CHAPTER

49

AUXILIARY POWER

CHAPTER 49
AUXILIARY POWER

A = Added, R = Revised, D = Deleted, O = Overflow

49-EFFECTIVE PAGES

CHAPTER 49
AUXILIARY POWER

49-CONTENTS

PART NUMBER: C49006-1

NAME: THREAD PROTECTOR EQUIPMENT - AUXILIARY POWER UNIT MOUNT BOLTS

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C49006-1 thread protector equipment is used on all 737-600 thru -900 airplanes.

C49006 serves two purposes. First, there are three C49006-2 thread protectors that fit on the three fixed strut APU mount bolts during removal and installation. Second, there is an C49006-3 alignment pin that holds the failsafe strut at the proper longitudinal travel to permit proper adjustment of the overall length during installation.

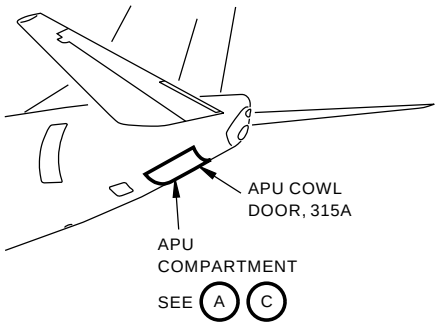
Refer to the current C49006 tool drawing and AMM 49-11-00 for complete usage instructions.

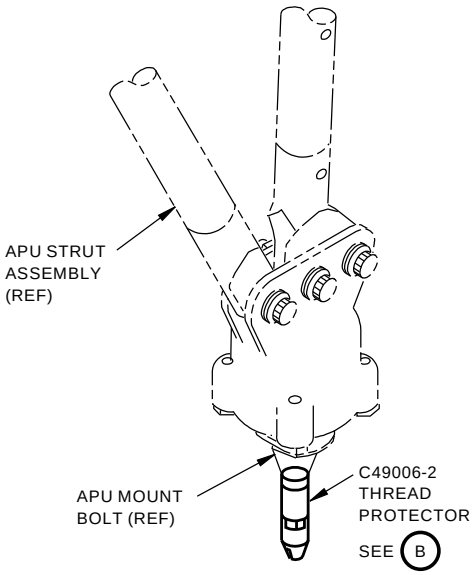
C49006-1 consists of:

C49006-1		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
3	THREAD PROTECTOR	C49006-2
1	ALIGNMENT PIN ASSEMBLY	C49006-3
1	STORAGE BOX	

WEIGHT: 1 lb (0.5 kg)

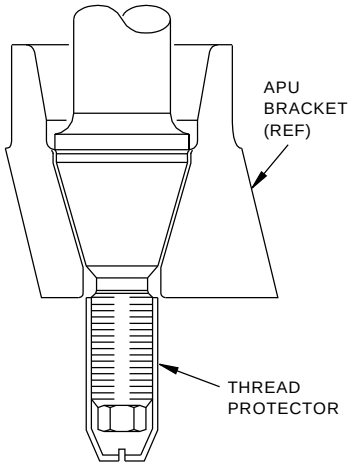
DIMENSIONS: 1 x 9 x 11 inches (25 x 229 x 280 mm)





APU COMPARTMENT

A

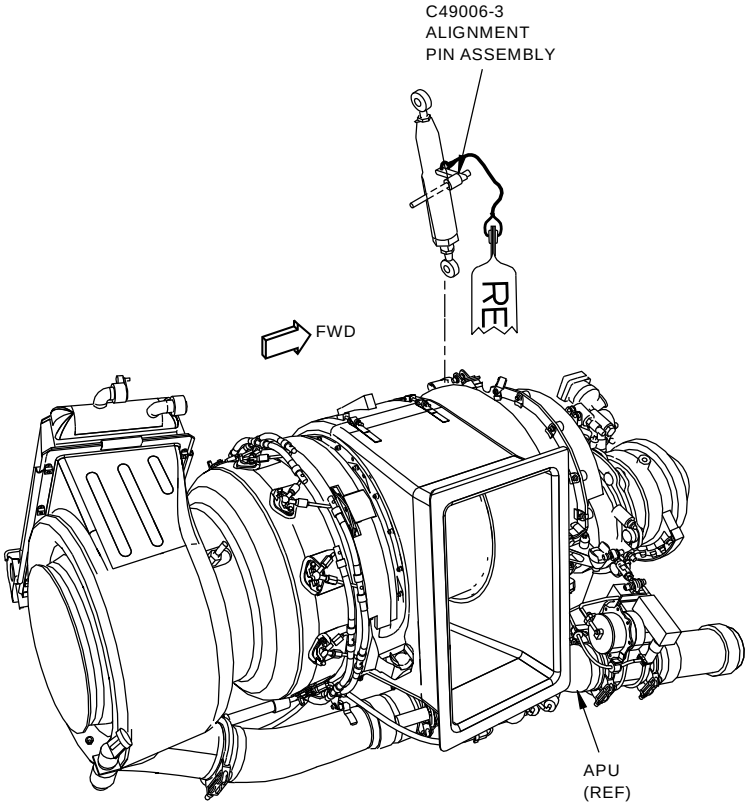


C49006-2 THREAD PROTECTOR

B

G46223 S0006831992_V2

APU Mount Bolts Thread Protector
Figure 1



APU COMPARTMENT

C

G46248 S0006831993_V2

Failsafe Strut Alignment Pin
Figure 2

PART NUMBER: C49004-36, -37, -38, -39, -40, -41

NAME: SLING EQUIPMENT - AUXILIARY POWER UNIT (CE)

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: YES

CMM 49-10-21

USAGE & DESCRIPTION: The C49004-36 (CE qualified) sling equipment is used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129, GTCP 36-280 or Sundstrand APS 2000 auxiliary power units.

The C49004-37 (CE qualified) sling equipment is used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129 or Sundstrand APS 2000 auxiliary power units.

The C49004-38 (CE qualified) sling equipment is used on 737-100 thru -500 airplanes equipped with Garrett GTCP 36-280 auxiliary power units.

The C49004-39 (CE qualified) sling equipment is used on 737-300 thru -500 airplanes equipped with GTCP 85-129 or Sundstrand APS 2000 auxiliary power units.

The C49004-40 (CE qualified) sling equipment is used on all 737 airplanes equipped with Allied Signal 131-9B auxiliary power units.

The C49004-41 (CE qualified) lift fitting kit is used with C49004-36, -37, -38 or -39 sling equipment. C49004-41 and C49004-36, -37, -38 or -39 includes the lifting capability for the Allied Signal 131-9B auxiliary power unit.

C49004 is used in conjunction with a customer-furnished master link and J71046 specification load cell equipment. C49004 provides a means of lifting an APU from the shipping crate to an APU transportation device or shop handling.

Refer to AMM 49-11-00, CMM 49-10-21 and the current C49004 drawing for complete usage instructions.

C49004-36, -37, -38, -39, -40 and -41 consist of:

C49004-36		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	APU SLING ASSEMBLY	C49004-42
1	AFT ADAPTER ASSEMBLY - GTCP 85-129 APU	C49004-10
1	FWD ADAPTER ASSEMBLY - GTCP 36-280 APU	C49004-11
1	AFT ADAPTER ASSEMBLY GTCP 36-280 APU	C49004-12
1	LIFT EYE - GTCP 85-129 APU OR APS 2000 APU	C49004-13
1	STORAGE BOX	

C49004-37		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	APU SLING ASSEMBLY	C49004-42
1	AFT ADAPTER ASSEMBLY - GTCP 85-129 APU	C49004-10
1	LIFT EYE - GTCP 85-129 APU OR APS 2000 APU	C49004-13
1	STORAGE BOX	

C49004-38		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	APU SLING ASSEMBLY	C49004-42
1	FWD ADAPTER ASSEMBLY - GTCP 36-280 APU	C49004-11
1	AFT ADAPTER ASSEMBLY GTCP 36-280 APU	C49004-12
1	STORAGE BOX	

C49004-39		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	APU SLING ASSEMBLY	C49004-42
1	LIFT EYE - GTCP 85-129 APU OR APS 2000 APU	C49004-13
1	STORAGE BOX	

C49004-40		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	AUXILIARY POWER UNIT SLING ASSEMBLY	C49004-42
2	SCREW SHACKLE (G-209-3/16)	C49004-52
2	SWIVEL (G-402-1/4)	C49004-53
1	STORAGE BOX	

C49004-41		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
2	SCREW SHACKLE (G-209-3/16)	C49004-52
2	SWIVEL (G-402-1/4)	C49004-53
1	STORAGE BOX	

WEIGHT: C49004-36, -37, -38, -39 or -40 - 20 lbs (9 kg)
C49004-41 - 2 lbs (0.9 kg)

DIMENSIONS: C49004-36, -37, -38, -39 or -40 - 5 x 5 x 20 inches (127 x 127 x 508 mm)
C49004-41 - 2 x 2 x 5 inches (51 x 51 x 127 mm)

NOTE: C49004-36 supersedes C49004-25 and -1.
C49004-37 supersedes C49004-26 and -2.
C49004-38 supersedes C49004-27 and -3.
C49004-39 supersedes C49004-28 and -4.
C49004-40 supersedes C49004-30.
C49004-41 supersedes C49004-31.

DECLARATION OF CONFORMITY: C49004 requires a written Declaration of Conformity from the C49004 fabricator if it is to be used in the European Union. The design of C49004 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C49004 must also meet the requirements of that directive. At a minimum for the tool fabricator, this requires the retention of a technical file, a labeling of the equipment with the CE mark, and the completion of an EC Declaration of Conformity. If C49004 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C49004 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current C49004 drawing, AMM 49-11-00 and CMM 49-10-21 maintenance procedures for detailed instructions on the use of this equipment. This equipment shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing 737 airplanes.

MAINTENANCE: General Cleaning: Basic care of the equipment includes cleaning the equipment of dirt, corrosives, or contaminants. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent, clean the components and wipe dry with a clean cloth. Hang the components freely to dry, but away from excessive heat or steam.

Slings, Chain: Maintenance and inspection of chain shall be performed in accordance with EN 1492-1, Section 6, Section Annex B and ASME B-30.9, Chapter 9-1.

Structural and Mechanical Lifting Devices, (spreader bar):

1. Maintenance shall be done based on the recommendations made by the lifter manufacturer or qualified person.
2. Before adjustments and repairs are started on a lifter, the following precautions shall be taken:
   - All courses of power shall be disconnected, locked out, and tagged "Out of Service".
   - A lifter removed from service for repair shall be tagged "Out of Service".
3. Only a qualified person shall perform adjustments and tests when required.

4. Replacement parts shall be at least equal to the original manufacturer's specifications.
5. After adjustments and repairs have been made, the lifter shall not be returned to service until it has been inspected according to ASME B-30.20, para. 20-1.3.4.
6. Dated records of repairs and replacements shall be made.
7. Adjustments and repairs. Any hazardous conditions disclosed by the inspection requirements of ASME B-30.20, para. 20-1.3.1 shall be corrected before normal operations of the lifter is resumed. Adjustments and repairs shall be done under the direction of , or by, a qualified person.

Swivel Hoist Rings: Maintenance shall be done based on the recommendations made by the hoist ring manufacturer or qualified person.

PROOF LOAD: Proof load testing for the C49004-36, -37, -38, -39 and -40 sling equipment and the C49004-41 lift fitting kit shall be performed per the current C49004 drawing proof load diagrams (example Figure 2) and:

- In conjunction with initial fabrication
- Subsequent to modification of this equipment (equipment shall only be modified in accordance with the C49004 drawing).
- After repair of load carrying components.
- After replacement of load carrying components (except for load carrying components such as shackles and hoist rings that carry their own certification).
- Continuing integrity/safety of the device to be assured by inspection.

INSPECTION: FREQUENT

General Inspection (before use):

1. Missing fasteners
2. Notes, Cautions and Warnings are legible
3. Usage placards are legible

Slings, General: Prior to use, all new, altered, modified or repaired slings shall be inspected by a designated person to verify compliance with the applicable provisions of EN 1492-1, Section 6, Section Annex B and ASME B-30.9

Slings, Chain:

1. Visual inspection for damage shall be performed by the user or other designated person each day or shift the sling is used.
2. Conditions such as those listed in ASME B-30.9, para. 9-1.9.4 or any other conditions that may result in hazard shall cause the sling to be removed from service.
3. Slings shall not be returned to service until approved by a qualified person.

Structural and Mechanical Lifting Devices (spreader bar):

1. Visual Inspection by the operator before and during each lift of the device. Records are not required. Inspect for:
   - Structural deformation, cracks or excessive wear of any parts of the lifting device.
   - Loose or missing guards, fasteners, covers, stops or nameplates.
   - All functional operational mechanisms and automatic hold and release mechanisms for misadjustments interfering with operation.

Swivel Hoist Rings:

1. Visual inspection shall be performed by the user or other designated person each shift before the links, rings, and swivels are used. Semipermanent and inaccessible locations where frequent inspections are not feasible shall have periodic inspections performed. Specifically check to make sure that:
   - Body can rotate freely on bushing.
   - Bail can swivel freely on shoulder pins.
   - Shoulder pins are secure and undamaged.
2. Conditions as those listed in ASME B-30.26, para. 26-4.8.4, or any other condition that may result in a hazard, shall cause the hardware to be removed from service. Links, rings, and swivels shall not be returned to service until approved by a qualified person.
3. Written records are not required.

PERIODIC

Slings, General:

1. A complete inspection for damage to the sling shall be periodically performed by a designated person.
2. Each sling and component shall be examined individually, taking care to expose and examine all surfaces.
3. The sling shall be examined for the conditions noted in the frequent inspection and in ASME B-30.9 or any other conditions that may result in a hazard shall cause the sling to be removed from service.
4. Slings shall not be returned to service until approved by a qualified person.
5. A written record of the most recent periodic inspection shall be maintained and shall include the condition of the sling.

Slings, Chain:

1. Each link and component shall be examined individually, taking care to expose and examine all surfaces, including the inner link surfaces.

2. Chain inspection shall be examined for conditions listed in ASME B-30.9, para. 9-1.9.4.
3. Deficiencies found during the inspection are analyzed and the chain shall not be used, if deficiencies are determined to be hazardous.

Structural and Mechanical Lifting Devices (spreader bar):

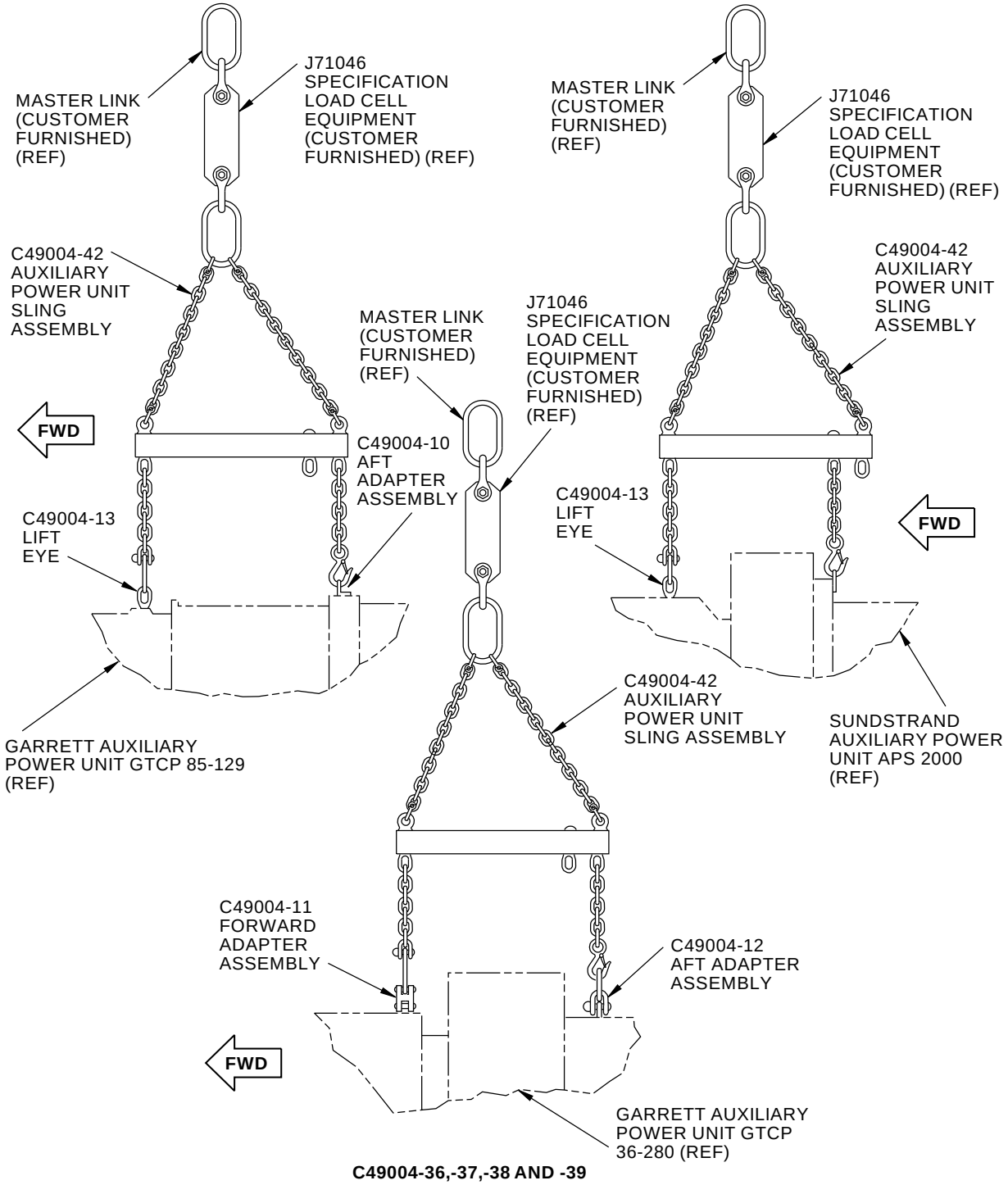
1. A written record of a visual inspection, by a qualified person is required.
2. Inspection is made of external conditions for a continuing evaluation of the following factors:
   - Loose bolts or fasteners.
   - Excessive wear of linkages and other mechanical parts.
   - Excessive wear at hoist hooking points and load support clevises or pins.
   - Deficiencies found during the inspection are analyzed and the lifting device shall not be used, if deficiencies are determined to be hazardous.
   - The lifting device shall not be used until the hazardous deficiencies are corrected.

Swivel Hoist Rings:

1. A complete inspection of the links, rings, and swivels shall be performed by a designated person. The hardware shall be examined for conditions such as those listed in ASME B-30.26, para. 26-4.8.4 and a determination made as to whether they constitute a hazard.
2. Period inspection interval shall not exceed one year. The frequency of periods inspection should be based on:
   - Frequency of use
   - Severity of service conditions
   - Experience gained on the service life of hardware used in similar circumstances
   - Guidelines for the time intervals are: Normal service – yearly; Severe service – monthly to quarterly; Special service – as recommended by a qualified person.
   - Written records are not required.

STORAGE: C49004 shall be stored clean, dry, and free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

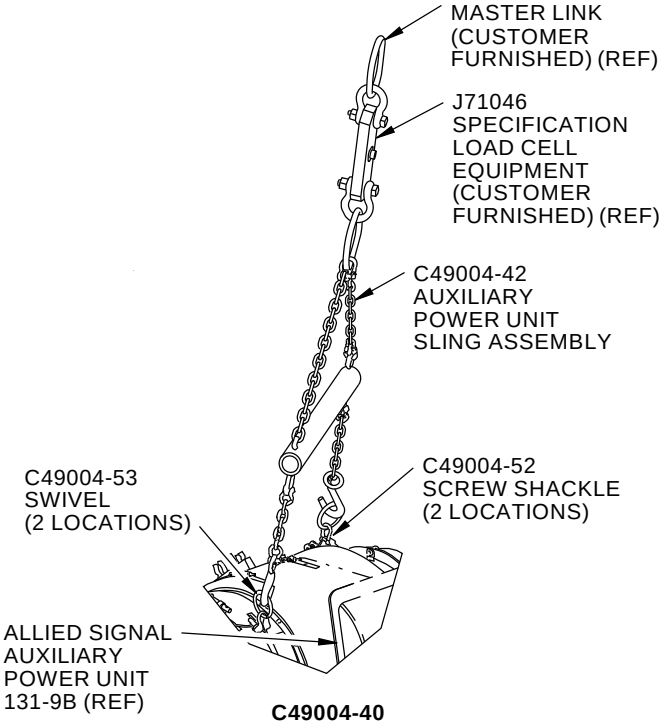
DECOMMISSIONING: Part and assemblies of this equipment, including chain components, shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.



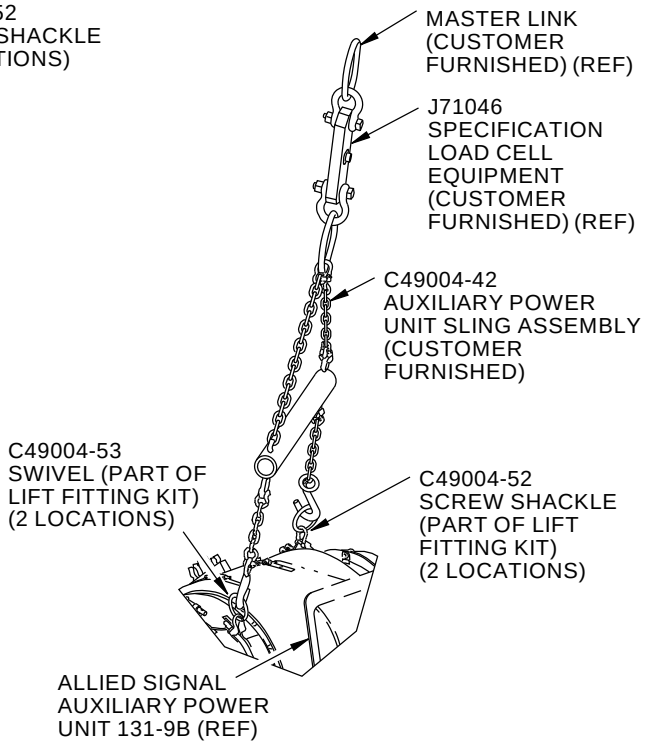
C49004-36,-37,-38 AND -39

2091715 S0000438993_V2

Auxiliary Power Unit Sling Equipment
Figure 1 (Sheet 1 of 2)



C49004-40
ALLIED SIGNAL
AUXILIARY POWER UNIT

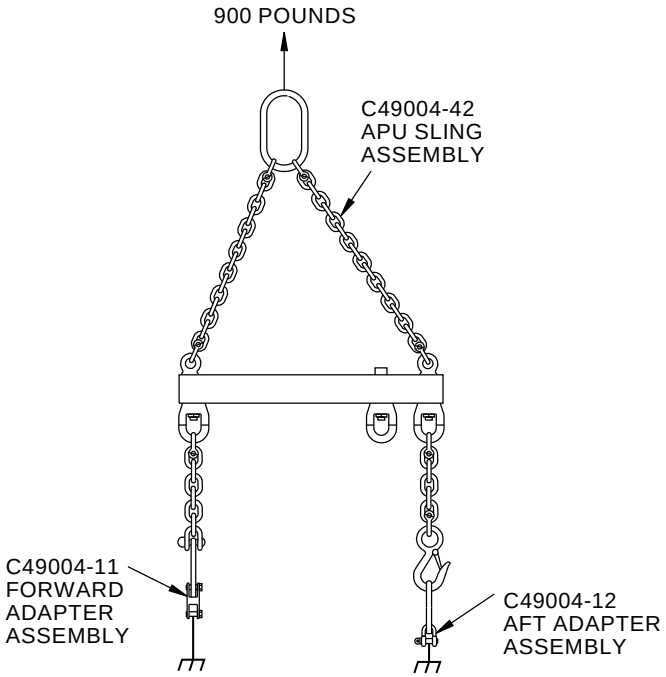


C49004-41
LIFT FITTING KIT FOR
ALLIED SIGNAL AUXILIARY POWER UNIT

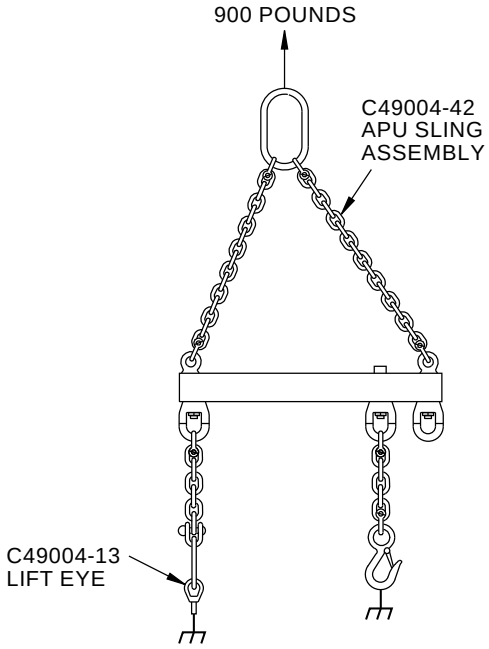
C49004
AUXILIARY POWER UNIT SLING EQUIPMENT

2091720 S0000438994_V2

Auxiliary Power Unit Sling Equipment
Figure 1 (Sheet 2 of 2)



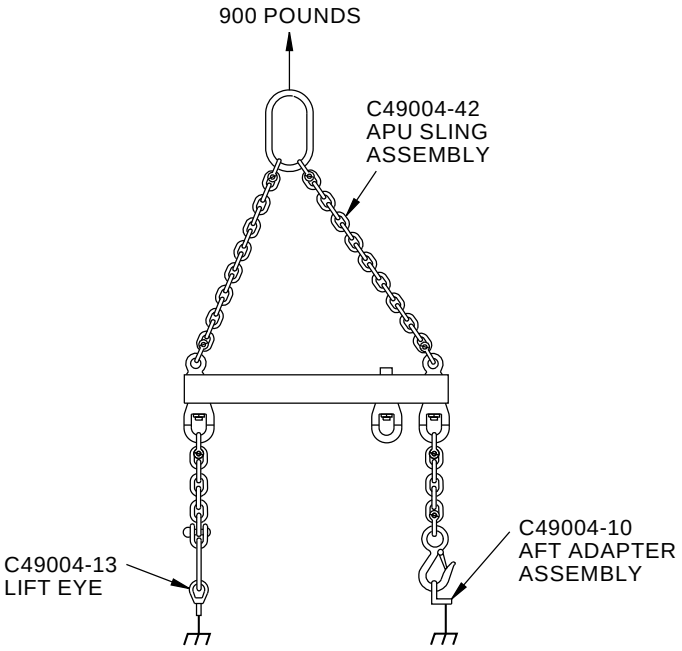
**GARRETT APU
GTCP 36-280
APPLICATION**



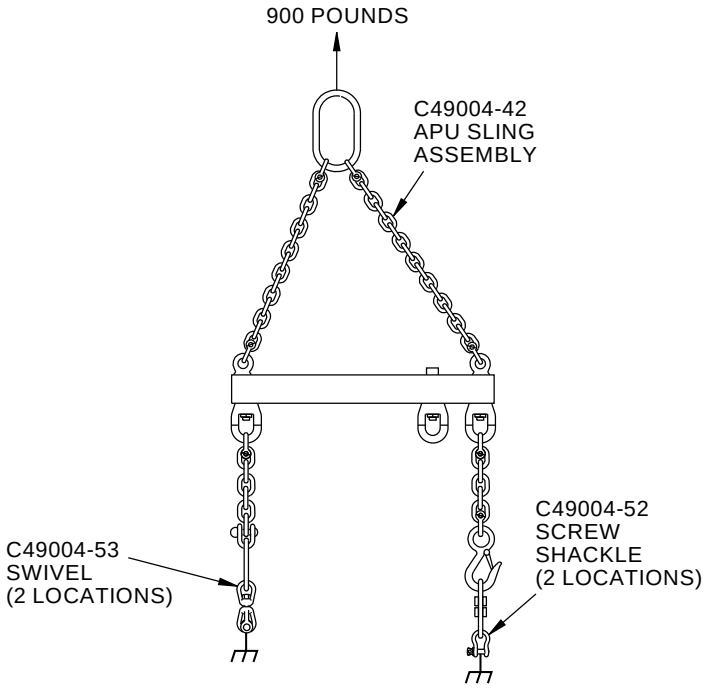
**SUNDSTRAND APU
APS2000 APPLICATION**

2424568 S0000560575_V1

**C49004 Proof Load Diagram (Examples)
Figure 2 (Sheet 1 of 2)**



**GARRETT APU
GTCP 85-129
APPLICATION**



**ALLIED SIGNAL APU
131-9B APPLICATION**

2424570 S0000560578_V1

**C49004 Proof Load Diagram (Examples)
Figure 2 (Sheet 2 of 2)**

PART NUMBER: C49008-37

NAME: ADAPTER EQUIPMENT - AUXILIARY POWER UNIT JACKING (CE)

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C49008-37 (CE qualified) adapter equipment is used on all 737 airplanes.

C49008 is used in conjunction with a customer-furnished, J20009 hydraulic jack are used to install or remove the APU from the airplane. C49008-37 includes a C49008-39 base assembly, used on all APU's and forward and aft adapters, used on Garrett, Sundstrand and AlliedSignal APU's.

Refer to AMM 49-11-00 and the current C49008 drawing for complete usage instructions.

C49008-37 consists of:

C49008-37		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	JACK ADAPTER ASSEMBLY	C49008-38
1	STORAGE BOX	

WEIGHT: 28 lbs (12.7 kg)

DIMENSIONS: 12 x 24 x 30 inches (304 x 610 x 762 mm)

NOTE: C49008-37 supersedes C49008-1.

DECLARATION OF CONFORMITY: C49008 requires a written Declaration of Conformity from the C49008 fabricator if it is to be used in the European Union. The design of C49008 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C49008 must also meet the requirements of that directive. At a minimum for the tool fabricator, this requires the retention of a technical file, a labeling of the equipment with the CE mark, and the completion of an EC Declaration of Conformity. If C49008 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C49008 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current C49008 drawing and the AMM 49-11-00 procedures for detailed instructions on the use of this equipment. This equipment shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing airplanes.

When using C49008 the following safety messages shall be included in the information for use and follow the form as denoted on the engineering drawing (they should mimic decals on the drawing or notes on the usage placard):

- Study, understand, and follow all instructions before operating this device. This includes instructions furnished by the vendors for subcomponents of this equipment.
- Do not exceed rated capacity.
- Use only on hard level surfaces.
- Failure to heed these markings may result in personal injury and/or property damage.
- Do not use for general transportation of load.
- Use only attachments specifically identified by Boeing for use with this equipment.
- No alterations shall be made to this product unless shown in Boeing Tool Change Bulletin (TCB) application to the respective drawings.
- This equipment is only to be used in the support of Boeing aircraft.

MAINTENANCE: General Cleaning: Basic care of the equipment includes cleaning the equipment of dirt, corrosives, or contaminants. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent, clean the components and wipe dry with a clean cloth. Hang the components freely to dry, but away from excessive heat or steam.

Structural and Mechanical Lifting Devices, (supporting lifter):

1. Maintenance shall be done based on the recommendations made by the lifter manufacturer or qualified person.
2. Before adjustments and repairs are started on a lifter, the following precautions shall be taken:
   - All courses of power shall be disconnected, locked out, and tagged "Out of Service".
   - A lifter removed from service for repair shall be tagged "Out of Service".
3. Only a qualified person shall perform adjustments and tests when required.
4. Replacement parts shall be at least equal to the original manufacturer’s specifications.
5. After adjustments and repairs have been made, the lifter shall not be returned to service until it has been inspected according to ASME B-30.20, para. 20-1.3.4.

6. Dated records of repairs and replacements shall be made.
7. Adjustments and repairs. Any hazardous conditions disclosed by the inspection requirements of ASME B-30.20, para. 20-1.3.1 shall be corrected before normal operations of the lifter is resumed. Adjustments and repairs shall be done under the direction of , or by, a qualified person.

PROOF LOAD: Proof load testing for the C49008-37 jack adapter assembly shall be performed per the current C49008 drawing proof load diagrams (example Figure 2) and:

- In conjunction with initial fabrication
- Subsequent to modification of this equipment (equipment shall only be modified in accordance with the C49008 drawing).
- After repair of load carrying components.
- After replacement of load carrying components (except for load carrying components such as shackles and hoist rings that carry their own certification).
- Continuing integrity/safety of the device to be assured by inspection.

INSPECTION: FREQUENT

General Inspection (before use):

1. Missing fasteners
2. Notes, Cautions and Warnings are legible
3. Usage placards are legible

Structural and Mechanical Lifting Devices (supporting lifter):

1. Visual Inspection by the operator before and during each lift of the device. Records are not required. Inspect for:
   - Structural deformation, cracks or excessive wear of any parts of the lifting device.
   - Loose or missing guards, fasteners, covers, stops or nameplates.
   - All functional operational mechanisms and automatic hold and release mechanisms for misadjustments interfering with operation.

PERIODIC

Welding Inspection:

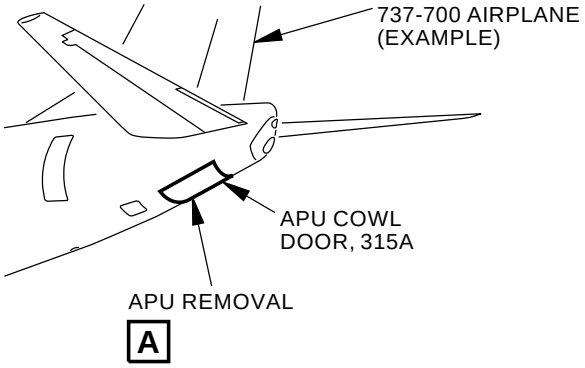
1. Magnetic particle or dye penetrant inspection for all welds, after all proof load tests.
2. Inspect and evaluate per GSE Welding Document A00001 Inspection Requirements Tables 1 & 2, and Acceptance Criteria Table 3.
3. Reject cracked or deformed parts.

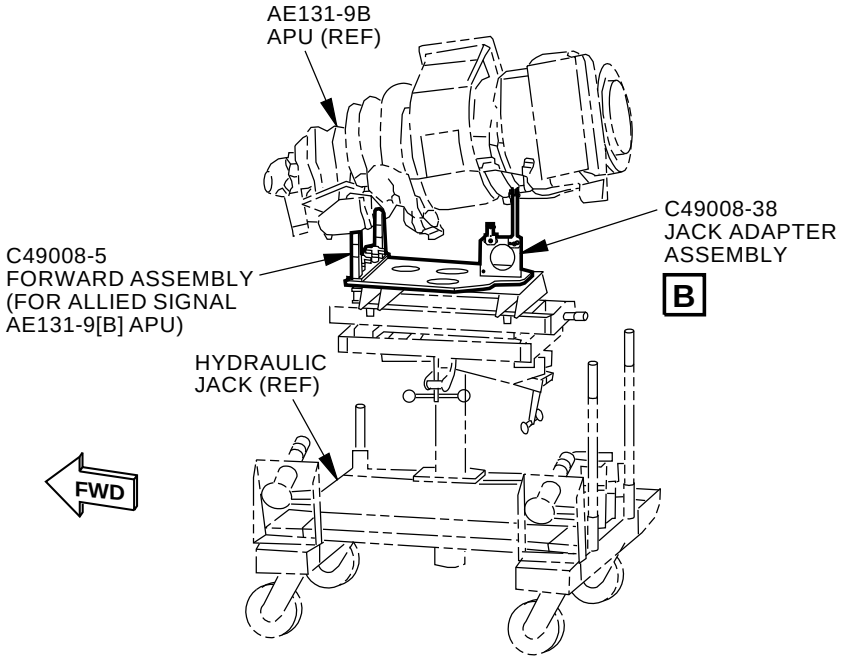
Structural and Mechanical Lifting Devices (supporting lifter):

1. A written record of a visual inspection, by a qualified person is required.
2. Inspection is made of external conditions for a continuing evaluation of the following factors:
   - Loose bolts or fasteners.
   - Excessive wear of linkages and other mechanical parts.
   - Excessive wear at hoist hooking points and load support clevises or pins.
   - Deficiencies found during the inspection are analyzed and the lifting device shall not be used, if deficiencies are determined to be hazardous.
   - The lifting device shall not be used until the hazardous deficiencies are corrected.

STORAGE: C49008 shall be stored clean, dry, and free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

DECOMMISSIONING: Part and assemblies of this equipment shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.





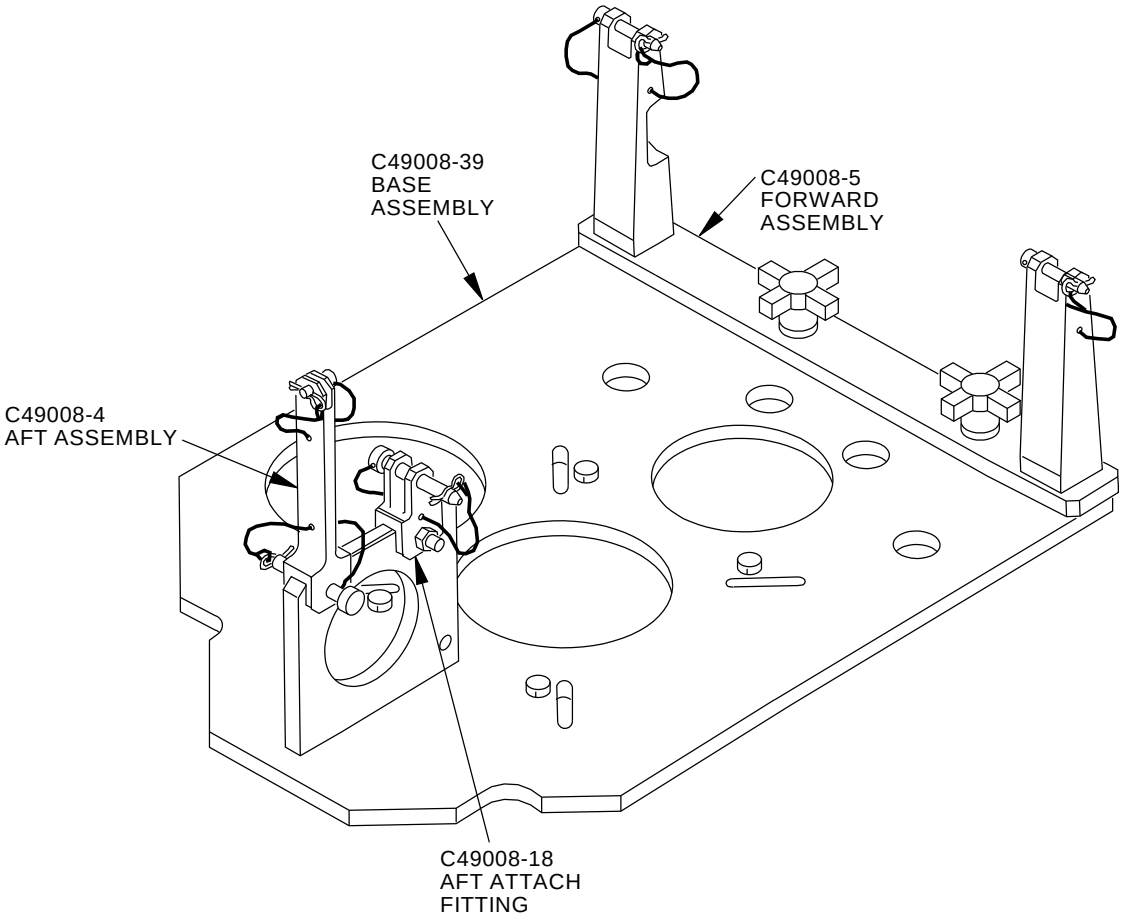
APU REMOVAL

A

JACK ADAPTER ASSEMBLY
(TYPICAL SETUP)

G46525 S0006831997_V4

APU Jacking Adapter Equipment
Figure 1 (Sheet 1 of 2)

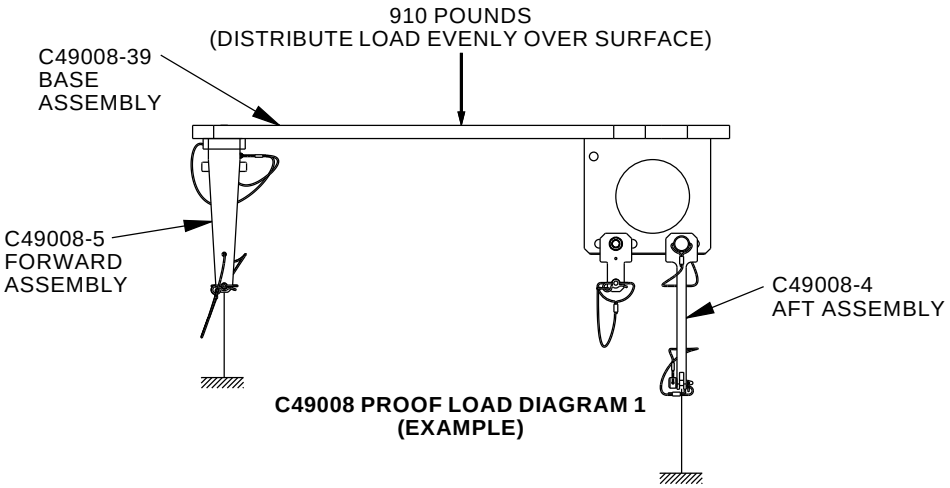


C49008-38
JACK ADAPTER ASSEMBLY
(TYPICAL SETUP)

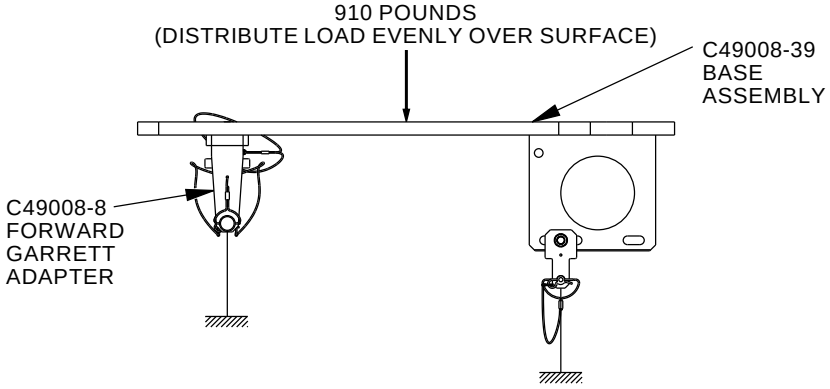
B

H52454 S0006831998_V5

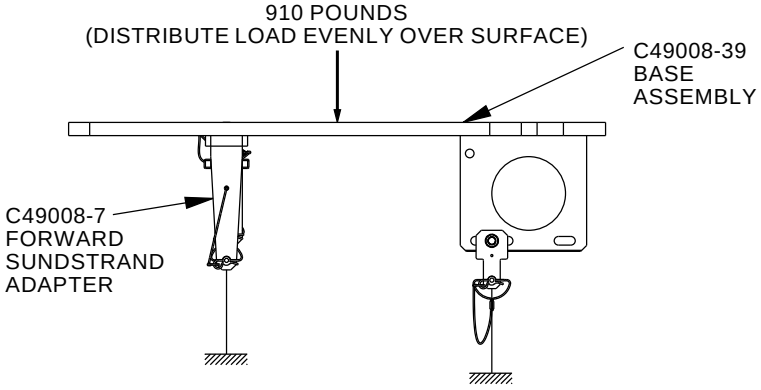
APU Jacking Adapter Equipment
Figure 1 (Sheet 2 of 2)



C49008 PROOF LOAD DIAGRAM 1
(EXAMPLE)



C49008 PROOF LOAD DIAGRAM 2
(EXAMPLE)



C49008 PROOF LOAD DIAGRAM 3
(EXAMPLE)

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C49008 Proof Load Diagrams (Examples)
Figure 2

PART NUMBER: J20009-108, -109, -110, -68

NAME: JACKING EQUIPMENT - HYDRAULIC TELESCOPING (CE)

AIRPLANE MAINTENANCE: YES

AMM 49-11-00, AMM 54-52-04

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The J20009-108 (option, CE qualified), -109 (preferred, CE qualified) or -110 (preferred, non-CE qualified) hydraulic jack assembly and the J20009-68 (CE qualified) cradle adapter are used on all 737 airplanes except 737-100 thru -500 airplanes.

J20009 jacking equipment is used in conjunction with the customer-furnished C49008 APU jacking adapter equipment to install or remove the APU from the airplane. J20009 jacking equipment is also used in conjunction with the customer-furnished C54008 aft fairing removal & installation equipment to remove or install the CFM56-7 aft fairing.

J20009-108, -109 or -110 are castered, telescoping, hydraulic jack assembly. J20009-68 cradle adapter interfaces the J20009-108, -109 or -110 hydraulic jack assembly and either the customer-furnished C49008 jacking adapter equipment or the customer-furnished C54008 aft fairing removal & installation equipment.

Refer to AMM 49-11-00, AMM 54-52-04 and the current J20009 drawing for complete usage instructions.

J20009-108, -109 and -110 hydraulic jack assemblies and J20009-68 cradle adapter consist of:

J20009-108 HYDRAULIC JACK ASSEMBLY		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
16	SOCKET HEAD CAP SCREW	J20009-5
16	PLAIN WASHER	J20009-6
4	CASTER	J20009-7
4	INNER PIN ASSEMBLY	J20009-8
4	SPRING PIN	J20009-10
1	JACK BASE ASSEMBLY	J20009-39
4	OUTRIGGER ASSEMBLY	J20009-40
4	OUTER PIN ASSEMBLY	J20009-41
1	HANDLE ASSEMBLY	J20009-56
1	WRENCH ASSEMBLY	J20009-60
1	CABLE ASSEMBLY	J20009-96
3	SET SCREW	J20009-97
1	LEVEL	J20009-98

J20009-109 HYDRAULIC JACK ASSEMBLY		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
16	SOCKET HEAD CAP SCREW	J20009-5
16	PLAIN WASHER	J20009-6
4	CASTER	J20009-7
4	INNER PIN ASSEMBLY	J20009-8
4	SPRING PIN	J20009-10
4	OUTRIGGER ASSEMBLY	J20009-40
4	OUTER PIN ASSEMBLY	J20009-41
1	HANDLE ASSEMBLY	J20009-56
1	WRENCH ASSEMBLY	J20009-60
1	JACK BASE ASSEMBLY	J20009-79
1	LEVEL ADAPTER	J20009-80
1	CABLE ASSEMBLY	J20009-96
3	SET SCREW	J20009-97
1	LEVEL	J20009-98

J20009-110 HYDRAULIC JACK ASSEMBLY		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
16	SOCKET HEAD CAP SCREW	J20009-115
16	PLAIN WASHER	J20009-21
4	CASTER	J20009-117
4	PIN	J20009-114
4	SPRING PIN	J20009-10
4	OUTRIGGER ASSEMBLY	J20009-112
4	OUTER PIN ASSEMBLY	J20009-113
1	WRENCH ASSEMBLY	J20009-60
1	JACK BASE ASSEMBLY	J20009-111
1	LEVEL ADAPTER	J20009-80
1	CABLE ASSEMBLY	J20009-96
1	LEVEL	J20009-98

J20009-68 CRADLE ADAPTER		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	CRADLE ADAPTER	J20009-65
1	STORAGE BOX	

WEIGHT: J20009-108 or -109 - 780 lbs (354 kg)
J20009-110 - 852 lbs (386 kg)
J20009-68 - 34 lbs (15 kg)

DIMENSIONS: J20009-108 or -109 - 48 x 62 x 51 inches (1219 x 1575 x 1295 mm)
J20009-110 - 45 x 48 x 50 inches (1143 x 1219 x 1270 mm)
J20009-68 - 11 x 20 x 25 inches (279 x 508 x 635 mm)

NOTE: J20009-110 or J20009-109 replaces J20009-108 for future procurement.
J20009-108 and -109 supersede J20009-38 and -78 respectively.
The customer-furnished, SEFAC Incorporated 930002 replaces J20009-108, -109 and -110 for future procurement.

DECLARATION OF CONFORMITY: J20009-108 or -109 requires a written Declaration of Conformity from the J20009-108 or -109 fabricator if it is to be used in the European Union. The design of J20009-108 or -109 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of J20009-108 or -109 must also meet the requirements of that directive. At a minimum for the tool fabricator, this requires the retention of a technical file, a labeling of the equipment with the CE mark, and the completion of an EC Declaration of Conformity. If J20009-108 or -109 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of J20009-108 or -109 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current J20009 drawing, AMM 21-52-01, AMM 21-52-03, AMM 21-52-23, AMM 24-21-12, AMM 27-51-10, AMM 29-21-01, AMM 49-11-00, AMM 49-11-01, AMM 49-13-02, AMM 54-61-04, AMM 54-62-04, CMM 54-52-03, CMM 54-52-04, CMM 54-52-07 and CMM 54-52-08 procedures for detailed instructions on the use of this equipment. J20009 shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing airplanes.

Jacking Equipment, the following safety messages shall be included in the information for use and follow the form as denoted on the engineering drawing (they should mimic decals on the drawing or notes on the usage placard):

- Study, understand, and follow all instructions before operating this device. This includes instructions furnished by the vendors for subcomponents of this equipment.
- Do not exceed rated capacity.
- Use only on hard level surfaces.
- Failure to heed these markings may result in personal injury and/or property damage.
- Do not use for general transportation of load.
- Use only attachments specifically identified by Boeing for use with this equipment.
- No alterations shall be made to this product unless shown in Boeing Tool Change Bulletin (TCB) application to the respective drawings.
- This equipment is only to be used in the support of Boeing aircraft.

MAINTENANCE: General Cleaning: Basic care of the equipment includes cleaning the equipment of dirt, corrosives, or contaminants. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent, clean the components and wipe dry with a clean cloth. Hang the components freely to dry, but away from excessive heat or steam.

Jacking Equipment: Maintenance and repair should be done in accordance with EN1494, Section 7.1.3.

Structural and Mechanical Lifting Devices, (supporting lifter):

1. Maintenance shall be done based on the recommendations made by the lifter manufacturer or qualified person.
2. Before adjustments and repairs are started on a lifter, the following precautions shall be taken:
   - All courses of power shall be disconnected, locked out, and tagged "Out of Service".
   - A lifter removed from service for repair shall be tagged "Out of Service".
3. Only a qualified person shall perform adjustments and tests when required.
4. Replacement parts shall be at least equal to the original manufacturer’s specifications.
5. After adjustments and repairs have been made, the lifter shall not be returned to service until it has been inspected according to ASME B-30.20, para. 20-1.3.4.
6. Dated records of repairs and replacements shall be made.
7. Adjustments and repairs. Any hazardous conditions disclosed by the inspection requirements of ASME B-30.20, para. 20-1.3.1 shall be corrected before normal operations of the lifter is resumed. Adjustments and repairs shall be done under the direction of , or by, a qualified person.

Caster and Brakes: Lubricate all casters as recommended by the manufacturer. Normal conditions may warrant lubrication every six months, but monthly lubrication may be necessary for applications in wet or corrosive environments.

PROOF LOAD: Proof load testing for the J20009 jacking equipment shall be performed per the current J20009 drawing proof load diagrams (example Reference Not Currently Available) and:

- in conjunction with initial fabrication
- subsequent to modification of this equipment (equipment shall only be modified in accordance with the J20009 drawing).
- after repair of load carrying components
- after replacement of load carrying components.
- Continuing integrity/safety of the device to be assured by inspection.

INSPECTION: FREQUENT

General Inspection (before use):

1. Missing fasteners
2. Notes, Cautions and Warnings are legible
3. Usage placards are legible

Jacking Equipment:

1. Inspect for physical damage, wear and corrosion.
2. Missing or damaged parts.
3. Hydraulic leakage from the cylinder, hydraulic hose or pump.
4. Hydraulic fluid level.
5. If defects are discovered, the unit shall be removed from service until repairs are made by a qualified person.
6. The unit shall be repaired in compliance with the engineering drawing.

Structural and Mechanical Lifting Devices (supporting lifter):

1. Visual Inspection by the operator before and during each lift of the device. Records are not required. Inspect for:
   - Structural deformation, cracks or excessive wear of any parts of the lifting device.
   - Loose or missing guards, fasteners, covers, stops or nameplates.
   - All functional operational mechanisms and automatic hold and release mechanisms for misadjustments interfering with operation.

Casters and Brakes:

1. Inspect the swivel assembly to see if excessive play exists due to wear. If swivel assembly is loose, it must be replaced.
2. If the caster has a king-bolt and nut, ensure that it is securely fastened.
3. If the swivel does not turn freely, check for corrosion or dirt binding the raceways. It may be necessary to replace the swivel assembly or the entire caster.
4. For rigid casters, ensure the horns are not bent or distorted.
5. Check caster brakes for proper function before each use. Apply brakes one-at-a-time and ensure the brakes are not slipping or loose.
6. If brakes are slipping or loose due to damage or wear, replace the brakes and/or casters immediately and retest the brakes.

PERIODIC

Welding Inspection:

1. Magnetic particle or dye penetrant inspection for all welds, after all proof load tests.
2. Inspect and evaluate per GSE Welding Document A00001 Inspection Requirements Tables 1 & 2, and Acceptance Criteria Table 3.
3. Reject cracked or deformed parts.

Jacking Equipment:

1. Inspect to ensure jack is in complete compliance with the engineering drawing.
2. Inspect structure and components for damage, excessive wear and corrosion.
3. Inspect safety markings and messages are in place and legible
4. Inspect for correct operation of relief valves.

Structural and Mechanical Lifting Devices (supporting lifter):

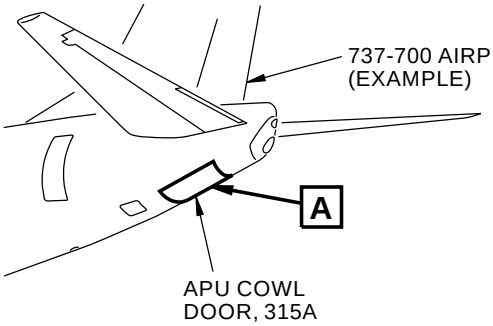
1. A written record of a visual inspection, by a qualified person is required.
2. Inspection is made of external conditions for a continuing evaluation of the following factors:
   - Loose bolts or fasteners.
   - Excessive wear of linkages and other mechanical parts.
   - Excessive wear at hoist hooking points and load support clevises or pins.
   - Deficiencies found during the inspection are analyzed and the lifting device shall not be used, if deficiencies are determined to be hazardous.
   - The lifting device shall not be used until the hazardous deficiencies are corrected.

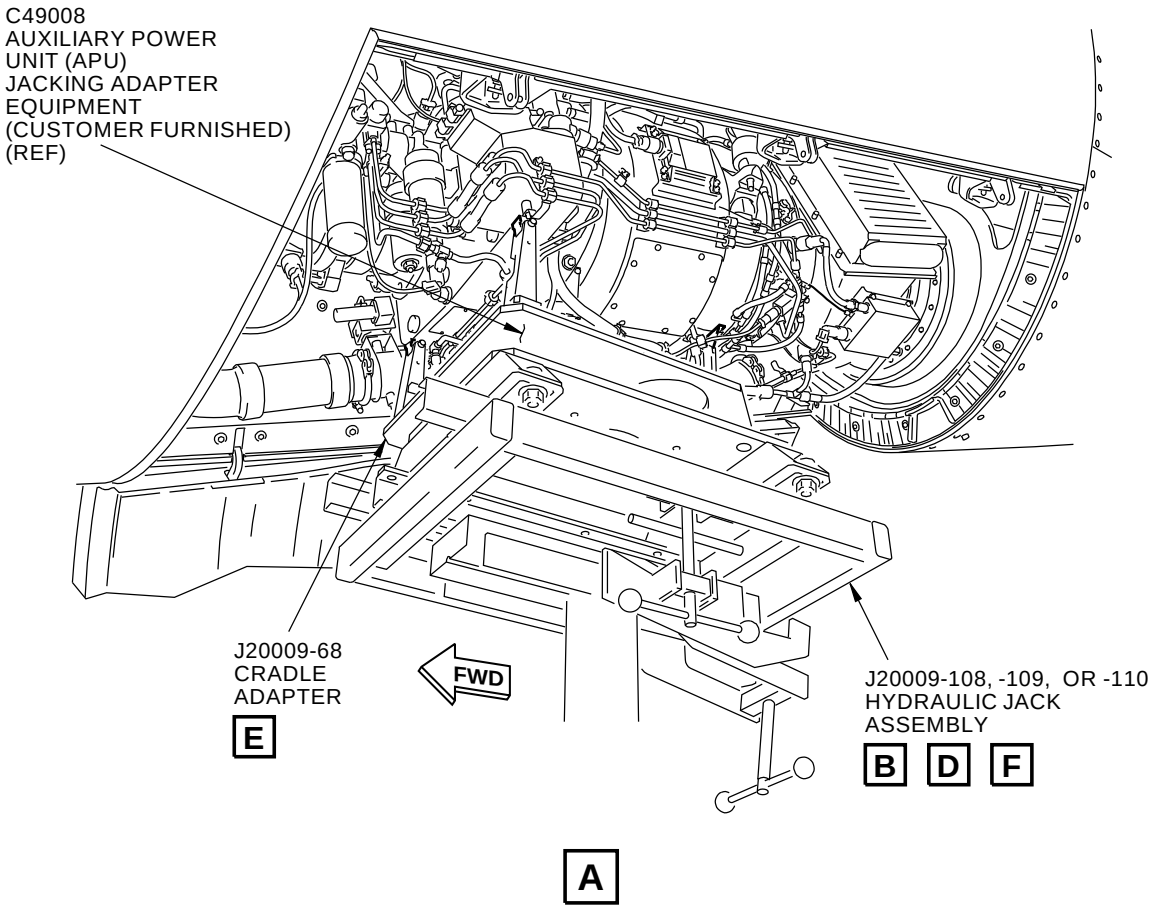
Casters and Brakes:

1. Inspect king-bolt, axle, swivel locks, brakes and wheel.

STORAGE: J20009 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and the J20009-88 cradle adapter in the furnished storage box.

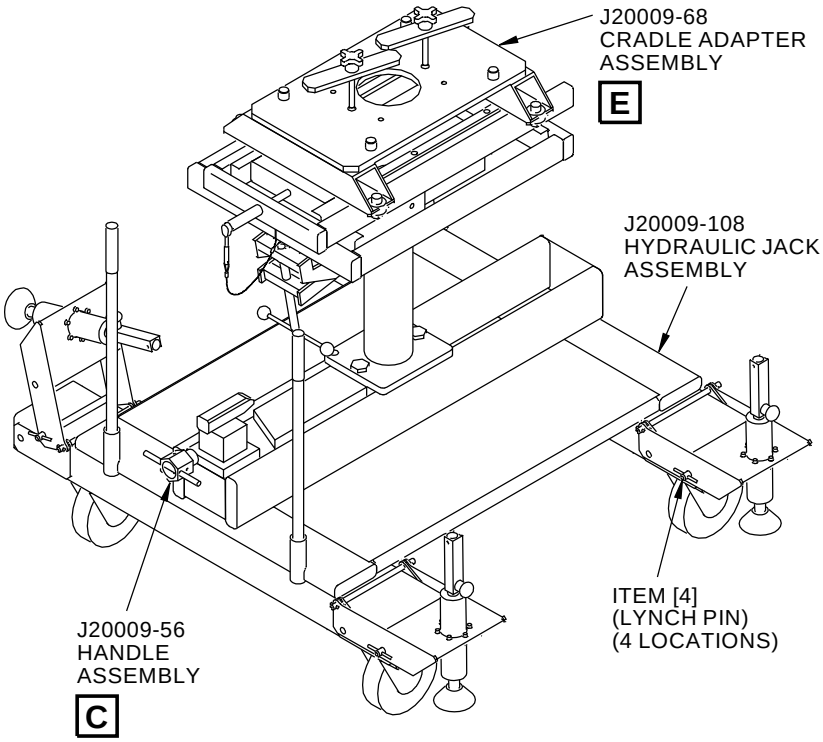
DECOMMISSIONING: Parts and assemblies of J20009 shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.





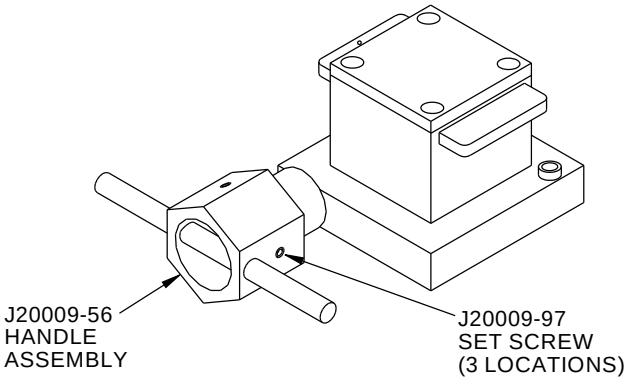
1563346 S0000289640_V3

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 1 of 6)



J20009-108
HYDRAULIC JACK ASSEMBLY

B

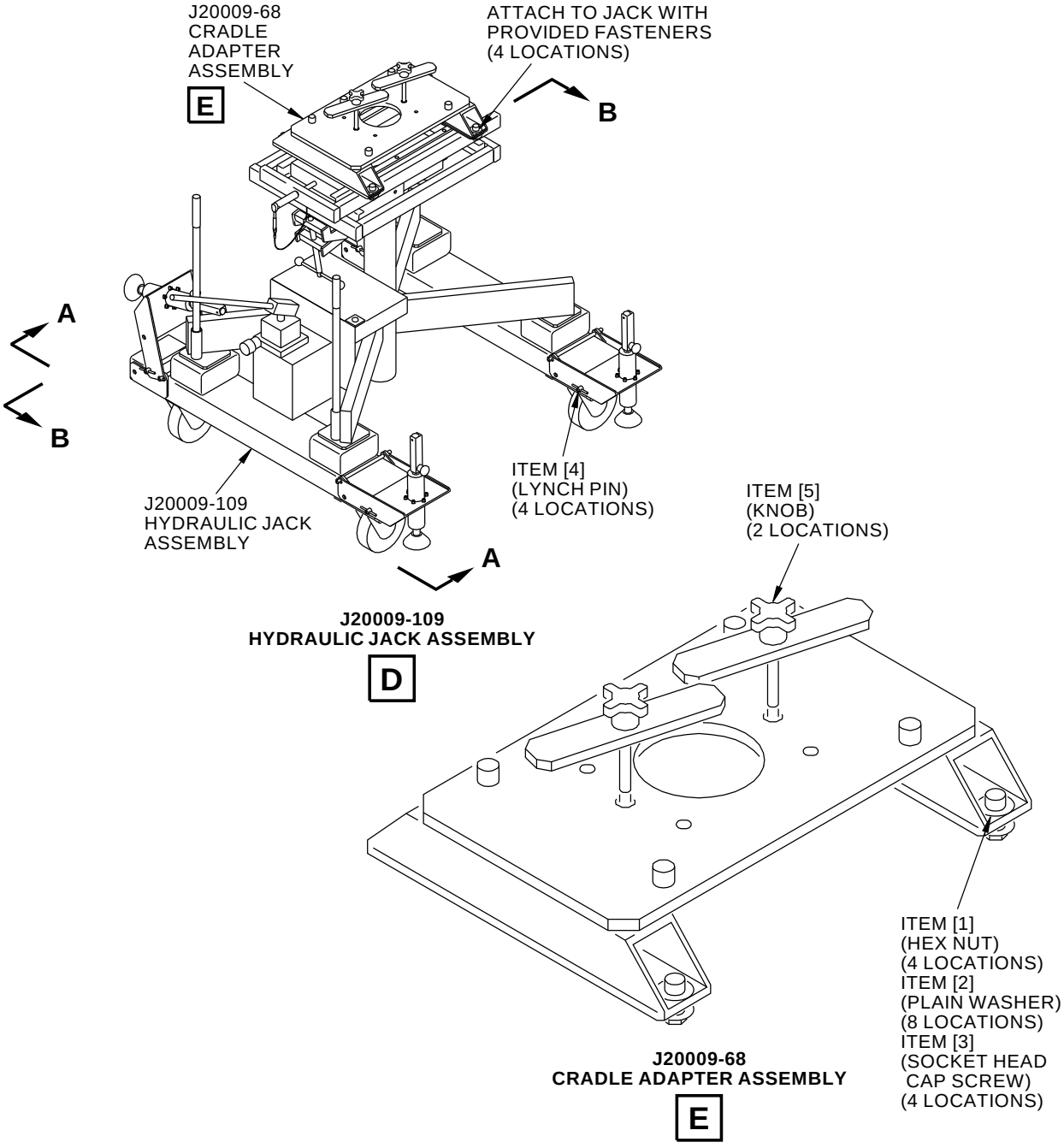


J20009-56
HANDLE ASSEMBLY

C

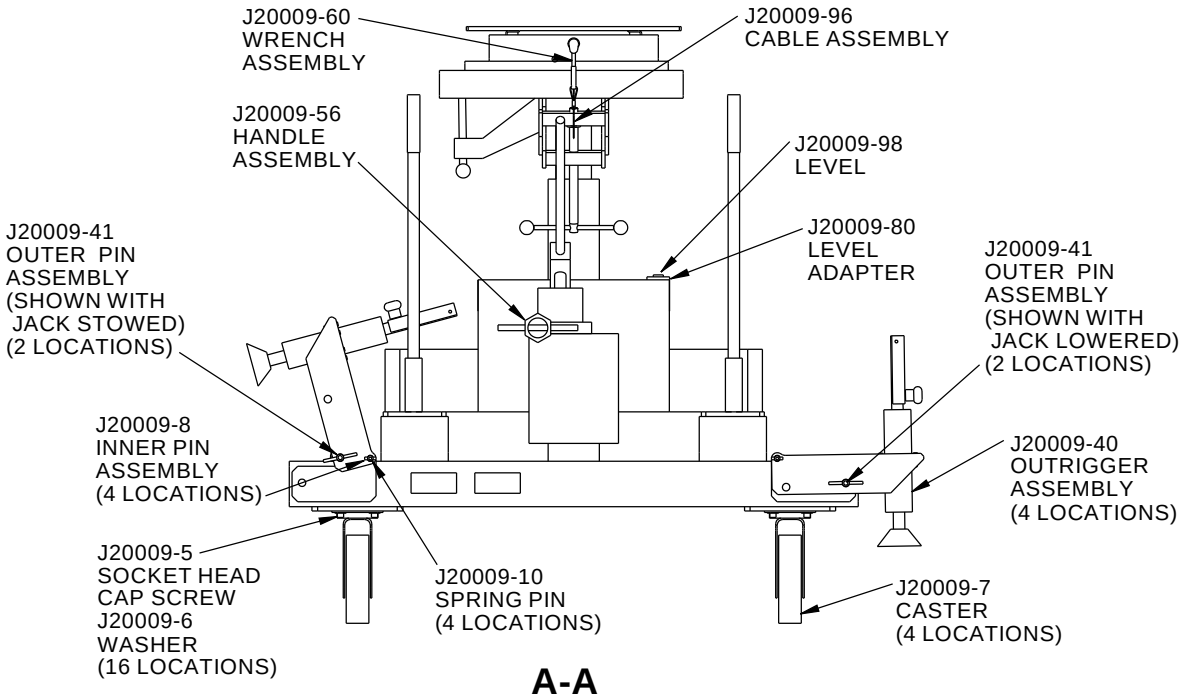
G46370 S0006832000_V5

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 2 of 6)

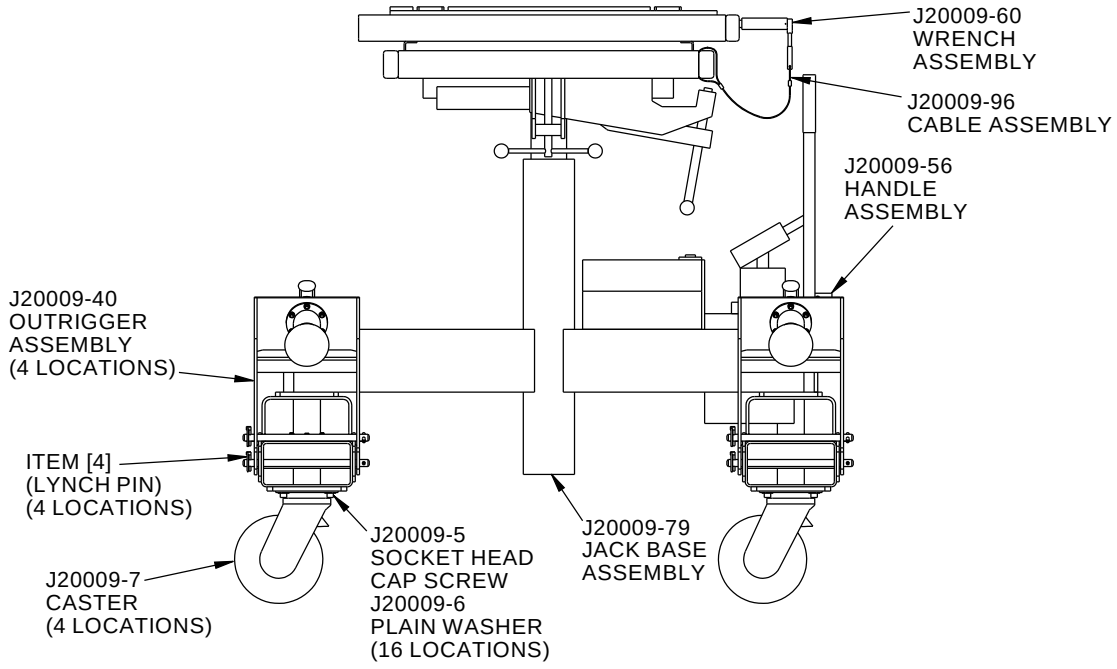


G47399 S0006832001_V5

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 3 of 6)



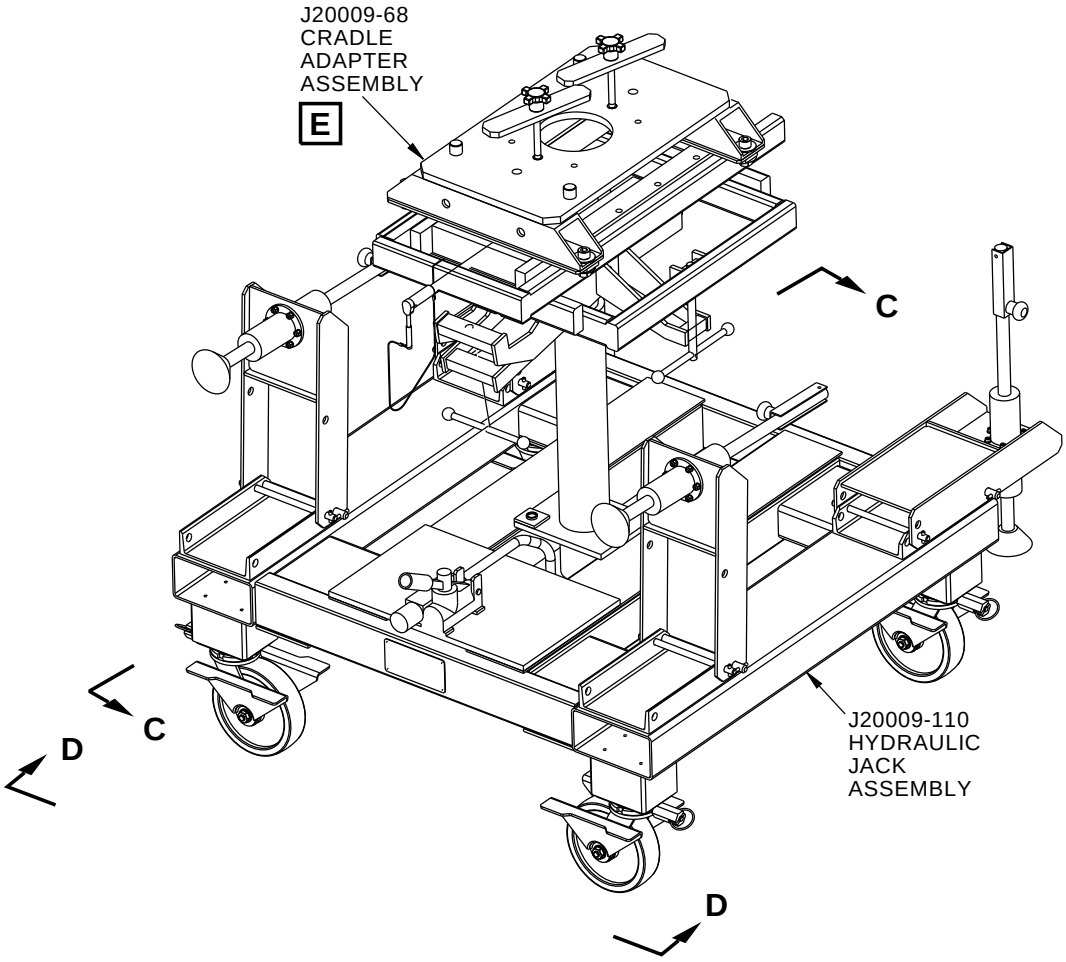
A-A



B-B

1563379 S0000289647_V3

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 4 of 6)

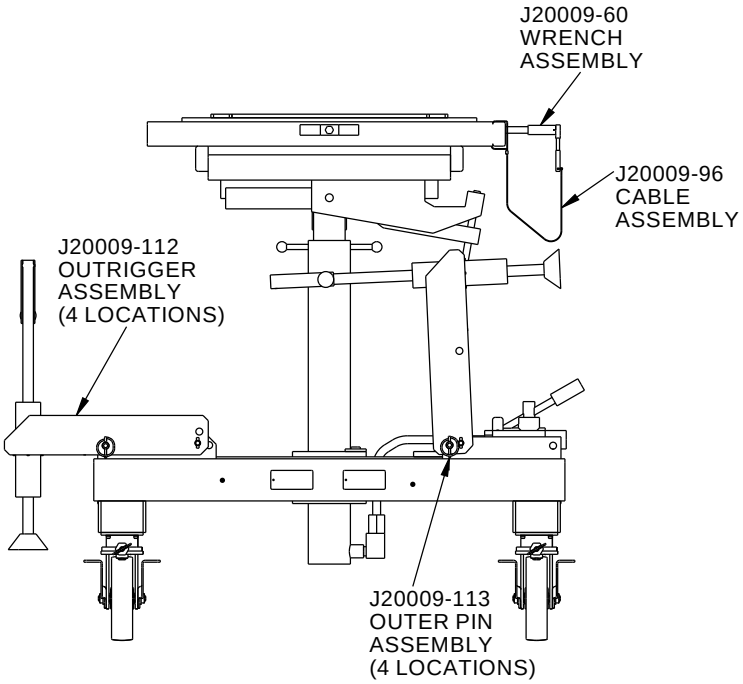


J20009-110
HYDRAULIC JACK ASSEMBLY

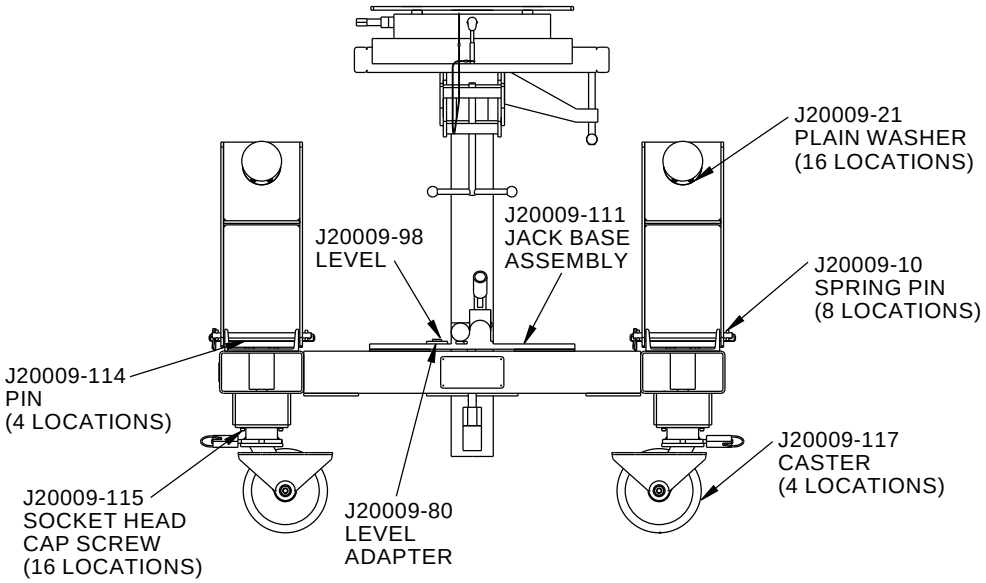
F

2165079 S0000474021_V2

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 5 of 6)



C-C



D-D

2165080 S0000474023_V2

Telescoping Hydraulic Jacking Equipment
Figure 1 (Sheet 6 of 6)

REPAIRABLE/REPLACEABLE PARTS			
ITEM NUMBER	**PART NUMBER**	**NOMENCLATURE**	**VENDOR CODE**
[1]	J20009-15	HEX NUT	- - -
[2]	J20009-16	PLAIN WASHER	- - -
[3]	J20009-17	SOCKET HEAD CAP SCREW	- - -
[4]	J20009-100	LYNCH PIN	- - -
[5]	J20009-66	LONG HAND KNOB ASSEMBLY	- - -

PART NUMBER: C49007-35, -36, -42

NAME: HOIST EQUIPMENT - AUXILIARY POWER UNIT (CE)

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C49007-35 (option, CE qualified) or C49007-36 (option, CE qualified) or C49007-42 (preferred, CE qualified) hoist equipment are used on all 737-600 thru -900 airplanes.

C49007-35 is used with customer-furnished, cable fishpole hoists (PF Industries, PF51-003-1 or equivalent).

C49007-36 is used with customer-furnished, chain link fishpole hoists (Morgan Brothers, AP6108 or equivalent).

C49007-42 is used with customer-furnished, cable fishpole hoists including Didsbury minilift, 10/3641 (only use Didsbury minilift 10/3641 equipped with 10/4069 shackle).

C49007 is used to remove or install the APU using customer-furnished, fishpole hoists. The C49007 APU hoist equipment is attached to the APU lift fittings in the APU compartment; the fishpole hoists are then attached to hoist keyhole fittings, located in the forward and aft arms of the tool. The APU may then be raised or lowered with the hoists.

Refer to AMM 49-11-00 and the current C49007 drawing for complete usage instructions.

C49007-35, -36 and -42 consist of:

C49007-35		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	FORWARD ARM ASSEMBLY	C49007-2
1	CENTER BEAM ASSEMBLY	C49007-3
1	AFT ARM ASSEMBLY	C49007-4
1	STORAGE BOX	

C49007-36		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	FORWARD ARM ASSEMBLY	C49007-21
1	CENTER BEAM ASSEMBLY	C49007-22
1	AFT ARM ASSEMBLY	C49007-23
1	STORAGE BOX	

C49007-42		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	FORWARD ARM ASSEMBLY	C49007-43
1	CENTER BEAM ASSEMBLY	C49007-3
1	AFT ARM ASSEMBLY	C49007-44
1	STORAGE BOX	

WEIGHT: 20 lbs (9 kg)

DIMENSIONS: 5 x 16 x 25 inches (127 x 406 x 635 mm)

NOTE: C49007-42 replaces C49007-35 for future procurement.

C49007-35 and C49007-36 supersede C49007-1 and C49007-20 respectively.

DECLARATION OF CONFORMITY: C49007 requires a written Declaration of Conformity from the C49007 fabricator if it is to be used in the European Union. The design of C49007 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C49007 must also meet the requirements of that directive. At a minimum for the tool fabricator, this requires the retention of a technical file, a labeling of the equipment with the CE mark, and the completion of an EC Declaration of Conformity. If C49007 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C49007 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current C49007 drawing and AMM 49-11-00 maintenance procedures for detailed instructions on the use of this equipment. This equipment shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing airplanes.

MAINTENANCE: General Cleaning: Basic care of the equipment includes cleaning the equipment of dirt, corrosives, or contaminants. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent, clean the components and wipe dry with a clean cloth. Hang the components freely to dry, but away from excessive heat or steam.

Structural and Mechanical Lifting Devices, (supporting lifters):

1. Maintenance shall be done based on the recommendations made by the lifter manufacturer or qualified person.
2. Before adjustments and repairs are started on a lifter, the following precautions shall be taken:
   - All courses of power shall be disconnected, locked out, and tagged "Out of Service".
   - A lifter removed from service for repair shall be tagged "Out of Service".

3. Only a qualified person shall perform adjustments and tests when required.
4. Replacement parts shall be at least equal to the original manufacturer's specifications.
5. After adjustments and repairs have been made, the lifter shall not be returned to service until it has been inspected according to ASME B-30.20, para. 20-1.3.4.
6. Dated records of repairs and replacements shall be made.
7. Adjustments and repairs. Any hazardous conditions disclosed by the inspection requirements of ASME B-30.20, para. 20-1.3.1 shall be corrected before normal operations of the lifter is resumed. Adjustments and repairs shall be done under the direction of , or by, a qualified person.

PROOF LOAD: Proof load testing for the C49007-35, -36 and -42, hoist equipment shall be performed per the current C49007 drawing proof load diagrams (example Figure 3) and:

- In conjunction with initial fabrication
- Subsequent to modification of this equipment (equipment shall only be modified in accordance with the C49007 drawing).
- After repair of load carrying components.
- After replacement of load carrying components (except for load carrying components such as shackles and hoist rings that carry their own certification).
- Continuing integrity/safety of the device to be assured by inspection.

INSPECTION: FREQUENT

General Inspection (before use):

1. Missing fasteners
2. Notes, Cautions and Warnings are legible
3. Usage placards are legible

Structural and Mechanical Lifting Devices (supporting lifters):

1. Visual Inspection by the operator before and during each lift of the device. Records are not required. Inspect for:
   - Structural deformation, cracks or excessive wear of any parts of the lifting device.
   - Loose or missing guards, fasteners, covers, stops or nameplates.
   - All functional operational mechanisms and automatic hold and release mechanisms for misadjustments interfering with operation.

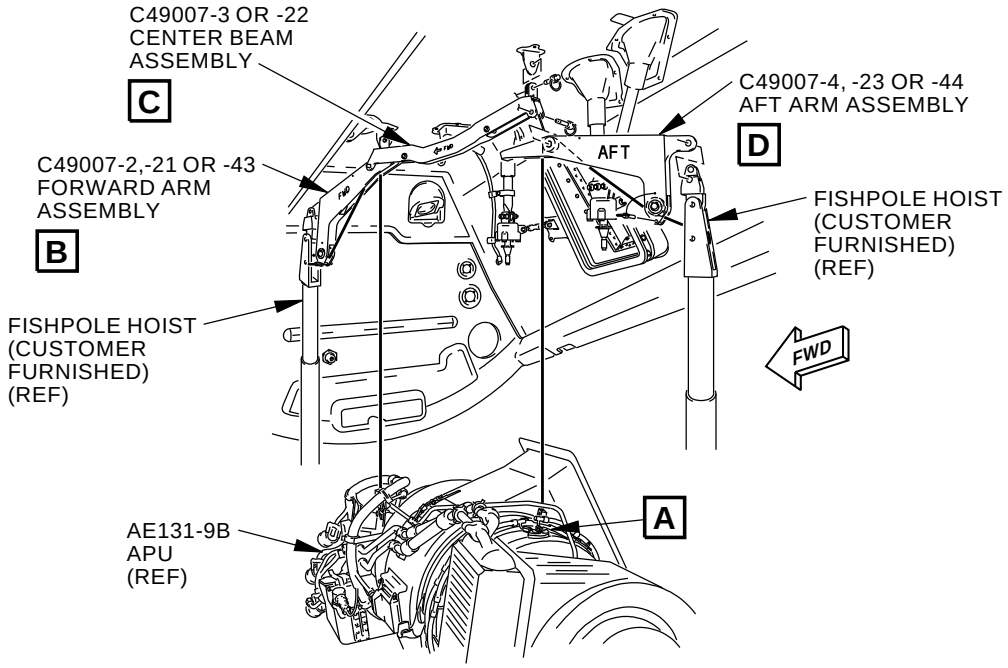
PERIODIC

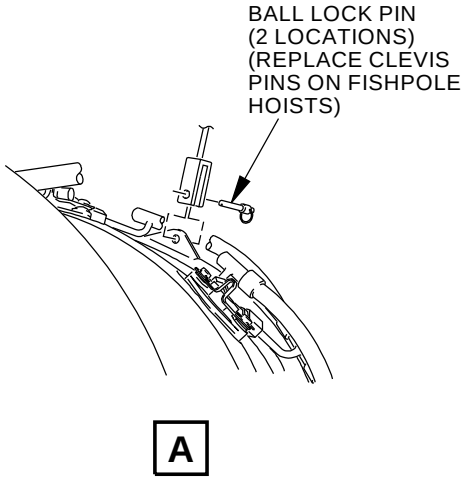
Structural and Mechanical Lifting Devices (supporting lifters):

1. A written record of a visual inspection, by a qualified person is required.
2. Inspection is made of external conditions for a continuing evaluation of the following factors:
   - Loose bolts or fasteners.
   - Cracked or worn gears, pulleys, sheaves, sprockets, bearings, chains and belts.
   - Excessive wear of linkages and other mechanical parts.
   - Excessive wear at hoist hooking points and load support clevises or pins.
   - Deficiencies found during the inspection are analyzed and the lifting device shall not be used, if deficiencies are determined to be hazardous.
   - The lifting device shall not be used until the hazardous deficiencies are corrected.

STORAGE: C49007 shall be stored clean, dry, and free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

DECOMMISSIONING: Part and assemblies of this equipment shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.





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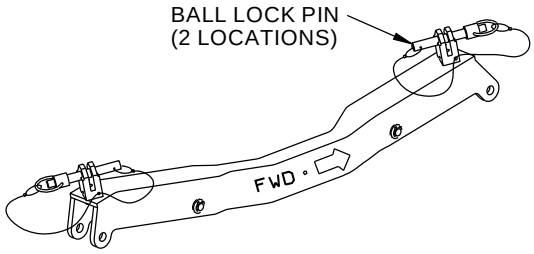
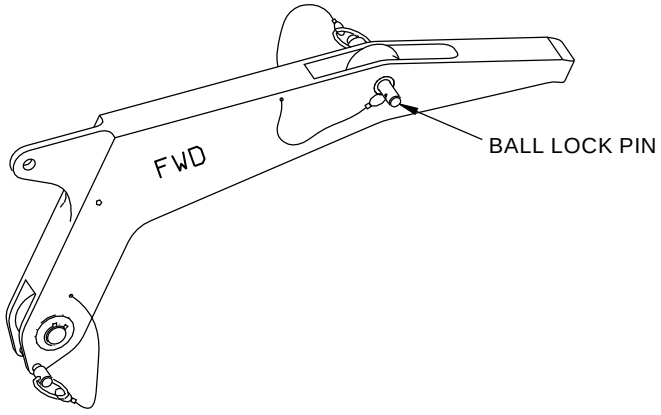
APU Hoist Equipment
Figure 1



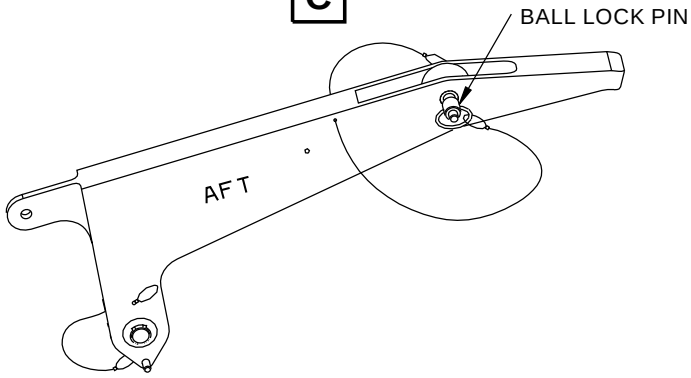
C49007-3 CENTER BEAM ASSEMBLY
C49007-22 SIMILAR

B



C49007-2 FORWARD ARM ASSEMBLY
C49007-21 AND -43 SIMILAR

C

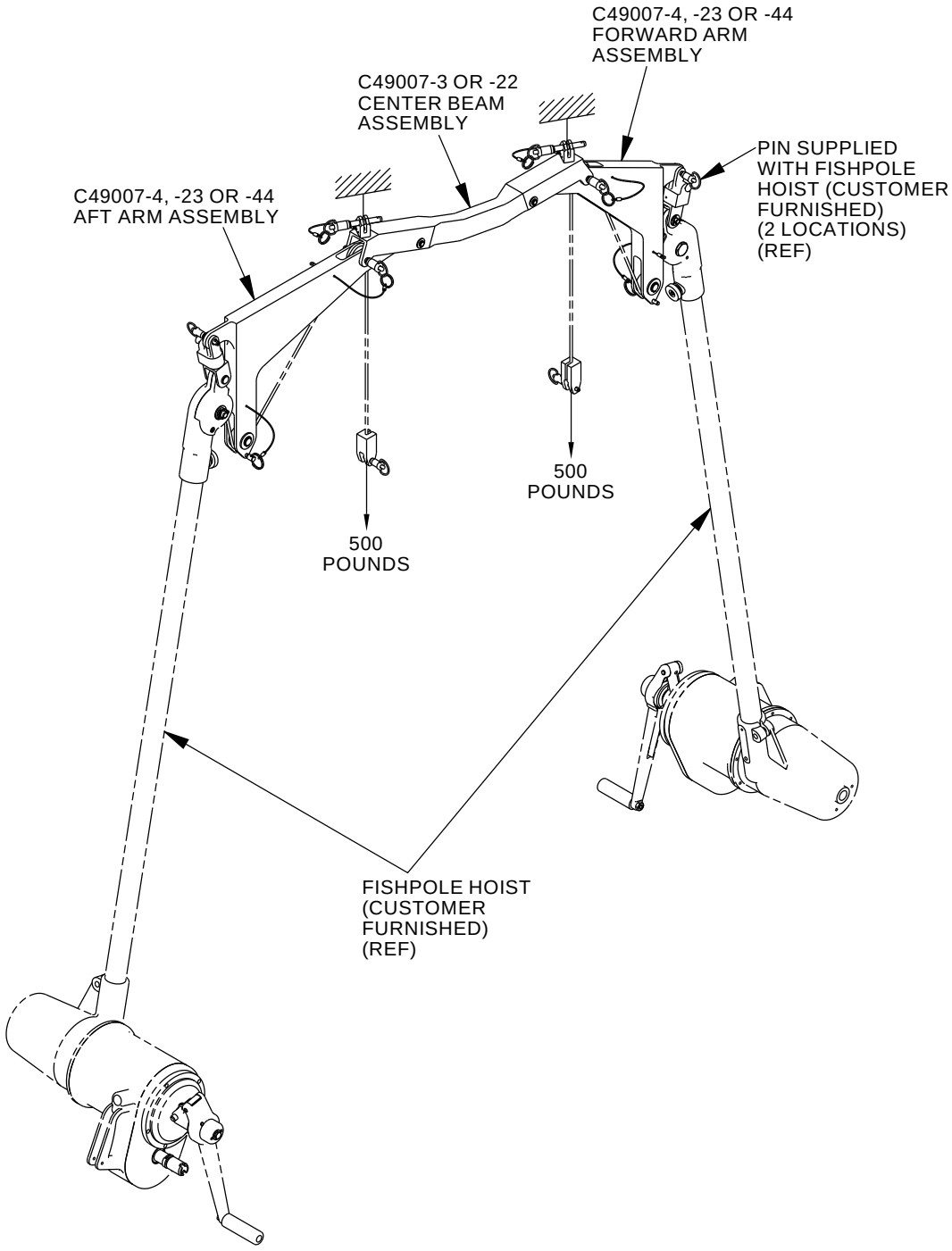


C49007-4 AFT ARM ASSEMBLY
C49007-23 AND -44 SIMILAR

D

G46158 S0006832004_V5

C49007 APU Hoist Equipment Components
Figure 2



C49007 PROOF LOAD DIAGRAM (EXAMPLE)

2429454 S0000562230_V1

C49007 Proof Load Diagram (Example)
Figure 3

PART NUMBER: C49010-50

NAME: CRADLE ASSEMBLY - AE131-9B AUXILIARY POWER UNIT

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: YES

CMM 49-10-04

USAGE & DESCRIPTION: The C49010-50 cradle assembly is used on all 737 airplanes (except -100 thru -500) equipped with AE131-9B APU's.

C49010 cradle is used with a customer-furnished F72950 transportation dolly. C49010 is used to transport the AE131-9B APU during maintenance, overhaul and storage.

Refer to AMM 49-11-00, CMM 49-10-04 and the current C49010 drawing for complete usage instructions.

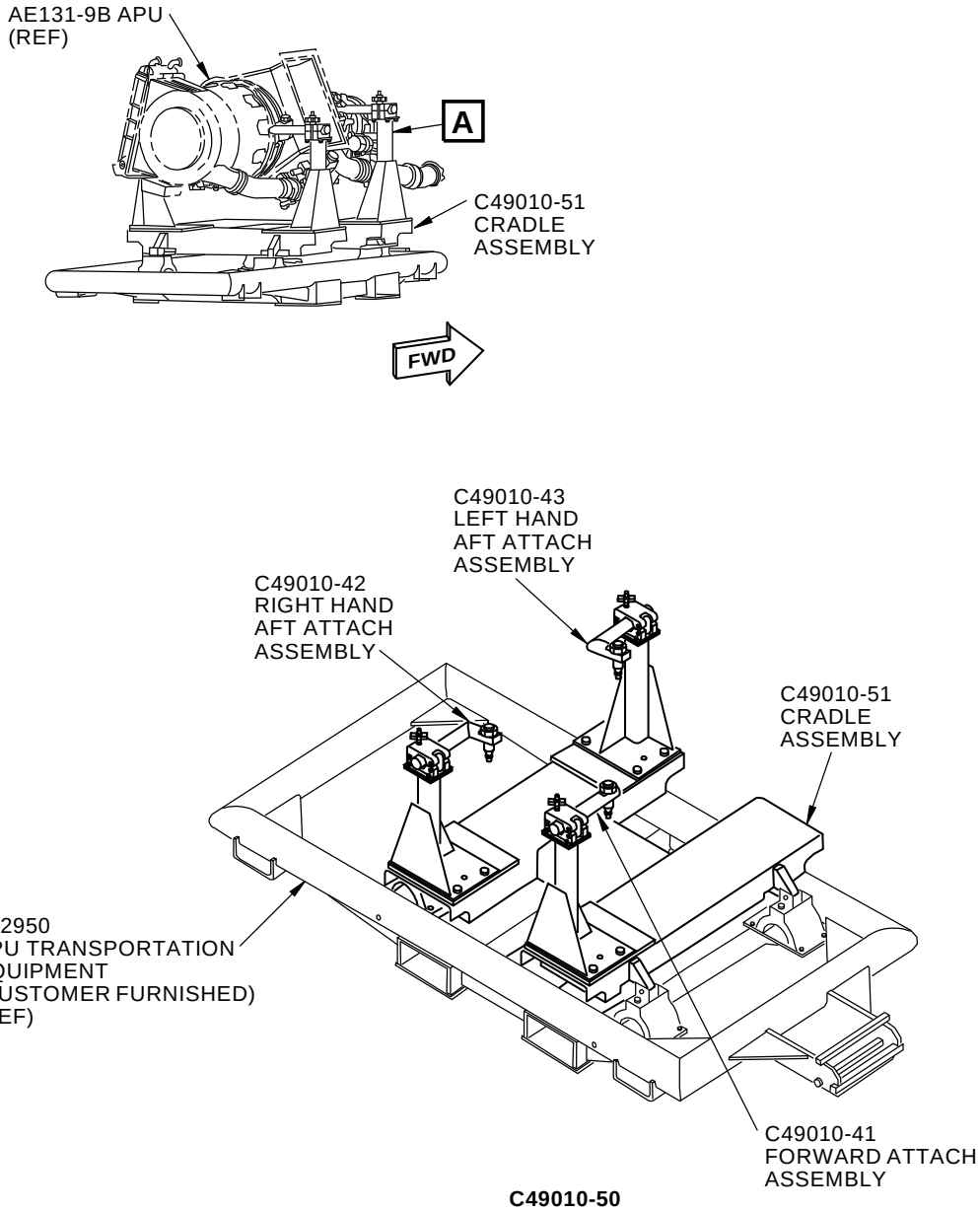
C49010-50 consists of:

C49010-50		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	CRADLE ASSEMBLY	C49010-51
1	LEFT HAND AFT ATTACH ASSEMBLY	C49010-43
1	RIGHT HAND AFT ATTACH ASSEMBLY	C49010-42
1	FORWARD ATTACH ASSEMBLY	C49010-41

WEIGHT: 250 lbs (113 kg)

DIMENSIONS: 38 x 38 x 38 inches (965 x 965 x 965 mm)

NOTE: C49010-50 supersedes C49010-40.



G74265 S0006832006_V4

AE131-9B APU Cradle Assembly
Figure 1

PART NUMBER: F72950-3, -127, -128, -138, -139, -158

NAME: AUXILIARY POWER UNIT TRANSPORTATION EQUIPMENT

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: YES

CMM 49-10-04

USAGE & DESCRIPTION: The F72950-3 transportation cart is used in conjunction with a customer-furnished F72950-128 or -139 adapter stand. The F72950-3 transportation cart and F72950-128 APU adapter stand - model 737 are used only on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129 auxiliary power units. F72950-3 and F72950-139 are used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129, GTCP 36-280 or Sundstrand APS2000 auxiliary power units. F72950-3 is an option to F72950-158.

The F72950-127 APU adapter and cart set - model 737, is used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129 auxiliary power units only. F72950-127 includes the F72950-3 transportation cart and F72950-128 APU adapter stand - model 737.

The F72950-128 APU adapter stand - model 737 is used in conjunction with a customer-furnished F72950-3 transportation cart. The F72950-3 transportation cart and F72950-128 APU adapter stand - model 737 are used only on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129 auxiliary power units.

The F72950-138 APU adapter and cart set - model 737, is used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129, GTCP 36-280 or Sundstrand APS2000 auxiliary power units. F72950-138 includes the F72950-3 transportation cart and the F72950-139 APU adapter stand - model 737.

The F72950-139 APU adapter stand - model 737 is used in conjunction with a customer-furnished F72950-3 transportation cart. F72950-3 and F72950-139 are used on 737-100 thru -500 airplanes equipped with Garrett GTCP 85-129, GTCP 36-280 or Sundstrand APS2000 auxiliary power units.

The F72950-158 transportation cart is used on all 737 airplanes equipped with Allied Signal AE131-9B, Garrett GTCP 85-129, GTCP 36-280 or Sundstrand APS 2000 auxiliary power units. F72950-158 is used to support the AE131-9B auxiliary power unit for transportation, overhaul, and storage. F72950 is used with a customer-furnished C49010 cradle assembly.

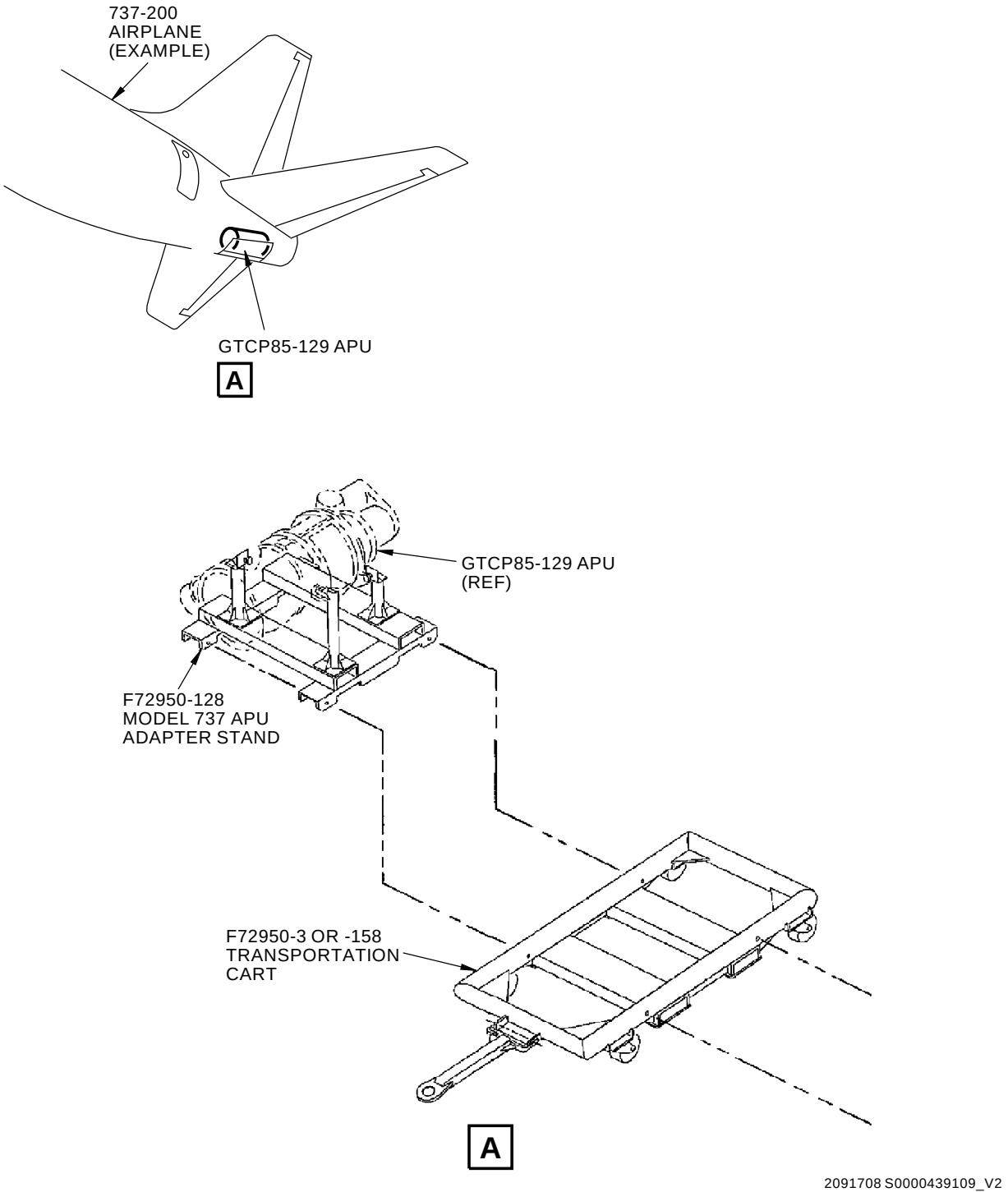
The F72950 APU transportation equipment is used for transport, storage and overhaul of 737 airplane APU's.

Refer to AMM 49-11-00, CMM 49-10-04 and the current F72950 drawing for complete usage instructions.

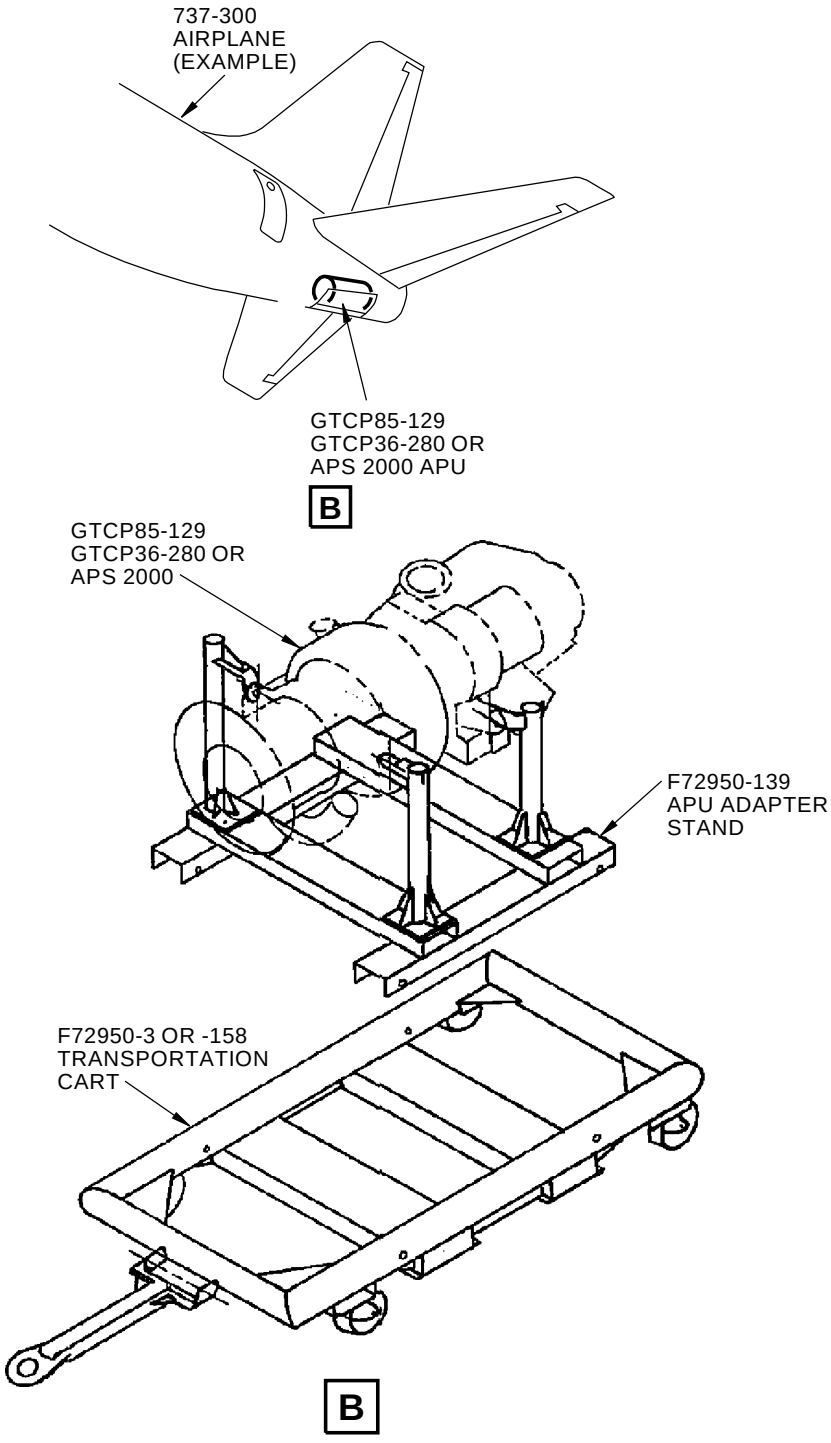
WEIGHT: 250 lbs (113 kg)

DIMENSIONS: 105 x 20 x 40 inches (2667 x 508 x 1016 mm)

NOTE: F72950-158 is optional to F72950-3.
F72950-138 replaces F72950-127 for future procurement.
F72950-139 replaces F72950-128 for future procurement.
F72950-127 supersedes F72950-2.
F72950-128 supersedes F72950-5.

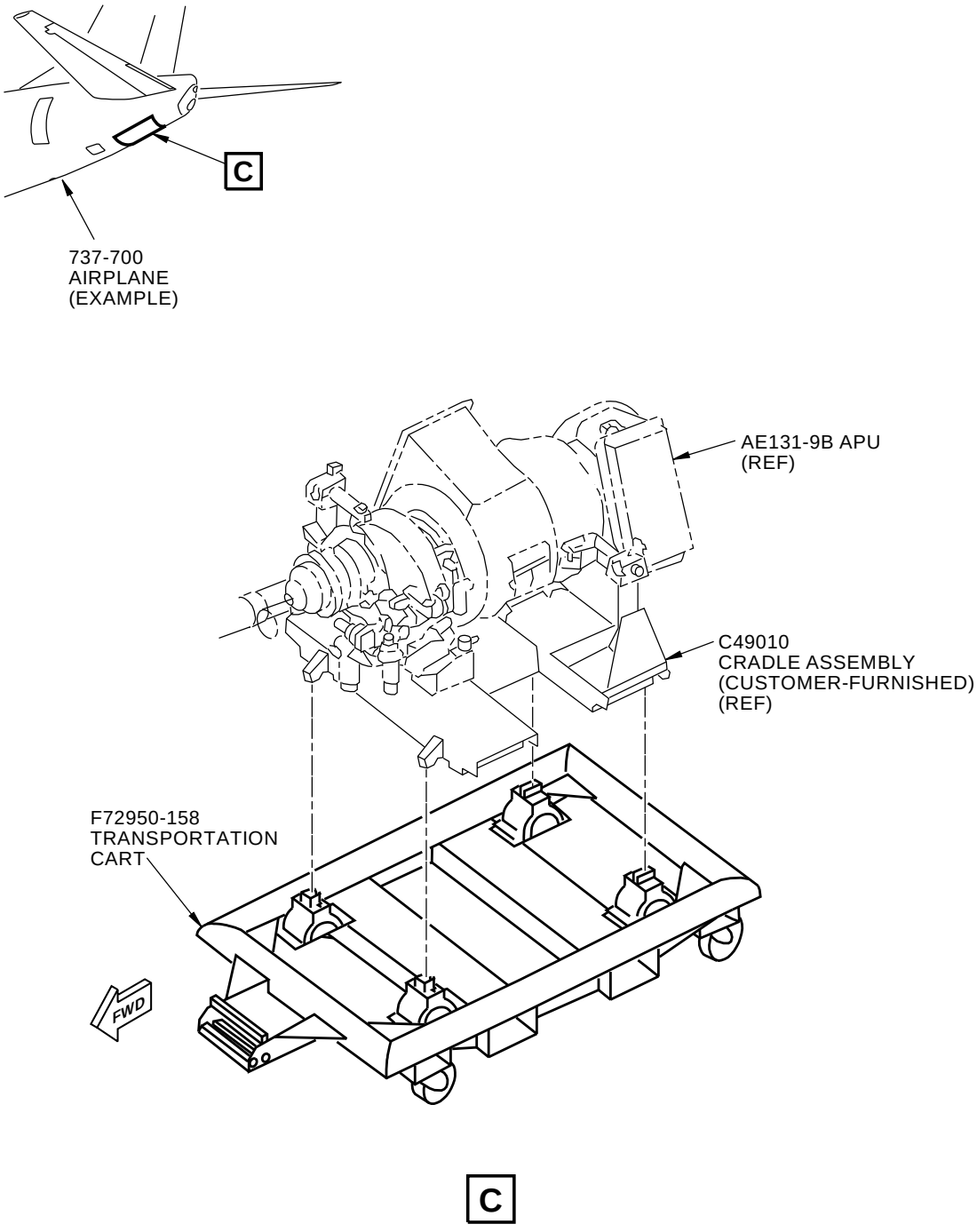


Auxiliary Power Unit Transportation Equipment
Figure 1 (Sheet 1 of 3)



2119399 S0000455336_V2

Auxiliary Power Unit Transportation Equipment
Figure 1 (Sheet 2 of 3)



2091703 S0000439108_V2

Auxiliary Power Unit Transportation Equipment
Figure 1 (Sheet 3 of 3)

PART NUMBER: F80039-43

NAME: HOIST EQUIPMENT - AUXILIARY POWER UNIT

AIRPLANE MAINTENANCE: YES

AMM 49-11-00, AMM 49-41-21

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The F80039-43 hoist equipment is used on 737-100 thru -900 airplanes.

F80039 is a fishpole hoist used to remove or install an APU or APU generator. Two, F80039 hoists are used in conjunction with a customer-furnished C49007 hoist equipment and depending on the APU model, an APU cradle. If lowering the APU onto the floor is required, the PF51-003-1 (CAGE 1YRX6) or equivalent is recommended.

Refer to AMM 49-11-00, AMM 49-41-21 for complete usage instructions.

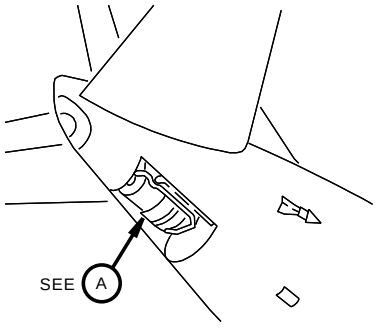
F80039-43 is a tubular type construction. The large end of the tube mounts a hand driven gearbox and cable drum. The opposite end mounts a clevis and pulley assembly. The clevis is used to connect the hoist to the C49007-1 forward and aft arms in the airplane's APU cavity. The cable from F80039 is connected to the APU. Due to the cable length limits of F80039, a platform or flatbed truck is required.

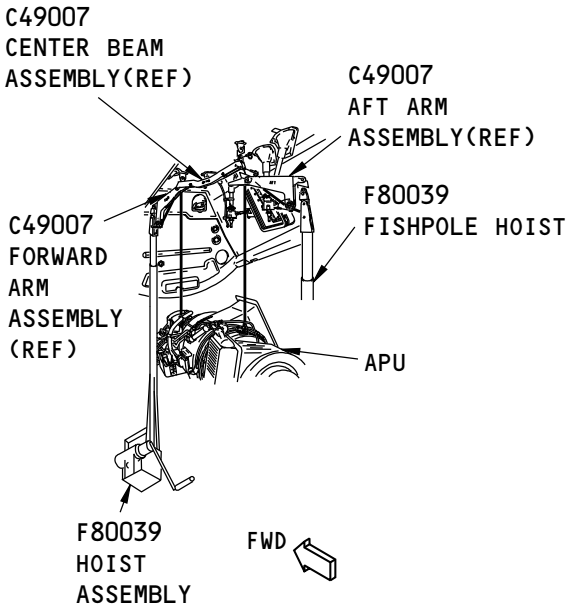
WEIGHT: 26 lbs (12 kg)

DIMENSIONS: 7 x 8.5 x 45 inches (178 x 216 x 1143 mm)

NOTE: F80039-43 supersedes F80039-1.

F80039 is replaced by a commercial equivalent hoist, such as the: PF51-003-1, or PF51-011, CAGE code 1YRX6 or 10/3641, CAGE code K1425.





M65986 S0006832010_V2

APU Fishpole Hoist Usage
Figure 1

PART NUMBER: C49009-1

NAME: TOOL KIT - AUXILIARY POWER UNIT DELETION

AIRPLANE MAINTENANCE: YES

AMM 49-11-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C49009-1 tool kit is used on 737-600 thru -900 airplanes.

C49009 permits flying with the APU deactivated or removed.

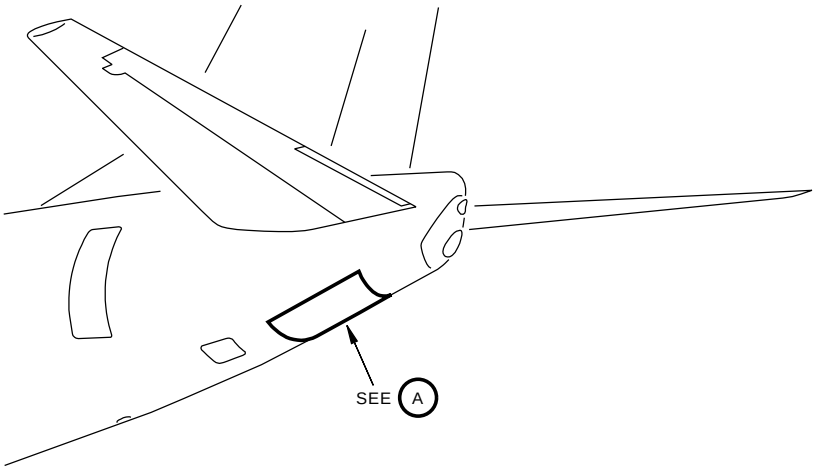
Refer to AMM 49-11-00 and the current C49009 tool drawing for complete usage instructions.

C49009-1 consists of:

C49009-1		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	FRAME ASSEMBLY	C49009-2
1	EXHAUST DUCT PLUG	C49009-3
1	BLEED DUCT PLUG	C49009-4
1	TURNBUCKLE	C49009-5
1	FUEL FEED PLUG	C49009-6
1	PROTECTIVE COVER	660-022M24N
3	PROTECTIVE COVER	660-022M28N
1	STORAGE BOX	

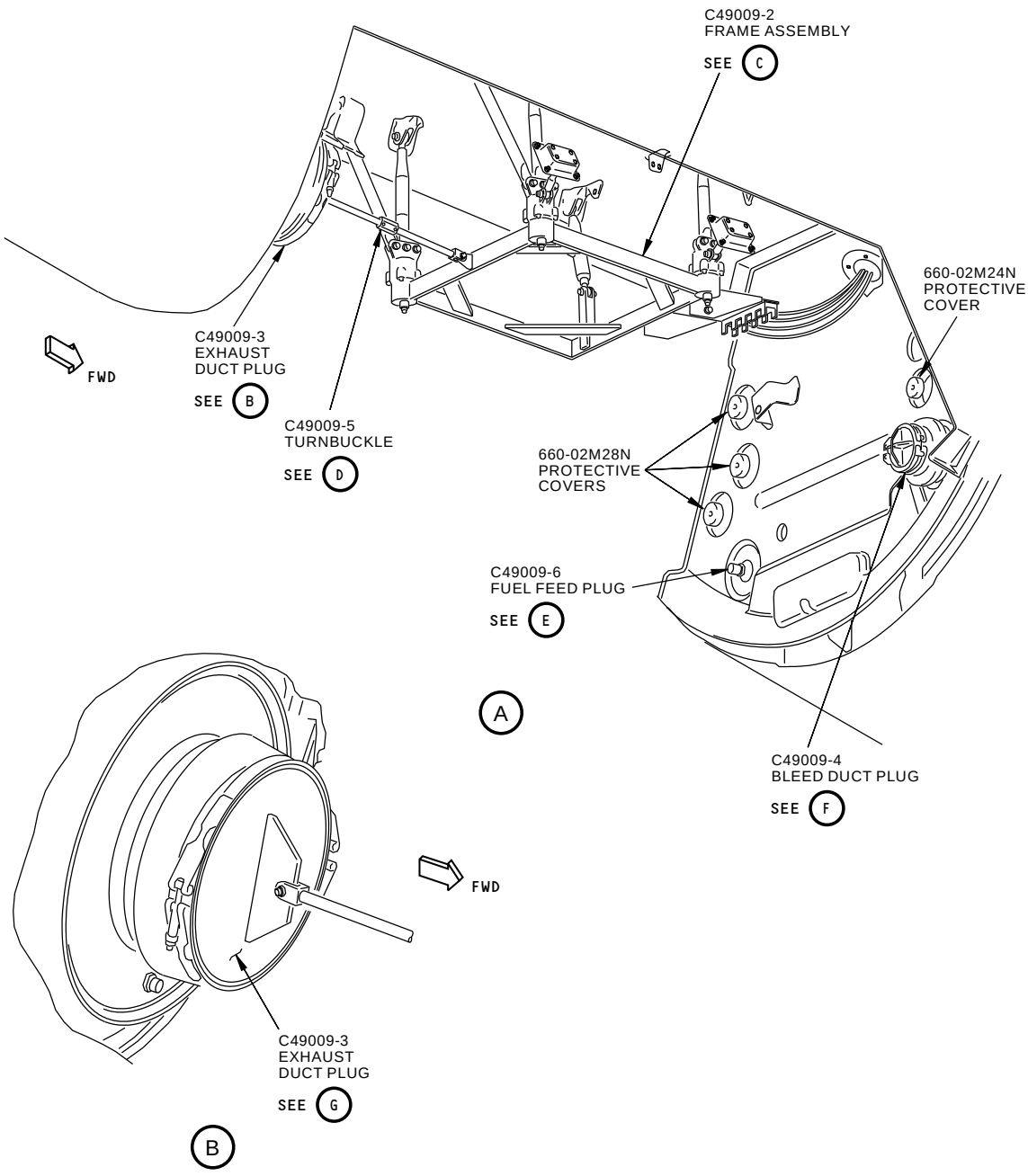
WEIGHT: 25 lbs (11.4 kg)

DIMENSIONS: 32 x 23.5 x 10 inches (813 x 597 x 254 mm)



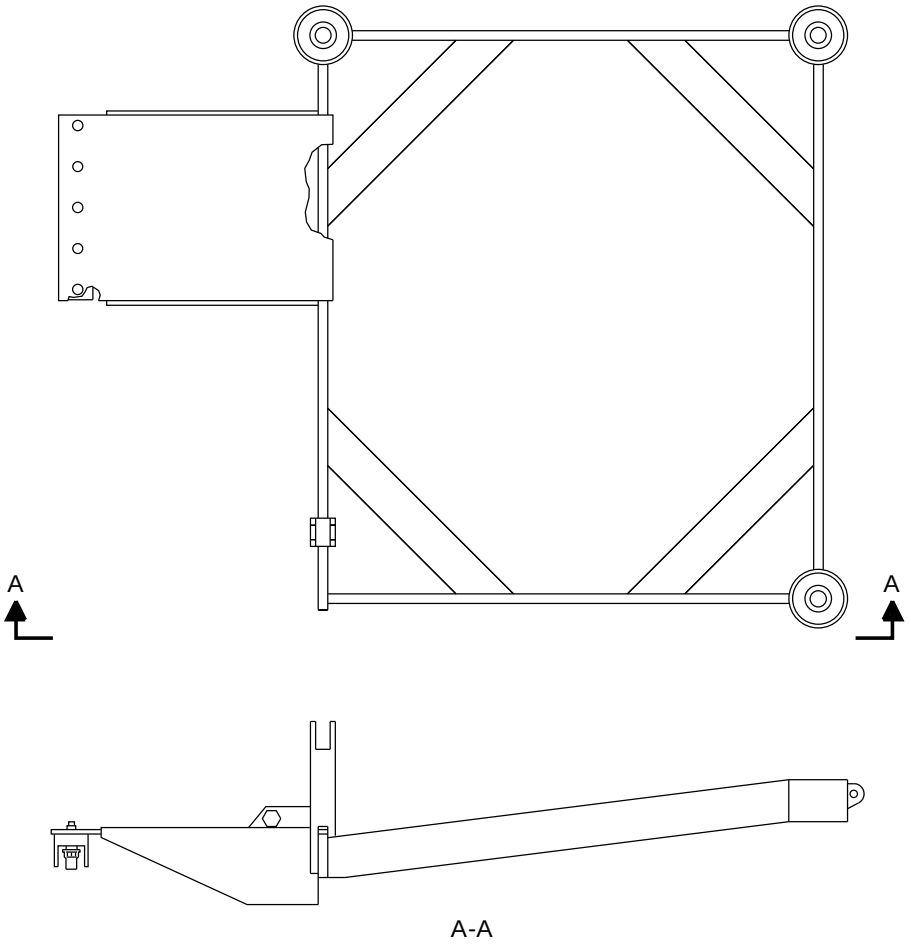
M27065 S0006832012_V3

APU Deletion Kit
Figure 1 (Sheet 1 of 4)



M27088 S0006832013_V3

APU Deletion Kit
Figure 1 (Sheet 2 of 4)



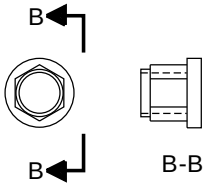
C49009-2
FRAME ASSEMBLY

C

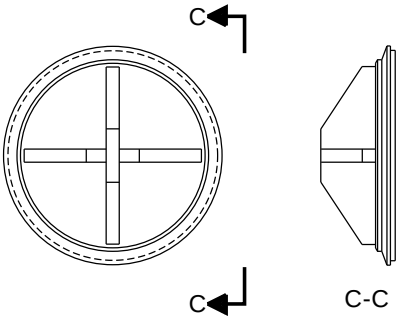
M27096 S0006832014_V3

APU Deletion Kit
Figure 1 (Sheet 3 of 4)

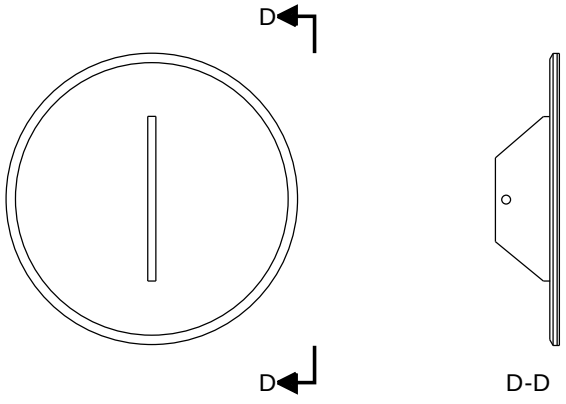
C49009-5
TURNBUCKLE
D



C49009-6
FUEL FEED PLUG
E



C49009-4
BLEED DUCT PLUG
F



C49009-3
EXHAUST DUCT PLUG
G

M27205 S0006832015_V3

APU Deletion Kit
Figure 1 (Sheet 4 of 4)

PART NUMBER: C49011-1

NAME: TEST EQUIPMENT - FUEL FEED, AUXILIARY POWER UNIT

AIRPLANE MAINTENANCE: YES

AMM 49-31-14, AMM 49-31-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C49011-1 test equipment is used on all 737-600 thru -900 airplanes.

C49011 is used to pressure test the fuel feed system to the APU.

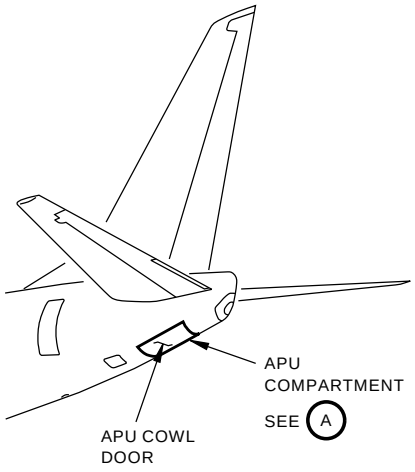
Refer to the current C49011 tool drawing, AMM 49-31-14 and AMM 49-31-00 for complete usage instructions.

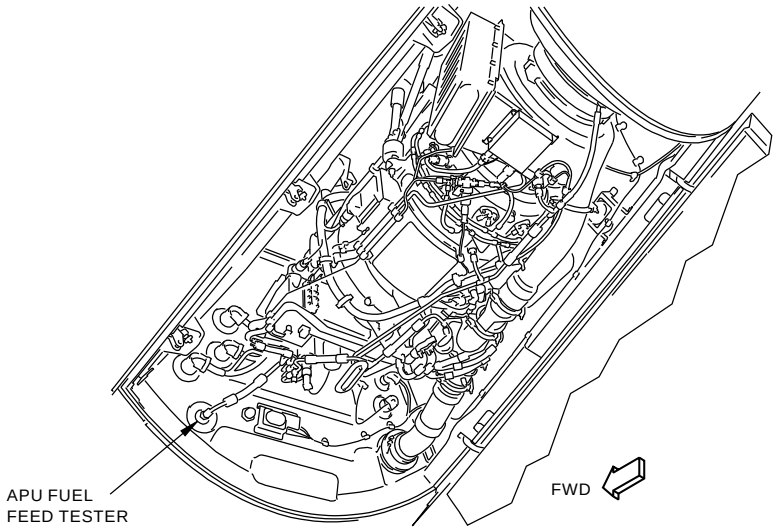
C49011-1 test equipment consists of:

C49011-1		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	TESTER ASSEMBLY	C49011-2
1	STORAGE BOX	

WEIGHT: 10 lbs (4.5 kg)

DIMENSIONS: 30 x 8 x 2 inches (762 x 203 x 51 mm)

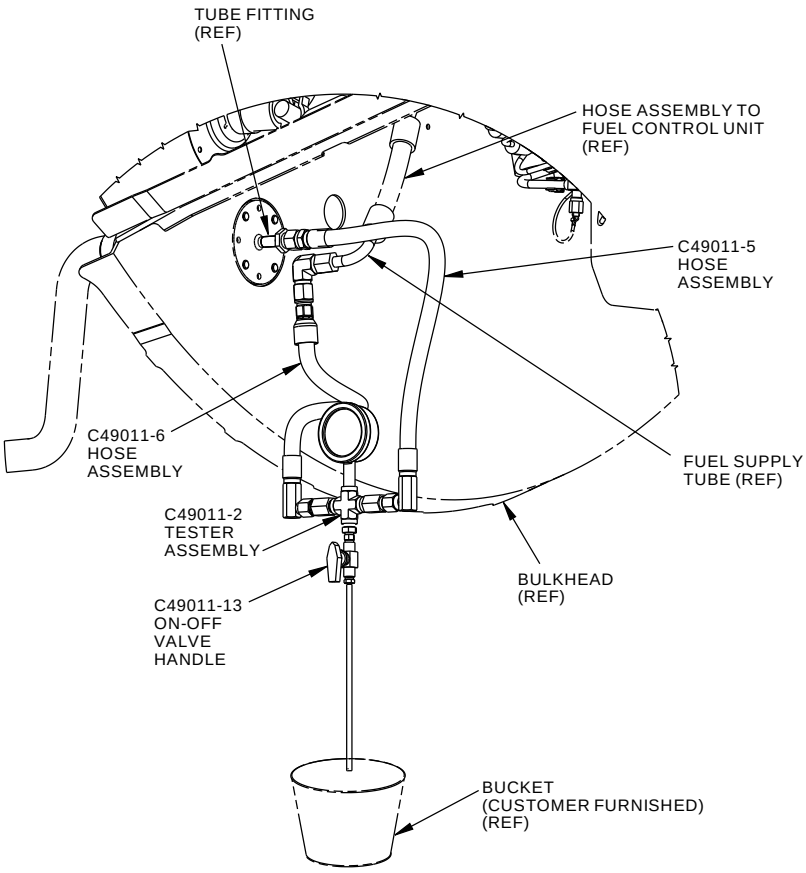




APU COMPARTMENT
A

H59766 S0006832018_V2

APU Fuel Pressure Line Location
Figure 1



C49011-1
APU FUEL FEED TEST EQUIPMENT
B

H59819 S0006832019_V3

APU Fuel Pressure Tester Usage and Components
Figure 2

PART NUMBER: A49002-2

NAME: LIFTING EYE - GENERATORS AND STARTERS (CE)

AIRPLANE MAINTENANCE: YES

AMM 24-11-11, AMM 49-41-21

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The A49002-2 (CE qualified) lifting eye is used on all 737 airplanes, except 737-100 thru -500 airplanes.

A49002 is used in conjunction with a customer-furnished fishpole hoist. A49002 provides a lifting point when removing or installing the auxiliary power unit (APU) starter-generator. A49002 screws into a threaded boss on the starter-generator. A customer-furnished fishpole hoist is attached to a lift fitting in the APU bay and is used to raise or lower the starter-generator with the A49002-2.

Refer to AMM 24-11-11, AMM 49-41-21 and the current A49002 drawing for complete usage instructions.

A49002-2 consists of:

A49002-2		
QUANTITY	**NOMENCLATURE**	**PART NUMBER**
1	LIFTING EYE	A49002-2

WEIGHT: 1 lb (0.45 kg)

DIMENSIONS: 1 x 1 x 2 inches (25 x 25 x 50 mm)

DECLARATION OF CONFORMITY: A49002 requires a written Declaration of Conformity from the A49002 fabricator if it is to be used in the European Union. The design of A49002 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of A49002 must also meet the requirements of that directive. At a minimum for the tool fabricator, this requires the retention of a technical file, a labeling of the equipment with the CE mark, and the completion of an EC Declaration of Conformity. If A49002 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of A49002 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current A49002 drawing, AMM 24-11-11, and AMM 49-41-21 maintenance procedures for detailed instructions on the use of this equipment. A49002 shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing airplanes.

MAINTENANCE: General Cleaning: Basic care of the equipment includes cleaning the equipment of dirt, corrosives, or contaminants. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent, clean the components and wipe dry with a clean cloth. Hang the components freely to dry, but away from excessive heat or steam.

PROOF LOAD: Proof load testing for the A49002 lifting eye shall be performed per the current A49002 drawing proof load diagrams (example Reference Not Currently Available) and:

- in conjunction with initial fabrication
- subsequent to modification of this equipment (equipment shall only be modified in accordance with the A49002 drawing)

INSPECTION: FREQUENT

General inspection: Check Notes, Cautions and Warnings are legible. Usage placards are legible.

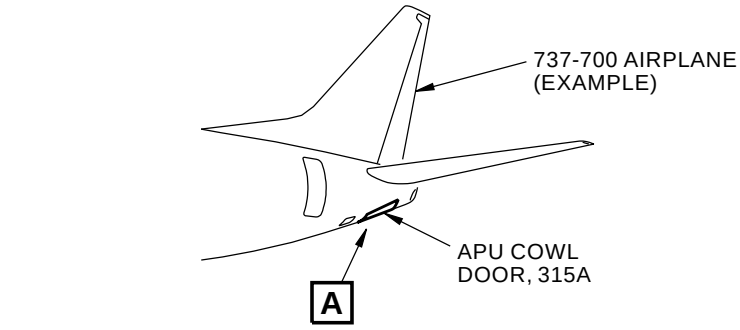
Frequent inspection should be done before each use by visually inspecting the hardware for any physical damage, wear and corrosion. If inspection reveals a defect in the condition, remove the unit from service.

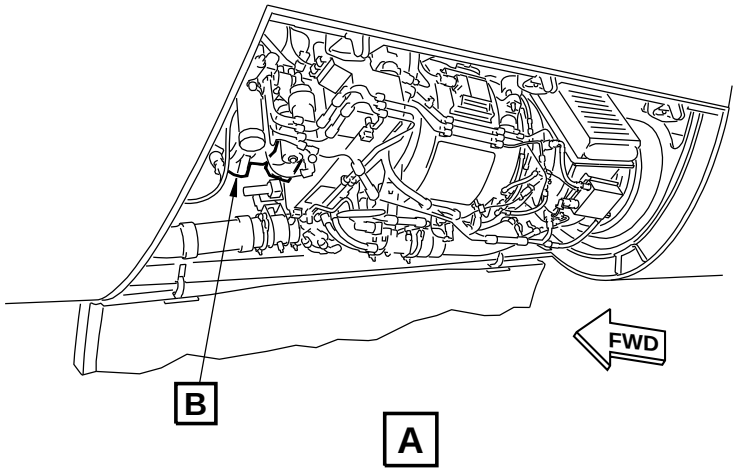
PERIODIC

Periodic inspection shall be done as recommended by the manufacturer. See Standard EN 13157.

STORAGE: A49002 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

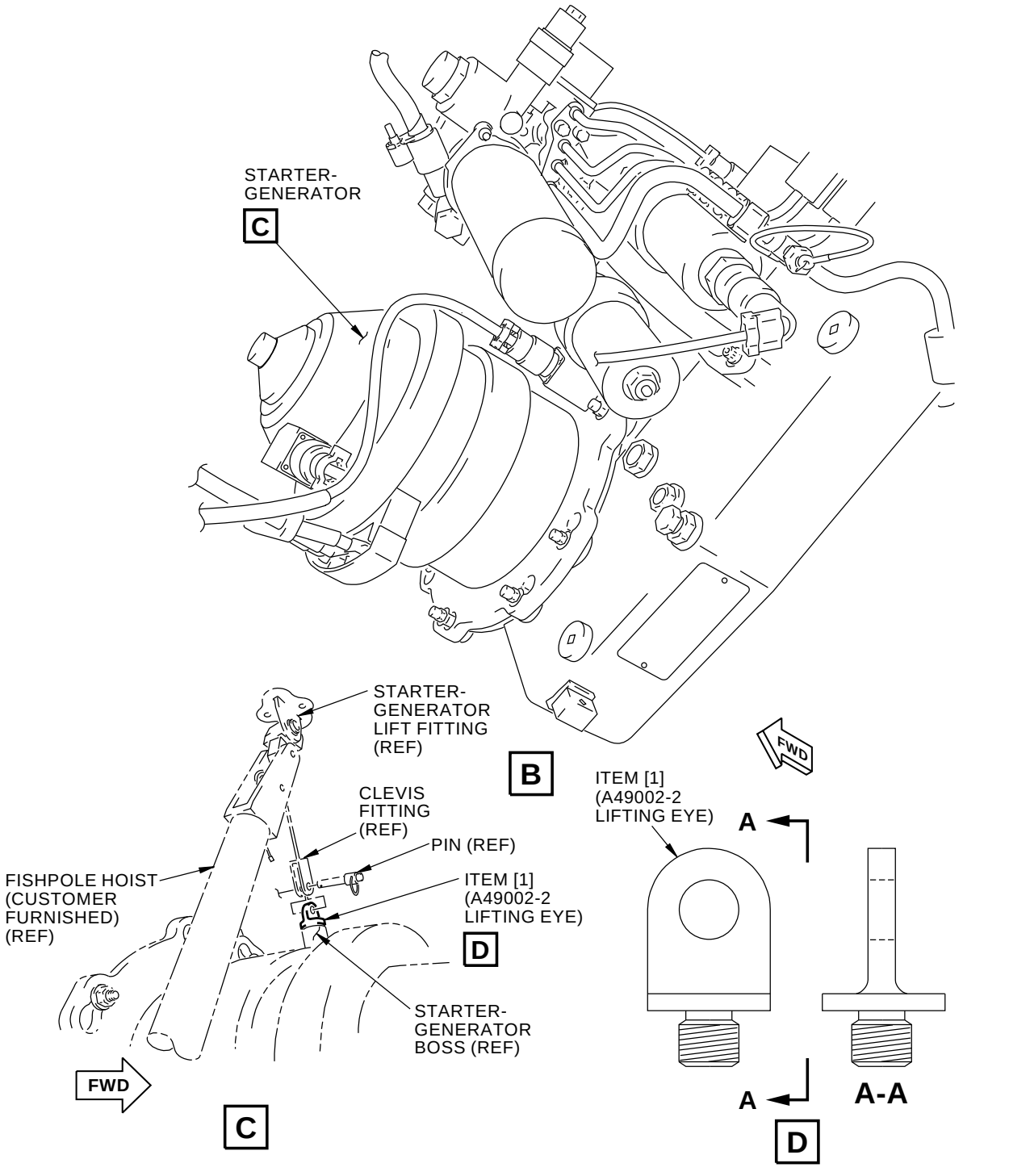
DECOMMISSIONING: Parts and assemblies of A49002 shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.



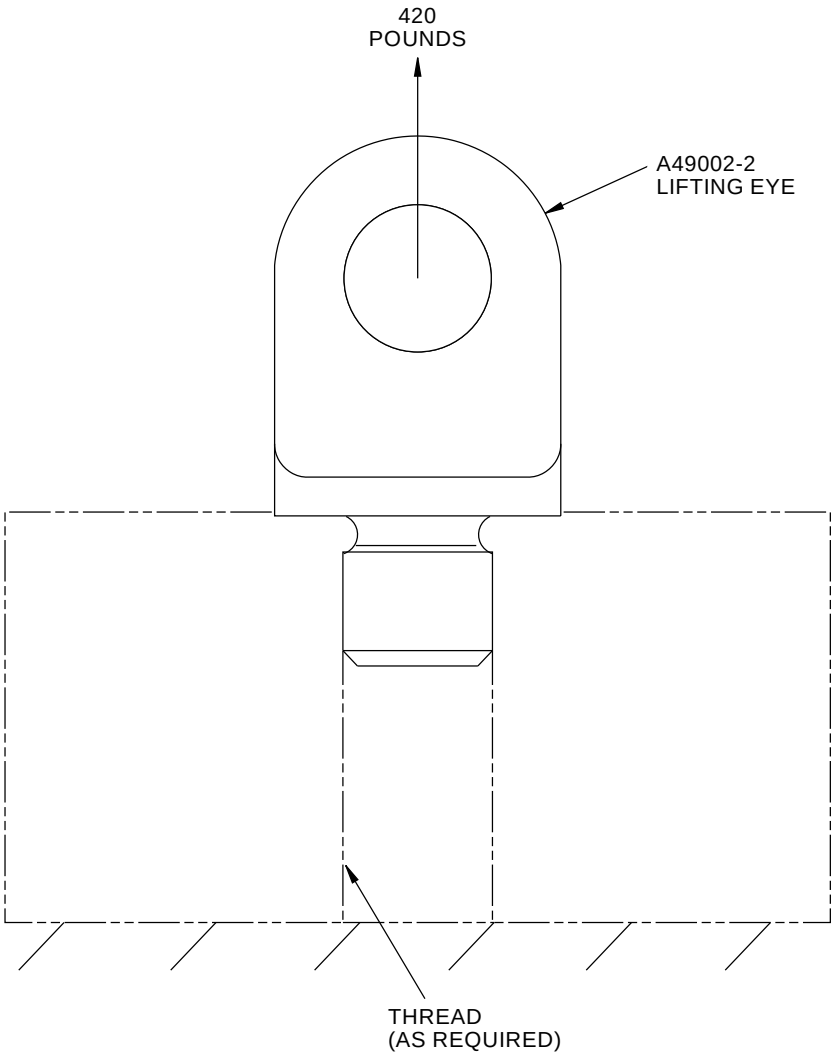


1564754 S0000290162_V2

APU Generators and Starters Lifting Eye
Figure 1 (Sheet 1 of 2)



APU Generators and Starters Lifting Eye
Figure 1 (Sheet 2 of 2)



A49002 Proof Load Diagram (Example)
Figure 2

REPAIRABLE/REPLACEABLE PARTS			
ITEM NUMBER	**PART NUMBER**	**NOMENCLATURE**	**VENDOR CODE**
[1]	A49002-2	LIFTING EYE	