TO: ALL HOLDERS OF MAIN GEAR SIDE STRUT ASSEMBLY OVERHAUL MANUAL, 32-17-11

REVISION NO. 77, DATED MAR 1/09

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / Assy	Cleaning	Insp/Chk	Repair	Assy	F/C	Test	T/Shooting	S/Tools	Storage	IPL	L/Overhaul
Changed a chamfer size for lower side strut 65-63397-11					X								

MAIN GEAR SIDE STRUT ASSEMBLY
32-17-11

BOEING P/N 65-73761-21 thru -26, -43 thru -50, -55, -56, -77, -78, -85, -86, -93 thru -96, -103, -105, -106, -111 thru -114, -123, -124

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 30499	Feb 15/69
32-1059		PRR 32033	Jun 25/73
		PRR 32070-2	Jun 25/73
		PRR 32121-25	Jun 25/73
32-1059R1			Mar 25/74
		PRR 32494-8	Jul 5/76
32-1093		PRR 32675	Jul 5/79
32-1101		PRR 32958	Jul 5/80
		PRR 33180-88	Dec 5/83
		PRR 33410-19	Sep 5/84
		PRR 34401	Jun 5/88
		PRR 34477	Jun 5/88
		SL 32-40	Sep 5/88
		PRR 34509-1	Jun 5/89
32-1232		PRR 34712-R	Dec 5/89
		PRR 34939	Mar 5/93
		PRR 35161	Sep 5/93

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
	32-17-11		414	Nov 1/08	1110	Jul 1/01
	T-1	Sep 5/93	414A	Nov 1/04	1111	Mar 1/04
	T-2	BLANK	414B	Mar 1/06	1112	Mar 1/04
*	LEP-1	Mar 1/09	414C	Mar 1/06	1113	Mar 1/04
	LEP-2	BLANK	414D	BLANK	1114	Mar 1/04
	T/C-1	Jul 5/79	415	Mar 1/07	1115	Mar 1/04
	T/C-2	BLANK	416	Mar 1/08	1116	Jul 1/08
	1	Jun 25/73	416A	Sep 5/93	1117	Mar 1/04
	2	Aug 15/67	416B	Mar 1/02	1118	Mar 1/04
	101	Mar 5/93	417	Dec 1/96	1119	Jul 1/99
	102	BLANK	418	Nov 1/06	1120	Jul 1/99
	301	Jul 1/08	418A	Sep 1/96	1121	Jun 1/94
	302	BLANK	418B	BLANK	1122	Jun 1/94
	401	Mar 1/04	419	Jun 1/97	1123	Jun 1/94
	402	Jul 1/08	420	Mar 1/08	1124	Jul 1/99
	402A	Jul 1/08	421	Sep 5/93	1125	Mar 1/04
	402B	Jul 1/08	422	Sep 5/93	1126	Jul 1/04
	403	Jul 1/08	423	Jun 1/96	1127	Mar 1/99
	404	Mar 1/08	424	Jun 1/95	1128	Mar 1/04
	404A	Mar 1/08	425	Jun 1/95	1129	Mar 1/04
	404B	BLANK	426	BLANK	1130	Mar 1/99
	405	Jul 1/06	501	Sep 5/93	1131	Mar 1/99
	406	Mar 1/08	502	Sep 5/93	1132	Mar 1/99
	406A	Nov 1/05	503	Sep 5/92		
	406B	Mar 1/04	504	Mar 5/89		
	406C	Mar 1/08	601	Mar 1/94		
	406D	Mar 1/04	602	Mar 1/94		
	406E	Mar 1/08	603	Mar 1/94		
	406F	BLANK	604	Mar 1/94		
*	407	Mar 1/09	605	Mar 1/94		
	408	Mar 1/08	606	Mar 1/94		
	409	Nov 1/06	607	Mar 1/94		
	410	Nov 1/06	608	Mar 1/94		
	410A	Mar 1/99	609	Jul 1/03		
	410B	Jul 1/06	610	Mar 1/94		
	410C	Jul 1/06	1101	Jun 1/94		
	410D	BLANK	1102	Jun 1/94		
	411	Mar 1/08	1103	Mar 1/02		
	412	Mar 1/08	1104	Jun 1/94		
	412A	Jun 1/94	1105	Jun 1/94		
	412B	Sep 5/93	1106	Jun 1/94		
	412C	Sep 5/93	1107	Mar 1/02		
	412D	Mar 1/07	1108	Mar 1/04		
	413	Mar 1/99	1109	Sep 5/93		

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*[1] Special instructions not required. Use standard industry practices and the information included in 20-30-03.

*[2] Special instructions not required. Use standard industry practices and the information contained in 20-70-01

MAIN GEAR SIDE STRUT ASSEMBLY

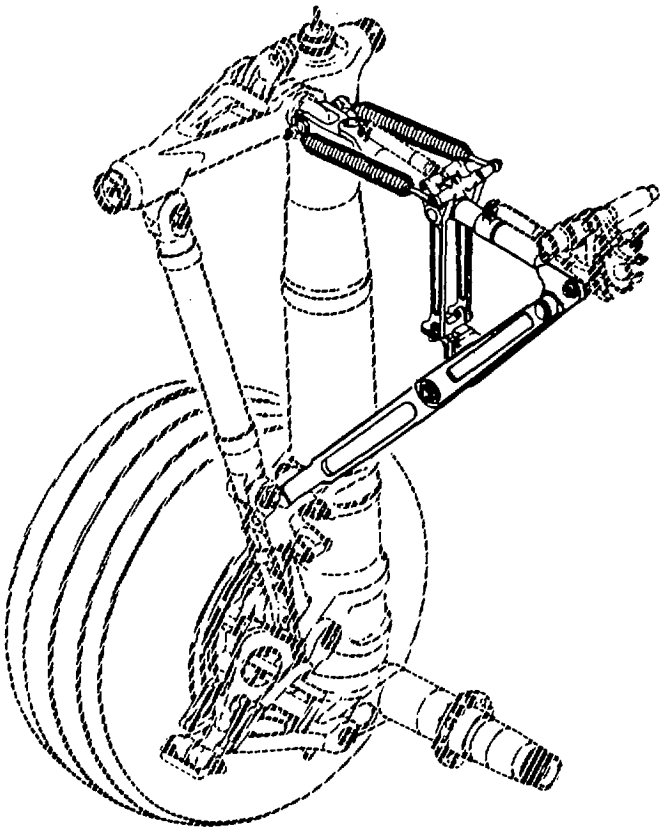


Figure 1. Main Gear Side Strut Assembly

DESCRIPTION AND OPERATION

1. Description

   A. The main gear side strut is a two-segment unit consisting of a lower and upper side strut assembly.

   B. The upper end of the side strut is attached to the reaction link assembly.

C. The lower downlock link assembly is attached to the pivot point between lower and upper side strut. The upper downlock link assembly connects lower downlock link and reaction link.

D. Two downlock spring assemblies are supported by the reaction link universal assembly on one end and by the upper downlock link assembly on the other end.

2. Operation

A. The main gear side strut gives lateral support to the shock strut.

B. The two downlock springs keep the main gear in a downlock position by forcing the upper and lower downlock link assembly against stops thus establishing a stiff brace for the side strut.

C. On gear retraction, the spring forces are overcome by the force of the main gear lock actuator which causes the downlock link assemblies to collapse.

3. Leading Particulars

Length (overall) -- 65 inches

Height (overall) -- 78 inches

Width (overall) -- 9 inches

Weight -- 65.6 pounds

DISASSEMBLY

1. Remove parts (2, 3, 4, Fig. 1101) and lower side strut (7).
2. Remove parts (11, 12, 13) and upper side strut (16).
3. Remove parts (19A thru 23) and lower downlock link (24).
4. Remove parts (28A thru 37K), upper downlock link (38) and downlock springs (44).
5. Remove parts (51 thru 56, 59, 63).

INSPECTION/CHECK

1. Examine all parts for defects by standard industry practices. Refer to Fits and Clearances for design dimensions and wear limits.

2. Magnetic particle check (SOPM 20-20-01) -- Bolts (6, 15, 23, 32 or 32B, 36, 58), struts (10, 19), cap (52), shaft (53), universal (62), link (68).

3. Penetrant check (SOPM 20-20-02) -- Links (28, 42, 43).

4. Magnetic particle examine (SOPM 20-20-01) or penetrant examine (SOPM 20-20-02) the coils of spring assembly (44). Be sure to extend the spring during the check to look for defects between the coils. Then remove the load and look for defects on the mating surfaces between the spring and the end fittings.

5. Extend spring assembly (44) to 16.87 inches between the hole centerlines. The load to do this must be 240-280 pounds. Approximate free length is 12.13-12.43 inches.

REPAIR

1. Materials

   NOTE: Equivalent substitutes can be used.

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

   B. Enamel -- BMS 10-11, Type 2 (SOPM 20-60-02)

   C. Resin Coating -- PT201, V06341 (SOPM 20-60-02)

   D. Corrosion Preventive Compound -- MIL-C-11796, Class 1 (SOPM 20-60-02)

   E. Sealant -- BMS 5-95 (SOPM 20-60-04)

2. Repair small defects by standard industry practices. Refer to Fits and Clearances for design dimensions and wear limits. Refer to SOPM 20-10-01 and CMM 32-00-05 for repair and refinish of high strength steel parts. Refer to SOPM 20-10-09 for machining copper beryllium alloys.

3. Bolts (6, 15, 23, 26, 32 or 32B, 36, 58), Cap (52), Shaft (53) (Fig. 401, 401A).

   A. Machine as required, within repair limits, to remove defects or corrosion.

   B. Shot peen as indicated.

   C. Build up with chrome plate or thermal spray coating and grind to design dimensions and finish.

4. Bolt Threads (Fig. 401)

   A. Bolt (4)

      (1) Cut the threads to a smaller size as shown.

      (2) Cadmium-titanium plate the threads. Wipe them with primer (F-19.45).

      (3) Make a repair washer (Fig. 406B). Get the special repair nut (2).

      (4) Be sure to identify the bolt to make sure you use the correct special undersize washer (3) and nut (2).

   B. Bolt (36)

      (1) Cut the threads to a smaller size as shown.

      (2) Cadmium-titanium plate the threads. Wipe them with primer (F-19.45).

      (3) Get the repair nut (34) and washer (35).

      (4) Be sure to identify the bolt to make sure you use the repair nut and washer.

5. Holes and Lugs (Fig. 402 thru 403B)

NOTE: Method 2 chrome plating buildup is optional to Method 1 for steel part lug faces if the chrome plate thickness will not be more than 0.015 inch. Method 3 is only for the faces of the small attach lugs on reaction link (68).

A. Method 1 -- Installation of Liner or Oversize Bushings

(1) Machine holes oversize, within repair limits, as required to remove defects.

(2) Shot peen as indicated.

(3) Apply primer to machined holes.

(4) As applicable, make oversize or repair bushings per Fig. 404 thru 406A. Or get the repair equivalents of the self-lubricated bushings as applicable for the amount of oversize, and machine the OD as necessary to get the same oversize as specified for the repair sleeve. Be sure to restore the edge chamfer of the OD.

CAUTION: 69-62779-1 BOLT (32A) MUST BE USED WITH 65-46150-68 BUSHING (67) AND 69-62781-1 LINER (69) TO DECREASE WEAR TO PARTS.

(5) If retention hole for Teflon lined bushing (67, 10-60516-215) is repaired, make an oversize equivalent of liner (69) (Fig. 406).

(6) Install bushings and liner per par. 7.C. below.

(7) If you repair upper downlock links (42, 43) per Fig. 403A, be sure to identify the links to show that they were changed per this figure.

B. Method 2 -- Chrome or Nickel Plate Buildup of Steel Lug Faces

(1) Machine as required, within repair limits, to remove defects.

(2) Shot peen as indicated.

(3) If you removed 0.015 inch or less from the part lug faces, build up the lug faces with chrome plate (SOPM 20-42-03) and grind to design dimensions and finish (SOPM 20-10-04).

(4) If you removed more than 0.015 inch from the lug faces, build up the lug faces with sulfamate nickel plate (SOPM 20-42-09) and machine to design dimensions and finish, or install cadmium-plated 15-5PH shims, bonded to the lug faces with wet BMS 5-95 sealant.

(5) Install standard bushings (see parts list) per step A.(6) above.

C. Method 3 -- Faces of Small Attach Lugs on Reaction Link (68).

(1) Machine as required, within repair limits, to remove defects.

(2) Shot peen as indicated.

(3) Refinish as indicated.

6. Refinish (Fig. 1101)

NOTE: Refer to SOPM 20-41-01 for explanation of F and SRF finish codes. Refer to SOPM 20-30-02 for stripping of protective finishes. If cadmium-titanium plate is specified, low hydrogen embrittlement cadmium plate (SOPM 20-42-01) can be used as an alternative.

A. Fig. 1101 Parts

(1) Washers (3) (66-24445-2) and (12) (66-24447-2) -- Cadmium plate (F-1.32) all over. Material: 4130 steel.

(2) Washers (3) (69-77534-1) and (12) (69-77535-1) -- Cadmium plate (F-15.06) all over. Material: 4130 steel.

(3) Bolts (6, 15, 23, 32 or 32B, 36, 58) -- Fig. 401.

(4) Lower side strut (10) -- Fig. 402.

(5) Upper side strut (19) -- Fig. 402A.

(6) Bracket (19B) -- Cadmium plate (F-15.06). Material: 17-4PH CRES, 180-200 ksi.

(7) Lower downlock link (28) -- Fig. 403.

(8) Keeper (28C) -- Cadmium plate (F-15.06). Material: 17-4PH CRES, 180-200 ksi.

(9) Spacer (37) -- Passivate (F-17.25, which replaces F-17.09). Material: 17-4PH CRES, 180-200 ksi.

(10) Upper downlock link (42, 43) -- Fig. 403A.

(11) Spring assembly (47) -- Optional: Apply PT201 resin coating, 0.0015-0.0020 inch thick, all over and cure at 300°F for 1 hour.

(12) Fittings (48, 49) -- Passivate (F-17.25, which replaces F-17.09). Material: 17-4PH CRES, 180-200 ksi.

(13) Spring (50) -- Passivate all over (F-17.09). Material: 17-7PH CRES, CH900.

(14) Cap (52) -- Fig. 401.

(15) Shaft (53) -- Fig. 401A.

(16) Universal (62) -- Fig. 403B.

(17) Reaction link (68) -- Fig. 402B.

B. Fig. 1102 Parts

(1) Bracket assembly (5) -- Chemical treat or chromic acid anodize and apply BMS 10-11, Type 1 primer, (SRF-2.30). Material: Al alloy.

(2) Supports (10)

(a) 65-45106-series -- Chromic acid anodize and apply BMS 10-11, Type 1 primer (F-18.13) and BMS 10-11, Type 2 gray enamel (F-21.02). Material: Al alloy.

(b) 69-64900-13 - Apply BMS 10-11, Type 1 primer (F-20.02). Material: Al alloy.

(3) Supports (15, 250, 410, 415, 420), spacer (20), clamps (215, 220, 245), clips (300, 305) -- Chemical treat and apply BMS 10-11, Type 1 primer (F-18.06) and BMS 10-60 enamel (SRF-14.9813). Material: Al alloy.

(4) Cover (60) -- No finish. Material: plastic.

(5) Actuators (80) -- Cadmium plate and apply BMS 10-11, Type 1 primer (F-16.01) and BMS 10-11, Type 2 gray enamel (F-21.02). Material: HYMU 80 or Permalloy A-1 steel.

(6) Actuators (85, 90, 450) -- Cadmium plate and apply BMS 10-11, Type 1 primer (F-16.01) and BMS 10-60 enamel (F-14.9813, which replaces SRF-14.9813). Material: 4130 steel, normalized.

(7) Actuator (285) -- Cadmium plate and apply BMS 10-11, Type 1 primer (SRF-1.285) and BMS 10-11, Type 2 white enamel (SRF-12.64). Material: Al alloy.

(8) Supports (400, 405) -- Chromic acid anodize and apply BMS 10-11, Type 1 primer (F-18.13). Material: Al alloy.

7. Replacement (Fig. 1101)

A. Replace all cotter pins.

B. Bushings, Liner

(1) Remove the old bushings and liner, as applicable.

(2) If you find defects on lug faces or holes, refer to par. 4 above for repair instructions.

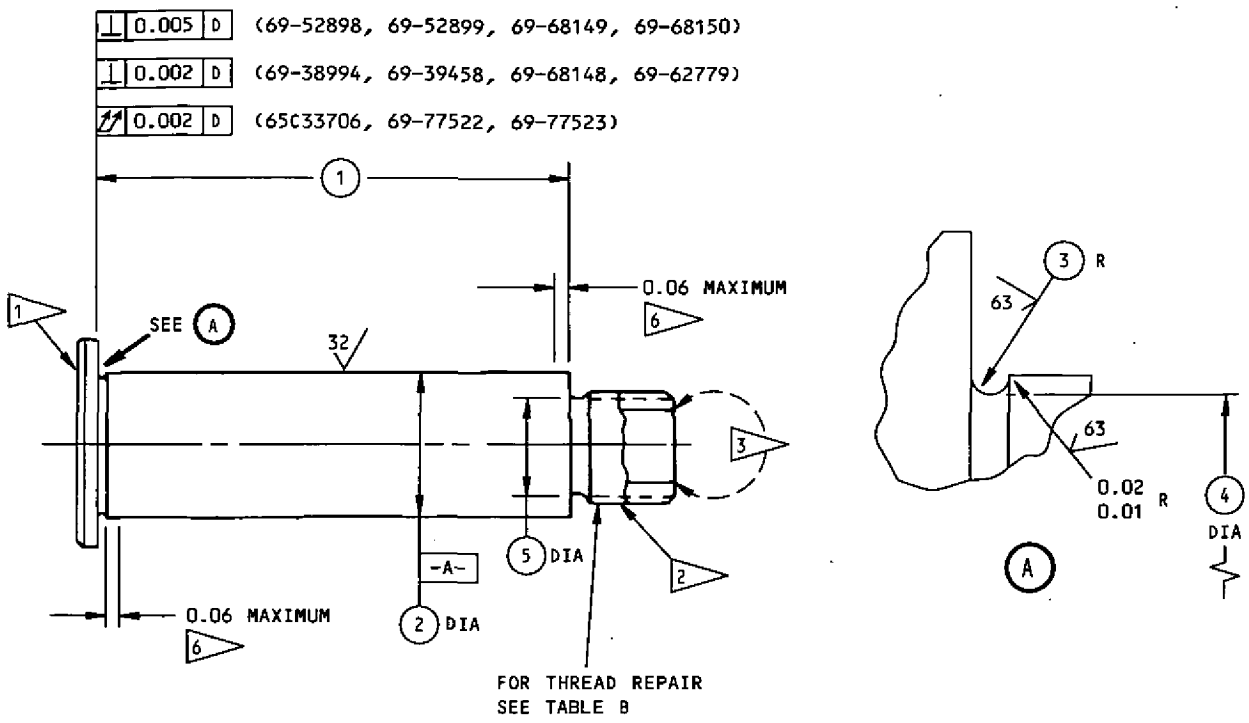
(3) Install replacement bushings by the shrink fit method of SOPM 20-50-03, with wet BMS 5-95 sealant on mating surfaces. After bushing installation, remove unwanted sealant from the gap (when applicable) between bushings to make sure the lubrication passages are not blocked.

(4) Unless they are vendor proprietary 10-60516-series bushings, machine the bushing bores to design dimensions and finish per Fig. 407 thru 408B. (Vendor-proprietary 10-60516-series bushings have Teflon-lined ID which is not intended to be machined). Kamatics bushings can be machined if necessary.

(5) Fillet seal the bushing flanges with BMS 5-95 sealant. Paint the sealant with BMS 10-60 gray gloss enamel.

C. Insert (40K) -- Remove the defective insert. Clean the bore. Install a replacement insert with BMS 5-95 sealant on mating surfaces.

D. Lube fittings (5, 14, 32C, 57) -- Replace per CMM 32-00-03.



REFINISH

69-38994, 69-39458, 69-52898, 69-52899:

CHROME PLATE (F-15.04) DIA -A-. CADMIUM-TITANIUM PLATE (F-15.01) ALL OTHER INTERNAL AND EXTERNAL SURFACES, 0.0005 MINIMUM THICK. WIPE CHROME PLATE AND THREADS WITH PRIMER (F-19.45). APPLY PRIMER PER 3. APPLY CORROSION PREVENTIVE COMPOUND (F-19.03) TO BORE.

65C33706, 69-62779, 69-68148, 69-68149, 69-68150, 69-77522, 69-77523:

CHROME PLATE (F-15.34) DIA -A-. CADMIUM-TITANIUM PLATE (F-15.01) ALL OTHER SURFACES, 0.0005 MINIMUM THICK; PLATING THROW-IN REQUIRED IN LUBE PASSAGES. APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) AND BMS 10-11, TYPE 2 ENAMEL (F-21.02) ON END FACES, RELIEFS, HEAD OD. WIPE THREADS AND CHROME PLATE WITH PRIMER (F-19.45).

REPAIR

REF 4 5 7 8 10 11

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02R

SHOT PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES

BOLTS (6,15,32,32B,58)

Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 1)

K27777

		①	②	③	④	⑤
6 (69-52899-2, 69-68150-2,-4)	DESIGN DIM	4.52 4.51	1.499 1.498	0.04 0.03	1.485 1.480 ◎ 0.005 TIR D	1.130 1.120
	REPAIR LIMIT	▷4	1.478 ▷5	——	1.350 ▷8	0.995 ▷8 ▷10
6 (69-77523-2,-4)	DESIGN DIM	4.52 4.51	1.624 1.623	0.04 0.03	1.609 1.605 ⌖ ∅ 0.005 Ⓢ D Ⓢ	1.255 1.245
	REPAIR LIMIT	▷4	1.603 ▷5	——	1.480 ▷8	1.120 ▷8
15 (69-52898-2, 69-68149-2,-4)	DESIGN DIM	4.52 4.51	1.374 1.373	0.04 0.03	1.365 1.360 ◎ 0.005 TIR D	0.880 0.870
	REPAIR LIMIT	▷4	1.353 ▷5	——	1.300 ▷8	0.860 ▷8 ▷11
15 (69-77522-2,-4)	DESIGN DIM	4.52 4.51	1.436 1.435	0.04 0.03	1.421 1.416 ⌖ ∅ 0.005 Ⓢ D Ⓢ	1.005 0.995
	REPAIR LIMIT	▷4	1.415 ▷5	——	1.300 ▷8	0.870 ▷8
32 (69-38994-1)	DESIGN DIM	4.329 4.324	0.750 0.749	0.06 0.04	0.737 0.735 ◎ 0.002 TIR D	0.544 0.537
	REPAIR LIMIT	▷4	0.735 ▷5	-----	0.730 ▷8	——
32B (69-62779-2,-4)	DESIGN DIM	4.350 4.340	0.750 0.749	0.06 0.04	0.737 0.735 ◎ 0.002 TIR D	0.544 0.537
	REPAIR LIMIT	▷4	0.720 ▷5	——	0.710 ▷7 ▷8	-----
58 (65C33706-2,-4)	DESIGN DIM	3.05 3.04	1.374 1.373	0.04 0.03	1.359 1.354 ⌖ ∅ 0.005 Ⓢ D Ⓢ	0.880 0.870
	REPAIR LIMIT	▷4	1.353 ▷5	-----	1.300 ▷8	0.840 ▷8
58 (69-39458-2, 69-68148-2,-4)	DESIGN DIM	3.05 3.04	1.249 1.248	0.06 0.04	1.236 1.232 ◎ 0.002 TIR D	0.880 0.870
	REPAIR LIMIT	▷4	1.228 ▷5	——	1.100 ▷8	0.840 ▷8 ▷10

TABLE A

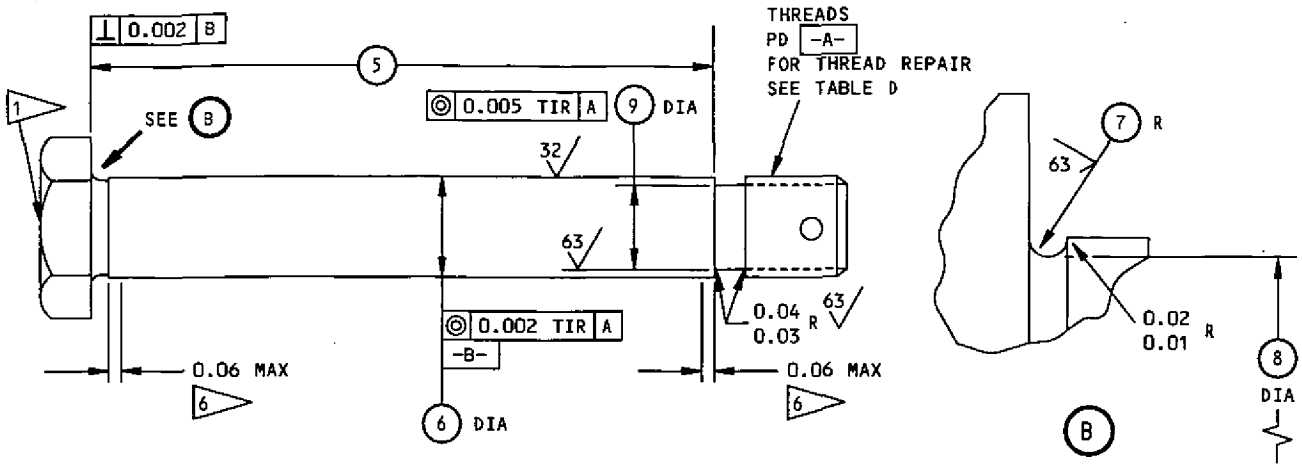
Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 2)

M45269

UNJF-3A THREAD SIZE	1.375-12	1.250-12	1.125-12	1.000-12	0.625-18
MAJOR DIA	1.3750 1.3686	1.2500 1.2386	1.1250 1.1136	1.0000 0.9886	0.6250 0.6163
PITCH DIA	1.3209 1.3162	1.1959 1.1913	1.0709 1.0664	0.9459 0.9415	0.5889 0.5854
MINOR DIA	1.2788 1.2690	1.1538 1.1442	1.0288 1.0192	0.9038 0.8944	0.5608 0.5540
ROOT RADIUS	0.0150 0.0125	0.0150 0.0125	0.0150 0.0125	0.0150 0.0125	0.0100 0.0083
THREAD RELIEF DIA	1.255 1.245	1.130 1.120	1.005 0.995	0.880 0.870	0.544 0.537
NUT (REF)	BACN10JC22	BACN10BY520 BACN10JC20	BACN10JC18	BACN10JC16	BACN10JD110
BOLT 65C33706	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE
BOLT 69-38994	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN
BOLT 69-39458	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE
BOLT 69-52898	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE
BOLT 69-52899	NOT APPLICABLE	DESIGN	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
BOLT 69-62779	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN
BOLT 69-68148	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE
BOLT 69-68149	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE
BOLT 69-68150	NOT APPLICABLE	DESIGN	1/8 UNDERSIZE	NOT APPLICABLE	NOT APPLICABLE
BOLT 69-77522	NOT APPLICABLE	NOT APPLICABLE	DESIGN	NOT APPLICABLE	NOT APPLICABLE
BOLT 69-77523	DESIGN	1/8 UNDERSIZE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

TABLE B

Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 3)



		5	6	7	8	9
23 (69-41629-1,-2)	DESIGN DIM	4.010 4.005	0.500 0.499	0.05 0.04	0.487 0.485 ⌖ 0.005 TIR B	0.366 0.359
	REPAIR LIMIT	4	0.479 5 10	----	0.460 7 8 10	0.345 8
36 (69-42193-2,-3)	DESIGN DIM	7.30 7.29	0.499 0.498	0.04 0.03	0.482 0.477 ⌖ 0.002 TIR B	0.428 0.421
	REPAIR LIMIT	4	0.478 5 10	----	0.422 7 8 10	0.360 8

TABLE C

REFINISH

CHROME PLATE (F-15.04) DIA-B-
ON BOLTS 69-41629-1 AND 69-42193-2)

CHROME PLATE (F-15.34) DIA-B-
ON BOLTS 69-41629-2 AND
69-42193-3 FOLLOWED
BY PRIMER (F-19.45)

CADMIUM-TITANIUM PLATE
(F-15.01) ALL OTHER
SURFACES

REPAIR

REF 4 5 7 8 10

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.03 R

SHOT PEEN: (REF SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES

BOLT (23,36)

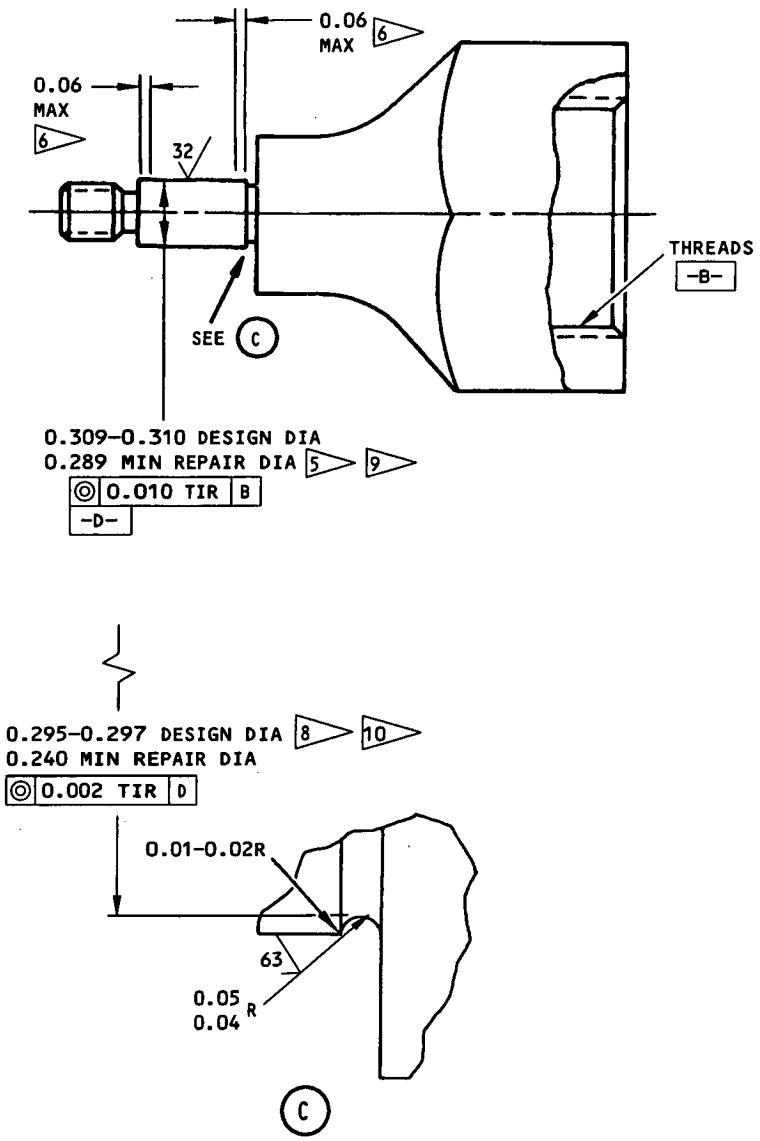
Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 4)

G76518

UNJF-3A THREAD SIZE	0.5000-20	0.4375-20
MAJOR DIA	0.5000 0.4919	0.4375 0.4294
PITCH DIA	0.4675 0.4643	0.4050 0.4019
MINOR DIA	0.4422 0.4360	0.3797 0.3736
ROOT RADIUS	0.0090 0.0075	0.0090 0.0075
THREAD RELIEF DIA	SEE TABLE C	SEE TABLE C
NUT (REF)	BACN10JD108	BACN10JD107 BACN10JD207
WASHER (REF)	BACW10BN8P	BACW10ASP7 BACW10BW7P
BOLT 69-41629	NOT APPLICABLE	DESIGN
BOLT 69-42193	DESIGN	1/16 UNDERSIZE

TABLE D

Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 5)



REFINISH

CHROME PLATE (F-15.34) DIA -D-. CADMIUM PLATE (F-15.06) ALL OTHER SURFACES. WIPE CHROME PLATE AND THREADS WITH PRIMER (F-19.45). APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) ON ALL OTHER SURFACES. APPLY BMS 10-11, TYPE 2 PRIMER TO EXTERIOR SURFACES BUT NOT THE SHAFT DIAMETERS.

REPAIR

REF 5 8 9 10

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.01-0.02R

SHOT PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340 OR 4330M STEEL, 180-200 KSI

ALL DIMENSIONS ARE IN INCHES

CAP (52)

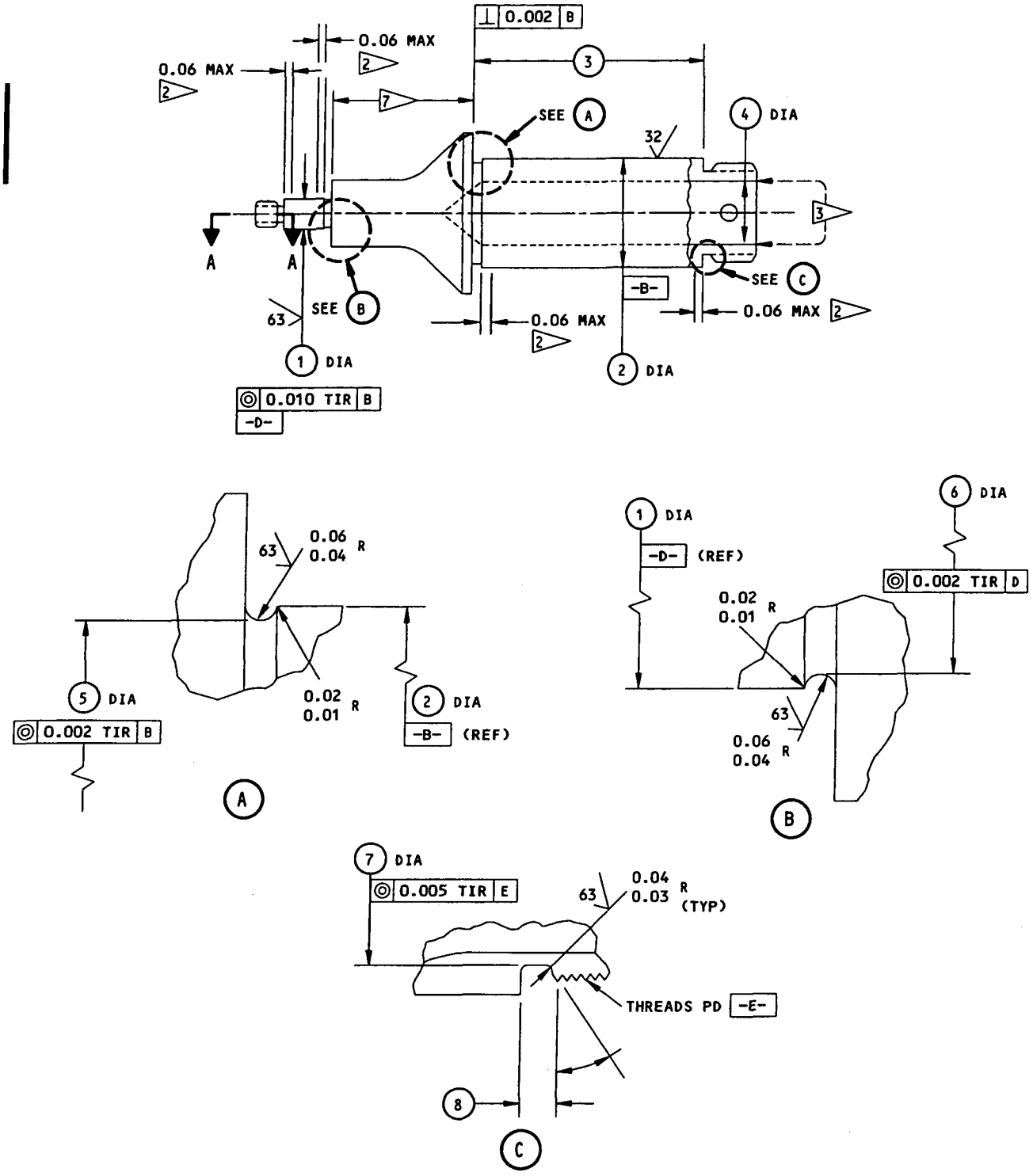
Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 6)

F13399

1. VIBROENGRAVE OR ELECTROCHEMICAL ETCH THE PART NUMBER, THE SERIAL NUMBER AND THE MANUFACTURERS IDENTIFICATION IN THIS AREA.
2. DO NOT SHOT PEEN THREADS
3. BMS 10-11, TYPE 1 PRIMER (F-20.03)
4. 0.010 MAXIMUM MATERIAL REMOVAL FROM END FACES. MACHINE HEAD END AND THREAD END FACES AS NECESSARY TO ADJUST GRIP LENGTH.
5. LIMIT FOR CHROME PLATE BUILDUP (SOPM 20-42-03) AND GRIND TO DESIGN DIMENSIONS AND FINISH (SOPM 20-10-04). PUT A 0.06 PLATING RUNOUT AT EDGES, RELIEF AND HOLES.
6. CHROME PLATE RUNOUT
7. AFTER YOU MACHINE THE OD, ADJUST THE RELIEF DIAMETER, IF NECESSARY, TO BE 0.002-0.005 DEEPER THAN THE OD REPAIR DIAMETER.
8. RESTORATION TO DESIGN DIMENSION NOT REQUIRED
9. LIMIT FOR BMS 10-67. TYPE 1 OR 17, CLASS 2,3 OR 4 THERMAL SPRAY BUILDUP (SOPM 20-10-05) AND GRIND TO DESIGN DIMENSIONS AND 8 MICROINCH FINISH.
10. IF MORE REPAIR THAN THIS LIMIT IS NECESSARY, THE PART MUST BE SCRAPPED.
11. ON 69-52898 ONLY, IF MORE REPAIR THAN THIS LIMIT IS NECESSARY, THE PART MUST BE SCRAPPED.

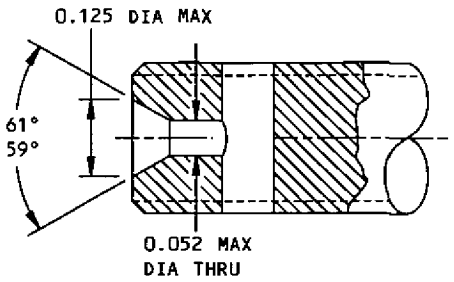
Bolts and Cap - Repair and Refinish
Figure 401 (Sheet 7)

K27867



SHAFT (53)

Shaft Repair and Refinish
Figure 401A (Sheet 1)



OPTIONAL TOOL CENTER (TYP)
A-A

	(1)	(2)	(3)	(4) ▷5	(4) ▷6	(5)	(6)	(7)	(8)
DESIGN DIM	0.310 0.309	1.249 1.248	2.73 2.72	0.76 0.74	0.51 0.49	1.236 1.233	0.297 0.295	1.035 1.025	0.135 0.115
REPAIR LIMIT	0.289 ▷1 ▷4	1.228 ▷1 ▷4	---	---	---	1.188 ▷3 ▷8	0.225 ▷3 ▷8	1.000 ▷3 ▷8	---

REFINISH

CHROME PLATE (F-15.04) DIAS -B- AND -D-. CADMIUM-TITANIUM PLATE (F-15.01) ON ALL OTHER INTERNAL AND EXTERNAL SURFACES. WIPE CHROME PLATE AND THREADS WITH PRIMER (F-19.45). APPLY BMS 10-11, TYPE 1 PRIMER (F-20.03) ON OTHER SURFACES. APPLY CORROSION PREVENTIVE COMPOUND (F-19.03) TO BORE.

▷1 LIMIT FOR CHROME PLATE BUILDUP (SOPM 20-42-03) AND GRIND TO DESIGN DIMENSIONS AND FINISH (SOPM 20-10-04). PUT A 0.06 PLATING RUNOUT AT EDGES, RELIEF AND HOLES.

▷2 CHROME PLATE RUNOUT

▷3 RESTORATION TO DESIGN DIMENSION NOT REQUIRED

▷4 LIMIT FOR BMS 10-67, TYPE 1 OR 17, CLASS 2,3 OR 4 THERMAL SPRAY BUILDUP (SOPM 20-10-05) AND GRIND TO DESIGN DIMENSIONS AND 8 MICROINCH FINISH.

▷5 69-38999-1

▷6 69-38999-2 AND ON

▷7 APPLY BMS 10-11, TYPE 2 ENAMEL (F-21.02) (69-38999-3 AND ON)

▷8 IF MORE REPAIR THAN THIS LIMIT IS NECESSARY, THE PART MUST BE SCRAPPED.

REPAIR

REF ▷1 THRU ▷4 ▷8

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.03R
SHOT PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

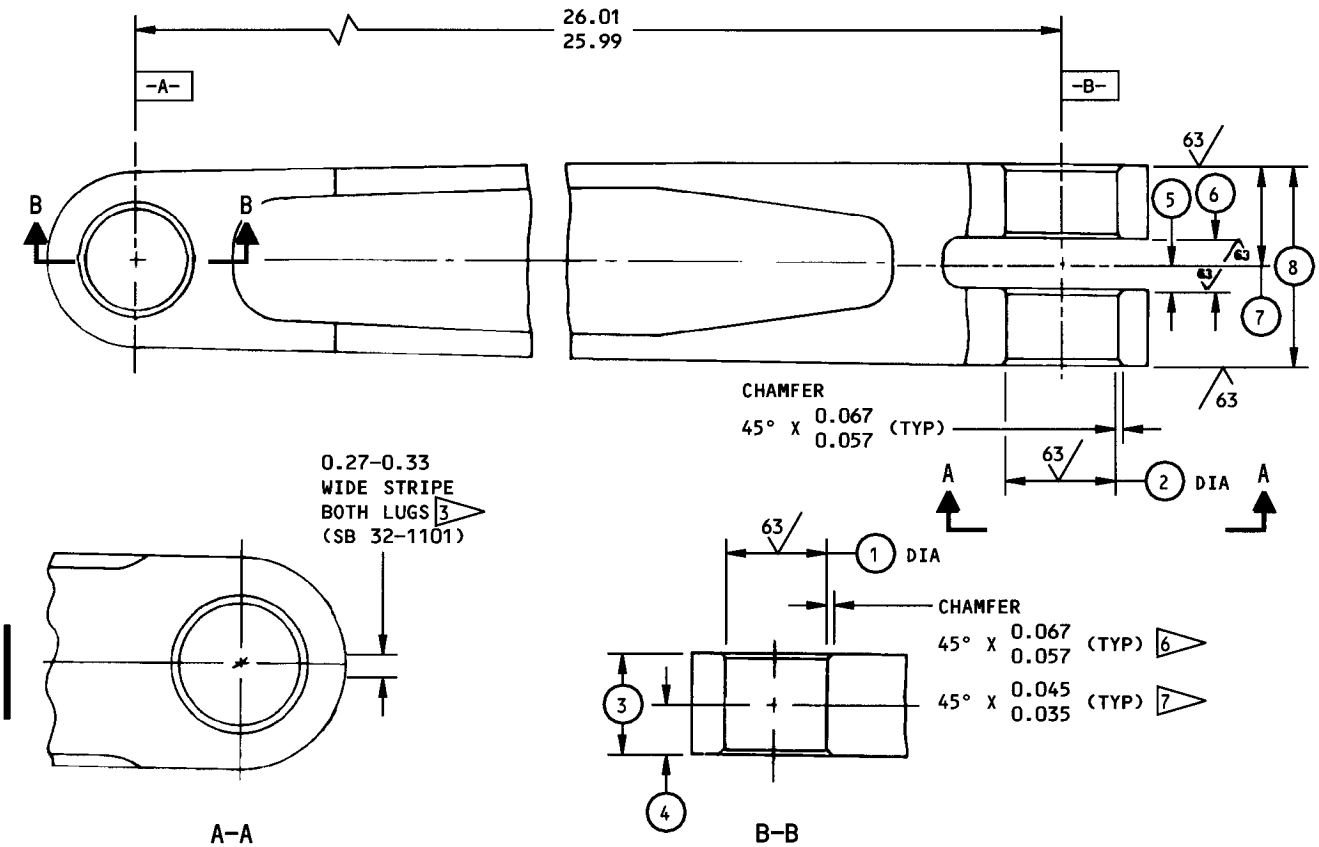
MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES.

SHAFT (53)

Shaft Repair and Refinish
Figure 401A (Sheet 2)

L03128



	1 6	1 7	2 6	2 7	3	4	5	6	7	8
DESIGN DIM	1.501 1.500	1.564 1.563	1.626 1.625	1.751 1.750	1.505 1.500	0.752 0.750	0.377 0.373	0.755 0.745	1.470 1.466	2.940 2.935
REPAIR LIMIT	1.624 1	1.662 1	1.686 1	1.831 1	1.437 1 2 1.470 2 4	0.725 1 2 0.735 2 4	0.392 1 2 4	0.785 1 2 4	1.451 1 2 4	2.905 1 2 4

REFINISH

CADMIUM-TITANIUM PLATE (F-1.308, WHICH REPLACES F-1.181; OR F-15.01) AND APPLY BMS 10-11, TYPE 1 PRIMER (SRF-12.205 OR F-20.02). AFTER BUSHING INSTL APPLY BMS 10-11, TYPE 2 ENAMEL (SRF-12.63 OR F-21.02). NO ENAMEL ON BUSHINGS

REPAIR

REF 1 2 4

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02R

SHOT-PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES

LOWER SIDE STRUT (10)
Lower Side Strut Repair and Refinish
Figure 402 (Sheet 1)

F92111

1. LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

2. LUG FACE MACHINING REQUIREMENTS:

   1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT.

   2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.

   3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.

3. APPLY BMS 10-11, TYPE 2 RED ENAMEL (F-21.28-101, WHICH REPLACES SRF-14.905-101)

4. (OPT TO 1) LIMIT FOR CHROME OR NICKEL PLATE BUILDUP ON LUG FACES IF PLATING THICKNESS IS NOT MORE THAN 0.015

5. DELETED

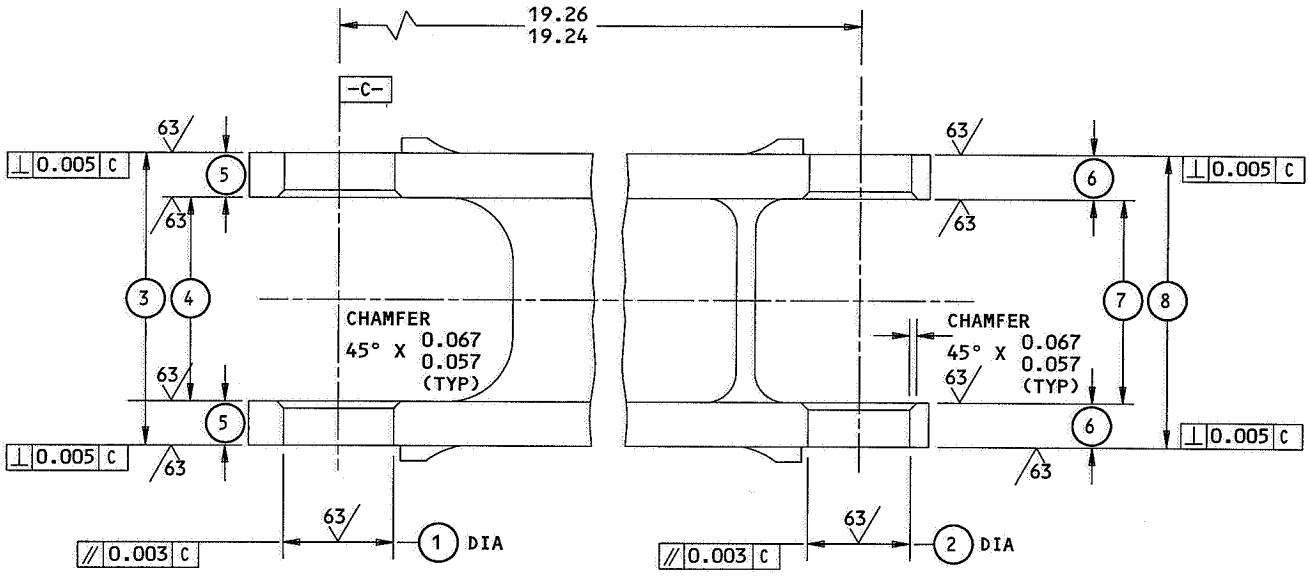
6. 65-63397-2,-4,-6,-8

7. 65-63397-11

LOWER SIDE STRUT (10)

Lower Side Strut Repair and Refinish
Figure 402 (Sheet 2)

F92120



	(1) 4	(1) 5	(2) 4	(2) 5	(3)	(4)	(5)	(6)	(7)	(8)
DESIGN DIM	1.626 1.625	1.751 1.750	1.501 1.500	1.564 1.563	4.495 4.475	3.192 3.182	0.660 0.650	0.755 0.745	3.005 2.995	4.495 4.475
REPAIR LIMIT 1	1.686	1.811	1.561	1.624	4.445 2 3	3.222 2 3	0.620 2 3	0.715 2 3	3.035 2 3	4.445 2 3

REFINISH

CADMIUM-TITANIUM PLATE (F-15.01) AND APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02). AFTER BUSHING INSTL, APPLY BMS 10-11, TYPE 2 ENAMEL (F-21.02), BUT NO ENAMEL ON BUSHINGS

REPAIR

REF 1 2 3

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02R

SHOT PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI
(65-46133-2,-4,-6)
4340M STEEL, 275-300 KSI
(65-46133-8)

ALL DIMENSIONS ARE IN INCHES

UPPER SIDE STRUT (19)

Upper Side Strut Repair and Refinish
Figure 402A (Sheet 1)

1 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

2 LUG FACE MACHINING REQUIREMENTS:

1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT.

2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.

3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.

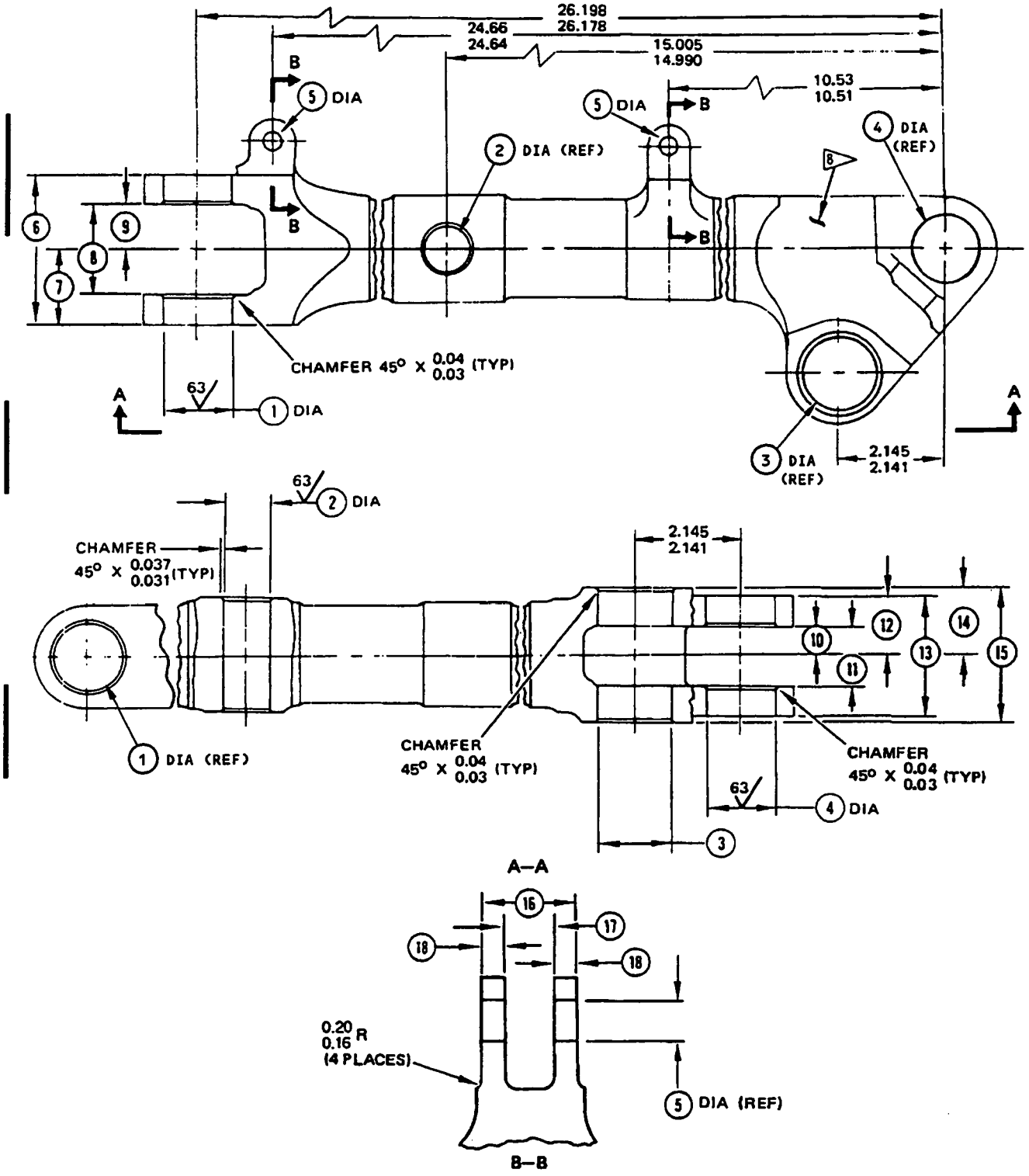
3 (OPT TO 1) LIMIT FOR CHROME OR NICKEL PLATE BUILDUP ON LUG FACES IF PLATING THICKNESS IS NOT MORE THAN 0.015

4 65-46133-2,-4,-6

5 65-46133-8

UPPER SIDE STRUT (19)

Upper Side Strut Repair and Refinish
Figure 402A (Sheet 2)



REACTION LINK (68)
Reaction Link Repair and Refinish
Figure 402B (Sheet 1)

	(1) 6	(1) 7	(2)	(3) 6	(3) 7	(4) 6	(4) 7	(5)	(6)	(7)
DESIGN DIM	1.3755 1.3745	1.501 1.500	0.938 0.937	1.5005 1.4995	1.563 1.562	1.3755 1.3745	1.501 1.500	0.379 0.375	3.025 3.005	1.51 1.50
REPAIR LIMIT 2	1.436 1	1.561 1	0.998 5	1.56 1	1.623 1	1.438 1	1.561 1	0.500 5	2.975 3	1.485 3

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
DESIGN DIM	1.815 1.805	0.910 0.900	0.615 0.605	1.225 1.215	1.255 1.245	2.505 2.495	1.380 1.370	2.755 2.745	1.015 0.995	0.501 0.500
REPAIR LIMIT 2	1.845 1	0.925 1	0.630 1 3	1.255 1 3	1.230 3	2.465 3	1.355 1 3	2.715 1 3	0.965 3 0.935 4	0.531 3 0.561 4

	(18)
DESIGN DIM	0.2575 0.2470
REPAIR LIMIT 2	0.2170 3 0.1870 4

REFINISH

CADMIUM-TITANIUM PLATE (F-15.01) ALL INTERNAL AND EXTERNAL SURFACES.

APPLY BMS 10-11, TYPE 1 PRIMER (F-20.02) ON EXTERNAL SURFACES AND BORES FOR BUSHINGS. AFTER BUSHING INSTALLATION, APPLY BMS 10-60 ENAMEL (F-14.9813, WHICH REPLACES SRF-14.9813) ON EXTERNAL SURFACES, BUT NOT ON BUSHINGS.

APPLY BMS 10-11, TYPE 1 PRIMER (F-20.03) AND MIL-C-11796, CLASS 1 CORROSION PREVENTIVE COMPOUND (F-19.03) IN BORE OF TUBE.

REPAIR

REF 1 2 3 4 5

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.01-0.02R

SHOT PEEN: (SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES

REACTION LINK (68)

Reaction Link Repair and Refinish
Figure 402B (Sheet 2)

F92203

1. LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

2. LUG FACE MACHINING REQUIREMENTS:

   1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT.

   2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.

   3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.

3. LIMIT FOR CHROME OR NICKEL PLATE BUILDUP ON LUG FACES IF PLATING THICKNESS IS NOT MORE THAN 0.015

4. LIMIT FOR SULFAMATE NICKEL PLATE BUILDUP OR INSTALLATION OF SHIMS (17-4PH CRES, 150-170 KSI, CADMIUM PLATED), BONDED WITH WET SEALANT BMS 5-95.

5. LIMIT FOR INSTL OF OVERSIZE LINER OR REPAIR SLEEVE (FIG. 406)

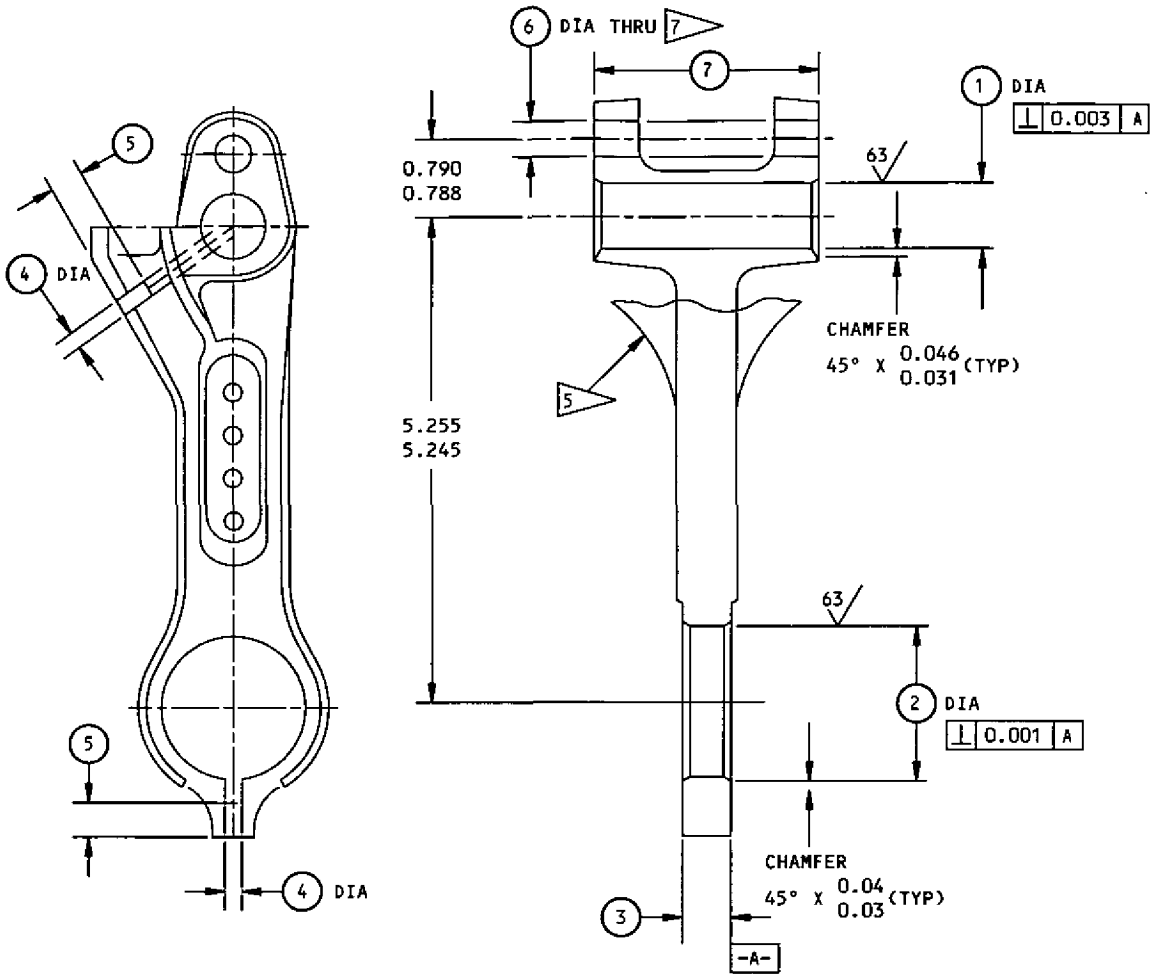
6. 65-46135-2,-4,-6,-10,-12,-15,-17,-21,-26

7. 65-46135-19,-23,-25

8. VIBRO ENGRAVE PART NUMBER AND SERIAL NUMBER IN THIS AREA

REACTION LINK (68)

Reaction Link Repair and Refinish
Figure 402B (Sheet 3)



	1	2 ▷3	2 ▷4	3	4	5	6	7
DESIGN DIM	0.688 0.687	1.6255 1.6245	1.7505 1.7495	0.505 0.495	0.186 0.185	0.40 0.30	0.416 0.404	2.300 2.290
REPAIR LIMIT	0.761 ▷1	1.7370 ▷1	1.8110 ▷1	0.448 ▷1 ▷2	0.379 ▷6	0.43 ▷6	0.505 ▷8	---

LOWER DOWNLOCK LINK (28)

Downlock Link Repair and Refinish
Figure 403 (Sheet 1)

F93571

REFINISH

CHEMICAL TREAT OR CHROMIC ACID ANODIZE AND APPLY BMS 10-11, TYPE 1 PRIMER (SRF-2.19 OR F-18.13) ALL OVER. AFTER BUSHING AND LUBE FITTING INSTL, APPLY BMS 10-11, TYPE 2 ENAMEL (SRF-12.63 OR F-21.02) BUT NOT ON BUSHINGS OR FITTINGS

REPAIR

REF 1 2 6 7 8

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02R

SHOT PEEN: (SOPM 20-10-03)
0.023-0.055 SHOT SIZE
0.007-0.010 A2 INTENSITY

MATERIAL: AL ALLOY

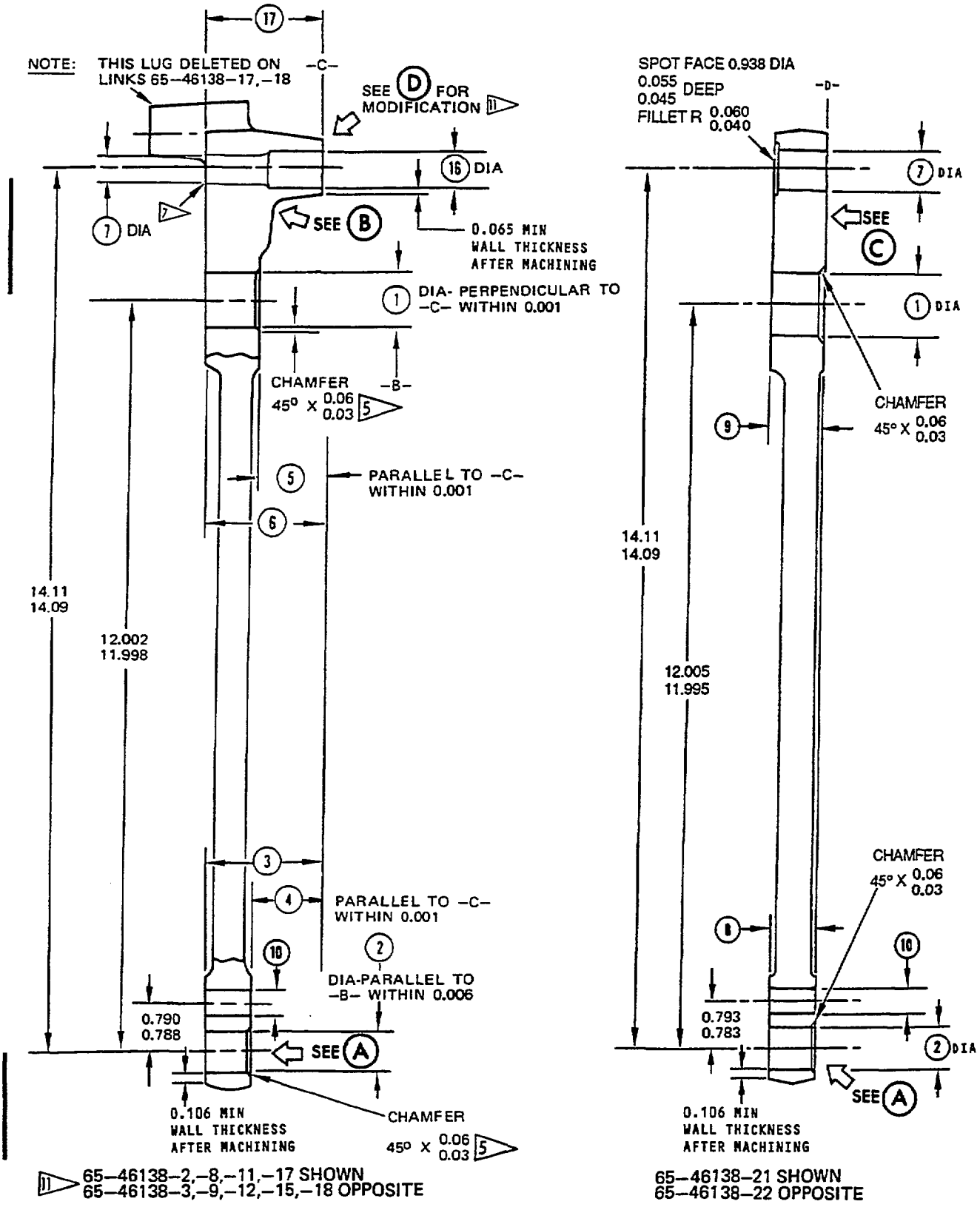
ALL DIMENSIONS ARE IN INCHES

1. LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS.
2. LUG FACE MACHINING REQUIREMENTS:
   1. MATERIAL REMOVED FROM ANY FACE MUST NOT BE MORE THAN THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT.
   2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.
   3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.
3. 65-46139-2,-5,-7,-10,-15
4. 65-46139-13,-17
5. VIBRO ENGRAVE PART NUMBER, SERIAL NUMBER AND VENDOR NUMBER THIS AREA.
6. LIMIT FOR INSTALLATION OF REPAIR BUSHING PER (CMM 32-00-03).
7. SHOT PEEN OPTIONAL
8. LIMIT FOR INSTALLATION OF REPAIR SLEEVE (FIG. 406)

LOWER DOWNLOCK LINK (28)

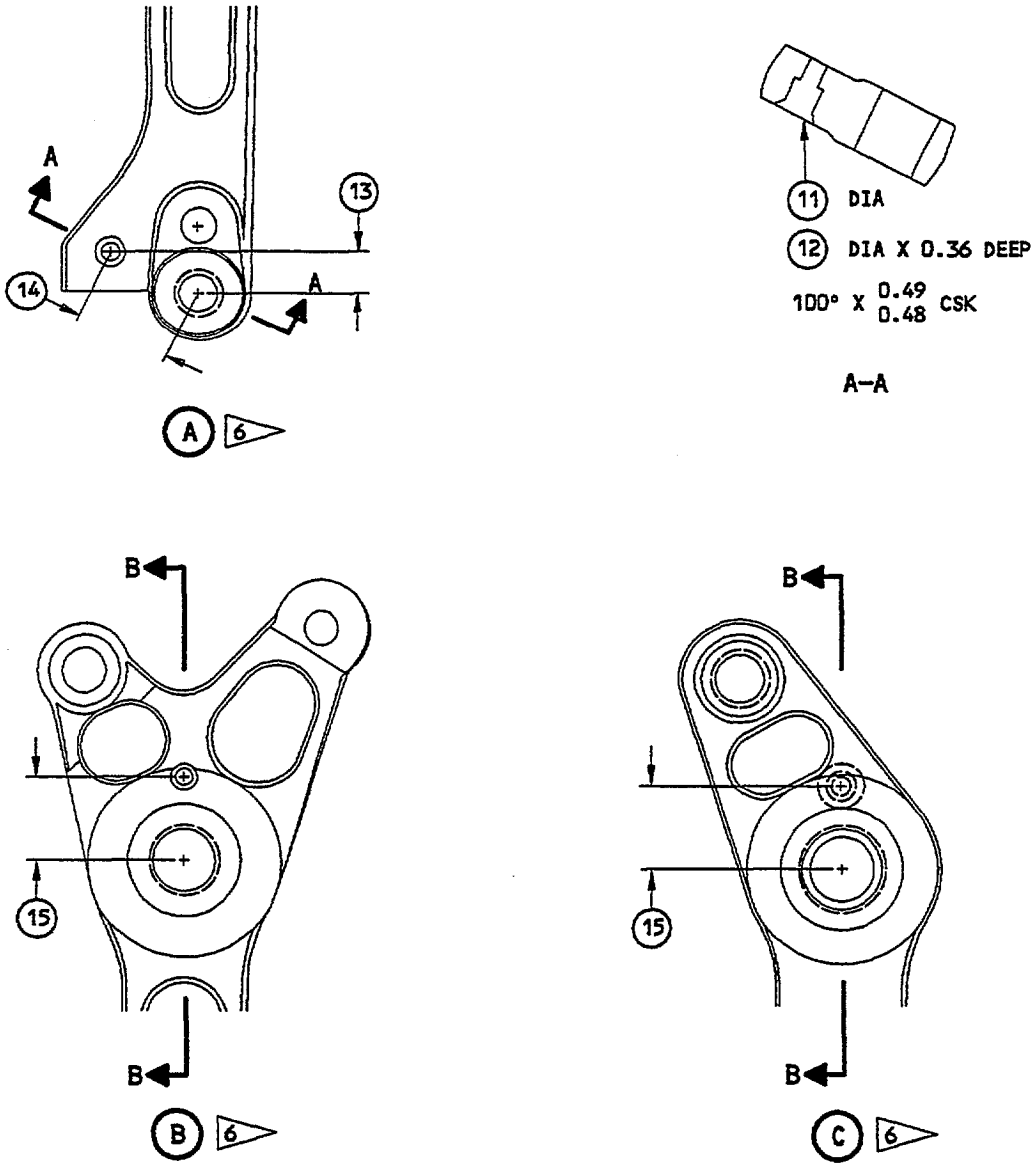
Downlock Link Repair and Refinish
Figure 403 (Sheet 2)

F92294



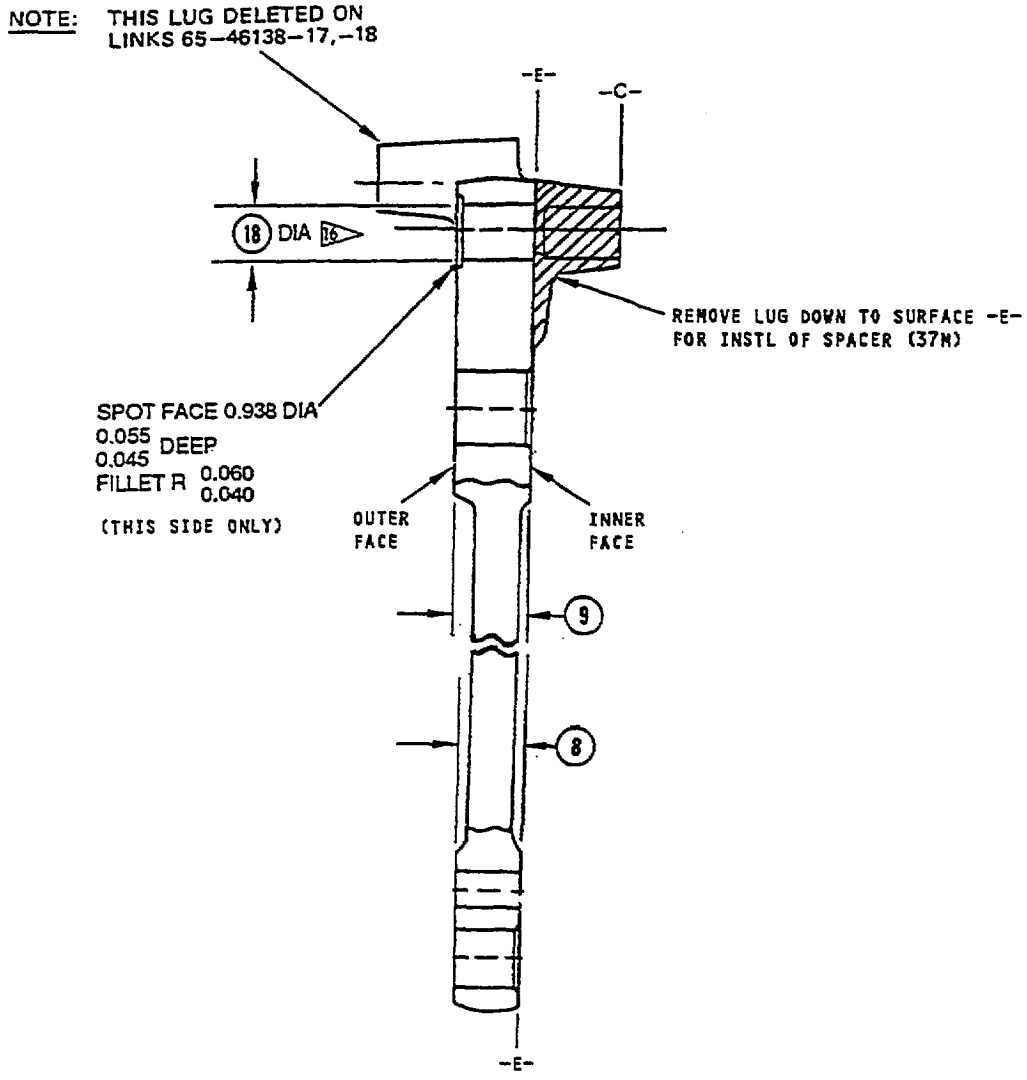
UPPER DOWNLOCK LINK (42,43)

Upper Downlock Link Repair and Refinish
Figure 403A (Sheet 1)



UPPER DOWNLOCK LINK (42,43)

Upper Downlock Link Repair and Refinish
Figure 403A (Sheet 2)



Upper Downlock Link Repair and Refinish
Figure 403A (Sheet 3)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
							9 10			
65-46138-2, -3, -8, -9	DESIGN DIM	0.9380 0.9373	0.6880 0.6875	1.690 1.685	0.971 0.968	0.971 0.968	1.855 1.850	0.501 0.500	0.722 0.714 15	0.887 0.879 15
	REPAIR LIMIT	1.0380 1	0.7480 1 18 0.7880 17 18 0.7880 1 19	1.640 2 12	1.018 2 12	1.021 2 12	1.805 2 12	0.6200 3	0.617 2 12	0.782 2 12
65-46138-11, -12, -15, -17, -18	DESIGN DIM	0.9380 0.9373	0.6880 0.6875	1.753 1.748	1.034 1.031	1.034 1.031	1.918 1.913	0.5010 0.5000	0.722 0.714 15	0.887 0.879 15
	REPAIR LIMIT	1.0380 1	0.7880 1	1.703 2 12	1.084 2 12	1.084 2 12	1.863 2 12	0.6200 3	0.617 2 12	0.782 2 12
65-46138-21, -22	DESIGN DIM	0.9380 0.9373	0.6880 0.6875	---	---	---	---	0.6256 0.6250	0.722 0.717	0.887 0.882
	REPAIR LIMIT	1.0380 1	0.7880 1	---	---	---	---	0.7000 1 13	0.617 2 12	0.782 2 12

		(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
			6	6	6	6	6		9 10	15
65-46138-2, -3, -8, -9	DESIGN DIM	0.416 0.404	0.194 0.190	0.327 0.313	0.48 0.47	1.07 1.06	0.94 0.93	0.521 0.516	1.855 1.850	0.6256 0.6250
	REPAIR LIMIT	0.500 4	---	---	---	---	---	0.620 4	1.73 2 8	0.7000 1 13 16
65-46138-11, -12, -15, -17, -18	DESIGN DIM	0.416 0.404	0.194 0.190	0.327 0.313	0.48 0.47	1.07 1.06	0.94 0.93	0.521 0.516	1.918 1.913	0.6256
	REPAIR LIMIT	0.500 4	---	---	---	---	---	0.620 4	1.79 2 8	0.7000 1 13 16
65-46138-21, -22	DESIGN DIM	0.416 0.404	0.194 0.190	0.327 0.313	0.48 0.47	1.07 1.06	0.94 0.93	---	---	---
	REPAIR LIMIT	0.500 4	---	---	---	---	---	---	---	---

UPPER DOWNLOCK LINK (42, 43)

Upper Downlock Link Repair and Refinish
Figure 403A (Sheet 4)

A95001

REPAIR

REF 1 THRU 19

125 MACHINE FINISH EXCEPT AS NOTED

BREAK SHARP EDGES 0.01-0.02R

SHOT PEEN: (REF SOPM 20-10-03)
0.016-0.033 SHOT SIZE
0.010 A2 INTENSITY

MATERIAL: AL ALLOY

ALL DIMENSIONS ARE IN INCHES

REFINISH

CHEMICAL TREAT OR CHROMIC ACID ANODIZE AND APPLY PRIMER BMS 10-11, TYPE 1 (SRF-2.30) ALL OVER. APPLY ENAMEL BMS 10-11, TYPE 2 (SRF-12.63) EXCEPT IN BORES.

1 LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

2 LUG FACE MACHINING REQUIREMENTS:

1. MATERIAL REMOVED FROM ANY FACE MUST NOT EXCEED HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT. (THIS APPLIES TO "FACE TO FACE" DIMENSIONS ONLY FOR (8), (9) AND (17).
2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.
3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.

3 LIMIT FOR MACHINING BORE THRU FOR INSTL OF REPAIR SLEEVE OR BUSHING PER FIG. 406, OR 406A AND RESTORATION OF COUNTERBORED HOLE PER FIG. 408. MAINTAIN REPAIR DIA PARALLEL TO -B- WITHIN 0.006

4 RESTORATION TO DESIGN DIMENSION NOT REQUIRED

5 CHAMFER LOCATED ON OPPOSITE SIDE OF LINK. 65-46138-2, -3 ONLY

6 65-46138-9, -12, -15, -18, -22 ONLY

7 CHAMFER 45° X 0.03-0.06 ONLY IF REPAIRED WITH FLANGED BUSHING PER FIG. 406A

8 RESTORE OUTER FACE (THE FACE OPPOSITE THE LUG) WITH FLANGED BUSHING, FIG. 406A, OR INCREASE SPACER 69-51873 WIDTH. RESTORE INNER FACE WITH AN INCREASED WASHER AN960-C816 THICKNESS OR WITH AN ADDITION OF 0.020 MIN THICKNESS EQUIVALENT WASHER, IF NO WASHER WAS IN THE ORIGINAL ASSEMBLY

9 DIMENSION (6) IS TO ESTABLISH DISTANCE FROM -C- TO FACE ON OPPOSITE SIDE OF LINK

10 DIMENSION (17) IS TO ESTABLISH FACE TO FACE DIMENSION

11 MODIFICATION OF 65-46138-2, -3, -8, -9, -11, -12, -15, -17, -18 IS RECOMMENDED FOR BETTER RESISTANCE TO CORROSION

12 RESTORE FLANGED BUSHING FACE WITH AN OVERSIZED FLANGED BUSHING. FOR RESTORATION OF OPPOSITE FACE ON HOLE (1) (2), CHAMFER HOLE PER 7 AND USE TWO EQUIVALENT FLANGED BUSHINGS (BACK TO BACK) WITH A GAP BETWEEN THE ENDS OF THE BUSHINGS 0.02-0.08. BUSHING LENGTHS TO BE WITHIN 0.010 OF EACH OTHER

IF MATERIAL IS REMOVED FROM THE FACE IN CONTACT WITH ANTI-ROTATION KEEPER (28C), INSTALL THE KEEPER WITH CADMIUM PLATED 17-4 PH WASHER AT ANTI-ROTATION BOLT (28A), OR MAKE A THICKER KEEPER TO MAKE ALLOWANCE FOR DECREASED FACE DIMENSION

13 FOR LARGE DIAMETER FLANGES AT SPOTFACE, MACHINE ENTIRE FACE FROM LUG END TO 1.0 BEYOND LUG CENTER. MAINTAIN 0.18-0.26 TRANSITION RADIUS

14 AFTER THIS REPAIR, MARK THE PART TO SHOW THAT IT WAS CHANGED PER OHM 32-17-11 FIG. 403A

15 DIMENSIONS FOR MODIFIED LINK ASSEMBLIES PER 11

16 AFTER THIS REPAIR, INSTALL BUSHINGS (39L) (SEE FIG. 408, HOLE (11))

17 LIMIT FOR INSTALLATION OF REPAIR SLEEVE AND STANDARD BUSHING PER PARTS LIST

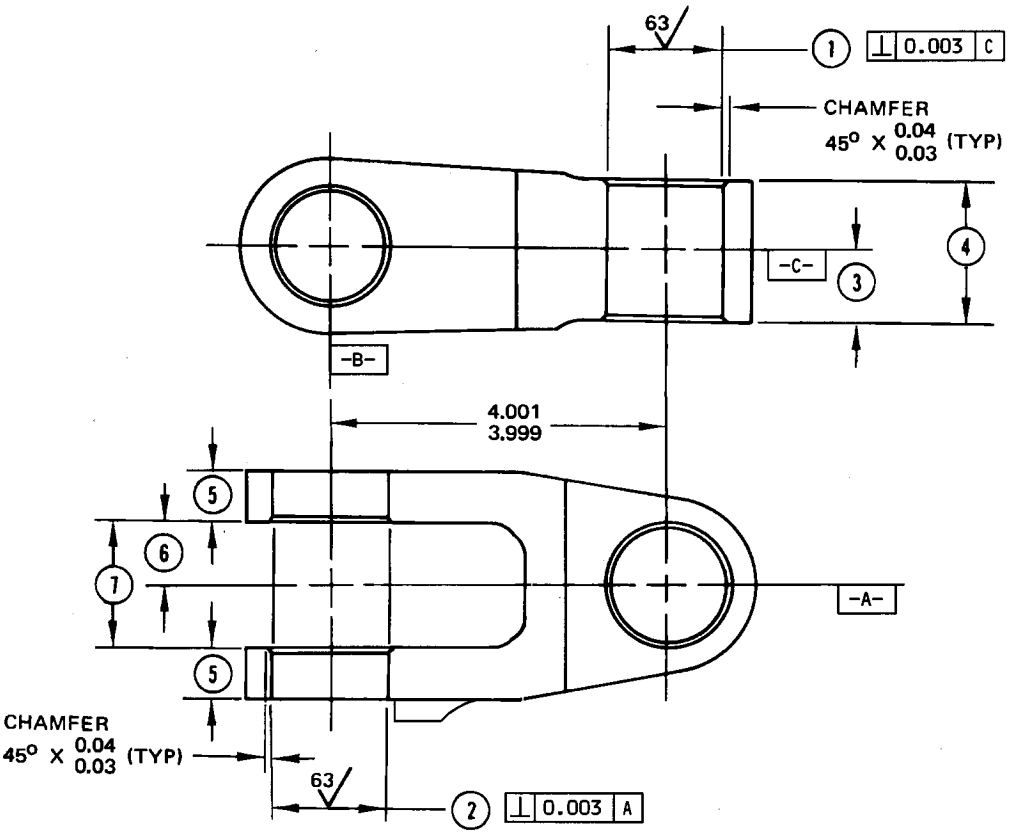
18 65-46138-2,-3

19 65-46138-8,-9

UPPER DOWNLOCK LINK (42, 43)

Upper Downlock Link Repair and Refinish
Figure 403A (Sheet 5)

A95079



	1 (3)	1 (4)	2	3	4	5	6	7
DESIGN DIM	1.3755 1.3745	1.501 1.500	1.3755 1.3745	0.780 0.778	1.565 1.555	0.625 0.620	0.752 0.749	1.505 1.495
REPAIR LIMIT (1)	1.436	1.561	1.436	0.763 (2) (5)	1.525 (2) (5)	0.590 (2) (5)	0.767 (2) (5)	1.535 (2) (5)

REPAIR

REF (1) (2) (5)

125 MACHINE FINISH EXCEPT AS NOTED

BREAK SHARP EDGES 0.01-0.02R

SHOT PEEN: (REF 20-10-03)
0.016-0.033 SHOT SIZE
0.015 A2 INTENSITY

MATERIAL: 4340M STEEL, 270-300 KSI

ALL DIMENSIONS ARE IN INCHES

REFINISH

CADMIUM-TITANIUM PLATE ALL OVER (F-15.01) FOLLOWED BY PRIMER, BMS 10-11, TYPE 1 (SRF 12.205). APPLY ENAMEL, BMS 10-11, TYPE 2 (F-21.02) ALL OVER, EXCEPT IN BORES

(1) LIMIT FOR INSTALLATION OF OVERSIZE BUSHINGS

(2) LUG FACE MACHINING REQUIREMENTS:

1. MATERIAL REMOVED FROM ANY FACE MUST NOT EXCEED HALF THE DIFFERENCE BETWEEN THE DESIGN DIM AND REPAIR LIMIT.
2. FLAT SURFACE MUST BE MINIMUM OF 0.02 LARGER THAN FLANGE DIA OF BUSHING TO BE INSTALLED.
3. BLEND MISMATCH STEPS TO 0.18-0.26 RADIUS, OR IF WITHIN 0.10 OF LUG FILLET RADIUS USE SAME RADIUS AS LUG FILLET. BREAK SHARP EDGES 0.03-0.07R.

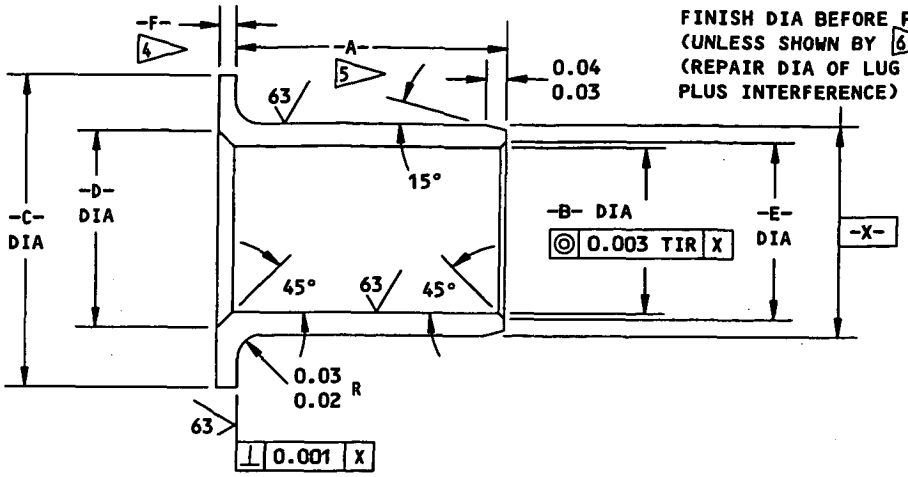
(3) 65-46107-1

(4) 65-46107-3

(5) (OPT TO (1)) LIMIT FOR CHROME OR NICKEL PLATE BUILDUP ON LUG FACES IF PLATING THICKNESS IS NOT MORE THAN 0.015

UNIVERSAL (62)
Universal Repair and Refinish
Figure 403B

F92432



BUSHING TO BE REPLACED	-A- ± 0.01 (5)	-B- MAX	-C- ± 0.01	-D- ± 0.01	-E- ± 0.01	-F- (4)	INTERFERENCE	MATERIAL
8 (65-46150-27)	0.72	1.345	2.00	1.60	1.44	0.13 0.12	0.0025 0.0008	1
8 (65-46150-113)	0.72	1.408	2.06	1.64	1.49	0.13 0.12	0.0025 0.0008	1
9 (65-46150-28)	0.45	1.469	2.00	1.72	1.56	0.13 0.12	0.0025 0.0008	1
9 (65-46150-84)	0.45	1.469	2.00	1.72	1.56	0.13 0.12	0.0025 0.0008	3
9 (65-46150-114)	0.45	1.594	2.12	1.84	1.68	0.13 0.12	0.0025 0.0008	3
17 (65-46150-41)	0.64	1.469	2.00	1.73	1.56	0.13 0.12	0.0025 0.0008	2
17 (65-46150-111)	0.62	1.594	2.12	1.84	1.68	0.13 0.12	0.0025 0.0008	2
18 (65-46150-42)	0.72	1.345	1.80	1.61	1.44	0.13 0.12	0.0025 0.0008	2
18 (65-46150-112)	0.71	1.408	1.88	1.64	1.49	0.13 0.12	0.0025 0.0008	2
26 (65-46150-65)	0.70	0.469	0.90	0.59	0.59	0.065 0.060	0.0019 0.0006	1
27 (65-46150-29)	0.22	1.469	2.00	1.71	1.56	0.13 0.12	0.0029 0.0011	1
27 (65-46150-110)	0.22	1.594	2.12	1.84	1.68	0.13 0.12	0.0029 0.0011	1
39, 39K (65-46150-67)	0.68	0.469	0.92	0.59	0.59	0.065 0.060	0.0014 0.0007 (6)	2
40, 40J (65-46150-66)	0.86	0.719	1.34	0.86	0.86	0.065 0.060	0.0007 0.0004 (6)	2
60 (65-46150-39)	0.75	1.219	1.75	1.47	1.32	0.13 0.12	0.0022 0.0006	1

Oversize Bushing Details
Figure 404 (Sheet 1)

BUSHING TO BE REPLACED	-A- ▷5◁ ± 0.01	-B- MAX	-C- ± 0.01	-D- ± 0.01	-E- ± 0.01	-F- ▷4◁	INTER-FERENCE	MATERIAL
60 (65-46150-118)	0.75	1.344	1.86	1.58	1.42	0.13 0.12	0.0025 0.0008	▷1◁
61 (65-46150-40)	0.60	1.219	1.75	1.47	1.32	0.13 0.12	0.0022 0.0006	▷2◁
64 (65-46150-36)	0.60	1.219	1.75	1.47	1.30	0.13 0.12	0.0022 0.0006	▷2◁
64 (65-46150-115)	0.60	1.344	1.86	1.58	1.42	0.13 0.12	0.0025 0.0008	▷2◁
65 (65-46150-37)	0.62	1.219	1.70	1.47	1.30	0.13 0.12	0.0022 0.0006	▷2◁
65 (65-46150-116)	0.62	1.344	1.83	1.58	1.42	0.13 0.12	0.0025 0.0008	▷2◁
66 (65-46150-38) ▷7◁	0.74	1.343	1.90	1.61	1.44	0.13 0.12	0.0025 0.0008	▷1◁
66 (65-46150-85) ▷7◁	0.74	1.343	1.90	1.61	1.44	0.13 0.12	0.0025 0.0008	▷3◁
66 (65-46150-117)	0.74	1.405	1.88	1.64	1.49	0.13 0.12	0.0025 0.0008	▷3◁
67 (65-46150-68)	0.86	0.719	1.34	0.78	0.78	0.065 0.060	0.0018 0.0005	▷1◁

FINISH

CADMIUM PLATE (F-15.06), 0.0003-0.0005 THICK. PLATING OPTIONAL ON ID

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES 0.01-0.03 R

MATERIAL: AS NOTED

ALL DIMENSIONS ARE IN INCHES

▷1◁ AL-NI BRONZE (AMS 4640)

▷2◁ 17-4 PH CRES (AMS 5643), 180-200 KSI

▷3◁ BERYLLIUM COPPER (AMS 4533 CONDITION AT, AMS 4534 CONDITION HT, AMS 4535 CONDITION AT, OR AMS 4651 CONDITION HT)

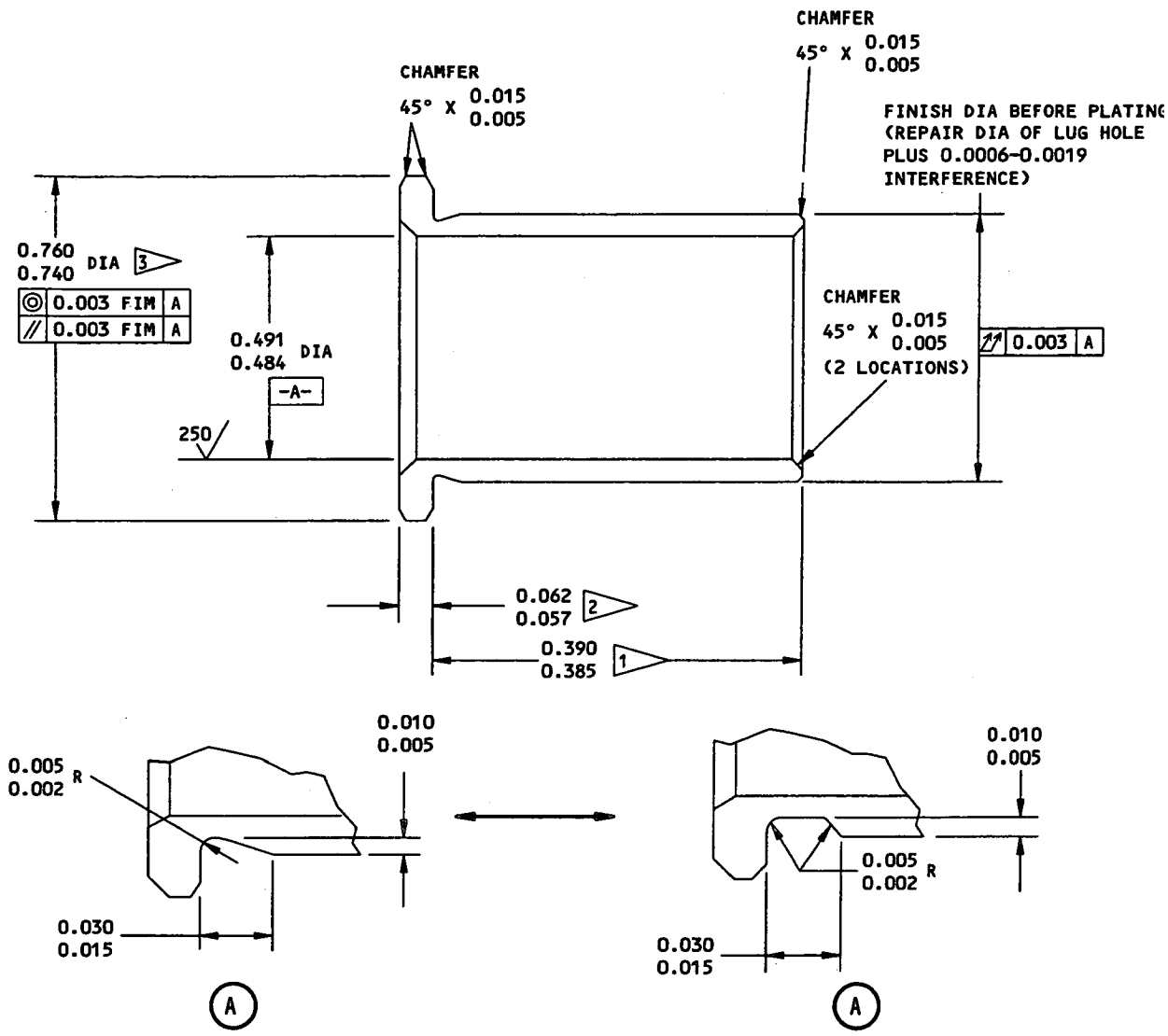
▷4◁ PLUS AMOUNT REMOVED FROM LUG FACE

▷5◁ MINUS AMOUNT REMOVED FROM LUG FACE

▷6◁ AFTER PLATING AND PRIMING

▷7◁ THIS OVERSIZE EQUIVALENT WITHOUT LUBE HOLES OR GROOVES IS OPTIONAL TO THE ORIGINAL CONFIG SHOWN IN FIG. 405

Oversize Bushing Details
Figure 404 (Sheet 2)



1 MINUS AMOUNT REMOVED FROM LUG FACE

2 PLUS AMOUNT REMOVED FROM LUG FACE

3 PLUS DIAMETRICAL AMOUNT REMOVED FROM LUG HOLE

REPAIR

63 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

CADMIUM PLATE (F-15.06) (0.0003-0.0005 THICK) (OPTIONAL ON INTERNAL SURFACES)

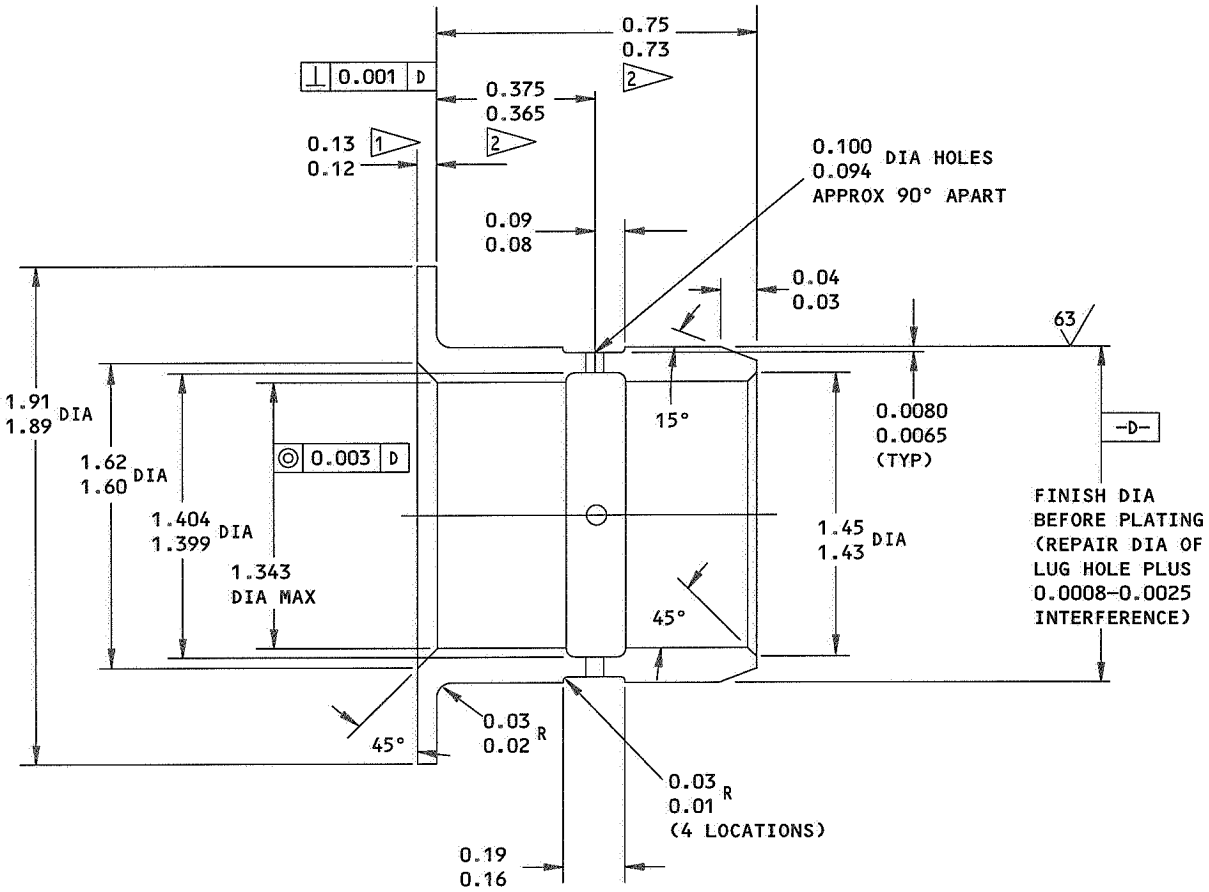
MATERIAL: AL-NI-BRONZE (AMS 4640), OR QQ-C-465 ALLOY 630

ALL DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

HOLE LOCATION (7) (18) FIG. 403A - REPLACES BUSHING (39L) BACB28W8B039

Oversize Bushing Details
Figure 404A



NOTE: FOR OPTIONAL CONFIG WITHOUT LUBE HOLES OR GROOVES, SEE FIG. 404

FINISH

CADMIUM PLATE (F-4.201). PLATING IS OPTIONAL ON INTERNAL SURFACES

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01-0.02 R

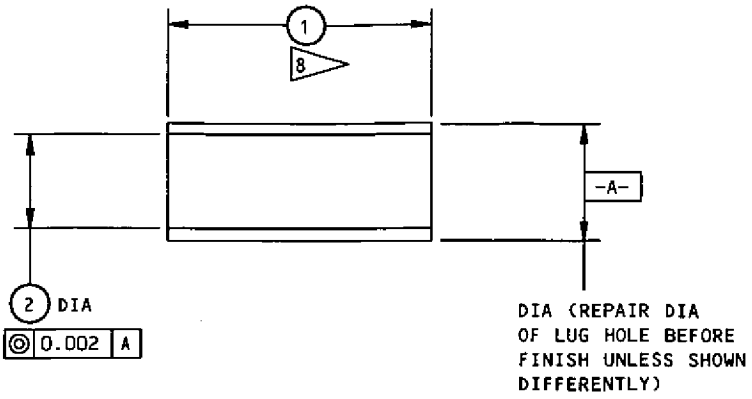
MATERIAL:
(65-46150-38) AL-NI-BRONZE (AMS 4640)
(65-46150-85) BERYLLIUM COPPER
(AMS 4533 CONDITION AT, AMS 4534 CONDITION HT, AMS 4535 CONDITION AT, OR AMS 4651 CONDITION HT)

ALL DIMENSIONS ARE IN INCHES

1 PLUS AMOUNT REMOVED FROM LUG FACE
2 MINUS AMOUNT REMOVED FROM LUG FACE

HOLE LOCATION (3) FIG. 402B - REPLACES BUSHING (66) 65-46150-38,-85

Oversize Bushing Details
Figure 405



REPAIR FIG.	HOLE LOCATION	APPLICATION	1 / 8	2	MATERIAL	FINISH	INTERFERENCE FIT
403A	7	1	1.850 1.845	0.48 0.46	5	F-20.02	0.0007 0.0003 9
403A	7	2	1.913 1.908	0.48 0.46	5	F-20.02	0.0019 0.0006
402B	2	3	2.23 2.21	0.80 0.76	7	F-15.06	0.0019 0.0006
402B	5	4	0.245 0.243	0.36 0.34	7	F-15.06	0.0013 0.0004
403	6	6	0.385 0.370	0.416 0.404	7	F-15.06	0.0030 0.0010

1 REPAIR SLEEVE USED ON 65-46138-4,-7 LINKS (41)

2 REPAIR SLEEVE USED ON 65-46138-13,-19 LINKS (41)

3 OVERSIZE LINER (69)

4 REPAIR SLEEVE USED ON LOCK ACTUATOR ATTACHMENT LUGS OF LINK (68)

5 7075-T73 AL ALLOY (OPTION: AL-NI-BRZ PER AMS 4640, CADMIUM PLATED)

6 REPAIR SLEEVE USED ON GROUND LOCK PIN LUGS OF LOWER DOWNLOCK LINK (28)

7 AL-NI-BRZ (AMS 4640)

8 MINUS AMOUNT REMOVED FROM LUG FACE(S)

9 AFTER FINISH

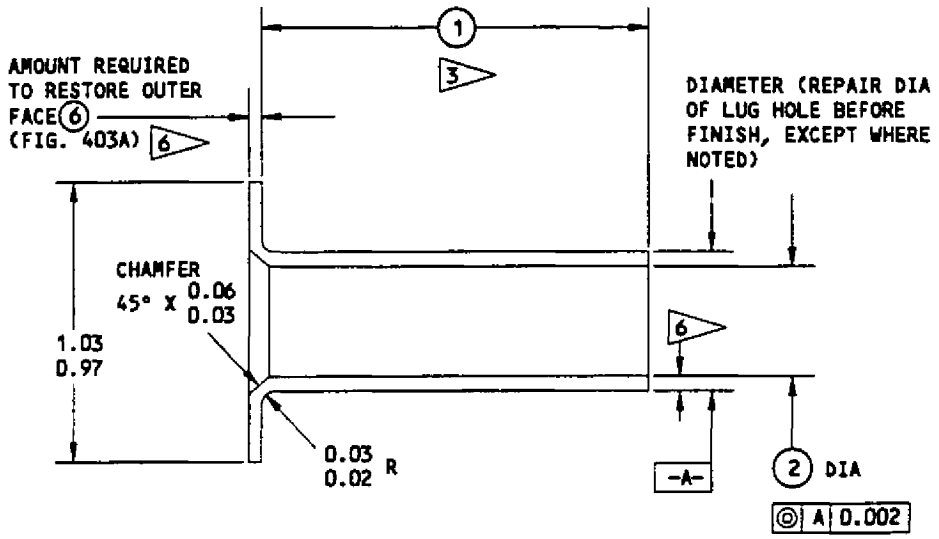
125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK SHARP EDGES 0.01R MAX

ALL DIMENSIONS ARE IN INCHES

Oversize Liner and Repair Sleeve Details
Figure 406

1504431



REPAIR FIG.	HOLE LOCATION	APPLICATION	1 (3)	2	MATERIAL	FINISH	INTERFERENCE FIT
403A	(7), (16)	1	1.850 1.845	0.48 0.46	4	F-15.06	0.0003-0.0007 5
403A	(7), (16)	2	1.913 1.908	0.48 0.46	4	F-15.06	0.0006-0.0019

125 ALL MACHINE SURFACES

BREAK SHARP EDGES 0.01R MAX

ALL DIMENSIONS ARE IN INCHES

1 REPAIR BUSHING USED ON 65-46138-4, -7 LINKS (41)

2 REPAIR BUSHINGS USED ON 65-46138-13, -19 LINKS (41)

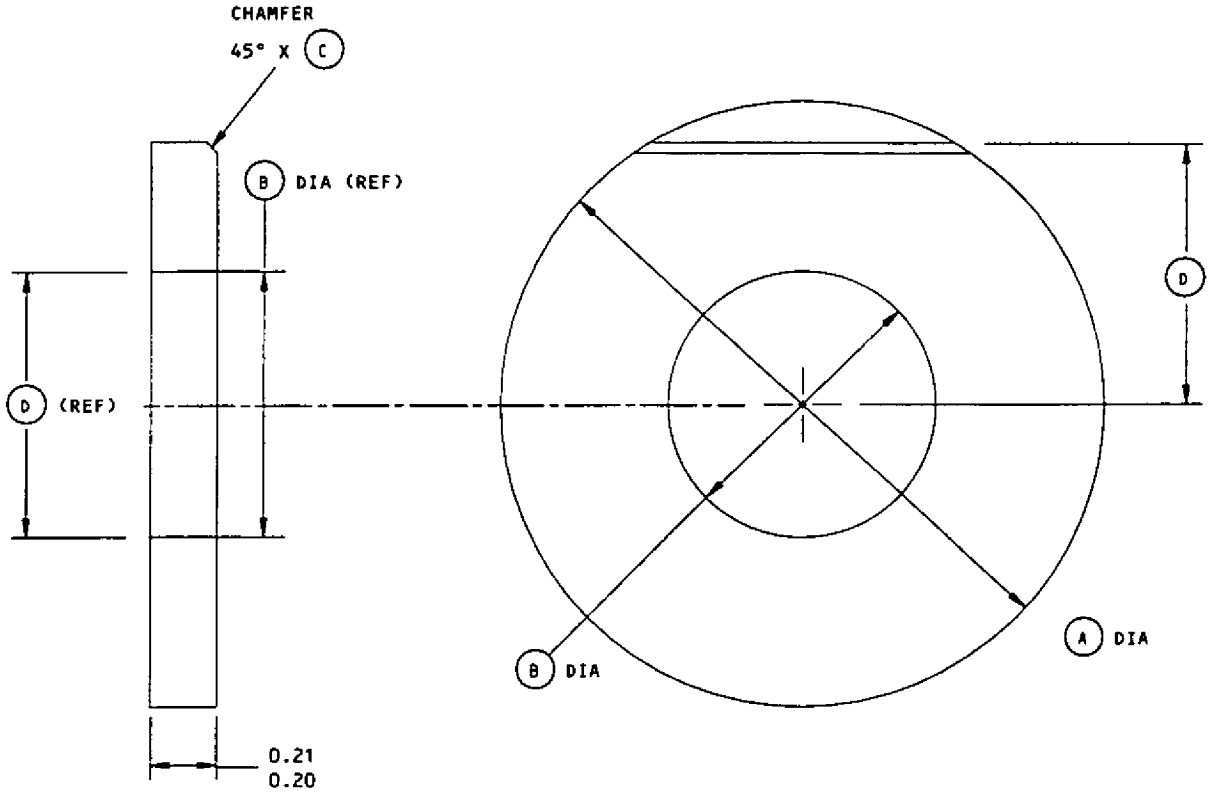
3 MINUS AMOUNT REMOVED FROM LUG FACE (-C-, FIG. 403A)

4 AL-NI-BRZ PER AMS 4640 (CADMIUM PLATE)

5 AFTER FINISH

6 0.030 INCH MINIMUM

Oversized Flange Repair Bushing
Figure 406A



REPLACES WASHER (3, FIG.1101)	A	B	C	D
66-24445-2	2.13 2.11	1.150 1.130	0.07 0.05	0.935 0.925
69-77534-1	2.19 2.17	1.275 1.255	0.07 0.06	0.988 0.983

FINISH

CADMIUM PLATE (F-15.06 OR F-1.32)

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

MATERIAL: 4130 STEEL, 90-120 KSI

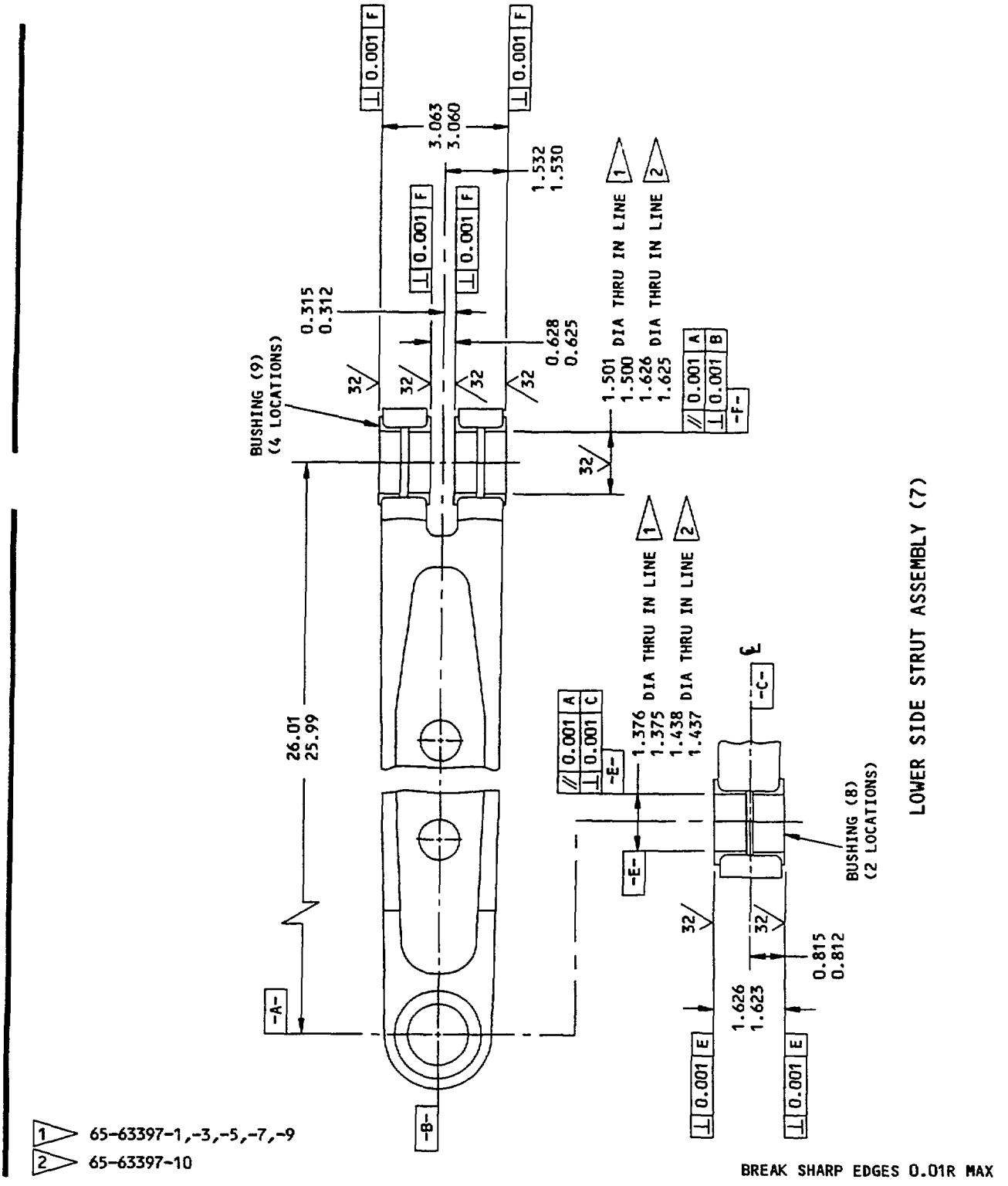
BREAK ALL SHARP EDGES 0.02-0.03 R

DIMENSIONS APPLY AFTER PLATING

ALL DIMENSIONS ARE IN INCHES

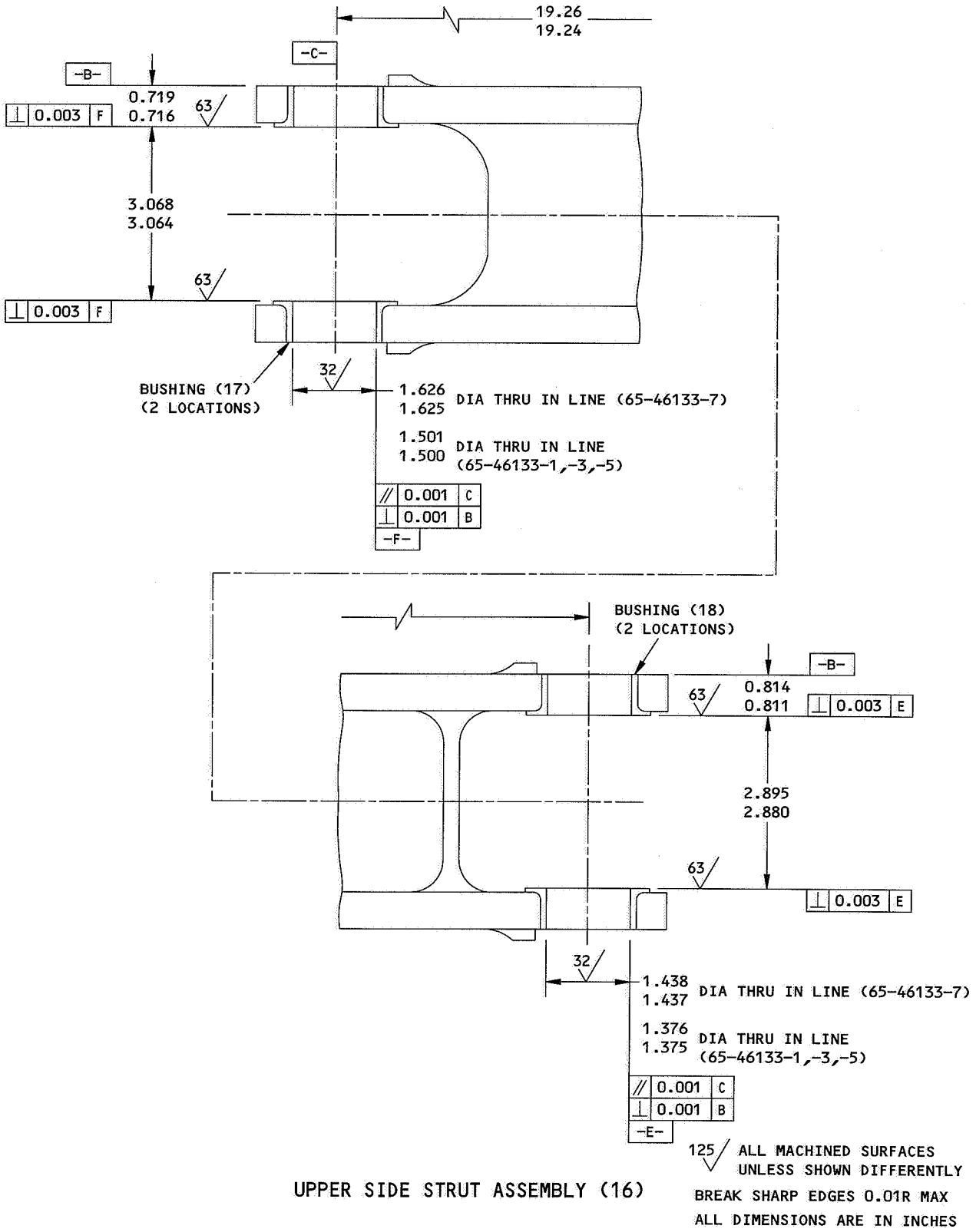
Repair Washer Details
Figure 406B

M45353



Lower Side Strut - Bushing Replacement
Figure 407

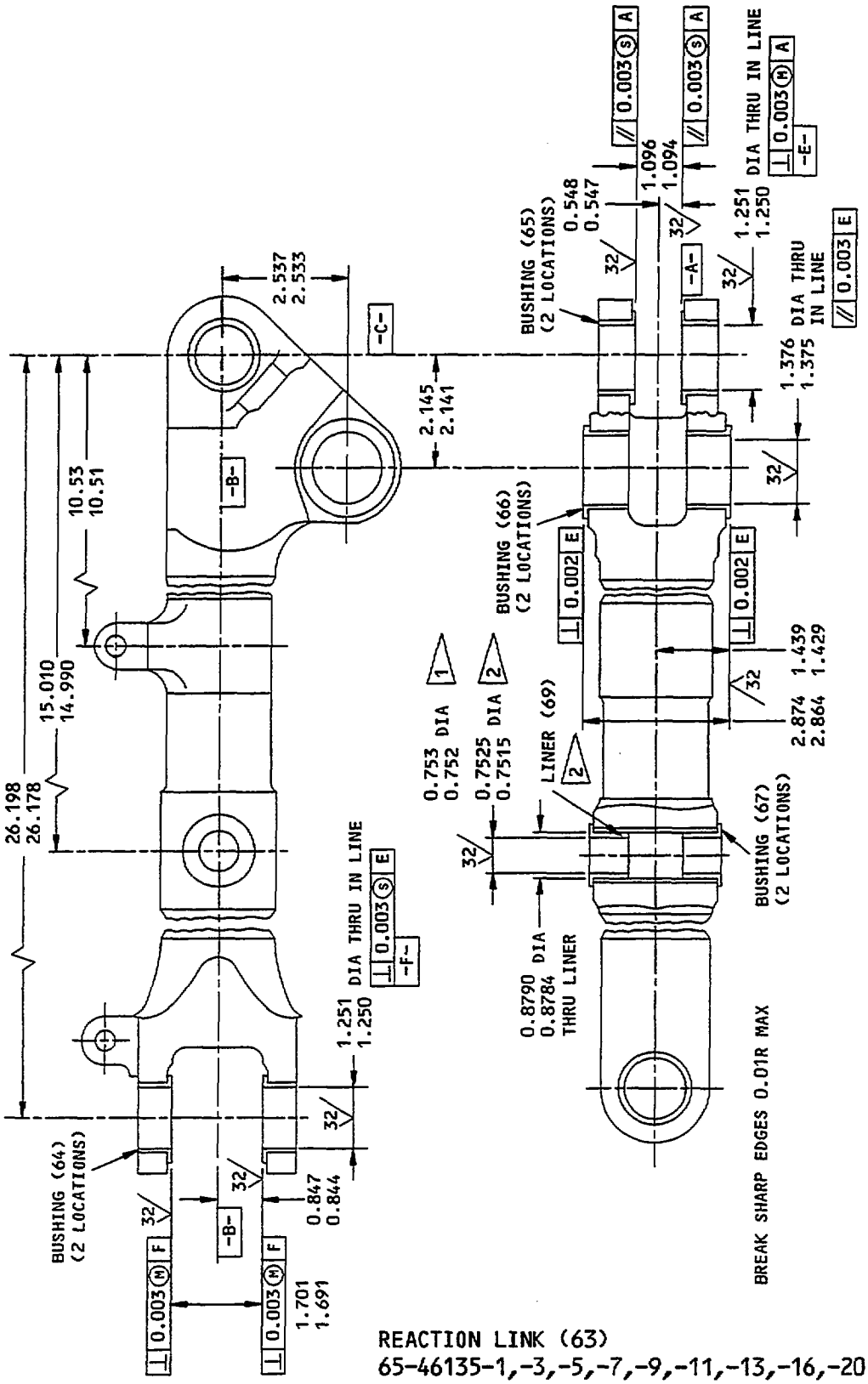
G15160



UPPER SIDE STRUT ASSEMBLY (16)

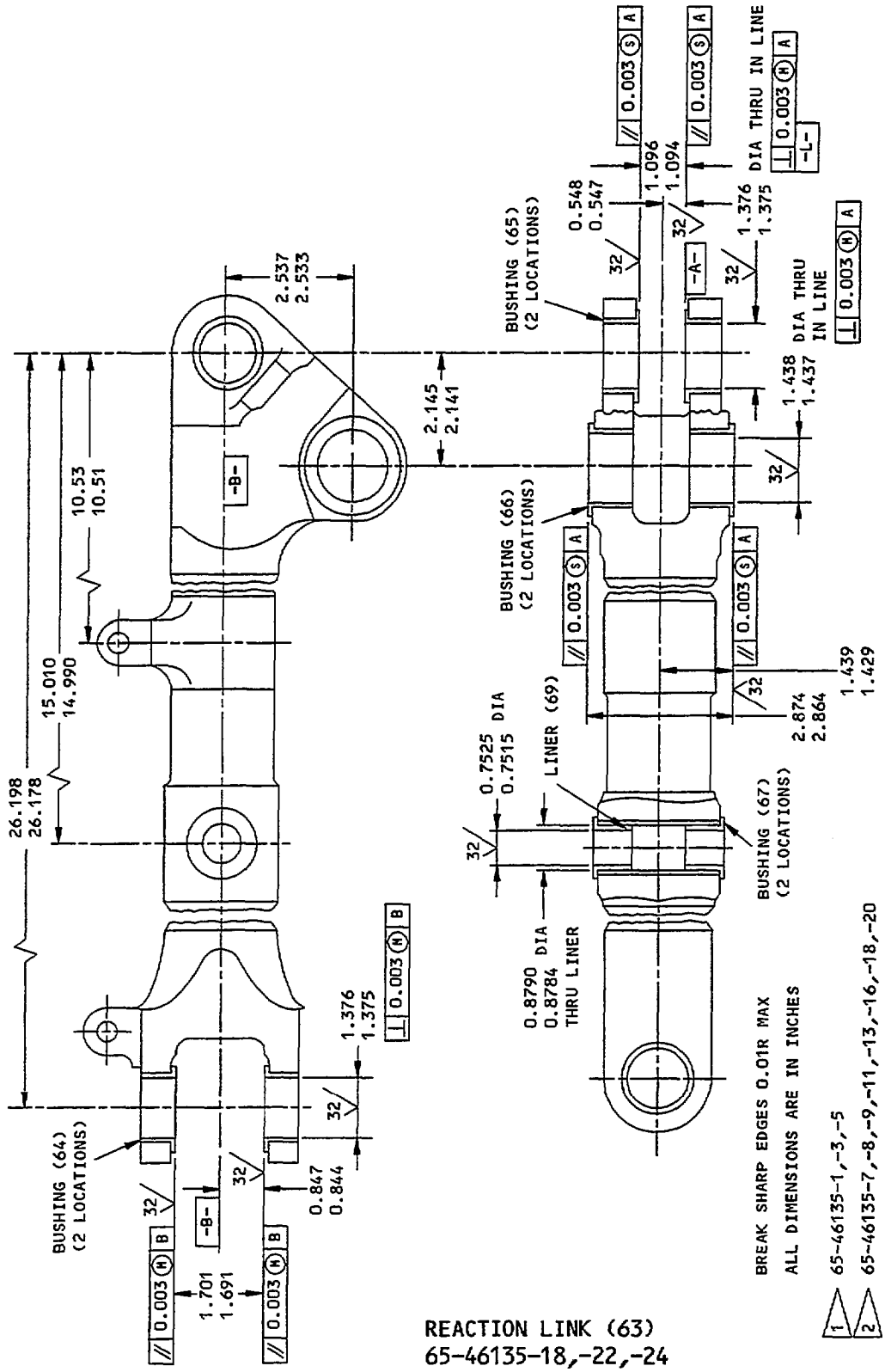
Upper Side Strut Bushing Replacement
Figure 407A

G15167



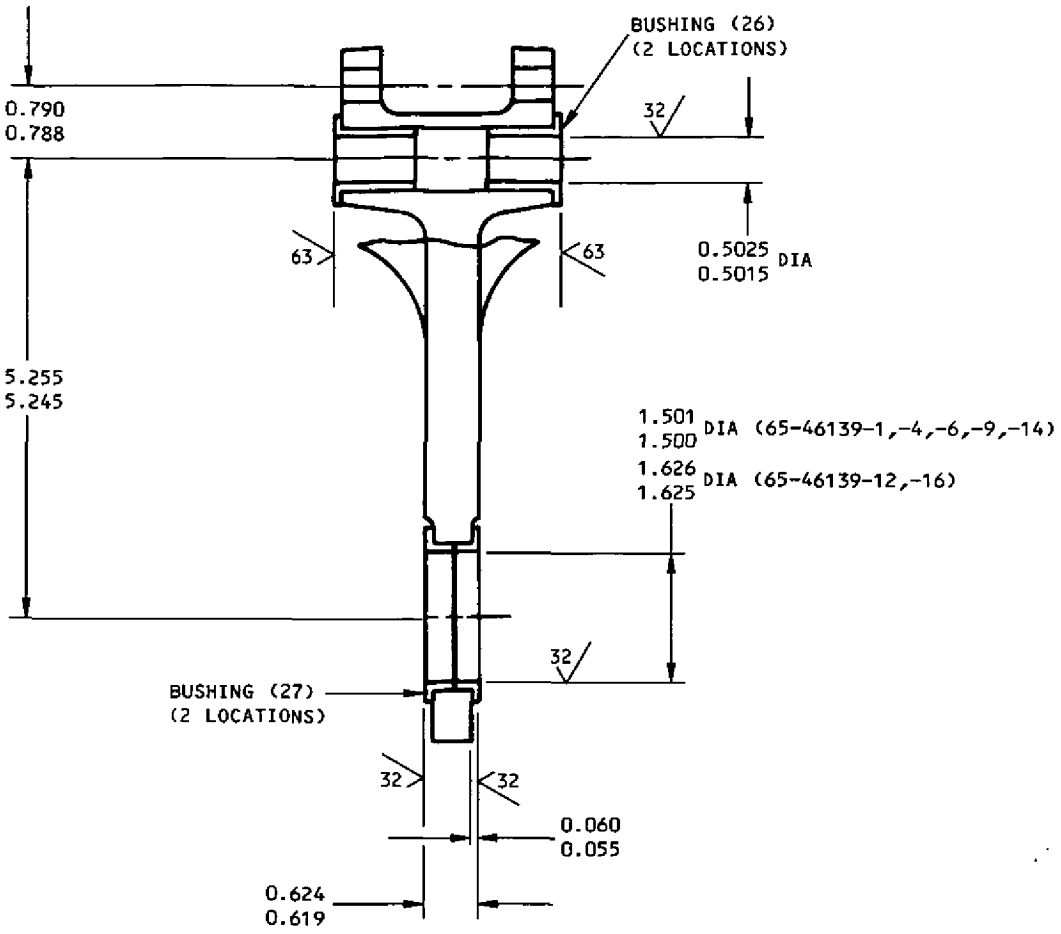
REACTION LINK (63)
65-46135-1,-3,-5,-7,-9,-11,-13,-16,-20

Reaction Link Bushing Replacement
Figure 407B (Sheet 1)



REACTION LINK (63)
65-46135-18,-22,-24

Reaction Link Bushing Replacement
Figure 407B (Sheet 2)



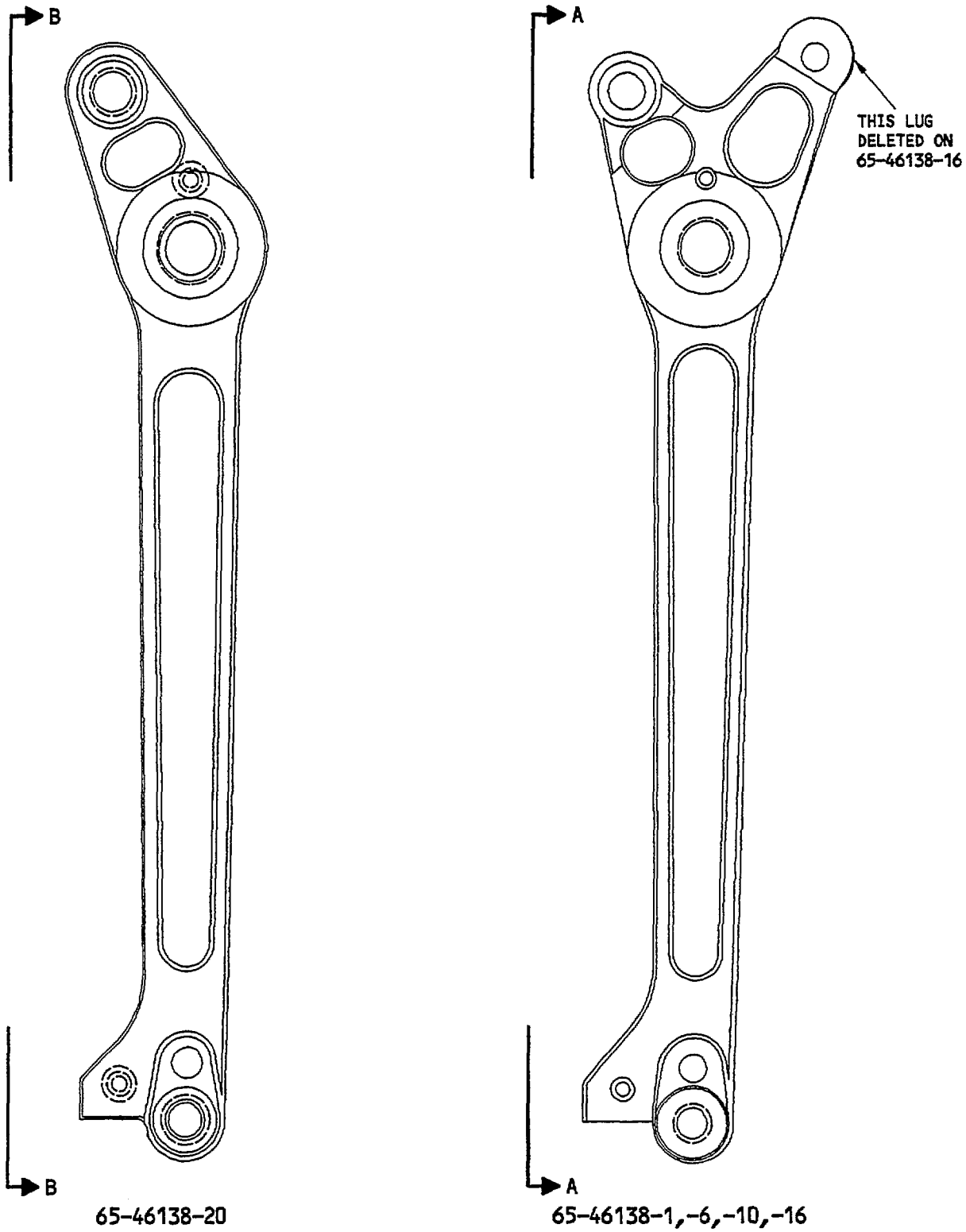
BREAK SHARP EDGES 0.01R MAX

ALL DIMENSIONS ARE IN INCHES

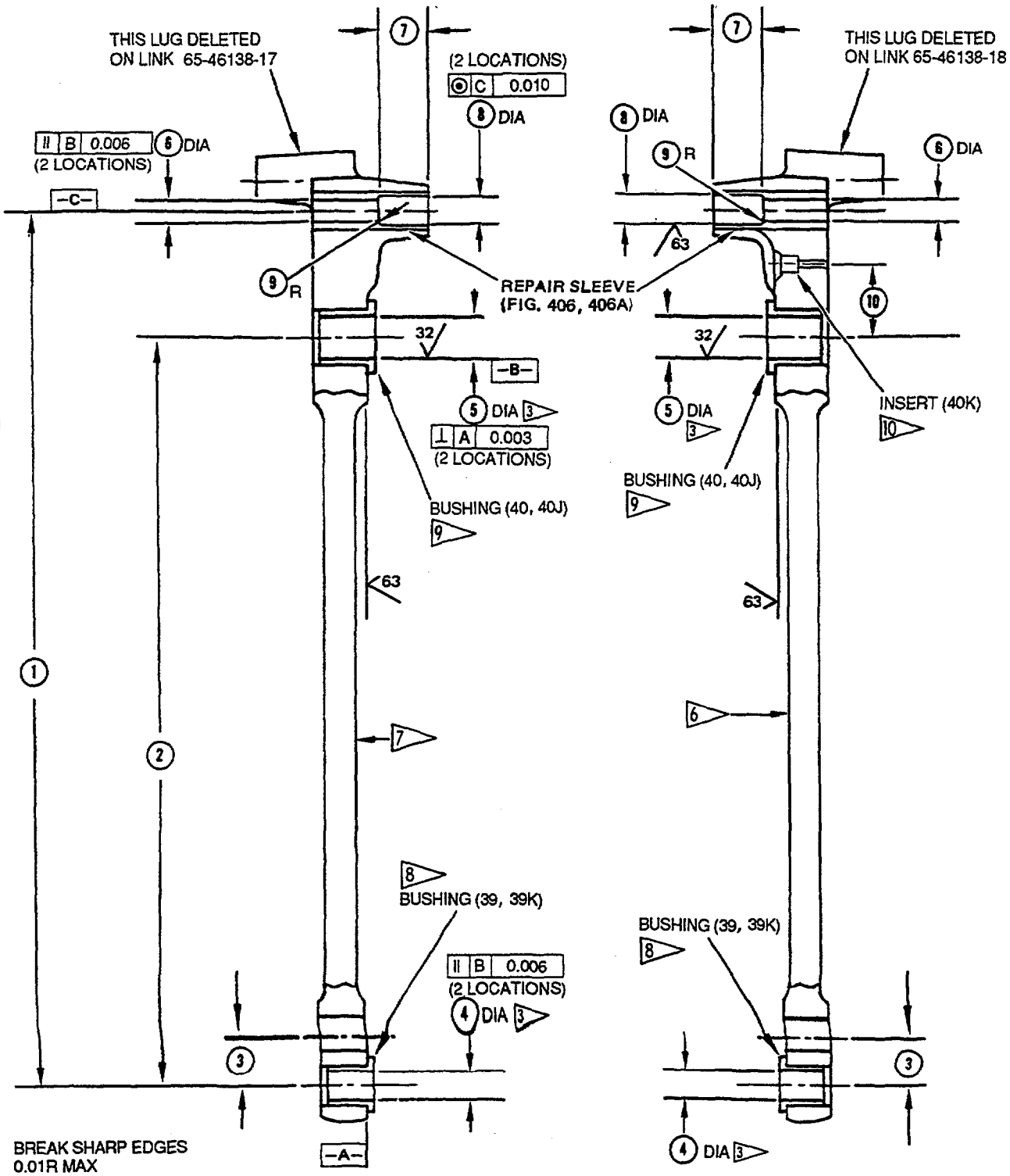
LINK ASSEMBLY (24)

Links and Universal Assemblies - Bushing Replacement
Figure 408 (Sheet 1)

1504387



LINK ASSEMBLY (38)
Links and Universal Assemblies - Bushing Replacement
Figure 408 (Sheet 2)



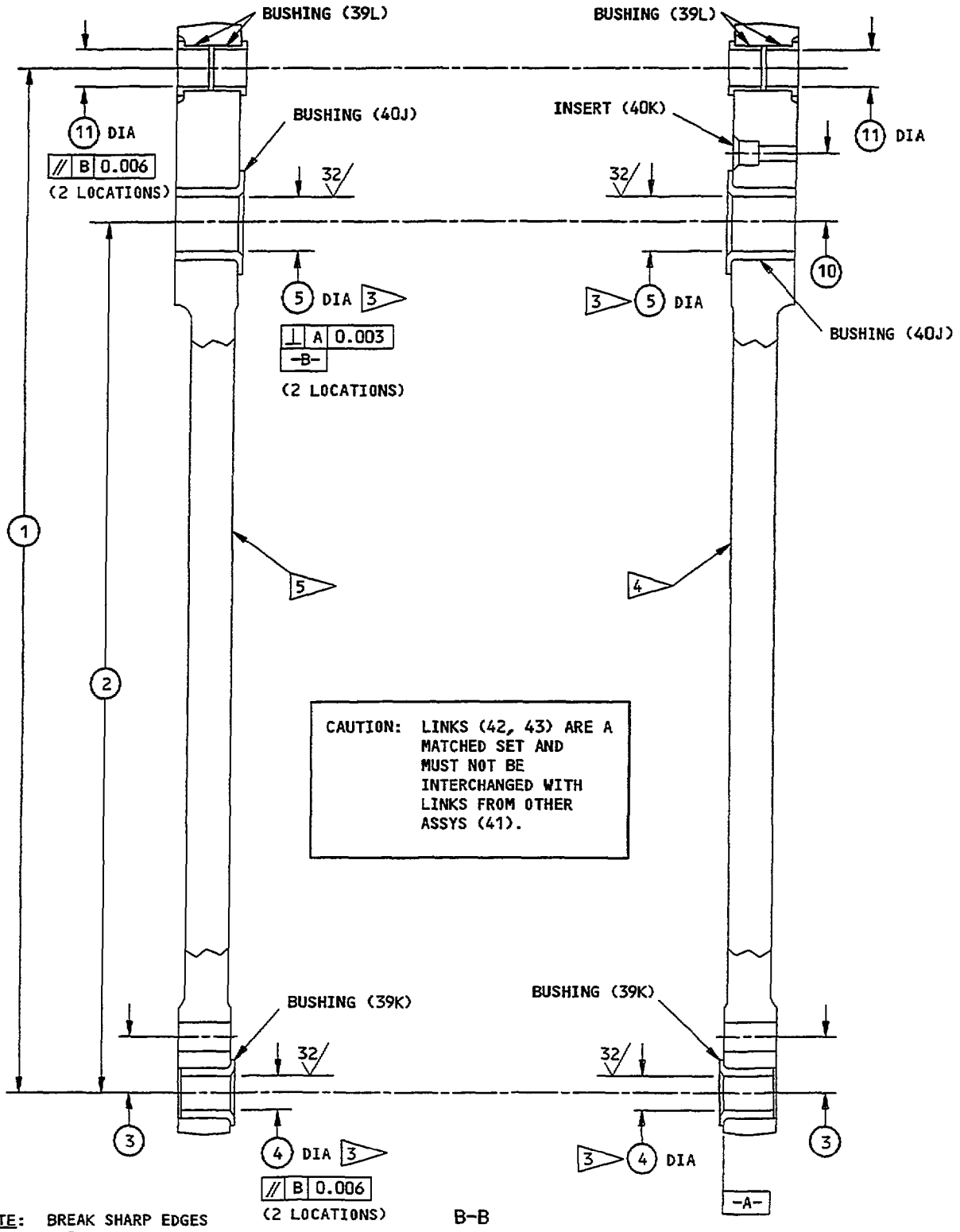
A–A

CAUTION: LINKS (42, 43) ARE A MATCHED SET AND MUST NOT BE INTERCHANGED WITH LINKS FROM OTHER ASSYS (41).

65–46138–1, –6, –10, –16

LINK ASSEMBLY (38)

Links and Universal Assemblies - Bushing Replacement
Figure 408 (Sheet 3)



NOTE: BREAK SHARP EDGES 0.01 R MAX

B-B

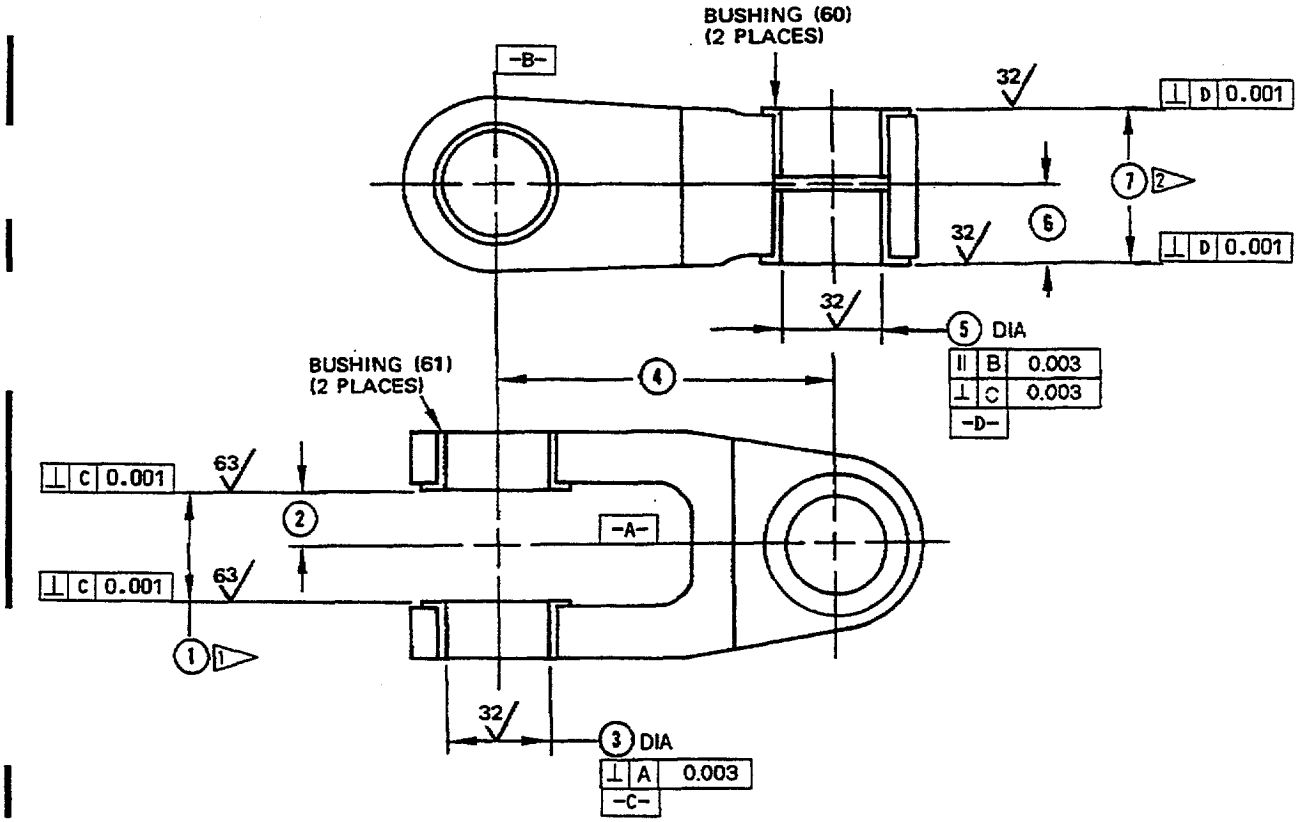
65-46138-20

LINK ASSEMBLY (38)

Links and Universal Assemblies - Bushing Replacement

Figure 408 (Sheet 4)

A10263



BREAK SHARP EDGES 0.01R MAX

ALL DIMENSIONS ARE IN INCHES.

65-46107-1, -3

UNIVERSAL ASSEMBY (59)

Links and Universal Assemblies - Bushing Replacement
Figure 408 (Sheet 5)

E87299

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)
65-46138-1, -6,-10,-16	DESIGN DIM	14.11 14.09	12.005 11.995	0.793 0.783	0.5025 0.5015	0.7525 0.7515	0.501 0.500	0.86 0.84 11	0.92 0.90 12
65-46138-20	DESIGN DIM	14.11 14.09	12.005 11.995	0.793 0.783	0.5025 0.5015	0.7525 0.7515	--	--	--

		(8)	(9)	(10)	(11)
65-46138-1, -6,-10,-16	DESIGN DIM	0.521 0.516	0.030 0.010	0.94 0.93 10	--
65-46138-20	DESIGN DIM	--	--	0.94 0.93	0.501 0.500

		(1)	(2)	(3)	(4)	(5)	(5)	(6)	(7)
65-46107 -1,-3	DESIGN DIM	1.380 1.375	0.688 0.683	1.251 1.250	4.005 3.995	1.251 1.250 13	1.3760 1.3750 14	0.843 0.832	1.686 1.681

1 DELETED

2 DELETED

3 LINE REAM THESE BORES WITH LINKS (42,43) TOGETHER AS A MATCHED SET

4 65-46138-22

5 65-46138-21

6 65-46138-3,-9,-12,-15,-18

7 65-46138-2,-8,-11,-17

8 FOR 65-46138-1 ONLY, INSTALL THIS BUSHING WITH FLANGE ON OPPOSITE SIDE OF LINK.

9 FOR 65-46138-1 ONLY, INSTALL THIS BUSHING WITH FLANGE ON OPPOSITE SIDE OF LINK.

10 65-46138-9,-12,-15,-18 ONLY

11 65-46138-1,-6 ONLY

12 65-46138-10,-16 ONLY

13 65-46107-1

14 65-46107-3

Link and Universal Assemblies - Bushing Replacement
Figure 408 (Sheet 6)

A10297

ASSEMBLY

1. Materials

NOTE: Equivalent substitutes can be used.

A. Grease — MIL-G-21164 (Ref 20-60-04)

B. Corrosion Preventive Compound — BMS 3-27 (Mastinox 6856K) (Ref 20-60-02)

C. Enamel — BMS 10-11, Type 2, color red (Ref 20-60-02)

2. General (Fig. 1101)

CAUTION: DO NOT USE GREASE ON BOLTS (23, 32) ON 65-73761-21 THRU -26 SIDE STRUTS (SB 32-1059 NOT INCORPORATED). MATING BUSHINGS ON THESE STRUTS ARE TEFLON LINED FABRIC, AND ENTRY OF GREASE OR OTHER LUBRICANTS MAY COLLECT FOREIGN MATTER WHICH WOULD DAMAGE THE LINER.

WARNING: BMS 3-27 CORROSION PREVENTIVE COMPOUND CONTAINS ASBESTOS, TOLUENE, XYLENE, STRONTIUM CHROMATE AND BARIUM CHROMATE. CONSULT APPROPRIATE SAFETY STANDARDS PERSONNEL FOR PROPER HANDLING PRECAUTIONS.

CAUTION: BMS 3-27 COMPOUND IS USED ONLY IN STATIC JOINTS WHERE GREASE CANNOT BE APPLIED. BMS 3-27 COMPOUND ON DYNAMIC JOINTS WILL NOT LET THEM TURN FREELY.

A. Lubricate all pins, shank of bolts, threads and washer surfaces with MIL-G-21164 grease except that on 65-73761-21 thru -26 side struts (SB 32-1059 not incorporated), omit grease on bolts (23, 32). Apply BMS 3-27 compound on bolt (36) undercut, shank, thread relief, threads and ends, on mating bores of link (41). Do not apply BMS 3-27 compound on outside diameter of spacers (37). Springs must be greased and free to turn (Fig. 500).

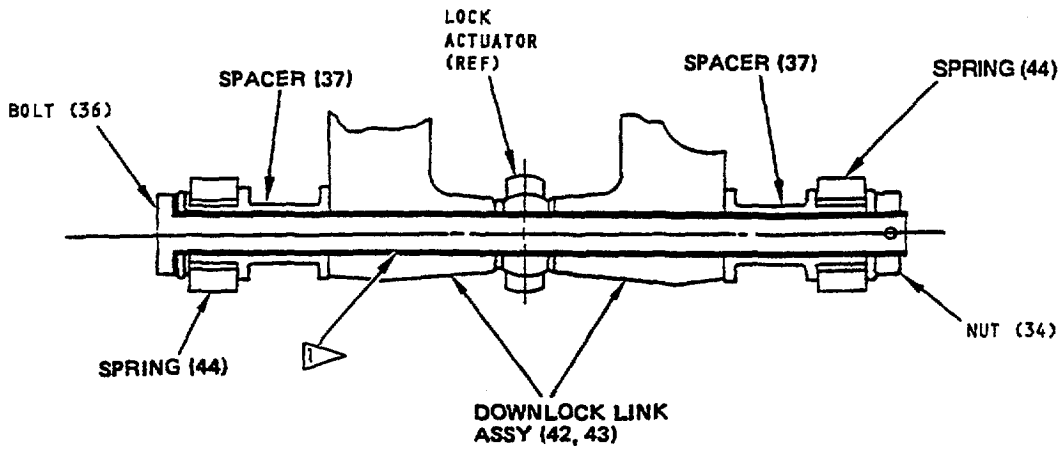
B. Apply MIL-G-21164 grease to all lube fittings after assembly completion.

C. Install all nuts with grease.

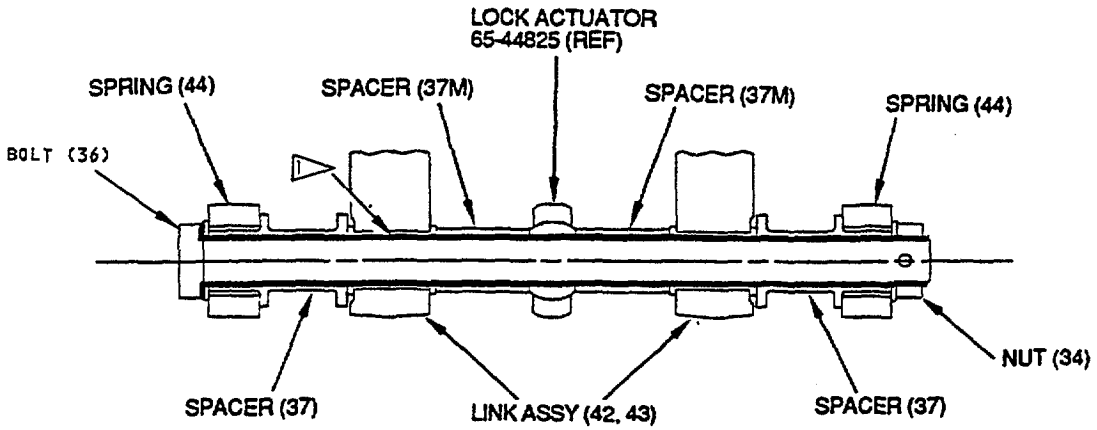
3. Assembly (Fig. 1101)

A. Position reaction link universal (59) on reaction link (63). Secure with parts (56 thru 54) with bolthead pointing upwards. Tighten nut (54) to driving torque plus 10-12 lb-ft (parts lubricated).

B. Assemble parts (53 thru 51) on universal (59). Do not tighten cap (52). Parts will be removed again for assembly on main gear.



65-46138-1, -6, -10, -16



65-46138-20
AND LINK ASSEMBLIES
MODIFIED PER FIG. 403A

1 APPLY BMS 3-27 COMPOUND TO AREAS AS INDICATED BY HEAVY BLACK LINES

C. Assemble upper downlock link (38) on reaction link (63) with parts (32A thru 28A) as applicable.

(1) Install bolt (32 or 32A) with head aft on LH strut assemblies, and with head forward on RH strut assemblies. On side struts 65-73761-43 and on, this will place bolt (32A) head on same side of link (38) as threaded hole for bolt (28A).

(2) On side struts 65-73761-43 and on, install keeper (28C) with bolt (28A), washer (28B).

(3) Tighten nut (30) to 100-150 lb-in, back off as necessary to align cotter pin holes, and install cotter pin (29).

NOTE: See Fig. 1101 for proper location of stops on downlock link.

D. Install downlock springs (44) on upper downlock link (38). Secure with parts (37K thru 33). Do not tighten nut (34).

NOTE: Other end of springs (44) will be secured and parts (37 thru 33) will be removed when side strut is installed in the airplane.

E. Position lower downlock link (24) on upper downlock link (38). Install bolt (23) with head aft on LH strut assemblies, and forward on RH strut assemblies. Secure with parts (22 thru 19A). Tighten nut (21) to 30-40 lb-in.

F. Position upper side strut (16) on reaction link (63). Secure with parts (13 thru 11). Tighten nut (11) to 500-800 lb-in. (parts lubricated).

CAUTION: VERIFY THAT BOLT (4) IS INSTALLED HEAD END AFT TO PRECLUDE POSSIBLE INTERFERENCE OF PARTS WHEN GEAR IS RETRACTED.

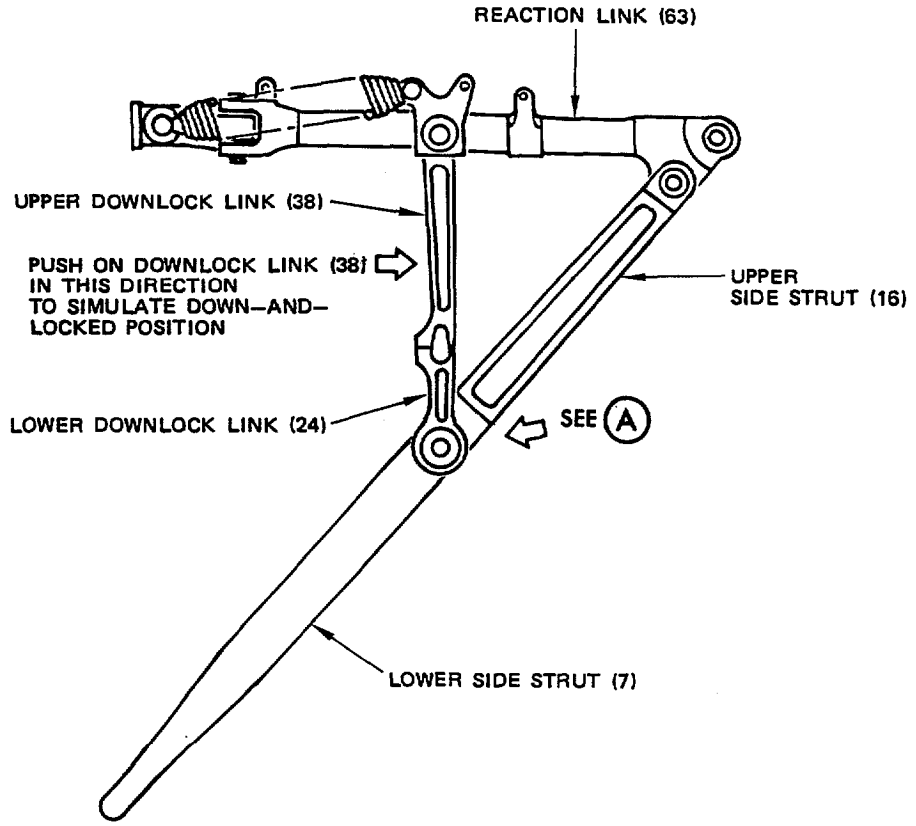
G. Position lower side strut (7) on upper side strut (16) and lower downlock link (24). Install bolt (4) (head end aft), washer (3), nut (2). Tignten nut (2) to 1000-1500 lb-in. (parts lubricated).

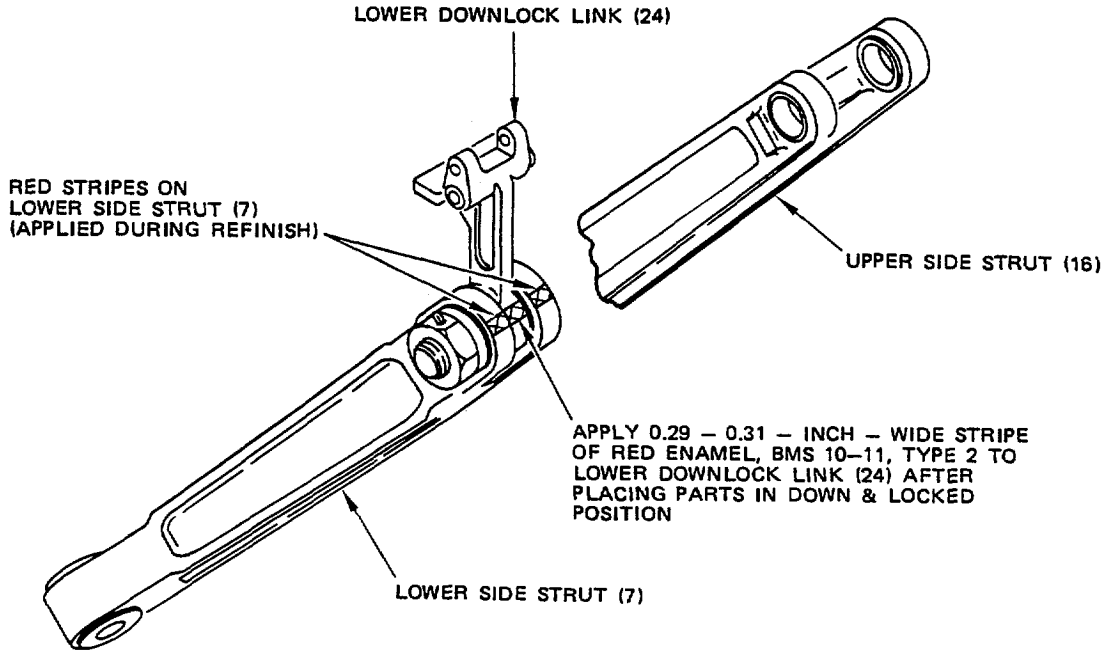
H. Position assembled strut as shown in Fig. 501. Push as indicated on downlock link (38) to place links (24, 38) against stops (overcenter) and simulate the side strut in the down and locked position. Apply 0.29-0.31 inch wide stripe of red enamel, BMS 10-11, type 2, to end of lug on downlock link (24) in line with red stripes on end of lugs on lower side strut (7) as shown.

4. Final Check (Fig. 1101)

A. Rotate lower side strut against upper side strut, lower downlock link (24) against upper downlock link, and turn reaction link universal (59) against reaction link (63). Check for rough movement or binding.

B. If parts bind or do not operate smoothly, disassemble and check for defective or improperly installed parts. Repair or replace parts as necessary.

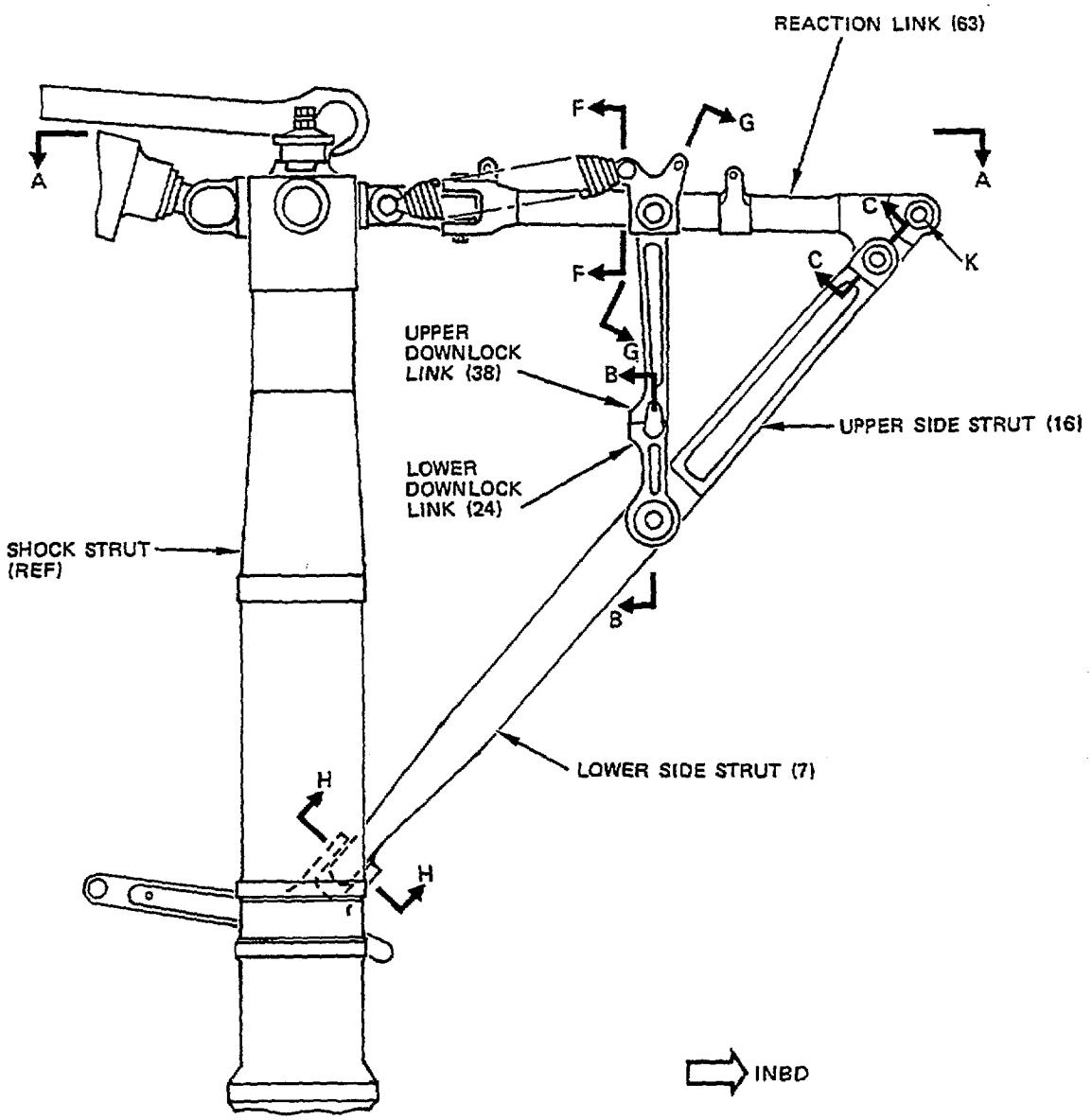




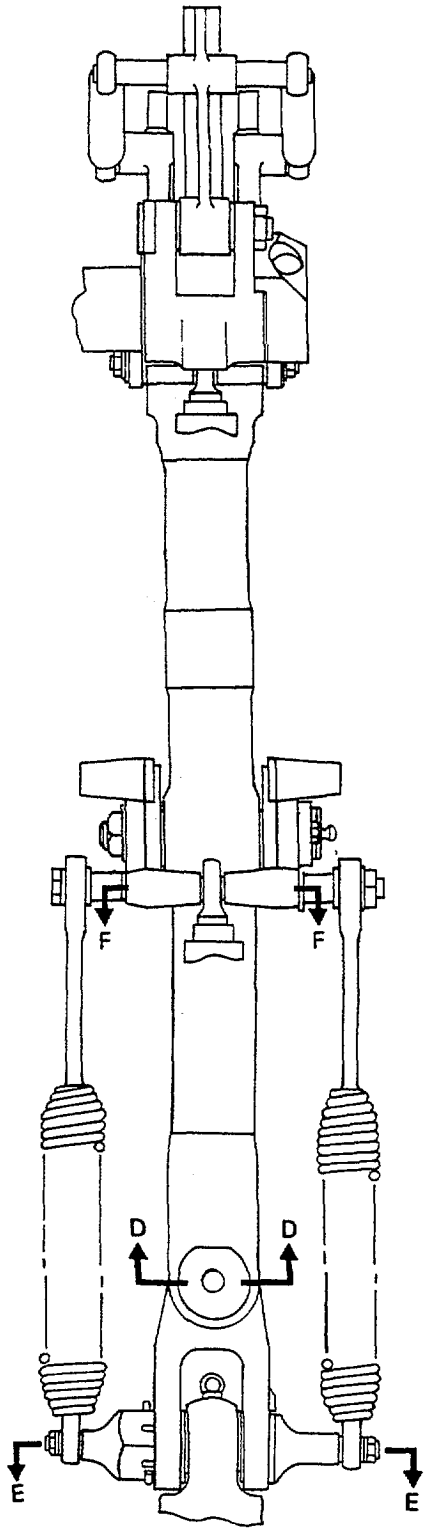
(A)

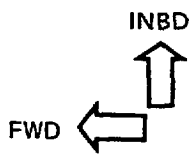
Alignment Identification
Figure 501

FITS AND CLEARANCES

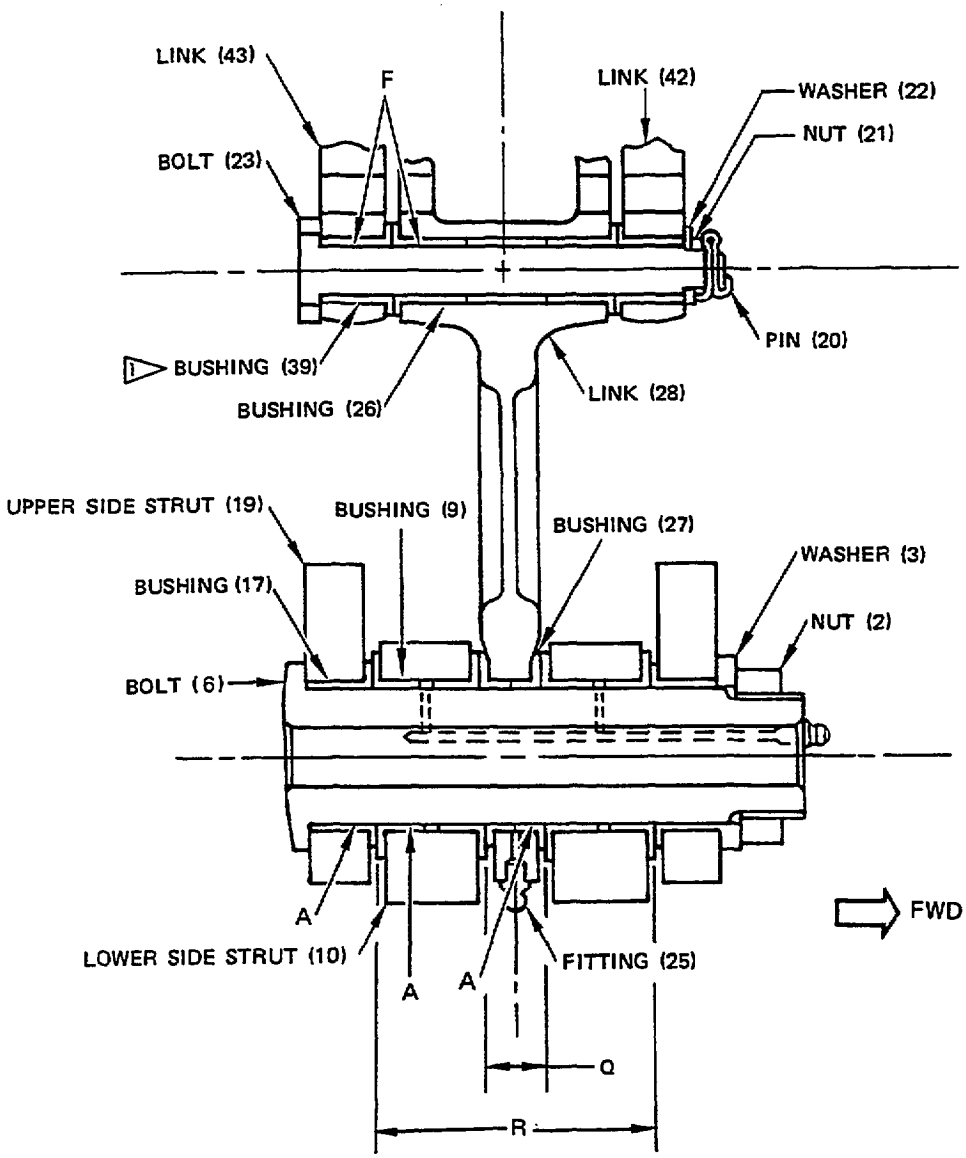


LH ASSEMBLY SHOWN
(VIEW LOOKING FORWARD)



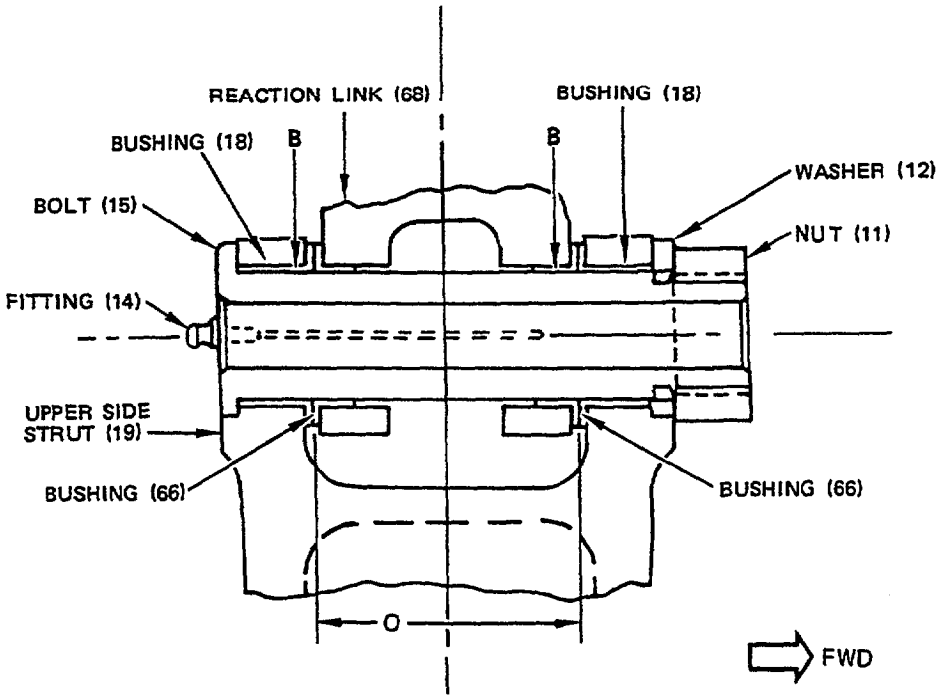


A–A

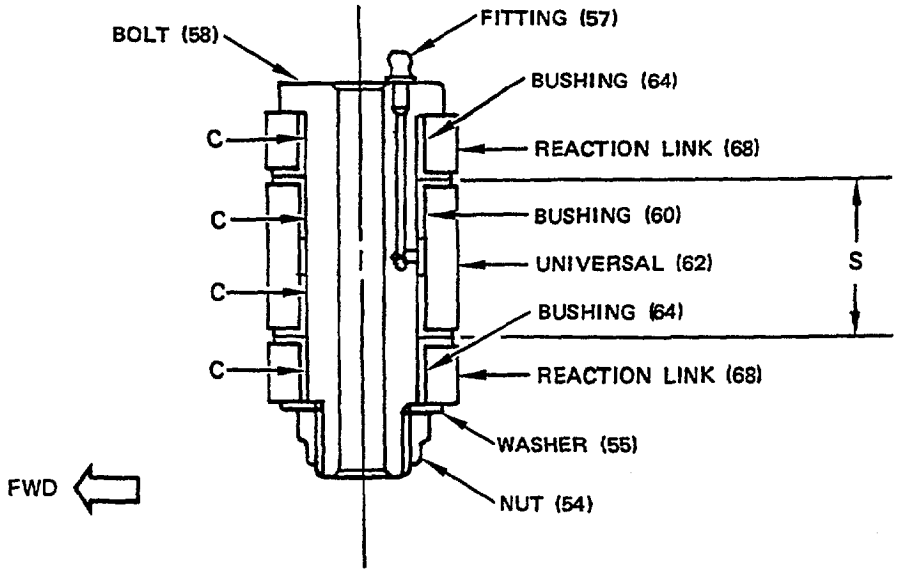


B–B

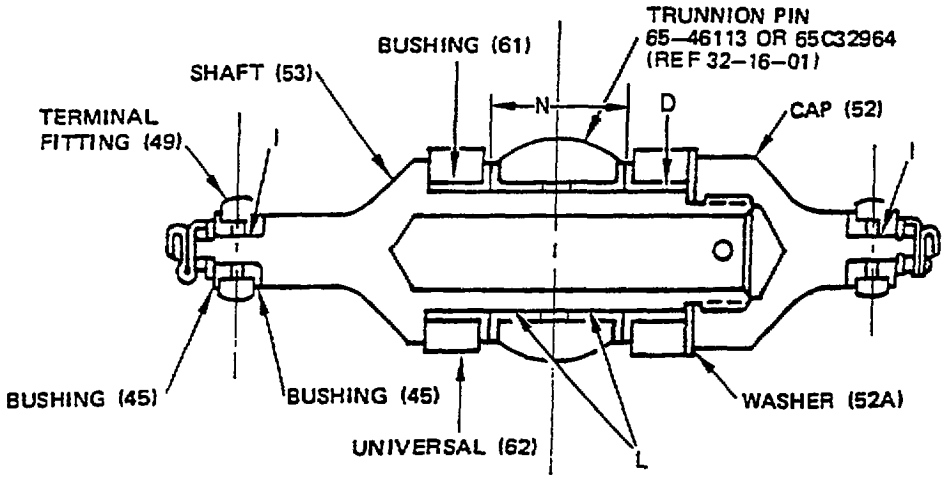
1 BUSHING (39) IS INSTALLED ON OPPOSITE SIDE OF LINK (42, 43) 65-73761-21 THRU -26 SIDE STRUT ASSEMBLY ONLY.

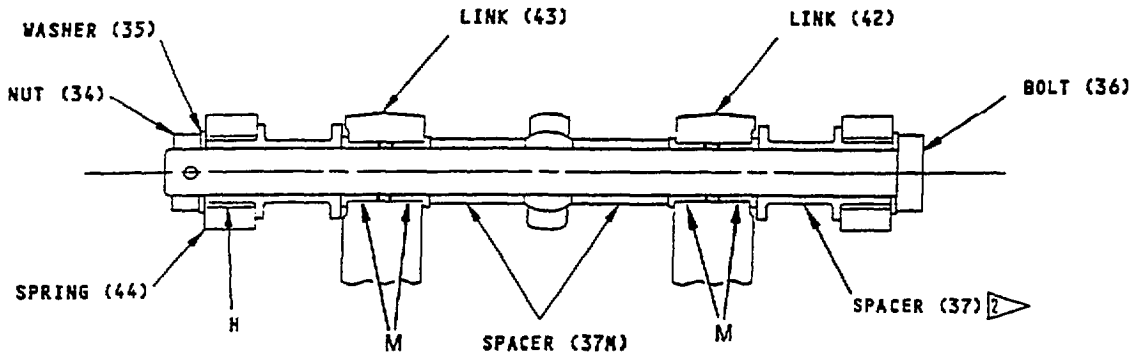

REACTION LINK (68)
BUSHING (18)
BUSHING (18)
B
B
WASHER (12)
BOLT (15)
NUT (11)
FITTING (14)
UPPER SIDE STRUT (19)
BUSHING (66)
BUSHING (66)
O
FWD

C–C

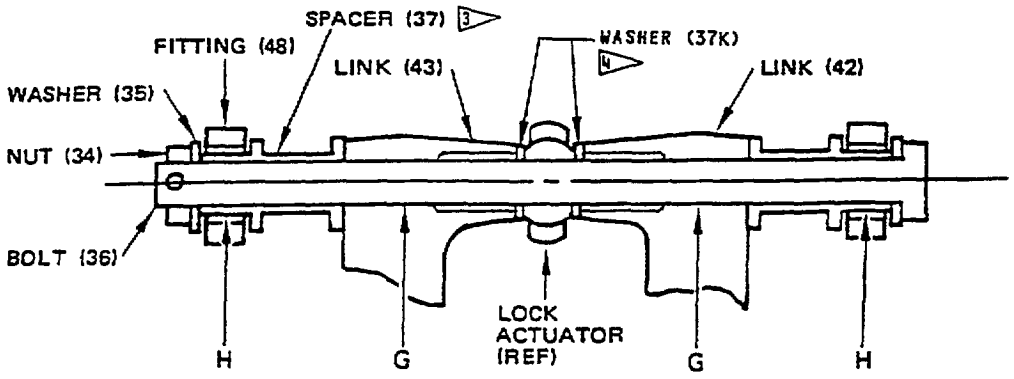

BOLT (58)
FITTING (57)
BUSHING (64)
C
REACTION LINK (68)
C
BUSHING (60)
C
UNIVERSAL (62)
S
C
BUSHING (64)
REACTION LINK (68)
WASHER (55)
FWD
NUT (54)

D–D





65-46138-20
AND LINK ASSEMBLIES
MODIFIED PER FIG. 403A

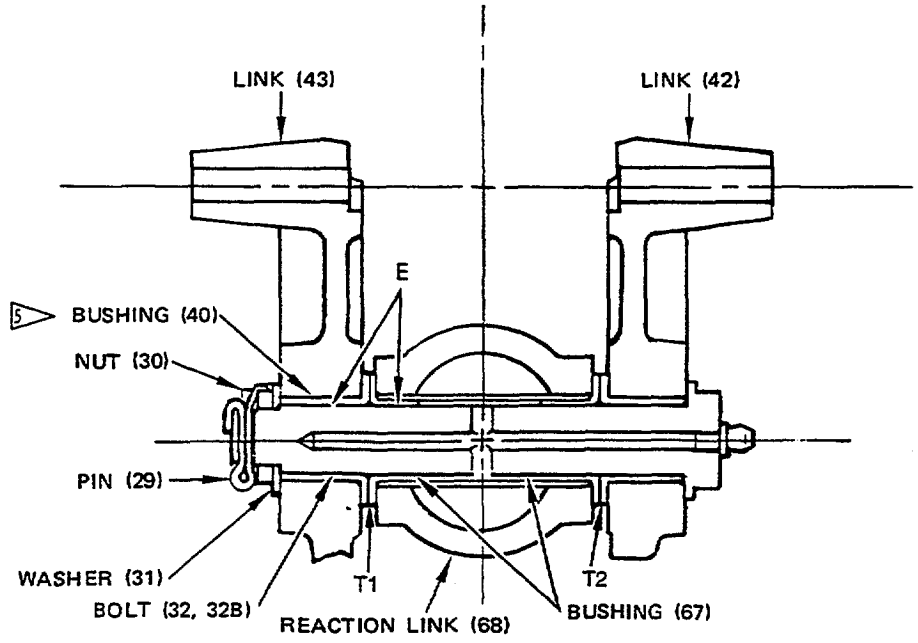


65-46138-1, -6, -10, -16
F-F

2 USE 69-51873-2 SPACERS ONLY

3 USE 69-51873-1 SPACERS WITH 65-46138-1 LINKS.
USE 69-51873-2 SPACERS WITH 65-46138-6, -10- -16 LINKS.

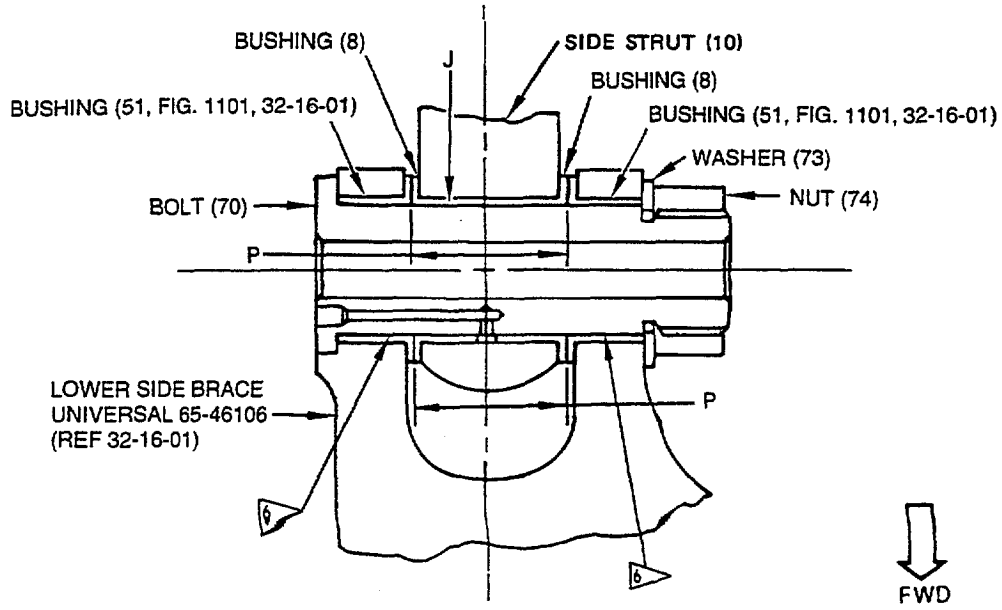
4 USE WITH 65-46138-6 LINKS ONLY



G–G

FWD

T = TOTAL AXIAL CLEARANCE:
= SUM OF CLEARANCES
AT T1 AND T2



H–H

5 BUSHING (40) IS INSTALLED ON OPPOSITE SIDE OF LINK (42, 43)
65-73761-21 THRU -26 SIDE STRUT ASSEMBLY ONLY.

6 FOR DATA AT THESE LOCATIONS, REFER TO 32-16-01.

		Design Dimensions				Service Wear Limits		
Ref Letter Fig. 601	Mating Item No. Fig. 1101	Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
A *[1]	ID 9,17,27 OD 6	1.500 1.498	1.501 1.499	0.001	0.003	1.497	1.503	0.005
A *[2]	ID 9,17,27 OD 6	1.625 1.623	1.626 1.624	0.001	0.003	1.622	1.628	0.005
B *[1]	ID 18,66 OD 15	1.375 1.373	1.376 1.374	0.001	0.003	1.372	1.378	0.005
B *[2]	ID 18,66 OD 15	1.437 1.435	1.438 1.436	0.001	0.003	1.434	1.440	0.005
C *[1]	ID 60,64 OD 58	1.250 1.248	1.251 1.249	0.001	0.003	1.247	1.253	0.005
C *[2]	ID 60,64 OD 58	1.375 1.373	1.376 1.374	0.001	0.003	1.372	1.378	0.005
D	ID 61 OD 53	1.250 1.248	1.251 1.249	0.001	0.003	1.247	1.253	0.005
E	ID 67*[13],40 OD 32,32B	0.752 0.749	0.753 0.750	0.002	0.004	0.748	0.755	0.006
E	ID 67*[14], 40J OD 32,32B	0.7515 0.7490	0.7525 0.7500	0.0015	0.0035	0.7480	0.7550	0.0060
F	ID 39,39K,26 OD 23	0.5015 0.4990	0.5025 0.5000	0.0015	0.0035	0.4980	0.5050	0.0060
G	ID 42,43 OD 36	0.500 0.498	0.501 0.499	0.001	0.003	0.497	0.503	0.006

		Design Dimensions				Service Wear Limits		
Ref Letter Fig. 601	Mating Item No. Fig. 1101	Dimensions (inches)		Assembly Clearance (inch)		Dimension Limits (inches)		Maximum Allowable Clearance (inch)
		Min	Max	Min	Max	Min	Max	
H	ID 46 OD 37	0.626 0.620	0.627 0.623	0.003	0.007	0.619	0.630	0.011
I	ID 45 OD 52,53	0.3125 0.3090	0.3135 0.3100	0.0025	0.0045	0.3080	0.3165	0.0080
J *[1]	ID 8 OD 70	1.375 1.373	1.376 1.374	0.001	0.003	1.372	1.378	0.005
J *[2]	ID 8 OD 70	1.437 1.435	1.438 1.436	0.001	0.003	1.434	1.440	0.005
K *[1]	ID 65 OD *[10]	1.250 1.248	1.251 1.249	0.001	0.003	1.247	1.253	0.005
K *[2]	ID 65 OD *[11]	1.375 1.373	1.376 1.374	0.001	0.003	1.372	1.378	0.005
L	ID *[3] OD 53	1.250 1.248	1.251 1.249	0.001	0.003	1.247	1.252	0.005
M	ID 39L OD 36	0.500 0.498	0.501 0.499	0.001	0.003	0.497	0.503	0.005
N	*[4] 59 *[5] *[3]	1.375 1.371	1.380 1.374	0.001	0.009	1.369	1.384	0.013
O	*[4] 16 *[5] 63	2.880 2.864	2.895 2.874	0.006	0.031	2.854	2.900	0.040
P	*[4] *[6] *[5] 7	1.627 1.623	1.628 1.626	0.001	0.005	1.618	1.633	0.015

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	
Q	*[4] 7 *[5] 24	0.625 0.619	0.628 0.624	0.001	0.009	0.614	0.633	0.015
R	*[4] 16 *[5] 7	3.064 3.060	3.068 3.063	0.001	0.008	3.057	3.072	0.015
S	*[4] 63 *[5] 59	1.691 1.681	1.701 1.686	0.005	0.020	1.676	1.706	0.030
T *[7]	*[9] 63, 38	---	---	0.006	0.057	*[12]	*[12]	0.085
T *[8]	*[9] 63, 38	---	---	0.006	0.051	*[12]	*[12]	0.085

*[1] Side struts thru 65-73761-114
*[2] Side struts 65-73761-123,-124
*[3] Bushings on trunnion pin 65-46113 or 65C32964 (Ref 32-16-01)
*[4] Dimension between inner flange faces of bushings, or inner lug faces
*[5] Dimension between outer flange faces of bushings, or outer lug faces
*[6] Side strut attachment lugs on lower side brace universal 65-46106 (Ref 32-16-01)
*[7] Assemblies with 65-46138-6,-10,-16 upper downlock links
*[8] Assemblies with 65-46138-20 upper downlock links
*[9] Total axial clearance
*[10] Reaction link bolt 69-38993 (Ref 32-16-31)
*[11] Reaction link bolt 65C33723 (Ref 32-16-31)
*[12] Minimum bushing flange thickness 0.053
*[13] Bushings on reaction link assemblies 65-46135-1,-3,-5
*[14] Bushings on reaction link assemblies 65-46135-7 and subsequent

Fits and Clearances
Figure 601 (Sheet 9)

FOR TORQUE VALUES OF STANDARD FASTENERS, REFER TO 20-50-01			
FIG. 1101 ITEM NO.	NAME	TORQUE *[1]	
		POUND-INCHES	POUND-FEET
2	Nut	1000-1500	
11	Nut	500-800	
21	Nut	30-40	
30	Nut	100-150*[2]	
54	Nut		10-12*[3]

*[1] Parts lubricated
*[2] Back off, as necessary, to nearest castellation to install cotter pin.
*[3] Above driving torque

Torque Table
Figure 602

ILLUSTRATED PARTS LIST

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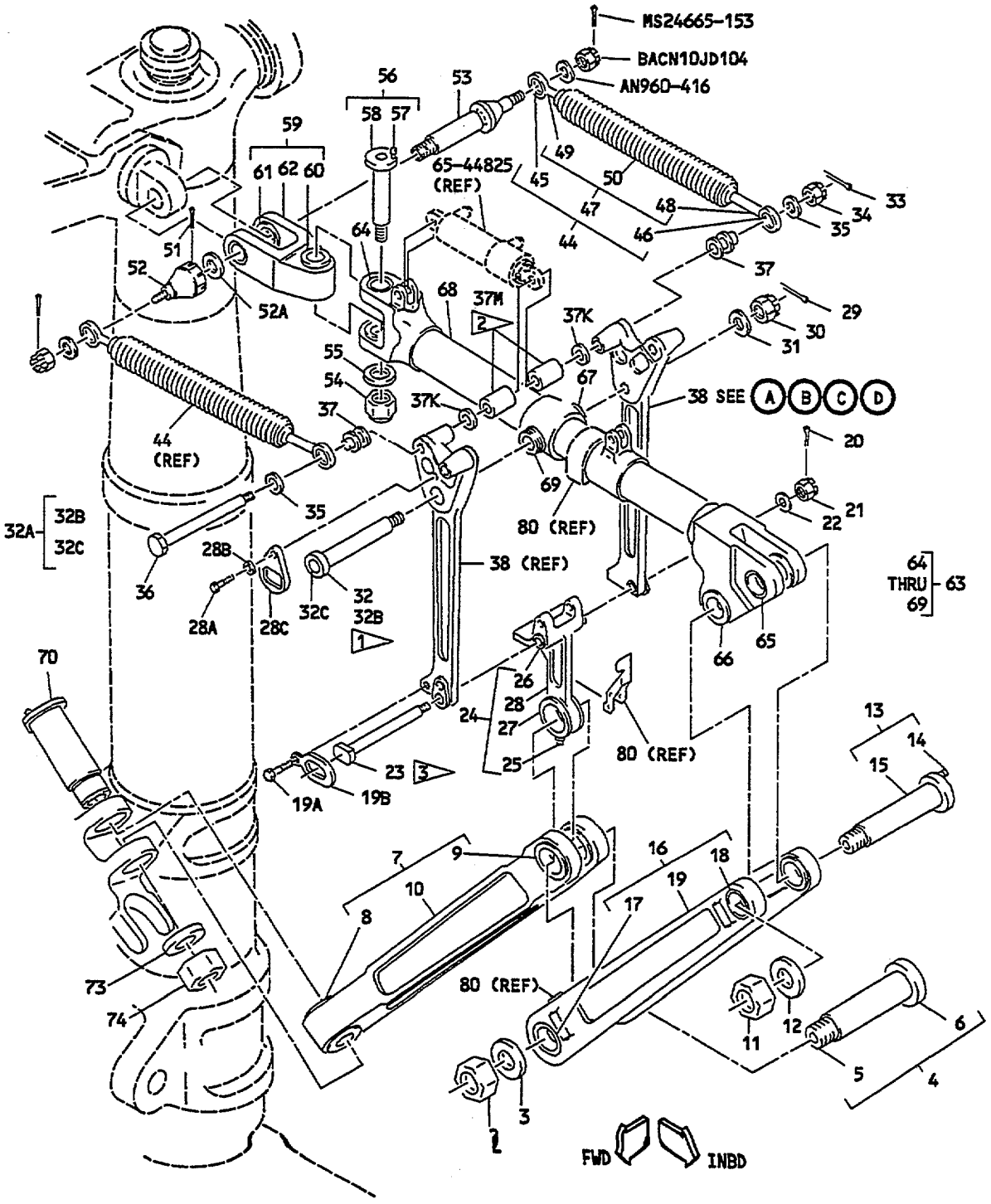


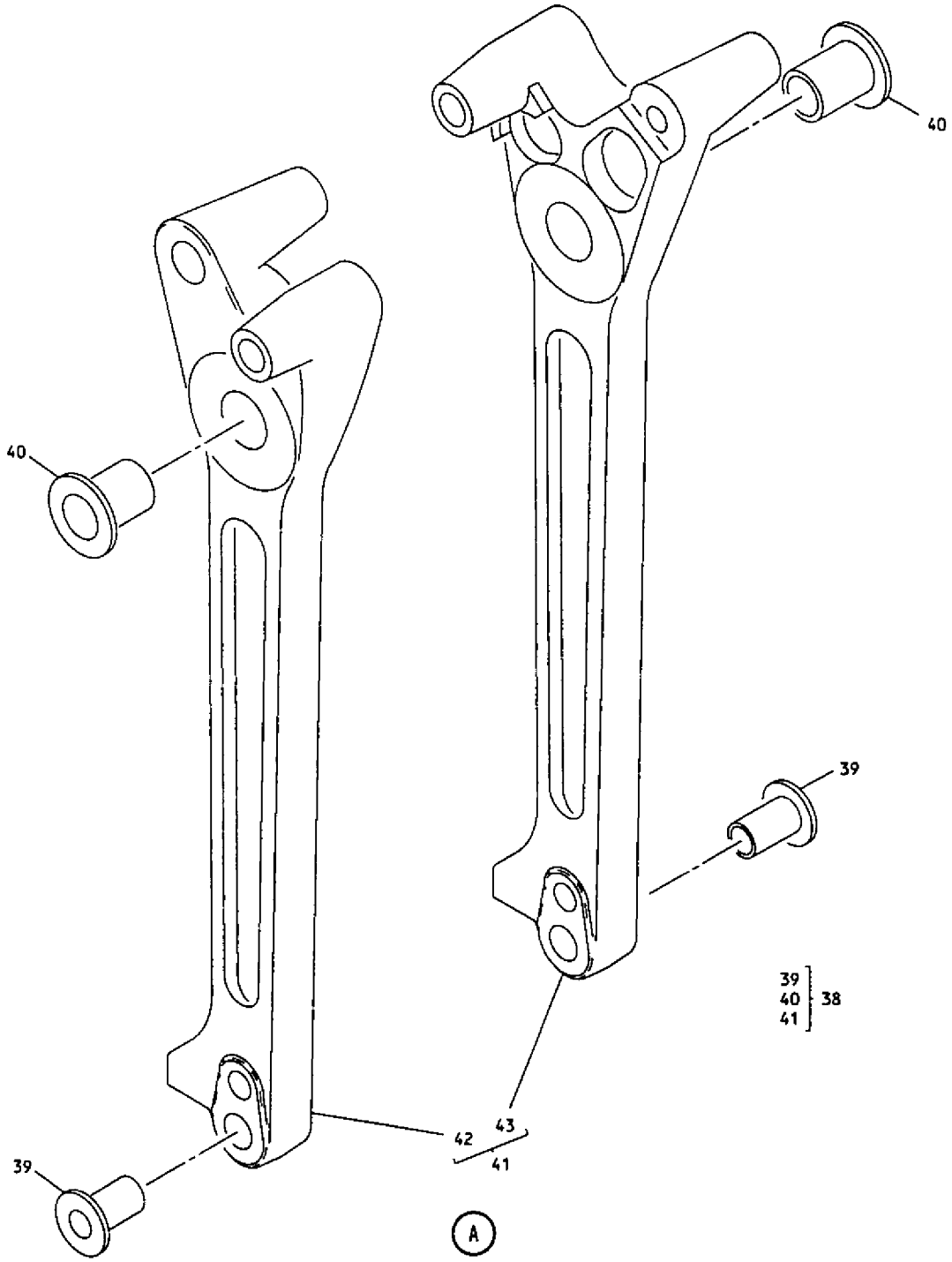
1 INSTALL BOLT WITH HEAD AFT ON ALL LH ASSYS (ODD-NUMBER DASH NUMBERS). ON LH ASSYS, 65-73761-43 AND ON, THIS WILL PUT THE BOLT HEAD ON THE SAME SIDE AS THE THREADED HOLE FOR KEEPER BOLT (28A)

2 USED WITH 65-46138-20 AND LINK ASSEMBLIES MODIFIED PER FIG. 403A

3 INSTALL BOLT WITH HEAD AFT ON ALL LH ASSYS (ODD-NUMBERED DASH NUMBERS)

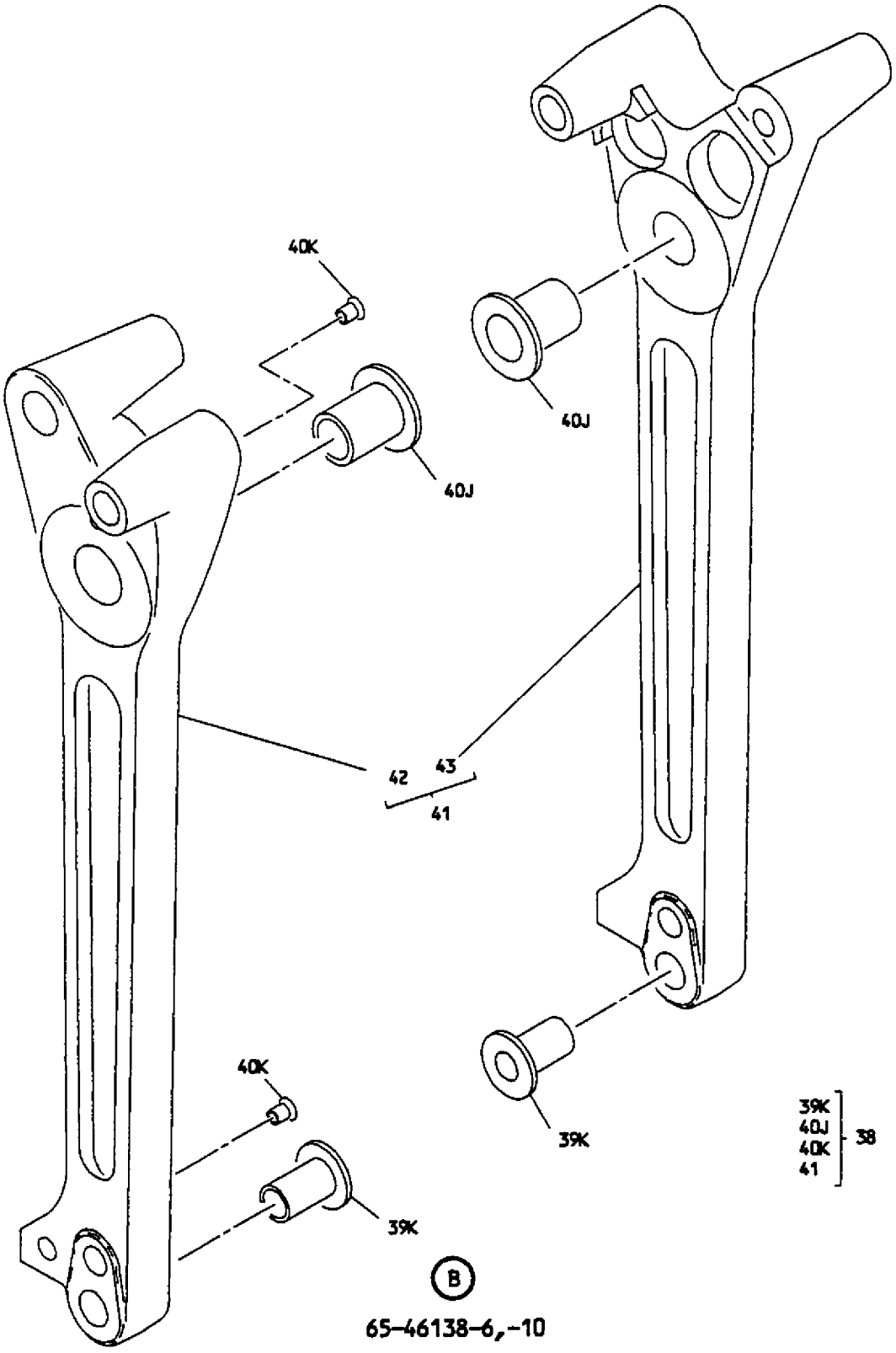
Main Gear Side Strut Assembly
Figure 1101 (Sheet 1)

A71070



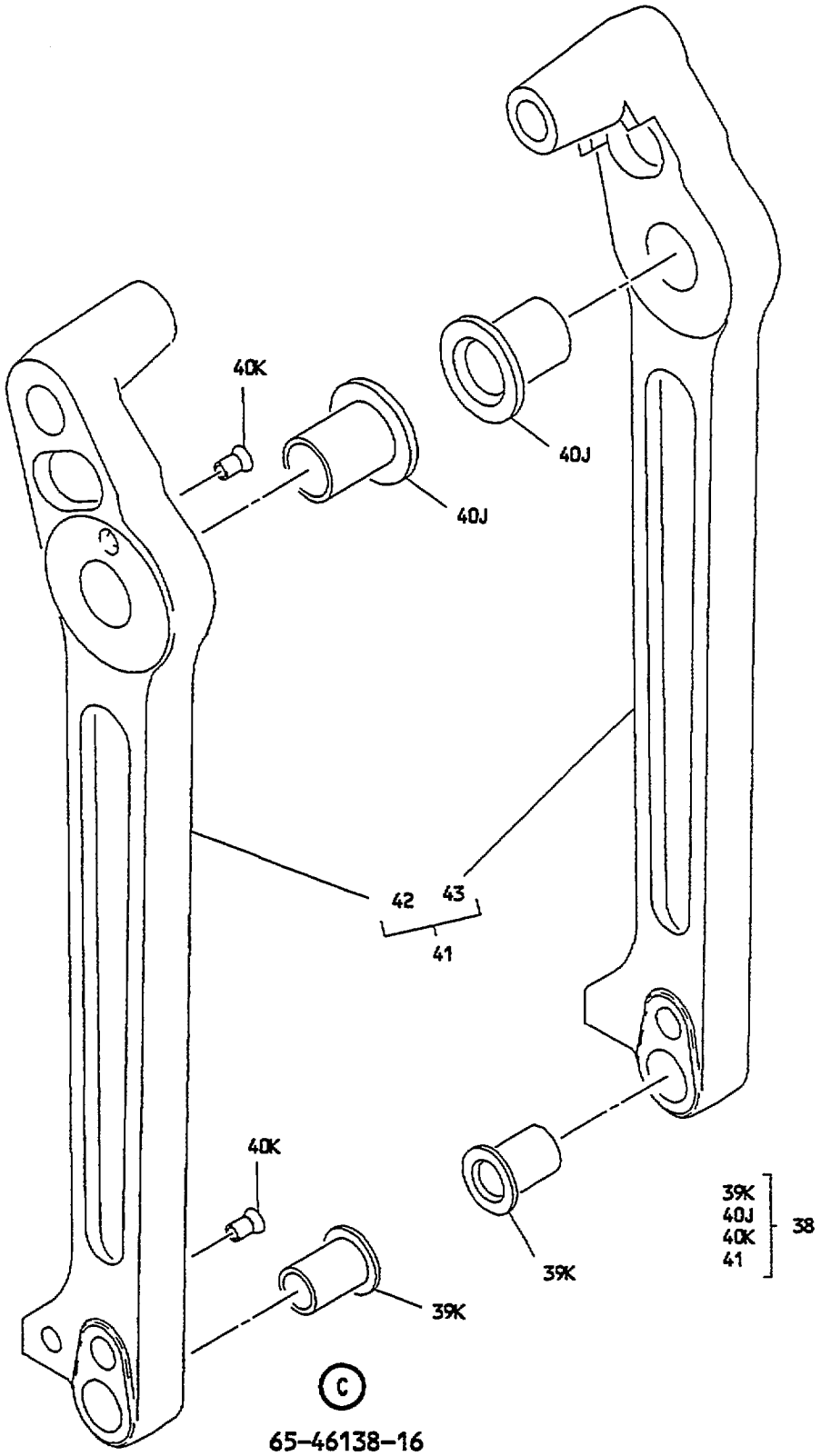
65-46138-1
(PRE SB 32-1059)

Main Gear Side Strut Assembly
Figure 1101 (Sheet 2)



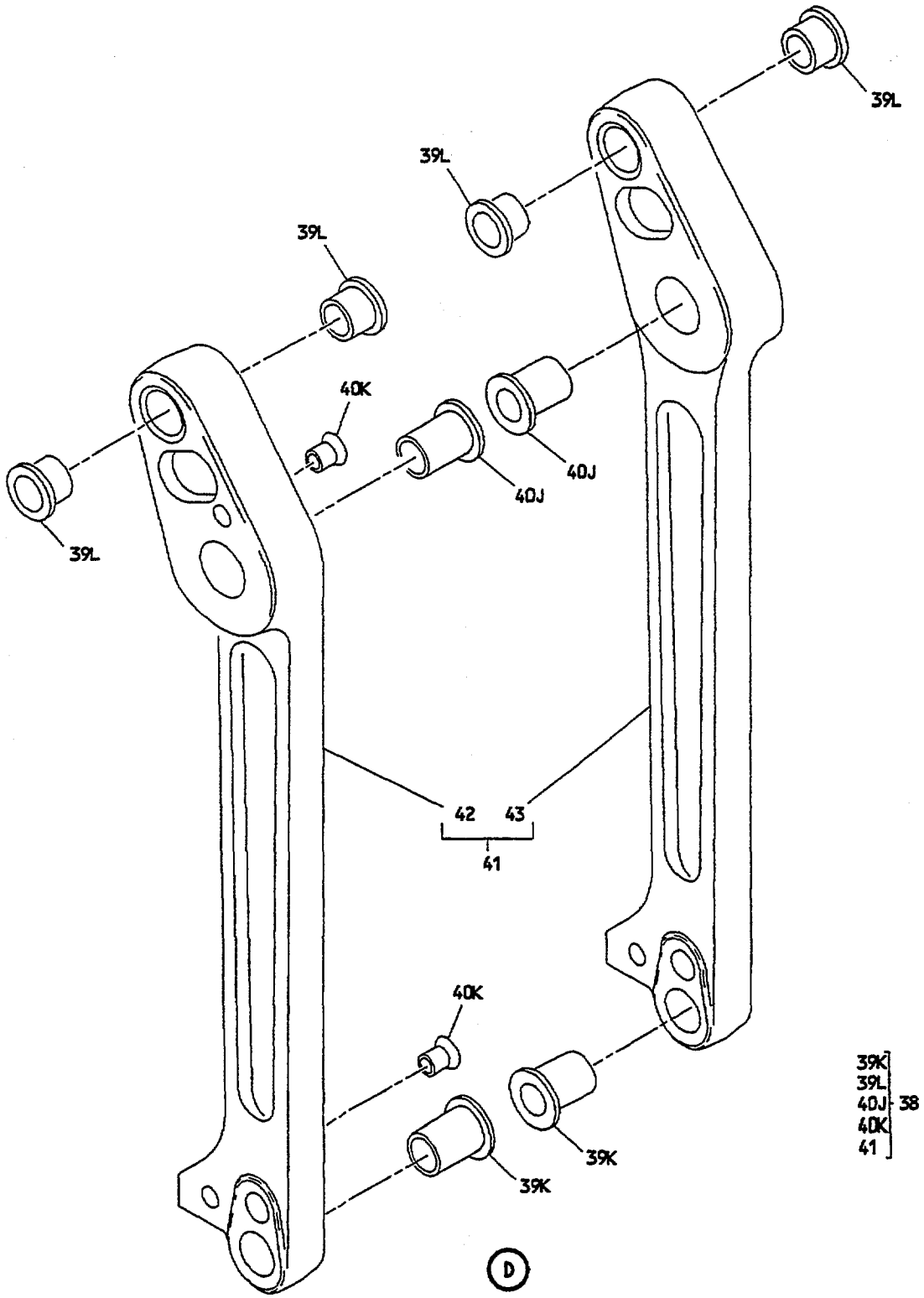
65-46138-6,-10

Main Gear Side Strut Assembly
Figure 1101 (Sheet 3)



65-46138-16
Main Gear Side Strut Assembly
Figure 1101 (Sheet 4)

A10313



65-46138-20
Main Gear Side Strut Assembly
Figure 1101 (Sheet 5)

E06105

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
1	65-73761-21		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	A	RF
1	65-73761-22		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	B	RF
1	65-73761-23		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	C	RF
1	65-73761-24		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	D	RF
1	65-73761-25		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	E	RF
1	65-73761-26		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	F	RF
1	65-73761-43		SIDE STRUT ASSY, MAIN GEAR, LH (SB 32-1059) *[1]	G	RF
1	65-73761-44		SIDE STRUT ASSY, MAIN GEAR, RH (SB 32-1059) *[1]	H	RF
1	65-73761-45		SIDE STRUT ASSY, MAIN GEAR, LH (SB 32-1059) *[1]	I	RF
1	65-73761-46		SIDE STRUT ASSY, MAIN GEAR, RH (SB 32-1059) *[1]	J	RF
1	65-73761-47		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	K	RF
1	65-73761-48		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	L	RF
1	65-73761-49		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	M	RF
1	65-73761-50		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	N	RF
1	65-73761-55		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	O	RF
1	65-73761-56		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	P	RF
1	65-73761-77		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	Q	RF
1	65-73761-78		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	R	RF
1	65-73761-85		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	S	RF
1	65-73761-86		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	T	RF
1	65-73761-93		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	U	RF
1	65-73761-94		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	V	RF
1	65-73761-95		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	W	RF
1	65-73761-96		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	X	RF
1	65-73761-103		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	Y	RF
1	65-73761-105		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	Z	RF
1	65-73761-106		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	BA	RF
1	65-73761-111		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	CA	RF
1	65-73761-112		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	DA	RF
1	65-73761-113		SIDE STRUT ASSY, MAIN GEAR, LH *[1]	EA	RF
1	65-73761-114		SIDE STRUT ASSY, MAIN GEAR, RH *[1]	FA	RF
1	65-73761-123		SIDE STRUT ASSY, MAIN GEAR, LH	GA	RF
1	65-73761-124		SIDE STRUT ASSY, MAIN GEAR, RH	HA	RF
2	BACN10JC20		. NUT (REPLS BACN10BY520) *[2]	A-FA	1
2	BACN10JC18		. NUT (REPAIR PART) *[4]	STY-FA	1
2	BACN10JC22		. NUT	GA HA	1
2	BACN10JC20		. NUT (REPAIR PART) *[5]	GA HA	1
3	66-24445-2		. WASHER, SPACER *[2]	A-FA	1
3	69-77534-1		. WASHER, SPACER *[3]	GA HA	1
4	69-52899-1		. BOLT ASSY, SIDE STRUT	A-R	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
4	69-68150-1		. BOLT ASSY, SIDE STRUT (PRE SB 32-1232)	STY-DA	1
4	69-68150-1		. BOLT ASSY, SIDE STRUT (OPT TO 69-68150-3) (PRE SB 32-1232)	EA FA	1
4	69-68150-3		. BOLT ASSY, SIDE STRUT (SERIALIZED) (OPT TO 69-68150-1) (PRE SB 32-1232)	EA FA	1
4	69-77523-1		. BOLT ASSY, SIDE STRUT (POST SB 32-1232)	STY-FA	1
4	69-77523-1		. BOLT ASSY, SIDE STRUT (OPT TO 69-77523-3)	GA HA	1
4	69-77523-3		. BOLT ASSY, SIDE STRUT (SERIALIZED) (OPT TO 69-77523-1)	GA HA	1
5	1645B		. . FITTING, LUBE, V95879 (USED ON 69-52899-1)		1
5	1728B		. . FITTING, LUBE, V95879 (USED ON 69-68150-1,-3, 69-77523-1,-3)		1
6	69-52899-2		. . BOLT (USED ON 69-52899-1)		1
6	69-68150-2		. . BOLT (USED ON 69-68150-1)		1
6	69-68150-4		. . BOLT (USED ON 69-68150-3) (SERIALIZED)		1
6	69-77523-2		. . BOLT (USED ON 69-77523-1)		1
6	69-77523-4		. . BOLT (USED ON 69-77523-3) (SERIALIZED)		1
7	65-63397-1		. STRUT ASSY, LOWER SIDE	A-DGH KL	1
7	65-63397-3		. STRUT ASSY, LOWER SIDE	EFIJ M-R U-X	1
7	65-63397-5		. STRUT ASSY, LOWER SIDE	STY	1
7	65-63397-7		. STRUT ASSY, LOWER SIDE	Z BA	1
7	65-63397-9		. STRUT ASSY, LOWER SIDE (PRE SB 32-1232)	CA-FA	1
7	65-63397-10		. STRUT ASSY, LOWER SIDE (POST SB 32-1232)	GA HA	1
8	65-46150-27		. . BUSHING (USED ON 65-63397-1,-3, -5,-7, -9)		2
8	65-46150-113		. . BUSHING (USED ON 65-63397-10)		2
9	65-46150-28		. . BUSHING (USED ON 65-63397-1,-3)		4
9	65-46150-84		. . BUSHING (USED ON 65-63397-5, -7,-9)		4
9	65-46150-114		. . BUSHING (USED ON 65-63397-10)		4
10	65-63397-2		. . STRUT (USED ON 65-63397-1)		1
10	65-63397-4		. . STRUT (USED ON 65-63397-3)		1
10	65-63397-6		. . STRUT (USED ON 65-63397-5,-7)		1
10	65-63397-8		. . STRUT (USED ON 65-63397-9)		1
10	65-63397-11		. . STRUT (USED ON 65-63397-10)		1
11	BACN10JC16		. NUT, SELF-LOCKING (REPLS BACN10BY516)	A-FA	1
11	BACN10JC18		. NUT	GA HA	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
12	66-24447-2		. WASHER, SPACER (PRE SB 32-1232)	A-FA	1
12	69-77535-1		. WASHER, SPACER (POST SB 32-1232)	GA HA	1
13	69-52898-1		. BOLT ASSY, UPPER SIDE STRUT	A-R U-X	1
13	69-68149-1		. BOLT ASSY, UPPER SIDE STRUT (PRE SB 32-1232)	STY-DA	1
13	69-68149-1		. BOLT ASSY, UPPER SIDE STRUT (OPT TO 69-68149-3)	EA FA	1
13	69-68149-3		. BOLT ASSY, UPPER SIDE STRUT (OPT TO 69-68149-1) (SERIALIZED)	EA FA	1
13	69-77522-1		. BOLT ASSY, UPPER SIDE STRUT (POST SB 32-1232)(OPT TO 69-77522-3)	GA HA	1
13	69-77522-3		. BOLT ASSY, UPPER SIDE STRUT (OPT TO 69-77522-1) (SERIALIZED)	GA HA	1
14	1645B		. . FITTING, LUBE, V95879 (USED ON 69-52898-1)		1
14	1728B		. . FITTING, LUBE, V95879 (USED ON 69-68149-1,-3, 69-77522-1,-3)		1
15	69-52898-2		. . BOLT (USED ON 69-52898-1)		1
15	69-68149-2		. . BOLT (USED ON 69-68149-1)		1
15	69-68149-4		. . BOLT (USED ON 69-68149-3) (SERIALIZED)		1
15	69-77522-2		. . BOLT (USED ON 69-77522-1)		1
15	69-77522-4		. . BOLT (USED ON 69-77522-3) (SERIALIZED)		1
16	65-46133-1		. STRUT ASSY, UPPER SIDE (PRE SB 32-1093)	A-DGH KL	1
16	65-46133-3		. STRUT ASSY, UPPER SIDE (PRE SB 32-1093)	EFIJ M-R	1
16	65-46133-5		. STRUT ASSY, UPPER SIDE (POST SB 32-1093)(PRE SB 32-1232)	A-R	1
16	65-46133-5		. STRUT ASSY, UPPER SIDE (PRE SB 32-1232)	S-FA	1
16	65-46133-7		. STRUT ASSY, UPPER SIDE (POST SB 32-1232)	GA HA	1
17	65-46150-41		. . BUSHING (USED ON 65-46133-1, -3,-5)		2
17	65-46150-111		. . BUSHING (USED ON 65-46133-7)		2
18	65-46150-42		. . BUSHING (USED ON 65-46133-1, -3,-5)		2
18	65-46150-112		. . BUSHING (USED ON 65-46133-7)		2
19	65-46133-2		. . STRUT (USED ON 65-46133-1)		1
19	65-46133-4		. . STRUT (USED ON 65-46133-3)		1
19	65-46133-6		. . STRUT (USED ON 65-46133-5)		1
19	65-46133-8		. . STRUT (USED ON 65-46133-7)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
19A	BACB30LU3-8		. BOLT (POST SB 32-1059)		1
19A	BACB30LU3-9		. BOLT	G-HA	1
19B	69-62795-1		. BRACKET, ANTIROTATION (THICK) (POST SB 32-1059) (OPT)		1
19B	69-62795-3		. BRACKET, ANTIROTATION (THIN)	G-HA	1
20	MS24665-304		. PIN, COTTER		1
21	BACN10JD107		. NUT, CASTELLATED (REPLS AN320-7)		1
22	BACW10ASP7		. WASHER (REPLS AN960-716) (SB 32-1059)		1
23	69-41629-1		. BOLT, DOWNLOCK PIVOT		1
23	69-41629-2		. BOLT, DOWNLOCK PIVOT (LIMITED) (SERIALIZED)		1
24	65-46139-1		. LINK ASSY, LOWER DOWNLOCK (PRE SB 32-1093)	A-F	1
24	65-46139-4		. LINK ASSY, LOWER DOWNLOCK (PRE SB 32-1093)	G-J	1
24	65-46139-6		. LINK ASSY, LOWER DOWNLOCK (PRE SB 32-1093)	K-R	1
24	65-46139-9		. LINK ASSY, LOWER DOWNLOCK (POST SB 32-1093)	A-R	1
24	65-46139-9		. LINK ASSY, LOWER DOWNLOCK (PRE SB 32-1232)	S-DA	1
24	65-46139-9		. LINK ASSY, LOWER DOWNLOCK (OPT TO 65-46139-14) (PRE SB 32-1232)	EA FA	1
24	65-46139-12		. LINK ASSY, LOWER DOWNLOCK (OPT TO 65-46139-16)	GA HA	1
24	65-46139-12		. LINK ASSY, LOWER DOWNLOCK (POST SB 32-1232)	S-DA	1
24	65-46139-14		. LINK ASSY, LOWER DOWNLOCK (OPT TO 65-46139-9) (SERIALIZED)	EA FA	1
24	65-46139-16		. LINK ASSY, LOWER DOWNLOCK (OPT TO 65-46139-12) (SERIALIZED)	GA HA	1
25	1645B		. . FITTING, LUBE, V95879 (USED ON 65-46139-1)		1
25	1645B		. . FITTING, LUBE, V95879 (USED ON 65-46139-4,-6,-9,-12,-14,-16)		2
26	AJF08A111		. . BUSHING, V50294 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	DBAF8-149		. . BUSHING, V81376 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	FBJW6TF22-22		. . BUSHING, V21335 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	FBR8A23BA		. . BUSHING, V73134 (BOEING 10-60516-217)(USED ON 65-46139-1)		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
26	KJN8-31		. . BUSHING, V97613 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	NHLF08-202A		. . BUSHING, V15860 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	YTS510		. . BUSHING, V77896 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	90509		. . BUSHING, V09455 (BOEING 10-60516-217)(USED ON 65-46139-1)		2
26	KJB423808B1		. . BUSHING, V50632 (USED ON 65-46139-1) (OPT)		2
26	KJB423808B2		. . BUSHING, V50632 (USED ON 65-46139-1) (0.03 OVERSIZE OD) (REPAIR PART)		AR
26	KJB423808B3		. . BUSHING, V50632 (USED ON 65-46139-1) (0.06 OVERSIZE OD) (REPAIR PART)		AR
26	65-46150-65		. . BUSHING (USED ON 65-46139-4,-6,-9, -12,-14,-16)		2
27	65-46150-29		. . BUSHING (USED ON 65-46139-1,-4, -6, -9,-14)		2
27	65-46150-110		. . BUSHING (USED ON 65-46139-12,-16)		2
28	65-46139-2		. . LINK (USED ON 65-46139-1)		1
28	65-46139-5		. . LINK (USED ON 65-46139-4)		1
28	65-46139-7		. . LINK (USED ON 65-46139-6)		1
28	65-46139-10		. . LINK (USED ON 65-46139-9)		1
28	65-46139-13		. . LINK (USED ON 65-46139-12)		1
28	65-46139-15		. . LINK (USED ON 65-46139-14) (SERIALIZED)		1
28	65-46139-17		. . LINK (USED ON 65-46139-16) (SERIALIZED)		1
28A	BACB30NF3-14		. BOLT	G-HA	1
28B	AN960C10L		. WASHER	G-HA	1
28C	69-62780-1		. KEEPER	G-HA	1
29	MS24665-374		. PIN, COTTER		1
30	BACN10JD110		. NUT, CASTELLATED (REPLS AN320-10)		1
31	AN960-1016		. WASHER		1
32	69-38994-1		. BOLT, UPPER DOWNLOCK LINK	A-F	1
32A	69-62779-1		. BOLT ASSY	G-DA	1
32A	69-62779-1		. BOLT ASSY (OPT TO 69-62779-3)	EA-HA	1
32A	69-62779-3		. BOLT ASSY (OPT TO 69-62779-1) (SERIALIZED)	EA-HA	1
32B	69-62779-2		. . BOLT (USED ON 69-62779-1)		1
32B	69-62779-4		. BOLT (USED ON 69-62779-3) (SERIALIZED)		1
32C	1645B		. . FITTING, LUBE, V95879 (USED ON 69-62779-1,-3)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
33	MS24665-233		. PIN, COTTER	A-FA	1
33	MS24665-304		. PIN, COTTER	GA HA	1
34	BACN10JD108		. NUT, CASTELLATED (REPLS AN320-8) *[6]		1
-34	BACN10JD107		. NUT (REPAIR PART) *[7]		1
-34	BACN10JD207		. NUT (REPAIR PART) (OPT) *[7]		1
35	BACW10BN8P		. WASHER *[6]		2
-35	BACW10BW7P		. NUT (REPAIR PART) *[7]		2
36	69-42193-2		. BOLT, DOWNLOCK ACTUATOR (LIMITED)		1
36	69-42193-3		. BOLT, DOWNLOCK ACTUATOR (LIMITED) (SERIALIZED)		1
37	69-51873-1		. SPACER (USED WITH 65-46138-1)	A-F	2
37	69-51873-2		. SPACER (USED WITH LINKS MODIFIED PER FIG. 403A)	A-F	2
37	69-51873-2		. SPACER (USED WITH 65-46138-6,-10, -16,-20)	G-FA	2
37K	AN960C816		. WASHER (USED WITH 65-46138-6)	G-J	2
37M	BACB28Z8-097		. SPACER (USED WITH 65-46138-20 AND LINKS MODIFIED PER FIG 403A)		2
38	65-46138-1		. LINK ASSY, UPPER DOWNLOCK	A-F	1
38	65-46138-6		. LINK ASSY, UPPER DOWNLOCK	G-J	1
38	65-46138-10		. LINK ASSY, UPPER DOWNLOCK	K-DA	1
38	65-46138-16		. LINK ASSY, UPPER DOWNLOCK	EA-HA	1
38	65-46138-20		. LINK ASSY, UPPER DOWNLOCK	EA-HA	1
39	AJF08A111		. . BUSHING, V50294 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	DBAF8-149		. . BUSHING, V81376 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	FBJW16TF22-22		. . BUSHING, V21335 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	FBR8A23BA		. . BUSHING, V73134 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	KJN8-31		. . BUSHING, V97613 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	NHLF08-202A		. . BUSHING, V15860 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	YTS510		. . BUSHING, V77896 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	90509		. . BUSHING, V09455 (BOEING 10-60516-217)(USED ON 65-46138-1)		2
39	KJB423808B1		. . BUSHING, V50632 (USED ON 65-46138-1) (OPT)		2
39	KJB423808B2		. . BUSHING, V50632 (USED ON 65-46138-1) (0.03 OVERSIZE OD) (REPAIR PART)		AR

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-39	KJB423808B3		. . BUSHING, V50632 (USED ON 65-46138-1) (0.06 OVERSIZE OD) (REPAIR PART)		AR
39K	65-46150-67		. . BUSHING (USED ON 65-46138-6,-10, -16,-20)		2
39L	BACB28W8B039		. . BUSHING (USED ON 65-46138-20)		4
40	AJF12C105		. . BUSHING, V50294 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	DBSF12-109		. . BUSHING, V81376 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	FBJW24TH28-26C		. . BUSHING, V21335 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	FBR12C28BA		. . BUSHING, V73134 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	KJN12-42		. . BUSHING, V97613 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	NHLF12-208CR		. . BUSHING, V15860 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	YTS573		. . BUSHING, V77896 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40	90582		. . BUSHING, V09455 (BOEING 10-60516-247)(USED ON 65-46138-1)		2
40J	65-46150-66		. . BUSHING (USED ON 65-46138-6,-10, -16,-20)		2
40K	SL1579		. . INSERT, V97393 (USED ON 65-46138-10,-16,-20)		2
41	65-46138-4		. . LINK ASSY (MATCHED SET) (USED ON 65-46138-1)		1
41	65-46138-7		. . LINK ASSY (MATCHED SET) (USED ON 65-46138-6)		1
41	65-46138-13		. . LINK ASSY (MATCHED SET) (USED ON 65-46138-10)		1
41	65-46138-19		. . LINK ASSY (MATCHED SET) (USED ON 65-46138-16)		1
41	65-46138-23		. . LINK ASSY (MATCHED SET) (USED ON 65-46138-20)		1
42	65-46138-3		. . . LINK (USED ON 65-46138-4)		1
42	65-46138-9		. . . LINK (USED ON 65-46138-7)		1
42	65-46138-12		. . . LINK (USED ON 65-46138-13)		1
42	65-46138-15		. . . LINK (USED ON 65-46138-13)(OPT)		1
42	65-46138-18		. . . LINK (USED ON 65-46138-19)		1
42	65-46138-22		. . . LINK (USED ON 65-46138-23)		1
43	65-46138-11		. . . LINK (USED ON 65-46138-13)		1
43	65-46138-17		. . . LINK (USED ON 65-46138-19)		1
43	65-46138-21		. . . LINK (USED ON 65-46138-23)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
43	65-46138-2		. . . LINK (USED ON 65-46138-4)		1
43	65-46138-8		. . . LINK (USED ON 65-46138-7)		1
44	69-38997-7		. SPRING ASSY, DOWNLOCK		2
45	BACB10D87F		. . BUSHING		2
46	AA741		. . BEARING, SLEEVE, V70417		1
47	69-38997-8		. . SPRING ASSY		1
48	69-43202-1		. . . FITTING, TERMINAL		1
49	69-38996-2		. . . FITTING, TERMINAL		1
50	69-38997-6		. . . SPRING		1
51	MS24665-378		. PIN, COTTER		1
52	69-38998-1		. CAP, SPRING SUPPORT		1
52	69-38998-2		. CAP, SPRING SUPPORT (LIMITED)	EA-HA	1
52A	AN960-1816L		. WASHER		1
53	69-38999-1		. SHAFT, SPRING SUPPORT	A-DGH KL	1
53	69-38999-2		. SHAFT, SPRING SUPPORT	EFIJ M-DA	1
53	69-38999-2		. SHAFT, SPRING SUPPORT (LIMITED)	EA-HA	1
53	69-38999-3		. SHAFT, SPRING SUPPORT (OPT TO 69-38999-4)	EA-HA	1
53	69-38999-4		. SHAFT, SPRING SUPPORT (OPT TO 69-38999-3) (SERIALIZED)	EA-HA	1
54	BACN10JC16		. NUT, SELF-LOCKING (REPLS BACN10BY516)		1
55	AN960-1616		. WASHER		1
56	69-39458-1		. BOLT ASSY, REACTION LINK	A-R U-X	1
56	69-68148-1		. BOLT ASSY, REACTION LINK (PRE SB 32-1232)	STY-DA	1
56	69-68148-1		. BOLT ASSY, REACTION LINK (OPT TO 69-68148-3) (PRE SB 32-1232)	EA FA	1
56	69-68148-3		. BOLT ASSY, REACTION LINK (OPT TO 69-68148-1) (SERIALIZED)	EA FA	1
56	65C33706-1		. BOLT ASSY, REACTION LINK (OPT TO 65C33706-3) (POST SB 32-1232)	GA HA	1
56	65C33706-3		. BOLT ASSY, REACTION LINK (OPT TO 65C33706-1) (SERIALIZED)	GA HA	1
57	1645B		. . FITTING, LUBE, V95879 (USED ON 69-39458-1)		1
57	1728B		. . FITTING, LUBE, V95879 (USED ON 69-68148-1,-3, 65C33706-1,-3)		1
58	69-39458-2		. . BOLT (USED ON 69-39458-1)		1
58	69-68148-2		. . BOLT (USED ON 69-68148-1)		1
58	69-68148-4		. . BOLT (USED ON 69-68148-3)		1
58	65C33706-2		. . BOLT (USED ON 65C33706-1)		1
58	65C33706-4		. . BOLT (USED ON 65C33706-3)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-59	65-46107-1		. UNIVERSAL ASSY, REACTION LINK (PRE SB 32-1232)	A-FA	1
59	65-46107-3		. UNIVERSAL ASSY, REACTION LINK (POST SB 32-1232)	GA HA	1
60	65-46150-39		. . BUSHING (USED ON 65-46107-1)		2
60	65-46150-118		. . BUSHING (USED ON 65-46107-3)		2
61	65-46150-40		. . BUSHING		2
62	65-46107-2		. . UNIVERSAL (USED ON 65-46107-1)		1
62	65-46107-4		. . UNIVERSAL (USED ON 65-46107-3)		1
63	65-46135-1		. LINK ASSY, REACTION (LIMITED)	AB	1
63	65-46135-3		. LINK ASSY, REACTION (LIMITED)	A-D	1
63	65-46135-5		. LINK ASSY, REACTION	EF	1
63	65-46135-7		. LINK ASSY, REACTION	GHKL	1
63	65-46135-8		. LINK ASSY, REACTION	IJMNUV	1
63	65-46135-9		. LINK ASSY, REACTION	OPWX	1
63	65-46135-9		. LINK ASSY, REACTION (OPT)	QR	1
63	65-46135-11		. LINK ASSY, REACTION	QR	1
63	65-46135-13		. LINK ASSY, REACTION (PRE SB 32-1232)	ST Z-DA	1
63	65-46135-13		. LINK ASSY, REACTION (LIMITED) (PRE SB 32-1232)	EA FA	1
63	65-46135-16		. LINK ASSY, REACTION	Y	1
63	65-46135-18		. LINK ASSY, REACTION (LIMITED) (POST SB 32-1232)	GA HA	1
63	65-46135-20		. LINK ASSY, REACTION (LIMITED)	EA FA	1
63	65-46135-22		. LINK ASSY, REACTION (LIMITED)	GA HA	1
63	65-46135-24		. LINK ASSY, REACTION (LIMITED)	GA HA	1
64	65-46150-36		. . BUSHING (USED ON 65-46135-1,-3,-5, -7,-8,-9,-11,-13,-16,-20)		2
64	65-46150-115		. . BUSHING (USED ON 65-46135-18,-22, -24)		2
65	65-46150-37		. . BUSHING (USED ON 65-46135-1,-3,-5, -7,-8,-9,-11,-13,-16,-20)		2
65	65-46150-116		. . BUSHING (USED ON 65-46135-18,-22, -24)		2
66	65-46150-38		. . BUSHING (USED ON 65-46135-1,-3,-5, -7,-8,-9,-11)		2
66	65-46150-85		. . BUSHING (USED ON 65-46135-13,-16, -20)		2
66	65-46150-117		. . BUSHING (USED ON 65-46135-18,-22, -24)		2
67	AJF12C103		. . BUSHING, V50294 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2
67	FBJW24TH30A 15C		. . BUSHING, V21335 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
67	FBR12C15BA		. . BUSHING, V73134 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2
67	KJN12-36		. . BUSHING, V97613 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2
67	DBSF12-099		. . BUSHING, V81376 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2
67	YTS509		. . BUSHING, V77896 (BOEING 10-60516-215) (USED ON 65-46135-1,-3,-5)		2
67	90507		. . BUSHING, V09455 (BOEING 10-60516-215)(USED ON 65-46135-1,-3,-5)		2
67	KJB426912B1		. . BUSHING, V50632 (USED ON 65-46135-1,-3,-5) (OPT)		2
67	KJB426912B2		. . BUSHING, V50632 (USED ON 65-46135-1, -3, -5) (0.03 OVERSIZE OD) (REPAIR PART)		AR
67	KJB426912B3		. . BUSHING, V50632 (USED ON 65-46135-1, -3, -5) (0.06 OVERSIZE OD) (REPAIR PART)		AR
67	65-46150-68		. . BUSHING (USED ON 65-46135-7,-8,-9, -11,-13,-16,-18,-20,-22,-24)		2
67	65-46150-85		DELETED		
68	65-46135-2		. . LINK (USED ON 65-46135-1)		1
68	65-46135-4		. . LINK (USED ON 65-46135-3,-7)		1
68	65-46135-6		. . LINK (USED ON 65-46135-5,-8)		1
68	65-46135-10		. . LINK (USED ON 65-46135-9)		1
68	65-46135-12		. . LINK (USED ON 65-46135-11,-16)		1
68	65-46135-15		. . LINK (USED ON 65-46135-13)		1
68	65-46135-17		. . LINK (USED ON 65-46135-13)(OPT)		1
68	65-46135-19		. . LINK (USED ON 65-46135-18)		1
68	65-46135-21		. . LINK (USED ON 65-46135-20) (OPT TO 65-46135-26)		1
68	65-46135-23		. . LINK (USED ON 65-46135-22)		1
68	65-46135-25		. . LINK (USED ON 65-46135-24)		1
68	65-46135-26		. . LINK (USED ON 65-46135-20) (OPT TO 65-46135-21)		1
69	69-62781-1		. . LINER (USED ON 65-46135-7,-8,-9,-11, -13,-16,-18,-20,-24)		1
			INSTALLATION PARTS		
70	69-38991-1		BOLT ASSY, SIDE STRUT (REPLD BY 69-68151-1) (REF 32-16-31)		1
70	69-68151-1		BOLT ASSY, SIDE STRUT (REF 32-16-31) (PRE SB 32-1232)		1
70	69-68151-3		BOLT ASSY, SIDE STRUT (REF 32-16-31) (SERIALIZED)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
70	69-77524-1		BOLT ASSY, SIDE STRUT (REF 32-16-31) (POST SB 32-1232)		1
70	69-77524-3		BOLT ASSY, SIDE STRUT (REF 32-16-31) (SERIALIZED)		1
70	69-77524-5		BOLT ASSY, SIDE STRUT (REF 32-16-31) (SERIALIZED)(PREF)		1
71	69-38991-2		DELETED		
71	69-68151-2		DELETED		
72	1645B		DELETED		
72	1728B		DELETED		
73	AN960-2016		WASHER		1
74	BACN10BY520		NUT (REPLD BY BACN10JC20)		1
74	BACN10JC20		NUT (REPLS BACN10BY520)		1
80	65-54791-( )		SENSOR INSTL, PRIMARY DOWNLOCK (PRE SB 32-1093)(FIG. 1102)		RF
80	65-66122-( )		SENSOR INSTL, SECONDARY DOWNLOCK (PRE SB 32-1093)(FIG. 1102)		RF
80	65C16177-( )		SENSOR INSTL, PRIMARY AND SECONDARY DOWNLOCK (FIG. 1102)		RF
85	69-50382-5		DELETED		
90	69-45106-5		DELETED		
90	69-45106-7		DELETED		
90	69-64900-13		DELETED		
92	69-68880-13		DELETED		
95	69-45106-2		DELETED		
-100	MS20470D5		DELETED		
-100	BACR15BBD5		DELETED		
-105	BACW10P182AL		DELETED		
110	10-61226-3		DELETED		
110	10-61226-15		DELETED		
110	10-61226-26		DELETED		
110	10-61226-29		DELETED		
115	BACS12CB3-14		DELETED		
115	NAS1801-3-14		DELETED		
115	NAS1801-3-9		DELETED		
117	NAS1149D0316J		DELETED		
120	NAS679A3W		DELETED		
120	MS21042L3		DELETED		
125	NAS43DD3-29		DELETED		
130	69-49708-4		DELETED		
130	69-49708-4		DELETED		
135	BACS12CB3-6		DELETED		
135	NAS1801-3-6		DELETED		
140	NAS679A3W		DELETED		
140	MS21042L3		DELETED		

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
-150	BACM10S39G		DELETED		
-150	BACM10S39E		DELETED		
155	69-51840-1		DELETED		
155	69-51840-2		DELETED		
155	69-51840-3		DELETED		
155	69-51840-3		DELETED		
155	69-51840-4		DELETED		
155	69-51840-4		DELETED		
-156	69-68880-11		DELETED		
-157	69-68880-12		DELETED		
-160	MS20470D5		DELETED		
-160	BACB30FM5A7		DELETED		
-160	NAS623-2-9		DELETED		
165	NAS42DD5-19		DELETED		
-166	NAS43DD3-17		DELETED		
170	NAS42DD5-27		DELETED		
-175	BACW10P182AL		DELETED		
-175	NAS1149DN816H		DELETED		
-180	MS21042L08		DELETED		

- ITEM NOT ILLUSTRATED

*[1] REFER TO SERVICE LETTER 737-SL-32-18 FOR DATA ABOUT INTERCHANGEABILITY OF PARTS THAT MAKE UP THESE COMPONENTS AS THEY ARE USED ON AIRPLANES WITH DIFFERENT MAX GROSS WEIGHTS. THIS SERVICE LETTER NOW ALSO INCLUDES LIFE LIMIT DATA.

*[2] USED WITH ITEM 4 BOLTS 69-68150-SERIES WITH STANDARD THREADS

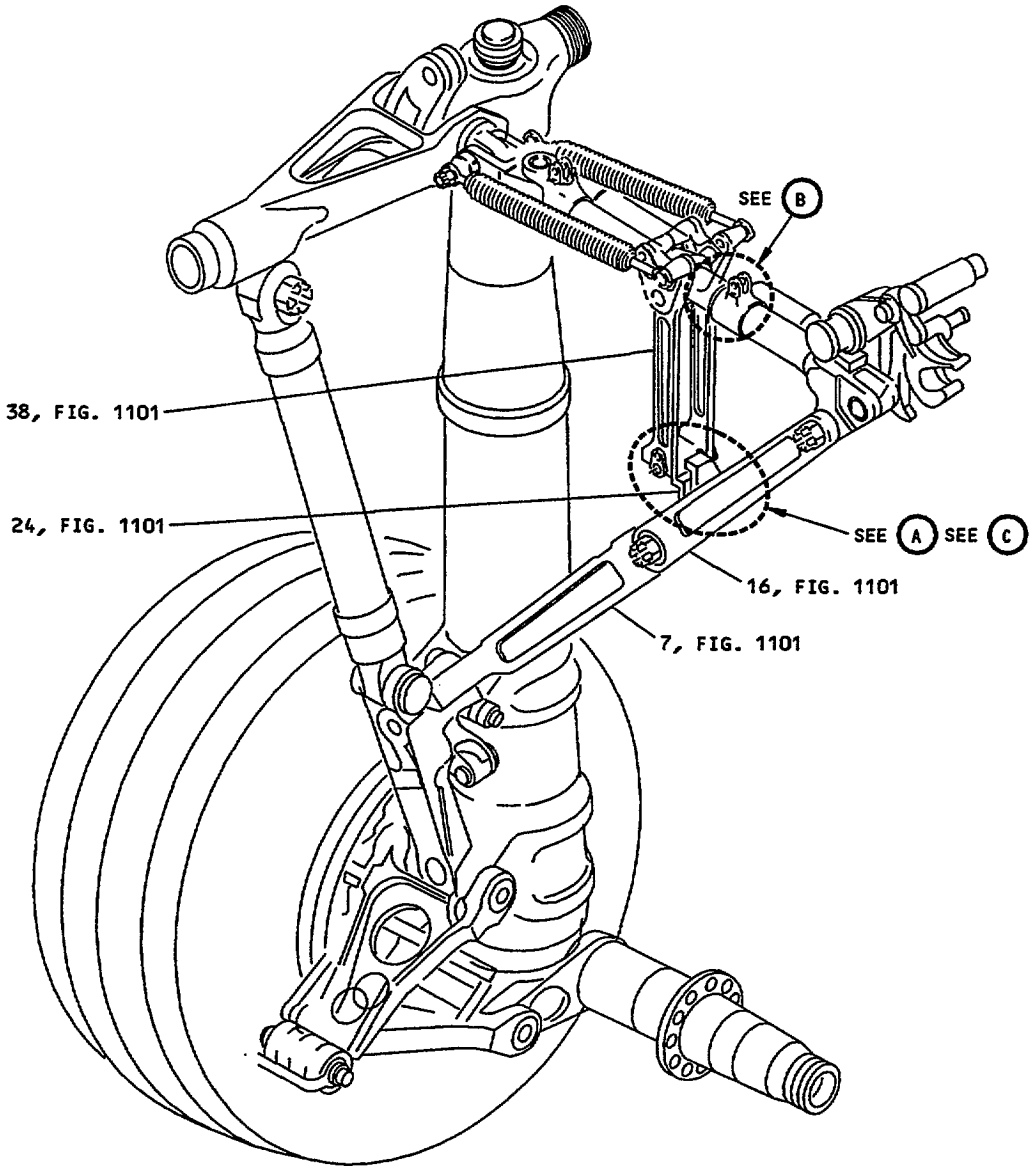
*[3] USED WITH ITEM 4 BOLTS 69-77523-SERIES WITH STANDARD THREADS

*[4] USED WITH ITEM 4 BOLTS 69-68150-SERIES WITH 1/8 INCH UNDERSIZE THREADS

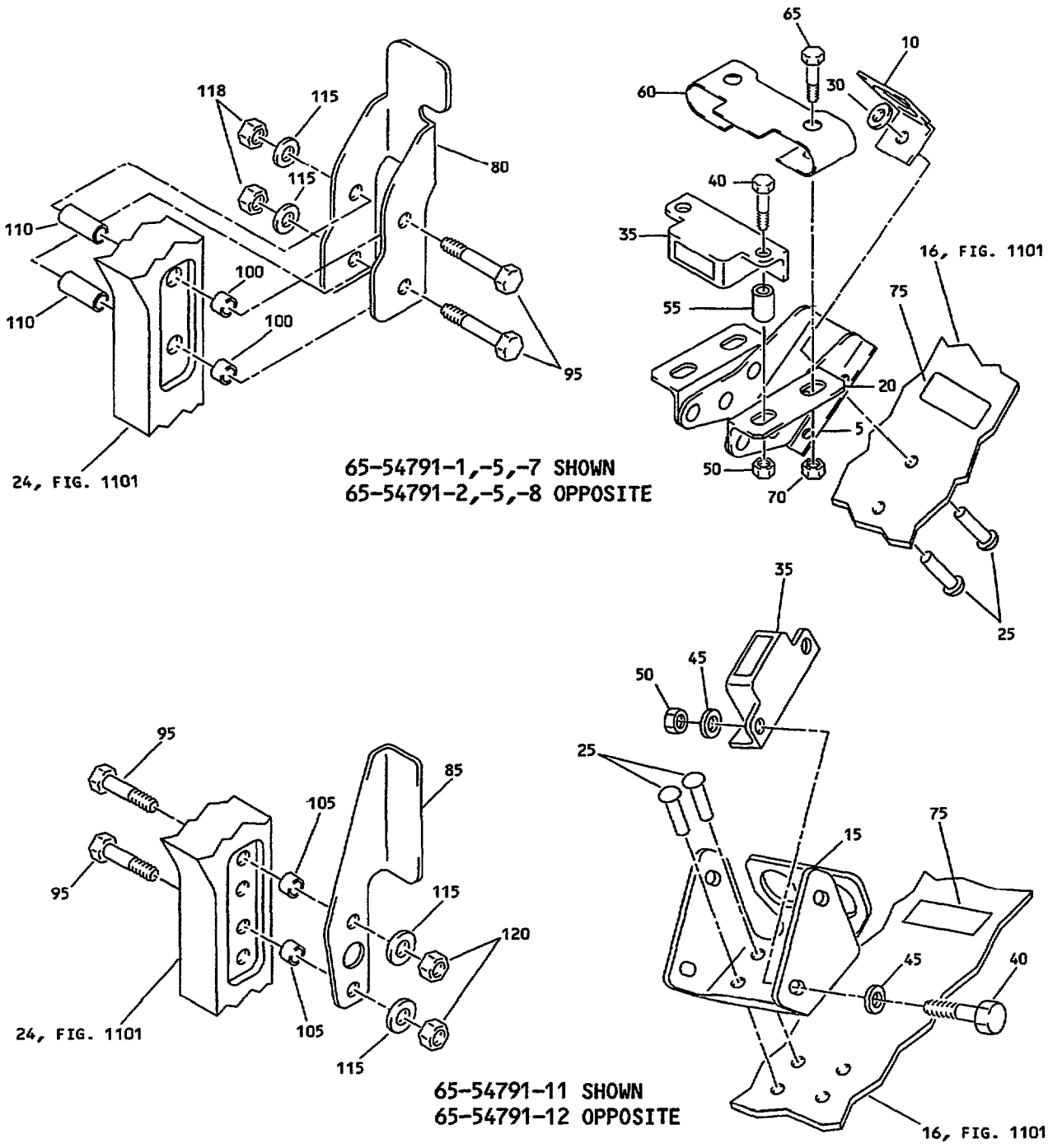
*[5] USED WITH ITEM 4 BOLTS 69-77523-SERIES WITH 1/8 INCH UNDERSIZE THREADS

*[6] USED WITH ITEM 36 BOLTS 69-42193-SERIES WITH STANDARD THREADS

*[7] USED WITH ITEM 36 BOLTS 69-42193-SERIES WITH 1/16 INCH UNDERSIZE THREADS



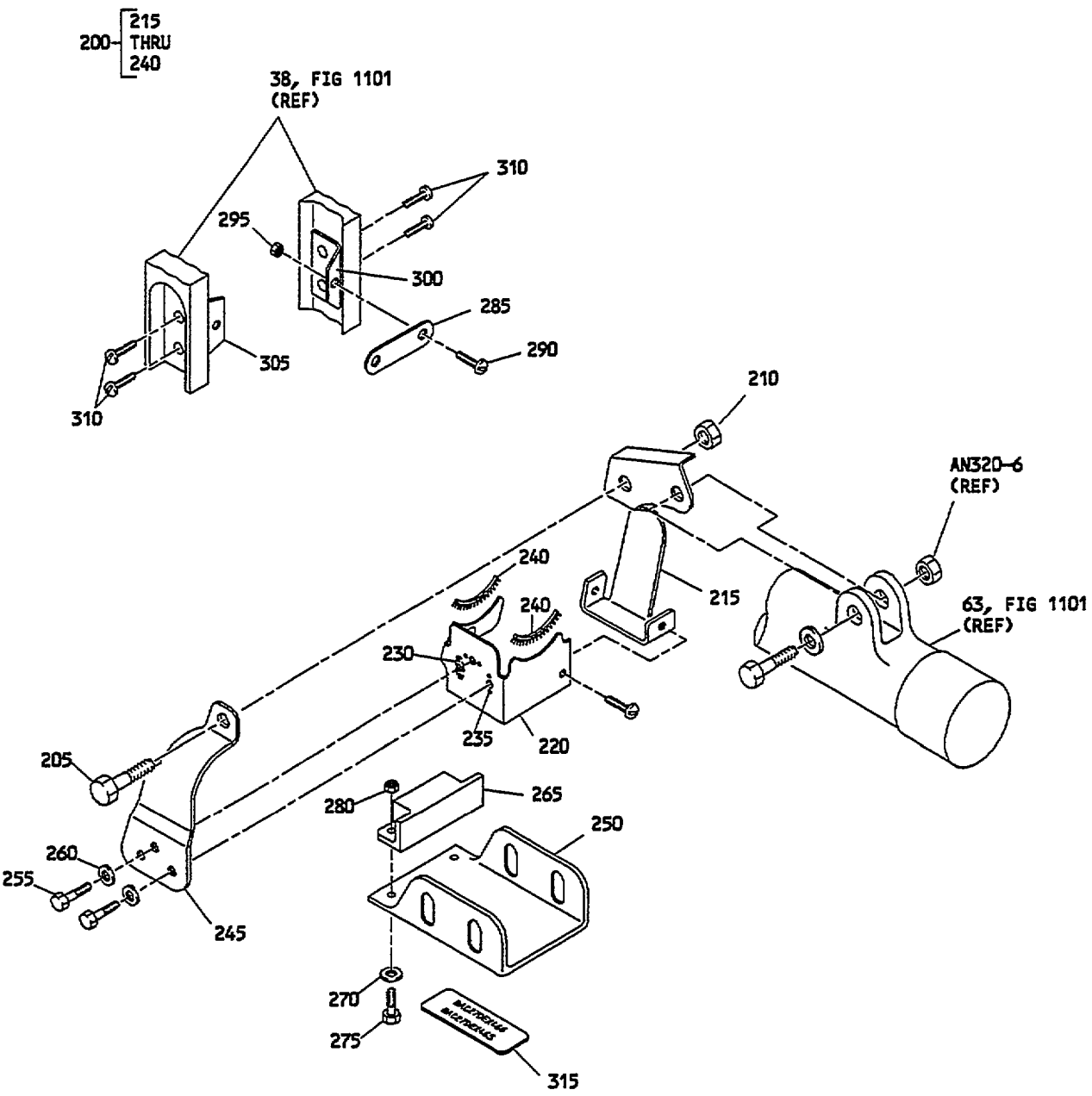
Downlock Sensor Installation
Figure 1102 (Sheet 1)



PRIMARY DOWNLOCK SENSOR INSTALLATION

(A)

Downlock Sensor Installation
Figure 1102 (Sheet 2)



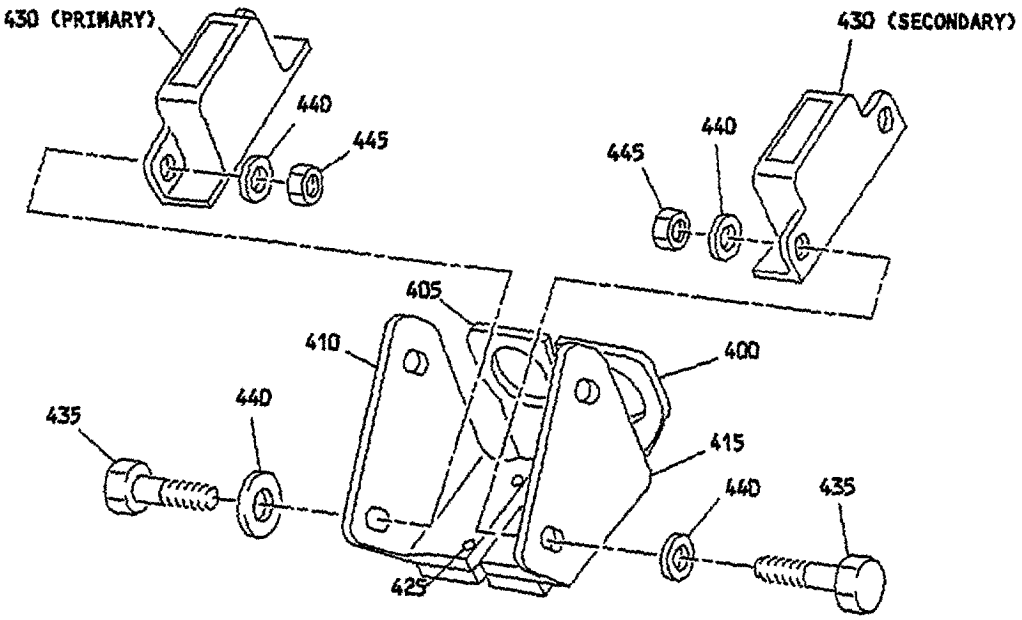
65-66122-6, -7

SECONDARY DOWNLOCK SENSOR INSTALLATION (PRE SB 32-1093)

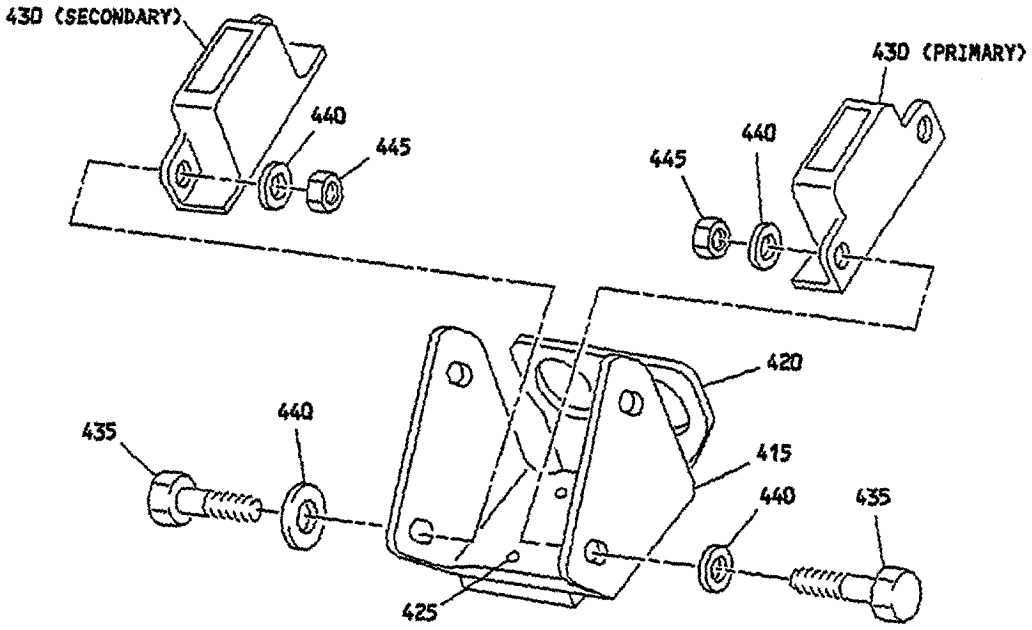
(B)

Downlock Sensor Installation
Figure 1102 (Sheet 3)

D17948



65C16177-1,-3,-5,-7 SHOWN
65C16177-2,-4,-6,-8 OPPOSITE



65C16177-9 SHOWN
65C16177-10 OPPOSITE

PRIMARY AND SECONDARY DOWNLOCK SENSOR INSTALLATIONS (POST SB 32-1093)

Downlock Sensor Installation
Figure 1102 (Sheet 4)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
-1	65-54791-1		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	A	RF
-1	65-54791-2		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	B	RF
-1	65-54791-5		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	C	RF
-1	65-54791-6		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	D	RF
-1	65-54791-7		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	E	RF
-1	65-54791-8		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	F	RF
-1	65-54791-11		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	G	RF
-1	65-54791-12		SENSOR INSTL - DOWNLOCK INDICATING - PRIMARY (PRE SB 32-1093)	H	RF
-2	65-66122-6		SENSOR INSTL - DOWNLOCK INDICATING - SECONDARY (PRE SB 32-1093)	I	RF
-2	65-66122-7		SENSOR INSTL - DOWNLOCK INDICATING - SECONDARY (PRE SB 32-1093)	J	RF
-3	65C16177-1		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	K	RF
-3	65C16177-2		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	L	RF
-3	65C16177-3		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	M	RF
-3	65C16177-4		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	N	RF
-3	65C16177-5		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	O	RF
-3	65C16177-6		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	P	RF
-3	65C16177-7		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	Q	RF
-3	65C16177-8		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	R	RF
-3	65C16177-9		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	S	RF
-3	65C16177-10		SENSOR INSTL - PRIMARY AND SECONDARY DOWNLOCK INDICATING	T	RF
5	69-50382-5		. BRACKET ASSY	A-F	1
10	69-45106-5		. SUPPORT (LIMITED)	AB	1
10	69-45106-7		. SUPPORT (LIMITED)	AB	1
10	69-64900-13		. SUPPORT (LIMITED)	A-F	1
15	69-68880-13		. SUPPORT	GH	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
20	69-45106-2		. SPACER (LIMITED)	AB	1
			ATTACHING PARTS		
25	MS20470D5		. RIVET	A-F	2
25	BACR15BBD5		. RIVET	GH	4
30	BACW10P182AL		. WASHER	A-F	2
			----------*----------		
35	10-61226-3		. SENSOR (LIMITED)	AB	1
35	10-61226-15		. SENSOR (LIMITED)	AB	1
35	10-61226-26		. SENSOR	CD	1
35	10-61226-29		. SENSOR	E-H	1
			ATTACHING PARTS		
40	BACS12CB3-14		. BOLT	A-D	2
40	NAS1801-3-14		. BOLT	EF	2
40	NAS1801-3-9		. BOLT	GH	4
45	NAS1149D0316J		. WASHER	GH	4
50	NAS679A3W		. NUT	A-D	2
50	MS21042L3		. NUT	E-H	2
55	NAS43DD3-29		. SPACER	A-D	2
			----------*----------		
60	69-49708-4		. COVER, SENSOR (LIMITED)	A-D	1
60	69-49708-4		. COVER, SENSOR	EF	1
			ATTACHING PARTS		
65	BACS12CB3-6		. BOLT	A-D	2
65	NAS1801-3-6		. BOLT	EF	2
70	NAS679A3W		. NUT	A-D	2
70	MS21042L3		. NUT	EF	2
			----------*----------		
-75	BACM10S39G		. METAL-CAL	ACEG	1
-75	BACM10S39E		. METAL-CAL	BDFH	1
80	69-51840-1		. ACTUATOR (LIMITED)	AC	1
80	69-51840-2		. ACTUATOR (LIMITED)	BD	1
80	69-51840-3		. ACTUATOR (LIMITED)	AC	1
80	69-51840-3		. ACTUATOR	E	1
80	69-51840-4		. ACTUATOR (LIMITED)	BD	1
80	69-51840-4		. ACTUATOR	F	1
85	69-68880-11		. ACTUATOR	G	1
90	69-68880-12		. ACTUATOR	H	1
			ATTACHING PARTS		
95	MS20470D5		. RIVET	A-D	2
95	BACB30FM5A7		. BOLT	EF	2
95	NAS623-2-9		. SCREW	GH	2
100	NAS42DD5-19		. SPACER	A-F	2
105	NAS43DD3-17		. SPACER	GH	2
110	NAS42DD5-27		. SPACER	A-F	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
115	BACW10P182AL		. WASHER	A-F	2
115	NAS1149DN816H		. WASHER	GH	2
118	BACC30M5		. COLLAR	EF	2
120	MS21042L08		. NUT	GH	2
			---------*---------		
-200	69-53284-7		. CLAMP ASSY	IJ	1
			ATTACHING PARTS		
205	BACB30LJ3U2		. BOLT	IJ	1
210	BACN10JC3		. NUT	IJ	1
			---------*---------		
215	65-53284-5		. . CLAMP		1
220	69-53284-8		. . CLAMP		1
225	MS20470D5		. . RIVET		4
230	BACN10JN3		. . NUTPLATE		6
235	MS20426D5		. . RIVET		12
240	BACG20ZB160		. . GROMMET		2
245	69-53285-3		. CLAMP	IJ	1
250	69-53286-3		. SUPPORT	IJ	1
255	BACS12CB3-8		. SCREW	IJ	5
260	AN960PD10		. WASHER	IJ	5
265	10-61226-15		. SENSOR - PROXIMITY	IJ	1
			ATTACHING PARTS		
270	BACS12CB3-7		. SCREW	IJ	2
275	AN960PD10		. WASHER	IJ	2
280	BACN10JC3		. NUT	IJ	2
			---------*---------		
285	69-53250-4		. ACTUATOR	IJ	1
			ATTACHING PARTS		
290	BACS12CK08-10		. SCREW	IJ	2
295	BACN10JC08CM		. NUT	IJ	2
			---------*---------		
300	69-60796-1		. CLIP - SUPPORT	IJ	1
305	69-60796-2		. CLIP - SUPPORT	IJ	1
			ATTACHING PARTS		
310	BACR15BB5D		. RIVET	IJ	4
			---------*---------		
315	BAC27DEX466		. MARKER - AL FOIL	I	1
315	BAC27DEX467		. MARKER - AL FOIL	J	1
400	69-68880-1		. SUPPORT - CONDUIT	K-R	1
405	69-68880-2		. SUPPORT - CONDUIT	K-R	1
410	69-68880-3		. SUPPORT - SENSOR	K-R	1
415	69-68880-4		. SUPPORT - SENSOR	K-R	1
420	69-68880-13		. SUPPORT	ST	1
			ATTACHING PARTS		
425	BACR15BB5D		. RIVET	K-T	4
			---------*---------		

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
430	10-61226-15		. SENSOR	K-N	2
430	10-61226-26		. SENSOR	OP	2
430	10-61226-29		. SENSOR	Q-T	2
			ATTACHING PARTS		
435	NAS1801-3-9		. BOLT	K-T	4
440	AN960PD10		. WASHER	K-R	8
440	NAS1149D0363J		. WASHER	ST	8
445	BACN10JC3		. NUT	K-P	4
445	MS21042L3		. NUT	Q-T	4
			---------*---------		
-450	69-68880-7		. ACTUATOR	K	1
-450	69-68880-8		. ACTUATOR	L	1
-450	69-68880-11		. ACTUATOR	MOQS	1
-450	69-68880-12		. ACTUATOR	NPRT	1
-450	69-68880-5		. ACTUATOR	L	1
-450	69-68880-6		. ACTUATOR	K	1
-450	69-68880-9		. ACTUATOR	MOQS	1
-450	69-68880-10		. ACTUATOR	NPRT	1
			ATTACHING PARTS		
-460	BACR15BB5D		. RIVET	KL	4
-465	NAS623-2-9		. SCREW	M-T	4
-465	NAS42DD5-17		. SPACER	KL	4
-470	NAS43DD3-17		. SPACER	M-T	4
-475	AN960D8L		. WASHER	M-R	4
-475	NAS1149DN832H		. WASHER	ST	4
-480	BACN10JC08		. NUT	M-R	4
-480	MS21042L08		. NUT	ST	4
			---------*---------		
-485	BACM10S39G		. MARKER	KMOQS	1
-485	BACM10S39E		. MARKER	LNPRT	1
-490	BAC27DEX466		. MARKER	KMOQS	1
-490	BAC27DEX465		. MARKER	LNPRT	1

- ITEM NOT ILLUSTRATED

VENDORS

V06341	PRODUCTS/TECHNIQUES, INC., 3271 S. RIVERSIDE AVE., P.O. BOX 760, BLOOMINGTON, CALIFORNIA 92316
V09455	RBC TRANSPORT DYNAMICS CORP., 3131 SEGERSTROM AVENUE, SANTA ANA, CALIFORNIA 92704-5872
V15860	NEW HAMPSHIRE BALL BEARINGS INC., ASTRO DIVISION, 155 LEXINGTON AVE., LACONIA, NEW HAMPSHIRE 03246-2937
V21335	TORRINGTON CO., FAFNIR BEARING DIV., 59 FIELD ST., TORRINGTON, CONNECTICUT 06790-1008
V50294	NMB AMERICA INC., 9727 DESOTO AVE., CHATSWORTH, CALIFORNIA 91311-4323
V50632	KAMATICS CORP., SUBSIDIARY OF KAMAN CORP., 1330 BLUE HILLS AVE., P.O. BOX 3, BLOOMFIELD, CONNECTICUT 06002-1304
V70417	CHRYSLER CORP., AMPLEX DIVISION, 6565 E. EIGHT MILE RD., WARREN, MICHIGAN 48091-2949
V73134	ROLLER BEARING CO. OF AMERICA, HEIM BEARINGS DIV., 60 ROUND HILL RD., P.O. BOX 430, FAIRFIELD, CONNECTICUT 06430-0430
V77896	REXNORD INC., BEARING OPERATION, 2400 CURTIS STREET, DOWNERS GROVE, ILLINOIS 60515-4307
V81376	SMITH ACQUISITION CO., DBA SOUTHWEST PRODUCTS COMPANY, 2240 BUENA VISTA ST., P.O. BOX 2046, BALDWIN PARK, CALIFORNIA 91706
V95879	ALEMITE DIVISION OF STEWART-WARNER CORP., 1826 DIVERSEY PARKWAY, CHICAGO, ILLINOIS 60614-1540
V97393	SHUR-LOK CORP., 2541 WHITE RD., P.O. BOX 19584, IRVINE, CALIFORNIA 92614
V97613	SARGENT CONTROLS AND AEROSPACE, KAHR BEARING DIVISION, 5675 W. BURLINGAME RD., P.O. BOX 730, CORTARO, ARIZONA 85652-0730

Part No.	Fig. and Index No.	Qty. per Assy.
AA741	1101-46	1
AJF08A111	1101-26	2
AJF08A111	1101-39	2
AJF12C103	1101-67	2
AJF12C105	1101-40	2
AN960-1016	1101-31	1
AN960-1616	1101-55	1
AN960-1816L	1101-52A	1
AN960-2016	1101-73	1
AN960C10L	1101-28B	1
AN960C816	1101-37K	2
AN960D8L	1102-475	4
AN960PD10	1102-260	5
AN960PD10	1102-275	2
AN960PD10	1102-440	8
BAC27DEX465	1102-490	1
BAC27DEX466	1102-315	1
BAC27DEX466	1102-490	1
BAC27DEX467	1102-315	1
BACB10D87F	1101-45	2
BACB28W8B039	1101-39L	4
BACB28Z8-097	1101-37M	2
BACB30FM5A7	1101-160	
BACB30FM5A7	1102-95	2
BACB30LJ3U2	1102-205	1
BACB30LU3-8	1101-19A	1
BACB30LU3-9	1101-19A	1
BACB30NF3-14	1101-28A	1
BACC30M5	1102-118	2
BACG20ZB160	1102-240	2
BACM10S39E	1101-150	
BACM10S39E	1102-485	1
BACM10S39E	1102-75	1
BACM10S39G	1101-150	
BACM10S39G	1102-485	1
BACM10S39G	1102-75	1
BACN10BY520	1101-74	1
BACN10JC08	1102-480	4
BACN10JC08CM	1102-295	2
BACN10JC16	1101-11	1
BACN10JC16	1101-54	1
BACN10JC18	1101-2	1
BACN10JC18	1101-11	1
BACN10JC20	1101-2	1
BACN10JC20	1101-74	1
BACN10JC22	1101-2	1
BACN10JC3	1102-210	1
BACN10JC3	1102-280	2
BACN10JC3	1102-445	4

Part No.	Fig. and Index No.	Qty. per Assy.
BACN10JD107	1101-21	1
BACN10JD107	1101-34	1
BACN10JD108	1101-34	1
BACN10JD207	1101-34	1
BACN10JD110	1101-30	1
BACN10JN3	1102-230	6
BACR15BB5D	1102-425	4
BACR15BB5D	1102-460	4
BACR15BBD5	1101-100	
BACR15BBD5	1102-25	4
BACS12CB3-14	1101-115	
BACS12CB3-14	1102-40	2
BACS12CB3-6	1101-135	
BACS12CB3-6	1102-65	2
BACS12CB3-7	1102-270	2
BACS12CB3-8	1102-255	5
BACS12CK08-10	1102-290	2
BACW10ASP7	1101-22	1
BACW10BN7P	1101-35	2
BACW10BN8P	1101-35	2
BACW10P182AL	1101-105	
BACW10P182AL	1101-175	
BACW10P182AL	1102-115	2
BACW10P182AL	1102-30	2
DBAF8-149	1101-26	2
DBAF8-149	1101-39	2
DBSF12-099	1101-67	2
DBSF12-109	1101-40	2
FBJW16TF22-22	1101-39	2
FBJW24TH28-26C	1101-40	2
FBJW24TH30A	1101-67	2
FBJW6TF22-22	1101-26	2
FBR12C15BA	1101-67	2
FBR12C28BA	1101-40	2
FBR8A23BA	1101-26	2
FBR8A23BA	1101-39	2
KJB423808B1	1101-26	2
KJB423808B1	1101-39	2
KJB423808B2	1101-39	AR
KJB423808B3	1101-26	AR
KJB423808B3	1101-26	AR
KJB423808B3	1101-39	AR
KJB426912B1	1101-67	2
KJB426912B3	1101-67	AR
KJB426912B3	1101-67	AR
KJN12-36	1101-67	2
KJN12-42	1101-40	2
KJN8-31	1101-26	2
KJN8-31	1101-39	2

Part No.	Fig. and Index No.	Qty. per Assy.
MS20426D5	1102-235	12
MS20470D5	1101-100	
MS20470D5	1101-160	
MS20470D5	1102-225	4
MS20470D5	1102-25	2
MS20470D5	1102-95	2
MS21042L08	1101-180	
MS21042L08	1102-120	2
MS21042L08	1102-480	4
MS21042L3	1101-120	
MS21042L3	1101-140	
MS21042L3	1102-445	4
MS21042L3	1102-50	2
MS21042L3	1102-70	2
MS24665-233	1101-33	1
MS24665-304	1101-20	1
MS24665-304	1101-33	1
MS24665-374	1101-29	1
MS24665-378	1101-51	1
NAS1149D0316J	1101-117	
NAS1149D0316J	1102-45	4
NAS1149D0363J	1102-440	8
NAS1149DN816H	1101-175	
NAS1149DN816H	1102-115	2
NAS1149DN832H	1102-475	4
NAS1801-3-14	1101-115	
NAS1801-3-14	1102-40	2
NAS1801-3-6	1101-135	
NAS1801-3-6	1102-65	2
NAS1801-3-9	1101-115	
NAS1801-3-9	1102-40	4
NAS1801-3-9	1102-435	4
NAS42DD5-17	1102-465	4
NAS42DD5-19	1101-165	
NAS42DD5-19	1102-100	2
NAS42DD5-27	1101-170	
NAS42DD5-27	1102-110	2
NAS43DD3-17	1101-166	
NAS43DD3-17	1102-105	2
NAS43DD3-17	1102-470	4
NAS43DD3-29	1101-125	
NAS43DD3-29	1102-55	2
NAS623-2-9	1101-160	
NAS623-2-9	1102-465	4
NAS623-2-9	1102-95	2
NAS679A3W	1101-120	
NAS679A3W	1101-140	
NAS679A3W	1102-50	2
NAS679A3W	1102-70	2
NHLF08-202A	1101-26	2

Part No.	Fig. and Index No.	Qty. per Assy.
NHLF08-202A	1101-39	2
NHLF12-208CR	1101-40	2
SL1579	1101-40K	2
YTS509	1101-67	2
YTS510	1101-26	2
YTS510	1101-39	2
YTS573	1101-40	2
10-61226-15	1101-110	
10-61226-15	1102-265	1
10-61226-15	1102-35	1
10-61226-15	1102-430	2
10-61226-26	1101-110	
10-61226-26	1102-35	1
10-61226-26	1102-430	2
10-61226-29	1101-110	
10-61226-29	1102-35	1
10-61226-29	1102-430	2
10-61226-3	1101-110	
10-61226-3	1102-35	1
1645B	1101-14	1
1645B	1101-25	1
1645B	1101-25	2
1645B	1101-32C	1
1645B	1101-5	1
1645B	1101-57	1
1645B	1101-72	
1728B	1101-14	1
1728B	1101-5	1
1728B	1101-57	1
1728B	1101-72	
65-46107-1	1101-59	1
65-46107-2	1101-62	1
65-46107-3	1101-59	1
65-46107-4	1101-62	1
65-46133-1	1101-16	1
65-46133-2	1101-19	1
65-46133-3	1101-16	1
65-46133-4	1101-19	1
65-46133-5	1101-16	1
65-46133-5	1101-16	1
65-46133-6	1101-19	1
65-46133-7	1101-16	1
65-46133-8	1101-19	1
65-46135-1	1101-63	1
65-46135-10	1101-68	1
65-46135-11	1101-63	1
65-46135-12	1101-68	1
65-46135-13	1101-63	1
65-46135-13	1101-63	1
65-46135-15	1101-68	1

Part No.	Fig. and Index No.	Qty per. Assy
65-46135-16	1101-63	1
65-46135-17	1101-68	1
65-46135-18	1101-63	1
65-46135-19	1101-68	1
65-46135-2	1101-68	1
65-46135-20	1101-63	1
65-46135-21	1101-68	1
65-46135-22	1101-63	1
65-46135-23	1101-68	1
65-46135-24	1101-63	1
65-46135-25	1101-68	1
65-46135-26	1101-68	1
65-46135-3	1101-63	1
65-46135-4	1101-68	1
65-46135-5	1101-63	1
65-46135-6	1101-68	1
65-46135-7	1101-63	1
65-46135-8	1101-63	1
65-46135-9	1101-63	1
65-46135-9	1101-63	1
65-46138-1	1101-38	1
65-46138-10	1101-38	1
65-46138-11	1101-43	1
65-46138-12	1101-42	1
65-46138-13	1101-41	1
65-46138-15	1101-42	1
65-46138-16	1101-38	1
65-46138-17	1101-43	1
65-46138-18	1101-42	1
65-46138-19	1101-41	1
65-46138-2	1101-43	1
65-46138-20	1101-38	1
65-46138-21	1101-43	1
65-46138-22	1101-42	1
65-46138-23	1101-41	1
65-46138-3	1101-42	1
65-46138-4	1101-41	1
65-46138-6	1101-38	1
65-46138-7	1101-41	1
65-46138-8	1101-43	1
65-46138-9	1101-42	1
65-46139-1	1101-24	1
65-46139-10	1101-28	1
65-46139-12	1101-24	1
65-46139-12	1101-24	1
65-46139-13	1101-28	1
65-46139-14	1101-24	1

Part No.	Fig. and Index No.	Qty per. Assy
65-46139-15	1101-28	1
65-46139-16	1101-24	1
65-46139-17	1101-28	1
65-46139-2	1101-28	1
65-46139-4	1101-24	1
65-46139-5	1101-28	1
65-46139-6	1101-24	1
65-46139-7	1101-28	1
65-46139-9	1101-24	1
65-46139-9	1101-24	1
65-46139-9	1101-24	1
65-46150-110	1101-27	2
65-46150-111	1101-17	2
65-46150-112	1101-18	2
65-46150-113	1101-8	2
65-46150-114	1101-9	4
65-46150-115	1101-64	2
65-46150-116	1101-65	2
65-46150-117	1101-66	2
65-46150-118	1101-60	2
65-46150-27	1101-8	2
65-46150-28	1101-9	4
65-46150-29	1101-27	2
65-46150-36	1101-64	2
65-46150-37	1101-65	2
65-46150-38	1101-66	2
65-46150-39	1101-60	2
65-46150-40	1101-61	2
65-46150-41	1101-17	2
65-46150-42	1101-18	2
65-46150-65	1101-26	2
65-46150-66	1101-40J	2
65-46150-67	1101-39K	2
65-46150-68	1101-67	2
65-46150-84	1101-9	4
65-46150-85	1101-66	2
65-46150-85	1101-67	
65-53284-5	1102-215	1
65-54791-( )	1101-80	RF
65-54791-1	1102-1	RF
65-54791-11	1102-1	RF
65-54791-12	1102-1	RF
65-54791-2	1102-1	RF
65-54791-5	1102-1	RF
65-54791-6	1102-1	RF
65-54791-7	1102-1	RF
65-54791-8	1102-1	RF

Part No.	Fig. and Index No.	Qty. per Assy.
65-63397-1	1101-7	1
65-63397-10	1101-7	1
65-63397-11	1101-10	1
65-63397-2	1101-10	1
65-63397-3	1101-7	1
65-63397-4	1101-10	1
65-63397-5	1101-7	1
65-63397-6	1101-10	1
65-63397-7	1101-7	1
65-63397-8	1101-10	1
65-63397-9	1101-7	1
65-66122-( )	1101-80	RF
65-66122-6	1102-2	RF
65-66122-7	1102-2	RF
65-73761-103	1101-1	RF
65-73761-105	1101-1	RF
65-73761-106	1101-1	RF
65-73761-111	1101-1	RF
65-73761-112	1101-1	RF
65-73761-113	1101-1	RF
65-73761-114	1101-1	RF
65-73761-123	1101-1	RF
65-73761-124	1101-1	RF
65-73761-21	1101-1	RF
65-73761-22	1101-1	RF
65-73761-23	1101-1	RF
65-73761-24	1101-1	RF
65-73761-25	1101-1	RF
65-73761-26	1101-1	RF
65-73761-43	1101-1	RF
65-73761-44	1101-1	RF
65-73761-45	1101-1	RF
65-73761-46	1101-1	RF
65-73761-47	1101-1	RF
65-73761-48	1101-1	RF
65-73761-49	1101-1	RF
65-73761-50	1101-1	RF
65-73761-55	1101-1	RF
65-73761-56	1101-1	RF
65-73761-77	1101-1	RF
65-73761-78	1101-1	RF
65-73761-85	1101-1	RF
65-73761-86	1101-1	RF
65-73761-93	1101-1	RF
65-73761-94	1101-1	RF
65-73761-95	1101-1	RF
65-73761-96	1101-1	RF
65C16177-( )	1101-80	RF
65C16177-1	1102-3	RF

Part No.	Fig. and Index No.	Qty. per Assy.
65C16177-10	1102-3	RF
65C16177-2	1102-3	RF
65C16177-3	1102-3	RF
65C16177-4	1102-3	RF
65C16177-5	1102-3	RF
65C16177-6	1102-3	RF
65C16177-7	1102-3	RF
65C16177-8	1102-3	RF
65C16177-9	1102-3	RF
65C33706-1	1101-56	1
65C33706-2	1101-58	1
65C33706-3	1101-56	1
65C33706-4	1101-58	1
66-24445-2	1101-3	1
66-24447-2	1101-12	1
69-38991-1	1101-70	1
69-38991-2	1101-71	
69-38994-1	1101-32	1
69-38996-2	1101-49	1
69-38997-6	1101-50	1
69-38997-7	1101-44	2
69-38997-8	1101-47	1
69-38998-1	1101-52	1
69-38998-2	1101-52	1
69-38999-1	1101-53	1
69-38999-2	1101-53	1
69-38999-2	1101-53	1
69-38999-3	1101-53	1
69-38999-4	1101-53	1
69-39458-1	1101-56	1
69-39458-2	1101-58	1
69-41629-1	1101-23	1
69-41629-2	1101-23	1
69-42193-2	1101-36	1
69-42193-3	1101-36	1
69-43202-1	1101-48	1
69-45106-2	1101-95	
69-45106-2	1102-20	1
69-45106-5	1101-90	
69-45106-5	1102-10	1
69-45106-7	1101-90	
69-45106-7	1102-10	1
69-49708-4	1101-130	
69-49708-4	1101-130	
69-49708-4	1102-60	1
69-49708-4	1102-60	1
69-50382-5	1101-85	
69-50382-5	1102-5	1
69-51840-1	1101-155	

Part No.	Fig. and Index No.	Qty. per Assy.
69-51840-1	1102-80	1
69-51840-2	1101-155	
69-51840-2	1102-80	1
69-51840-3	1101-155	
69-51840-3	1101-155	
69-51840-3	1102-80	1
69-51840-3	1102-80	1
69-51840-4	1101-155	
69-51840-4	1101-155	
69-51840-4	1102-80	1
69-51840-4	1102-80	1
69-51873-1	1101-37	2
69-51873-2	1101-37	2
69-51873-2	1101-37	2
69-52898-1	1101-13	1
69-52898-2	1101-15	1
69-52899-1	1101-4	1
69-52899-2	1101-6	1
69-53250-4	1102-285	1
69-53284-7	1102-200	1
69-53284-8	1102-220	1
69-53285-3	1102-245	1
69-53286-3	1102-250	1
69-60796-1	1102-300	1
69-60796-2	1102-305	1
69-62779-1	1101-32A	1
69-62779-1	1101-32A	1
69-62779-2	1101-32B	1
69-62779-3	1101-32A	1
69-62779-4	1101-32B	1
69-62780-1	1101-28C	1
69-62781-1	1101-69	1
69-62795-1	1101-19B	1
69-62795-3	1101-19B	1
69-64900-13	1101-90	
69-64900-13	1102-10	1
69-68148-1	1101-56	1
69-68148-1	1101-56	1
69-68148-2	1101-58	1
69-68148-3	1101-56	1
69-68148-4	1101-58	1
69-68149-1	1101-13	1
69-68149-1	1101-13	1
69-68149-2	1101-15	1
69-68149-3	1101-13	1
69-68149-4	1101-15	1
69-68150-1	1101-4	
69-68150-1	1101-4	1
69-68150-2	1101-6	1

Part No.	Fig. and Index No.	Qty. per Assy.
69-68150-3	1101-4	1
69-68150-4	1101-6	1
69-68151-1	1101-70	1
69-68151-2	1101-71	
69-68151-3	1101-70	1
69-68880-1	1102-400	1
69-68880-10	1102-450	1
69-68880-11	1101-156	
69-68880-11	1102-450	1
69-68880-11	1102-85	1
69-68880-12	1101-157	
69-68880-12	1102-450	1
69-68880-12	1102-90	1
69-68880-13	1101-92	
69-68880-13	1102-15	1
69-68880-13	1102-420	1
69-68880-2	1102-405	1
69-68880-3	1102-410	1
69-68880-4	1102-415	1
69-68880-5	1102-450	1
69-68880-6	1102-450	1
69-68880-7	1102-450	1
69-68880-8	1102-450	1
69-68880-9	1102-450	1
69-77522-1	1101-13	1
69-77522-2	1101-15	1
69-77522-3	1101-13	1
69-77522-4	1101-15	1
69-77523-1	1101-4	1
69-77523-2	1101-6	1
69-77523-3	1101-4	1
69-77523-4	1101-6	1
69-77524-1	1101-70	1
69-77524-3	1101-70	1
69-77524-5	1101-70	1
69-77534-1	1101-3	1
69-77535-1	1101-12	1
90507	1101-67	2
90509	1101-26	2
90509	1101-39	2
90582	1101-40	2