533-1

CAUTION: CRANK ASSEMBLY (50, IPL FIG. 1), LEVER (75) AND SHAFT (80) COMPOSE A MATCH SET. DO NOT REPLACE THESE PARTS INDIVIDUALLY.

1. Bushing Replacement

   A. Remove bolt (30), washers (40, 45) and nut (35) and remove crank assembly (50) from shaft (80).

   B. Drill out rivet (55) and remove bushing (65) and washer (60) from crank (70).

   C. Position washer (60) and replacement bushing (65) and install rivet (55).

MISCELLANEOUS PARTS REFINISH - REPAIR 8-1

1. Repair of parts listed in Fig. 601 consists of restoration of the original finish.

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Cover (10), button (130)	Al alloy	Chemical treat and apply 1 coat of primer, BMS 10-11, type 1 (F-18.06) all over. Apply enamel, BMS 10-60, gray gloss (BAC707) (SRF-14.9813) all over.
Springs (100,115, 285,390,395)	17-7PH CRES	Passivate (F-17.09)
Hook (145)	15-5PH CRES, 180-200 ksi	Passivate (F-17.09) and apply Vitrolube 1220 solid film lubricant on hook.
Shaft (375),	15-5PH CRES, 180-200 ksi	Passivate (F-17.09)
Plate (440)	Al alloy	Chromic acid anodize and apply 1 coat of primer, BMS 10-11, type 1 (F-18.13)
Stop (465)	301 CRES	Passivate (F-17.09)
Plate (530)	15-5PH CRES, 150-180 ksi	Passivate (F-17.09)
Shields (565,570)	Al alloy	Chemical treat and apply 1 coat of primer, BMS 10-11, type 1 (F-18.06) all over. Apply enamel, BMS 10-11, type 2, gloss white (BAC702) (SRF-14.905-702) all over.
Stop (535A)	15-5PH CRES, 180-200 ksi	Passivate (F-17.09) and apply dry film lubricant, BMS 3-8, Type 8 on tooth surfaces. Optional: Apply lubricant all over.

Refinish Details
Figure 601

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes may be used.

A. Grease -- MIL-G-4343 (Ref 20-60-03)

B. Grease -- MIL-G-23827 (Ref 20-60-03)

C. Sealant -- BMS 5-95 (Ref 20-60-04)

2. Assembly (IPL Fig. 1)

A. Assemble handle assembly (330A)

CAUTION: TOOTH SURFACE OF PAWL (415A) IS POLISHED TO 8 MICROINCHES AND COATED WITH DRY FILM LUBRICANT. USE CARE WHILE HANDLING PART TO AVOID DAMAGE TO POLISHED SURFACE.

(1) Install pawl assembly (400A), shaft (375), washers (380A), bushings (385) and springs (390, 395) on handle assembly (420A). Install ring (370) to secure shaft (375).

(2) Coat shank of bolt (340A) with grease, MIL-G-23827. Install bolt (340A), washers (345A, 360), bushings (355) and bearing (365) on pawl assembly (400A). Secure bolt (340A) with nut (350A).

B. Install bolt (197) on crank assembly (225) and adjust to dimension shown (Fig. 701).

C. Remove bolt (250), washers (260), nut (265) and remove crank (270) from shaft (275), if required. Lubricate packing groove in bushings (590) in housing assembly (515A) with grease, MIL-G-4343 and install packings (315). Install parts (600 thru 620, 740 thru 760) on housing (780).

D. Install spring (285) on shaft (275) and install shaft in housing assembly (515A). Rotate crank assembly (225) to position shown in Fig. 701 and check that spring, free position is at position indicated. Adjust position of spring on shaft as required. Remove shaft (275) and spring (285).

E. Coat bearing faying surfaces of shaft (275) with grease, MIL-G-23827. Install shaft (275), spring (285), washer (280A), crank (270), and fitting assembly (485) on housing assembly (515A). Secure shaft (275) with washer (190A) and nut (195A).

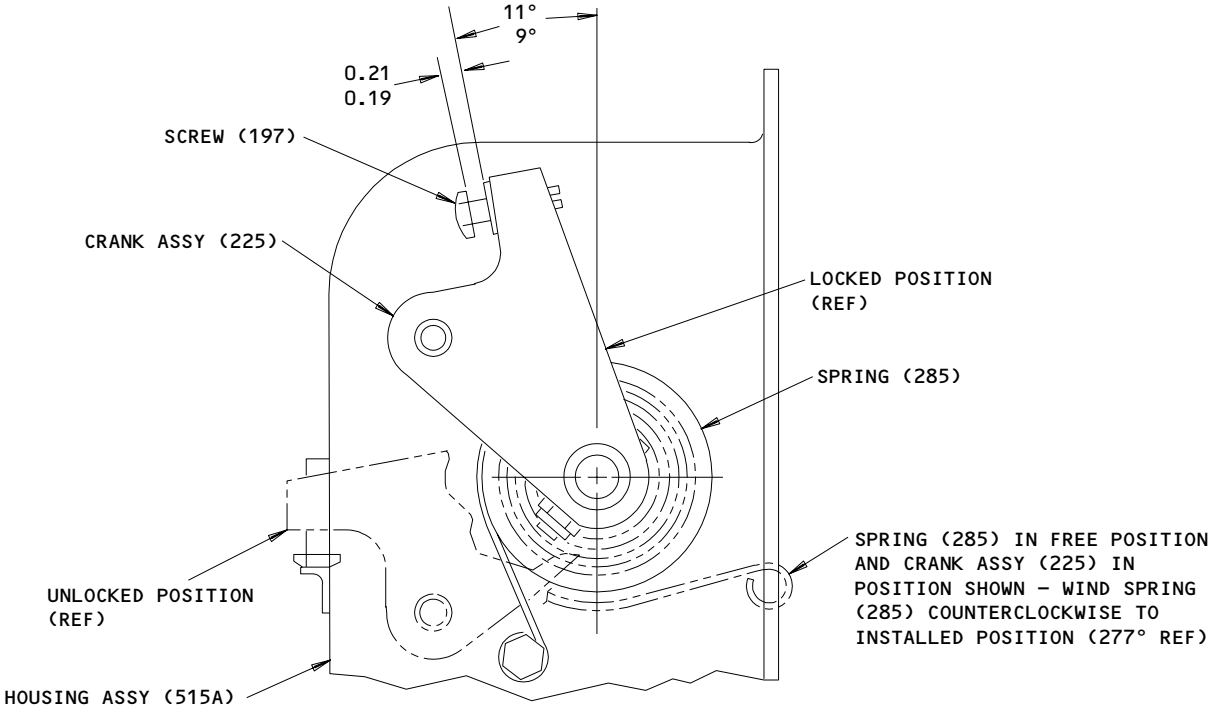
CAUTION: DO NOT OVER-TIGHTEN NUT (265) OR DAMAGE TO SHAFT (275) MAY RESULT.

F. Install bolt (250), washers (260) and nut (265) to secure crank (270) to shaft (275). Tighten nut (265) 5-15 lb-in. above run-on torque.

G. Rotate crank assembly (225) to position shown in Fig. 701 and hold in place. Wind spring (285) as indicated and secure spring end with parts (290 thru 310). Apply a bead of sealant to bolt (290) shank and housing assembly (515) before installing washers (300A).

H. With crank assembly (225) still secured in place, assemble handle assembly (330A) on fitting assembly (485) with bearing (365) riding on crank (270) and secure with bolts (325). Install bolts (325) with sealant. Slowly release crank assembly (225) until screw (197) contacts plate (530) and handle assembly (330A) in unlocked position.

I. Remove bolt (30), washers (35, 40), nut (45) and lever (75) from shaft (80), if required. Coat packing grooves on shaft (80) with grease, MIL-G-4343 and install packings (85, 110).



Assembly Details
Figure 701

J. Install shaft (80), springs (100, 115), washers (90A, 105), crank (75), catch assembly (120) and bushing (95) and secure with washer (20A) and nut (10).

CAUTION: DO NOT OVER-TIGHTEN NUT (35) OR DAMAGE TO SHAFT (80) MAY RESULT.

K. Insert bolt (30) and washer (40) thru opening in housing (780) to secure lever (75) to shaft (80). Install washer (45), and nut (35). Tighten nut 5-15 lb-in. above run-on torque.

L. Install cover (10) and secure with screws (5A).

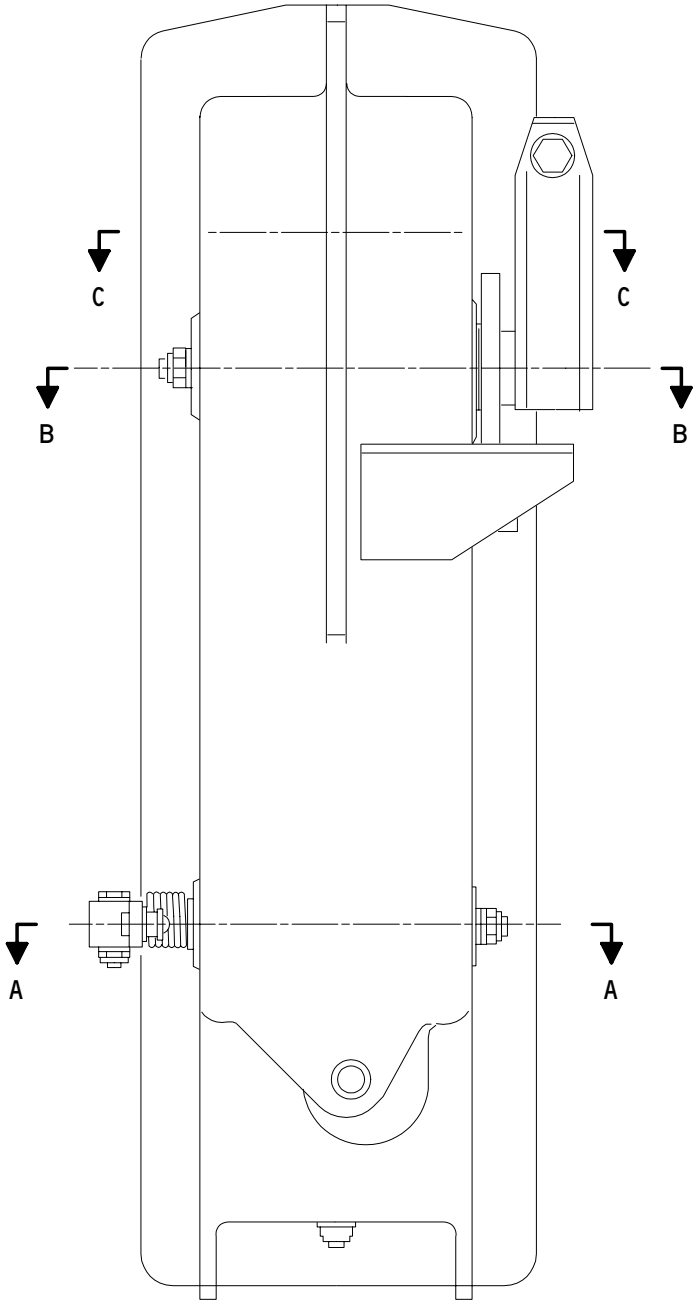
M. Push handle assembly (330A) into lock position.

N. Test unit per TESTING and TROUBLE SHOOTING.

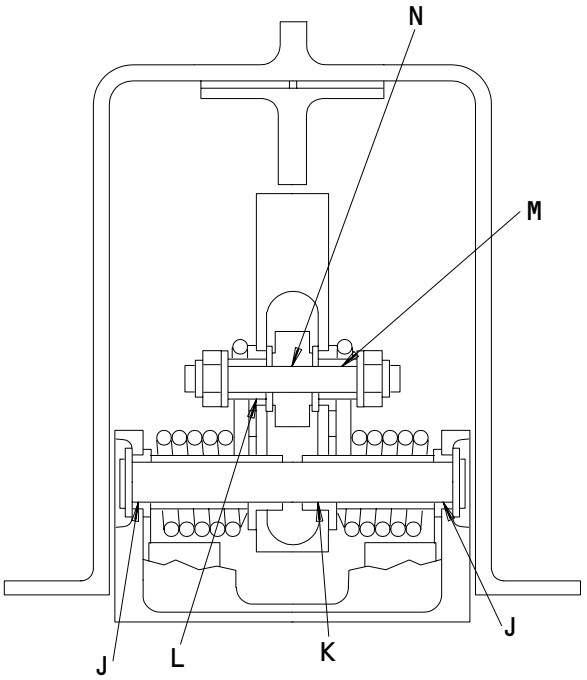
3. Storage

A. Secure handle assembly (330A) to housing assembly (515A) to prevent inadvertent release of handle assembly.

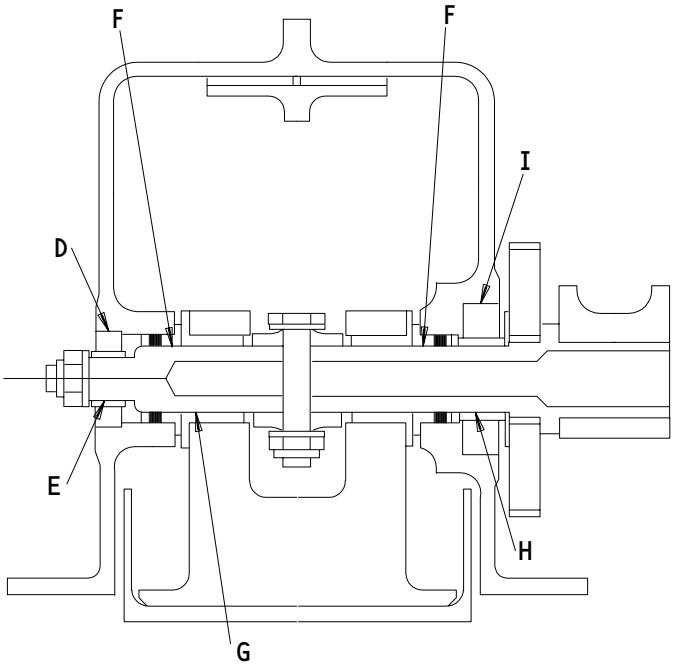
B. For further information, refer to 20-44-02.



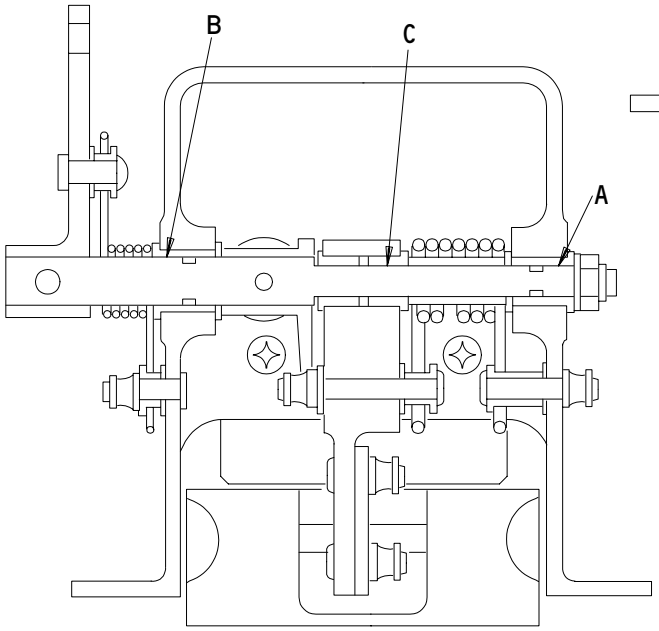
Fits and Clearances
Figure 801 (Sheet 1)



C–C



B–B



A–A

Fits and Clearances
Figure 801 (Sheet 2)

45316

Ref Letter Fig.801	Mating Item No. IPL Fig.	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance *[1]		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
A	ID 650 OD 80	0.3110 0.309	0.3125 0.311	0.0000	0.0035			
B	ID 645 OD 80	0.4360 0.434	0.4375 0.436	0.0000	0.0035			
C	ID 180 OD 80	0.3125 0.309	0.3140 0.311	0.0015	0.0050			
D	ID 780 OD 595	0.8738 0.8745	0.8743 0.8750	-0.0012	-0.0002			
E	ID 595 OD 275	0.3745 0.3739	0.3750 0.3744	0.0001	0.0011			
F	ID 590 OD 275	0.6235 0.617	0.6250 0.619	0.0045	0.0080			
G	ID 505 OD 275	*[2] 0.617	*[2] 0.619	*[2]	*[2]			
H	ID 585 OD 275	0.6235 0.6239	0.6250 0.6244	-0.0009	0.0011			
I	ID 780 OD 585	1.3736 1.3745	1.3743 1.3750	-0.0014	-0.0002			

*[1] NEGATIVE VALUES DENOTE INTERFERENCE FIT
*[2] TO BE PROVIDED

ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 3)

44957

Ref Letter Fig.801	Mating Item No. IPL Fig.	Design Dimension				Service Wear Limit		
		Dimension		Assembly Clearance *[1]		Dimension		Maximum Clearance
		Min	Max	Min	Max	Min	Max	
J	ID 475 OD 375	0.3780 0.3635	0.3785 0.3650	0.0030	0.0050			
K	ID 410 OD 375	*[2] 0.3680	*[2] 0.3685	*[2]	*[2]			
L	ID 405 OD 355	0.3735 0.3740	0.3750 0.3745	-0.0010	0.0010			
M	ID 355 OD 340	0.2500 0.2485	0.2505 0.2495	0.0005	0.0020			
N	ID 365 OD 340	0.2493 0.2485	0.2500 0.2495	-0.0002	0.0015			

*[1] NEGATIVE VALUES DENOTE INTERFERENCE FIT
*[2] TO BE PROVIDED
ALL DIMENSIONS ARE IN INCHES

Fits and Clearances
Figure 801 (Sheet 4)

44966

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
ITEM NO. IPL FIG. 1	NAME	TORQUE	
		POUND-INCHES	POUND-FEET
35	NUT	5-15 *[1]	
265	NUT	5-15 *[1]	

*[1] ABOVE RUN-ON TORQUE

Torque Table
Figure 802

46302

SPECIAL TOOLS, FIXTURES AND EQUIPMENT

NOTE: Equivalent substitutes may be used.

1. Test Equipment -- A52018-1

ILLUSTRATED PARTS LIST

1. This section lists and illustrates replaceable or repairable component parts. The Illustrated Parts Catalog contains a complete explanation of the Boeing part numbering system.

2. Indentures show parts relationships as follows:

    Assembly
      Detail Parts for Assembly
      Subassembly
      Attaching Parts for Subassembly
        Detail Parts for Subassembly

    Detail Installation Parts (Included only if installation parts may be returned to shop as part of assembly)

3. One use code letter (A, B, C, etc.) is assigned in the EFF CODE column for each variation of top assembly. All listed parts are used on all top assemblies except when limitations are shown by use code letter opposite individual part entries.

4. Letter suffixes (alpha-variants) are added to item numbers for optional parts, Service Bulletin modification parts, configuration differences (except left- and right-hand parts), product improvement parts, and parts added between two sequential item numbers. The alpha-variant is not shown on illustrations when appearance and location of all variants of the part is the same.

5. Service Bulletin modifications are shown by the notations PRE SB XXXX and POST SB XXXX.

    A. When a new top assembly part number is assigned by Service Bulletin, the notations appear at the top assembly level only. The configuration differences at detail part level are then shown by use code letter.

    B. When the top assembly part number is not changed by the Service Bulletin, the notations appear at the detail part level.

6. Parts Interchangeability

Optional (OPT)	The parts are optional to and interchangeable with other parts having the same item number.
Supersedes, Superseded By (SUPSDS, SUPSD BY)	The part supersedes and is not interchangeable with the original part.
Replaces, Replaced By (REPLS, REPLD BY)	The part replaces and is interchangeable with, or is an alternate to, the original part.

VENDORS

06710 VALLEY-TODECO INCORPORATED
12975 BRADLEY AVENUE
SYLMAR,CALIFORNIA 91342

06725 AIR INDUSTRIES CORPORATION
12570 KNOTT STREET
GARDEN GROVE, CALIFORNIA 92641

06950 VSI CORP SCREWCORP DIV
13001 EAST TEMPLE AVENUE
CITY OF INDUSTRY, CALIFORNIA 91746

08524 DEUTSCH FASTENER CORPORATION
PO BOX 92925 7001 WEST IMPERIAL HIGHWAY
LOS ANGELES, CALIFORNIA 90045

10630 ANILLO INDUSTRIES, INCORPORATED
2090 NORTH GLASSELL
ORANGE, CALIFORNIA 92667

11815 TOWNSEND DIV OF TEXTRON INC CHERRY FASTENER UNIT
BOX 2157 1224 EAST WARNER AVENUE
SANTA ANA, CALIFORNIA 92707

15653 KAYNAR MFG COMPANY INC KAYLOCK DIV
PO BOX 3001 800 SOUTH STATE COLLEGE BLVD
FULLERTON, CALIFORNIA 92634

17943 FEDERAL MANUFACTURING CORPORATION
6910 FARMDALE AVENUE
NORTH HOLLYWOOD, CALIFORNIA 91605

21335 TEXTRON INC FAFNIR BEARING DIVISION
37 BOOTH STREET
NEW BRITAIN, CONNECTICUT 06050

22599 AMERACE CORP ESNA DIV
15201 BURBANK BLVD SUITE C
VAN NUYS, CALIFORNIA 91411

23294 AVALON MACHINE PRODUCTS INC
15337 ALLEN STREET
PARAMOUNT, CALIFORNIA 90723

VENDORS

27624 PAUL R BRILES INC P.B. FASTENER DIV
1700 WEST 132ND STREET PO BOX 1157
GARDENA, CALIFORNIA 90249

38443 TRW INC BEARING DIV
402 CHANDLER STREET
JAMESTOWN, NEW YORK 14701

43991 FAG BEARING INCORPORATED
HAMILTON AVENUE
STAMFORD, CONNECTICUT 06904

52828 REPUBLIC FASTENER MFG CORP
1300 RANCHO CONEJO BLVD
NEWBURY PARK, CALIFORNIA 91320

56878 SPS TECHNOLOGIES INC
HIGHLAND AVENUE
JENKINTOWN, PENNSYLVANIA 19046

60380 TORRINGTON CO BEARINGS DIV SUBSIDIARY OF INGERSOLL-RAND CORP
59 FIELD STREET
TORRINGTON, CONNECTICUT 06790

70265 ALL POWER MANUFACTURING COMPANY
13141 MOLETTE STREET
SANTE FE SPRINGS, CALIFORNIA 90670

71087 BOOTS ACFT NUT DIV TOWNSEND CO SEE TEXTRON INC CHERRY
FASTENER TOWNSEND DIV V11815

72962 AMERACE CORP ESNA DIV
2330 VAUXHALL ROAD
UNION, NEW JERSEY 07083

73197 HI-SHEAR CORPORATION
2600 SKYPARK DRIVE
TORRANCE, CALIFORNIA 90509

80539 SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV
2701 SOUTH HARBOR BOULEVARD PO BOX 1259
SANTA ANA, CALIFORNIA 92702

VENDORS

81205 BOEING CO THE
PO BOX 3707
SEATTLE, WASHINGTON 98124

90255 DAHLSTROM INDUSTRIES INC
9508 WINONA AVENUE
SCHILLER PARK, ILLINOIS 60176

92215 VOI-SHAN DIV OF VSI CORP
8463 HIGUERA STREET
CULVER CITY, CALIFORNIA 90230

92563 MCGILL MFG CO INC BEARINGS DIV
907 LAFAYETTE STREET
VALPARAISO, INDIANA 46383

93907 TEXTRON INC CAMCAR DIV
600 18TH AVENUE
ROCKFORD, ILLINOIS 61101

94892 MASTER MACHINE PRODUCTS CORPORATION
2069 RANDOLPH STREET
HUNTINGTON PARK, CALIFORNIA 90255

97928 LITTON FASTENING SYSTEMS DIV OF LITTON SYSTEMS INC
3969 PARAMONT BOULEVARD
LAKEWOOD, CALIFORNIA 90712

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
AN960C1016L		1	280	
AN960PD10		1	45	2
		1	160	
		1	610	
		1	750	
AN960PD10L		1	40	2
		1	60	1
		1	175	
		1	605	
		1	630	
		1	660	
		1	735	
		1	745	
AN960PD416		1	215	1
		1	260	1
		1	295	
		1	345	
		1	455	1
AN960PD416L		1	210	1
		1	255	
		1	300	
		1	450	1
AN960PD516		1	20	
AN960PD516L		1	90	
AN960PD616		1	190	
AN960PD716		1	105	1
AN960XC616L		1	380	
ATF4		1	365	1
BACB10BX10		1	585	1
BACB10BX6		1	595	1
BACB10ET04		1	365	1
BACB28AK04-035		1	355	2
BACB28W5B032		1	180	2
BACB28X3C015		1	65	1
		1	670	1
BACB28X3C022		1	170	1
BACB28X3C047		1	625	1
BACB28X4C013		1	235	1
BACB28X4M019		1	690	1
BACB28X5M050		1	650	1
BACB28X6F009		1	405	2
BACB28X6M010		1	475	2
BACB28X6M013		1	240	1
BACB28X6M024		1	675	1
BACB28X7M050		1	645	1
BACB28Y4C034		1	310	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACB28Y5C087		1	95	1
BACB28Y6C090		1	385	2
BACB30LJ4-22		1	445	1
BACB30MY6K		1	155	
		1	520	
		1	540	
		1	655	
		1	725	
BACB30NL4-16		1	250	1
BACB30NL4-18		1	205	1
BACB30NL4-19		1	340	
BACB30NM3K11		1	30	2
BACB30NN4K5		1	325	4
BACB30NN4K7		1	325A	4
BACB30NR4K22		1	445A	1
BACB30NR4K9		1	290	1
BACB30NT3K11		1	740	1
BACB30NT3K6		1	600	2
BACB30NX5K		1	135	
BACB30US4K19		1	340A	1
BACB30VT5K6		1	135A	2
BACB30VT6K11		1	635A	1
BACB30VT6K17		1	155A	1
BACB30VT6K4		1	520A	4
BACB30VT6K5		1	540A	7
BACB30VT6K6		1	655A	1
BACC30AB65		1	165	
BACC30BL5		1	140A	2
BACC30BL6		1	525A	4
		1	545A	7
		1	640A	1
		1	665A	1
BACC30BS6S		1	165B	1
BACC30M6		1	525	
		1	545	
		1	640	
		1	665	
		1	737	
BACC30X5		1	140	
BACF3F008J029NG		1	720	2
BACN10JC3		1	35	2
BACN10JC4		1	220	1
		1	265	1
		1	460	1
BACN10JC4CD		1	460A	1
BACN10JC5		1	15	
BACN10JQ32		1	765	

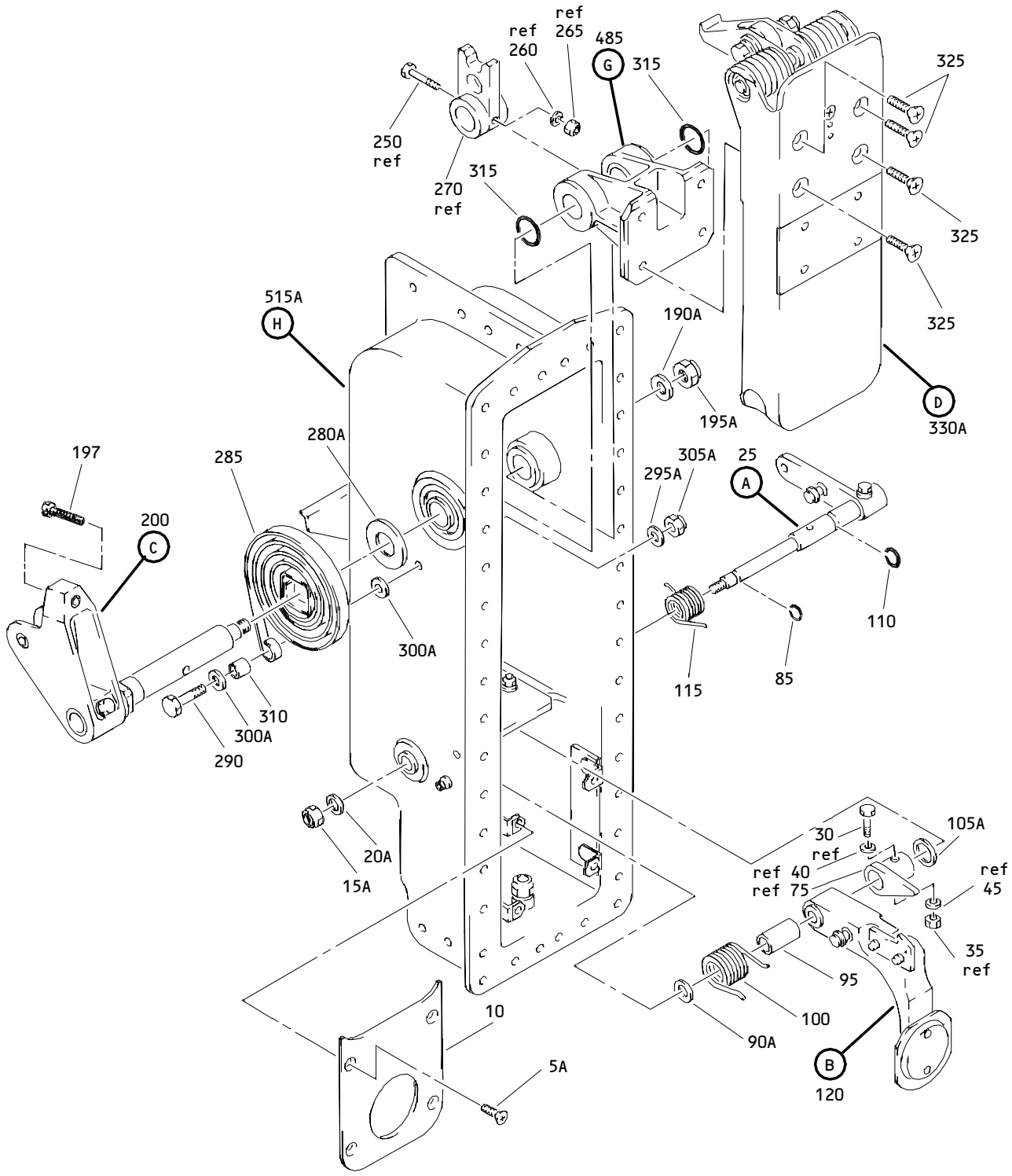
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
BACN10JQ42		1	500	4
BACN10JZ4A2		1	685	1
BACN10KB3		1	430	1
BACN10KH3		1	770	8
BACN10KJ3		1	580	4
		1	715	4
BACN10YF32		1	765A	32
BACN10YR3CD		1	615A	2
		1	755A	1
BACN10YR4CD		1	305A	1
BACN10YR4CM		1	350A	1
BACN10YR5CM		1	15A	1
BACN10YR6CM		1	195A	1
BACR15BA3AD		1	425	2
		1	465	4
		1	495	8
		1	680	2
		1	710	8
BACR15BA4A		1	435	4
BACR15BA5KE		1	125	2
BACR15BB3AD		1	575	8
BACR15BB4AD		1	560	
BACR15BB4D		1	563A	9
BACR15BB6AD		1	695	6
BACR15BB6AD10		1	55	1
BACS12ER3K10		1	335A	1
BACS12ER3K6		1	5A	4
BACS12ER3K8		1	5B	4
BACS40RO8C037F		1	550B	1
BACS40RO8C26F		1	555	
BACS40RO8C026F		1	555A	1
BACS40RO8C39F		1	550	
BACS40RO8E029F		1	700A	2
BACS40RO8E29F		1	700	
BACW10BP4ACU		1	345A	1
BACW10P250S		1	360	2
BRFM22A2-4		1	500	4
BRH10-3		1	35	2
		1	615	
		1	755	
BRH10-4		1	220	1
		1	265	1
		1	305	
		1	350	
		1	460	1
BRH10-6		1	195	
BR1000A3		1	430	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
F1968-4BAC		1	685	1
F29779-3BAC		1	770	8
HL10VAZ6-11		1	635	
H10-3BAC		1	35	2
H10-4BAC		1	220	1
KP10A		1	585	1
KP10AFS428		1	585	1
KP10A2TS		1	585	1
KP6A		1	595	1
KP6AFS428		1	595	1
KP6A2TS		1	595	1
K2000-3BAC		1	430	1
LLKP10A		1	585	1
LLKP6A		1	595	1
MF19058-4-2BAC		1	500	4
MF6000-3BAC		1	580	4
		1	715	4
MS16624-4037		1	370	1
MS29513-008		1	85	1
MS29513-011		1	110	1
MS29513-016		1	315	2
MT8260S428S2		1	500	4
M81934-2-06C008		1	410	2
M81934-2-10A016		1	505	2
NAS1149C0463R		1	347	1
NAS1149C0563R		1	20A	1
NAS1149C0632R		1	380A	2
NAS1149C0663R		1	190A	1
NAS1149C1032R		1	280A	1
NAS1149D0332J		1	175A	1
		1	605A	2
		1	630A	1
		1	660A	1
		1	745A	1
NAS1149D0363J		1	160A	1
		1	610A	2
		1	750A	1
NAS1149D0416J		1	300A	2
		1	450A	1
NAS1149D0463J		1	295A	1
		1	455A	1
NAS1149D0516J		1	90A	1
NAS1149D0763J		1	105A	1
NAS1398D4		1	563	9
NAS43DD3-13		1	730	
NAS514P1032-10		1	335	
NAS514P1032-6		1	5	

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
NAS516-1A		1	150	2
NS103184-02		1	430	1
NS103201-048-2		1	500	4
NS103224-048		1	685	1
NS103225-02		1	770	8
NS202101-02		1	35	2
NS202101-048		1	220	1
RMA9207-3		1	430	1
RMF9206M2-4		1	500	4
		1	500	4
RMF9209M3		1	770	8
		1	770	8
RMF9219-4		1	685	1
		1	685	1
RMLH9075-3W		1	35	2
RMLH9075-4W		1	220	1
T6S1032J		1	35	2
T6S428J		1	220	1
T8109S1032		1	430	1
VN101A1-02		1	430	1
VN253A048-2		1	500	4
VN303A02		1	35	2
VN303A048		1	220	1
143T6431-1		1	230	1
143T6436-1		1	197	1
143T6451-2		1	780	1
143T6451-3		1	705	2
143T6451-4		1	515	
143T6451-5		1	515A	1
143T6451-6		1	780A	1
		1	780B	1
143T6451-7		1	515B	1

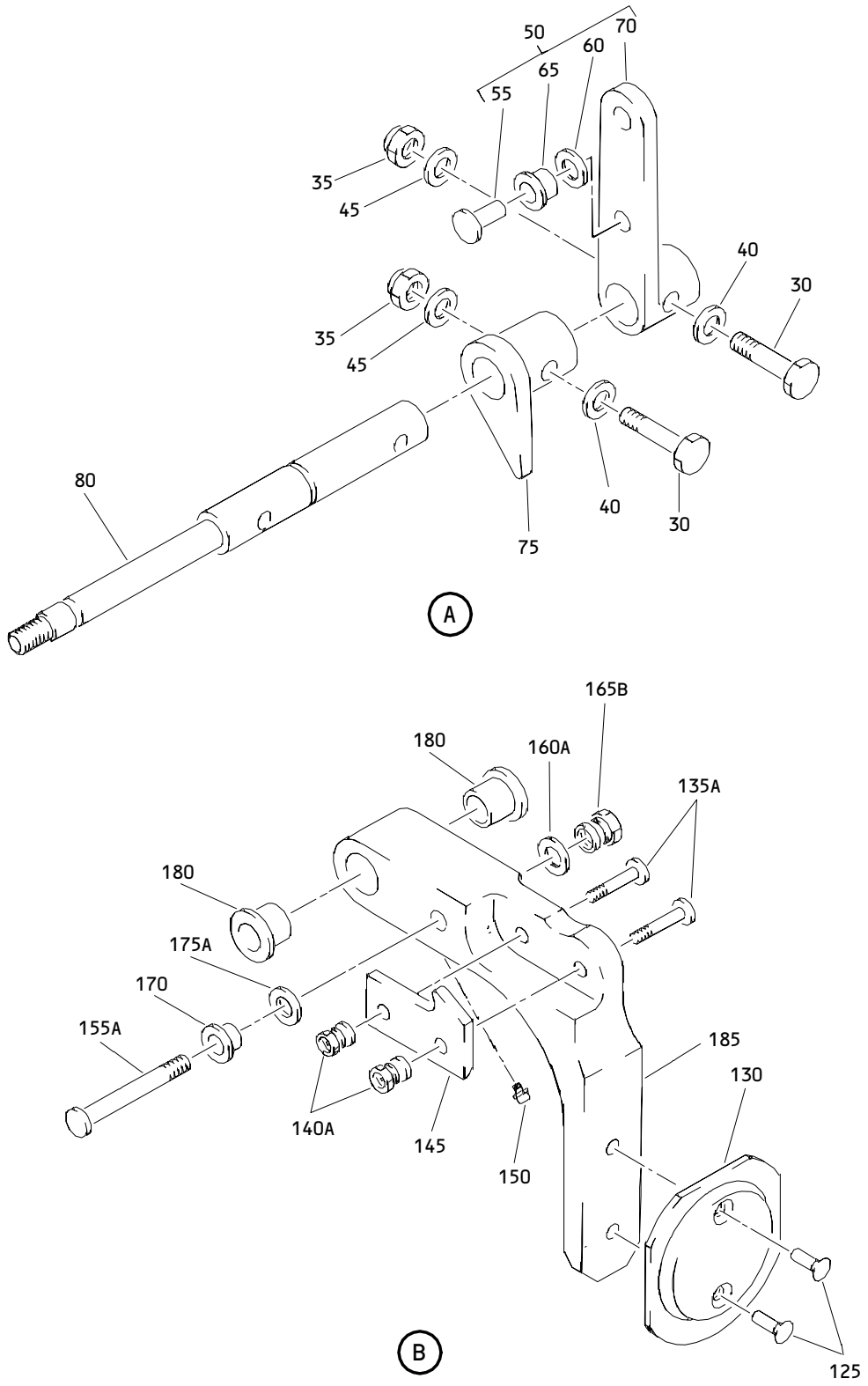
PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
143T6451-8		1	780C	1
143T6451-9		1	515C	1
143T6501-10		1	1E	RF
143T6501-11		1	330B	1
143T6501-3		1	1	
143T6501-4		1	330	
143T6501-5		1	1A	RF
143T6501-6		1	330A	1
143T6501-7		1	1B	RF
143T6501-8		1	1C	RF
143T6501-9		1	1D	RF
143T6512-1		1	225	1
143T6512-2		1	245	1
143T6513-1		1	530	1
143T6514-1		1	50	1
143T6514-2		1	70	1
143T6515-1		1	275	1
143T6516-1		1	485	1
143T6516-2		1	510	1
143T6517-10		1	480B	1
143T6517-3		1	470	2
143T6517-4		1	440	1
143T6517-5		1	420	
143T6517-6		1	480	
143T6517-7		1	420A	1
143T6517-8		1	480A	1
143T6517-9		1	420B	1
143T6518-1		1	270	1
143T6519-3		1	400	
143T6519-4		1	415	
143T6519-5		1	400A	1
143T6519-6		1	415A	1
143T6520-1		1	375	1
143T6521-3		1	535	
143T6521-5		1	535A	1
143T6522-1		1	390	1
143T6522-2		1	395	1
143T6523-1		1	285	1
143T6524-1		1	120	1
143T6524-2		1	185	1
143T6524-3		1	120A	1
143T6525-1		1	80	1
143T6526-1		1	75	1
143T6527-1		1	100	1
143T6528-1		1	115	1
143T6529-1		1	130	1
143T6530-1		1	145	1

PART NUMBER	AIRLINE PART NO.	FIG.	ITEM	TTL REQ
143T6531-1		1	10	1
143T6531-2		1	10B	1
143T6532-1		1	200	1
143T6533-1		1	25	1
143T6534-1		1	565	1
143T6534-2		1	570	1
143T6535-1		1	590	2
143T6541-1		1	620	1
143T6541-2		1	760	1
143T6734-1		1	130A	1
143T6735-1		1	10C	1
4AFC614		1	365	1
96-02		1	35	2
96-048		1	220	1
96-054		1	20	1
96-064		1	195	1



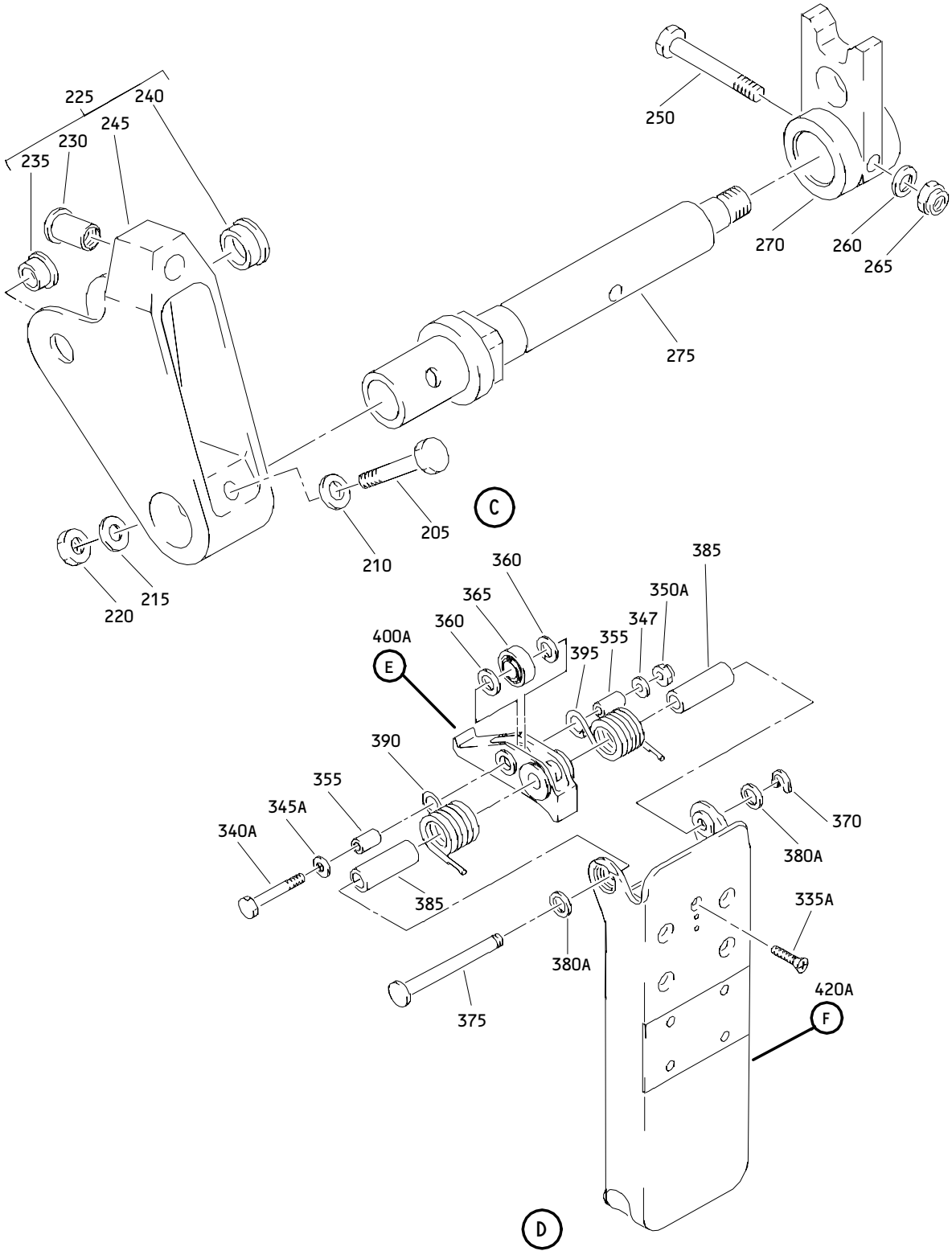
Large Cargo Door Latch Lock Control Handle Mechanism Assembly
Figure 1 (Sheet 1)

T60427



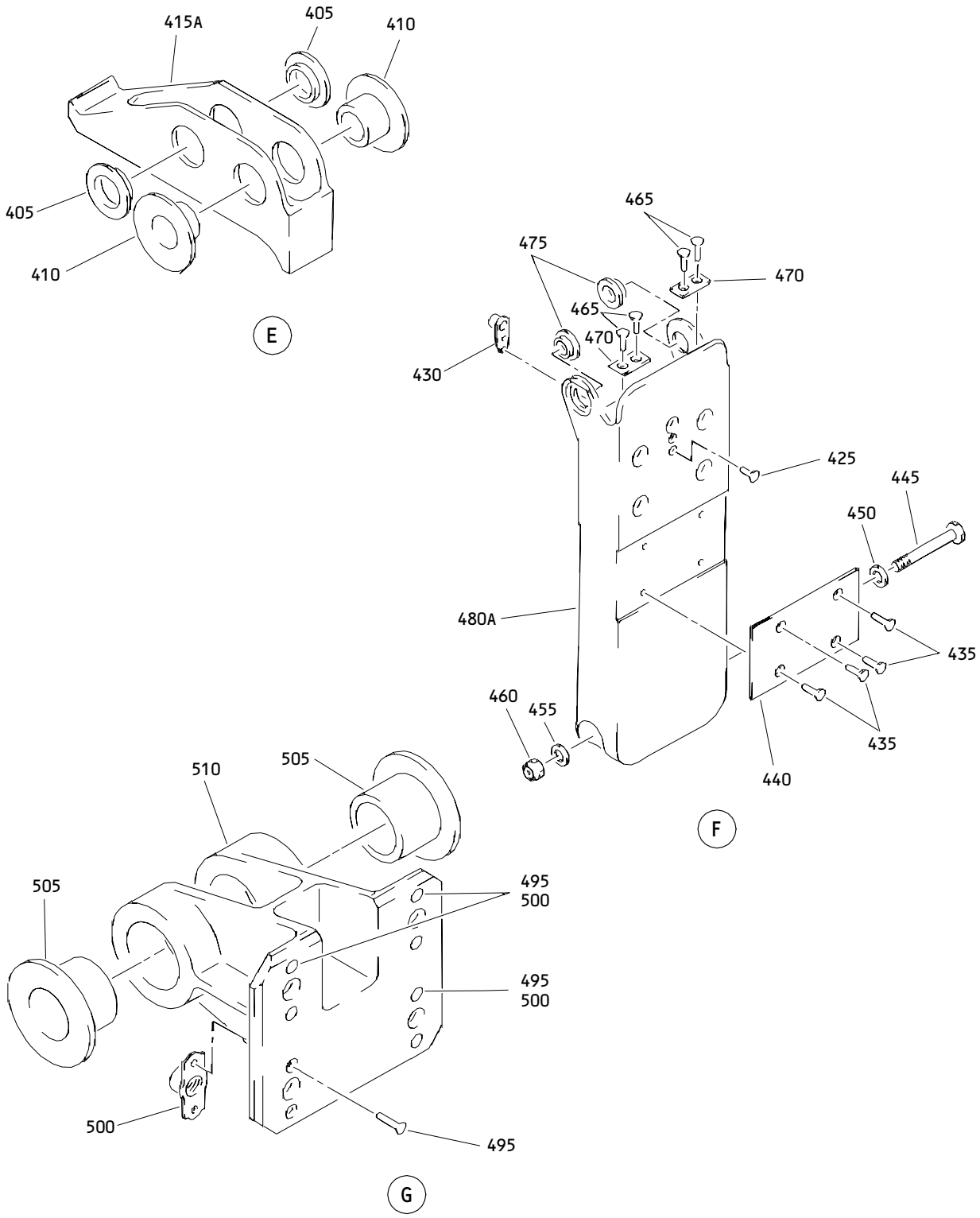
Large Cargo Door Latch Lock Control Handle Mechanism Assembly
Figure 1 (Sheet 2)

T60428



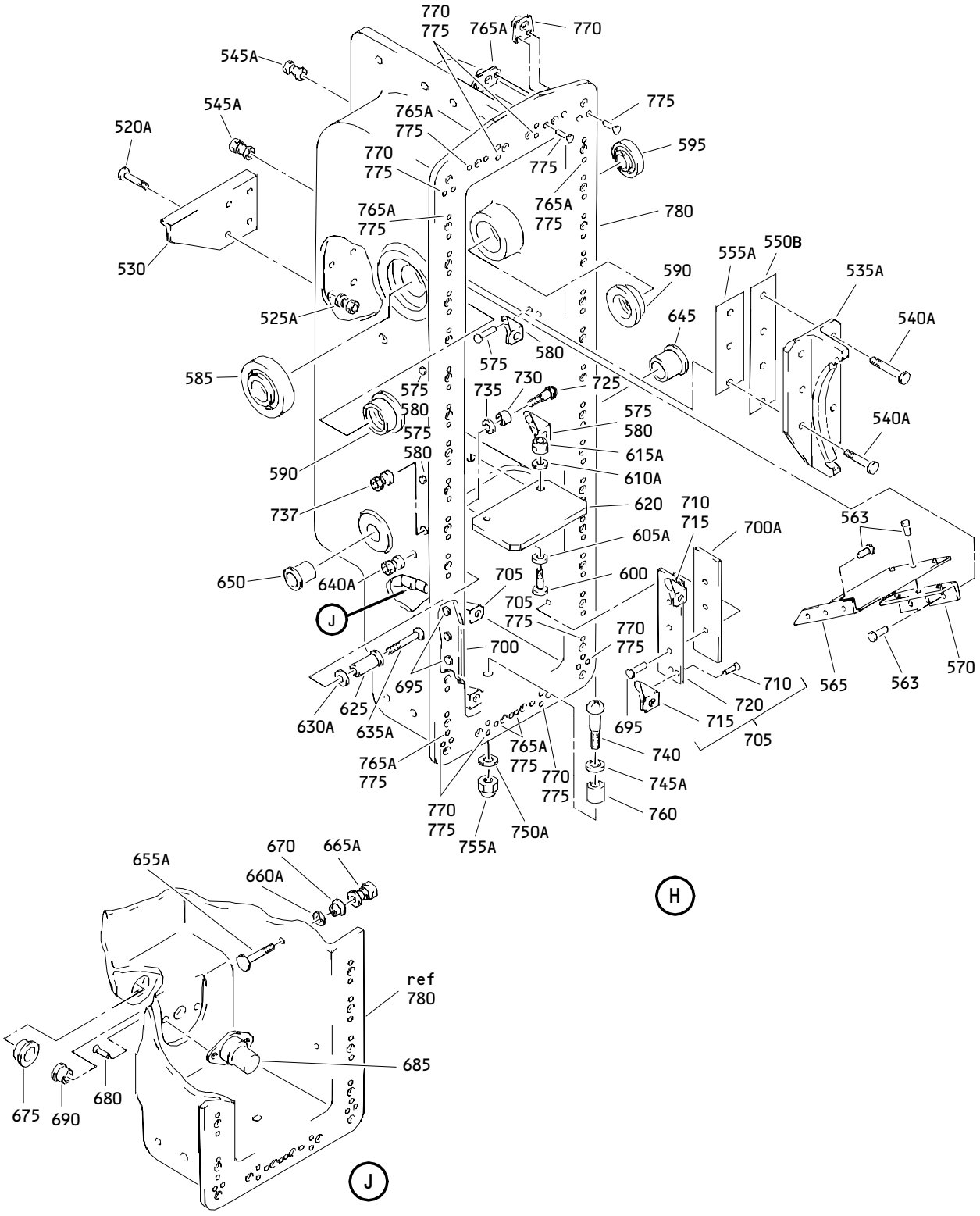
Large Cargo Door Latch Lock Control Handle Mechanism Assembly
Figure 1 (Sheet 3)

T60429



Large Cargo Door Latch Lock Control Handle Mechanism Assembly
Figure 1 (Sheet 4)

T60430



Large Cargo Door Latch Lock Control Handle Mechanism Assembly
Figure 1 (Sheet 5)

T60431

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	143T6501-3		DELETED		
-1A	143T6501-5		MECHANISM ASSY-LARGE CARGO DOOR LATCH LOCK CONT HANDLE	A	RF
-1B	143T6501-7		MECHANISM ASSY-LARGE CARGO DOOR LATCH LOCK CONT HANDLE	B	RF
-1C	143T6501-8		MECHANISM ASSY-LARGE CARGO DOOR LATCH LOCK CONT HANDLE	C	RF
-1D	143T6501-9		MECHANISM ASSY-LARGE CARGO DOOR LATCH LOCK CONT HANDLE	D	RF
-1E	143T6501-10		MECHANISM ASSY-LARGE CARGO DOOR LATCH LOCK CONT HANDLE	E	RF
5	NAS514P1032-6		DELETED		
5A	BACS12ER3K6		.SCREW	A-D	4
5B	BACS12ER3K8		.SCREW	E	4
10	143T6531-1		.COVER	AC	1
10B	143T6531-2		.COVER	B,D	1
10C	143T6735-1		.COVER	E	1
15	BACN10JC5		DELETED		
15A	BACN10YR5CM		.NUT		1
20	AN960PD516		DELETED		
20A	NAS1149C0563R		.WASHER		1
25	143T6533-1		.SHAFT ASSY		1
30	BACB30NM3K11		..BOLT- (V06710) (SPEC BACB30NM3K11) (V06725) (V06950) (V08524) (V27624) (V56878) (V73197) (V80539) (V92215) (V93907) (V97928)		2

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
35	BRH10-3		..NUT-		2
			(V52828)		
			(SPEC BACN10JC3)		
			(OPT H10-3BAC		
			(V15653))		
			(OPT NS202101-02		
			(V80539))		
			(OPT RMLH9075-3W		
			(V72962))		
			(OPT T6S1032J		
			(V71087))		
			(OPT VN303A02		
			(V92215))		
			(OPT 96-02		
			(V80539))		
40	AN960PD10L		..WASHER		2
45	AN960PD10		..WASHER		2
50	143T6514-1		..CRANK ASSY		1
55	BACR15BB6AD10		...RIVET		1
60	AN960PD10L		...WASHER		1
65	BACB28X3C015		...BUSHING		1
70	143T6514-2		...CRANK		1
75	143T6526-1		..LEVER-(MATCHED PART)		1
80	143T6525-1		..SHAFT-(MATCHED PART)		1
85	MS29513-008		.PACKING		1
90	AN960PD516L		DELETED		
90A	NAS1149D0516J		.WASHER		1
95	BACB28Y5C087		.BUSHING		1
100	143T6527-1		.SPRING		1
105	AN960PD716		.WASHER		1
105A	NAS1149D0763J		.WASHER		1
110	MS29513-011		.PACKING		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
115	143T6528-1		.SPRING		1
120	143T6524-1		.CATCH ASSY	A-D	1
120A	143T6524-3		.CATCH ASSY	E	1
125	BACR15BA5KE		..RIVET		2
130	143T6529-1		..BUTTON	A-D	1
130A	143T6734-1		..BUTTON	E	1
135	BACB30NX5K		DELETED		
135A	BACB30VT5K6		..BOLT		2
140	BACC30X5		DELETED		
140A	BACC30BL5		..COLLAR		2
145	143T6530-1		..HOOK		1
150	NAS516-1A		..FITTING-LUBE		2
155	BACB30MY6K		DELETED		
155A	BACB30VT6K17		..BOLT		1
160	AN960PD10		DELETED		
160A	NAS1149D0363J		..WASHER		1
165	BACC30AB65		DELETED		
165B	BACC30BS6S		..COLLAR		1
170	BACB28X3C022		..BUSHING		1
175	AN960PD10L		DELETED		
175A	NAS1149D0332J		..WASHER		1
180	BACB28W5B032		..BUSHING		2
185	143T6524-2		..CATCH		1
190	AN960PD616		DELETED		
190A	NAS1149C0663R		.WASHER		1
195	BRH10-6		DELETED		
195A	BACN10YR6CM		.NUT		1
197	143T6436-1		.SCREW		1
200	143T6532-1		.SHAFT ASSY		1
205	BACB30NL4-18		..BOLT		1
210	AN960PD416L		..WASHER		1
215	AN960PD416		..WASHER		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
220	BRH10-4		..NUT- (V52828) (SPEC BACN10JC4) (OPT H10-4BAC (V15653)) (OPT NS202101-048 (V80539)) (OPT RMLH9075-4W (V72962)) (OPT T6S428J (V71087)) (OPT VN303A048 (V92215)) (OPT 96-048 (V80539))		1
225	143T6512-1		..CRANK ASSY		1
230	143T6431-1		...BUSHING		1
235	BACB28X4C013		...BUSHING- (V23294) (SPEC BACB28X4C013) (V70265) (V90255)		1
240	BACB28X6M013		...BUSHING- (V23294) (SPEC BACB28X6M013) (V70265) (V94892)		1
245	143T6512-2		...CRANK		1
250	BACB30NL4-16		..BOLT		1
255	AN960PD416L		DELETED		
260	AN960PD416		..WASHER		1
265	BRH10-4		..NUT- (V52828) (SPEC BACN10JC4) (REFER TO ITEM 220 FOR OPT PARTS)		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
270	143T6518-1		..CRANK-(MATCHED PART)		1
275	143T6515-1		..SHAFT-(MATCHED PART)		1
280	AN960C1016L		DELETED		
280A	NAS1149C1032R		.WASHER		1
285	143T6523-1		.SPRING		1
290	BACB30NR4K9		.BOLT-		1
			(V06710)		
			(SPEC BACB30NR4K9)		
			(V06725)		
			(V06950)		
			(V08524)		
			(V27624)		
			(V56878)		
			(V73197)		
			(V80539)		
			(V92215)		
			(V93907)		
			(V97928)		
295	AN960PD416		DELETED		
295A	NAS1149D0463J		.WASHER		1
300	AN960PD416L		DELETED		
300A	NAS1149D0416J		.WASHER		2
305	BRH10-4		DELETED		
305A	BACN10YR4CD		.NUT		1
310	BACB28Y4C034		.BUSHING		1
315	MS29513-016		.PACKING		2
325	BACB30NN4K5		.BOLT-	A-D	4
			(V06710)		
			(SPEC BACB30NN4K5)		
			(V06725)		
			(V06950)		
			(V08524)		
			(V27624)		
			(V56878)		
			(V73197)		
			(V80539)		
			(V92215)		
			(V93907)		
			(V97928)		
325A	BACB30NN4K7		.BOLT	E	4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
330	143T6501-4		DELETED		
330A	143T6501-6		.HANDLE ASSY	A-D	1
330B	143T6501-11		.HANDLE ASSY	E	1
335	NAS514P1032-10		DELETED		
335A	BACS12ER3K10		..SCREW		1
340	BACB30NL4-19		DELETED		
340A	BACB30US4K19		..BOLT		1
345	AN960PD416		DELETED		
345A	BACW10BP4ACU		..WASHER		1
347	NAS1149C0463R		..WASHER		1
350	BRH10-4		DELETED		
350A	BACN10YR4CM		..NUT		1
355	BACB28AK04-035		..BUSHING- (V23294) (SPEC BACB28AK04-035) (V70625) (V94892)		2
360	BACW10P250S		..WASHER- (V10630) (SPEC BACW10P250S) (V81205)		2
365	ATF4		..BEARING- (V60380) (SPEC BACB10ET04) (OPT 4AFC614 (V92563))		1
370	MS16624-4037		..RING		1
375	143T6520-1		..SHAFT		1
380	AN960XC616L		DELETED		
380A	NAS1149C0632R		..WASHER		2
385	BACB28Y6C090		..BUSHING		2
390	143T6522-1		..SPRING		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
395	143T6522-2		..SPRING		1
400	143T6519-3		DELETED		
400A	143T6519-5		..PAWL ASSY		1
405	BACB28X6F009		...BUSHING		2
410	M81934-2-06C008		...SLEEVE		2
415	143T6519-4		DELETED		
415A	143T6519-6		...PAWL		1
420	143T6517-5		DELETED		
420A	143T6517-7		..HANDLE ASSY	A-D	1
420B	143T6517-9		..HANDLE ASSY	E	1
425	BACR15BA3AD		...RIVET		2
430	BR1000A3		...NUTPLATE- (V52828) (SPEC BACN10KB3) (OPT K2000-3BAC (V15653)) (OPT NS103184-02 (V80539)) (OPT RMA9207-3 (V72962)) (OPT T8109S1032 (V11815)) (OPT VN101A1-02 (V92215))		1
435	BACR15BA4A		...RIVET		4
440	143T6517-4		...PLATE		1
445	BACB30LJ4-22		...BOLT (V06710) (SPEC BACB30LJ4-22) (V06725) (V06950) (V08524) (V17943) (V80539) (V90249) (V92215) (V97928)	A-D	1
445A	BACB30NR4K22		...BOLT	E	1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
450	AN960PD416L		...WASHER	A-D	1
450A	NAS1149D0416J		...WASHER	E	1
455	AN960PD416		...WASHER	A-D	1
455A	NAS1149D0463J		...WASHER	E	1
460	BRH10-4		...NUT (V52828) (SPEC BACN10JC4) (REFER TO ITEM 220 FOR OPT PARTS)	A-D	1
460A	BACN10JC4CD		...NUT	E	1
465	BACR15BA3AD		...RIVET		4
470	143T6517-3		...STOP		2
475	BACB28X6M010		...BUSHING- (V23294) (SPEC BACB28X6M010) (V70265) (V94892)		2
480	143T6517-6		DELETED		
480A	143T6517-8		...HANDLE	A-D	1
480B	143T6517-10		...HANDLE	E	1
485	143T6516-1		.FITTING ASSY		1
495	BACR15BA3AD		..RIVET		8
500	BACN10JQ42		..NUTPLATE- (OPT BRFM22A2-4 (V52828)) (OPT MF19058-4-2BAC (V15653)) (OPT MT8260S428S2 (V11815)) (OPT NS103201-048-2 (V80539)) (OPT RMF9206M2-4 (V22599)) (OPT RMF9206M2-4 (V72962)) (OPT VN253A048-2 (V92215))		4

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
505	M81934-2-10A016		..BEARING		2
510	143T6516-2		..FITTING		1
515	143T6451-4		DELETED		
515A	143T6451-5		.HOUSING ASSY (OPT ITEM 515B)	A,B	1
515B	143T6451-7		.HOUSING ASSY (OPT ITEM 515A)	A,B	1
515C	143T6451-9		.HOUSING ASSY	C-E	1
520	BACB30MY6K		DELETED		
520A	BACB30VT6K4		..BOLT		4
525	BACC30M6		DELETED		
525A	BACC30BL6		..COLLAR		4
530	143T6513-1		..PLATE		1
535	143T6521-3		DELETED		
535A	143T6521-5		..STOP		1
540	BACB30MY6K		DELETED		
540A	BACB30VT6K5		..BOLT		7
545	BACC30M6		DELETED		
545A	BACC30BL6		..COLLAR		7
550	BACS40RO8C39F		DELETED		
550B	BACS40RO8C037F		..SHIM		1
555	BACS40RO8C26F		DELETED		
555A	BACS40RO8C026F		..SHIM		1
560	BACR15BB4AD		DELETED		
563	NAS1398D4		..RIVET		9
563A	BACR15BB4D		..RIVET		9
565	143T6534-1		..SHIELD		1
570	143T6534-2		..SHIELD		1
575	BACR15BB3AD		..RIVET		8
580	MF6000-3BAC		..NUTPLATE- (V15653) (SPEC BACN10KJ3)		4
585	KP10A		..BEARING- (V38443) (SPEC BACB10BX10) (OPT KP10AFS428 (V21335)) (OPT KP10A2TS (V43991)) (OPT LLKP10A (V38443))		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
590	143T6535-1		..BUSHING		2
595	KP6A		..BEARING-		1
			(V38443)		
			(SPEC BACB10BX6)		
			(OPT KP6AFS428		
			(V21335))		
			(OPT KP6A2TS		
			(V43991))		
			(OPT LLKP6A		
			(V38443))		
600	BACB30NT3K6		..BOLT-		2
			(V06710)		
			(SPEC BACB30NT3K6)		
			(V06725)		
			(V06950)		
			(V08524)		
			(V27624)		
			(V73197)		
			(V80539)		
			(V92215)		
			(V93907)		
			(V97928)		
605	AN960PD10L		DELETED		
605A	NAS1149D0332J		..WASHER		2
610	AN960PD10		DELETED		
610A	NAS1149D0363J		..WASHER		2
615	BRH10-3		DELETED		
615A	BACN10YR3CD		..NUT		2
620	143T6541-1		..STOP		1
625	BACB28X3C047		..BUSHING		1
630	AN960PD10L		DELETED		
630A	NAS1149D0332J		..WASHER		1
635	HL10VAZ6-11		DELETED		
635A	BACB30VT6K11		..BOLT		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
640	BACC30M6		DELETED		
640A	BACC30BL6		..COLLAR		1
645	BACB28X7M050		..BUSHING		1
650	BACB28X5M050		..BUSHING		1
655	BACB30MY6K		DELETED		
655A	BACB30VT6K6		..BOLT		1
660	AN960PD10L		DELETED		
660A	NAS1149D0332J		..WASHER		1
665	BACC30M6		DELETED		
665A	BACC30BL6		..COLLAR		1
670	BACB28X3C015		..BUSHING		1
675	BACB28X6M024		..BUSHING (V23294) (SPEC BACB28X6M024) (V70265) (V94892)		1
680	BACR15BA3AD		..RIVET		2
685	F1968-4BAC		..NUTPLATE- (V15653) (SPEC BACN10JZ4A2) (OPT NS103224-048 (V80539)) (OPT RMF9219-4 (V22599)) (OPT RMF9219-4 (V72962))		1
690	BACB28X4M019		..BUSHING		1
695	BACR15BB6AD		..RIVET		6
700	BACS40R08E29F		DELETED		
700A	BACS40R08E029F		..SHIM		2
705	143T6451-3		..SUPPORT ASSY		2
710	BACR15BA3AD		..RIVET		8

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
715	MF6000-3BAC		..NUTPLATE-		4
			(V15653)		
			(SPEC BACN10KJ3)		
720	BACF3F008J029NG		...FILLER		2
725	BACB30MY6K		DELETED		
730	NAS43DD3-13		DELETED		
735	AN960PD10L		DELETED		
737	BACC30M6		DELETED		
740	BACB30NT3K11		..BOLT-		1
			(V06710)		
			(SPEC BACB30NT3K11)		
			(V06725)		
			(V06950)		
			(V08524)		
			(V27624)		
			(V73197)		
			(V80539)		
			(V92215)		
			(V93907)		
			(V97928)		
745	AN960PD10L		DELETED		
745A	NAS1149D0332J		..WASHER		1
750	AN960PD10		DELETED		
750A	NAS1149D0363J		..WASHER		1
755	BRH10-3		DELETED		
755A	BACN10YR3CD		..NUT		1
760	143T6541-2		..STOP		1
765	BACN10JQ32		DELETED		
765A	BACN10YF32		..NUTPLATE		32

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
770	F29779-3BAC		..NUTPLATE- (V15653) (SPEC BACN10KH3) (OPT NS103225-02 (V80539)) (OPT RMF9209M3 (V22599)) (OPT RMF9209M3 (V72962))		8
775	BACR15BA3AD		..RIVET		80
780	143T6451-2		..HOUSING (OPT ITEM 780A)	A,B	1
780A	143T6451-6		..HOUSING (OPT ITEM 780)	A,B	1
780B	143T6451-6		..HOUSING (OPT ITEM 780C)	C-E	1
780C	143T6451-8		..HOUSING (OPT ITEM 780B)	C-E	1