

OVERHAUL MANUAL

TO: ALL HOLDERS OF PALLETIZED CARGO SYSTEM ROLLER TRAY AND ROLLER TRAY TIEDOWN ASSEMBLIES OVERHAUL MANUAL, 25-57-08

REVISION NO. 1, DATED SEP 5/84

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / Assy	Cleaning	Inspect / Chk	Repair	Assy	F / C	Test	T / Shooting	S / Tools	Storage	I P L	L / Overhaul
Changed format of description and operation	X												
Added 65-76942-1 thru -6, -16 roller tray assemblies and illustration per PRR 33237	X												X
Added roller trays (30A), handle (9B), stud (9C), housing (9E), and roller assy (25) in refinish section. Added details to clarify refinish					X								

# MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY AND ROLLER TRAY TIEDOWN ASSEMBLIES

## 25-57-08

BOEING P/N 65-42500-3 thru -9  
65-42638-2 thru -8, -11, -14, -15, -16, -18, -23 thru -28, -33  
thru -38, -54, -64, -74  
65-76942-1 thru -6, -16  
69-33942-1

AIRLINE P/N

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THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

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BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 15460	Aug 15/68
		PRR 15460-1	Aug 15/68
		PRR 15460-2	Aug 15/68
		PRR 15460-9	Aug 15/68
		PRR 15719	Aug 15/68
		PRR 15740R	Aug 15/68
		PRR 15749-1	Aug 15/68
2278 (707)		PRR 16288	Mar 10/70
2133 (707)		PRR 15749-1R	Jun 10/72
2136 (707)		PRR 15749-2R	Jun 10/72
2137 (707)		PRR 15749-4R	Jun 10/72
2134 (707)		PRR 15821	Jun 10/72
		PRR 33237	Sep 5/84

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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
25-57-08					
* T-1	Sep 5/84				
T-2	BLANK				
* LEP-1	Sep 5/84				
LEP-2	BLANK				
T/C-1	Jun 10/72				
T/C-2	BLANK				
* 1	Sep 5/84				
* 2	Sep 5/84				
3	Jun 10/72				
4	Jun 10/72				
* 5	Sep 5/84				
* 6	Sep 5/84				
6A	Jun 10/72				
6B	Jun 10/72				
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6D	Jun 10/72				
* 7	Sep 5/84				
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* 9	Sep 5/84				
* 10	Sep 5/84				
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* 12	Sep 5/84				
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* 13	Sep 5/84				
* 14	Sep 5/84				
* 15	Sep 5/84				
* 16	Sep 5/84				
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* 16B	BLANK				
* 17	Sep 5/84				
* 18	Sep 5/84				
* 18A	Sep 5/84				
* 18B	BLANK				
19	Jun 10/72				
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MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY AND  
ROLLER TRAY TIEDOWN ASSEMBLIES

1. DESCRIPTION AND OPERATION

A. Description

- (1) Part number 65-42638 covers 24 roller tray assemblies and 65-76942 covers seven roller tray assemblies of current production configuration (including some conversions of earlier assemblies). Each roller tray assembly 65-42638-2 thru -8, -23 thru -28, -33 thru -38, -54, -64, and -74 and 65-76942-1 has built-in attachment devices. Roller tray assemblies 65-42638-11, -14, -15, -16, and -18 and 65-76942-2 thru -6, and -16 are held down by contiguous cargo handling devices. Roller tray assemblies 65-42500-3 thru -9 (converted) have no built-in attachment device and require two roller tray tiedown assemblies 69-33942-1 per tray.
- (2) The roller tray tiedown assembly consists of a riveted assembly of two plates through which an attachment stud is mounted. The stud may be manually rotated except when the handle is locked in the "ATTACH" position.
- (3) The essentials of each roller tray assembly are the roller tray (fabricated from extruded channel) and one or more roller assemblies. Alignment of each roller assembly is fixed in its tray.

B. Operation

- (1) Each tray fastens to the airplane cargo deck to facilitate movement of palletized cargo. Predetermined axial alignment of the trays controls direction of pallet movement. All rollers are free-turning and are actuated by the movement of cargo.

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C. Leading Particulars

(1) Roller tray assemblies:

Width -- 4-3/4 inches overall

Height -- 2 inches overall

Length, Weight, and Number of Rollers -- The approximate length and weight of these assemblies vary directly with the number of rollers on an assembly. Such data is tabulated as follows:

<u>Assembly</u>	<u>Length (inches)</u>	<u>Weight (pounds)</u>	<u>No. of Rollers</u>
65-42638-11	5	0.8	1
-2	11	1.5	2
-3,-23,-33	21	2.3	3
-4,-14,-24,-34,-54,-64,-74	31	3.0	4
-5,-25,-35	41	3.7	5
-15	46	3.8	5
-6,-16,-26,-36	51	4.4	6
-7,-27,-37	61	5.1	7
-8,-18,-28,-38	71	5.9	8
65-42500-3	22	2.3	3
-4	32	3.0	4
-5	42	3.7	5
-6	70	7.2	8
-7	70	7.2	8
-8	46.5	4.8	5
-9	88	9.6	10
65-76942-1	4.5	0.85	1
-2	7.75	1.03	2
-3	14.75	1.9	3
-4	21.75	2.9	4
-5	28.75	3.8	5
-6	35.75	4.7	6
-16	35.75	4.7	6

(2) Roller tray tiedown assembly:

Width -- 2.6 inches

Length -- 2.5 inches

Weight -- 0.25 pounds

## 2. DISASSEMBLY

### A. Roller Tray Assemblies (See figure 3.)

NOTE: Disassembly of any roller tray assembly (65-42638-2 through -8, -11, -14, -15, -16, -18, -23 through -28; -33 through -38, -54, -64, and -74; 65-42500-3 through -9), steps (1) through (5), is limited to that necessary to replace parts.

- (1) Remove nut (1 or 16A), washer (2 or 16B), stud (3 or 16C), and spacer (4 or 16D).
- (2) Remove nuts (5 or 16E), washer (6 or 16F), screws (7 or 16G), roll pin (8 or 16H), and attachment assembly (9).
- (3) Remove rivet (10), lever (11), spring (12), and washer (13); withdraw shear stud (14) and spring (15) to free housing (16).
- (4) Remove nut (17 or 20B), washer (18 or 20C), stud (19 or 20E), and spacer (20 or 20D).
- (5) Remove nut (21), fillers (22), and bolts (23); withdraw spacer (24) and remove roller assembly (25) from roller tray (29).

NOTE: Do not disassemble roller assembly (25) or remove items (16I, 16J, 20F; 20G through 20V, and 28, unless necessary for repair or replacement.

### B. Roller Tray Tiedown Assembly (See figure 3.)

- (1) Remove spring pin (31), handle (32), and spring washer (33). Unscrew tension fitting nut (34) and remove spring washer (35), washer(s) (36), and attachment stud (37) from tiedown plate assembly (38).

NOTE: Do not remove rivets (39, 41, or 43), spacer (40), or shear fitting (42), or disassemble plates (44 and 45) unless repair or replacement makes it necessary.

## 3. CLEANING

- A. Use a cloth moistened with cleaning solvent, Specification P-D-680 or equivalent, to clean all parts except bearings (26) in roller assembly (25). (See figure 3.)

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(SEE PAGE 1)

- B. Clean all bearings per 20-30-01, Cleaning and Relubricating Antifriction Bearings.

**CAUTION:** DO NOT ALLOW SOLVENT TO PENETRATE BEARING SEAL. SUCH PENETRATION WILL PERMIT CONTAMINATION OF THE BEARING AND WILL SHORTEN BEARING LIFE.

- C. Remove stubborn accumulations of foreign material with a stiff-bristle brush.
- D. Remove lint, string, and thread, if wound between roller assembly (25) and roller tray (29 or 30).

4. INSPECTION/CHECK

A. Visual Check

- (1) Examine all parts for excessive wear, deformation, burring, cracking, breaking and corrosion. Use a strong light and a minimum of 10-power magnification.
- (2) Examine entire basic assembly for loose fasteners, corrosion, damage, and general condition of finish.
- (3) Examine all roller assemblies (25) for defective swaging; examine all bearings for excessive radial or axial play. (See figure 3.)
- (4) Examine bearing, bushing, and bolt holes for excessive or eccentric wear.
- (5) Check attachment assembly (9) and tiedown assembly, 69-33942-1, for dirty, binding, broken or worn parts.

B. Special Check (See figure 3.)

- (1) If visual examination discloses evidence of defects in any of the listed parts, perform following checks:
  - (a) Penetrant check -- lever (10) and housing (16).
  - (b) Magnetic particle check -- studs (3, 16C, 19, 20E, and 37) and nut (34).



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C. Spring Check (Fig. 3)

- (1) Check spring (12) for 0.011 to 0.013 pound-inch load at 22-degree angular rotation, and 0.07 to 0.09 pound-inch load at 147-degree angular rotation. Maximum angular rotation without permanent set is 180 degrees.
- (2) Check spring (15) for roundness by rolling on a flat surface. There must be no wobble. Check spring for approximate free length of 0.81 inch. Compress spring to 0.367 to 0.477 inch and check for 6.65- to 8.11-pound load.
- (3) Check spring washer (33) for free height of approximately 0.135 inch. Spring must return to 0.085 inch minimum after being fully deflected.
- (4) Check spring washer (35) for free height of 0.045 to 0.075 inch. Spring must return to at least one-half of free height after being fully deflected.

5. REPAIR

A. Refinish (Fig. 3)

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

- (1) Studs (3, 16C, 19, and 20E) and attachment stud (37) -- Cadmium plate (F-1.1913) all over. Material: Steel, AMS 4140, 160-180 ksi.
- (2) Lever (11), channels (16I, 20J, 200, and 20T), angles (20F, 20I, 20N, and 20S), filler (22), rollers (27), roller trays (29 and 30, 30A), handle (32), shear fitting (42), and plates (44 and 45) -- Anodize (F-2.20) all over. Apply SRF-14.903-702 to depressed lettering on lever (11) and handle (32). Material: Al Alloy.
- (3) Torsion spring (12) -- Cadmium plate (F-1.1923) all over. Material: Music wire.
- (4) Shear stud (14) -- Anodize (F-2.22) all over. Material: Al Alloy.

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- (5) Housing (16)
  - (a) Aluminum -- Anodize (F-2.20) all over.
  - (b) Nylon, glass-fiber filled -- None required.
- (6) Washer (33) -- Cadmium plate (F-1.191) all over. Material: Spring steel, 1095, 180-220 ksi.
- (7) Nut (34) -- Cadmium plate (F-1.191) all over. Material: Steel, AMS 4130, 160-180 ksi.
- (8) Handle (9B), stud (9C), housing (9E) -- Chromic acid (F-2.26) all over. Material: Al alloy.
- (9) Roller assy (25) -- Apply no finish, except apply temporary coatings per 20-44-02.

B. Replacement (Fig. 3)

- (1) Replace any part found damaged beyond minor repair.
- (2) Should housing (16) be replaced, it is not necessary to install a replacement roll pin (8).
- (3) If bearing (26) or roller (27) is damaged to the degree that replacement is necessary, replace bearing (26) by sleeve staking four places between old staking points, per 20-50-03, Bearing Installation and Retention. Overall length of roller assembly shall be 3.97 inches with bearings installed.
- (4) Should any aluminum foil marker (28) be obliterated or destroyed, remove any remaining parts and adhesive and install new marker per 20-50-05, Application of Aluminum Foil and Other Markers.
- (5) If any roller tray (29 or 30) is damaged to the degree that serviceability is impaired, it is recommended that the assembly be replaced.
- (6) If any part of tiedown plate assembly (38) must be replaced, proceed as follows:
  - (a) Disassemble as applicable: Remove rivet (39) and spacer (40); remove rivet (41) and shear fitting (42); remove rivets (43) and separate plates (44 and 45).
  - (b) Reassemble as applicable: Place plates (44 and 45) together and install rivets (43); place shear fitting (42) and install rivet (41); place spacer (40) and install rivet (39) to complete the assembly of tiedown plate (38).

6. ASSEMBLY

A. Attachment Assembly (9) (See figure 3.)

- (1) Place spring (15) on shear stud (14) and insert into housing (16).
- (2) Locate washer (13), spring (12) and lever (11).
- (3) Secure parts together using rivet (10).

B. Roller Tray Assembly (See figure 3.)

- (1) Insert spacer (24) into roller assembly (25). Position these parts on roller tray (29) and insert bolt (23) with properly placed fillers (22). Place nut (21) and carefully tighten to visually eliminate endplay on roller without binding.
- (2) Position attachment assembly (9); install screws (7 or 16G), washers (6 or 16F), and nuts (5 or 16E).

NOTE: Roll pin (8 or 16H) is not required, and may be omitted.

- (3) Place spacer (4 or 16D) on stud (3 or 16C) and insert stud through tray (29) and through attachment assembly (9). Install washer (2 or 16B) and nut (1 or 16A).

NOTE: If roll pin (8 or 16H) is not used, check to ensure that the latching side of stud (3 or 16C) is turned away from shear stud (14). (See figure 2.)

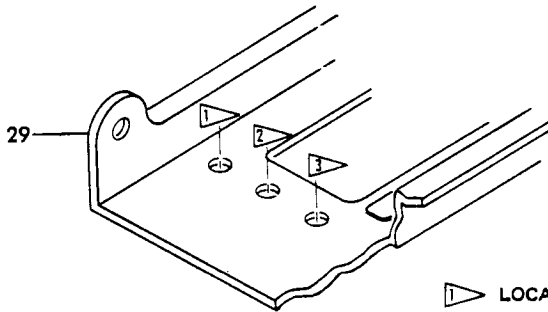
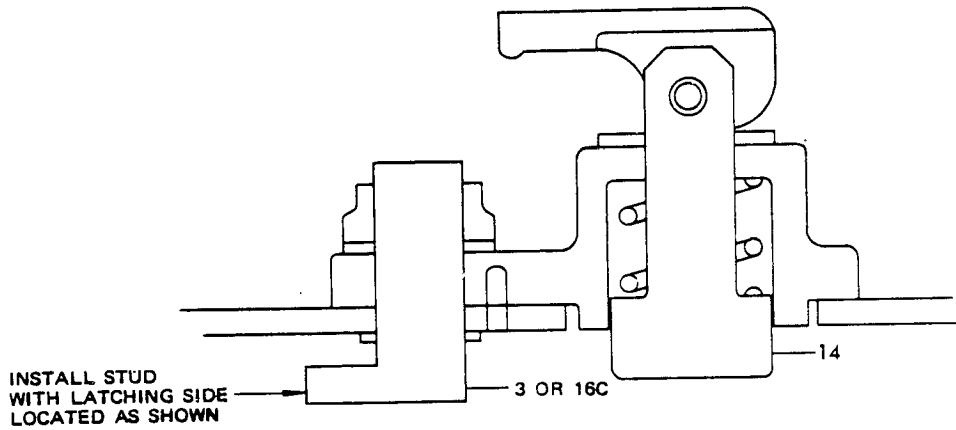
- (4) Place spacer (20 or 20D) on stud (19 or 20E) and insert stud through tray (29). Install washer (18 or 20C) and nut (17 or 20B). (See figure 2 for location.)

C. Roller tray tiedown assembly (See figure 3.)

- (1) Insert attachment stud (37) into tiedown plate assembly (38).
- (2) Locate washers (35 and 36) and thread tension fitting nut (34) into place.

NOTE: Install washers (36), if and as required, to compress spring washer (35) within 0.01 to 0.03 inch of flattened position.

- (3) Install spring washer (33), handle (32), and spring pin (31).



- 1 LOCATION FOR STUD (19 OR 20E) ON 65-42638-23 THROUGH -28
- 2 LOCATION FOR STUD (19 OR 20E) ON 65-42638-2 THROUGH -8
- 3 LOCATION FOR STUD (19 OR 20E) ON 65-42638-33 THROUGH -38

Stud Alignment Detail  
Figure 2

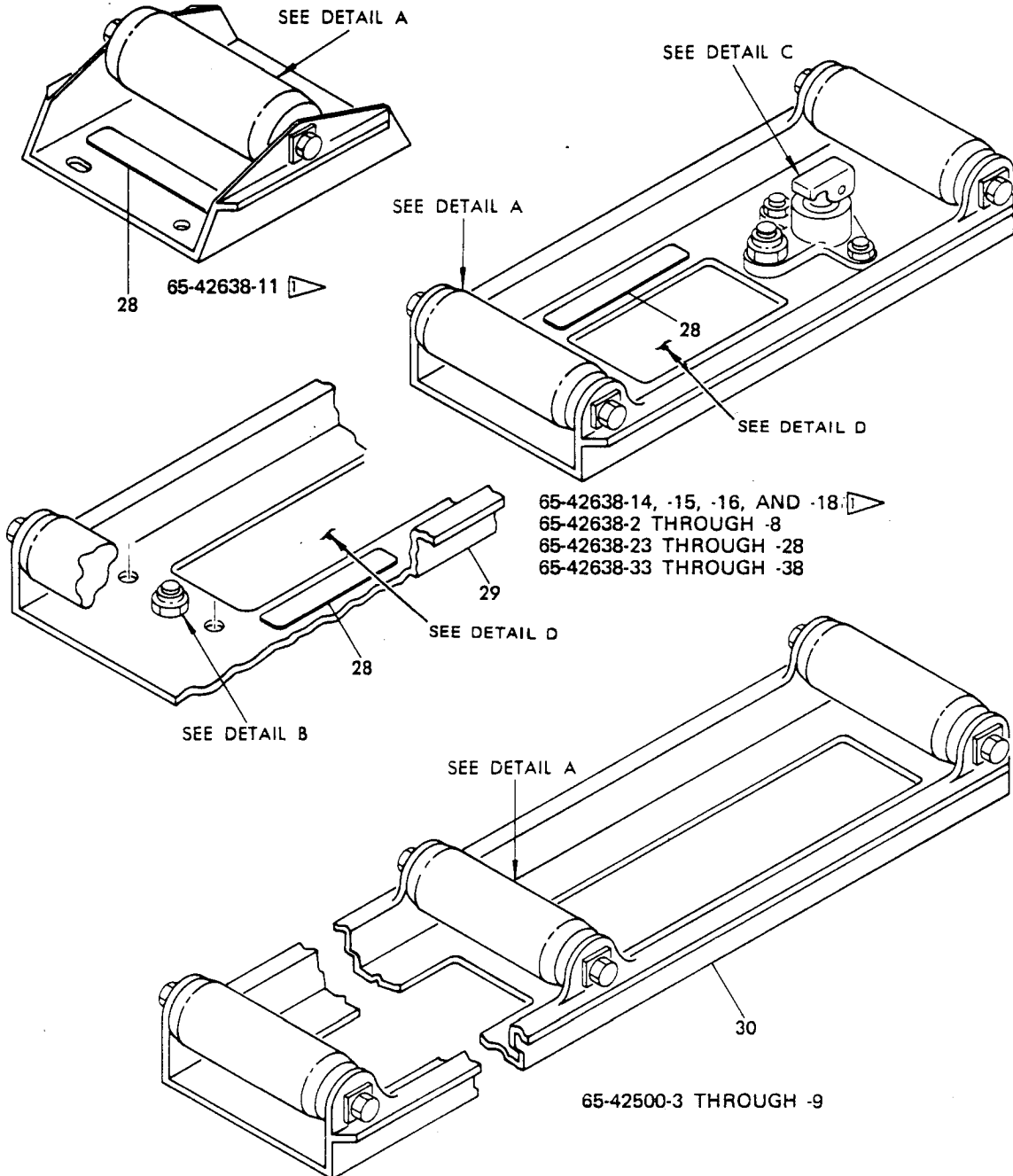
7. TESTING


- A. Manually spin all roller assemblies (25) to check for binding, roughness and excessive axial and radial play. End play of 0.001 to 0.003 inch is normal. (See figure 3.)

8. STORAGE INSTRUCTIONS

- A. Wrap entire assembly in vapor barrier paper and store indoors. Refer to 20-44-02, Temporary Protective Coatings, for further information.

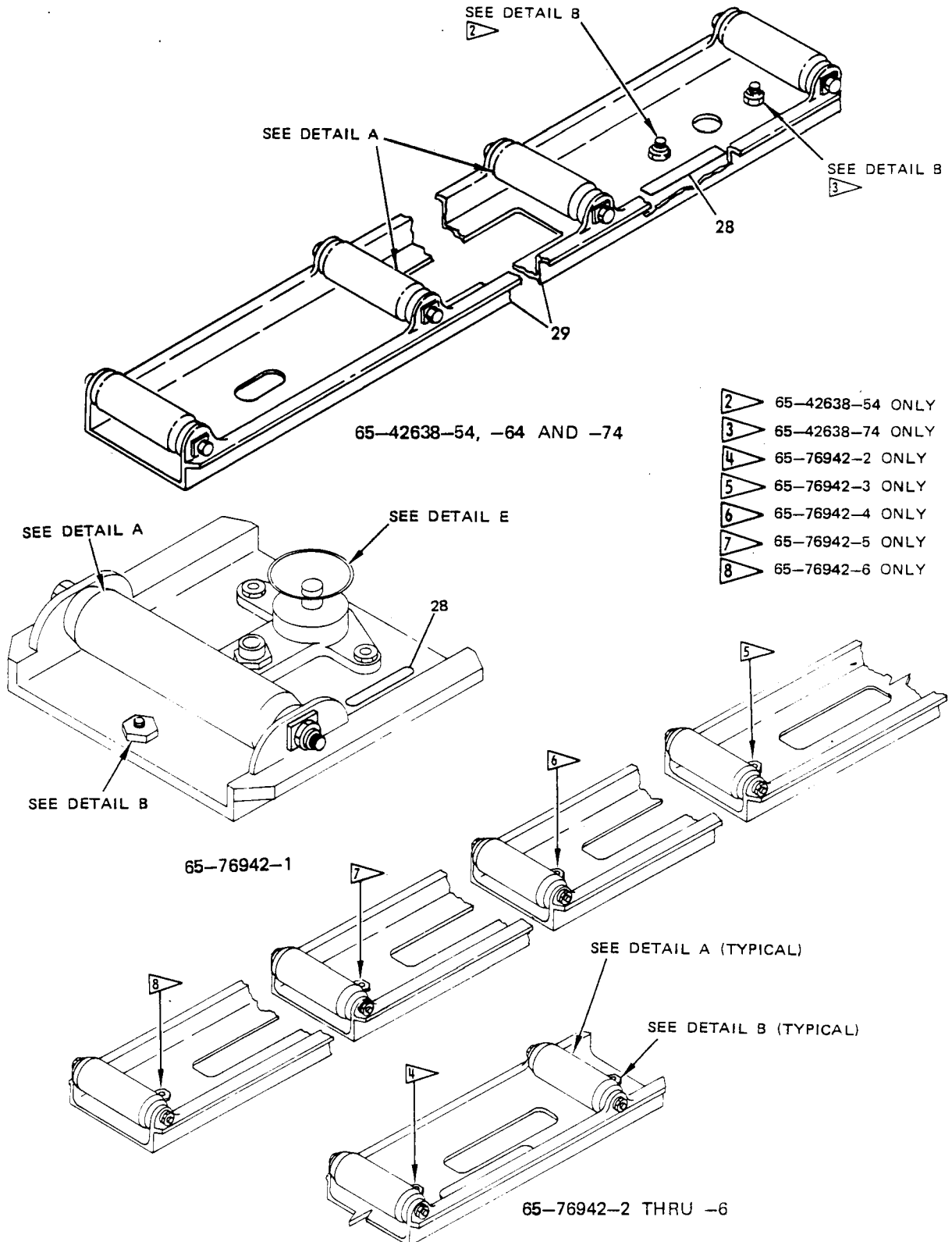
9. ILLUSTRATED PARTS LIST



 DOES NOT HAVE STUD OR TIEDOWN ASSEMBLY PER DETAILS B AND C

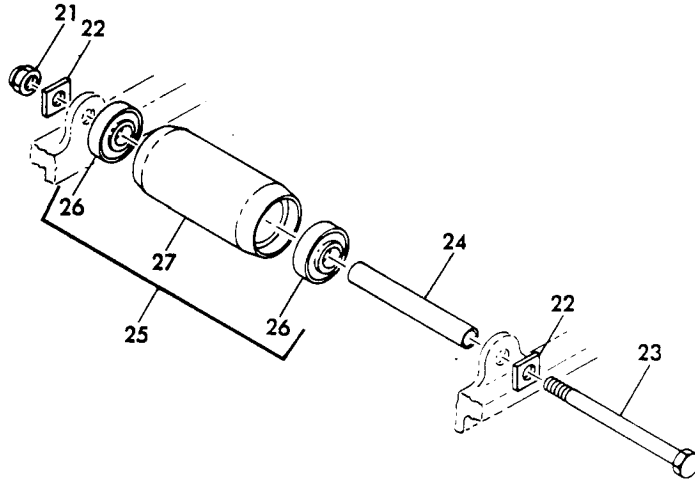
65-42638, 65-42500,  
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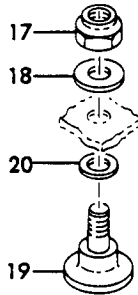


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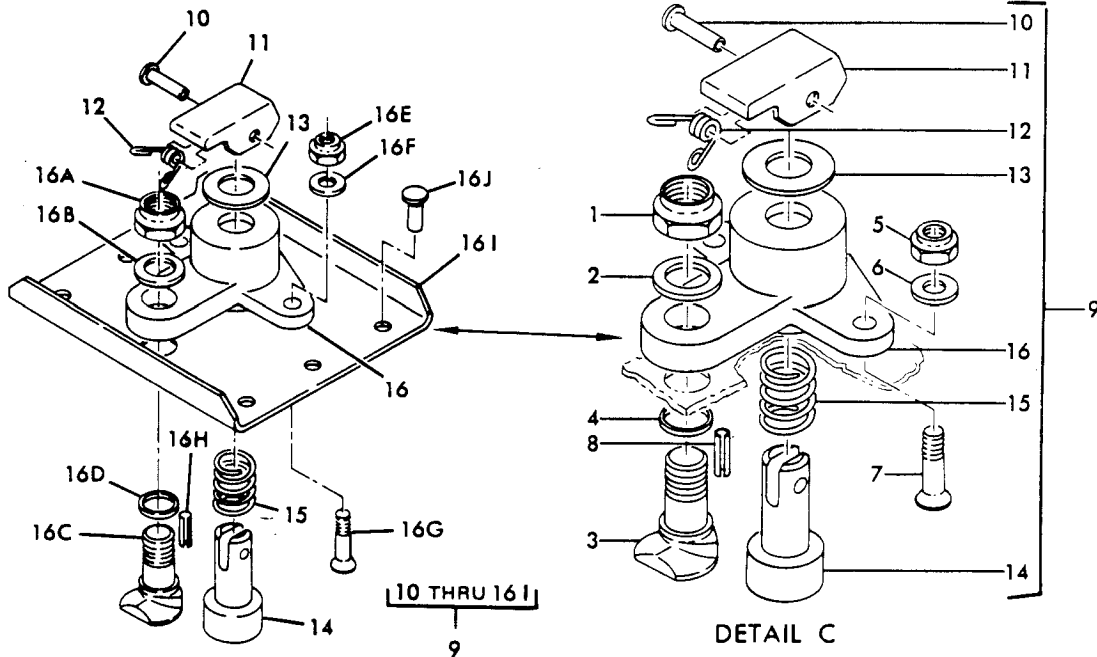
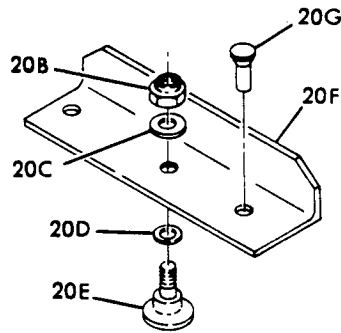
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65-76942, 69-33942  
DASH NUMBERS LIMITED

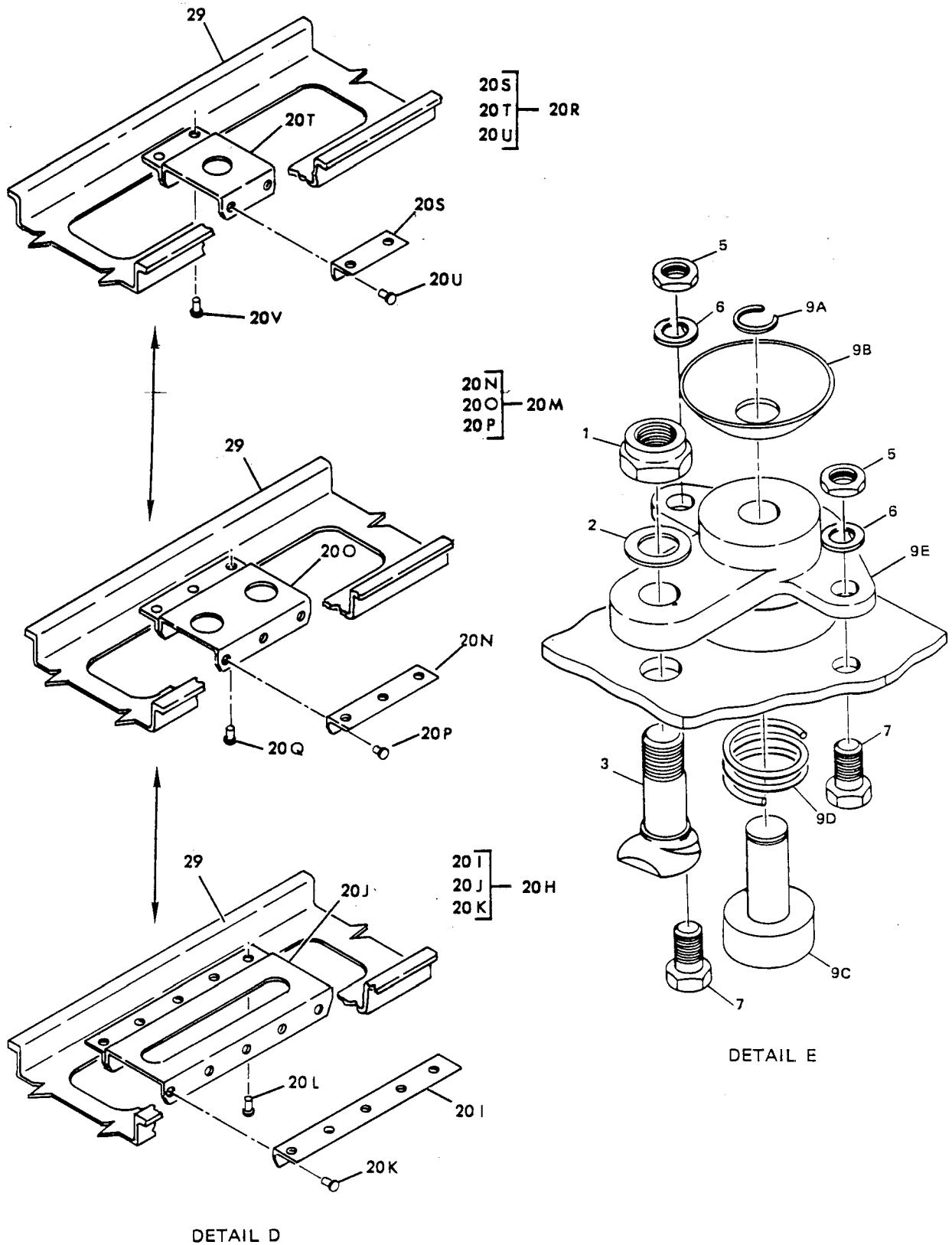


DETAIL A



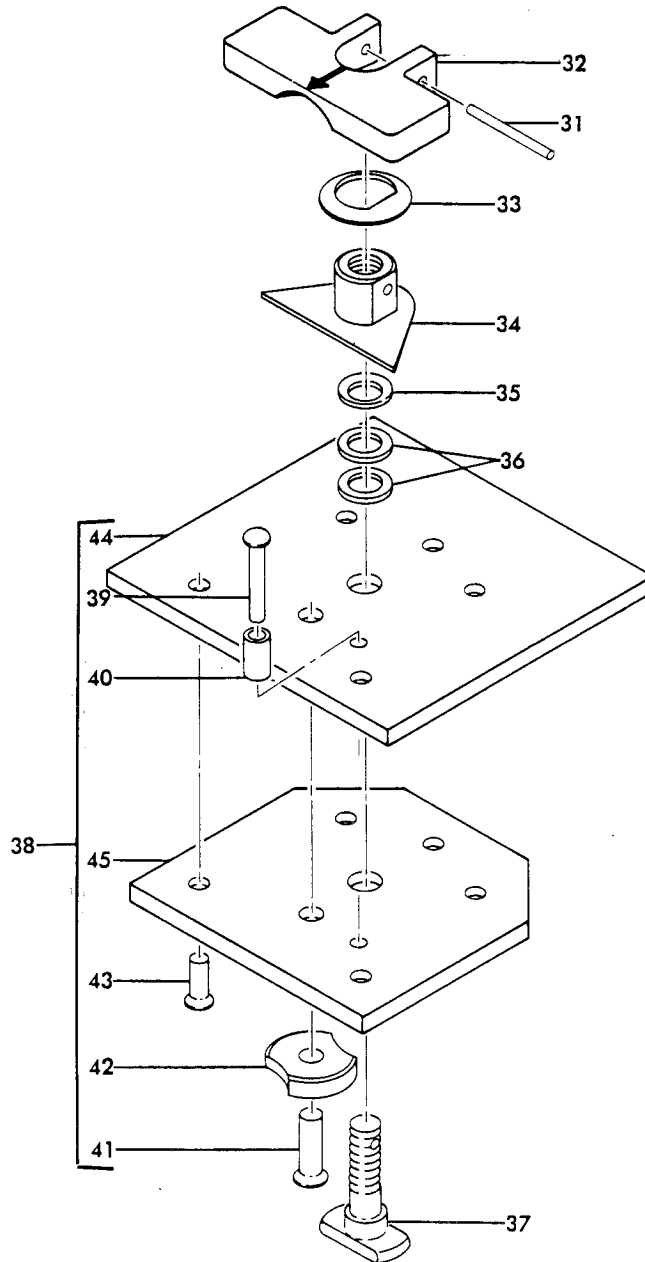
DETAIL B





Main Deck Palletized Cargo System Roller Tray and Roller Tray Tiedown Assemblies  
Sep 5/84 Figure 3 (Sheet 4)





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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	65-42638-2		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							A	RF
	65-42638-2		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB'S 2133, 2134, 2136)							LA	RF
	65-42638-3		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							B	RF
	65-42638-3		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB'S 2133, 2134, 2136, 2137)							MA	RF
	65-42638-4		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							C	RF
	65-42638-5		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							D	RF
	65-42638-5		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB'S 2133, 2134, 2137)							NA	RF
	65-42638-6		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							E	RF
	65-42638-7		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							F	RF
	65-42638-7		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB'S 2133, 2134, 2136)							OA	RF
	65-42638-8		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							G	RF
	65-42638-8		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB 2137)							PA	RF
	65-42638-11		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							H	RF
	65-42638-14		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							J	RF
	65-42638-15		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							K	RF
	65-42638-15		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB 2136)							QA	RF
	65-42638-16		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							L	RF
	65-42638-16		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB 2136)							RA	RF

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	65-42638-18		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							M	RF
	65-42638-18		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB 2136)							SA	RF
	65-42638-23		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							N	RF
	65-42638-24		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							O	RF
	65-42638-25		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							P	RF
	65-42638-26		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							Q	RF
	65-42638-27		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							R	RF
	65-42638-27		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB'S 2133, 2134, 2136)							TA	RF
	65-42638-28		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							S	RF
	65-42638-28		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY *[1] (SB 2137)							UA	RF
	65-42638-33		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							T	RF
	65-42638-34		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							U	RF
	65-42638-35		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							V	RF
	65-42638-36		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							W	RF
	65-42638-37		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							X	RF
	65-42638-38		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							Y	RF
	65-42638-54		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							HA	RF
	65-42638-64		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							JA	RF
	65-42638-74		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							KA	RF

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-	65-76942-1		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							VA	RF
	65-76942-2		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							WA	RF
	65-76942-3		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							XA	RF
	65-76942-4		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							YA	RF
	65-76942-5		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							ZA	RF
	65-76942-6		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							AB	RF
	65-76942-16		MAIN DECK PALLETIZED CARGO SYSTEM ROLLER TRAY ASSY							BB	RF
	65-42500-3		ROLLER TRAY ASSY							AA	RF
	65-42500-4		ROLLER TRAY ASSY							BA	RF
	65-42500-5		ROLLER TRAY ASSY							CA	RF
	65-42500-6		ROLLER TRAY ASSY							DA	RF
	65-42500-7		ROLLER TRAY ASSY							EA	RF
	65-42500-8		ROLLER TRAY ASSY							FA	RF
	65-42500-9		ROLLER TRAY ASSY							GA	RF
1	69-33942-1		CARGO SYSTEM ROLLER TRAY TIEDOWN ASSY							Z	RF
	BACN10JC6		. NUT (REPLS NAS679A6)							A-G N-Y VA	1
	2	AN960PD616L	. WASHER							A-G N-Y VA	1
			. STUD							A-G N-Y VA	1
			. SPACER							A-G N-Y VA	AR
5	BACN10JC3		. NUT (REPLS NAS679A3W)							A-G N-Y VA	2

OVERHAUL MANUAL

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3- 6	AN960PD10L		.	W	A	S	H	E	R	A-G N-Y VA	2
7	NAS514P1032- 10		.	S	C	R	E	W		A-G N-Y VA	2
7	NAS514P1032- 8		.	S	C	R	E	W		VA	2
8	MS16562-25		.	P	I	N	,	R	O	A-G N-Y	AR
9	69-43314-1		.	A	T	T	A	C	H	A	1
9	69-34509-1		.	A	T	T	A	C	H	A	1
9	69-34847-1		.	A	T	T	A	C	H	A	1
9	69-44143-1		.	A	T	T	A	C	H	A	1
9A	MS16624-1035		.	.	R	I	N	G	,	R	1
9B	69-44144-1		.	.	H	A	N	D	L	E	1
9C	69-44145-1		.	.	S	T	U	D		VA	1
9D	MS24585-C331		.	.	S	P	R	I	N	G	1
9E	65-51749-1		.	.	H	O	U	S	I	N	1
10	MS16535-189		.	.	R	I	V	E	T	,	1
10	MS16562-223		.	.	R	I	V	E	T		1
10	MS16562-223		.	.	R	I	V	E	T		1
11	69-39931-1		.	.	L	E	V	E	R		1
11	69-29627-1		.	.	L	E	V	E	R		1
11	69-29627-1		.	.	L	E	V	E	R		1
12	66-20981-1		.	.	S	P	R	I	N	,	1
13	BACW10AT36		.	.	W	A	S	H	E	R	1
13	BACW10AT26		.	.	W	A	S	H	E	R	1
14	66-20783-1		.	.	S	T	U	D	,	S	1

OVERHAUL MANUAL

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY	
			1	2	3	4	5	6	7			
3-15	MS24585C358		.	.								1
16	65-55996-1		.	.								1
16	69-29646-1		.	.								1
16A	BACN10JC6		.	.								1
16B	AN960PD616L		.	.								1
16C	69-29654-1		.	.								1
16D	NAS43DD6-8		.	.								1
16E	BACN10JC3		.	.								2
16F	AN960PD10L		.	.								2
16G	NAS514P1032-8		.	.								2
16H	MS16562-25		.	.								1
16I	65-44127-10		.	.								1
16J	MS20426B5		.							LA-PA TA UA		6
17	BACN10JC4		.							A-G N-Y HA KA-PA TA-ZA VA-ZA		1
17	BACN10JC4		.							AB BB		2
18	AN960PD416L		.							A-G N-Y HA KA-PA TA ZA AB		1
18	AN960PD416L		.							VA-ZA AB BB		2
19	69-29644-1		.							A-G N-Y HA KA-PA TA-ZA		1
19	69-29644-1		.							VA-ZA AB BB		2



OVERHAUL MANUAL

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-26	22075-78		.	.	BEARING, BALL, V09721 (PREF ON 69-34574-1)						2
26	568A		.	.	BEARING, BALL, V73134 (OPT ON 69-34574-1)						2
26	594		.	.	BEARING, BALL, V73134 (USED ON 69-36905-1)						2
27	69-34573-1		.	.	ROLLER						1
27	69-36904-1		.	.	ROLLER (USED ON 69-36905-1)						1
28	BACM10N2EGT		.	.	MARKER, ALUMINUM FOIL (SB'S 2133, 2134, 2136)				A	LA	2
28	BACM10N2EGU		.	.	MARKER, ALUMINUM FOIL (SB'S 2133, 2134, 2136, 2137)				B	MA	2
28	BACM10N2EGV		.	.	MARKER, ALUMINUM FOIL				C		2
28	BACM10N2EGW		.	.	MARKER, ALUMINUM FOIL (SB'S 2133, 2134, 2137)				D	NA	2
28	BACM10N2EGX		.	.	MARKER, ALUMINUM FOIL				E		2
28	BACM10N2EGY		.	.	MARKER, ALUMINUM FOIL (SB'S 2133, 2134, 2136)				F	OA	2
28	BACM10N2EGZ		.	.	MARKER, ALUMINUM FOIL (SB 2137)				G	PA	2
28	BACM10N2EHJ		.	.	MARKER, ALUMINUM FOIL (SB 2136)				K	QA	2
28	BACM10N2EHK		.	.	MARKER, ALUMINUM FOIL (SB 2136)				L	RA	2
28	BACM10N2EHL		.	.	MARKER, ALUMINUM FOIL (SB 2136)				M	SA	2
28	BACM10N2EHM		.	.	MARKER, ALUMINUM FOIL				Q		2
28	BACM10N2EHN		.	.	MARKER, ALUMINUM FOIL (SB'S 2133, 2134, 2136)				R	TA	2
28	BACM10N2EHP		.	.	MARKER, ALUMINUM FOIL (SB 2137)				S	UA	2
28	BACM10N2EHR		.	.	MARKER, ALUMINUM FOIL				W		2
28	BACM10N2EHS		.	.	MARKER, ALUMINUM FOIL				X		2
28	BACM10N2EHT		.	.	MARKER, ALUMINUM FOIL				Y		2
28	BACM10N2EJB		.	.	MARKER, ALUMINUM FOIL				O		2
28	BACM10N2EJC		.	.	MARKER, ALUMINUM FOIL				U		2
28	BACM10N2ELD		.	.	MARKER, ALUMINUM FOIL				N		2
28	BACM10N2ELE		.	.	MARKER, ALUMINUM FOIL				T		2
28	BACM10N2ELF		.	.	MARKER, ALUMINUM FOIL				P		2
28	BACM10N2ELG		.	.	MARKER, ALUMINUM FOIL				V		2
28	BACM10N2ESU		.	.	MARKER, ALUMINUM FOIL				J		2
28	BACM10N2ESV		.	.	MARKER, ALUMINUM FOIL				H		1
28	BAC27DCA122		.	.	MARKER, ALUMINUM FOIL				HA		1
28	BAC27DCA123		.	.	MARKER, ALUMINUM FOIL				JA		1





OVERHAUL MANUAL

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
3-											
31	MS16562-28									Z	1
32	69-29616-1									Z	1
33	66-20718-1									Z	1
34	69-29626-1									Z	1
35	BACW10AZ4									Z	1
36	BACW10P61S									Z	3
37	69-29622-2									Z	1
38	69-33946-1									Z	1
39	MS20470D4										1
40	NAS42DD4-20										1
41	MS20426D6										1
42	66-20717-1										1
43	MS20426D5										5
44	69-33946-2										1
45	69-33946-3										1

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- \*[1] Equivalent but not identical to production assembly
- \*[2] 69-43314-1 optional to items 10 through 16 of 69-34847-1
- \*[3]\*[6] Use 1 on 65-42638-11, and 65-76942-1
- \*[7] Use 1 on 65-76942-1
- \*[3] Use 2 on 65-42638-2, and 65-76942-2
- \*[7] Use 2 on 65-76942-2
- \*[6] Use 2 on 65-42638-11, and 65-76942-1
- \*[3] Use 3 on 65-42638-3, -23, -33, 65-42500-3, and 65-76942-3
- \*[7] Use 3 on 65-76942-3
- \*[3] Use 4 on 65-42638-4, -14, -24, -34, -54, -64, -74, 65-42500-4,  
and 65-76942-4
- \*[6] Use 4 on 65-42638-2, and 65-76942-2
- \*[7] Use 4 on 65-76942-4
- \*[3] Use 5 on 65-42638-5, -15, -25, -35, 65-42500-5, -8, and 65-76942-5
- \*[7] Use 5 on 65-76942-5
- \*[3] Use 6 on 65-42638-6, -16, -26, -36, and 65-76942-6, -16
- \*[6] Use 6 on 65-42638-3, -23, -33, and 65-76942-3
- \*[7] Use 6 on 65-76942-6, and -16
- \*[3] Use 7 on 65-42638-7, -27, and -37
- \*[3] Use 8 on 65-42638-8, -18, -28, -38, 65-42500-6, and -7
- \*[6] Use 8 on 65-42638-4, -14, -24, -34, -54, -64, -74, and 65-76942-4
- \*[3] Use 10 on 65-42500-9
- \*[6] Use 10 on 65-42638-5, -15, -25, -35, and 65-76942-5
- \*[6] Use 12 on 65-42638-6, -16, -26, -36, and 65-76942-6, -16

65-42638, 65-42500  
65-76942, 69-33942  
DASH NUMBERS LIMITED



OVERHAUL MANUAL

- \*[6] Use 14 on 65-42638-7, -27, and -37
- \*[6] Use 16 on 65-42638-8, -18, -28, and -38
- \*[4] No Boeing part number assigned; converted from  
65-37200-1,-2,-3,-5 and 65-42392-1, -3 to functional  
configuration of 65-42634-1,-2,-4, -5 through -11
- \*[5] Install washers (36), if and as required, to compress spring  
washer (35) within 0.01 to 0.03 inch of flattened position

65-42638, 65-42500,  
69-33942  
DASH NUMBERS LIMITED  
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**BOEING**   
**COMMERCIAL JET**  
**OVERHAUL MANUAL**

VENDORS

V09721      General Bearing Company, High Street, West Nyack, New York 10994  
V73134      Heim Universal Division of North American Rockwell Corporation, 60  
              Round Hill Road, Fairfield, Connecticut 06430

**BOEING**  
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69-33942  
DASH NUMBERS LIMITED  
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Part No.	Fig. and Index No.	Qty. per Assy.	Part No.	Fig. and Index No.	Qty. per Assy.
AN4-46A		AR	BAC27DCAL22	28	1
AN960PD10L		AR	BAC27DCAL23	28	1
AN960PD416L		AR	BAC27DCAL36	28	1
AN960PD616L		AR			
BACMLON2EGT	3-28	2	MS16535-189		AR
BACMLON2EGU	28	2	MS16562-223		AR
BACMLON2EGV	28	2	MS16562-25		AR
BACMLON2EGW	28	2	MS16562-28		AR
BACMLON2EGX	28	2	MS20426B5		AR
BACMLON2EGY	28	2	MS20426D5		AR
BACMLON2EGZ	28	2	MS20426D6		AR
BACMLON2EHJ	28	2	MS20470D4		AR
BACMLON2EHK	28	2	MS20470D5		AR
BACMLON2EHL	28	2	MS21042-4		AR
BACMLON2EHM	28	2	MS24585C358		AR
BACMLON2EHN	28	2	NAS42DD4-20		AR
BACMLON2EHP	28	2	NAS43DD4-2		AR
BACMLON2EHR	28	2	NAS43DD4-8		AR
BACMLON2EHS	28	2	NAS43DD6-2		AR
BACMLON2EHT	28	2	NAS43DD6-8		AR
BACMLON2EJB	28	2	NAS514P1032-10		AR
BACMLON2EJC	28	2	NAS514P1032-8		AR
BACMLON2ELD	28	2			
BACMLON2ELE	28	2	22075-78	26	2
BACMLON2ELF	28	2			
BACMLON2ELG	28	2	568A	26	2
BACMLON2ESU	28	2			
BACMLON2ESV	28	1	65-37200-1	30	1
BACN1OJC3	5	2	65-37200-2	30	1
BACN1OJC3	16E	2	65-37200-3	30	1
BACN1OJC4	17	1	65-37200-5	30	1
BACN1OJC4	20B	1	65-42392-1	30	1
BACN1OJC6	1	1	65-42392-2	30	1
BACN1OJC6	16A	1	65-42392-3	30	1
BACW1OAT26	13	1	65-42500-3	3	Ref
BACW1OAT36	13	1	65-42500-4	3	Ref
BACW1OAZ4	35	1	65-42500-5	3	Ref
BACW1OP6LS	36	3	65-42500-6	3	Ref

65-42638, 65-42500,  
69-33942  
DASH NUMBERS LIMITED  
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Part No.	Fig. and Index No.	Qty. per Assy.
65-42500-7	3-	Ref
65-42500-8	3	Ref
65-42500-9	3	Ref
65-42634-1	29	1
65-42634-10	29	1
65-42634-11	29	1
65-42634-12	29	1
65-42634-13	29	1
65-42634-14	29	1
65-42634-15	29	1
65-42634-16	29	1
65-42634-17	29	1
65-42634-2	29	1
65-42634-3	29	1
65-42634-4	29	1
65-42634-5	29	1
65-42634-6	29	1
65-42634-7	29	1
65-42634-8	29	1
65-42634-9	29	1
65-42638-11	3	Ref
65-42638-14	3	Ref
65-42638-15	3	Ref
65-42638-16	3	Ref
65-42638-18	3	Ref
65-42638-2	3	Ref
65-42638-23	3	Ref
65-42638-24	3	Ref
65-42638-25	3	Ref
65-42638-26	3	Ref
65-42638-27	3	Ref
65-42638-28	3	Ref
65-42638-3	3	Ref
65-42638-33	3	Ref
65-42638-34	3	Ref
65-42638-35	3	Ref
65-42638-36	3	Ref
65-42638-37	3	Ref
65-42638-38	3	Ref

Part No.	Fig. and Index No.	Qty. per Assy.
65-42638-4	3	Ref
65-42638-5	3	Ref
65-42638-54	3	Ref
65-42638-6	3	Ref
65-42638-64	3	Ref
65-42638-7	3	Ref
65-42638-74	3	Ref
65-42638-8	3	Ref
65-44127-1	20H	2
65-44127-1	20H	3
65-44127-10	16I	1
65-44127-11	20F	1
65-44127-2	20M	1
65-44127-3	20R	1
65-44127-4	20I	2
65-44127-5	20J	1
65-44127-6	20N	2
65-44127-7	20 O	1
65-44127-8	20S	2
65-44127-9	20T	1
65-55996-1	16	1
66-20717-1	42	1
66-20718-1	33	1
66-20783-1	14	1
66-20981-1	12	1
66-21893-1	22	AR
69-29616-1	32	1
69-29622-2	37	1
69-29626-1	34	1
69-29627-1	11	1
69-29644-1	19	1
69-29644-1	20E	1
69-29646-1	16	1
69-29654-1	3	1
69-29654-1	16C	1
69-33942-1	3	Ref
69-33946-1	38	1
69-33946-2	44	1
69-33946-3	45	1

