TO: ALL HOLDERS OF ENTRY DOOR ESCAPE SLIDE DEPLOYMENT BAR ASSEMBLY COMPONENT MAINTENANCE MANUAL 25-66-30

REVISION NO. 2 DATED NOV 01/00

HIGHLIGHTS

Pages which have been added or revised are outlined below together with the highlights of the revision. Remove and insert the affected pages as listed and enter Revision No. and date to the Record of Revision Sheet.

CHAPTER/SECTION AND PAGE NO.	DESCRIPTION OF CHANGE

BOEING

COMPONENT
MAINTENANCE MANUAL

ENTRY DOOR ESCAPE SLIDE DEPLOYMENT BAR ASSEMBLY

PART NUMBERS 416T2184-2,-3

COMPONENT MAINTENANCE MANUAL
WITH
ILLUSTRATED PARTS LIST

100471

REVISION RECORD

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

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

TEMPORARY REVISION AND SERVICE BULLETIN RECORD

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

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1002	OCT 10/83	01
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1004	JUL 01/92	01.1
1005	JUL 01/92	01.1
1006	JUL 01/92	01.101

* = REVISED, ADDED OR DELETED

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*[1] Special instructions not required. Use standard industry practices.

INTRODUCTION

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

This manual is divided into separate sections:

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

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

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

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

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

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

ENTRY DOOR ESCAPE SLIDE DEPLOYMENT BAR ASSEMBLY

DESCRIPTION AND OPERATION

1. Description

   A. The entry door escape slide deployment bar assy consists of a deployment bar, two end fitting assys, two end plate assys, a clevis assy, two support clamp assys, two support half assys, two separation link assys and two torsion springs.

2. Operation

   A. The deployment bar assy is attached to the entry/service door. When the door is opened, the girt bar and girt bar carrier are held to the floor. The girt bar pulls on the girt to hold the slide pack down. After the lower edge of the door has moved above the standing pack, the deployment cables pull on the deployment bar. The deployment bar rotates and pushes the slide pack out the door. The slide pack free falls to a position below floor level.

3. Leading Particulars (Approximate)

   Width -- 6.5 inches
   Length -- 19.5 inches
   Height -- 18 inches
   Weight -- 3 pounds

DISASSEMBLY

NOTE: Disassemble this component only as necessary to complete fault isolation, determine the serviceability of parts, perform required repairs, and restore the unit to serviceable condition.

1. Remove link assy (75,80), spring (100,105) and washers (70,110) by removing retainer ring (65).

2. Remove pins (115). Remove support clamp assy (130) and support half assy (145) by removing screws (120,125).

   NOTE: Do not remove rivets (20) unless necessary for repair or replacement of clevis assy (5), plate assys (25,30), or fitting assy (45).

CHECK

1. Check all parts for obvious defects in accordance with standard industry practices.

2. Magnetic particle check the following per 20-20-01:

   A. IPL Fig. 1

      (1) Separation link (90, 95)

3. Penetrant check the following per 20-20-02:

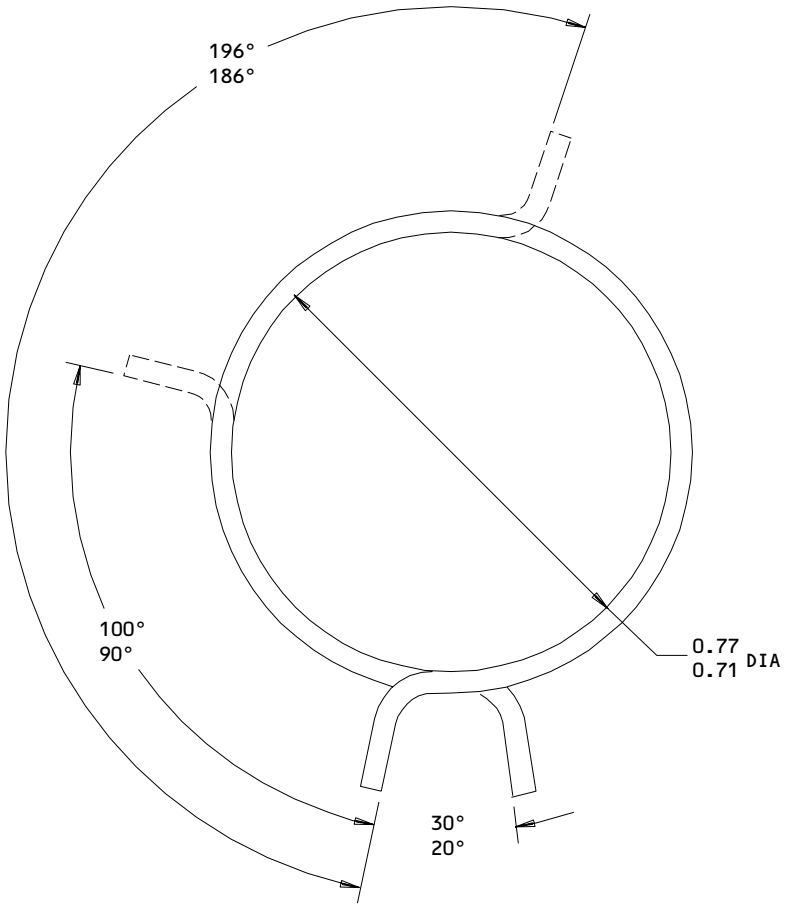
   A. IPL Fig. 1

      (1) Clevis (15)

      (2) Fitting (60)

      (3) Clamp (140)

      (4) Support half (165)



ITEM NO. FIG. 1	TEST DEFLECTION (DEGREES) (FROM FREE POSITION)	ALLOWABLE LOAD LIMITS (POUND-INCHES)
100,105 100,105	95 191	0.42-0.51 0.86-1.05

Torsion Spring Load Limits
Figure 501

REPAIR - GENERAL

1. Content

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

P/N	NAME	REPAIR
416T2237	END FITTING ASSEMBLY	1-1
416T2238	END PLATE ASSEMBLY	2-1
BAC27TPPS5141 BAC27TPPS5142	PLACARD	3-1
--	MISC PARTS REFINISH	4-1

2. Standard Practices

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

20-30-02 Stripping of Protective Finishes
20-30-03 General Cleaning Procedures
20-41-01 Decoding Table for Boeing Finish Codes
20-41-02 Application of Chemical and Solvent Resistant Finishes
20-42-05 Bright Cadmium Plating
20-43-01 Chromic Acid Anodizing
20-50-03 Bearing Installation and Retention
20-50-05 Application of Aluminum Foil and Other Markers

3. Materials

NOTE: Equivalent substitutes may be used.

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

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

4. Dimensioning Symbols

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

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
⌯	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE FROM WHICH PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE

EXAMPLES

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

True Position Dimensioning Symbols
Figure 601

100475

END FITTING ASSEMBLY - REPAIR 1-1

416T2237-3

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

1. Bushing Replacement

   A. Remove bushings (55, IPL Fig. 1).

   B. Install replacement bushings with wet BMS 5-95 sealant.

      NOTE: Ensure that teflon lined surfaces are clean.

2. End Fitting Refinish (60, IPL Fig. 1)

   A. Chromic acid anodize and apply one coat primer, BMS 10-11, type 1 (F-18.13). Omit primer from bushing holes. Material: Al alloy.

END PLATE ASSEMBLY - REPAIR 2-1

416T2238-5, -6, -8

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

1. Bushing Replacement

   A. Remove bushing (35, IPL Fig. 1).

   B. Install replacement bushing with wet BMS 5-95 sealant.

      NOTE: Ensure that teflon lined surfaces are clean.

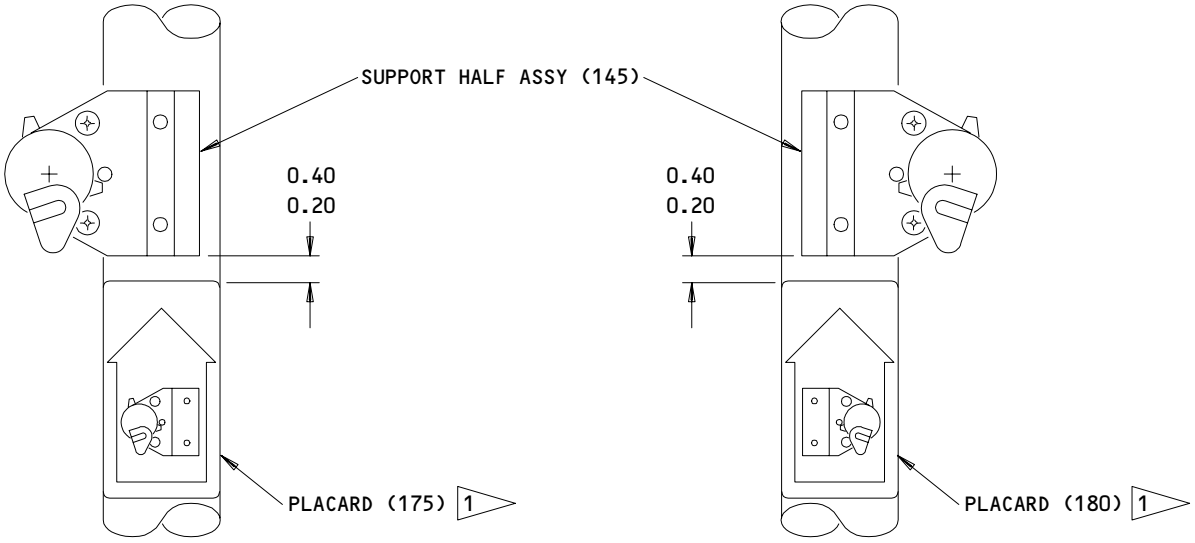
2. End Plate Refinish (40, IPL Fig. 1)

   A. Chemical treat and apply one coat primer, BMS 10-11, type 1 (F-18.06). Omit primer from bushing hole. Material: Al alloy clad.

PLACARD - REPAIR 3-1

BAC27TPPS5141
BAC27TPPS5142

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



1 INSTALL PLACARD PER 20-50-05

ALL DIMENSIONS ARE IN INCHES

Placard Repair
Figure 601

100391

MISCELLANEOUS PARTS REFINISH - REPAIR 4-1

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

IPL FIG. & ITEM	MATERIAL	FINISH
Fig. 1		
Clevis (15)	321 CRES	Prepare surface and passivate (F-17.09).
Plate (40)	Al alloy clad	Chemical treat and apply one coat primer, BMS 10-11, type 1 (F-18.06). Omit primer from bushing hole.
Fitting (60) Clamp (140) Support half (165)	Al alloy	Chromic acid anodize and apply one coat primer, BMS 10-11, type 1 (F-18.13). Omit primer from bushing holes.
Link (90,95)	15-5PH CRES, 125-145 KSI	Prepare surface and passivate (F-17.09).
Spring (100,105)	17-7PH CRES	Cadmium plate (F-15.06).
Deployment bar (170, 170A)	Al alloy	Chemical treat interior and exterior surfaces and apply one coat primer, BMS 10-11, type 1 (F-18.07).

Refinish Details
Figure 601

ASSEMBLY

1. Install support clamp assy (130) and support half assy (145) with screws (120,125) and pins (115).

2. Install link assy (75,80), spring (100,105) and washers (70,110) with retainer ring (65).

ILLUSTRATED PARTS LIST

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

2. Indentures show parts relationships as follows:

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

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

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

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

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

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

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

6. Parts Interchangeability

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

VENDORS

09455 LEAR SIEGLER INC TRANSPORT DYNAMICS DIV
PO BOX 1953 3131 WEST SEGERSTROM STREET
SANTA ANA, CALIFORNIA 92702

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

15860 NEW HAMPSHIRE BALL BEARINGS, INCORPORATED ASTRO DIVISION
155 LEXINGTON AVENUE
LACONIA, NEW HAMPSHIRE 03246

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

50294 NMB INC
9730 INDEPENDENCE AVENUE
CHATSWORTH, CALIFORNIA 91311

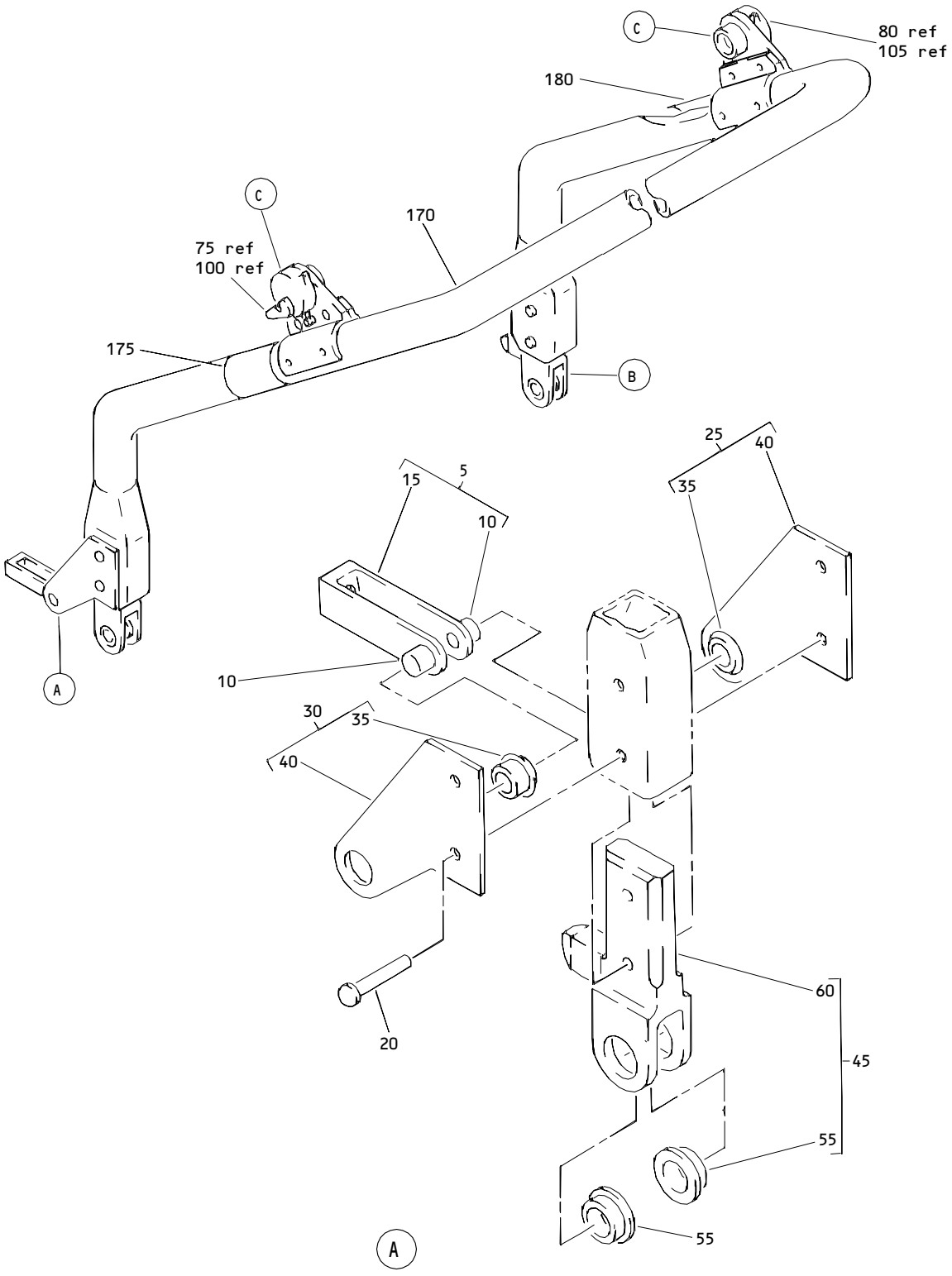
70265 ALL POWER MANUFACTURING COMPANY
13141 MOLETTE STREET
SANTE FE SPRINGS, CALIFORNIA 90670

73134 HEIM DIV INCOM INTERNATIONAL INC
60 ROUND HILL ROAD
FAIRFIELD, CONNETICUT 06430

77896 REXNORD INC. BEARING DIVISION
2400 CURTIS STREET
DOWNERS GROVE, ILLINOIS 60515

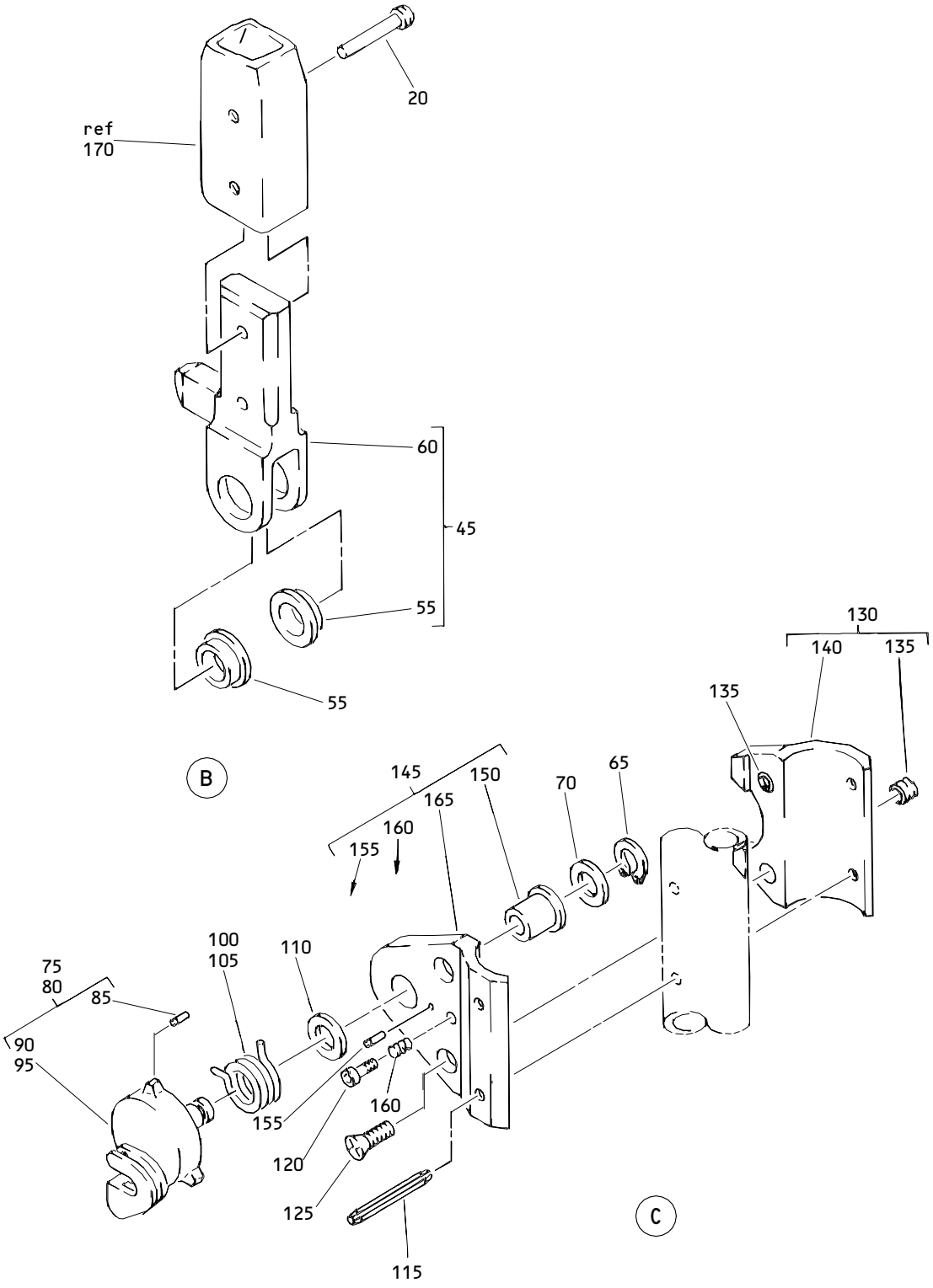
94892 MASTER MACHINE PRODUCTS CORPORATION
2069 RANDOLPH STREET
HUNTINGTON PARK, CALIFORNIA 90255

97613 SARGENT INDUSTRIES KAHR BEARING DIVISION
3010 NORTH SAN FERNANDO ROAD
BURBANK, CALIFORNIA 91503



Entry Door Escape Slide Deployment Bar Assembly
Figure 1 (Sheet 1)

T80833



Entry Door Escape Slide Deployment Bar Assembly
Figure 1 (Sheet 2)

T80832

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
-1	416T2184-2		BAR ASSY-ENTRY DOOR ESCAPE SLIDE DEPLOYMENT	A	RF
-1A	416T2184-3		BAR ASSY-ENTRY DOOR ESCAPE SLIDE DEPLOYMENT	B	RF
5	416T2235-1		.CLEVIS ASSY		1
10	416T2164-23		..PIN		2
15	416T2164-25		..CLEVIS		1
20	BACR15BB6AD		.RIVET- (SIZE DETERMINE ON INST)		4
25	416T2238-6		.PLATE ASSY-END (USED ON ITEM 1)		1
25A	416T2238-8		.PLATE ASSY-END (USED ON ITEM 1A)		1
30	416T2238-5		.PLATE ASSY-END		1
35	BACB28AR04B015		..BUSHING- (V09455) (SPEC BACB28AR04B015) (V15860) (V50294) (V73134) (V77896) (V97613) (OPT ITEM 35A)		1
-35A	BACB28X4M015		..BUSHING- (V23294) (SPEC BACB28X4M015) (V70265) (V94892) (OPT ITEM 35)		1
35B	BCREF10237		..BUSHING- (BACB28AY04B015AG) (USED ON ITEM 25A)		1
40	416T2238-7		..PLATE (USED ON ITEM 25,30)		1
40A	416T2238-9		..PLATE (USED ON ITEM 25A)		1
45	416T2237-3		.FITTING ASSY-END		2
55	BACB28X06M012		..BUSHING		2
60	416T2237-4		..FITTING		1
65	MS16624-4031		.RING		2
70	AN960C516L		.WASHER		2
75	416T2232-1		.LINK ASSY		1
80	416T2232-2		.LINK ASSY		1

FIG. & ITEM	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1234567	EFF CODE	QTY PER ASSY
01-					
85	MS16562-190		..PIN		1
90	416T2232-3		..LINK-		1
			(USED ON ITEM 75)		
95	416T2232-4		..LINK-		1
			(USED ON ITEM 80)		
100	416T2231-1		.SPRING		1
105	416T2231-2		.SPRING		1
110	BACW10P219TF		.WASHER-		2
			(V10630)		
			(SPEC BACW10P219TF)		
115	MS16562-51		.PIN		4
120	NAS1352C06-4P		.SCREW-		2
			(OPT ITEM 120A)		
-120A	NAS1352-06H4P		.SCREW-		2
			(OPT ITEM 120)		
125	NAS514P1032-8		.SCREW		4
130	416T2214-1		.CLAMP ASSY-SPRT		2
135	MS21209F1-10P		..INSERT		2
140	416T2214-2		..CLAMP		1
145	416T2215-1		.SUPPORT HALF ASSY		2
150	BACB28AR05B042		..BUSHING-		1
			(V09455)		
			(SPEC BACB28AR05B042)		
			(V15860)		
			(V50294)		
			(V73134)		
			(V77896)		
			(V97613)		
155	MS16562-191		..PIN		1
160	MS21209C0610P		..INSERT		1
165	146T2215-2		..SUPPORT HALF		1
170	416T2236-1		.BAR-DEPLOYMENT		1
			(OPT ITEM 165A)		
-170A	416T2236-2		.BAR-DEPLOYMENT		1
			(OPT ITEM 165)		
175	BAC27TPPS5141		.PLACARD		1
180	BAC27TPPS5142		.PLACARD		1