

TO: ALL HOLDERS OF PALLET ROLLOUT STOP ASSEMBLY OVERHAUL MANUAL, 25-57-07

REVISION NO. 3, DATED JUL 1/98

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED												
	D & O	D / A s s y	C l e a n i n g	I n s p / C h k	R e p a i r	A s s y	F / C	T e s t	T / S h o o t i n g	S / T o o l s	S t o r a g e	I P L	L / O v e r h a u l
Changed solvent data to agree with new environmental protection regulations					X								

# PALLET ROLLOUT STOP ASSEMBLY

## 25-57-07

| BOEING P/N 69-39383-1, -2, -4

AIRLINE P/N

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THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
SB 25-172		PRR 22418 PRR 33237 PRR 23279	Nov 15/67 Jun 5/84 May 10/87

## LIST OF EFFECTIVE PAGES

- \* Indicates pages revised, added or deleted in latest revision
- F Indicates foldout pages - print one side only

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25-57-07					
T-1	May 10/87				
T-2	BLANK				
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PALLET ROLLOUT STOP ASSEMBLY

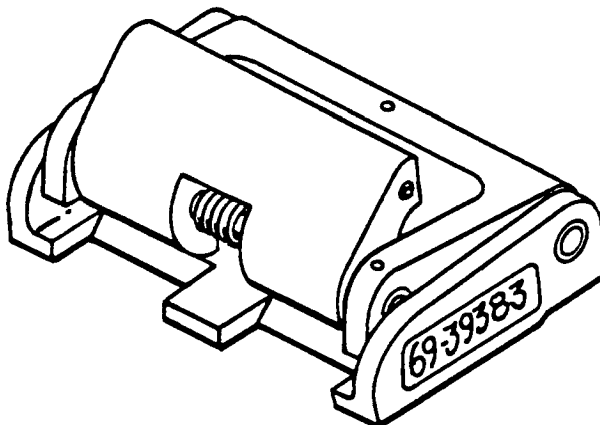


Figure 1. Pallet Rollout Stop Assembly

DESCRIPTION AND OPERATION

1. Description

- A. The pallet rollout stop assembly consists of aluminum forged stop block and yoke assemblies, a steel base assembly and attaching parts.

2. Operation

- A. Two pallet rollout stop assemblies are attached to the left outboard seat track at the main cargo door location on the cargo aircraft. These pallet stops can be extended to provide lateral restraint for passenger or cargo pallets or can be retracted to allow pallets to be rolled out the cargo door opening.

3. Leading Particulars

Length -- 4.5 inches (approximately)  
Width -- 3.0 inches (approximately)  
Height -- 2.0 inches (approximately)  
Weight -- 2.3 pounds (approximately)

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DISASSEMBLY

1. Remove two pins (1) from yoke (23). (See figure 1101.)
2. Remove hinge pin (2) and separate yoke assembly (22) from base assembly (14).
3. Remove pin (3) from pivot pin (4) and slide out pivot pin (4) separating stop block assembly (18) from yoke assembly (22) and remove torsion spring (5).
4. Remove pins (6), bolts (7), tension studs (8), pins (9) and springs (10) from base (15).
5. Remove screws (11) and shear studs (12) from base (15).
6. Remove set screw (13) from base (15).

NOTE: Do not remove bushings (16) or shim (27) from base (15) unless repair or replacement is necessary.

7. Remove plunger springs (17) or detents (21) from stop block (19) if repair or replacement is necessary.

NOTE: Do not remove bushings (20) from stop block (19) unless repair or replacement is necessary.

8. Remove detents (24) from yoke (23) if repair or replacement is necessary.

NOTE: Do not remove metal-cal (25) from base (15) or metal-cal (26) from yoke (23) unless replacement is required.

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CLEANING

1. General

- A. Wash and rinse all metal parts in dry cleaning solvent, Federal Specification P-D-680 or equivalent.
- B. Remove stubborn accumulations of dirt with stiff bristle brush. Do not use metal brush.
- C. Drain and dry parts thoroughly with clean, lint-free cloth, or with clean, dry air.
- D. For further cleaning information, refer to "General Cleaning Procedures," Subject 20-30-03.

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INSPECTION/CHECK

1. Examine all metal parts for cracks, burrs and corrosion using strong light and 10-power magnification.
2. Examine internal and external threads for cross threading and stripping.
3. Examine painted or plated surfaces for blisters, chipping or flaking and continuity of coating.
4. Check plunger springs (17, figure 1101) for proper operation and check that ball end protrudes 0.10 inch beyond face of stop block (19).
5. Check torsion spring (5) to assure that moment is not less than 1.12 pound-inches at 33° angular rotation from free position and that maximum moment at 100° angular rotation is 4.12 pound-inches.

CAUTION: DO NOT ROTATE SPRING (5) MORE THAN 100° FROM FREE POSITION TO PREVENT PERMANENT SET.

6. Mount springs (10) with spring legs against flat surface and check that each spring leg will deflect 0.06 inch outward along bearing surface without taking permanent set.
7. Perform a penetrant check on shear stud (12) and yoke (23).
8. Perform a magnetic particle examination on hinge pin (2), pivot pin (4), torsion spring (5), bolt (7), tension stud (8) and base (15).
9. Check bolt holes in base (15) for elongation.
10. Check detents (21 and 24) for excessive wear.
11. Check metal-cals (25 and 26) for legibility and security of mounting.



REPAIR

1. Use standard industry practices for repair of this component.
2. Refinish (Fig. 1101)

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

- A. Hinge pin (2) -- Apply F-1.191 all over and then apply dry lubricant BMS 3-8, class A, per 20-50-08. Material: 17-4PH CRES, 180-220 ksi.
- B. Pivot pin (4) -- Apply F-1.191 all over and then apply dry lubricant BMS 3-8, class A, per 20-50-08. Material: 17-4PH CRES, 180-220 ksi.
- C. Torsion spring (5) -- Apply SRF-1.92 all over. Material: Music wire.
- D. Bolt (7) -- Cadmium plate per BAC5701, Method 1, Type 1, 0.0002 to 0.0003 inch thick. Thread dimensions for 0.2500-32-UNEF-2A thread per Federal Handbook H-28 to be met after plating. SRF-14.905-101 in screw slot only. Material: 410 CRES, 180-200 ksi.
- E. Tension stud (8) -- Apply F-1.181 all over. Material: 18-9-5 MAB steel, 280-285 ksi.
- F. Spring (10) -- Nickle plate per MIL-C-26074A Class 2 to thickness of 0.0005 to 0.001 inch. Material: SAE 1095 steel.
- G. Shear stud (12) -- Apply F-2.20 all over. Material: Alum alloy.
- H. Base (15) -- Apply F-8.07 all over, plus SRF-14.905-101 in bolt (7) slot alignment holes (2 places) only. Material: 17-4PH CRES, 180-220 ksi.
- I. Stop block (19) -- Apply F-2.20 all over. Material: Alum alloy.
- J. Yoke (23) -- Apply F-2.20 all over. Material: Alum alloy.
- K. Detent (24) -- Apply F-8.07 all over. Material: 17-4PH CRES, 180-220 ksi.

3. Replacement (Fig. 1101)

A. Deleted

B. If necessary to replace bushings (16 or 20), apply wet BMS 10-11, type I primer to faying surfaces on new bushing and press per 20-50-03.

NOTE: Install bushing (16) flush to 0.010 inch below flush on inside face. Install bushing (20) flush to 0.010 inch below flush on outside face.

C. If necessary to replace plunger springs (17), install in stop block (19) with Loctite, type E (V05972), and adjust to have ball end protrude 0.10 beyond face of stop block.

D. If necessary to replace detents (21 and 24), press new detents into applicable holes on stop block (19) and yoke (23) with wet BMS 10-11, type I primer on faying surfaces. Stake detent (21) per Fig. 401.

E. If necessary to replace shim (27), bond new shim to base (15) as follows:

(1) Solvent clean applicable surfaces per BAC5750 using solvent, Series 84 (SOPM 20-30-84).

(2) Apply a thin, even coat of EC776R primer (V04963) to metal faying surfaces and allow primer to dry a minimum of 1 hour at 70 to 80°F.

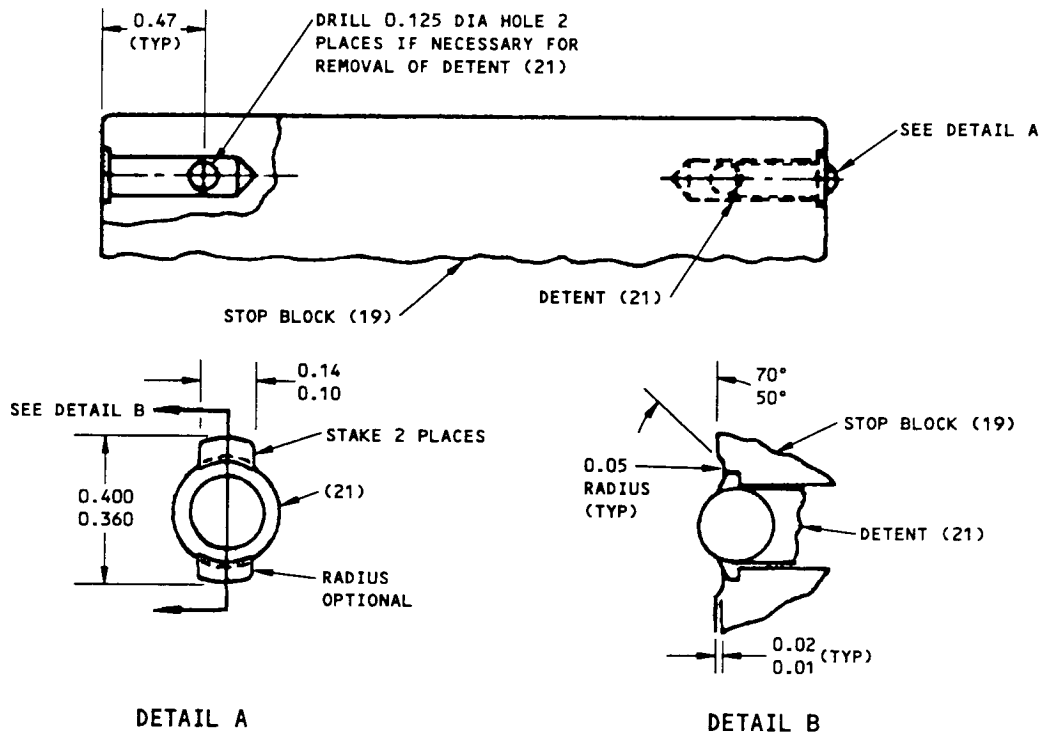
(3) Immediately before use, thoroughly mix the two components of BMS 5-29, type 2 material in equal portions by weight.

NOTE: Pot life of the mixed adhesive is 2 hours at 70°F.

(4) Apply a thin even coat of adhesive to each faying surface.

(5) Assemble, applying firm, uniform pressure to assure complete contact of the faying surfaces.

- (6) Wipe off excess adhesive before it has cured, using a clean cloth moistened with solvent, Series 84 (SOPM 20-30-84).
  - (7) Cure under contact pressure (10 psi maximum) per figure 402.
- F. If necessary to replace metal-cals (25, 26), apply one coat of A.Brown Company, A423 clear epoxy enamel over metal-cal and 1/4 inch side per Subject 20-50-05.



Replacement Diagram  
Figure 401

TEMPERATURE	CURE TIME (HOURS)
70°F	24.0
80°F	19.5
90°F	15.5
100°F	12.5
120°F	7.5

Adhesive Cure Schedule  
Figure 402

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ASSEMBLY

1. Mount shear studs (12, figure 1101) in place on base (15) with screws (11).
2. Mount springs (10) in place on base (15) with pins (9).
3. Attach tension studs (8) to base (15) with bolts (7) and pins (6).  
NOTE: Assure that slots in bolts (7) are in line with colored alignment holes in base (15).
4. Hold stop block assembly (18) in place on yoke assembly (22) and insert pivot pin (4) through holes on one side of yoke (23) and stop block (19).  
NOTE: Assure that pivot pin (4) is installed with hole for pin (3) located for proper installation of torsion spring (5).
5. Apply wet MIL-P-8585, color Y primer to faying surfaces of pin (4).  
CAUTION: USE EXTRA CARE TO PROTECT DRY FILM LUBRICANT ON PIN FROM DIRT OR MECHANICAL DAMAGE DURING ASSEMBLY.
6. Hold torsion spring (5) in place on pin (4) for proper alignment with pin (3) and insert pin (4) through torsion spring (5) and through holes on other side of stop block (19) and yoke (23).
7. Install pin (3) in pivot pin (4) to prevent rotation of spring (5) and install pin (1) through yoke (23) and pivot pin (4) to prevent pivot pin rotation.
8. Apply wet MIL-P-8585, color Y primer to faying surfaces of pin (2) and attach yoke (23) to base (15) by inserting pin (2) through holes and secure with pin (1).  
CAUTION: USE EXTRA CARE TO PROTECT DRY FILM LUBRICANT ON PIN (2) FROM DIRT OR MECHANICAL DAMAGE DURING ASSEMBLY.
9. Install set screw (13) in base (15) and adjust set screw (13), if applicable, or peel laminations from shim (27) to maintain 0.030 inch maximum gap between extreme lower edge of stop block (19) and base (15) with stop block assembly (18) extended.

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TESTING

1. Operational Test (See figure 1101.)
  - A. Cycle assembly five times to assure freedom of operation by pressing down on stop block (19) until plunger springs (17) or detents (21) lock in place on detents (24), and then release.

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TROUBLE SHOOTING

1. Trouble during test after overhaul (See figure 1101.)

<u>TROUBLE</u>	<u>POSSIBLE CAUSE</u>	<u>CORRECTION</u>
A. Stop block (19) does not rotate properly on pivot pin (4)	Torsion spring (5) improperly installed	Disassemble, check and reassemble in proper order
B. Stop block (19) does not stay locked in the retracted position	Plunger springs (17) or detents (21 or 24) improperly installed	Disassemble, check and properly reassemble
C. Stop block (19) binds and will not rotate completely to the retracted position	Plunger springs (17) or detents (21 or 24) improperly installed	Disassemble, check and properly reassemble
D. Improper clearance between base (15) and stop block (19)	Set screw (13) or shim (27) improperly adjusted	Adjust set screw (13) or shim (27) for proper clearance

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STORAGE INSTRUCTIONS

1. Wrap entire unit in vapor barrier paper. Tag with test date and store.
2. For further information, refer to "Temporary Protective Coatings," Subject 20-44-02.

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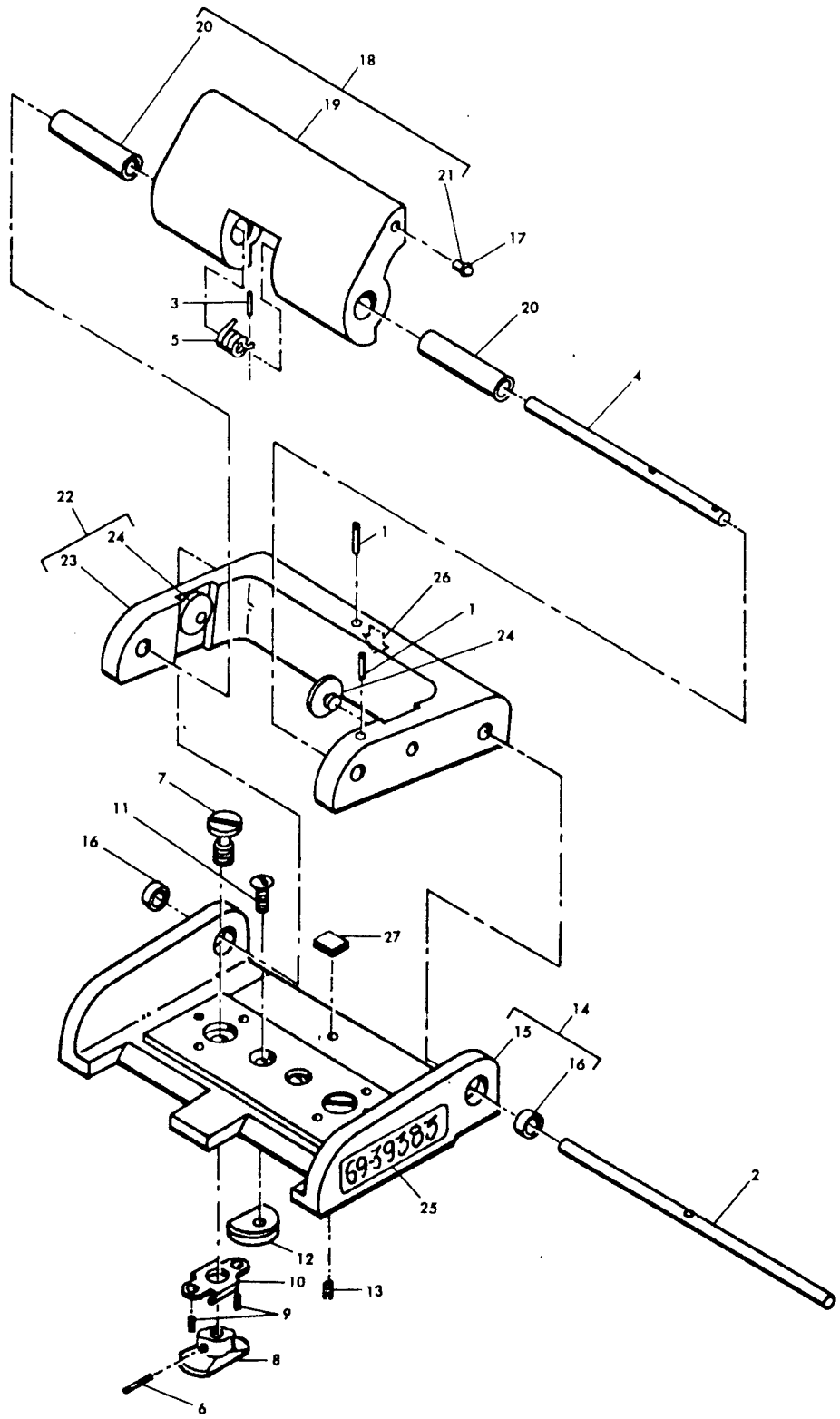
ILLUSTRATED PARTS LIST

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1. Exploded View



Pallet Rollout Stop Assembly  
Figure 1101

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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		
1101	69-39383-1		STOP ASSEMBLY, CARGO SYSTEM PALLET ROLLOUT							A	RF
1101	69-39383-2		STOP ASSEMBLY, CARGO SYSTEM PALLET ROLLOUT							B	RF
	69-39383-4		STOP ASSEMBLY, CARGO SYSTEM PALLET ROLLOUT							C	RF
1	MS16562-10		. PIN, ROLL								2
2	69-39387-2		. PIN, HINGE								1
3	MS16562-6		. PIN, ROLL								1
4	69-39387-1		. PIN, PIVOT								1
5	69-36914-1		. SPRING, TORSION								1
6	MS16562-4		. PIN, ROLL								2
7	66-23613-2		. BOLT								2
7	66-23613-4		. BOLT							C	2
8	69-36923-1		. STUD, TENSION							AB	2
8	69-36923-2		. STUD, TENSION							C	2
9	MS21318-7		. PIN, DRIVE							AB	4
10	69-38412-3		. SPRING							AB	2
10	69-38412-5		. SPRING							C	2
11	BACS12BG3-8		. SCREW								2
12	66-24352-1		. STUD, SHEAR								2
13	NAS1081-08A3		. SET SCREW, SELF-LOCKING							A	1
14	65-51742-1		. BASE ASSEMBLY (PREFERRED)								1
14	65-51742-4		. BASE ASSEMBLY							C	1
14	69-39384-1		. BASE ASSEMBLY (OPTIONAL)							A	1
15	69-39384-2		. . BASE (USED ON 69-39384-1)								1
15	65-51742-2		. . BASE (USED ON 65-51742-1)								1
16	NAS537B5P24		. . BUSHING (USED ON 65-51742-1 AND 69-39384-1)								2
17	S52		. SPRING, PLUNGER, V01226							A	2
18	69-39385-3		. STOP BLOCK ASSEMBLY							A	1
18	69-39385-5		. STOP BLOCK ASSEMBLY							BC	1
19	69-39385-4		. . STOP BLOCK (USED ON 69-39385-3)								1
19	69-39385-6		. . STOP BLOCK (USED ON 69-39385-5)								1
20	NAS537B5P120		. . BUSHING (USED ON 69-39385-3 and -5)								2
21	VQ-147		. . DETENT, V01226 (USED ON 69-39385-5)								2
22	69-39386-3		. YOKE ASSEMBLY								1
23	69-39386-4		. . YOKE								1
24	69-38424-1		. . DETENT								2
25	BAC27DQC146		. METAL-CAL							B	1
25	BACM10N2ENY		. METAL-CAL							A	1
25	BACD27DCA-300		. METAL-CAL							C	1
26	BACM10S35V		. METAL-CAL								1
27	69-39383-3		. SHIM, LAMINATED							BC	1

VENDORS

V01226	Vlier Engineering, Div. of Barry Wright Corp., 2333 Valley St., Burbank, CA 91505-1336
V05972	Loctite Corporation, 705 North Mountain Road, Newington, Connecticut 06111-1411
V04963	Minnesota Mining and Manufacturing Co., Adhesives Coatings and Sealers Division, 2501 Hudson Road, St. Paul, Minnesota 55101-1428