CHAPTER

8

EXHAUST



CHAPTER 78 EXHAUST

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		REMOVAL/INSTALLATION	B78019-1
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		FLYAWAY)	B78001-1, -2, -8
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PART NUMBER: A78002-1

NAME: THREAD PROTECTOR EQUIPMENT - THRUST REVERSER INSTALLATION

AND REMOVAL

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

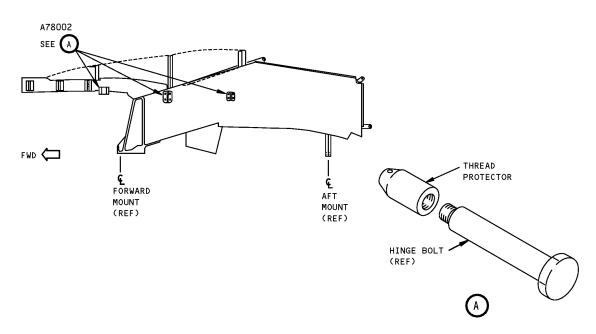
USAGE & DESCRIPTION: The A78002-1 thread protector equipment is used on the 757 airplanes

equipped with PW2000 engines. A78002 is used to protect the thrust reverser hinge bolt threads during bolt removal/installation procedures. Refer to AMM 78-31-01 for complete usage instructions. A78002-1 consists of three A78002-2

thread protectors contained in a storage box.

WEIGHT: 3 lbs (1.4 kg)

DIMENSIONS: 1 x 2 x 4 inches (25 x 51 x 102 mm)



Thrust Reverser Installation And Removal Thread Protector Equipment Figure 1

PART NUMBER: B71028-1, -37

NAME: CRADLE - EXHAUST NOZZLE, PW2000 SERIES ENGINES

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71028-1 or -37 cradle is used on the 757 airplanes equipped with

> PW2000 engines. B71028 is used to cradle exhaust sleeve for the PW2000 series engine during installation and removal. The B71028-1 cradle assembly is used in conjunction with a customer-furnished A71015 lift fixture. The B71028-37 cradle assembly is used in conjunction with a customer-furnished Hein-Werner Model 62, (modified) jack. Refer to AMM 78-11-01 for complete usage instructions. B71028-1 consists of a B71028-2 frame assembly, a B71028-3 side plate assembly and connecting hardware. B71028-37 consists

of a B71028-2 frame assembly, a B71028-36 side plate assembly and

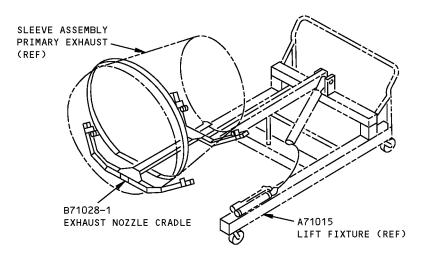
connecting hardware.

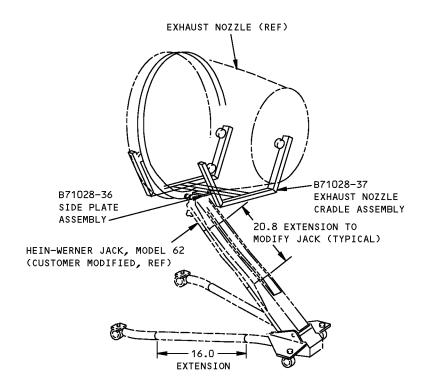
WEIGHT: 62 lbs (28 kg)

DIMENSIONS: 14 x 16 x 51 inches (356 x 406 x 1295 mm)

NOTE: B71028-37 supersedes B71028-30.

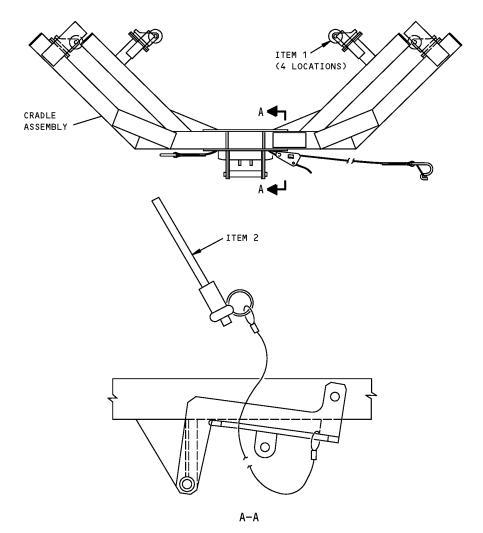






PW2000 Series Engines Exhaust Nozzle Cradle Figure 1 (Sheet 1 of 2)





PW2000 Series Engines Exhaust Nozzle Cradle Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PART				
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
1	1 5/8-9-101-3	CASTER	V31767	
2	NAS1336C3C5.0D	BALL LOCK PIN		



PART NUMBER: B71030-1

NAME: SLING - COMMON NOZZLE ASSEMBLY, RB211-535E4

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

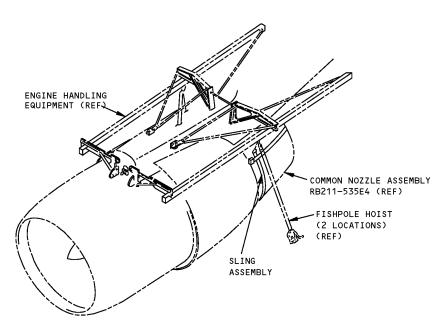
USAGE & DESCRIPTION: The B71030-1 or -37 sling is used on 757 airplanes equipped with RB211-

535E4 engines. B71030 is used for removal and installation of the common (exhaust) nozzle assembly of RB211-535E4 engines with the engine on the wing. B71030 is used in conjunction with a B71001-341 bootstrap, B71001-313 rail system and two customer-furnished fishpole hoists. Refer to AMM 78-11-01 and the current B78030 drawing for complete usage instructions. B71030-1 consists of a B71030-2 sling assembly and four NAS1306-18 screws, all

contained in a storage box.

WEIGHT: 3 lbs (1.4 kg)

DIMENSIONS: 4 x 12 x 15 inches (102 x 305 x 381 mm)



RB211-535E4 Common Nozzle Assembly Sling Figure 1



PART NUMBER: B71033-21, -25

NAME: CRADLE - EXHAUST NOZZLE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71033-21 or -25 cradle is used on 757 airplanes equipped with RB211-

535E4 engines. B71033 is used to hold the exhaust nozzle during removal or installation. B71033 is used in conjunction with a customer-furnished, Hein-Werner Model 62 transmission jack. Refer to AMM 78-11-04 for complete usage instructions. B71033-21 consists of a B71033-6 pad, a B71033-22 cradle assembly, a B71033-23 guard and connecting hardware. B71033-25 consists of a B71033-6 pad, a B71033-26 cradle assembly, a B71033-23 guard and

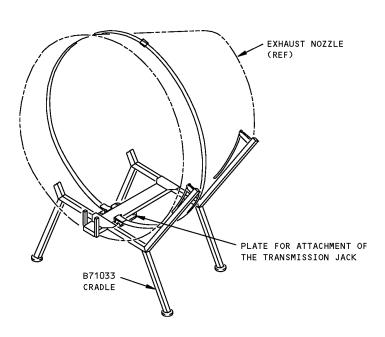
connecting hardware.

WEIGHT: 250 lbs (113 kg)

DIMENSIONS: 48 x 69 x 86 inches (1219 x 1753 x 2184 mm)

NOTE: B71033-25 replaces B71033-21 for future procurement.

B71033-21 supersedes B71033-1.



Exhaust Nozzle Cradle Figure 1

PART NUMBER: B71006-79

NAME: HOLD OPEN EQUIPMENT - 'C' DUCT RB211-535 ENGINE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71006-79 hold open equipment is used on 757 airplanes equipped with

RB211-535 engines. B71006 is used to open or hold open the "C" duct during engine removal or installation. B71006 is used in conjunction with customer-furnished a B71001 bootstrap and a fishpole hoist. Refer to AMM 78-31-20 for

complete usage instructions. B71006-79 consists of:

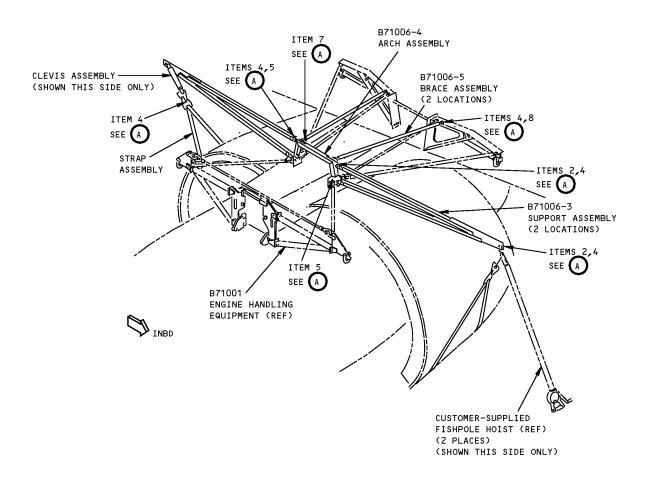
B71006-79				
QUANTITY	NOMENCLATURE	PART NUMBER		
2	SUPPORT ASSEMBLY	B71006-3		
1	ARCH ASSEMBLY	B71006-4		
2	BRACE ASSEMBLY	B71006-5		
2	STRAP ASSEMBLY	B71006-52		
1	PAD ASSEMBLY	B71006-77		
1	PAD ASSEMBLY OPPOSITE -77)	B71006-78		
2	BRACKET ASSEMBLY	B71006-9		
2	CLEVIS ASSEMBLY	B71006-86		
1	STORAGE BOX			

WEIGHT: 210 lbs (95 kg)

DIMENSIONS: 24 x 48 x 96 inches (610 x 1219 x 2438 mm)

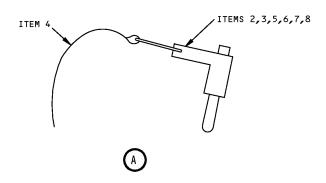
NOTE: B71006-79 supersedes B71006-1.





RB211-535 Engine 'C' Duct Hold Open Equipment Figure 1 (Sheet 1 of 2)





RB211-535 Engine 'C' Duct Hold Open Equipment Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS				
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
1	F70308-15	PROOF LOAD TAG		
2	NAS1337C5C1.6D	BALL LOCKPIN		
3	NAS1335C5C1.6D	BALL LOCKPIN		
4	CL-63-KA-12.0	CABLE ASSEMBLY	V99862	
5	NAS1336C5C1.6D	BALL LOCKPIN		
6	NAS1334C5C1.1D	BALL LOCKPIN		
7	NAS1334C5C1.4D	BALL LOCKPIN		
8	NAS1336C5C1.2D	BALL LOCKPIN		



PART NUMBER: C78005-21

NAME: HAND PUMP - OPENING SYSTEM, THRUST REVERSER

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C78005-21 hand pump is used on all 757 airplanes. C78005 is used to

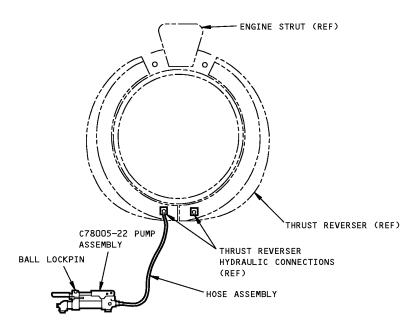
supply hydraulic pressure to the actuator that opens the thrust reverser "C" ducts for engine maintenance. Refer to the current C78005 drawing for complete usage instructions. C78005 is used to open the "C" ducts in AMM 78-31-00, AMM 78-31-01 and AMM 78-31-05. C78005-21 consists of a C78005-

22 pump assembly contained in a storage box.

WEIGHT: 19 lbs (9 kg)

DIMENSIONS: 5 x 6 x 30 inches (127 x 152 x 762 mm)

NOTE: C78005-21 supersedes C78005-17.



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Thrust Reverser Opening System Hand Pump Figure 1

PART NUMBER: B71011-1 WAS MOVED TO 71-00-31

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PART NUMBER: B71023-88

NAME: SLING - THRUST REVERSER, PW2000 SERIES ENGINES

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B71023-88 sling is used on 757 airplanes equipped with PW2000 engines.

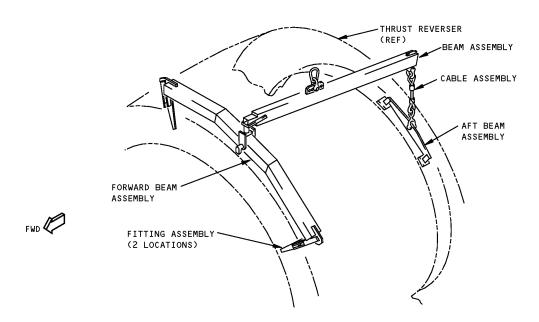
B71023 is used for opening/closing or removal/installation of the thrust reverser. Refer to AMM 78-31-00, AMM 78-31-01, AMM 78-31-05, AMM 78-31-06 or CMM 78-31-17 for complete usage instructions. B71023-88 consists of a

B71023-89 sling assembly contained in a storage box.

WEIGHT: 100 lbs (45 kg)

DIMENSIONS: 6 x 36 x 90 inches (152 x 914 x 2286 mm)

NOTE: B71023-88 supersedes B71023-71 and -82.



PW2000 Series Engines Thrust Reverser Sling Figure 1

PART NUMBER: B71025-9 WAS MOVED TO 71-00-32

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PART NUMBER: B71026-1

NAME: PROOF LOAD FIXTURE - THRUST REVERSER SLING, PW2000

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71026-1 is used on 757 airplanes equipped with PW2000 engines.

B71026 is required for proof testing the B71023, (PW2000 thrust reverser) sling. Refer to the current B71023 and B71026 drawings for complete usage

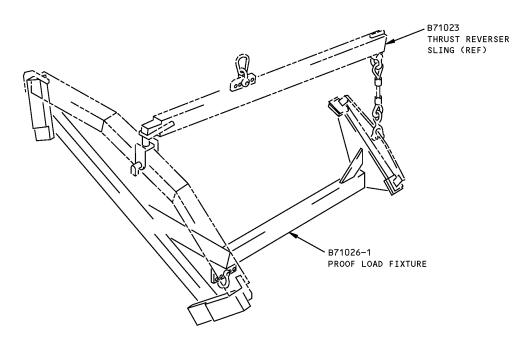
instructions. B71026-1 consists of:

B71026-1				
QUANTITY	NOMENCLATURE	PART NUMBER		
1	FIXTURE ASSEMBLY	B71026-2		
1	PAD ASSEMBLY	B71026-3		
1	PAD ASSEMBLY	B71026-4		
4	BOLT	NAS4-15A		
4	NUT	MS21044N4		
1	SHACKLE	G-209-7/16		

WEIGHT: 100 lbs (45 kg)

DIMENSIONS: 24 x 52 x 54 inches (610 x 1321 x 1372 mm)





PW2000 Thrust Reverser Sling Proof Load Fixture Figure 1

PART NUMBER: B71031-1

NAME: SLING - SLEEVE, THRUST REVERSER, PW2000 SERIES ENGINES

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71031-1 sling is used on 757 airplanes equipped with PW2000 engines.

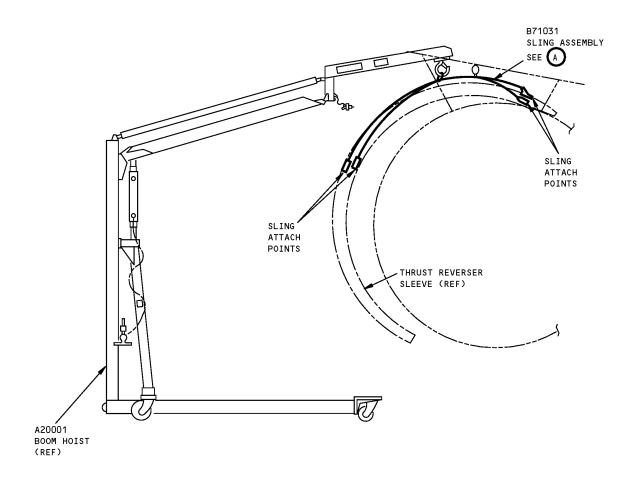
B71031 is used for under the wing removal of the PW2000 series engine thrust reverser sleeve. B71031 is a strap assembly used in conjunction with A20001 boom hoist when the thrust reverser is opened 23 degrees. Refer to AMM 78-31-07 for complete usage instructions. B71031-1 consists of a

B71031-2 sling assembly contained in a storage box.

WEIGHT: 3 lbs (1.4 kg)

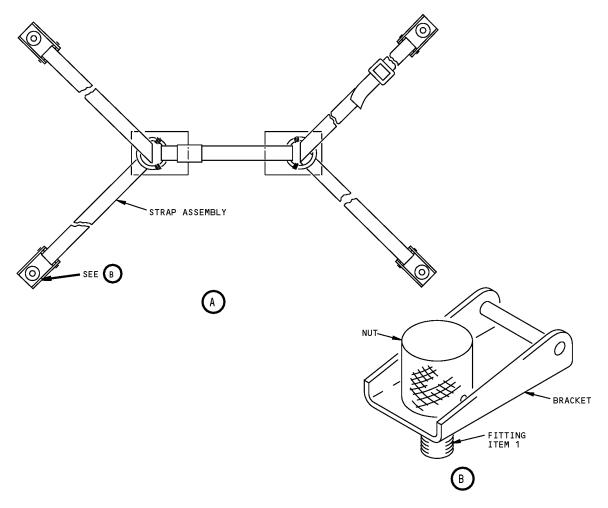
DIMENSIONS: 2 x 5 x 8 inches (51 x 127 x 203 mm)





PW2000 Series Engines Thrust Reverser Sleeve Sling Figure 1 (Sheet 1 of 2)





PW2000 Series Engines Thrust Reverser Sleeve Sling Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS				
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
1	B71031-8	FITTING		



PART NUMBER: B78004-1

NAME: RIGGING FIXTURE - SPRING BUMPER, FAN DUCT COWL AND THRUST

REVERSER

AIRPLANE MAINTENANCE: NO

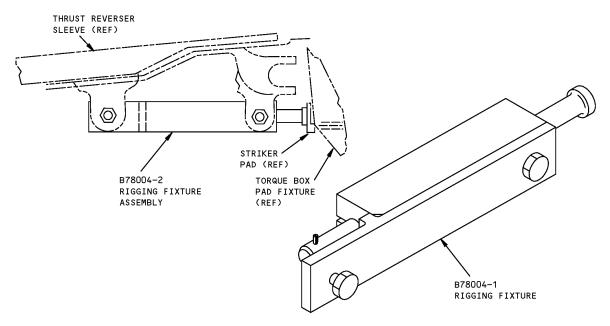
COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78004-1 rigging fixture is used on 757 airplanes equipped with PW2000

series engines. B78004 is used to measure rigging dimensions for the 315N3555 spring bumper assembly on the fan duct cowl and thrust reverser assembly. Refer to CMM 78-31-17 for complete usage instructions. B78004-1 consists of a B78004-2 fixture assembly contained in a storage box.

WEIGHT: 1 lb (0.45 kg)

DIMENSIONS: 2 x 2 x 8 inches (51 x 51 x 203 mm)



Fan Duct Cowl And Thrust Reverser Spring Bumper Rigging Fixture
Figure 1



PART NUMBER: B78003-1, -6

NAME: PIN - THRUST REVERSER DEACTIVATION, PW2000 SERIES ENGINES

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78003-1 or -6 pin is used on 757 airplanes equipped with PW2000

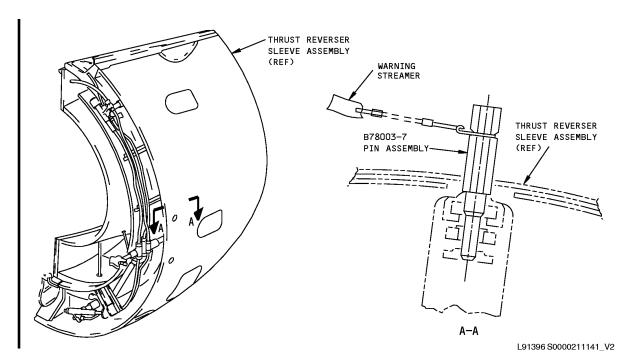
engines. B78003 is used to provide high visibility thrust reverser deactivation pins for ground maintenance. Refer to the current B78003 drawing, CMM 78-31-17 and AMM 78-31-00 for complete usage instructions. The B78003-1 consists four B78003 -2 pin assemblies contained in a storage box. The B78003 -6 consists of four B78003-7 pin assemblies contained in a storage

box.

WEIGHT: 2 lbs (0.9 kg)

DIMENSIONS: 1 x 1 x 4 inches (25 x 25 x 102 mm)

NOTE: B78003-6 replaces B78003-1 for future procurement.



PW2000 Series Engines Thrust Reverser Deactivation Pin Figure 1

PART NUMBER: B78005-1

NAME: BONDING FIXTURE - THRUST REVERSER SLEEVE ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78005-1 bonding fixture is used on 757 airplanes equipped with PW2000

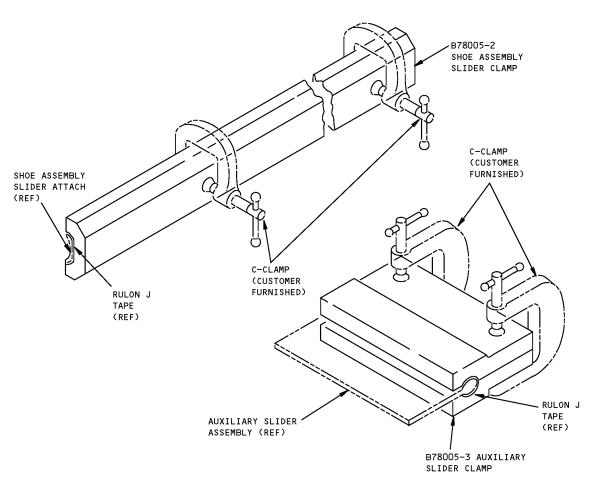
engines. B78005 is used to clamp Rulon J tape during bonding to the auxiliary slider assembly and the shoe assembly slider on the PW2000 series engine thrust reverser. The B78005 bonding fixture is an aluminum clamp that applies clamping pressure to the slider, using a customer-furnished "C" clamp. Refer to CMM 78-31-27 for complete usage instructions. B78005-1 consists of a B78005-2 shoe assembly slider clamp and two B78005-3

auxiliary slider clamps contained in a storage box.

WEIGHT: 20 lbs (9 kg)

DIMENSIONS: 3 x 5 x 40 inches (76 x 127 x 1016 mm)





Thrust Reverser Sleeve Assembly Bonding Fixture Figure 1



PART NUMBER: B78006-1

NAME: RIGGING BAR - THRUST REVERSER, POSITION FEEDBACK LINEAR

VARIABLE DIFFERENTIAL TRANSFORMER (LVDT)

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

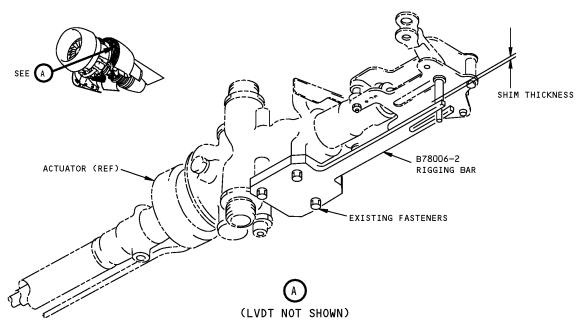
USAGE & DESCRIPTION: The B78006-1 rigging bar is used on 757 airplanes equipped with PW2000

engines. B78006 is used to determine the required shim thickness between the PW2000 thrust reverser actuator spindle and the LVDT. B78006 is installed in place of the LVDT to allow measurement of the gap between B78006 and the actuator spindle shoulder. Refer to AMM 78-34-04 and CMM 78-31-03 for complete usage instructions. B78006-1 consists of a B78006-2

rigging bar contained in a storage box.

WEIGHT: 1 lb (0.9 kg)

DIMENSIONS: 1 x 3 x 9 inches (25 x 76 x 229 mm)



Position Feedback LVDT Thrust Reverser Rigging Bar Figure 1

PART NUMBER: B78007-41, -43

NAME: SUPPORT EQUIPMENT - FAN DUCT COWL AND THRUST REVERSER

PW2000 SERIES ENGINES

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78007-41 or -43 is used during component maintenance on 757

airplanes equipped with PW2000 engines. B78007 facilitates disassembly, assembly or build up, checkout, functional test and storage of the fan duct cowl, and thrust reverser for PW2000 series engines. Refer to CMM 78-31-17

CMM 78-31-27 and the current B78007 drawing for complete usage

instructions. B78007-41 consists of a B78007-1 left hand stand assembly and a B78007-2 right hand stand assembly. B78007-43 consists of a B78007-44 left

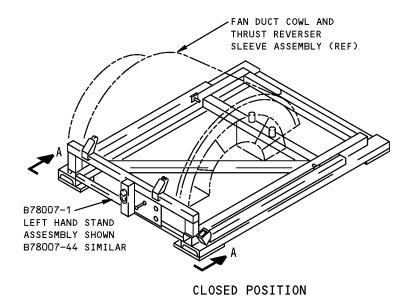
hand stand assembly and a B78007-45 right hand stand assembly.

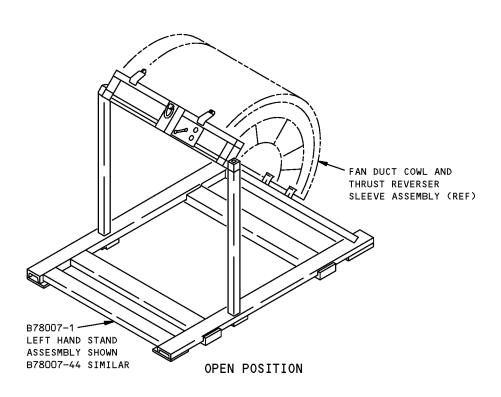
WEIGHT: 1500 lbs (680 kg)

DIMENSIONS: 40 x 90 x 120 inches (1016 x 2286 x 3048 mm)

NOTE: B78007-43 replaces B78007-41 for future procurement.

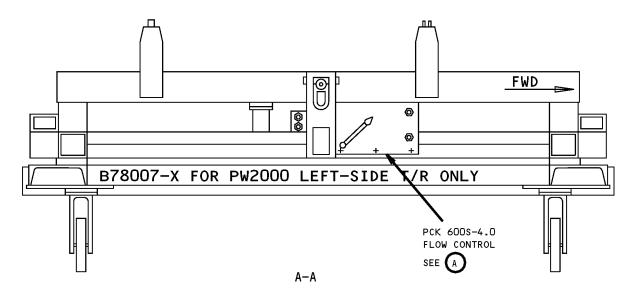


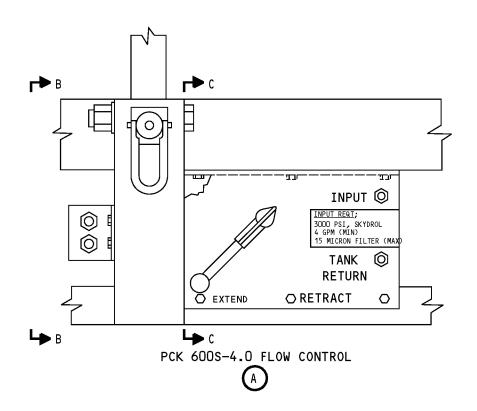




Fan Duct Cowl And Thrust Reverser PW2000 Series Engines Support Equipment Figure 1 (Sheet 1 of 3)



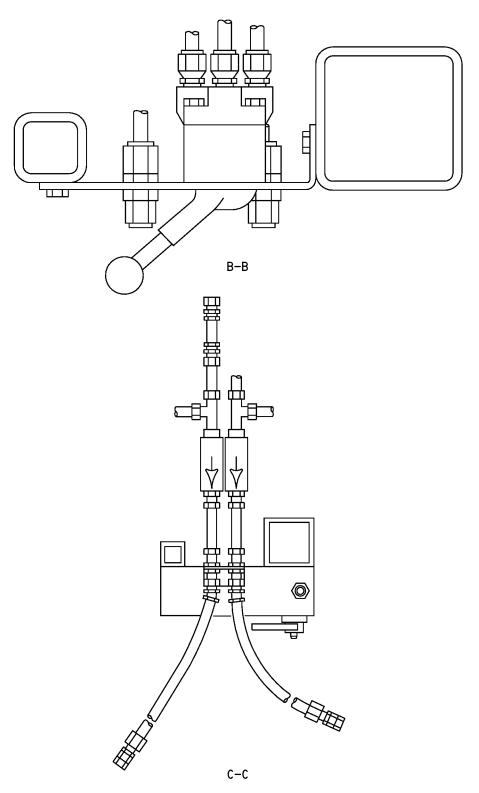




Fan Duct Cowl And Thrust Reverser PW2000 Series Engines Support Equipment Figure 1 (Sheet 2 of 3)



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Fan Duct Cowl And Thrust Reverser PW2000 Series Engines Support Equipment Figure 1 (Sheet 3 of 3)

PART NUMBER: B78008-19

NAME: WRENCH SET - THRUST REVERSER ACTUATOR

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78008-19 wrench set is used on 757 airplanes that are equipped with

PW2000 engines. The wrench set is used to torque, hold, align and check various components of locking and non-locking actuators. Refer to CMM 78-31-03, CMM 78-31-04, CMM 78-31-05, CMM 78-31-18 and CMM 78-31-19 for complete usage instructions. The B78008-19 wrench set consists of:

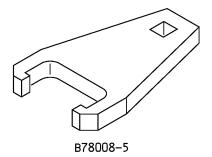
B78008-19				
QUANTITY	NOMENCLATURE	PART NUMBER		
1	WRENCH	B78008-5		
1	WRENCH	B78008-6		
1	WRENCH	B78008-7		
1	WRENCH	B78008-9		
1	WRENCH	B78008-10		
1	SLEEVE	B78008-11		
1	WRENCH ASSEMBLY	B78008-12		
1	SPANNER ASSEMBLY	B78008-16		
1	SPANNER ASSEMBLY	B78008-17		
1	CROWFOOT WRENCH	AN850822B		
1	WRENCH	B78008-20		
1	ADAPTER ASSEMBLY	B78008-21		
1	STORAGE BOX			

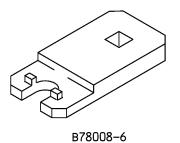
WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 3 x 9 x 12 inches (76 x 229 x 305 mm)

NOTE: B78008-19 supersedes B78008-15.



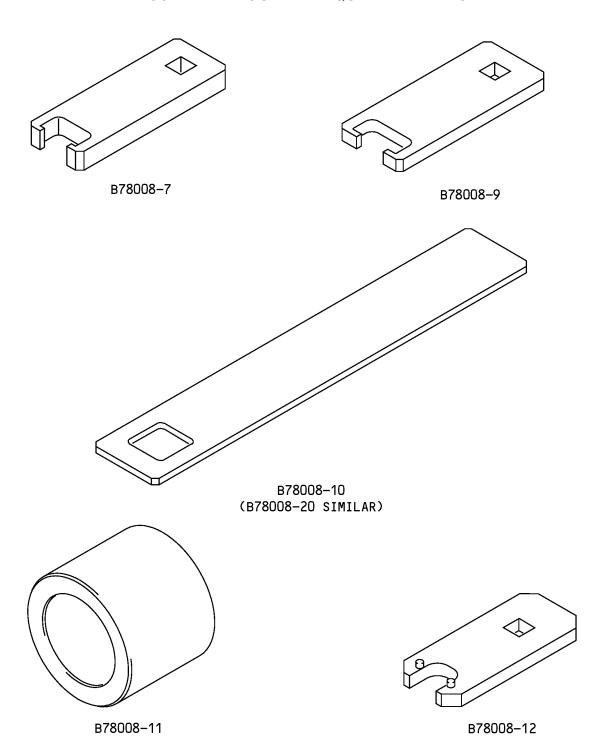




Thrust Reverser Actuator Wrench Set Figure 1 (Sheet 1 of 3)

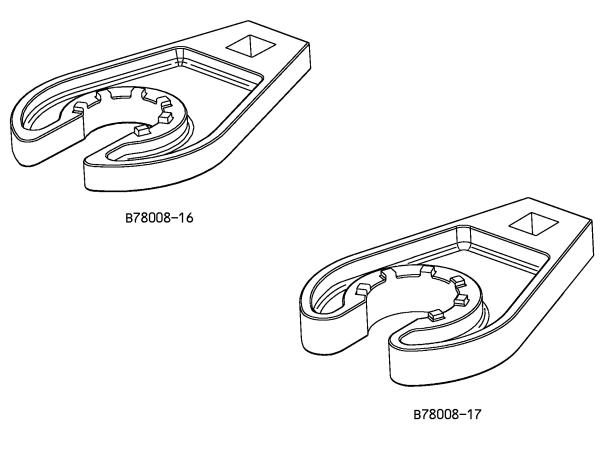


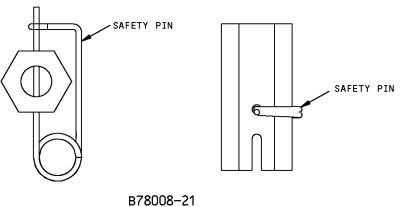
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Thrust Reverser Actuator Wrench Set Figure 1 (Sheet 2 of 3)







Thrust Reverser Actuator Wrench Set Figure 1 (Sheet 3 of 3)

PART NUMBER: B78010-9, -28

NAME: STAND - FUNCTIONAL TEST EQUIPMENT, LOCKING AND NON-LOCKING

THRUST REVERSER ACTUATOR

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78010-9 or -28 stand is used during component maintenance on 757

airplanes equipped with PW2000 engines. B78010 is used to support either the locking or non-locking thrust reverser actuators during test of the rod-end velocity versus position. B78010 is used in conjunction with the B20005 velocity versus position transducer test equipment. Refer to CMM 78-31-01, CMM 78-31-04 and CMM 78-31-05 for complete usage instructions. B78010-9

and -28 consist of:

B78010-9		
QUANTITY	NOMENCLATURE	PART NUMBER
1	FUNCTIONAL TEST STAND	B78010-10
1	GUIDE BRACKET ASSEMBLY	B78010-17
1	STORAGE BOX	

B78010-28		
QUANTITY	NOMENCLATURE	PART NUMBER
1	FUNCTIONAL TEST STAND	B78010-10
1	GUIDE BRACKET ASSEMBLY	B78010-17
1	LARGE GUIDE ASSEMBLY	B78010-33
1	STORAGE BOX	

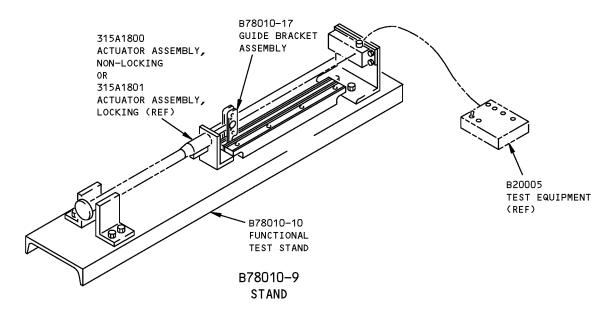
WEIGHT: 50 lbs (23 kg)

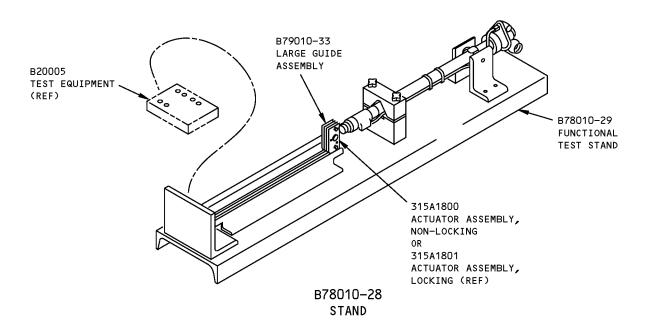
DIMENSIONS: 8 x 10 x 55 inches (203 x 254 x 1397 mm)

NOTE: B78010-28 replaces B78010-9 for future procurement.

B78010-9 supersedes B78010-1.







Locking And Non-Locking Thrust Reverser Actuator Functional Test Equipment Stand Figure 1

PART NUMBER: B78011-25

NAME: TORQUE FIXTURE - LOCKING AND NON-LOCKING THRUST REVERSER

ACTUATOR ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: B78011-25 torque fixture is used on 757 airplanes equipped with PW2000

series engines. B78011 is used to hold the locking and non-locking thrust reverser actuator cylinder and housing for assembly, disassembly and testing. B78011 is used with other major equipment including a 0 to 4500 psi hydraulic test stand, and X-Y plotter, B20005 velocity/position transducer test equipment, a B78006 LVDT rigging tool, B78008 wrench assemblies, a B78010 test fixture, a B78011 actuator fixture assembly, a B78013 feedback lever holder assembly, a B78014 rod end and stroke stop fixture assembly, a B78015 lead screw bearing tool, a B78016 worm gear shaft bearing tool and a B78017 assembly fixture. Refer to CMM 78-31-03, CMM 78-31-04 and CMM 78-31-05 for complete usage instructions. B78011-25 consists of a B78011-26

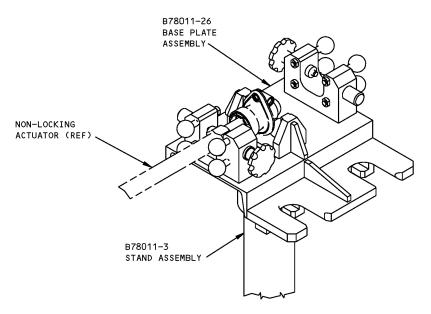
base plate assembly and a B78011-3 stand assembly.

WEIGHT: 170 lbs (77 kg)

DIMENSIONS: 15 x 18 x 42 inches (381 x 457 x 1067 mm)

NOTE: B78011-25 supersedes B78011-1.





Locking And Non-Locking Thrust Reverser Actuator Assembly Torque Fixture Figure 1

PART NUMBER: B78012-1

NAME: TEST EQUIPMENT - FAN DUCT REVERSER, MANUAL DRIVE ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78012-1 test equipment is used during component maintenance on 757

airplanes equipped with PW2000 engines. B78012 is used to hold the manual

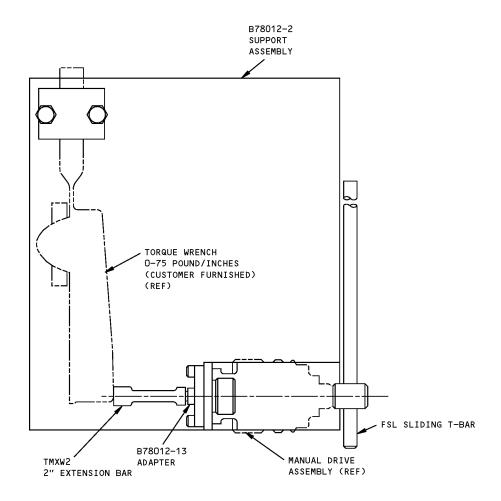
drive for measurement of input and output torque and to permit pressurization of the unit during functional test. B78012-1 consists of:

	B78012-1		
QUANTITY	NOMENCLATURE	PART NUMBER	
1	SUPPORT ASSEMBLY	B78012-2	
1	FITTING ASSEMBLY	B78012-4	
1	ADAPTER	B78012-13	
1	SLIDING T-BAR	FSL	
1	2-INCH EXTENSION, $\frac{1}{4}$ INCH DRIVE	TMXW2	
1	STORAGE BOX		

WEIGHT: 7 lbs (3.2 kg)

DIMENSIONS: 5 x 10 x 11 inches (127 x 254 x 279 mm)





Fan Duct Reverser, Manual Drive Assembly Test Equipment Figure 1

PART NUMBER: B78013-2

NAME: OVERHAUL EQUIPMENT - THRUST REVERSER LOCKING ACTUATOR

ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78013-2 overhaul equipment is used during component maintenance

on 757 airplanes equipped with PW2000 series engines. B78013 is used to restrain the feedback lever on the 315A1801 or 315N3801 thrust reverser locking actuator assembly. Refer to CMM 78-31-03 and CMM 78-31-04 for

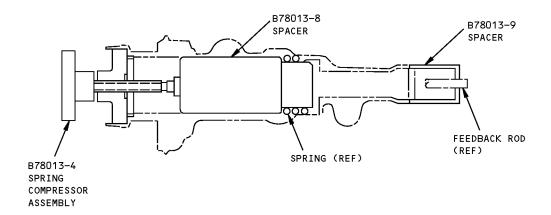
complete usage instructions. B78013-2 consists of:

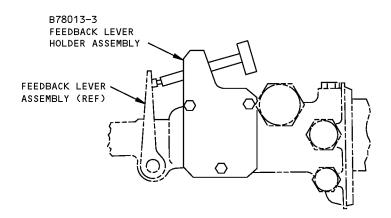
B78013-2		
QUANTITY	NOMENCLATURE	PART NUMBER
1	FEEDBACK LEVER HOLDER ASSEMBLY	B78013-3
1	SPRING COMPRESSOR ASSEMBLY	B78013-4
1	SPACER	B78013-8
1	SPACER	B78013-9
1	STORAGE BOX	

WEIGHT: 7 lbs (3.2 kg)

DIMENSIONS: 6 x 8 x 15 inches (152 x 203 x 381 mm)







Thrust Reverser Locking Actuator Assembly Overhaul Equipment Figure 1

78-30-17 Sep 20/2006



PART NUMBER: B78014-29, -37

NAME: TEST FIXTURE - ROD END AND STROKE STOP, LOCKING AND NON-

LOCKING THRUST REVERSER ACTUATOR

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78014-29 or -37 test fixture is used during component maintenance on

757 airplanes equipped with PW2000 series engines. B78014 is used to adjust rod length and stroke stop of the locking and non-locking thrust reverser actuators. Refer to CMM 78-31-03, CMM 78-31-04 and CMM 78-31-05 for complete usage instructions. B78014-29 consists of a B78014-30 test stand assembly contained in a storage box. B78014-37 consists of a B78014-38 test

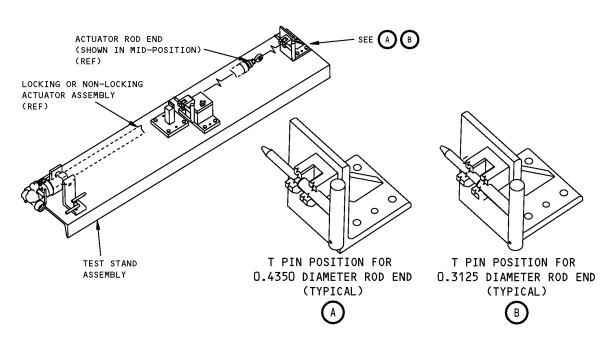
stand assembly contained in a storage box.

WEIGHT: 110 lbs (50 kg)

DIMENSIONS: 9 x 10 x 52 inches (229 x 254 x 1321 mm)

NOTE: B78014-37 replaces B78014-29 for future procurement.

B78014-29 supersedes B78014-24.



Locking And Non-Locking Thrust Reverser Actuator Rod End And Stroke Stop, Test Fixture Figure 1

PART NUMBER: B78017-1

NAME: INSTALLATION EQUIPMENT - BEARING-LEAD SCREW, THRUST REVERSER

NON-LOCKING ACTUATOR ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78017-1 installation equipment is used during component maintenance

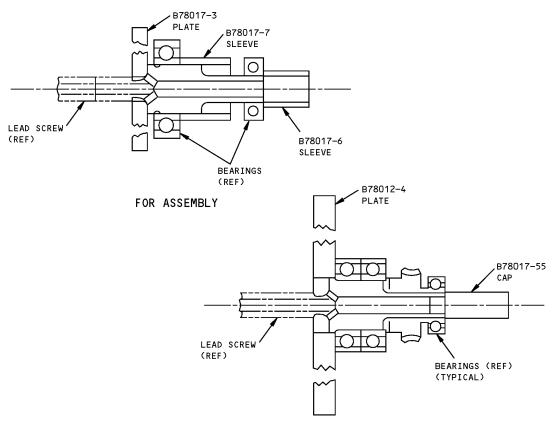
on 757 airplanes equipped with PW2000 engines. B78017 is used to remove or install the lead screw bearings on the non-locking thrust reverser actuator. Refer to CMM 78-31-05 for complete usage instructions. B78017-1 consists of:

B78017-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	PLATE	B78017-3
1	PLATE	B78017-4
1	CAP	B78017-5
1	SLEEVE	B78017-6
1	SLEEVE	B78017-7
1	STORAGE BOX	

WEIGHT: 15 lbs (7 kg)

DIMENSIONS: 3 x 8 x 9 inches (76 x 203 x 229 mm)





FOR DISASSEMBLY

Installation Equipment - Thrust Reverser Non-Locking Actuator Assembly Bearing-Lead Screw, Installation Equipment

Figure 1

PART NUMBER: B78015-17, -23

NAME: OVERHAUL SET - THRUST/REVERSER LOCKING ACTUATOR ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78015-17 or -23 overhaul set is used on 757 airplanes equipped with

PW2000 engines. B78015-17 or -23 is a collection of alignment, adjustment, or

assembly/disassembly tools used during component maintenance of 315A1801 or 315N3801 thrust reverser locking actuator assemblies. Refer to

CMM 78-31-03 and the current B78015 drawing for complete usage

instructions. B78015-17 and -23 consist of:

B78015-17		
QUANTITY	NOMENCLATURE	PART NUMBER
1	CLEVIS ADJUSTMENT ASSEMBLY	B78015-2
1	PLATE	B78015-7
1	PLATE DISASSEMBLY	B78015-8
1	SLEEVE	B78015-10
1	WASHER	B78015-11
1	GAUGE	B78015-14
1	DRILL JIG ASSEMBLY	B78015-18
1	CAP	B78015-21
1	STORAGE BOX	

B78015-23		
QUANTITY	NOMENCLATURE	PART NUMBER
1	CLEVIS ADJUSTMENT ASSEMBLY	B78015-2
1	PLATE	B78015-7
1	PLATE DISASSEMBLY	B78015-8
1	SLEEVE	B78015-10
1	WASHER	B78015-11
1	GAUGE	B78015-14
1	DRILL JIG ASSEMBLY	B78015-18
1	CAP	B78015-21
1	DRILL JIG ASSEMBLY	B78015-24
1	PROXIMITY SWITCH LOCATOR ASSEMBLY	B78015-28
1	STORAGE BOX	

WEIGHT: 18 lbs (8 kg)

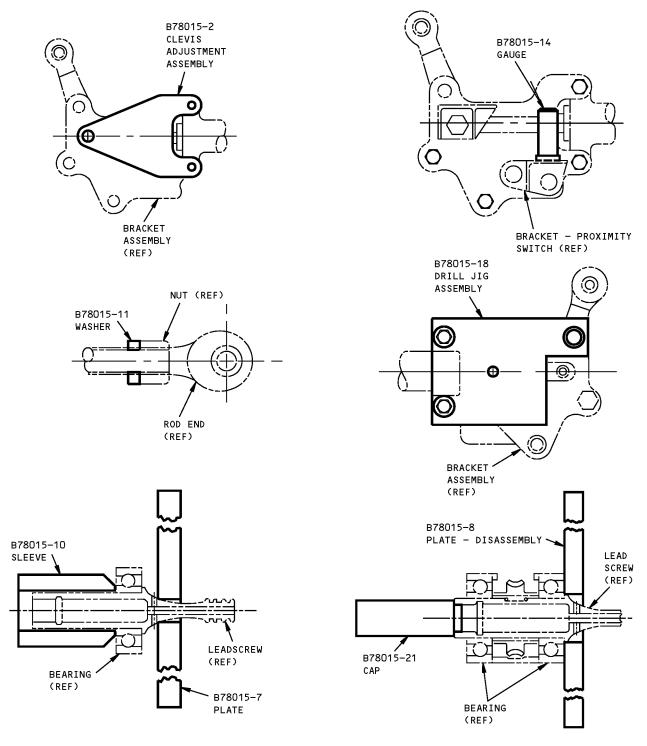
DIMENSIONS: 5 x 16 x 20 inches (127 x 406 x 3048 mm)

NOTE: B78015-23 replaces B78015-17 for future procurement.

B78015-17 supersedes B78015-1.



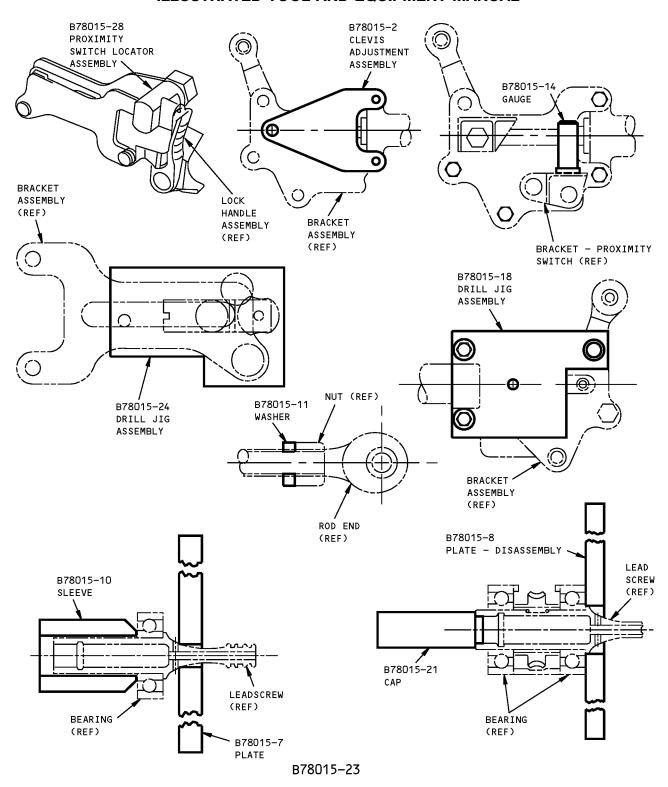
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B78015-17

Thrust/Reverser Locking Actuator Assembly Overhaul Set Figure 1 (Sheet 1 of 2)





Thrust/Reverser Locking Actuator Assembly Overhaul Set Figure 1 (Sheet 2 of 2)

PART NUMBER: B78016-1

NAME: OVERHAUL SET - THRUST REVERSER LOCKING AND NON-LOCKING

ACTUATOR ASSEMBLY

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The B78016-1 overhaul set is used during component overhaul on 757

airplanes equipped with PW2000 engines. B78016 is used on 315A1801, 315N3801 thrust reverser locking actuator assemblies and 315A1800 and 315N3800 thrust reverser non-locking actuator assemblies. B78016 is used to assemble and check the worm gear and hydraulic actuators during overhaul of the locking and non-locking thrust reverser actuators. Refer to CMM 78-31-03, CMM 78-31-04 and CMM 78-31-05 for complete usage instructions.

B78016-1 consists of:

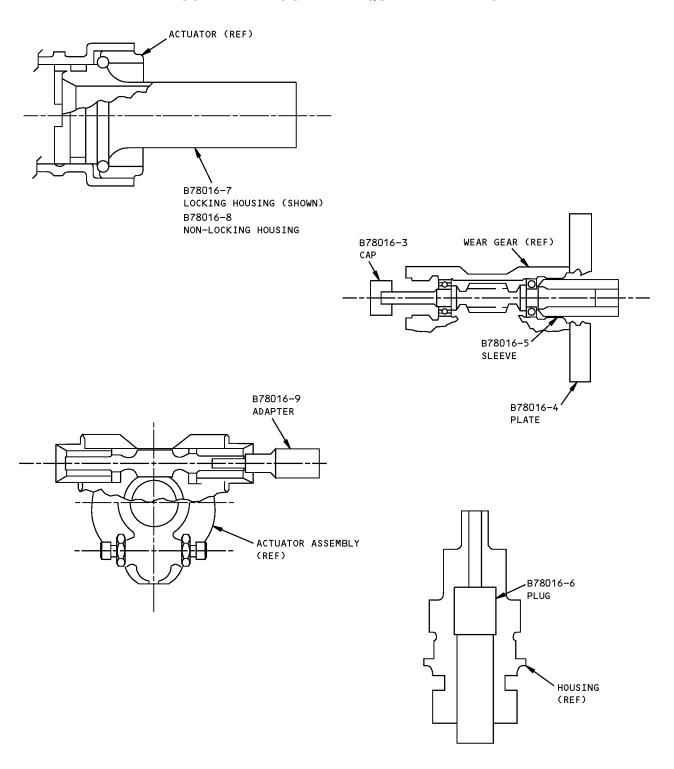
B78016-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	CAP	B78016-3
1	PLATE	B78016-4
1	SLEEVE	B78016-5
1	PLUG	B78016-6
1	LOCKING HOUSING	B78016-7
1	NON-LOCKING HOUSING	B78016-8
1	ADAPTER	B78016-9
1	STORAGE BOX	

WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 3 x 6 x 12 inches (76 x 152 x 305 mm)



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Thrust Reverser Locking And Non-Locking Actuator Assembly Overhaul Set Figure 1

78-30-21



PART NUMBER: B78019-1

NAME: VIBRATION ISOLATOR EQUIPMENT - THRUST REVERSER, REMOVAL/

INSTALLATION

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

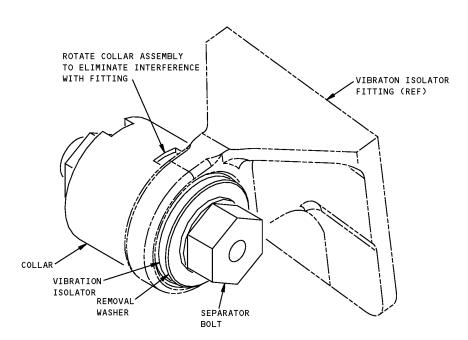
USAGE & DESCRIPTION: The B78019-1 vibration isolator equipment is used on 757 airplanes equipped

with PW2000 engines. B78019 is used to remove or install the thrust reverser (Lord part number 433-31/-40) vibration isolator from the isolator fitting. Refer to AMM 78-31-17 for complete usage instructions. B78019-1 consists of a

B78019-2 collar assembly contained in a storage box.

WEIGHT: 2 lbs (0.9 kg)

DIMENSIONS: 3 x 4 x 4 inches (76 x 102 x 102 mm)



THRUST REVERSER REMOVAL/INSTALLATION, VIBRATION ISOLATOR EQUIPMENT Figure 1



PART NUMBER: B78020-1

NAME: RETAINING PIN SET - THRUST REVERSER RB211-535E4

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

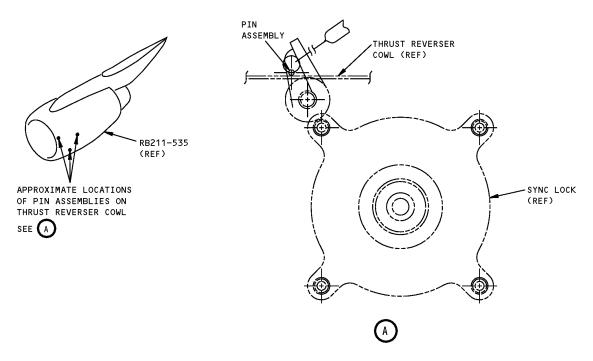
USAGE & DESCRIPTION: The B78020-1 retaining pin set is used on 757 airplanes equipped with RB211-

535E4 engines. B78020 is used to restrain and unlock the sync-lock and locking actuators of RB211-535E4 thrust reverser during manual cycling of the translating sleeve. Refer to the current B78020 drawing and AMM 78-31-00 for complete usage instructions. B78020-1 consists of three B78020-2 pin

assemblies contained in a storage bag.

WEIGHT: 1 lb (0.45 kg)

DIMENSIONS: 6 x 6 x 8 inches (152 x 152 x 203 mm)



RB211-535E4 Thrust Reverser Retaining Pin Set Figure 1



PART NUMBER: A78019-21

NAME: HAND PUMP - OPENING SYSTEM, THRUST REVERSER

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The A78019-21 hand pump is used to supply hydraulic pressure to the

actuator that opens the thrust reverser "C" duct for engine maintenance. Refer to the current A78019 drawing and AMM 78-31-00 for complete usage

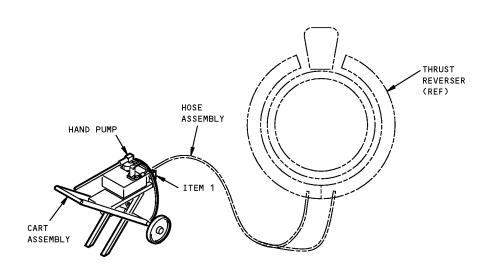
instructions. A78019-21 consists of a hydraulic hand pump on a cart assembly, a hose assembly, a filter assembly, plumbing fittings and

connecting hardware.

WEIGHT: 92 lbs (42 kg)

DIMENSIONS: 28 x 31 x 36 inches (711 x 787 x 914 mm)

NOTE: A78019-21 supersedes A78019-17.



Thrust Reverser Opening System Hand Pump Figure 1



REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	412F-B10CN	FILTER ELEMENT	*[1]

^{*[1]} NORMAN EQUIPMENT COMPANY

9850 SOUTH INDUSTRIAL DRIVE BRIDGEVIEW, IL 60455



PART NUMBER: B71047-9

NAME: GAUGE - GAP MEASUREMENT, ENGINE V-GROOVE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71047-9 gauge is used on 757 airplanes equipped with PW2000

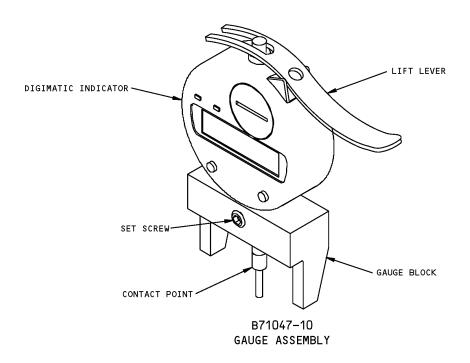
engines. The B71047 is used to measure the gap between the engine V-groove and the thrust reverser V-band when installing and adjusting the thrust reverser. Refer to AMM 78-31-01 for complete usage instructions. B71047-9 consists of a B71047-3 tool block and a B71047-10 gauge assembly

contained in a storage box.

WEIGHT: 3 lbs (1.4 kg)

DIMENSIONS: 2 x 4 x 5 inches (51 x 102 x 127 mm)

NOTE: B71047-9 supersedes B71047-1.



Engine V-Groove Gap Measurement Gauge Figure 1

PART NUMBER: B78001-1, -2, -8

NAME: LOCK - THRUST REVERSER ISOLATION VALVE (GROUND AND FLYAWAY)

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B78001-1 or -8 lock assemblies or the B78001-2 dispatch kit is used on all

757 airplanes.

The B78001-1 or -8 lock assemblies is used during ground maintenance for hydraulic deactivation of the thrust reverser on one engine. The thrust reverser can be manually extended or retracted when deactivated with either B78001-1 or -8. The B78001-1 lock assembly is stored with ground maintenance tools. The B78001-8 lock assembly is to be permanently stored in a deactivation pin stowage container located in the engine strut. Refer to the current B78001 drawing and AMM 78-31-00 for complete PW2000 procedures. Refer to the current B78001 drawing and AMM 78-30-00, AMM 78-31-00 and AMM 78-31-10 for complete RB211 procedures.

The B78001-2 dispatch kit is a "flyaway" kit and is installed on the airplane's thrust reverser as shown in drawing 012N8101. B78001-2 is used to prevent thrust reverser operation in flight. Refer to the current B78001, 012N8101 drawings and the 757 Dispatch Deviation Guide, Item 78-31-1, for complete usage instructions. B78001-2 is stored in the airplane's "Flight Dispatch Kit."

B78001-1, -2 and -8 consist of:

B78001-1		
QUANTITY	NOMENCLATURE	PART NUMBER
2	PIN	B78001-3
2	HITCH PIN	AN415-3
1	STREAMER	NAS1756-12
2	CABLE ASSEMBLY	CL-21-KA-6.0LR
1	CABLE ASSEMBLY	CL-22-KA-12.0LR

	B78001-2		
QUANTITY	NOMENCLATURE	PART NUMBER	
2	PIN	B78001-3	
2	BAG	B78001-4	

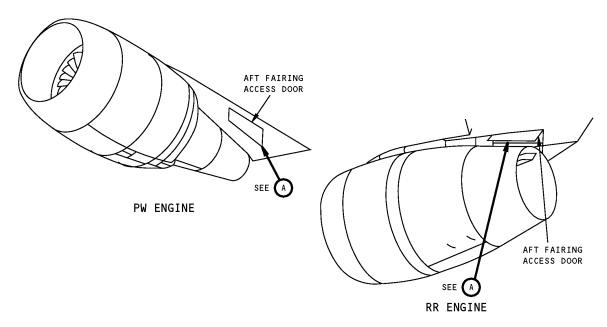


	B78001-8		
QUANTITY	NOMENCLATURE	PART NUMBER	
2	PIN	B78001-3	
1	STREAMER ASSEMBLY	B78001-9	
2	CABLE	B78001-10	
1	CABLE	B78001-11	
1	TAB	B78001-12	
2	HITCH PIN	AN415-3	
4	SLEEVE	MS51844-62	

WEIGHT: 1 lb (0.45 kg)

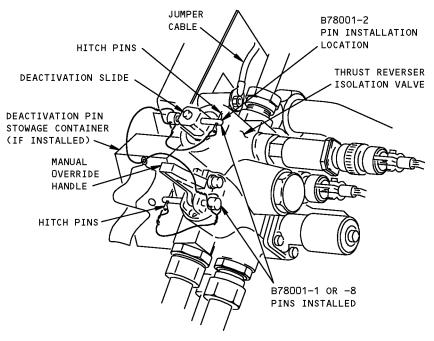
DIMENSIONS: B78001-1 - 4 x 4 x 4 inches (102 x 102 x 102 mm)

B78001-2 - 1 x 4 x 6 inches (25 x 102 x 152 mm) B78001-8 - 1 x 4 x 4 inches (25 x 102 x 102 mm)



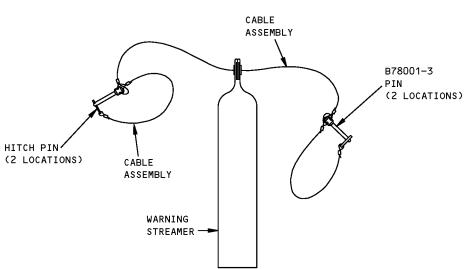
Thrust Reverser Isolation Valve (Ground and Flyaway) Lock Figure 1 (Sheet 1 of 3)





ENGINES WITH DEACTIVATION PIN STOWAGE CONTAINER



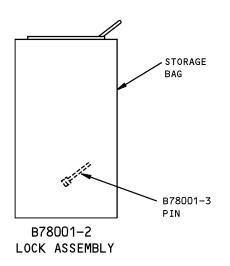


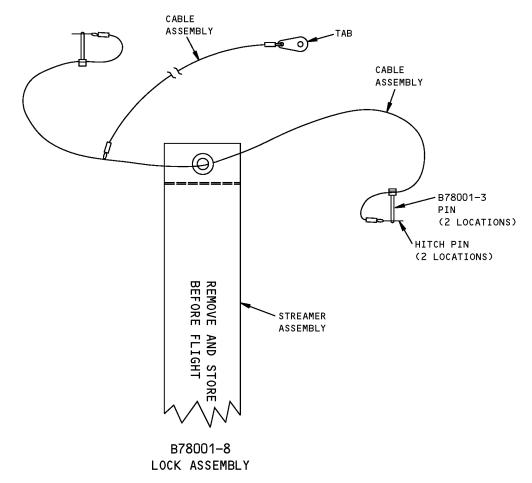
B78001-1 LOCK ASSEMBLY

Thrust Reverser Isolation Valve (Ground and Flyaway) Lock Figure 1 (Sheet 2 of 3)



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Thrust Reverser Isolation Valve (Ground and Flyaway) Lock Figure 1 (Sheet 3 of 3)

78-30-26

PART NUMBER: B71014-5, -98, -150, -151, -152, -155

NAME: HANDLING FRAME EQUIPMENT - "C" DUCT, RB211-535 ENGINE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION:

The B71014-3, -130 and -131 handling frame equipment are used to remove and install the "C" duct on 757 airplanes equipped with RB211-535C engines. The B71014-130 handling frame equipment contains all the parts included in B71014-3 and -131 handling frame equipment. B71014 -3 contains parts for the RB211-535C outboard "C" duct handling. B71014 -131 contains parts for the RB211-535C inboard "C" duct handling.

The B71014-98, -132 and -133 handling frame equipment are used to remove and install the "C" duct on 757 airplanes equipped with RB211-535E4 engines. The B71014-132 handling frame equipment contains all the parts included in B71014-3 and -131 handling frame equipment. B71014 -98 contains parts for the RB211-535C outboard "C" duct handling. B71014 -133 contains parts for the RB211-535C inboard "C" duct handling.

The B71014 handling frame equipment requires the use of the B71017 proof load fixture for proof load testing. B71014 also requires the use of a B71016 hoist transporter, a B71009 safety lock, a B78002 tool set, B71029 hoist equipment, B71006 fan "C: duct hold open device, a CP30468/1 web sling, a B20003 rig pin, B71005 floating beam GSE pins, two fishpole hoists, Rolls-Royce HU28527 closing hook tool, Rolls-Royce CP30523 "C" duct installation and parking trolley, Rolls-Royce CP30522/2 "C" duct handling frame, Rolls-Royce CP27118 belt sling and a 1014246 torque adapter. Refer to the current B71014 drawing and AMM 78-31-20 for complete usage instructions.

B71014-3		
QUANTITY	NOMENCLATURE	PART NUMBER
1	"C" DUCT FRAME ASSEMBLY	B71014-5
1	HOIST HANGER ASSEMBLY	B71014-6
1	STORAGE BOX	

B71014-130		
QUANTITY	NOMENCLATURE	PART NUMBER
1	HOIST FRAME ASSEMBLY	B71014-134
1	"C" DUCT FRAME ASSEMBLY	B71014-5
1	HOIST HANGER ASSEMBLY	B71014-6
1	STORAGE BOX	



B71014-131		
QUANTITY	NOMENCLATURE	PART NUMBER
1	HOIST FRAME ASSEMBLY	B71014-134
1	"C" DUCT FRAME ASSEMBLY	B71014-5
1	STORAGE BOX	

B71014-98		
QUANTITY	NOMENCLATURE	PART NUMBER
1	"C" DUCT FRAME ASSEMBLY	B71014-99
1	HOIST HANGER ASSEMBLY	B71014-6
1	STORAGE BOX	

B71014-132		
QUANTITY	NOMENCLATURE	PART NUMBER
1	HOIST FRAME ASSEMBLY	B71014-134
1	"C" DUCT FRAME ASSEMBLY	B71014-99
1	HOIST HANGER ASSEMBLY	B71014-6
1	STORAGE BOX	

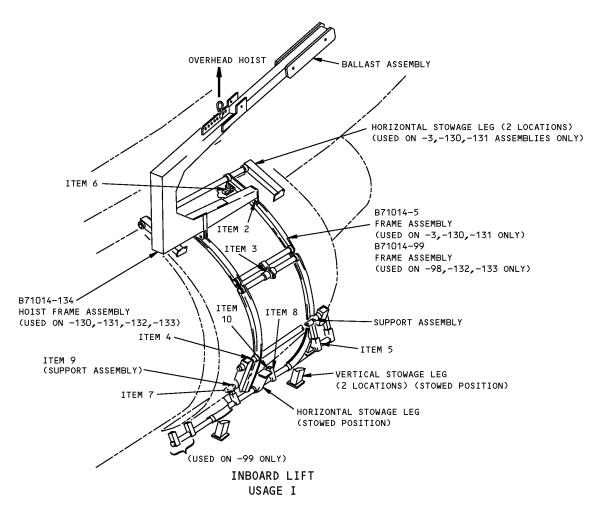
B71014-133		
QUANTITY	NOMENCLATURE	PART NUMBER
1	HOIST FRAME ASSEMBLY	B71014-134
1	"C" DUCT FRAME ASSEMBLY	B71014-99
1	STORAGE BOX	

WEIGHT: 405 lbs (184 kg)

DIMENSIONS: 50 x 65 x 70 inches (1270 x 1651 x 1778 mm)

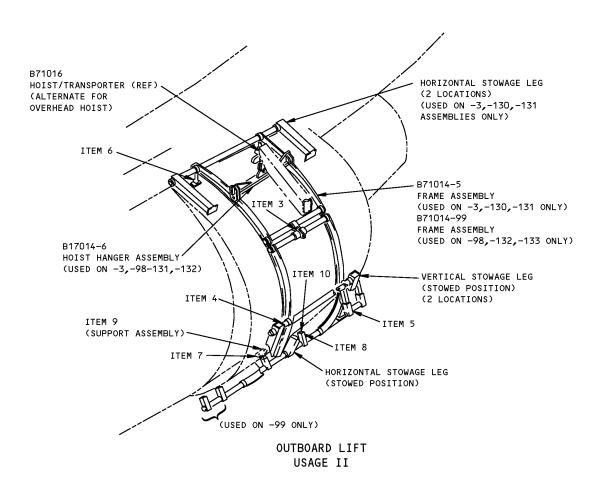
B71042 replaces B71014 for future procurement. NOTE:





RB211-535 Engine "C" Duct Handling Frame Equipment Figure 1 (Sheet 1 of 2)





RB211-535 Engine "C" Duct Handling Frame Equipment Figure 1 (Sheet 2 of 2)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	F70308-15	PROOF LOAD TAG	
2	NAS1336C5C1.5D	BALL LOCK PIN	
3	NAS1340C5C2.1F	BALL LOCK PIN	
4	NAS1336C5C2.6D	BALL LOCK PIN	
5	NAS1336C5C3.1D	BALL LOCK PIN	
6	NAS1336C5C1.1D	BALL LOCK PIN	
7	NAS1304-7	BOLT	
8	NAS1336C5C2.1D	BALL LOCK PIN	



REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
9	NAS1337C5C1.2D	BALL LOCK PIN	
10	NAS1336C5C1.2D	BALL LOCK PIN	
11	CL-6-BLP-B-2.1-5	PIN	V99862

PART NUMBER: B71017-15

NAME: PROOF LOAD FIXTURE - RB211-535 "C" DUCT FRAME

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71017-15 proof load fixture is used to proof load the B71014 or B71042

handling frame equipment, which is used on 757 airplanes equipped with RB211-535C and RB211-535E4 engines. B71017 is used with customer-furnished overhead lifting equipment. Refer to the current B71017, B71014 and B71042 drawings for complete usage instructions. B71017-15 consists of

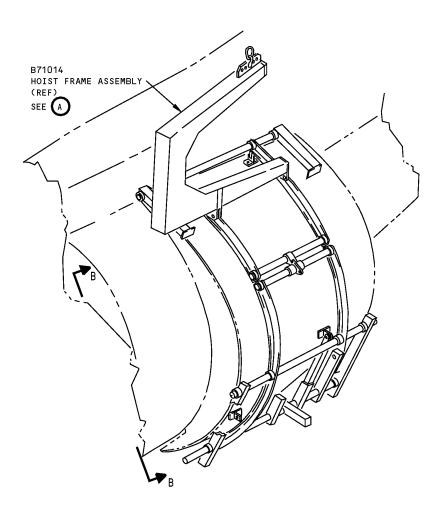
a B71015-2 frame assembly, and two G-209-1/2 shackles.

WEIGHT: 160 lbs (73 kg)

DIMENSIONS: 21 x 55 x 89 inches (553 x 1397 x 2261 mm)

NOTE: B71017-15 supersedes B71017-1.

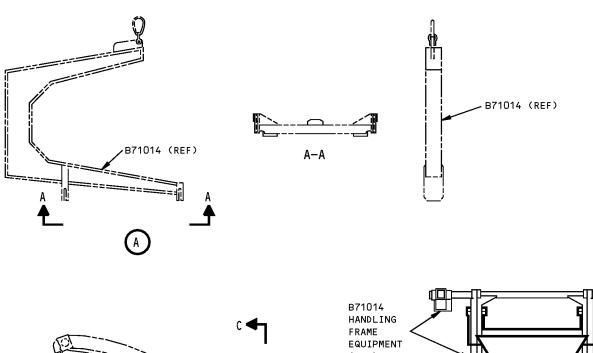


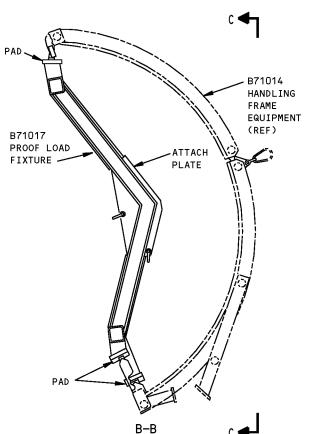


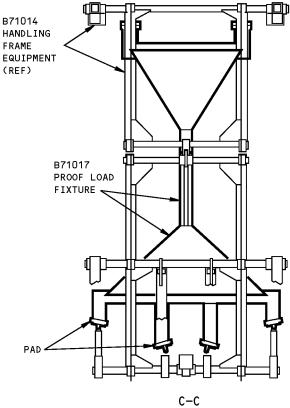
RB211-535 "C" Duct Frame Proof Load Fixture Figure 1 (Sheet 1 of 2)



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL







RB211-535 "C" Duct Frame Proof Load Fixture Figure 1 (Sheet 2 of 2)

PART NUMBER: B78002-18, -36

NAME: TOOL SET - "C" DUCT REMOVAL/INSTALLATION, RB211-535 ENGINE

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION:

The B78002-18 tool set is used to remove and install the "C" duct on 757-200 airplanes equipped with RB211-535C engines. The B78002-36 tool set is used to remove and install the "C" duct on all 757 airplanes equipped with RB211-535E4 engines. B78002 is used to secure the floating hinge beam to the strut structure, to operate the "C" duct latch, to align and install the "C" duct hinge pins during "C" duct removal and installation.

The B78002 tool set requires the use of a B71014 handling frame equipment, a B71016 hoist transporter, a B71009 safety lock, B71029 hoist equipment, B71006 fan "C" duct hold open device, a CP30468/1 web sling, a B20003 rig pin, B71005 floating beam GSE pins, two fishpole hoists, Rolls-Royce HU28527 closing hook tool, Rolls-Royce CP30523 "C" duct installation and parking trolley, Rolls-Royce CP30522/2 "C" duct handling frame, Rolls-Royce CP27118 belt sling and a 1014246 torque adapter. Refer to the current B71014 drawing and AMM 78-31-20 for complete usage instructions. B78002-18 and 26 consists of:

B78002-18		
QUANTITY	NOMENCLATURE	VENDOR CODE
1	PLIER ASSEMBLY	B78002-34
2	GUIDE ASSEMBLY	B78002-19
1	GUIDE ASSEMBLY	B78002-20
1	WRENCH ASSEMBLY	B78002-5
2	PIN ASSEMBLY	B78002-6
2	NOSE-LEAD IN	B78002-31
1	NOSE-LEAD IN	B78002-32
1	STORAGE BOX	

B78002-36		
QUANTITY	NOMENCLATURE	VENDOR CODE
1	PLIER ASSEMBLY	B78002-34
2	GUIDE ASSEMBLY	B78002-19
1	GUIDE ASSEMBLY	B78002-28
2	PIN ASSEMBLY	B78002-6
2	NOSE-LEAD IN	B78002-31



B78002-36		
QUANTITY	TITY NOMENCLATURE VENDOR CODE	
1	NOSE-LEAD IN	B78002-32
1	STORAGE BOX	

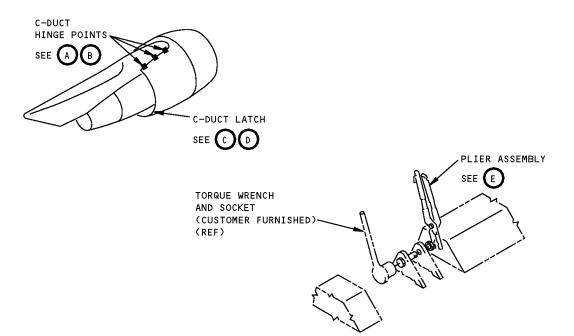
WEIGHT: 11 lbs (5 kg)

DIMENSIONS: 9 x 9 x 18 inches (229 x 229 x 457 mm)

NOTE: B78002-36 supersedes B78002-26.

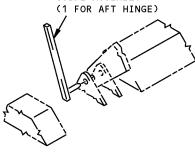
B78002-18 replaces B78002-1 for future procurement.



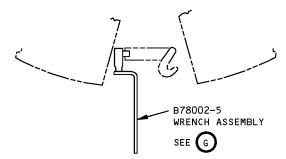


HINGE BOLT AND NUT REMOVAL/INSTALLATION





HINGE ALIGNMENT FOR HINGE BEAM TO STRUT



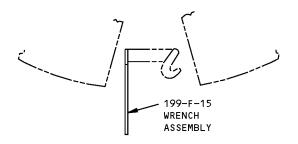
C-DUCT LATCH (B78002-1,-18 ASSEMBLY)



RB211-535 Engine "C" Duct Removal/Installation Tool Set Figure 1 (Sheet 1 of 2)

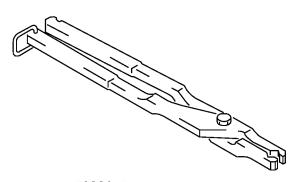


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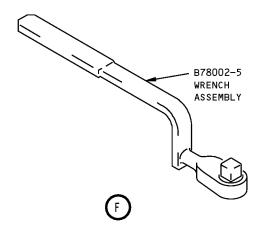
C-DUCT LATCH (B78002-36 ASSEMBLY)





B78002-34 PLIER ASSEMBLY





RB211-535 Engine "C" Duct Removal/Installation Tool Set Figure 1 (Sheet 2 of 2)

78-30-29

PART NUMBER: B71016-1

NAME: HOIST/TRANSPORTER - THRUST REVERSER AND FAN COWL

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71016-1 hoist/transporter is used on 757 airplanes equipped with

RB211-535 engines. B71016 is used with the B71042 "C" duct frame for under wing removal, installation and transportation of RB211-535 "C" duct. B71016 is used to store or transport the "C" duct in a vertical or horizontal position and may be used as a maintenance stand. The B78016 hoist/transporter is

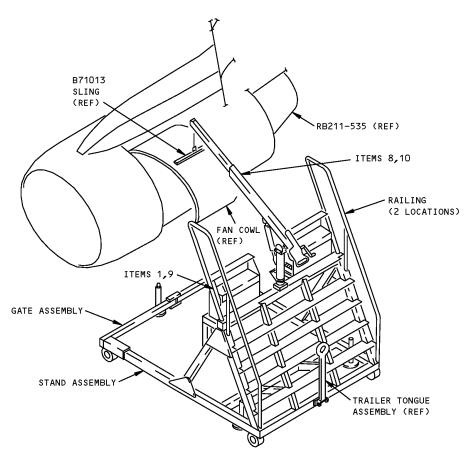
used in conjunction with a B78002 tool set , B71014 handling frame equipment, a B71009 safety lock, B71029 hoist equipment, B71006 fan "C" duct hold open device, a CP30468/1 web sling, a B20003 rig pin, B71005 floating beam GSE pins, two fishpole hoists, Rolls-Royce HU28527 closing hook tool, Rolls-Royce CP30523 "C" duct installation and parking trolley, Rolls-Royce CP30522/2 "C" duct handling frame, Rolls-Royce CP27118 belt sling and a 1014246 torque adapter. Refer to the current B71014 drawing and AMM 78-31-20 for complete usage instructions. B71016-1 consists of a stand assembly, two railings, two gate assemblies, a boom support assembly, a boom assembly, two pulley assemblies, four casters, connecting hardware,

contained in a storage box.

WEIGHT: 2200 lbs (998 kg)

DIMENSIONS: 97 x 118 x 134 inches (2464 x 2997 x 3404 mm)

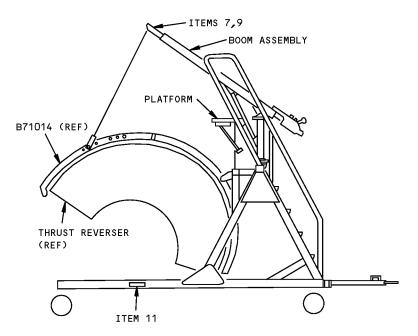




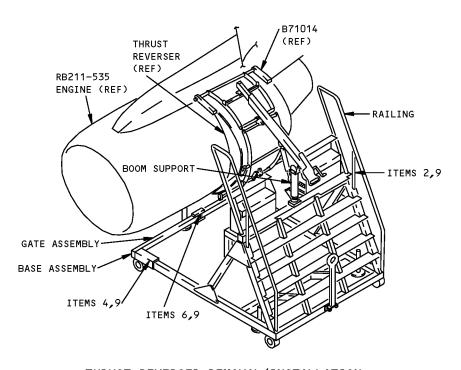
FAN COWL REMOVAL/INSTALLATION
-BOOM EXTENDEDUSAGE I

Thrust Reverser And Fan Cowl Hoist/Transporter Figure 1 (Sheet 1 of 3)





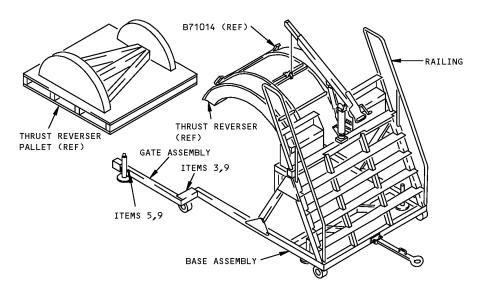
THRUST REVERSER INSTALLATION/TRANSPORTATION USAGE II



THRUST REVERSER REMOVAL/INSTALLATION (AIRPLANE ON TIRES) — BOOM RETRACTED USAGE III

Thrust Reverser And Fan Cowl Hoist/Transporter Figure 1 (Sheet 2 of 3)





THRUST REVERSER REMOVAL (FROM PALLET) - BOOM RETRACTED USAGE IV

Thrust Reverser And Fan Cowl Hoist/Transporter Figure 1 (Sheet 3 of 3)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	NAS1336C5C1.8D	BALL LOCK PIN	
2	NAS1338C5C2.5D	BALL LOCK PIN	
3	NAS1340C2C4.6D	BALL LOCK PIN	
4	NAS1341C5C1.3D	BALL LOCK PIN	
5	NAS1343C2C4.0D	BALL LOCK PIN	
6	NAS1343C5C4.8D	BALL LOCK PIN	
7	NAS1338C5C3.6D	BALL LOCK PIN	
8	NAS1338C5C4.1D	BALL LOCK PIN	
9	CL-23-KA-10.0LR	LANYARD	V99862
10	CL-23-KA-22.0LR	LANYARD	V99862

PART NUMBER: B71029-1

NAME: HOIST EQUIPMENT - "C" DUCT, RB211-535

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71029-1 hoist equipment is used on 757 airplanes equipped with RB211-

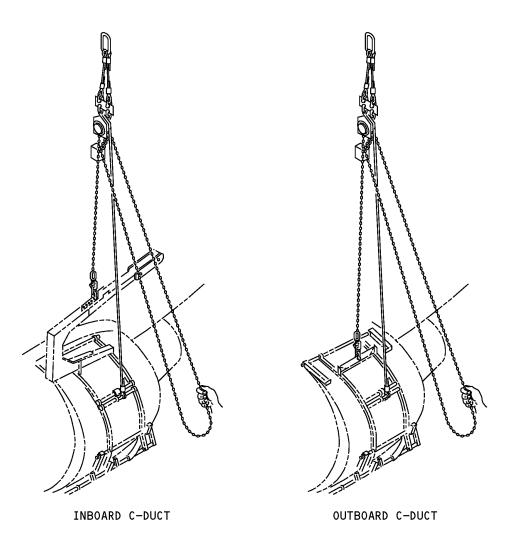
535 engines. B71029 is used in conjunction with either B71042 (preferred) or B71014, RB211-535 handling frame equipment, to lift and rotate the RB211-535 thrust reverser during removal or installation. Refer to AMM 78-31-20 for complete usage instructions. B71029-1 consists of a B71029-2 sling assembly

and a B71029-10 chain hoist, both contained in a storage box.

WEIGHT: 27 lbs (12 kg)

DIMENSIONS: 12 x 12 x 190 inches (305 x 305 x 4826 mm)





RB211-535 "C" Duct Hoist Equipment Figure 1

PART NUMBER: B71042-154

NAME: HANDLING FRAME EQUIPMENT - "C" DUCT, RB211-535 ENGINE

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71042-154 handling frame equipment is used on 757 airplanes

equipped with any RB211-535 engines. B71042 is used to remove or install the "C" duct from the RB211-535 engine. B71042 is used by means of two steel frame assemblies fitting around the engine "C" duct and attaching onto

duct hard points.

154 consists of:

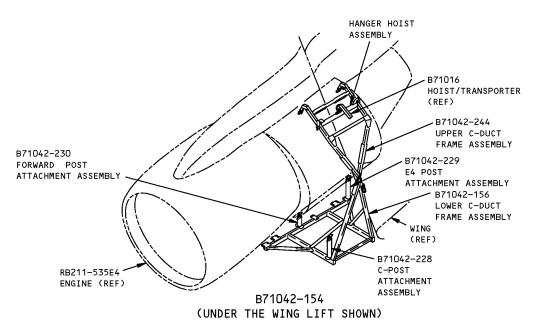
The B71042 handling frame equipment requires the use of the B71017 proof load fixture for proof load testing. B71042 also requires the use of a B71016 hoist transporter, a B71009 safety lock, a B78002 tool set, B71029 hoist equipment, B71006 fan "C: duct hold open device, a CP30468/1 web sling, a B20003 rig pin, B71005 floating beam GSE pins, two fishpole hoists, Rolls-Royce HU28527 closing hook tool, Rolls-Royce CP30523 "C" duct installation and parking trolley, Rolls-Royce CP30522/2 "C" duct handling frame, Rolls-Royce CP27118 belt sling and a 1014246 torque adapter. Refer to the current B71014 drawing and AMM 78-31-20 for complete usage instructions. B71042-

B71042-154 **QUANTITY NOMENCLATURE PART NUMBER** HOIST FRAME ASSEMBLY 1 B71042-155 LOWER "C: DUCT FRAME ASSEMBLY 1 B71042-156 1 ADAPTER FITTING ASSEMBLY B71042-213 2 ADAPTER FITTING ASSEMBLY B71042-220 1 HANGER HOIST ASSEMBLY B71042-227 1 "C" POST ATTACH ASSEMBLY B71042-228 1 **E4 POST ATTACH ASSEMBLY** B71042-229 1 FORWARD POST ATTACH ASSEMBLY B71042-230 1 UPPER "C" DUCT ASSEMBLY B71042-244 2 ADAPTER FITTING ASSEMBLY B71042-246 8 HEX HEAD BOLT NAS1304-7 2 HEX HEAD BOLT NAS1304-21 1 STORAGE BOX

WEIGHT: 310 lbs (141 kg)

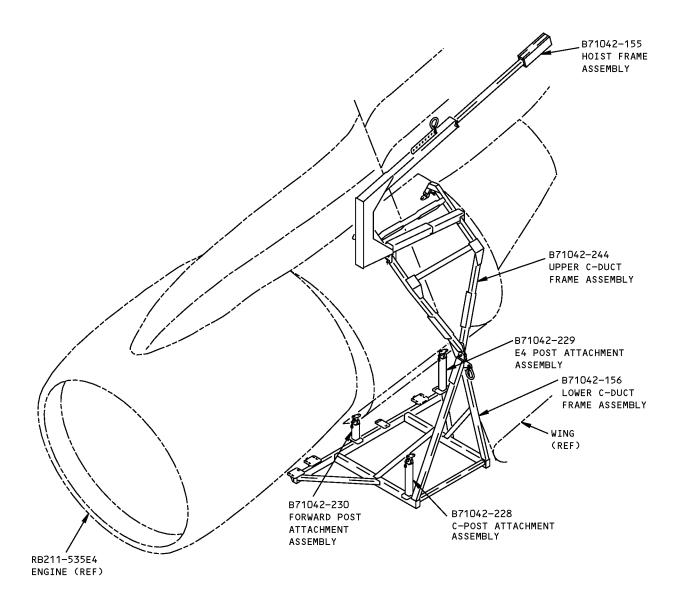
DIMENSIONS: 60 X 60 X 84 inches (1524 x 1524 x 2134 mm)

NOTE: B71042-154 replaces B71014 for future procurement.



RB211-535 Engine "C" Duct Handling Frame Equipment Figure 1 (Sheet 1 of 2)





B71042-154 (OVER THE WING LIFT SHOWN)

RB211-535 Engine "C" Duct Handling Frame Equipment Figure 1 (Sheet 2 of 2)

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PART NUMBER: B54001-30

NAME: HYDRAULIC PUMP - ENGINE "C" DUCT

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B54001-30 hydraulic pump is used on all 757 airplanes. B54001 is used to

open the "C" duct halves for engine maintenance. B54001 is a hydraulic pump unit that connects to the duct halves and applies sufficient pressure to

open the duct halves.

Refer to AMM 78-31-00, AMM 78-31-25 and AMM 71-00-02 for complete usage

instructions for RB211-535 engines.

Refer to AMM 78-31-00, AMM 78-31-01, AMM 78-31-05 and AMM 71-00-06 for

complete usage instructions for PW2000 engines.

B54001 is often stored in the airplane's flyaway kit. B54001-30 consists of a

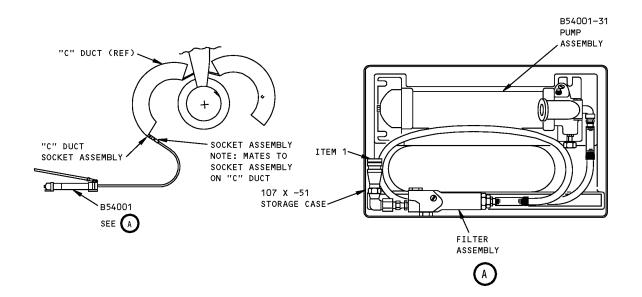
B54001-31 pump assembly contained in a 107X-51 storage case.

WEIGHT: 40 lbs (18 kg)

DIMENSIONS: 8 x 13 x 21 inches (203 x 330 x 533 mm)

NOTE: B54001-30 supersedes B54001-25.





Engine "C" Duct Hydraulic Pump Figure 1

B54001-30				
ITEM NO. PART NO. NOMENCLATURE VENDOR COD				
1	SDC-2-HK	DUST CAP	V73992	
1	LLSDC-2-HK-(S)	DUST CAP (OPTIONAL)	V73992	

PART NUMBER: A78025-1, -77

NAME: BREAKOUT BOX - TEST, THRUST REVERSER

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The A78025-1 and A78025-77 breakout boxes are used on all 757 airplanes

with RR RB211-535, and PW2000 engines. A78025 are used for specific AMM procedures to check the electrical equipment of the thrust reverser system. The A78025-1 assembly is used to breakout contacts of MIL-C-5015 and MIL-C-26500 type circular connectors. The A78025-77 assembly is used for testing relays and to breakout relay sockets of BAC516 series. To breakout ARINC 600 type rack connectors, the A34016-42 and A34016-65 test boxes are used. Troubleshooting or other specified tests may include continuity checks, voltage checks, and signal checks, as applicable. Refer to AMM 78-31-00, AMM 78-34-00, AMM 78-34-04 and the current A78025 drawing for additional

usage instructions. The A78025-1 and A78025-77 consist of:

A78025-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	BREAKOUT BOX ASSEMBLY	A78025-3
1	CABLE ASSEMBLY	A78025-5
1	CABLE ASSEMBLY	A78025-6
1	CABLE ASSEMBLY	A78025-7
1	CABLE ASSEMBLY	A78025-8
1	CABLE ASSEMBLY	A78025-9
1	CABLE ASSEMBLY	A78025-10
1	CABLE ASSEMBLY	A78025-11
1	CABLE ASSEMBLY	A78025-12
1	STORAGE BOX	

	A78025-77			
QUANTITY	NOMENCLATURE	PART NUMBER		
1	BREAKOUT BOX ASSEMBLY	A78025-79		
1	CABLE ASSEMBLY	A78025-80		
1	CABLE ASSEMBLY	A78025-87		
1	CABLE ASSEMBLY	A78025-88		
1	CABLE ASSEMBLY	A78025-89		
1	STORAGE BOX			

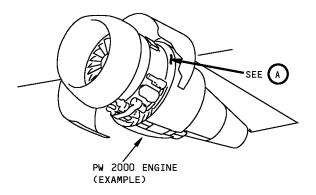
WEIGHT: A78025-1 - 15 lbs (6.8 kg) A78025-77 - 10 lbs (4.5 kg)

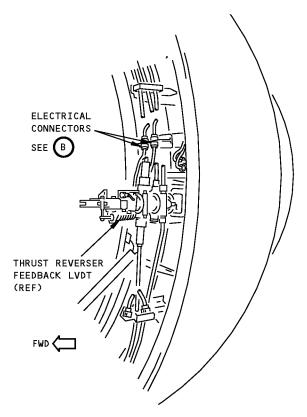
DIMENSIONS: A78025-1 - 18 x 15 x 10 inches (457 x 381 x 254 mm)

A78025-77 - 14 x 8 x 8 inches (356 x 203 x 203 mm)

NOTE: A78025-77 supersedes A78025-2.







LEFT FAN DUCT COWL AND
THRUST REVERSER HALF
(RIGHT HALF IS ALMOST THE SAME)



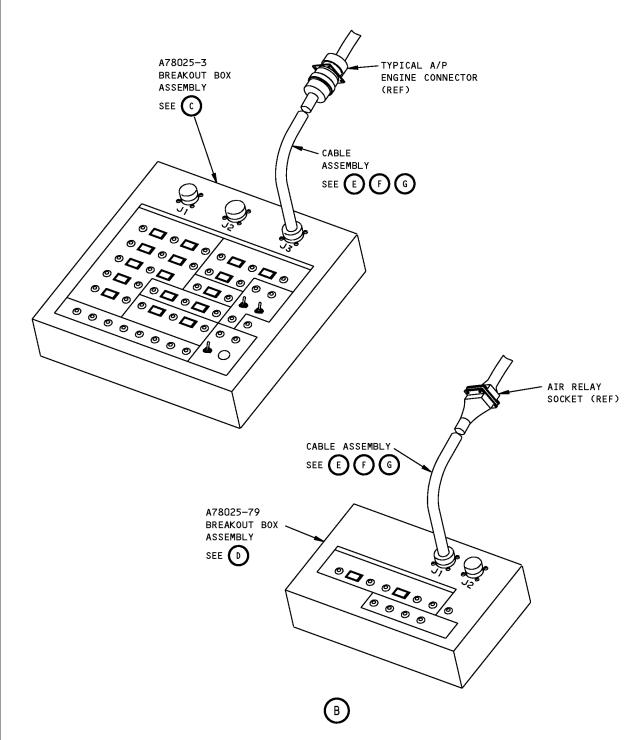
1575035 S0000294971_V1

Thrust Reverser Test Breakout Box Figure 1 (Sheet 1 of 5)

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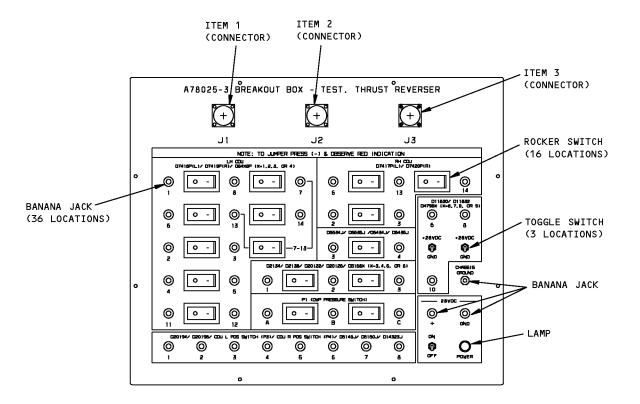
1631353 S0000300491_V1

Thrust Reverser Test Breakout Box Figure 1 (Sheet 2 of 5)

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A78025-3 BREAKOUT BOX ASSEMBLY



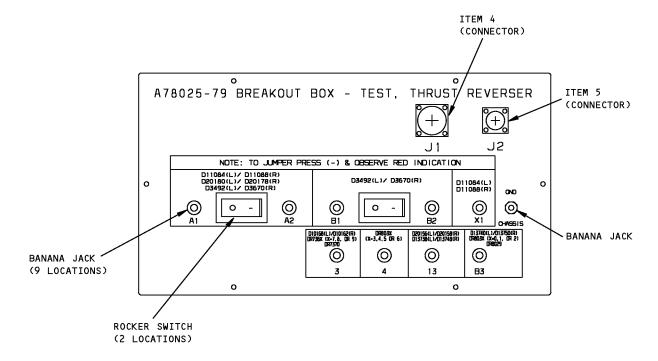
1575394 S0000294974_V1

Thrust Reverser Test Breakout Box Figure 1 (Sheet 3 of 5)

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A78025-79 BREAKOUT BOX ASSEMBLY



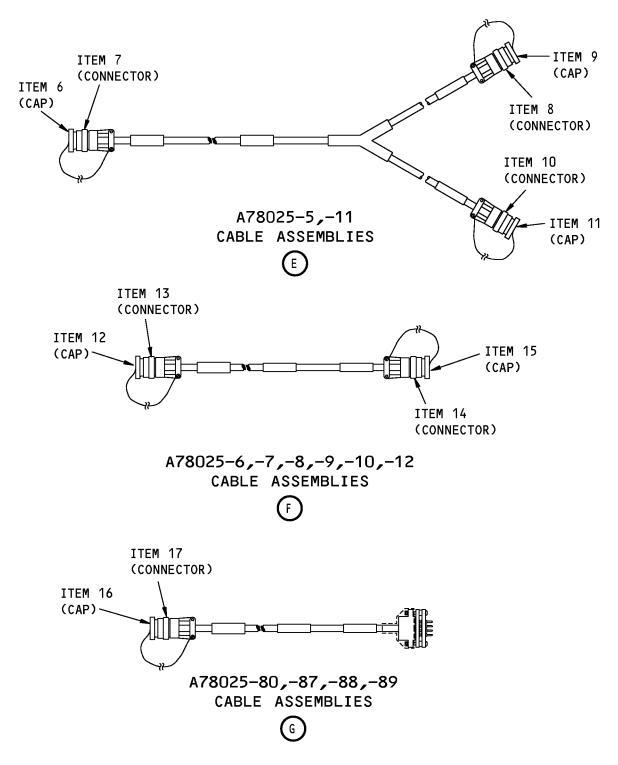
1575418 S0000294975_V1

Thrust Reverser Test Breakout Box Figure 1 (Sheet 4 of 5)

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1575429 S0000294977_V1

Thrust Reverser Test Breakout Box Figure 1 (Sheet 5 of 5)

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A78025-3 BREAKOUT BOX ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
1	M83723/72A1212N	CONNECTOR	
2	M83723/72A12129	CONNECTOR	
3	M83723/72A123N	CONNECTOR	

	A78025-79 BREAKOUT BOX ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS				
ITEM NO. PART NO. NOMENCLATURE VENDOR O					
4	M83723/72A1212N	CONNECTOR			
5	M83723/72A803N	CONNECTOR			

A78025-5 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
6	M83723/59-212AC	PROTECTIVE CAP	
7	M83723/75A1212N	CONNECTOR	
8	M83723/83A123N	CONNECTOR	
9	M83723/60-112AC	PROTECTIVE CAP	
10	M83723/83A1236	CONNECTOR	
11	M83723/60-112AC	PROTECTIVE CAP	

	A78025-6 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
12	M83723/60-212AC	PROTECTIVE CAP		
13	M83723/75A123N	CONNECTOR		
14	M83723/76A1212N	CONNECTOR		
15	M83723/59-212AC	PROTECTIVE CAP		

	A78025-7 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
12	M83723/59-212AC	PROTECTIVE CAP		
13	M83723/75A12129	CONNECTOR		
14	M83723/83A18146	CONNECTOR		
15	M83723/60-118AC	PROTECTIVE CAP		

A78025-8 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS				
ITEM NO.	ITEM NO. PART NO. NOMENCLATURE VENDOR CODE			
12	M83723/59-212AC	PROTECTIVE CAP		



A78025-8 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
13	M83723/75A1212N	CONNECTOR	
14	M83723/83A1814N	CONNECTOR	
15	M83723/60-118C	PROTECTIVE CAP	

	A78025-9 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE	
12	M83723/59-212AC	PROTECTIVE CAP		
13	M83723/75A1212N	CONNECTOR		
14	M83723/86A1610N	CONNECTOR		
15	M83723/59-116AC	PROTECTIVE CAP		

A78025-10 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
12	M83723/59-212AC	PROTECTIVE CAP	
13	M83723/75A1212N	CONNECTOR	
14	M83723/86A123N	CONNECTOR	
15	M83723/59-112AC	PROTECTIVE CAP	

A78025-11 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
6	M83723/59-212AC	PROTECTIVE CAP	
7	M83723/75A1212N	CONNECTOR	
8	M83723/75A16246	CONNECTOR	
9	M83723/59-216AC	PROTECTIVE CAP	
10	M83723/75A16248	CONNECTOR	
11	M83723/59-216AC	PROTECTIVE CAP	

A78025-12 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
12	M83723/59-212AC	PROTECTIVE CAP	
13	M83723/75A1212N	CONNECTOR	
14	M83723/87A147N	CONNECTOR	
15	M83723/59-114AC	PROTECTIVE CAP	



A78025-80 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
16	M83723/59-208AC	PROTECTIVE CAP	
17	M83723/75A803N	CONNECTOR	

A78025-87 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
16	M83723/59-212AC	PROTECTIVE CAP	
17	M83723/75A1212N	CONNECTOR	

A78025-88 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
16	M83723/59-212AC	PROTECTIVE CAP	
17	M83723/75A1212N	CONNECTOR	

A78025-89 CABLE ASSEMBLY - REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
16	M83723/59-212AC	PROTECTIVE CAP	
17	M83723/75A1212N	CONNECTOR	