

CHAPTER

71

POWER PLANT



737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL

CHAPTER 71
POWER PLANT

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71	POWER PLANT	
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71-00-02	SAFETY LANYARD - PERSONNEL, ENGINE MAINTENANCE	F80239-21, -22, -25
71-00-03	ENGINE SLING EQUIPMENT - OVERHEAD SHOP HANDLING (CE)	C71015-79, -83
71-00-04	SAFETY SCREEN - PERSONNEL BARRIER, CFM56-7 INLET (CE)	C71025-1
71-00-05	PROOF LOAD FIXTURE - BOOTSTRAP	C71023-1
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71-20-02	SLING ASSEMBLY - ENGINE AFT MOUNT, CFM56-7 ENGINE (CE)	C71024-1, -10
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PART NUMBER: C71020-91

NAME: BOOTSTRAP EQUIPMENT - CFM56-7 ENGINE (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-00-02

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C71020-91 (CE qualified) bootstrap equipment is used on 737-600 thru -900 airplanes.

C71020 is used for removal or installation of the CFM56-7 engine from the wing-mounted strut of the airplane. The bootstrap system is used to raise or lower the engine from the wing-mounted strut to the cradle and dolly engine handling system.

Refer to AMM 71-00-02 and the current C71020 drawing for complete usage instructions.

C71020-91 consists of:

C71020-91		
QUANTITY	NOMENCLATURE	PART NUMBER
2	STABILIZER ASSEMBLY	C71020-2
1	AFT SIDE PLATE ASSEMBLY	C71020-3
1	OPPOSITE -3	C71020-4
1	AFT ENGINE BRACKET ASSEMBLY	C71020-72
1	OPPOSITE -72	C71020-73
2	2 TON LEVER HOIST	A3140JM-AP
1	3/4 TON LEVER HOIST	A3134JM-7RYU ^{*[1]}
1	AFT DYNAMOMETER ASSEMBLY	C71020-7
1	AFT BOOTSTRAP ARM ASSEMBLY	C71020-8
1	OUTBOARD ARM ASSEMBLY	C71020-81
1	INBOARD ARM ASSEMBLY	C71020-82
1	AFT ARM PIN ASSEMBLY	C71020-11
1	LEFT HAND DYNAMOMETER ASSEMBLY	C71020-92
1	RIGHT HAND DYNAMOMETER ASSEMBLY	C71020-93
1	STORAGE BOX	

*[1] A3134JM-7YU IS OPTIONAL TO A3134JM-7RYU.

WEIGHT: 150 lbs (68 kg)

DIMENSIONS: 24 x 36 x 48 inches (610 x 914 x 1219 mm)

NOTE: C71020-91 supersedes C71020-80.

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DECLARATION OF CONFORMITY: C71020 requires a written Declaration of Conformity from the C71020 fabricator if it is to be used in the European Union. The design of C71020 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C71020 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 C71020 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C71020 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the 737 airplane maintenance manual and the current C71020 drawing procedures for detailed instructions on the use of C71020 equipment. C71020 shall only be used in conjunction with Boeing drawing 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.

Structural and Mechanical Lifting Devices, (supporting lifters, spreader bars):

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.

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PROOF LOAD: Proof load testing for the C71020 bootstrap equipment shall be performed per the current C71020 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 C71020 drawing)
- after repair of load carrying components
- after replacement of load carrying components.

Continuing integrity/safety of the device to be assured by inspection.

- 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:

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.

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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 lifters, spreader bars):

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: C71020 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

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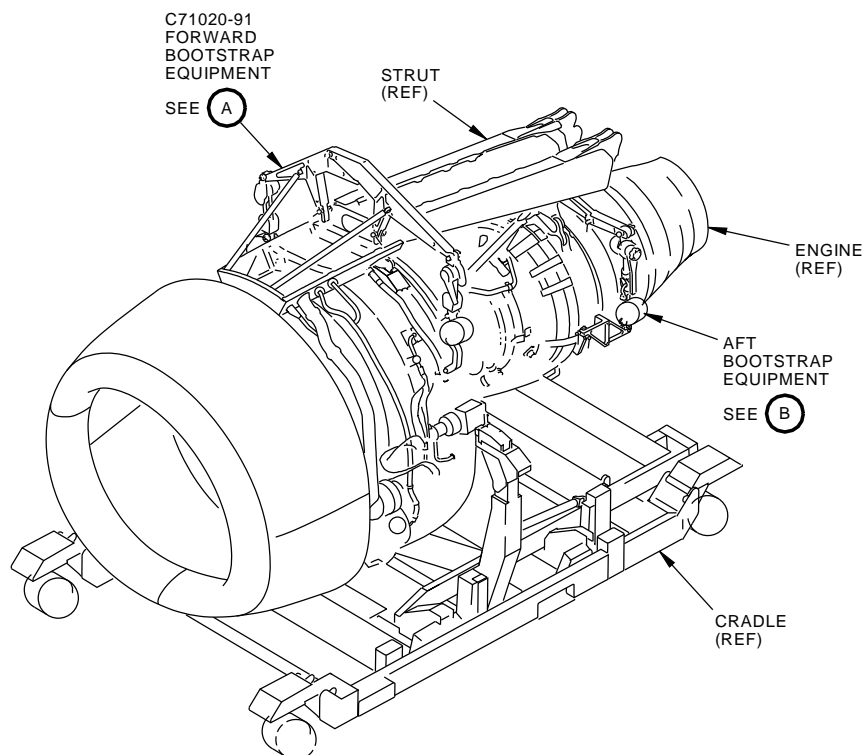
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DECOMMISSIONING: Parts and assemblies of C71020 shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.

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CFM56-7 Bootstrap Equipment
Figure 1 (Sheet 1 of 2)

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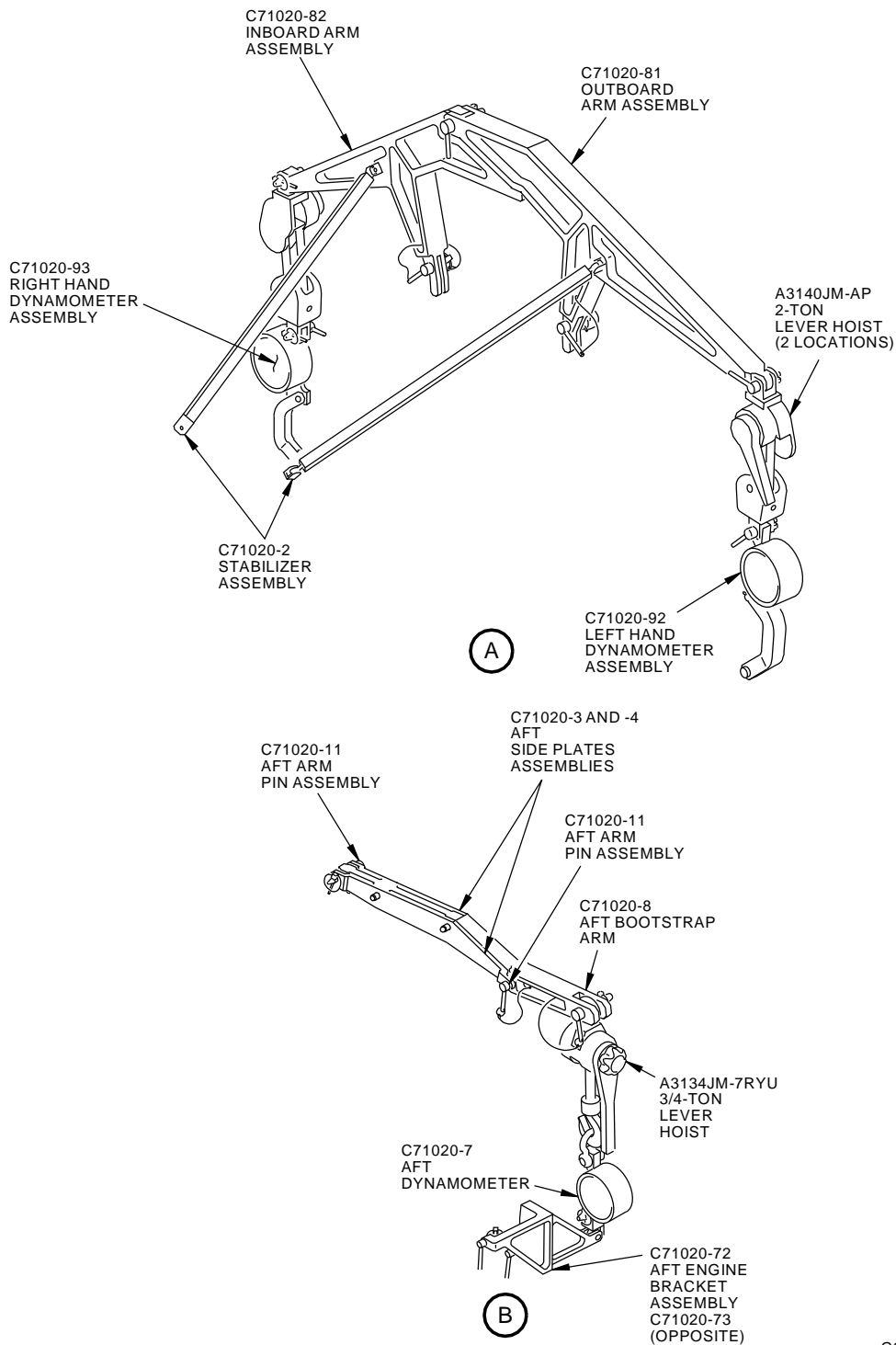
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CFM56-7 Bootstrap Equipment
Figure 1 (Sheet 2 of 2)

71-00-01

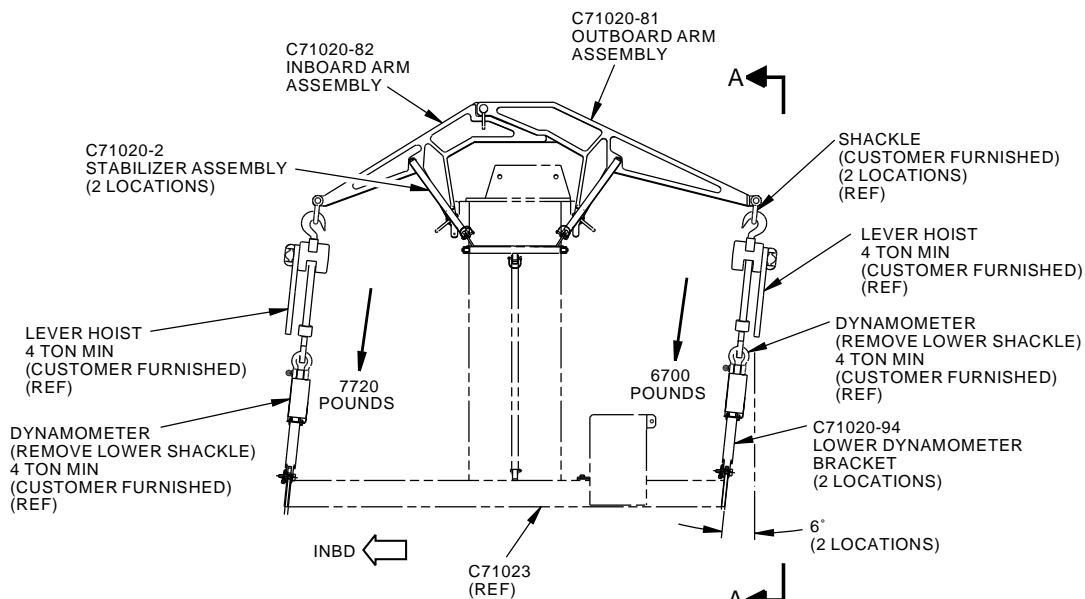
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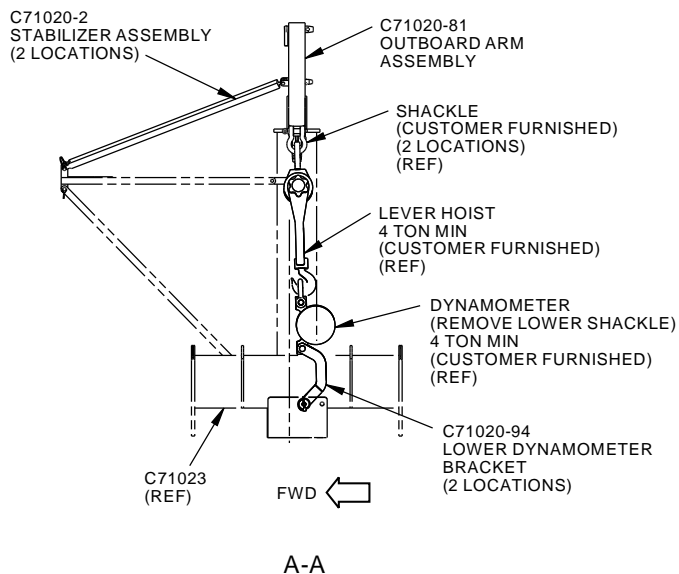


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**C71020-91
PROOF LOAD DIAGRAM 1
(EXAMPLE)**

PROOF LOAD AT INITIAL FABRICATION AND AFTER MODIFICATION/REPAIR.
PROOF LOADS ARE SHOWN. PROOF LOAD IS 2 TIMES THE
WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL STAMP PROOF LOAD
TAG PER DRAWING F70308.



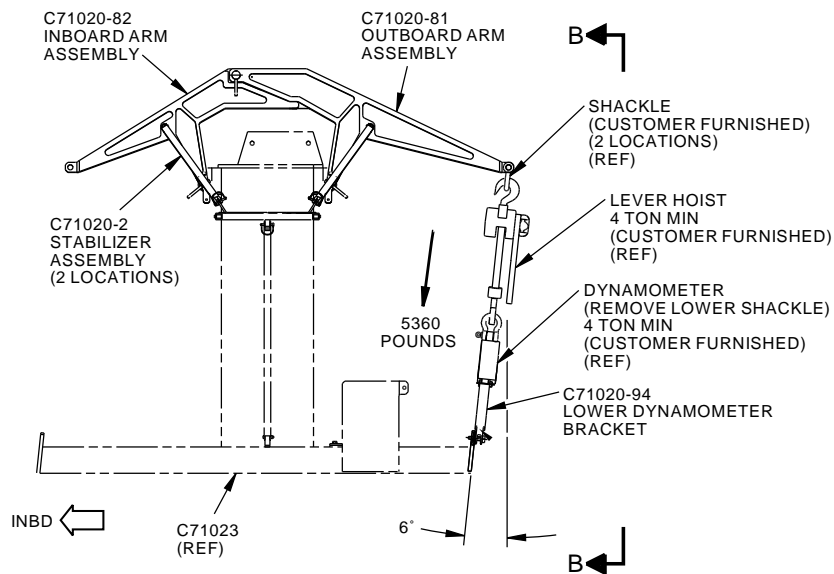
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**C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 1 of 6)**

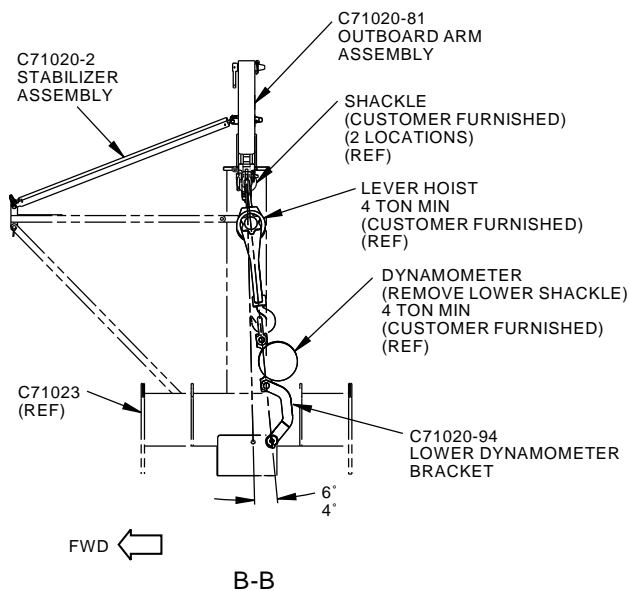
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C71020-91
PROOF LOAD DIAGRAM 2
(EXAMPLE)
PROOF LOAD AT INITIAL FABRICATION AND AFTER
MODIFICATION/REPAIR. PROOF LOADS ARE SHOWN. PROOF LOAD IS
2 TIMES THE WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL
STAMP PROOF LOAD TAG PER DRAWING F70308.



2340213 S0000533034_V1

C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 2 of 6)

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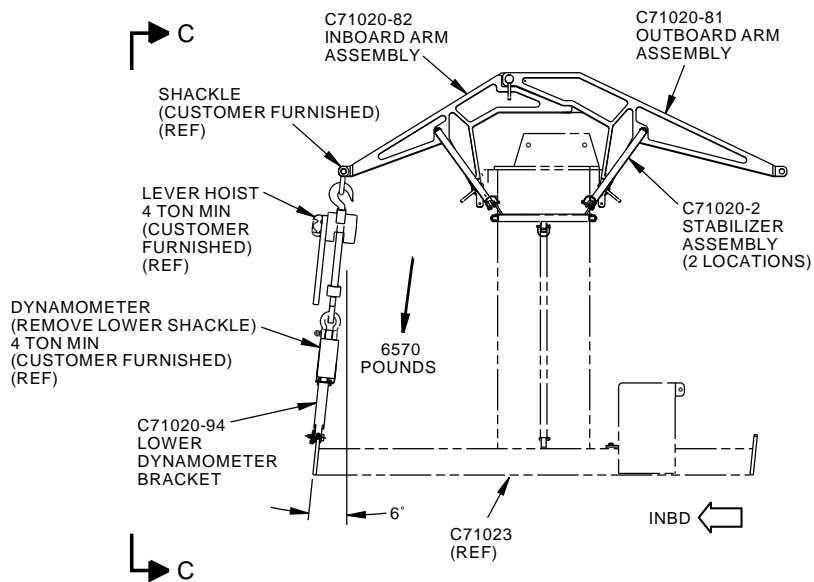
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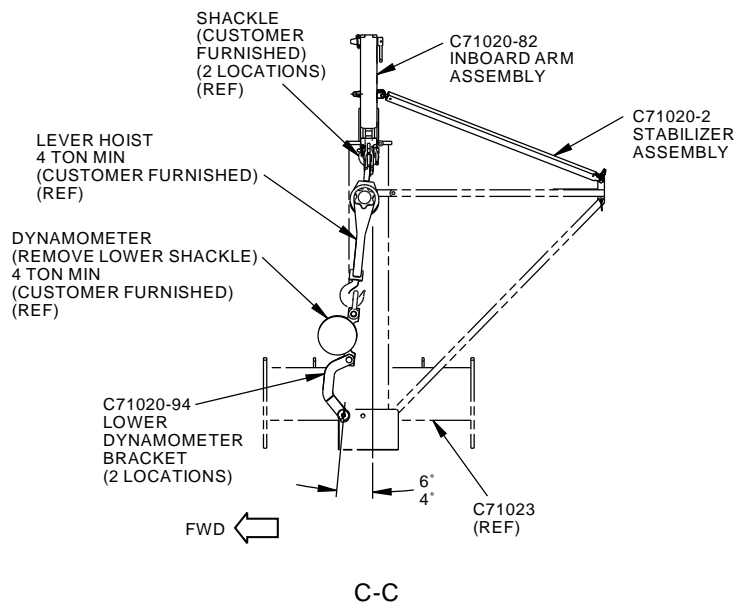


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C71020-91
PROOF LOAD DIAGRAM 3
(EXAMPLE)

PROOF LOAD AT INITIAL FABRICATION AND AFTER
MODIFICATION/REPAIR. PROOF LOADS ARE SHOWN. PROOF LOAD IS
2 TIMES THE WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL
STAMP PROOF LOAD TAG PER DRAWING F70308.



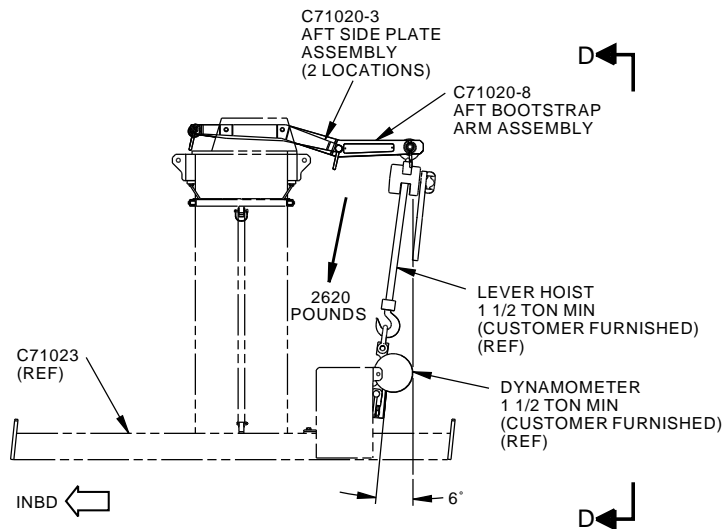
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C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 3 of 6)

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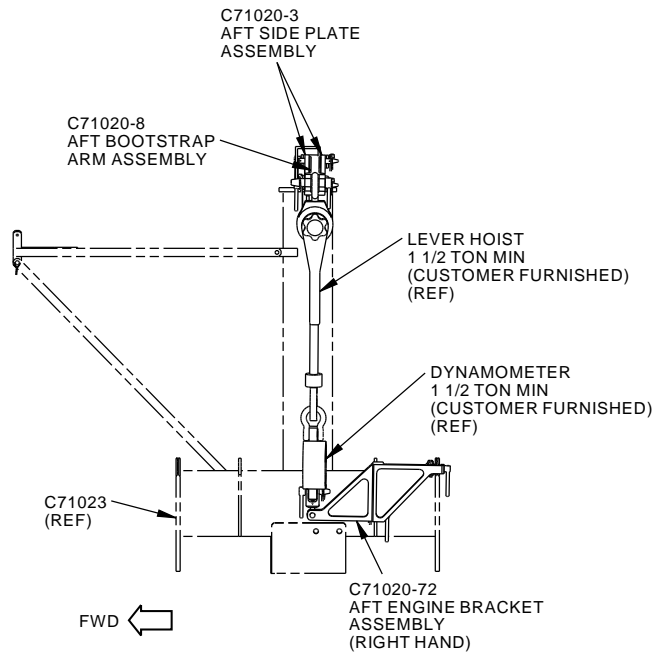


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C71020-91
PROOF LOAD DIAGRAM 4
(EXAMPLE)

PROOF LOAD AT INITIAL FABRICATION AND AFTER MODIFICATION/REPAIR. PROOF LOADS ARE SHOWN. PROOF LOAD IS 2 TIMES THE WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL STAMP PROOF LOAD TAG PER DRAWING F70308.



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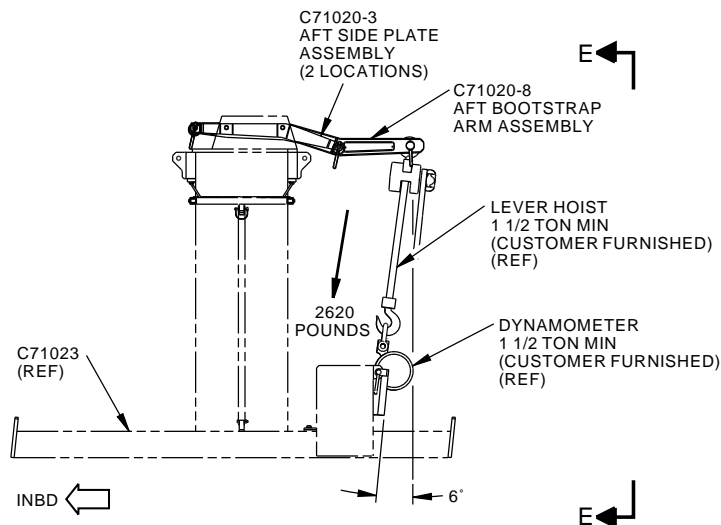
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C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 4 of 6)

71-00-01

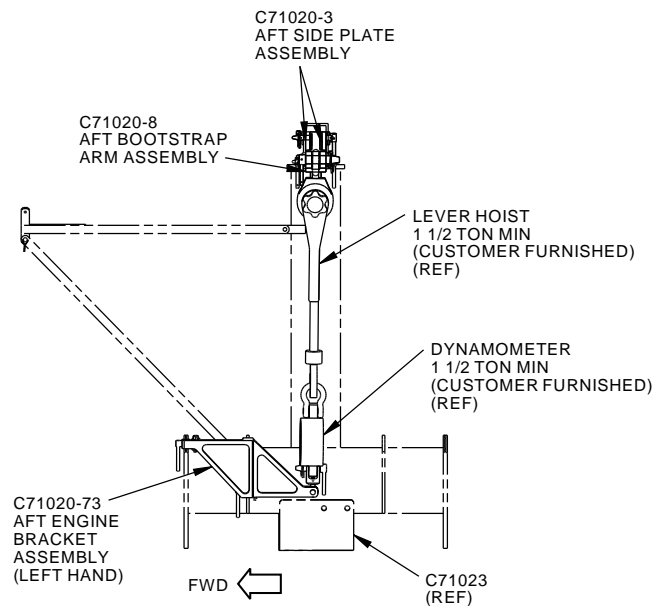


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C71020-91
PROOF LOAD DIAGRAM 5
(EXAMPLE)

PROOF LOAD AT INITIAL FABRICATION AND AFTER
MODIFICATION/REPAIR. PROOF LOADS ARE SHOWN. PROOF LOAD IS
2 TIMES THE WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL
STAMP PROOF LOAD TAG PER DRAWING F70308.



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2340801 S0000533597_V1

C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 5 of 6)

71-00-01

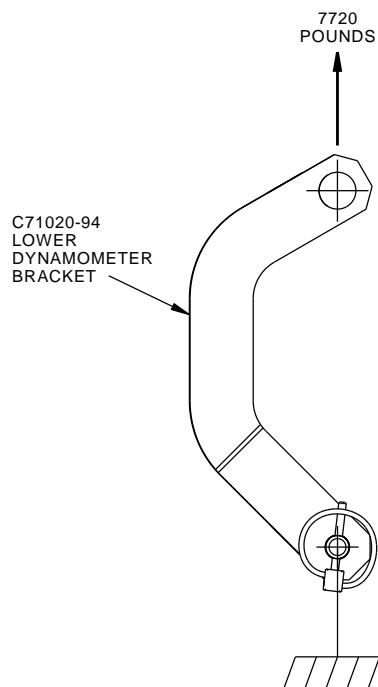
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**C71020-91
PROOF LOAD DIAGRAM 6
(EXAMPLE)**

PROOF LOAD AT INITIAL FABRICATION AND AFTER MODIFICATION/REPAIR.
PROOF LOADS ARE SHOWN. PROOF LOAD IS 2 TIMES THE
WORKING LOAD. AFTER PROOF LOAD TESTS, STEEL STAMP PROOF LOAD
TAG PER DRAWING F70308.

2339563 S0000533036_V1

**C71020 Proof Load Diagrams (Example)
Figure 2 (Sheet 6 of 6)**

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PART NUMBER: F80239-21, -22, -25

NAME: SAFETY LANYARD - PERSONNEL, ENGINE MAINTENANCE

AIRPLANE MAINTENANCE: YES

AMM 10-11-0, AMM 71-09-100, AMM 71-00-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The F80239-21 safety lanyard is used on 737-600 thru -900 airplanes.

The F80239-22 safety lanyard is used on 737-100 thru -500 airplanes.

The F80239-25 safety pin assembly is used on 737-100 and -200 airplanes.

F80239 is used to prevent maintenance personnel from being ingested into the engine inlet during engine run-up and maintenance. F80239 is not to be used for fall protection.

On 737-100 and -200 airplanes, the F80239-25 safety pin assembly is used together with the F80239-22 safety lanyard equipment and a customer-furnished harness worn by the maintenance personnel. F80239-22 is equipped with two snap hooks. A snap hook on F80239-22 attaches to the customer-furnished harness and the other attaches to the F80239-28 lifting pin assembly (part of F80239-25). The F80239-28 lifting pin assembly is attached to engine station 136.0 on the JT8D engines. Refer to the current F80239 drawing, AMM 10-11-0 and AMM 71-09-100 for complete usage instructions.

On 737-300 thru -500 airplanes the F80239-22 safety lanyard equipment is used in conjunction with a customer-furnished harness, worn by the maintenance personnel. F80239-22 is equipped with two snap hooks. One attaches to the customer-furnished harness and the other attaches to the forward engine handling mounts on the CFM56-3 engines at nacelle station 175.4. Refer to the current F80239 drawing and AMM 71-00-00 for complete usage instructions.

On 737-600 thru -900 airplanes, F80239-21 is used in conjunction with a customer-furnished body harness. F80239-21 is equipped with two snap hooks. One attaches to the customer-furnished harness and the other attaches to the forward engine handling mounts on the CFM56-7 engines at nacelle station 176.2. Refer to the current F80239 tool drawing and AMM 71-00-00 for complete usage instructions.

F80239-21, -22 and -25 consist of:

F80239-21		
QUANTITY	NOMENCLATURE	PART NUMBER
1	LONG SAFETY LANYARD	F80239-24
1	STORAGE BOX	

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F80239-22		
QUANTITY	NOMENCLATURE	PART NUMBER
1	SAFETY LANYARD	F80239-27
1	STORAGE BOX	

F80239-25		
QUANTITY	NOMENCLATURE	PART NUMBER
1	LIFTING PIN ASSEMBLY	F80239-28
1	STORAGE BOX	

WEIGHT: F80239-21 - 5 lbs (2.3 kg)
F80239-22 - 5 lbs (2.3 kg)
F80239-25 - 3 lbs (1.4 kg)

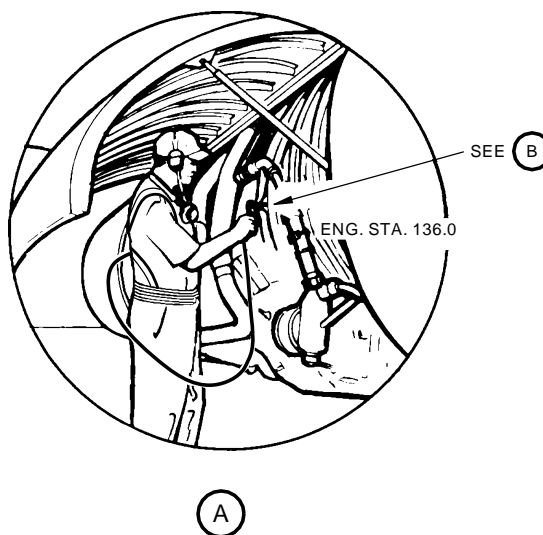
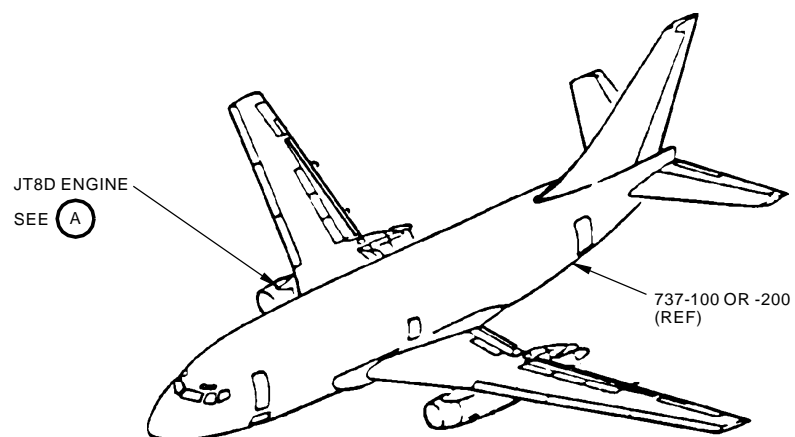
DIMENSIONS: F80239-21 - 4 x 9 x 12 inches (102 x 229 x 305 mm)
F80239-22 - 4 x 9 x 12 inches (102 x 229 x 305 mm)
F80239-25 - 3 x 4 x 5 inches (76 x 102 x 127 mm)

NOTE: F80239-21 supersedes F80239-18.
F80239-22 and -25 supersede F80239-18.

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2079618 S0000432409_V1

**Engine Maintenance Personnel Safety Lanyard
Figure 1 (Sheet 1 of 4)**

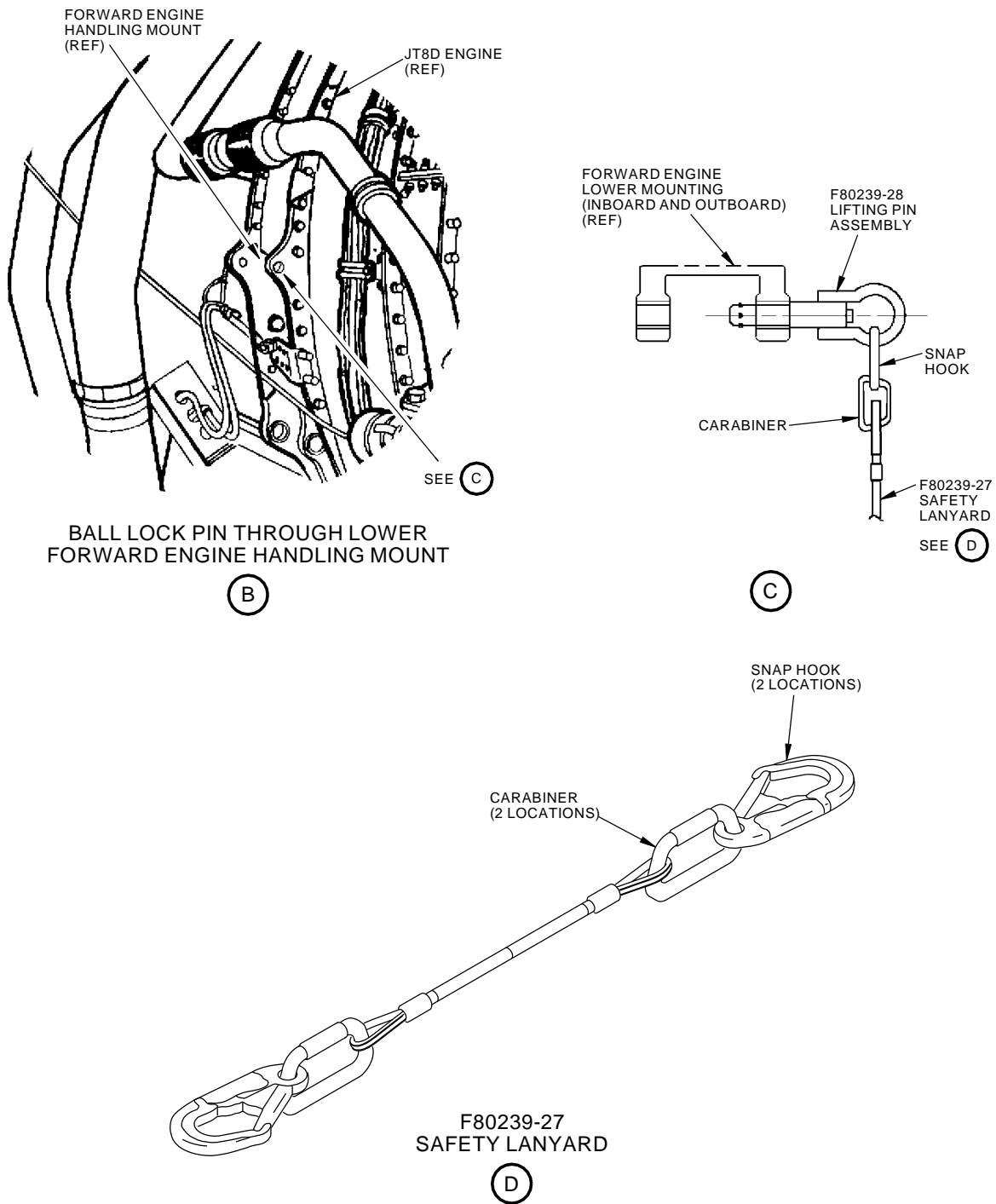
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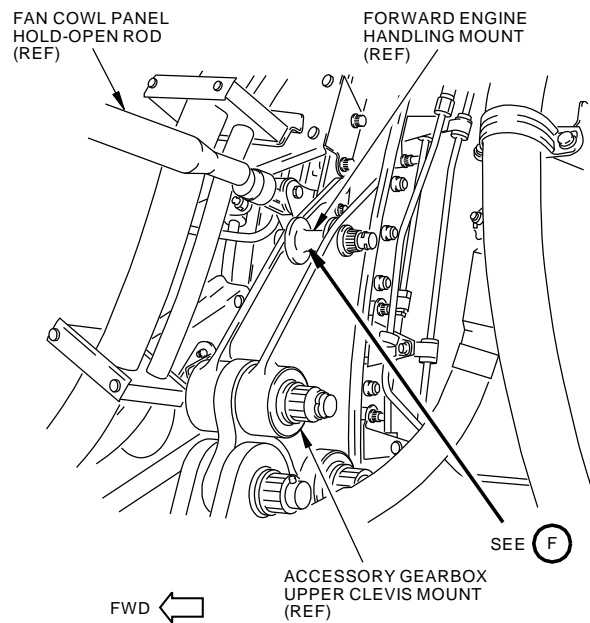
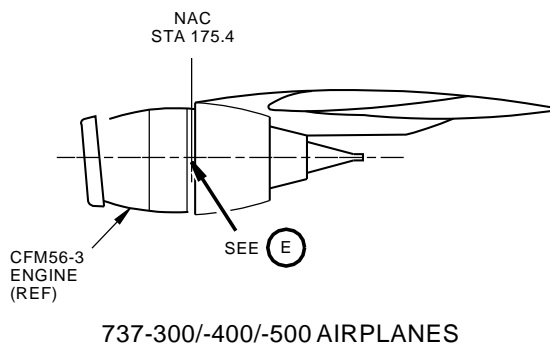
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**Engine Maintenance Personnel Safety Lanyard
Figure 1 (Sheet 2 of 4)**

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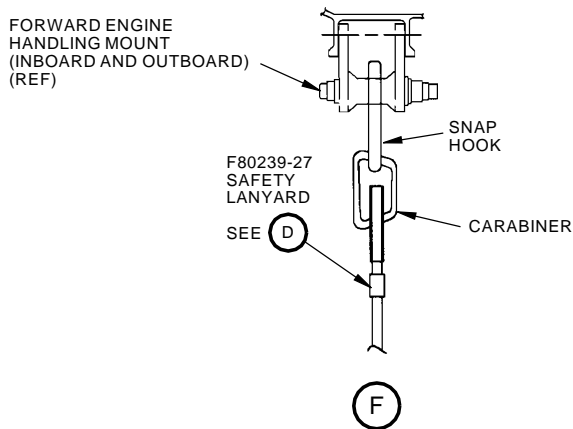


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**SNAP HOOK THROUGH FORWARD
ENGINE HANDLING MOUNT**

(E)



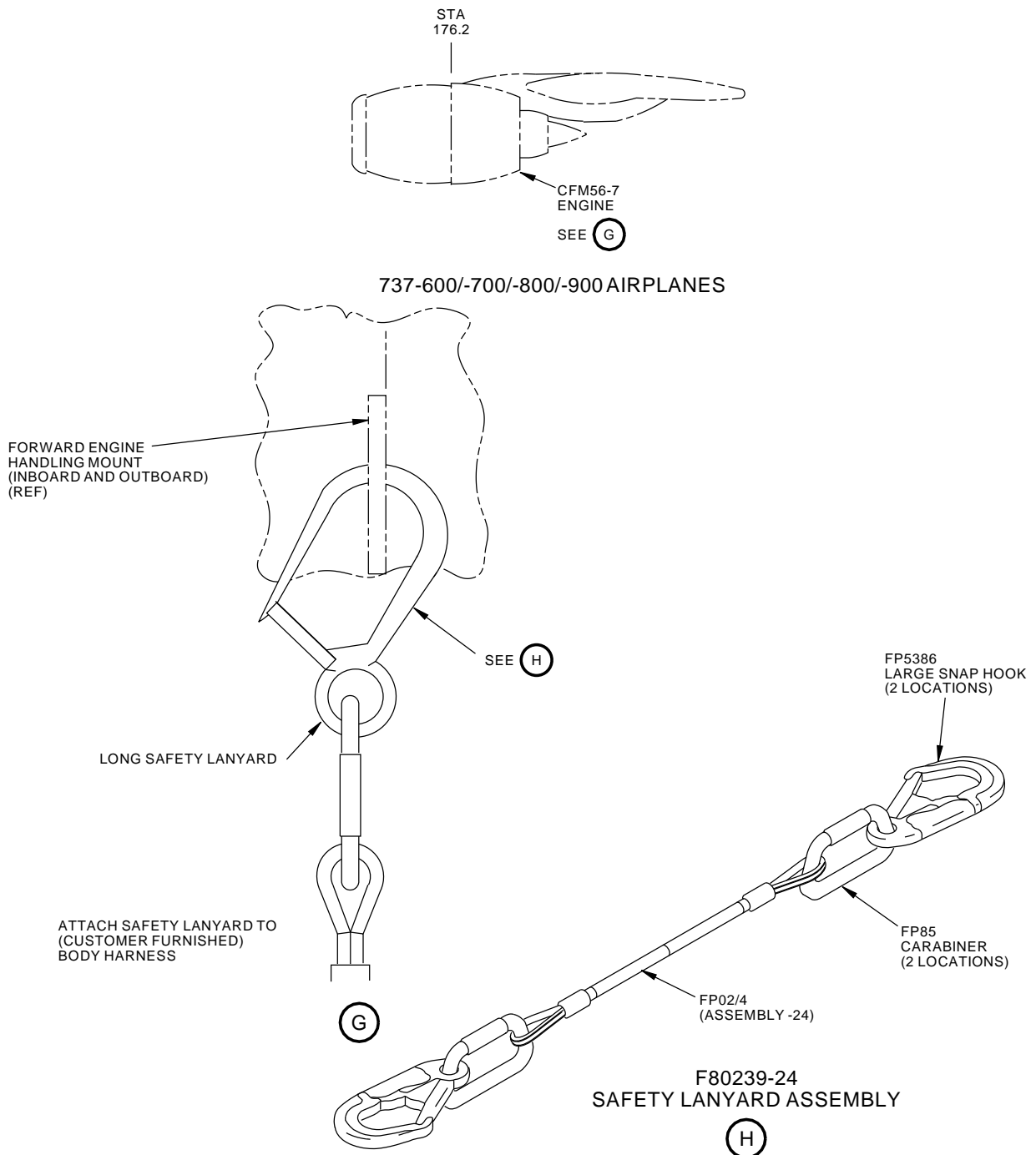
2079625 S0000432418_V1

Engine Maintenance Personnel Safety Lanyard
Figure 1 (Sheet 3 of 4)

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G81164 S0006832141_V4

**Engine Maintenance Personnel Safety Lanyard
Figure 1 (Sheet 4 of 4)**

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PART NUMBER: C71015-79, -83

NAME: ENGINE SLING EQUIPMENT - OVERHEAD SHOP HANDLING (CE)

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES

EGH, PPBU

USAGE & DESCRIPTION: The C71015-79 (option, non-CE qualified) engine sling equipment is used on all 737-300 thru -500 airplanes equipped with CFM56-3 engines.

The C71015-83 (preferred, CE qualified) engine sling equipment is used on 737-300 thru -900 airplanes equipped with either CFM56-3 or CFM56-7 engines.

C71015 is used during in-shop handling of a bare, or built-up, CFM56-3 or CFM56-7 engine.

Refer to the current C71015 drawing, Engine Ground Handling (EGH), CFM56-3, D6-37390 and 737-300/-400/-500 Powerplant Buildup Manual (PPBU), D6-37506 for usage instructions.

C71015-79 and -83 consist of:

C71015-79		
QUANTITY	NOMENCLATURE	PART NUMBER
1	ENGINE SLING BEAM	C71015-81
1	FRONT SPREADER ASSEMBLY	C71015-3
1	CRANK ASSEMBLY	C71015-57
1	CRANK HANDLE	C71015-9
1	REAR SPREADER ASSEMBLY	C71015-40
1	STORAGE BOX	

C71015-83		
QUANTITY	NOMENCLATURE	PART NUMBER
1	ENGINE SLING BEAM	C71015-84
1	FRONT SPREADER ASSEMBLY	C71015-85
1	CRANK ASSEMBLY	C71015-57
1	CRANK HANDLE	C71015-9
1	REAR SPREADER ASSEMBLY	C71015-40
1	FORWARD ATTACH ASSEMBLY (LEFT HAND)	C71015-69
1	FORWARD ATTACH ASSEMBLY (RIGHT HAND)	C71015-105
2	AFT ATTACH ASSEMBLY	C71015-76
1	STORAGE BOX	

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WEIGHT: 450 lbs (204 kg)

DIMENSIONS: 10 x 20 x 85 inches (254 x 508 x 2160 mm)

NOTE: C71015 supersedes C71007.

C71015-83 supersedes C71015-64, C71015-75 and C71015-80.

C71015-79 supersedes C71015-1 and C71015-56.

C71015-83 replaces C71015-79 for future procurement.

**DECLARATION OF
CONFORMITY:**

C71015-83 requires a written Declaration of Conformity from the C71015-83 fabricator if it is to be used in the European Union. The design of C71015-83 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C71015-83 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 C71015-83 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C71015-83 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS:

Refer to the current C71015 drawing, the 737 Engine Ground Handling Document and Powerplant Build-Up Manual 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.

Slings, Wire Rope: Maintenance and inspection of wire rope shall be performed in accordance with EN 1492-1, Section 6, Section Annex B and ASME B-30.9, Chapter 9-2.

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".

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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 C71015-83 engine sling equipment shall be performed per the current C71015 drawing proof load diagrams (example Figure 1) and:

- In conjunction with initial fabrication
- Subsequent to modification of this equipment (equipment shall only be modified in accordance with the C71015 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, Wire Ropes:

1. Visual inspection for damage shall be performed by the user or other designated person each day or shift the sling is used.

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2. Condition such as those listed in EN 1492-1, Section 6, Section Annex B and ASME B-30.9, paragraph 9.2.9.4 or any other condition 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.

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

Welding Inspection:

1. Magnetic particle or dye penetrant inspection for all welds, after all proof load tests.

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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.

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, Wire Ropes:

1. Wire rope inspection shall be conducted on the entire length, including splices, end attachments and fittings.
2. Wire rope inspection shall be examined for conditions listed in EN 1492-1, Section 6, Section Annex B and ASME B-30.9, paragraph 9.2.9.4.
3. Deficiencies found during the inspection are analyzed and the wire rope shall not be used, if deficiencies are determined to be hazardous.

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.
 - Cracked or worn gears, pulleys, sheaves, sprockets, bearings, chains and belts.
 - Excessive wear of linkages and other mechanical parts.

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- 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.

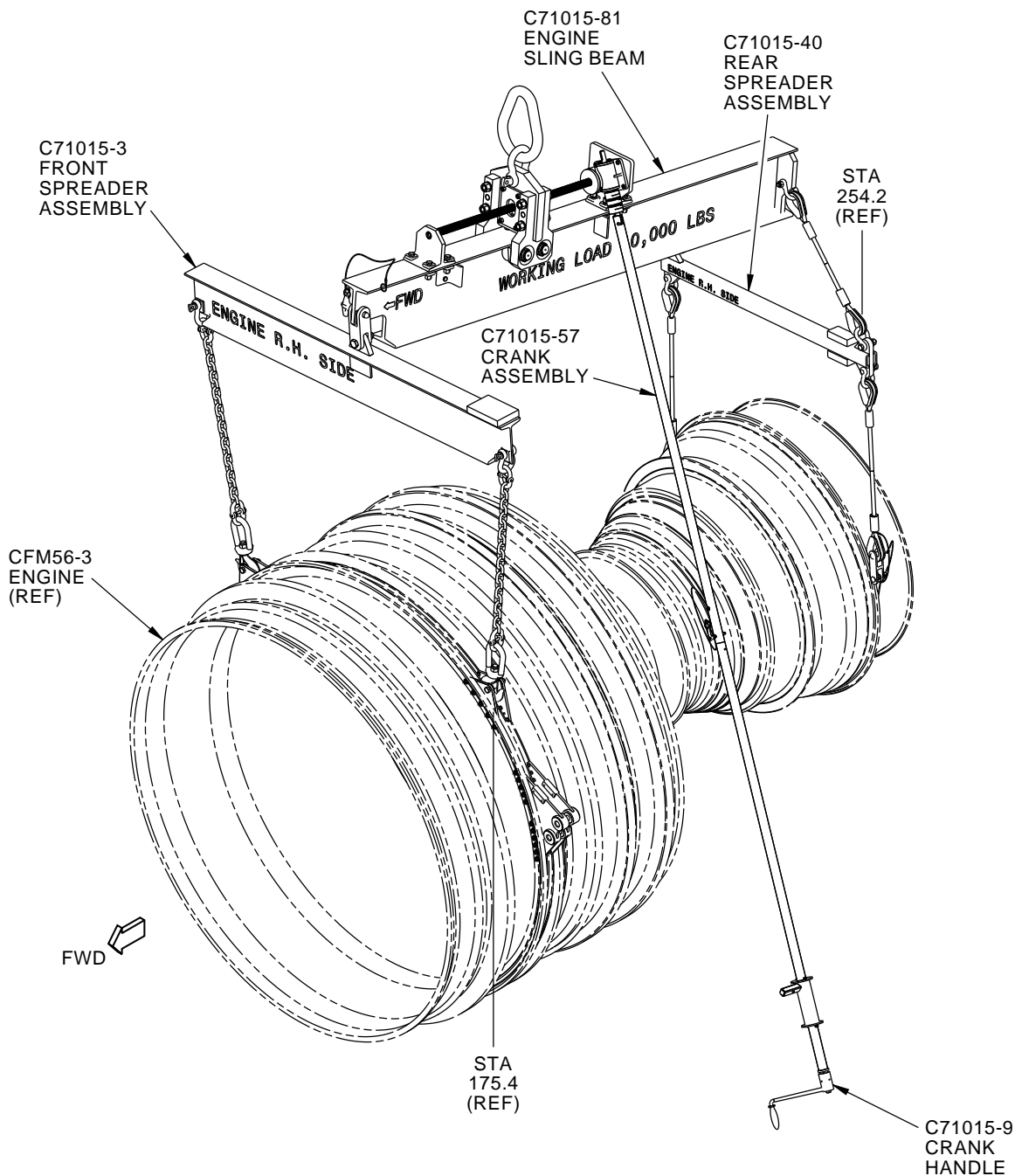
STORAGE: C71015-83 shall be stored clean, dry, and free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

DECOMMISSIONING: Part and assemblies of this equipment, including wire ropes and 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.

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2087200 S0000432509_V2

CFM56-7 Overhead Shop Handling Sling Equipment
Figure 1 (Sheet 1 of 2)

71-00-03

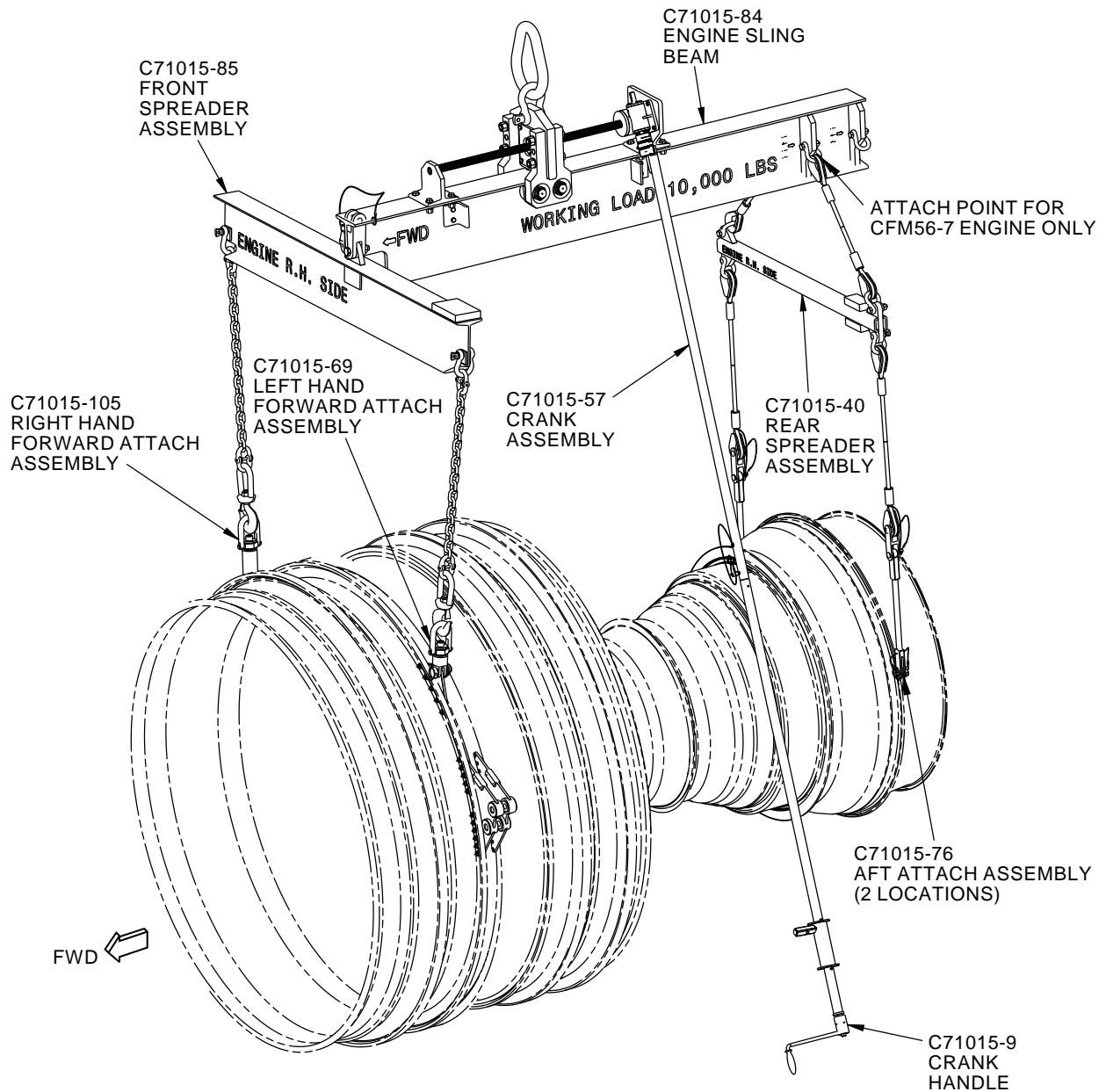
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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



2087204 S0000432511_V2

CFM56-7 Overhead Shop Handling Sling Equipment
Figure 1 (Sheet 2 of 2)

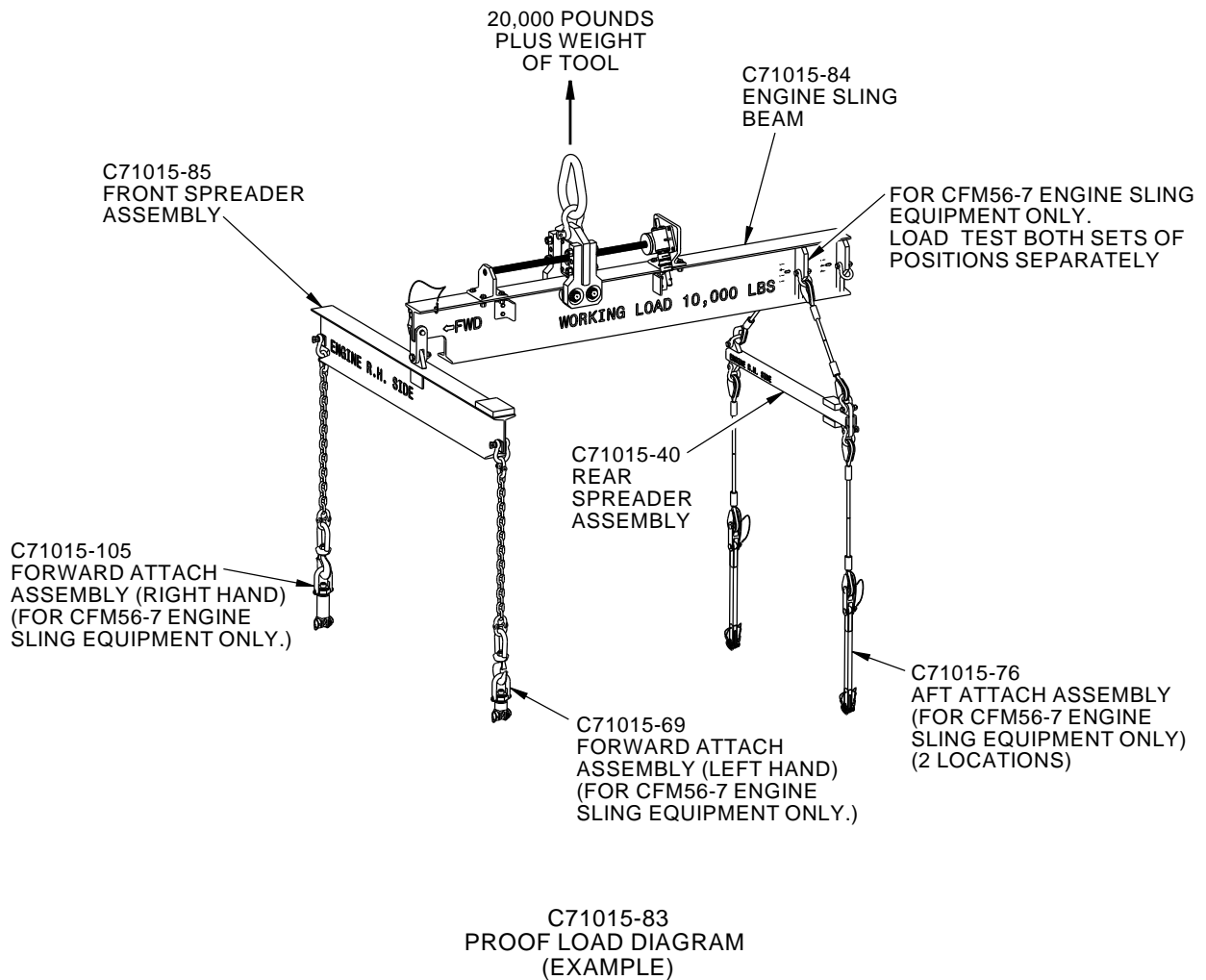
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2294905 S0000519638_V2

C71015-83 Proof Load Diagram (Example)
Figure 2

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PART NUMBER: C71025-1

NAME: SAFETY SCREEN - PERSONNEL BARRIER, CFM56-7 INLET (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-00-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C71025-1 (CE qualified) safety screen is used on 737-600 thru -900 airplanes equipped with CFM56-7 engines.

C71025 is used to prevent accidental ingestion of maintenance personnel during the CFM56-7 leak check sequence at idle speed.

Refer to AMM 71-00-00 and the current C71025 drawing for complete usage instructions.

C71025-1 consists of a circular screen assembly that fits inside the engine inlet cowl and is held in place by strap assemblies that tie to the ground support equipment points on the outside of the cowl.

WEIGHT: 50 lbs (22.7 kg)

DIMENSIONS: 20 x 60 x 84 inches (508 x 1524 x 2134 mm)

DECLARATION OF CONFORMITY: C71025 requires a written Declaration of Conformity from the C71025 fabricator if it is to be used in the European Union. The design of C71025 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C71025 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 C71025 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C71025 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current C71025 drawing and the AMM 71-00-00 procedures for detailed instructions on the use of this equipment. C71025 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.

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.

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INSPECTION: FREQUENT

General Inspection (before use):

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

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.

Casters and Brakes:

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

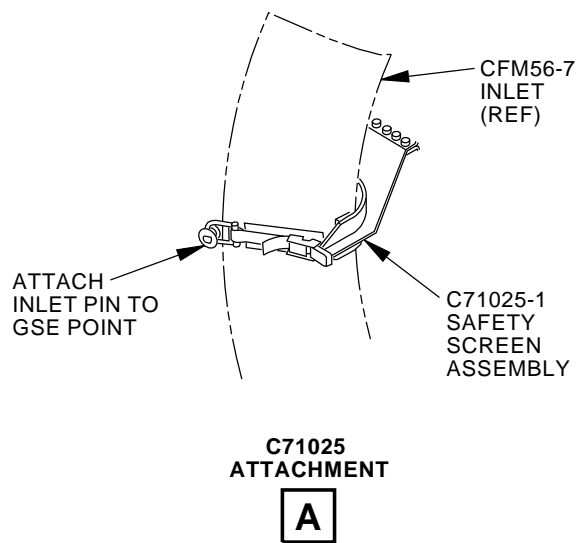
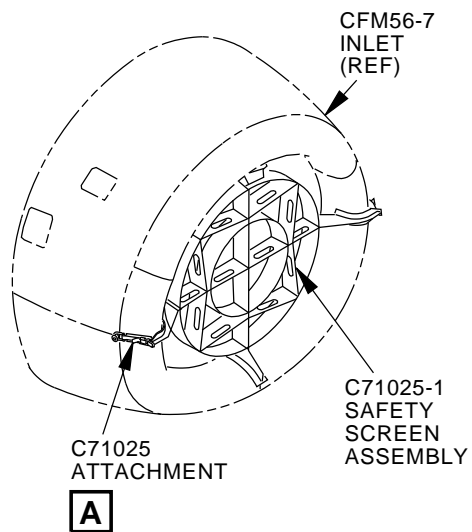
STORAGE: C71025 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

DECOMMISSIONING: Parts and assemblies of C71025 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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L41586 S0006832145_V3

CFM56-7 Inlet Personnel Barrier Safety Screen
Figure 1

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PART NUMBER: C71023-1

NAME: PROOF LOAD FIXTURE - BOOTSTRAP

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES

TOOL DRAWING C71023

USAGE & DESCRIPTION: The C71023-1 proof load fixture is applicable for 737-600 thru -900 airplanes using the C71020 CFM56-7 engine bootstrap equipment.
C71023 is used to proof load the CFM56-7 C71020 engine bootstrap components.

C71023 requires a customer-furnished hoist, two each shackles, and dynamometers with a minimum 8000 pound capacity.

Refer to the C71020 and C71023 drawings for complete usage instructions.

C71023-1 consists of:

C71023-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	PROOF LOAD FIXTURE	C71023-2
1	HOIST CHAIN ASSEMBLY	C71023-10

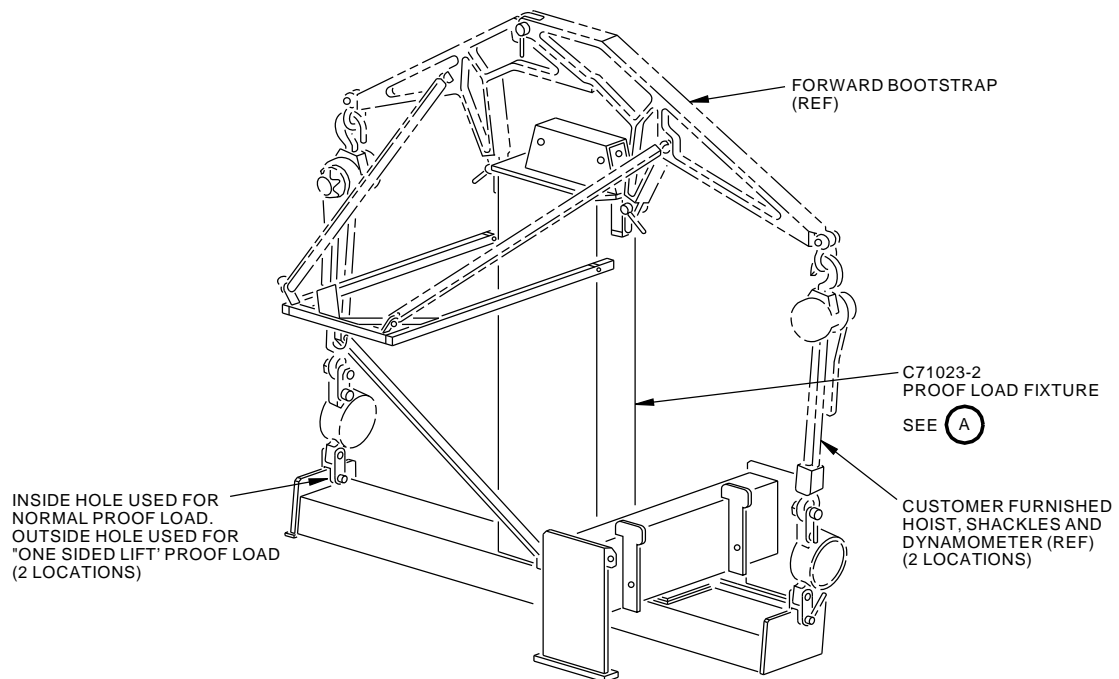
WEIGHT: 400 lbs (182 kg)

DIMENSIONS: 34 x 68 x 52 inches (864 x 1727 x 1321 mm)

71-00-05



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M27171 S0006832147_V3

Bootstrap Proof Load Fixture Usage
Figure 1

71-00-05

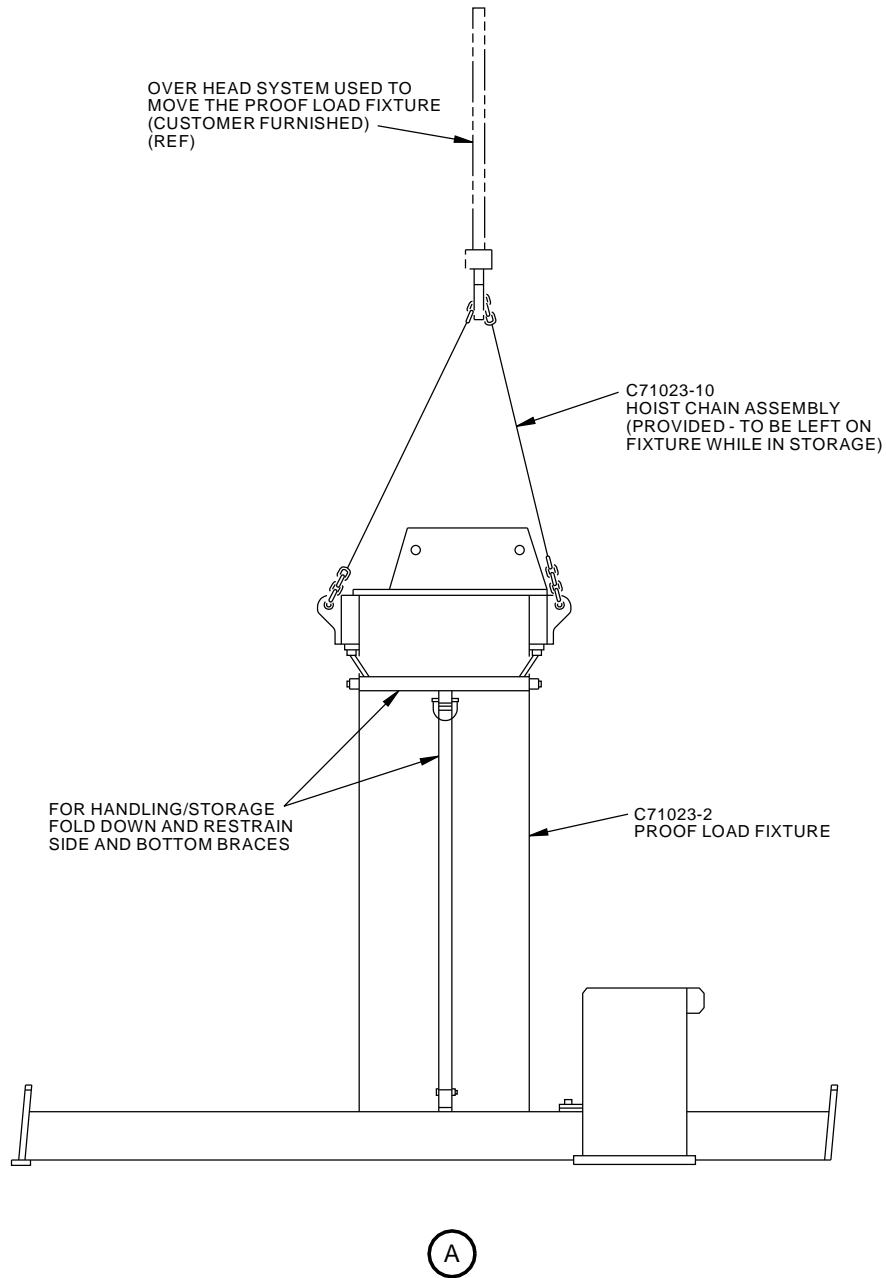
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**737-600/700/800/900
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M27197 S0006832148_V3

**Bootstrap Proof Load Fixture Handling/Storage
Figure 2**

71-00-05

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: C71028

NAME: SPECIFICATION - INTERFACE CONTROL, CFM56-7 BOOTSTRAP/
GROUND HANDLING

AIRPLANE MAINTENANCE: YES
AMM 71-00-07

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES
EGH

USAGE & DESCRIPTION: This is a specification for Bootstrap Ground Handling Equipment interfaces with the CFM56-7 engine. 737-600 thru 737-900.

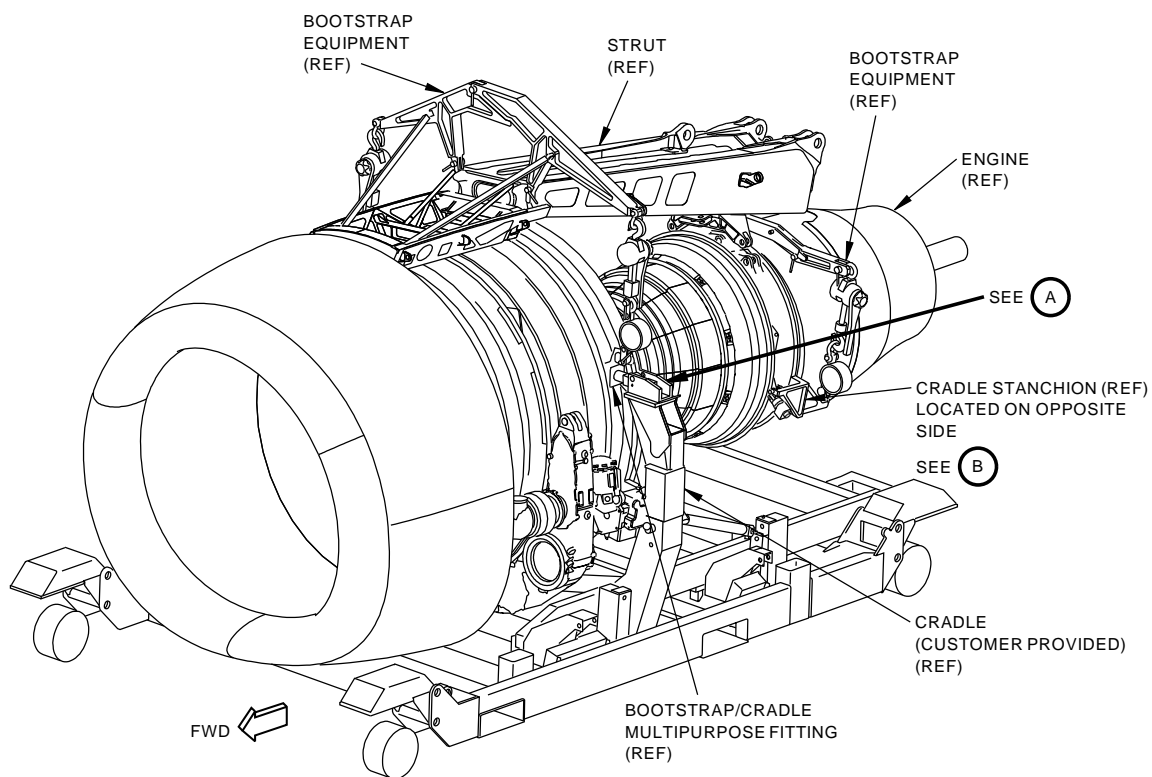
WEIGHT: See specification drawing and approval requirements

DIMENSIONS: See specification drawing and approval requirements

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N86797 S0006832150_V2

Bootstrap Equipment
Figure 1

71-00-06

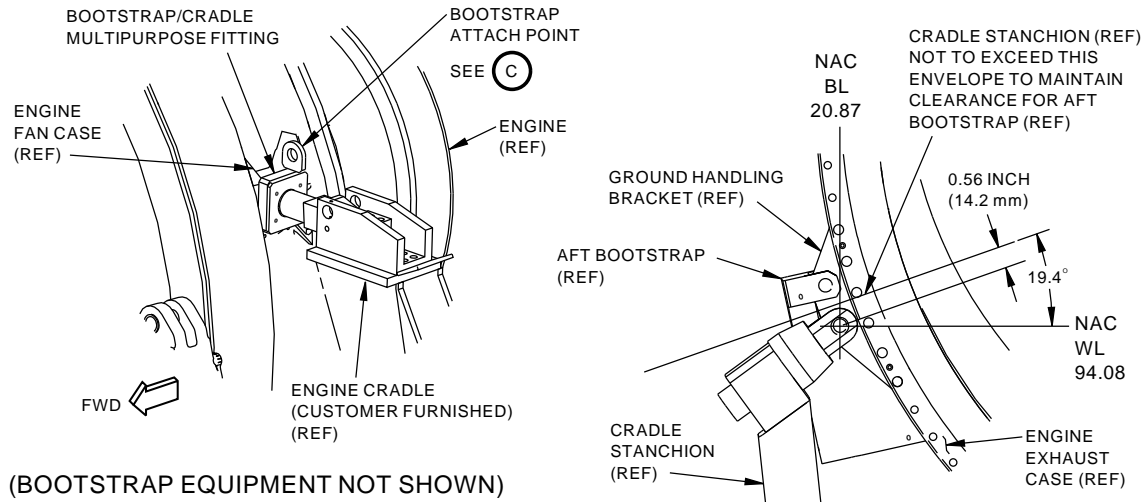
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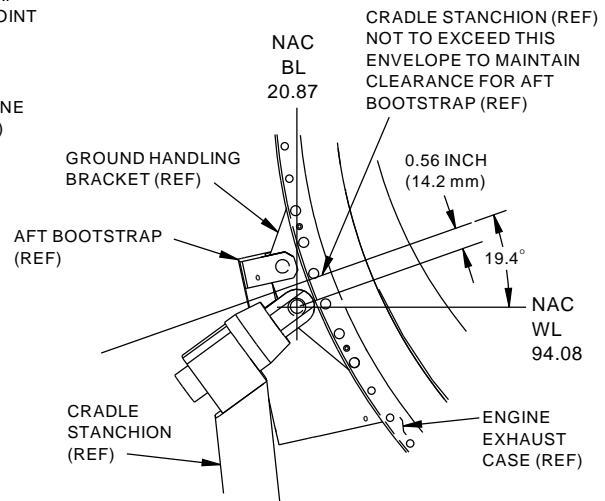
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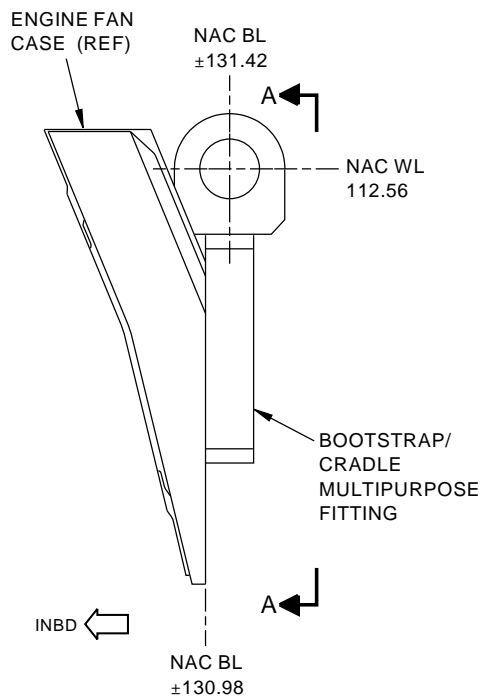


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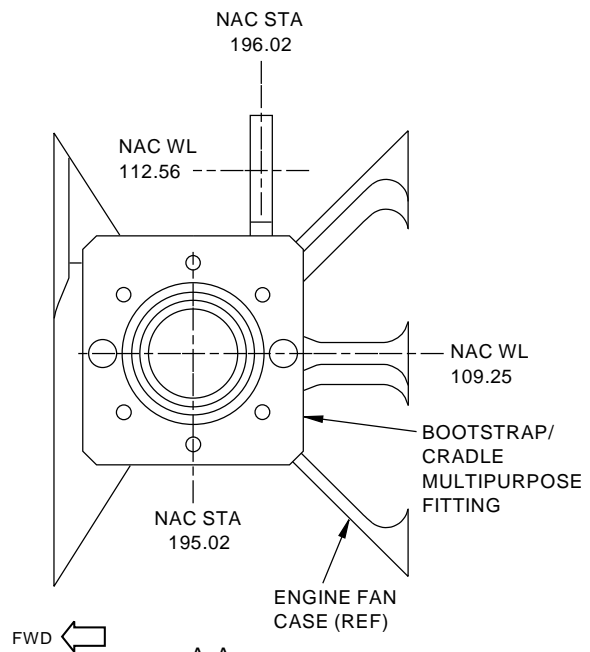
VIEW IN THE AFT DIRECTION
(OPPOSITE SIDE IS SHOWN)

(B)



BOOTSTRAP ATTACH POINT

(C)



N87025 S0006832151_V2

Bootstrap/Cradle Attach Points
Figure 2

71-00-06



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: J71046

NAME: SPECIFICATION - LOAD CELL EQUIPMENT

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES

TOOL DRAWING J71046

USAGE & DESCRIPTION: The J71046 load cell equipment specification is used on all 737 airplanes. The J71046 specification is used to define requirements for load cell equipment for use in overhead lifting applications.

The load cell equipment consists of a digital load cell connected to a display by an electrical cable. The required capacity and reach of the load cell equipment are provided on the referring drawing. The load cell equipment must meet or exceed the following requirements:

1. Accuracy: +/- 0.5% of the rated capacity.
2. Operable temperature range: -20 to 125 degrees F.
3. Ultimate Safety Factor: 5 times the rated capacity.
4. Proof Load: 2 times the rated capacity.
5. Safe overload with no change in zero: 1.2 times the rated capacity.
6. Resolution (display increments): 0.1% of rated capacity.
7. Display refresh rate: 2 times/second.
8. Sampling rate: 2 times/second.
9. Calibration of the load cell equipment to be performed as an integrated system.
10. Certification: Initial certification of the unit required by manufacturer. Certification interval to be determined by user but should not exceed 365 days.
11. Corrosion protection: All exposed parts must be produced from corrosion resistant materials or have adequate plating or coating to protect the parts from corrosion. The electrical system must be weatherproof and rated for outdoor use.
12. Equipment storage: A case should be provided for storage of the load cell, display and electrical cable. The case should be waterproof, impact resistant and made to protect the load cell equipment components.
13. The load cell must be either a tension link or shackle pin. The load cell must interface with commercially available shackles of similar size and capacity.

Additional display requirements:

71-00-07



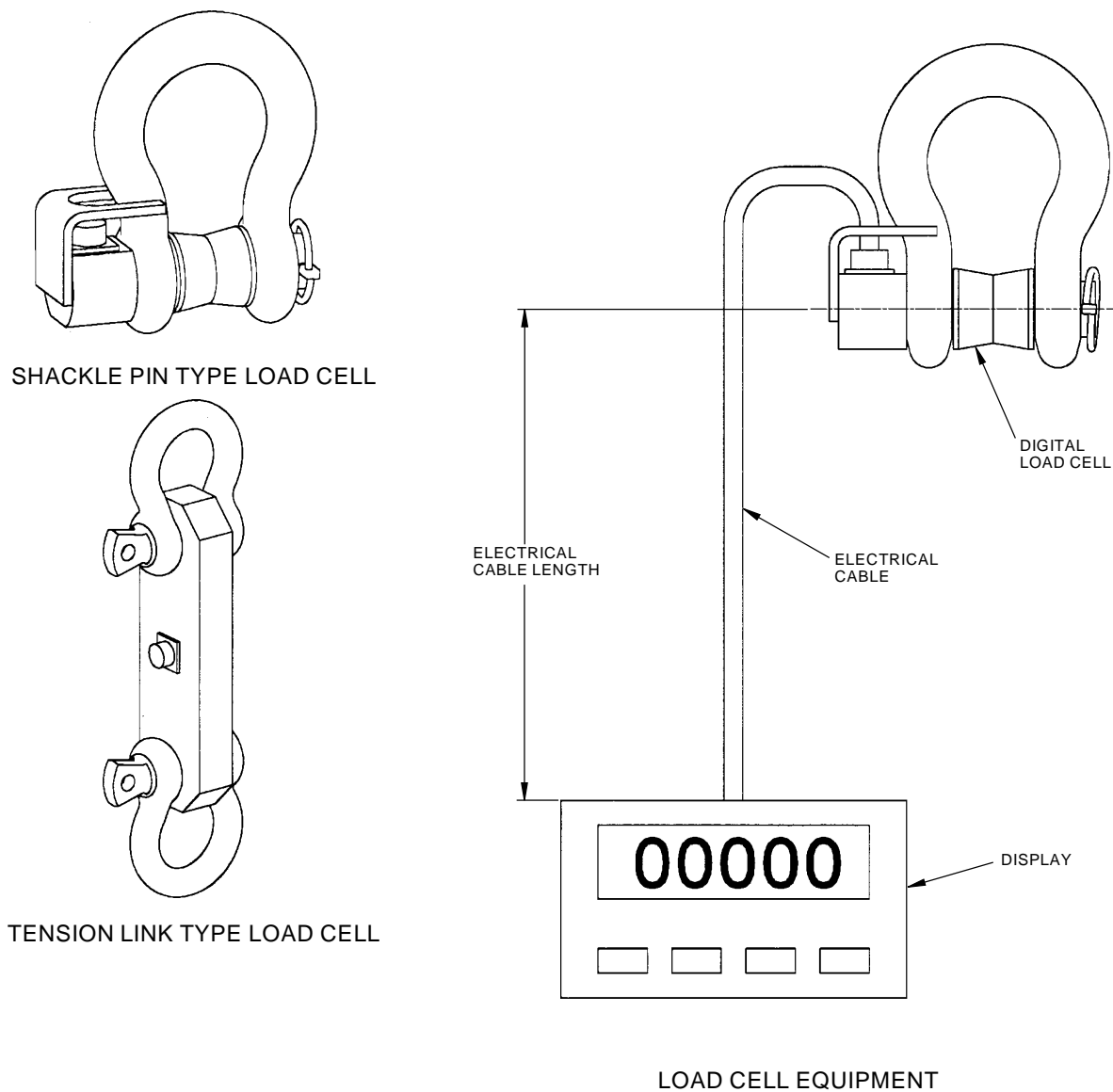
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1. The display must be hand held and constructed of impact resistant materials. The display must be digital and have the number of digits sufficient to show the entire whole number value of the safe overload capacity of the load cell equipment.
2. The display must be battery powered and use standard type batteries. The batteries must be easy to remove and replace. The display should have a low battery indicator and an auto-off feature to conserve battery power.
3. The display should have a feature that records and displays the maximum load reached during each use. The recorded value should be able to be reset by the operator.
4. The display must be marked "CE".

Additional electrical cable requirements:

1. The electrical cable must have adequate length to reach the height specified on the referring drawing. The electrical cable must have an abrasion resistant cover to protect the electrical cable from damage during equipment use.

71-00-07



1755198 S0000316535_V1

Load Cell Equipment Specification
Figure 1

71-00-07



**737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL**

PART NUMBER: C12001-35, -38

NAME: GUARD - INLET, ENGINE RUN-UP (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-00-00

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C12001-35 (option, non-CE qualified) or C12001-38 (preferred, CE qualified) engine run-up inlet guard is used on all 737-100 thru -900 airplanes.

C12001 is a barrier which is used to protect personnel from being sucked into the fan of the engine during engine run-up.

Refer to AMM 71-00-00 and the current C12001 drawing for complete usage instructions.

C12001 is a semi-circular, fenced body, fabricated of welded steel tubing with two sliding gates which fit around the inlet of the engine. C12001 includes casters and a towing tongue.

WEIGHT: 200 lbs (91 kg)

DIMENSIONS: 100 x 130 x 70 inches (2540 x 3302 x 1778 mm)

NOTE: C12001-38 replaces C12001-35 for future procurement.

DECLARATION OF CONFORMITY: C12001-38 requires a written Declaration of Conformity from the C12001-38 fabricator if it is to be used in the European Union. The design of C12001-38 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C12001-38 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 C12001-38 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C12001-38 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current C12001-38 drawing and the AMM 71-00-00 procedures for detailed instructions on the use of this equipment. C12001-38 shall only be used in conjunction with Boeing maintenance procedures to maintain Boeing airplanes.

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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.

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.

INSPECTION: FREQUENT

General Inspection (before use):

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

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.

Casters and Brakes:

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

STORAGE: C12001-38 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

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DECOMMISSIONING: Parts and assemblies of C12001-38 shall be permanently altered to prevent their unauthorized reuse. Recycling is the preferred manner of disposal for those materials where that option is available.

71-00-08

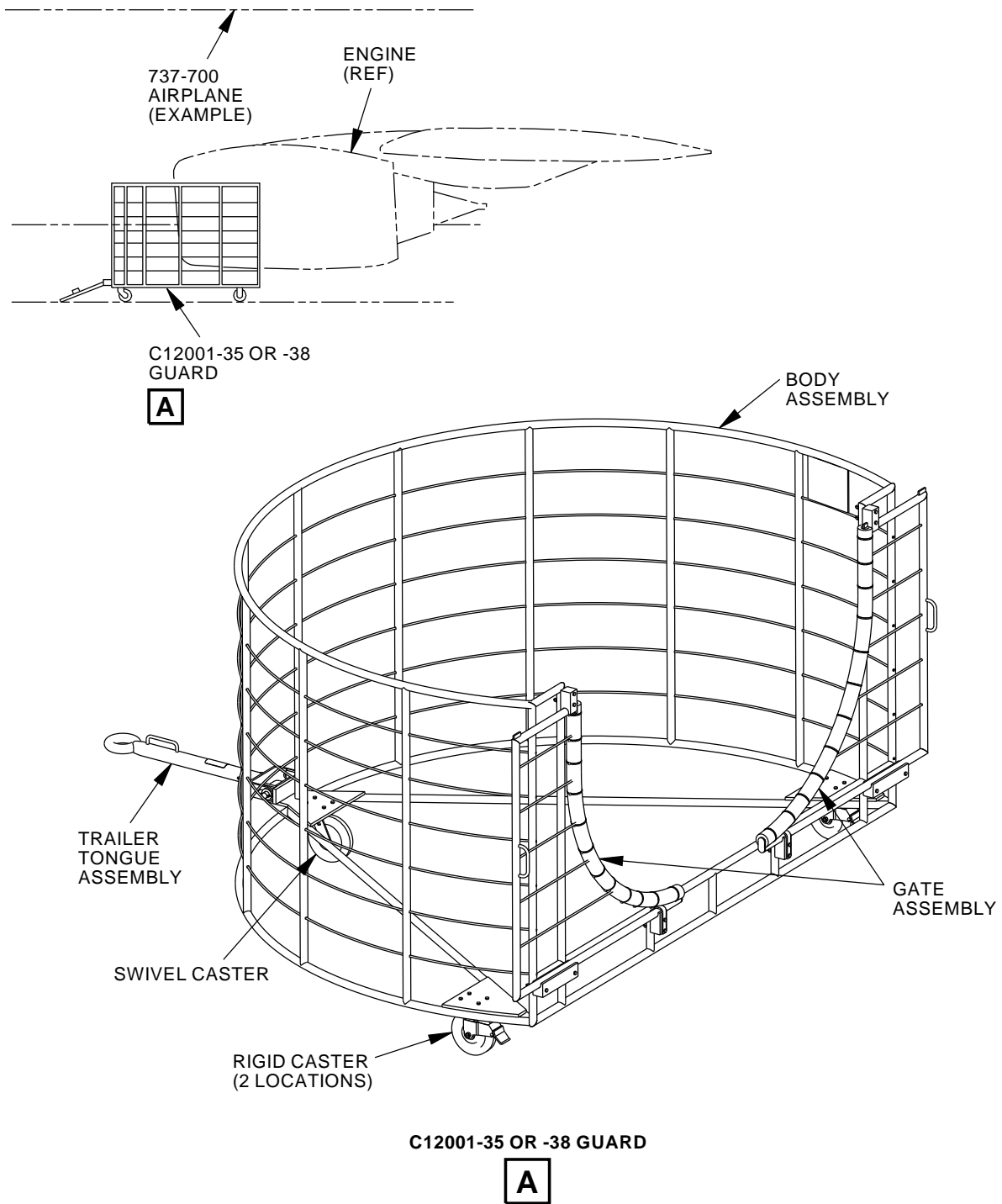
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Inlet Engine Run-Up Guard
Figure 1

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PART NUMBER: J71044

NAME: SPECIFICATION - LEVER OPERATED CHAIN HOIST (CE)

AIRPLANE MAINTENANCE: YES

COMPONENT MAINTENANCE: YES

USAGE & DESCRIPTION: The J71044 specification is used on all 737 airplanes.

J71044 is a specification control drawing that defines the requirements for lever operated chain hoists in ground support equipment overhead lifting applications. J71044 provides information for the qualification, test and purchase of a manual chain hoisting system. Qualified hoist manufacturers include:

Ingersoll-Rand Material Handling (ASME B30.21 qualified, all hoists meet "CE" standards and include "CE" standards and include "CE" mark)
20017 72nd Avenue South
Kent, WA 98032

Morgan Aero Products (ASME HST-3, Appendix A, qualified hoists built to "CE" standards, on request "CE" mark is available)
1450 80th Street Southwest
Everett, WA 98203

Harrington Hoists, Incorporated (ASME B30.21 qualified, all hoists do not have "CE" mark)
2341 Pomona Road, Number 103
Corona, CA 92880

Columbus McKinnon Industrial Products GMBH (Machinery Directive 2006/42/EC qualified, all hoists meet "CE" standards and include "CE" mark)
Yale-Allee 30
42329 Wuppertal, Germany

Kito Europe GMBH (Machinery Directive 2006/42/EC qualified, all hoists meet "CE" standards and include "CE" mark)
Heerdter Lohweg 93
40549 Dusseldorf, Germany

Lever operated chain hoists shall be built in accordance with ASME HST-3, Appendix A or equivalent. Alternatively, lever operated chain hoists shall be in accordance with ASME B30.21 or equivalent. All hoists shall meet J71044 test requirements.

The hoist mechanism shall be closed or shielded to minimize operator injury and shall be designed to prevent the free chain condition from occurring under any load up to its rated capacity. Alternatively, the free chain capability can be disabled by the hoist manufacturer or their agent.

The hoist must be proof load tested to 1.25 times the manufacturer's rated capacity.

Unless otherwise specified on the referring tool drawing, the suspension and load fittings shall be hooks equipped with safety latches.

ASME HST-3, Appendix A hoists are designed and built to a safety factor of 5, while ASME B30.21 hoists are designed and built to a safety factor of 4. Since all Boeing overhead lifting equipment shall be designed to a safety factor of 5, Boeing accounts for the reduced safety factor of ASME

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B30.21 hoists by listing a larger hoist capacity on the referring tool drawing.

Refer to the J71044 drawing for complete specification requirements.

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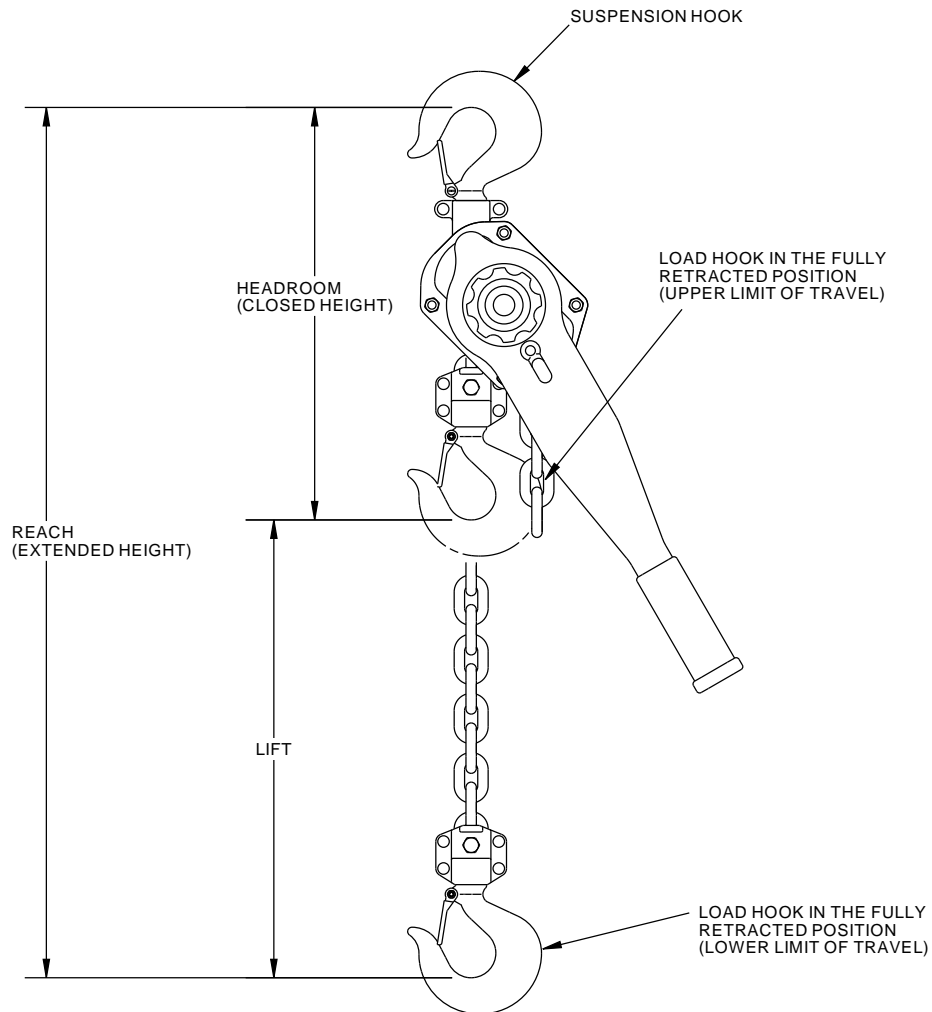
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J71044
SINGLE REEVED LEVER OPERATED CHAIN HOIST

2165036 S0000474135_V1

Lever Operated Chain Hoist Specification
Figure 1 (Sheet 1 of 2)

71-00-38

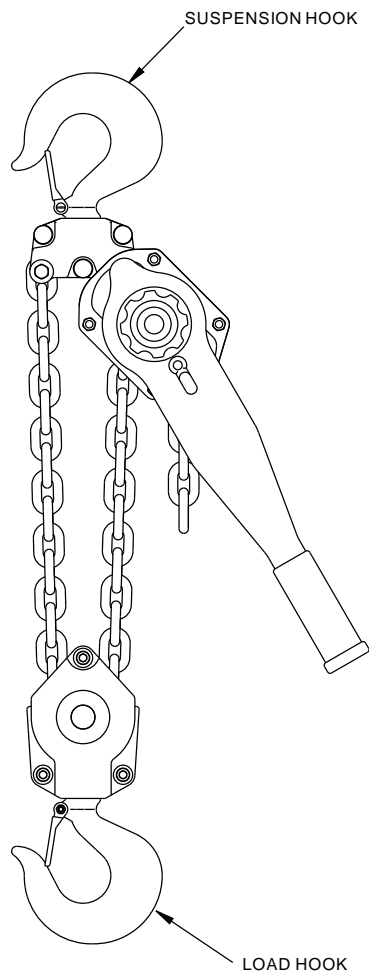
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**J71044
MULTIPLE REEVED LEVER OPERATED CHAIN HOIST**

2165041 S0000474137_V1

**Lever Operated Chain Hoist Specification
Figure 1 (Sheet 2 of 2)**

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PART NUMBER: J71047-1

NAME: STORAGE CART - SUPPORT EQUIPMENT

AIRPLANE MAINTENANCE: NO

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES

J71047 Drawing

USAGE & DESCRIPTION: The J71047-1 storage cart is used for all 737 airplanes.

J71047 is a "shadow style type" tool storage container. J71047 is a towable, castered, storage container for engine installation and removal tooling (bootstrap) equipment. J71047 also includes forklift slots and three, watertight, 12.5 x 19 x 23 inches (317.5 x 584 mm) storage cases with rollers. The main J71047 storage cabinet is over 60 inches (1524 mm) high, eliminating the need for workers to bend when lifting heavy bootstrap components.

Refer to the current J71047 drawing for complete dimensions and usage instructions.

J71047-1 consists of:

J71047-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	CART ASSEMBLY	J71047-2
2	TOWBAR ASSEMBLY	J71047-3
3	STORAGE CASE	J71047-4
1	TIEDOWN STRAP	J71047-85

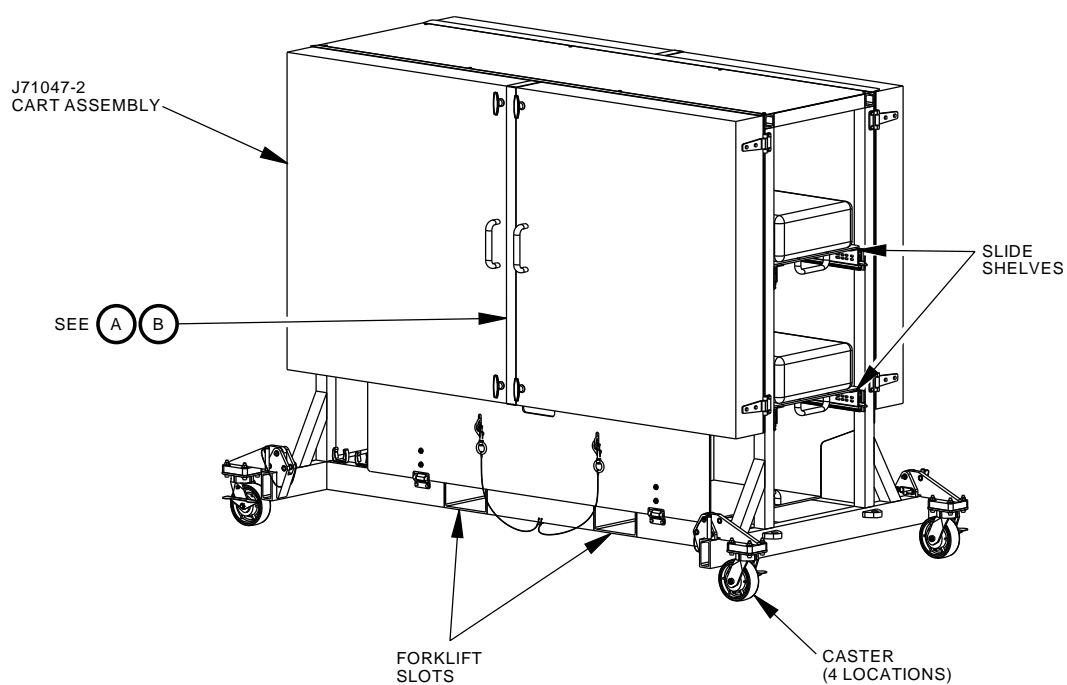
WEIGHT: 1000 lbs (454 kg)

DIMENSIONS: 49 x 68 x 104 inches (1245 x 1727 x 2642 mm)

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2291742 S0000517528_V1

Support Equipment Storage Cart
Figure 1 (Sheet 1 of 2)

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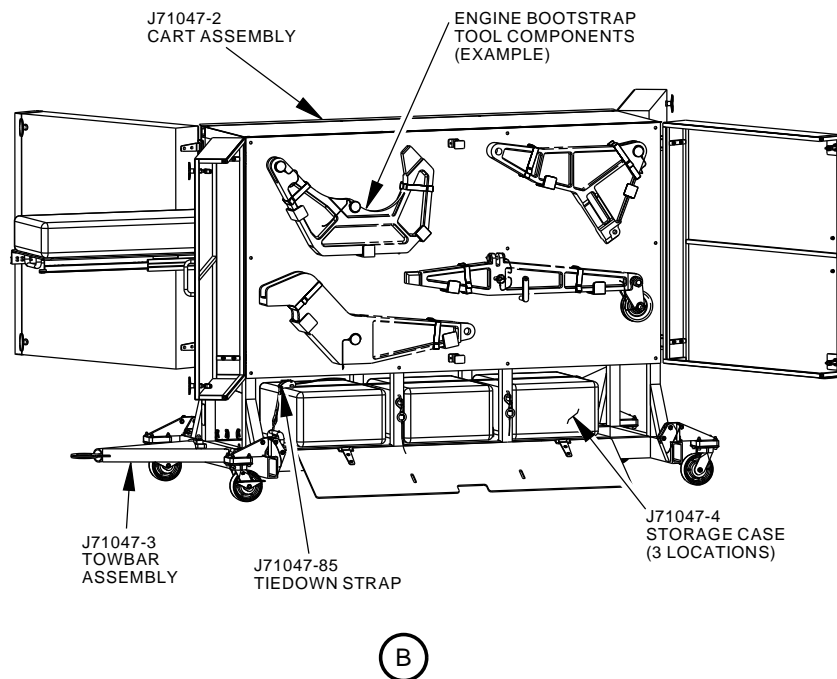
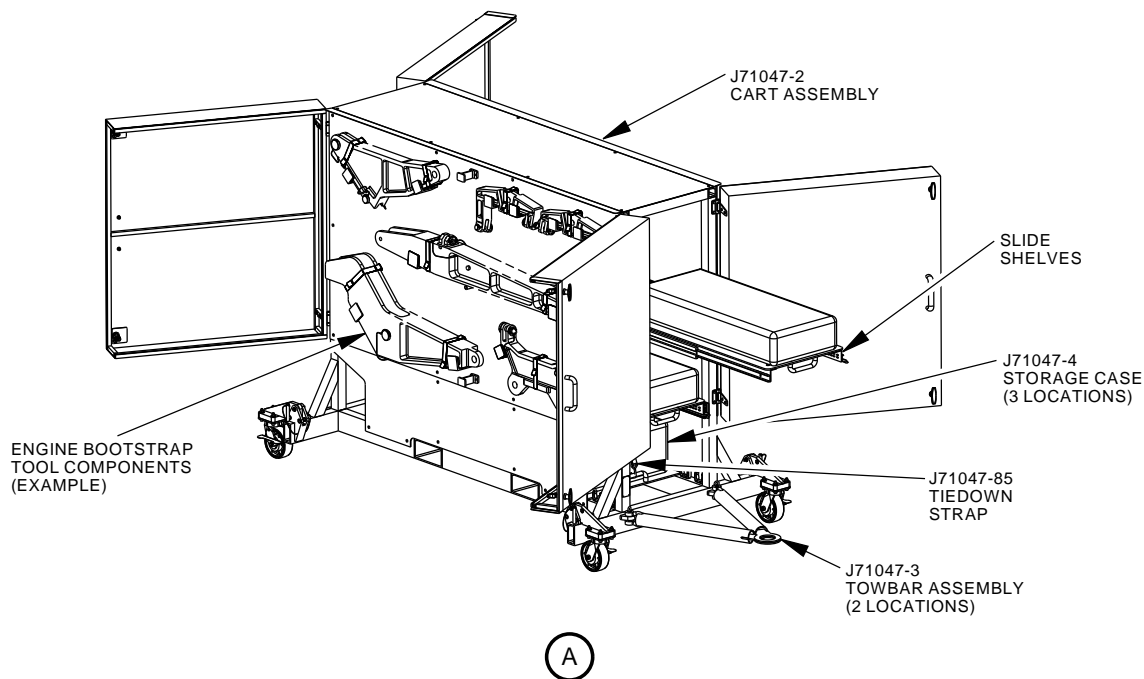
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2291748 S0000517529_V1

Support Equipment Storage Cart
Figure 1 (Sheet 2 of 2)

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: B71040-38, -39

NAME: SLING EQUIPMENT - INLET COWL (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-11-01

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The B71040-38 or -39 (preferred, CE qualified) sling equipment are used on all 737-600 thru -900 airplanes.

B71040 is used in conjunction with a customer-furnished overhead lift and dynamometer (500 lb. capacity, minimum) to remove and install the inlet cowl on the CFM-56-7 engines.

Refer to the current B71040 drawing and AMM 71-11-01 for complete usage instructions.

B71040-38 and -39 consist of:

B71040-38		
QUANTITY	NOMENCLATURE	PART NUMBER
4	LIFTING STRAP ASSEMBLY	B71040-25
1	LIFTING SLING ASSEMBLY	B71040-32
2	CHAIN HOIST	B71040-40
2	CHAIN BAG	B71040-41 ^{*[1]} (A1234-7)
1	WELDLESS SLING LINK	B71040-42 (G-341-5/8)
1	STORAGE BOX	

*[1] OPTIONAL EXCEPT FOR MORGAN AERO PRODUCTS LEVER HOISTS. CUSTOMER FURNISHED FOR ALL OTHER HOISTS.

B71040-39		
QUANTITY	NOMENCLATURE	PART NUMBER
4	LIFTING STRAP ASSEMBLY	B71040-24
4	LIFTING STRAP ASSEMBLY	B71040-25
1	LIFTING SLING ASSEMBLY	B71040-32
2	CHAIN HOIST	B71040-40
2	CHAIN BAG	B71040-41 ^{*[1]} (A1234-7)
1	WELDLESS SLING LINK	B71040-42 (G-341-5/8)
1	STORAGE BOX	

*[1] OPTIONAL EXCEPT FOR MORGAN AERO PRODUCTS LEVER HOISTS. CUSTOMER FURNISHED FOR ALL OTHER HOISTS.

WEIGHT: B71040-38 or -39 - 120 lbs (54 kg)

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DIMENSIONS: B71040-38 or -39 - 18 x 24 x 120 inches (457 x 610 x 3048 mm)

NOTE: B71040-39 replaces B71040-38 for future procurement.
B71040-38 and B71040-39 supersede B71040-22 and B71040-23 respectively.

DECLARATION OF CONFORMITY: B71040-39 requires a written Declaration of Conformity from the B71040-39 fabricator if it is to be used in the European Union. The design of B71040-39 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of B71040-39 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 B71040-39 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of B71040-39 for a replacement Declaration of Conformity.

OPERATING INSTRUCTIONS: Refer to the current B71040-39 drawing and the 737 Airplane Maintenance Manual procedures for detailed instructions on the use of this equipment. B71040-39 shall only be used in conjunction with Boeing 737 Airplane Maintenance Manual procedures for removal or installation of the vertical fin assembly on 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, Synthetic: Maintenance and inspection of synthetic shall be performed in accordance with ASME B-30.9, Chapter 9-5 and 9-6.

Structural and Mechanical Lifting Devices, (supporting lifters, spreader bars):

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.

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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.
1. Dated records of repairs and replacements shall be made.
2. Adjustments and repairs. Any hazardous conditions disclosed by the inspection requirements of ASME B-30.21, para. 21-1.3.1 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 B71040-39 sling equipment shall be performed per the current B71040-39 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 B71040-39 drawing)
 - after repair of load carrying components
 - after replacement of load carrying components.
- Continuing integrity/safety of the device to be assured by inspection.
- 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, Webbing:

1. Visual inspection for damage shall be performed by the user or other designated person each day or shift the sling is used.
2. Slings shall not be returned to service until approved by a qualified person.

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3. A written record of frequent inspections is not required.
4. Conditions detailed below and in EN 1492-1, Section 6, Section Annex B and ASME B-30.9, or conditions that may result in a hazard shall cause the sling to be removed from service.
 - Red warning yarns visible.
 - Acid or caustic burns.
 - Melting or charring of any part of the sling surface.
 - Snags, punctures, tears or cuts.
 - Broken or worn stitches in load bearing splices.
 - Excessive abrasive wear.
 - Knots in any part of the sling.
 - Discoloration and brittle or stiff areas on any part of the sling.
 - Distortion of fittings.
 - Missing or illegible sling tag.

Structural and Mechanical Lifting Devices (supporting lifters, spreader bars):

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.

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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, Synthetic: The straps 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.

Structural and Mechanical Lifting Devices (supporting lifters, spreader bars):

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

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- 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.

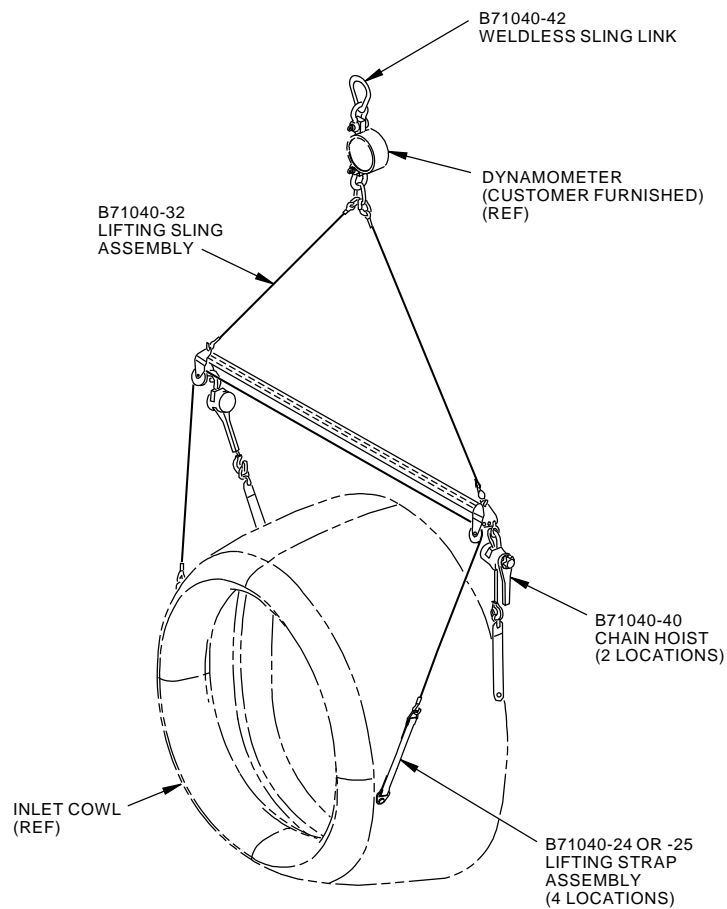
STORAGE: B71040-39 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

DECOMMISSIONING: Parts and assemblies of this equipment, including textile 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.

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Inlet Cowl Sling Equipment
Figure 1

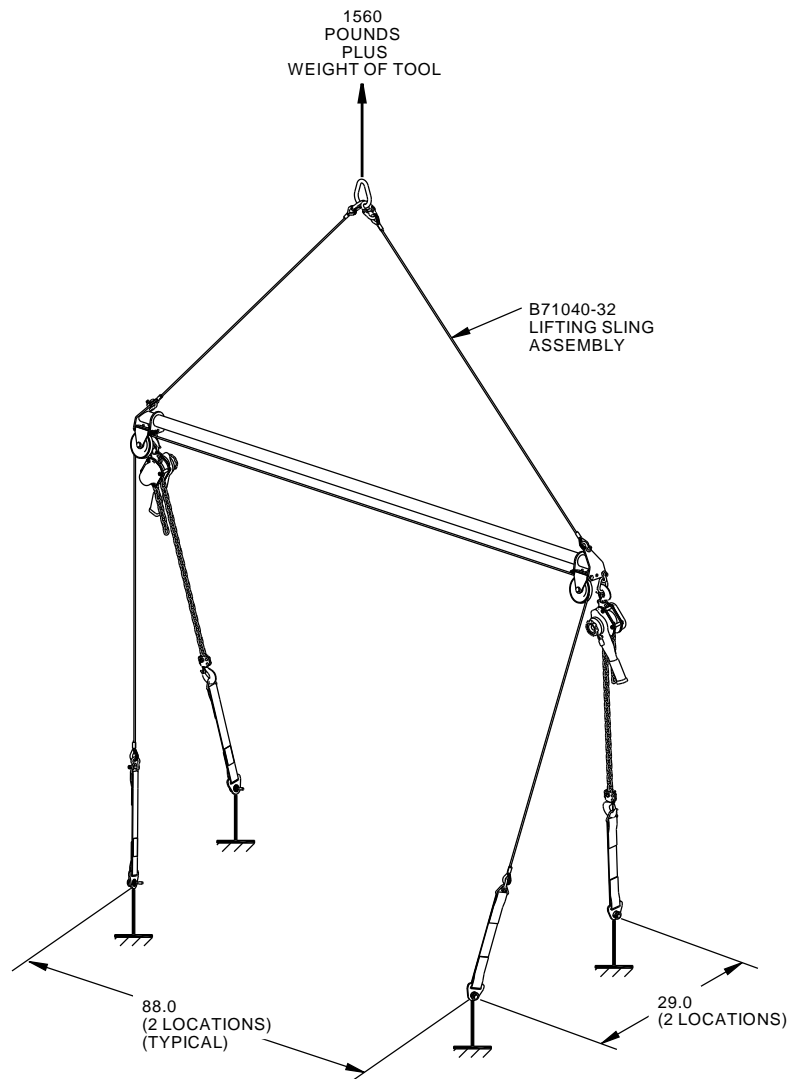
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**B71040-39
PROOF LOAD DIAGRAM
(EXAMPLE)**

WORKING LOAD IS 780 POUNDS. PROOF TEST LOAD IS 2 TIMES THE WORKING LOAD. PROOF LOAD AT INITIAL FABRICATION AND AFTER MODIFICATION/REPAIR. AFTER PROOF LOAD TEST, STEEL STAMP PROOF LOAD TAG PER DRAWING F70308.

2339474 S0000532857_V1

**B71040 Proof Load Diagram (Example)
Figure 2**

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PART NUMBER: C71027-1

NAME: INSTALLATION/REMOVAL FRAME EQUIPMENT - INLET COWL (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-11-01

COMPONENT MAINTENANCE: NO

OTHER MANUALS: YES

PPBU 71-00-02

USAGE & DESCRIPTION: The C71027-1 (CE qualified) installation/removal frame equipment is used on 737-600 thru -900 airplanes equipped with CFM56-7 engines.

C71027 is used in conjunction with a customer-furnished C78026 boom hoist. C71027 is mounted to C78026 and attaches to the inlet cowl, allowing removal or installation of the inlet cowl.

Refer to AMM 71-11-01, the Powerplant Build-Up Manual (PPBU) 71-00-02 and the current C71027 drawing for complete usage instructions.

C71027-1 consists of:

C71027-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	FORWARD ASSEMBLY	C71027-3
1	SIDE ASSEMBLY	C71027-4
1	SIDE ASSEMBLY	C71027-5
1	FORWARD TUBE	C71027-19
1	STORAGE BOX	

WEIGHT: 141 lbs (64 kg)

DIMENSIONS: 93 x 47 x 19 inches (2362 x 1194 x 483 mm)

DECLARATION OF CONFORMITY: C71027 requires a written Declaration of Conformity from the C71027 fabricator if it is to be used in the European Union. The design of C71027 meets the European requirements of Machinery Directive 2006/42/EC including its amendments. When used within the European Union, the fabricator of C71027 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 C71027 is to be used within the European Union and the Declaration of Conformity is missing, contact the fabricator of C71027 for a replacement Declaration of Conformity.

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OPERATING INSTRUCTIONS: Refer to the current C71027 drawing, AMM 71-11-01 and PPBU 71-00-02 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.

When using C71027 jacking adapter 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.

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.

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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 C71027 installation/removal frame equipment shall be performed per the current C71027 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 C71027 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

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 lifters):

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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.

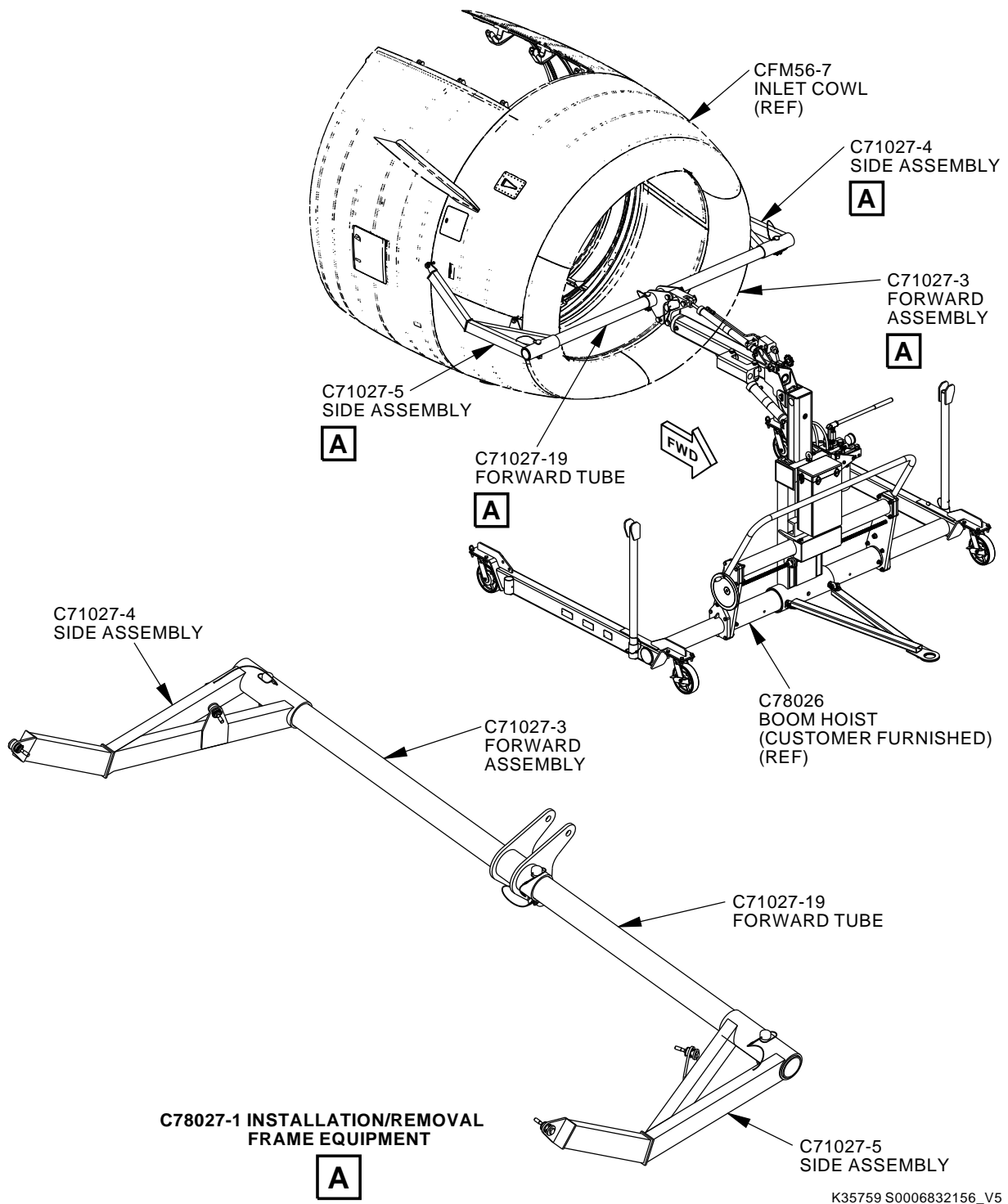
STORAGE: C71027 shall be stored clean, dry, and free of exposure to fumes or corrosive elements, indoors and in the furnished storage box.

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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737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL

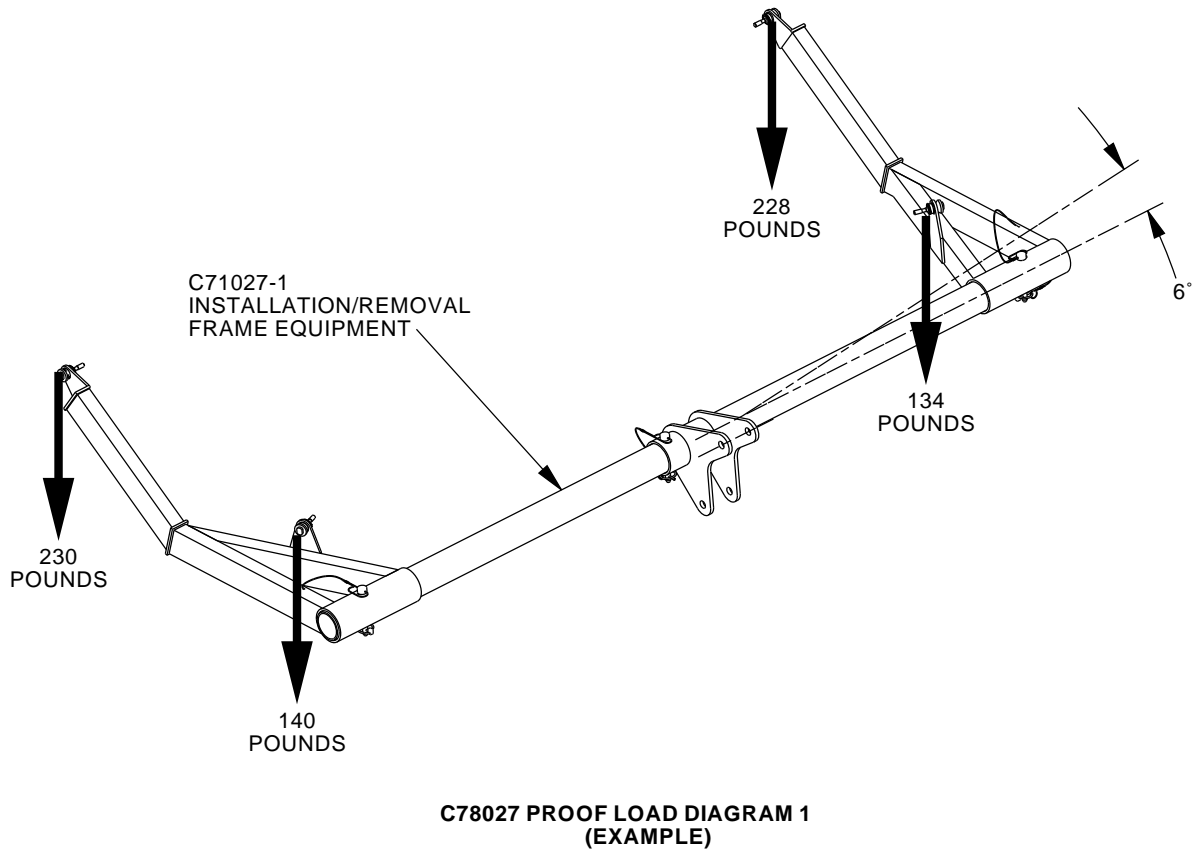


Inlet Cowl Installation/Removal Frame Equipment
Figure 1

71-10-02



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ILLUSTRATED TOOL AND EQUIPMENT MANUAL

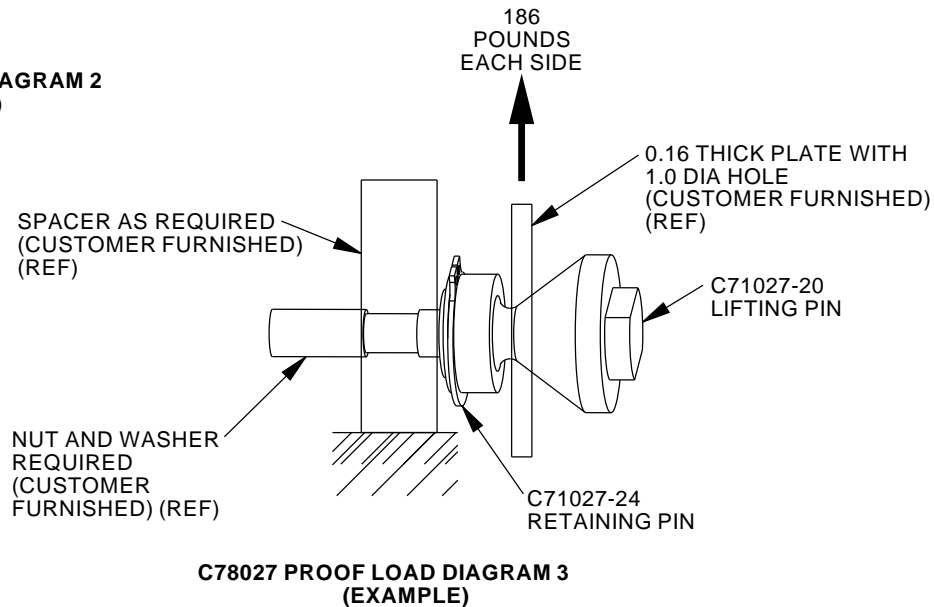
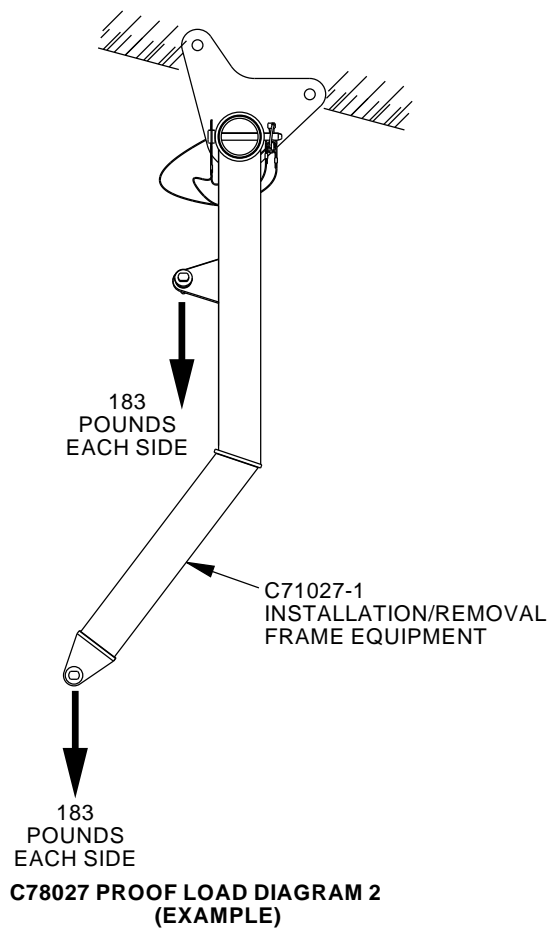


2428787 S0000561670_V1

C71027 Proof Load Diagram (Example)
Figure 2 (Sheet 1 of 2)

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**737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL**



2428798 S0000561671_V1

**C71027 Proof Load Diagram (Example)
Figure 2 (Sheet 2 of 2)**

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737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: C71022-6

NAME: TORQUE WRENCH - ENGINE MOUNT BOLTS

AIRPLANE MAINTENANCE: YES

AMM 71-00-02

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C71022-6 torque wrench is used on 737-600 thru -900 airplanes.
C71022 is used for final torquing of the forward and aft engine mount bolts on the CFM56-7 engines.

The C71022-2 wrench is a flex-head, 1/2-inch drive, click-type torque indicator device with a torque range of 100-250 ft-lbs.

The C71022-7 11/16-inch and C71022-8 15/16-inch twelve-point sockets are used with the wrench to torque the engine mount bolts.

Refer to the current C71022 tool drawing and AMM 71-00-02 for complete usage instructions.

C71022-6 consists of:

C71022-6		
QUANTITY	NOMENCLATURE	PART NUMBER
1	FLEX HEAD TORQUE WRENCH	C71022-2
1	11/16 SOCKET (12 POINT)	C71022-7
1	15/16 SOCKET (12 POINT)	C71022-8
1	STORAGE BOX	

WEIGHT: 10 lbs (4.5 kg)

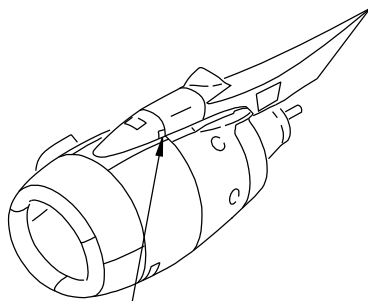
DIMENSIONS: 37 x 4 x 4 inches (940 x 102 x 102 mm)

NOTE: C71022-6 supersedes C71022-1.

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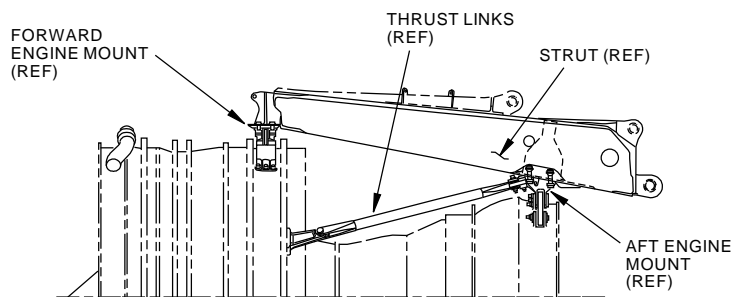


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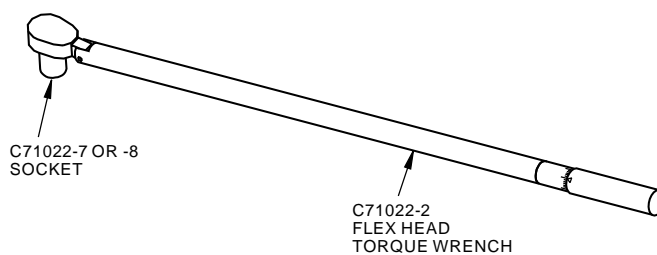
FORWARD
ENGINE MOUNT
(REF)

SEE (A)



FORWARD
ENGINE MOUNT

(A)



C71022-7 OR -8
SOCKET

C71022-2
FLEX HEAD
TORQUE WRENCH

F76806 S0006832159_V3

Engine Mount Bolts Torque Wrench
Figure 1

71-20-01



737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: C71024-1, -10

NAME: SLING ASSEMBLY - ENGINE AFT MOUNT, CFM56-7 ENGINE (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-21-03

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C71024-1 or -10 (preferred, CE qualified) sling assembly is used on 737-600 thru -900 airplanes.

C71024 is used with a customer-furnished lift. C71024 is used to remove or install the aft engine mount for overhaul and engine build-up.

Refer to AMM 71-21-03 and the current C71024 drawing for complete usage instructions.

C71024-1 and -10 consist of:

C71024-1		
QUANTITY	NOMENCLATURE	PART NUMBER
1	STRAP ASSEMBLY	C71024-2
1	STORAGE BOX	

C71024-10		
QUANTITY	NOMENCLATURE	PART NUMBER
1	STRAP ASSEMBLY	C71024-11
1	MASTER LINK	C71024-18 (A-342-1/2W)
1	STORAGE BOX	

WEIGHT: C71024-1 or -10 - 4 lbs (1.8 kg)

DIMENSIONS: C71024-1 or -10 - 6 x 8 x 4 inches (152 x 203 x 102 mm)

NOTE: C71024-10 replaces C71027-1 for future procurement.

DECLARATION OF CONFORMITY: The design of C71024-10 meets the requirements of the machinery directive 2006/42/EC including its amendments. For use within the European Union, the manufacture of this equipment must also meet the requirements of that directive. At a minimum for the manufacturer, this entails the retention of a technical file, the labeling of the equipment with the CE mark, and the completion of an EC declaration of conformity.

OPERATING INSTRUCTIONS: Refer to the current C71024-10 and the 737 AMM procedures for detailed instructions on the use of this equipment. This equipment shall only be used in conjunction with Boeing 737 AMM procedures to maintain Boeing 737 airplanes.

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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 and wipe dry with a clean cloth. Hang freely to dry, but away from excessive heat or steam.

Slings: Synthetic: Maintenance and inspection of synthetic shall be performed in accordance with ASME B-30.9, Chapter 9-5 and 9-6.

PROOF LOAD: Proof load testing for the C71024-10 SLING ASSEMBLY - ENGINE AFT MOUNT, CFM56-7 ENGINE shall be performed per the current C71024-10 drawing proof load diagram(s) (example Figure 2) and:

1. In conjunction with initial fabrication
2. Subsequent to modification of this equipment (equipment shall only be modified in accordance with the GSE drawing)
3. After repair of load carrying components
4. After replacement of load carrying components (except for load carrying components such as shackles and hoist rings that carry their own certification).

On-going 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 ASME B30.9.

Synthetic:

1. A visual inspection shall be performed by the user or other designated person each shift before the slings are used.
2. Slings shall not be returned to service until approved by a qualified person.
3. A written record of frequent inspections is not required.
4. Conditions detailed below and in ASME B30.9 or conditions that may result in a hazard shall cause the sling to be removed from service.
 - Red warning yarns visible
 - Acid or caustic burns
 - Melting or charring of any part of the sling surface
 - Snags, punctures, tears or cuts

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- Broken or worn stitches in load bearing splices
 - Excessive abrasive wear
 - Knots in any part of the sling
 - Discoloration and brittle or stiff areas on any part of the sling
 - Distortion of fittings
 - Missing or illegible sling tag
1. Conditions as those listed in ASME B30.26, 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.
 2. Written records are not required.

PERIODIC

Slings - General:

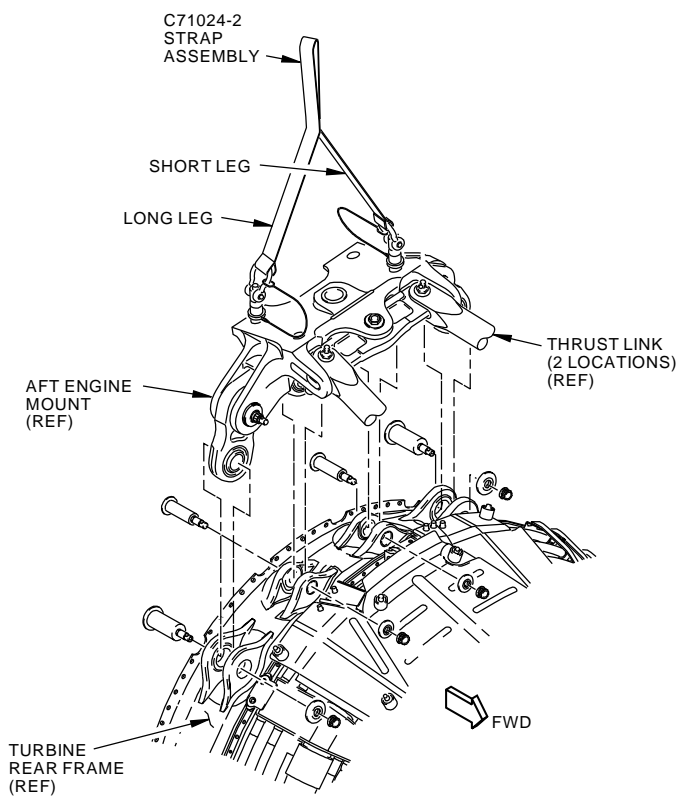
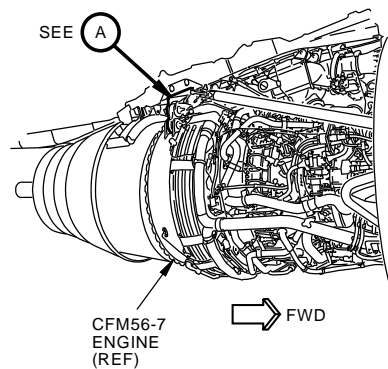
1. A complete inspection for damage to the sling shall be periodically performed by a designated person.
2. Each sling and component shall be examined individually, taking care to expose and examine all surfaces.
3. The sling shall be examined for the conditions noted in the frequent inspection and in ASME B30.9 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.

STORAGE: C71024-10 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box (if provided).

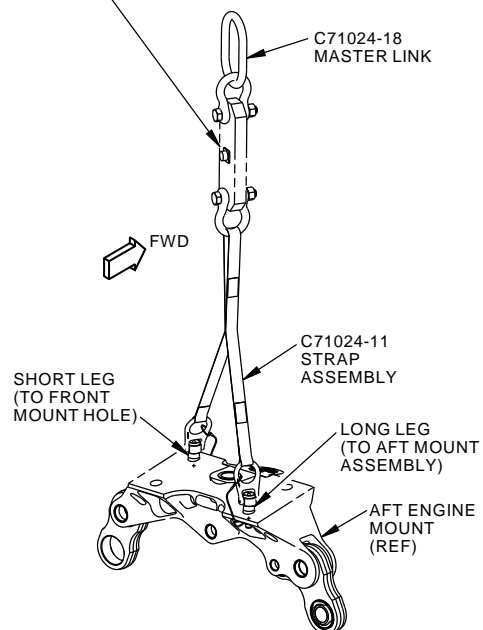
DECOMMISSIONING: C71024-10 parts and assemblies shall be permanently altered to prevent their unauthorized re-use. Recycling is the preferred manner of disposal for those materials where that option is available.

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LOAD CELL PER J71046 SPECIFICATION -
LOAD CELL EQUIPMENT
1000 LB CAPACITY
15 FT MIN DISPLAY CABLE LENGTH
(CUSTOMER FURNISHED)
(2 LOCATIONS)
(REF)



A

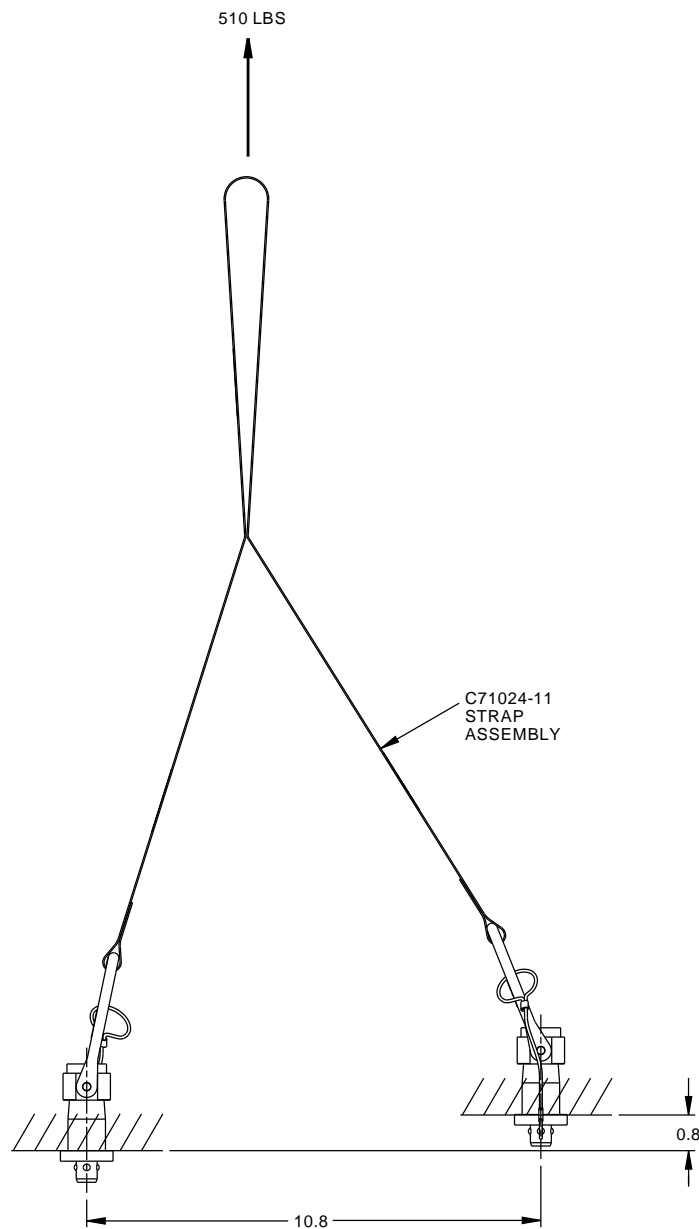
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**Engine Aft Mount CFM56-7 Sling Assembly
Figure 1**

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ILLUSTRATED TOOL AND EQUIPMENT MANUAL



C71024-10
PROOF LOAD DIAGRAM (EXAMPLE)
WORKING LOAD IS 255 LBS. PROOF TEST LOAD IS 2 TIMES THE
WORKING LOAD. PROOF LOAD AT INITIAL FABRICATION AND
AFTER MODIFICATION/REPAIR. AFTER PROOF LOAD TEST,
STEEL STAMP PROOF LOAD TAG PER DRAWING F70308.

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C71024 Proof Load Diagram (Example)
Figure 2

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737-600/700/800/900
ILLUSTRATED TOOL AND EQUIPMENT MANUAL

PART NUMBER: C71026-1, -8

NAME: SLING ASSEMBLY - FAN COWL, CFM56-7 ENGINE (CE)

AIRPLANE MAINTENANCE: YES

AMM 71-11-01

COMPONENT MAINTENANCE: NO

USAGE & DESCRIPTION: The C71026-1 (option) or -8 (preferred, CE) sling assembly is used on 737-600 thru -900 airplanes.

C71026 is used to remove or install the fan cowl panels of a CFM56-7 engine. The C71026-2 or -9 slings attach to the outer part of each fan cowl and the C71026-3 drift pins are inserted into the hinge pin locations on each fan cowl.

Refer to AMM 71-11-01 and the current C71026 drawing for complete usage instructions.

C71026-1 and -8 consist of:

C71026-1		
QUANTITY	NOMENCLATURE	PART NUMBER
2	SLING ASSEMBLY	C71026-2
4	DRIFT PIN ASSEMBLY	C71026-3
1	STORAGE BOX	

C71026-8		
QUANTITY	NOMENCLATURE	PART NUMBER
2	SLING ASSEMBLY	C71026-9
4	DRIFT PIN ASSEMBLY	C71026-3
2	MASTER LINK	C71026-19 (A-342-1/2W)
1	STORAGE BOX	

WEIGHT: C71026-1 or -8 - 10 lbs (4.5 kg)

DIMENSIONS: C71026-1 or -8 - 18 x 10 x 6 inches (457 x 254 x 152 mm)

NOTE: C71026-8 replaces C71026-1 for future procurement.

DECLARATION OF CONFORMITY: The design of C71026-8 meets the requirements of the machinery directive 2006/42/EC including its amendments. For use within the European Union, the manufacture of this equipment must also meet the requirements of that directive. At a minimum for the manufacturer, this entails the retention of a technical file, the labeling of the equipment with the CE mark, and the completion of an EC declaration of conformity.

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OPERATING INSTRUCTIONS: Refer to the current C71026-8 and the 737 AMM procedures for detailed instructions on the use of this equipment. This equipment shall only be used in conjunction with Boeing 737 AMM 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 and wipe dry with a clean cloth. Hang freely to dry, but away from excessive heat or steam.

Slings: Wire Ropes: Maintenance and inspection of wire rope shall be performed in accordance with EN 1492-1, Section 6, Section Annex B and ASME B30.9, Chapter 9-2.

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 C71026-8 SLING EQPT - FAN COWL, CFM56-7 ENGINE shall be performed per the current C71026-8 drawing proof load diagram(s) (example Figure 2) and:

1. In conjunction with initial fabrication
2. Subsequent to modification of this equipment (equipment shall only be modified in accordance with the GSE drawing)
3. After repair of load carrying components
4. After replacement of load carrying components (except for load carrying components such as shackles and hoist rings that carry their own certification).

On-going 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 ASME B30.9.

Wire Ropes:

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 B30.9, para. 9-2.9.4 or any other conditions that may result in hazard shall cause the sling to be removed from service.

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3. Slings shall not be returned to service until approved by a qualified person.

Swivel Hoist Rings:

1. A visual inspection shall be performed by the user or other designated person each shift before the links, rings, and swivels are used. Semi-permanent 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.
1. Conditions as those listed in ASME B30.26, 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.
2. 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 B30.9 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.

Wire Ropes:

1. Wire rope inspection shall be conducted on the entire length, including splices, end attachments and fittings.
2. Wire rope inspection shall be examined for conditions listed in ASME B30.9, para 9-2.9.4.
3. Deficiencies found during the inspection are analyzed and the wire rope shall not be used, if deficiencies are determined to be hazardous.

Swivel Hoist Rings:

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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 B30.26, 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.

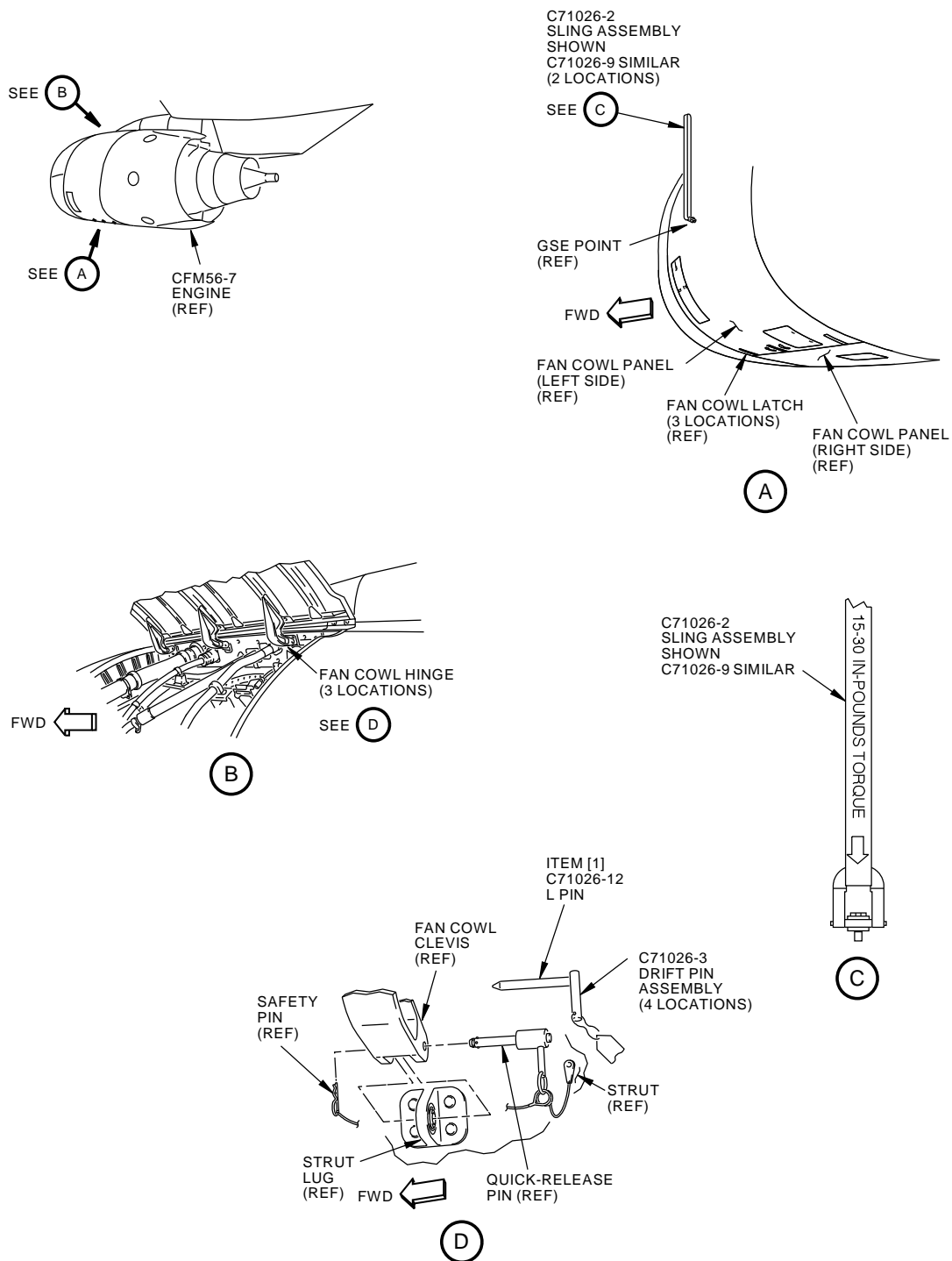
STORAGE: C71026-8 shall be stored clean, dry, free of exposure to fumes or corrosive elements, indoors and in the furnished storage box (if provided).

DECOMMISSIONING: C71026-8 parts and assemblies shall be permanently altered to prevent their unauthorized re-use. Recycling is the preferred manner of disposal for those materials where that option is available.

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CFM56-7 Engine Fan Cowl Sling Assembly
Figure 1

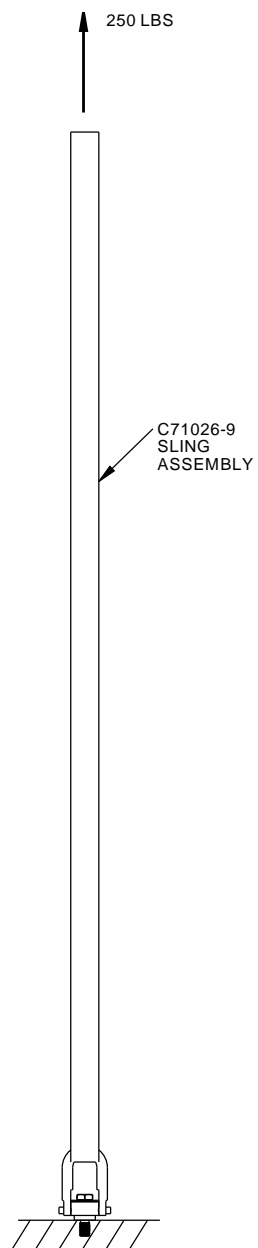
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C71026-8
PROOF LOAD DIAGRAM
(EXAMPLE)

2292729 S0000519080_V1

C71026 Proof Load Diagram (Example)
Figure 2

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REPAIRABLE/REPLACEABLE PARTS			
ITEM NO.	PART NO.	NOMENCLATURE	VENDOR CODE
[1]	C71026-12 (CL-27-LP)	L PIN	99862

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