CHAPTER 25 — EQUIPMENT AND FURNISHINGS

CONTENTS — MAINTENANCE PROCEDURES

FIGURES

CONSUMABLE MATERIAL LIST

The following consumable materials are required to perform the maintenance procedures within this chapter.

ITEM NO.	NOMENCLATURE	CAGE/FSCM/ SOURCE
C-405	Lockwire, MS20995C32 (0.032 Inch Dia.)	Commercial

EQUIPMENT AND FURNISHINGS

25-1. EQUIPMENT AND FURNISHINGS.

The equipment and furnishings consist of crew and passenger seats, shoulder harness and inertia reels, and pilot console partitions which are located in the flight compartment. Passenger compartment furnishings vary according to individual preference and are covered by service instructions. For utility seating, refer to BHT-205-SI-19 . Also included in this Chapter is limited maintenance information for cargo hook and internal hoists.

25-2. PILOT AND COPILOT SEATS.

Pilot and copilot seats are adjustable type, mounted on tracks fixed to the cabin floor. A handle on the right side is for vertical seat adjustment. The lower handle on the left side is for fore and aft seat adjustment and the upper handle is for control of the inertia reel.

NOTE

Maintenance procedures for both seats are the same.

25-3. Removal.

1. Remove screw (2, figure 25-1) and clip (1) from aft end of outboard seat track. Remove screw from aft end of inboard seat track.

2. Move fore-and-aft seat adjustment handle up and pull seat aft until free of seat tracks.

25-4. Inspection and repair.

1. Inspect shoulder harness (3, figure 25-1), inertial reel strap and safety belt (5) for fraying, wear and loose stitching.

2. Inspect seat (4) for damage and serviceability.

3. Inspect seat netting for tears, cuts, and security.

4. Inspect seat structure for obvious damage.

5. Check vertical (8) and fore-and-aft (7) seat adjustment handle for security.

6. Replace unserviceable items.

25-5. Installation.

1. Position seat on aft end of seat tracks. Move fore-and-aft seat adjustment handle (7, figure 25-1) up and push seat all the way forward.

2. Position clip (1), with fastener, on outboard side of outboard seat track and secure with screw (2), washer, and nut.

3. Install screw in end of inboard seat track and secure with washer and nut.

25-6. INERTIA REEL AND SHOULDER HARNESS.

An inertia reel, with a manually operated control handle, is located on the back of pilot and copilot seat. The inertia reel is a mechanical restraining device designed to prevent seat occupant from pitching forward during abrupt helicopter attitude changes. Each inertia reel has an automatic locking mechanism which prevents shoulder harness from unreeling even with control handle in unlocked position in case of rapid deceleration.

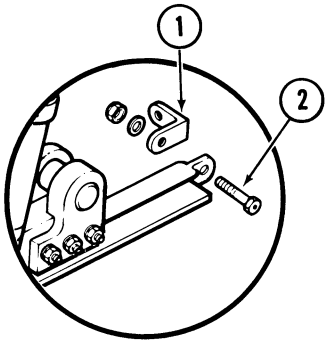
25-7. INERTIAL REEL.

25-8. Removal.

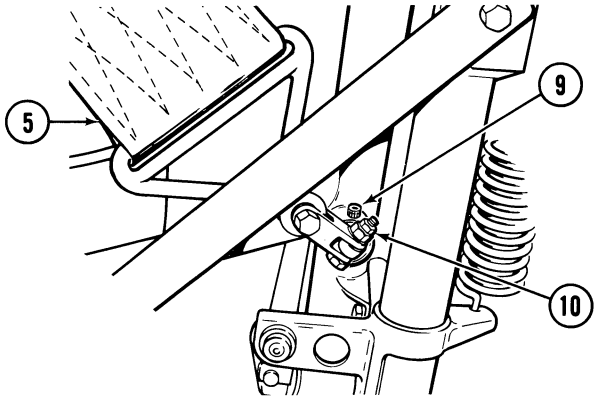
1. Remove bolt (3, figure 25-2) from shoulder harness (2) and strap (4).

2. Remove inertia reel control handle from seat.

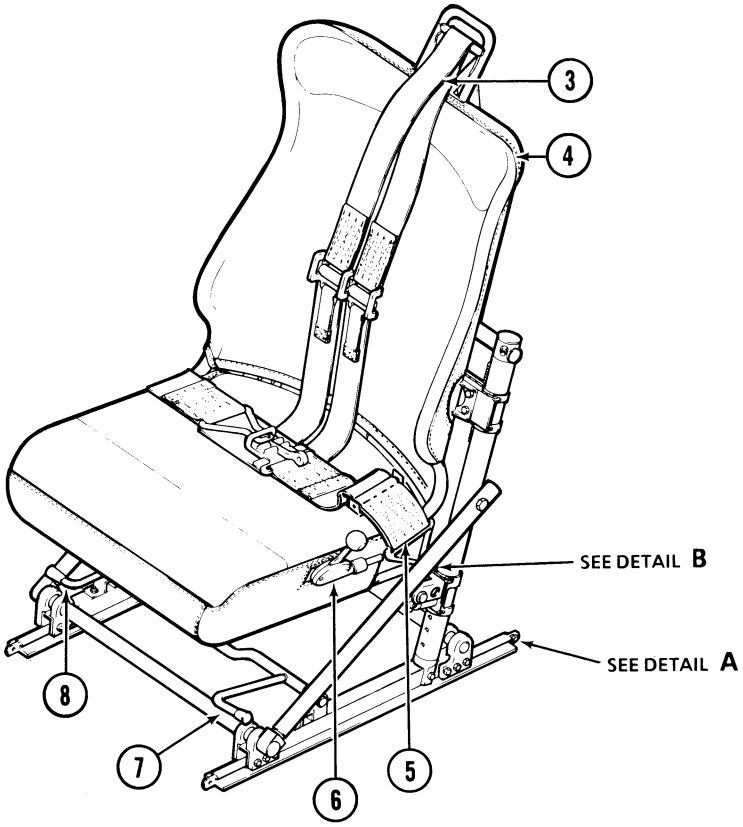
3. Remove nuts, washers, and bolts (6). Remove inertia reel.



DETAIL A



DETAIL B



1. Clip
2. Screw
3. Shoulder harness
4. Seat
5. Safety belt
6. Inertia reel control handle
7. Fore and aft seat adjustment handle
8. Vertical seat adjustment handle
9. Set screw and bushing
10. Bolt, washers, and nut

212-M-25-1

Figure 25-1. Seat assembly

25-9. Inspection and repair.

NOTE

Repair of crew seat restraint assembly is limited to replacement of unserviceable parts.

1. Inspect inertia reel strap (4, figure 25-2) for fraying, wear, and security.

2. Inspect control cable (5) and inertia reel control handle for freedom of movement and security of mounting.

3. Inspect seat buckle for proper operation.

25-10. Installation.

1. Position inertia reel on seat support bracket with control head on left side. Secure inertia reel to seat with bolts (6, figure 25-2), washers and nuts.

2. Position shoulder harness (2) between metal plates of strap (4) and secure with bolt (3), washer, and nut.

3. If inertia reel control head is not positioned correctly, remove screw in end of control head and remove control head. The control head can be indexed at 45° intervals. Align control head to nearest correct mark and, with alignment pins of control head engaged with corresponding holes of base, install screw.

4. Secure inertia reel control handle to seat.

5. Perform operational check of inertia reel (paragraph 25-11).

25-11. Operational check.

1. Place inertia reel (1, figure 25-2) control handle to UNLOCKED position.

2. Disconnect shoulder harness (2) from strap (4).

3. Attach a spring scale to end of strap (4) and, while watching scale, slowly pull length of strap out of inertia reel. Tension indicated shall be not less than 2.0 lbs. (8.896 Ns) initially nor more than 6.0 lbs. (26.688 N) when final strap length is pulled out of reel.

4. Cycle inertia reel control handle (6, figure 25-1) from UNLOCKED to the LOCKED position several times as strap is being reeled in and out. The reel shall positively LOCK and hold each time inertia reel handle is moved to LOCKED position.

5. If reel does not meet required tension, move inertia reel control handle to UNLOCKED position and pull out slowly on strap (4, figure 25-2) until strap retaining insert (7) is visible through lower slot in reel assembly (1).

6. Move inertia reel control handle to the LOCKED position and insert a 7/32 in. hex wrench through hole in end of reel, and hold securely.

7. Remove strap retaining insert (7) and withdraw strap (4) from reel.

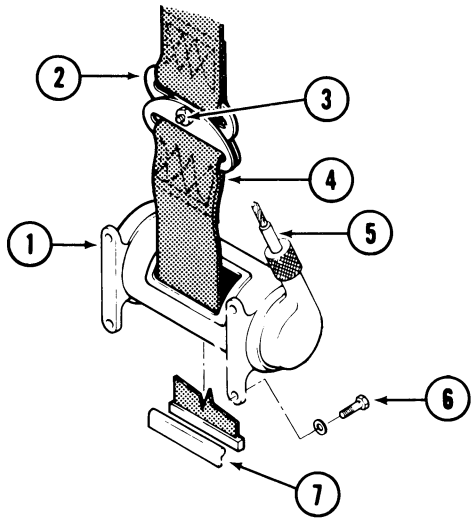
8. Turn reel with hex wrench (toward unwind direction) for one complete revolution.

9. Reinstall strap, and recheck tension. If proper tension cannot be attained, remove and replace reel.

10. Return inertia reel to original manufacturer for repair or overhaul.

25-12. PILOT CONSOLE PARTITION.

The pilot lower console and overhead console are provided with a partition to obstruct cabin occupants from inadvertantly touching cockpit switches. The overhead console partition is approximately 27 in. (68.6 cm) long and is secured to overhead console with screws. The lower console partition protects left side and aft end of lower console. A plexiglass window is installed in left side of lower console partition.



1. Reel Assembly
2. Shoulder Harness
3. Bolt
4. Strap
5. Control Cable
6. Bolt
7. Strap Retaining Insert

212-M-25-2

Figure 25-2. Inertia reel

25-13. MAINTENANCE.

25-14. Removal.

1. Remove screws (1, figure 25-3) and washers from lower console partition (2) and remove partition.

2. Remove screws (4) and washers from upper console partition (3) and remove partition.

25-15. Inspection and repair.

1. Inspect partitions for cracks, dents and tears.

2. Inspect plexiglass window for cracks.

3. Repair as necessary to return part to service.

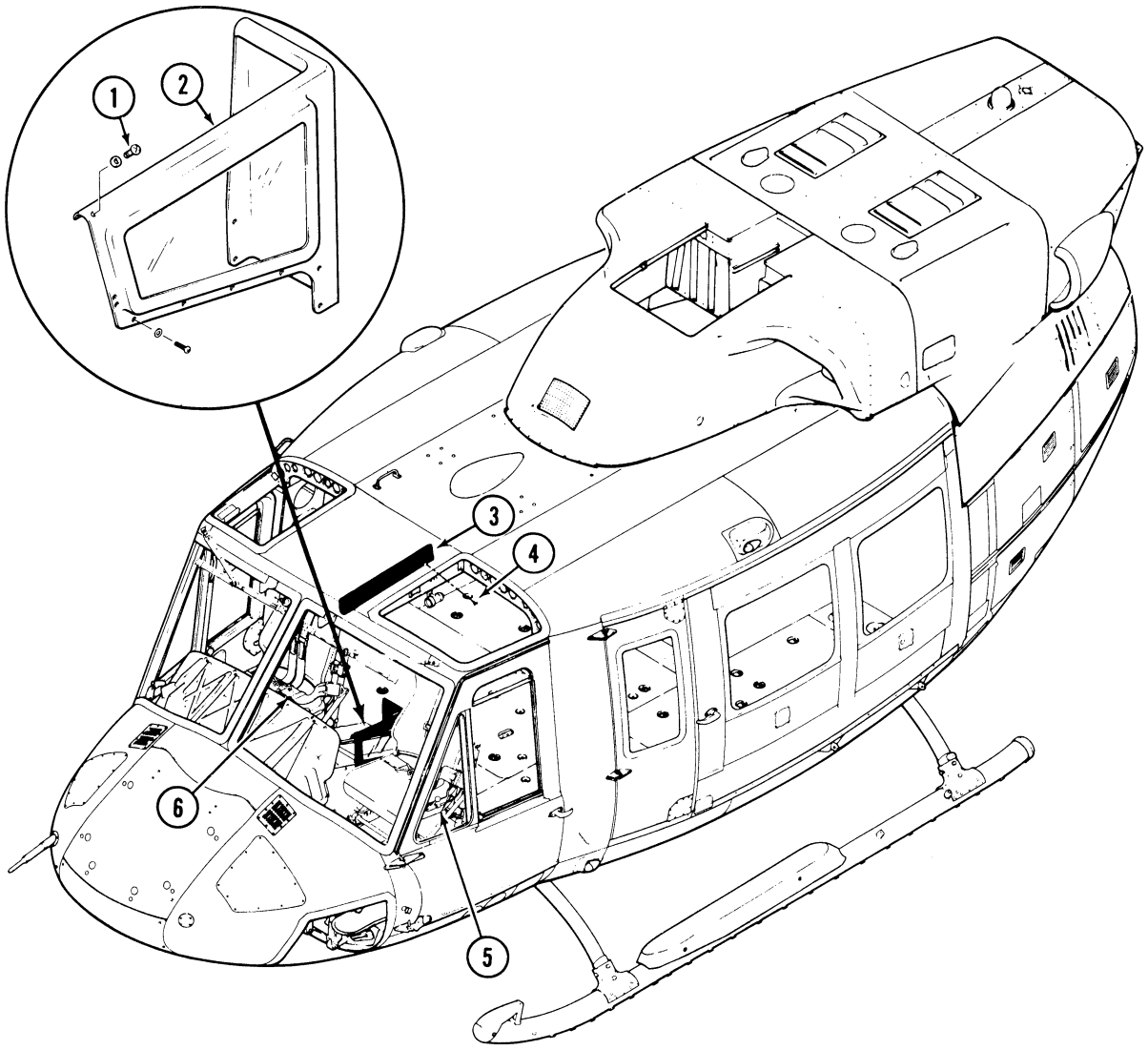
25-16. Installation.

1. Position lower console partition (2, figure 25-3) over top of console and secure with screws (1) and washers.

2. Position overhead console partition (3) on left side of overhead console and secure with screws (4) and washers.

25-17. CARGO SUSPENSION SYSTEM.

The cargo suspension system provides helicopter with means of external capability for pickup, transport and release of cargo. The cargo suspension assembly hangs at approximately center of gravity, attached to a lateral beam of pylon structure, and extends through an opening in bottom of lower fuselage. Cargo hook unit is a horizontal loading type with an automatic pick up latch. Both electrical and manual controlled release provisions are provided. Refer to BHT-212-SI-5 for installation and maintenance data.



1. Screw
2. Lower console partition
3. Upper console partition
4. Screw
5. Copilot seat
6. Pilot seat

212-M-25-3

Figure 25-3. Cabin equipment and furnishings

25-18. MAINTENANCE.

25-19. Removal.

1. Remove access door from front of pylon island in cabin.

2. Ensure electrical power is OFF. Disconnect electrical cable (1, figure 25-4) of suspension assembly at connector located on right under side structural left beam.

3. Detach upper control cable (7) from clamp (8).

4. Remove cotter pin and detach ball terminal of cable connector (6), inboard of pulley bracket (4).

5. Remove cotter pin, nut, washers, and suspension bolt securing upper end of cargo suspension assembly to bracket (9). Remove suspension assembly.

25-20. Inspection.

1. Inspect electrical cable (1, figure 25-4) for security and general condition.

2. Inspect cable assemblies (2 and 7) for frayed or broken strands.

3. Inspect wiring and cable assemblies for sufficient slack to allow full swing of cargo hook.

4. Visually inspect cargo hook for nicks, scratches, corrosion and general condition.

5. Replace cargo hook warning plate P/N 13830-1 with warning plate P/N 13916-1 (for long snout beam) or P/N 13916-2 (for short snout beam) in accordance with Breeze Eastern (SB-142), if not previously replaced).

25-21. Installation.

1. Place cargo suspension assembly in install position (beneath structural lift beam), with free end of cargo suspension assembly aligned with hole in bracket (9, figure 25-4) and install bolt, washers, nut and cotter pin.

2. Engage ball terminal of upper control cable (7) in connector (6) and secure with cotter pin.

3. Attach conduit of upper control cable (7), with clamp (8) and secure with screw to bracket of beam.

4. Adjust cable (ball terminal on lower end of cable, on hook assembly), to obtain 0.10 in. (0.254 mm) clearance below bottom side of lever (14), with no other slack in cable (figure 25-4 , view A).

25-22. Rigging and operational check.

MATERIALS REQUIRED

NUMBER	NOMENCLATURE
C-405	Lockwire

1. Perform rigging check as follows:

a. With pedal (17, figure 25-4) full aft, and with cable of suspension assembly loose in clamp (8), adjust actuating cable (2), at turnbuckle, to provide 20 to 24 lbs. (88.96 to 106.75 N) tension. Secure turnbuckle with lockwire (C-405).

b. Check at cargo hook (15) for correct position of parts with load beam of hook (15) latched. Stopbolt (13) of lever (14) should be in contact with top of cargo hook case, with lever positioned parallel to plane of yoke attachment bolts. Lower cable ball terminal shall extend 0.12 to 0.18 in. (3.048 to 4.572 mm) beyond (below) seat of latch lever to provide proper slack.

c. Adjust slack of upper control cable (7) conduit (cable housing) between upper guide clamps (12) and yoke with proper dimension of 0.030 to 0.080 in. (0.762 to 2.032 mm) (figure 25-4 , view A).

d. Place cable terminal in connector (6) and slide conduit until gap of 0.010 in. (0.254 mm) is maintained at lever (14). Clamp cable in place with clamp (8).

e. Verify electrical and mechanical cables have enough slack to allow full swing of suspension assembly.

2. Perform operational check as follows:

a. With at least a 20 lb. (9.072 kg) load on cargo hook, push pedal forward. Cargo hook should release, but cable spring in upper pulley bracket (4) should not bottom out. Adjust pedal if necessary.

b. With pedal forward, lever (14) at top of cargo hook should be full up, but not bottomed against end of cable conduit or clamp.

c. When pedal is released, cable should return to locking position.

d. Direct assistant to observe cargo hook and reset to closed position, as required.

e. Check CARGO HOOK REL circuit breaker in, turn BATTERY switch to BUS 1 ON (BHT-212-FM).

f. Verify CARGO RELEASE ARMED light illuminates when light is pressed and extinguished when released.

g. Position CARGO REL switch to ARM. The CARGO RELEASE ARMED light should illuminate. Press CARGO RELEASE button on cyclic stick and hold for 2 or 3 seconds. Cargo hook should release.

h. Position CARGO REL switch to OFF. The CARGO RELEASE ARMED light should extinguish. Press CARGO RELEASE button on cyclic stick and hold for 2 or 3 seconds. The cargo hook should not release.

i. Turn BATTERY switch to BUS 1 OFF.

25-23. INTERNAL HOIST.

25-24. MAINTENANCE.

1. For Breeze hoists, refer to BHT-212-SI-11 and BHT-212-SI-13 for installation and maintenance data.

2. For Western Gear hoists, refer to BHT-212-SI-75 and publication BHT-80-214-RHA for installation and maintenance data.

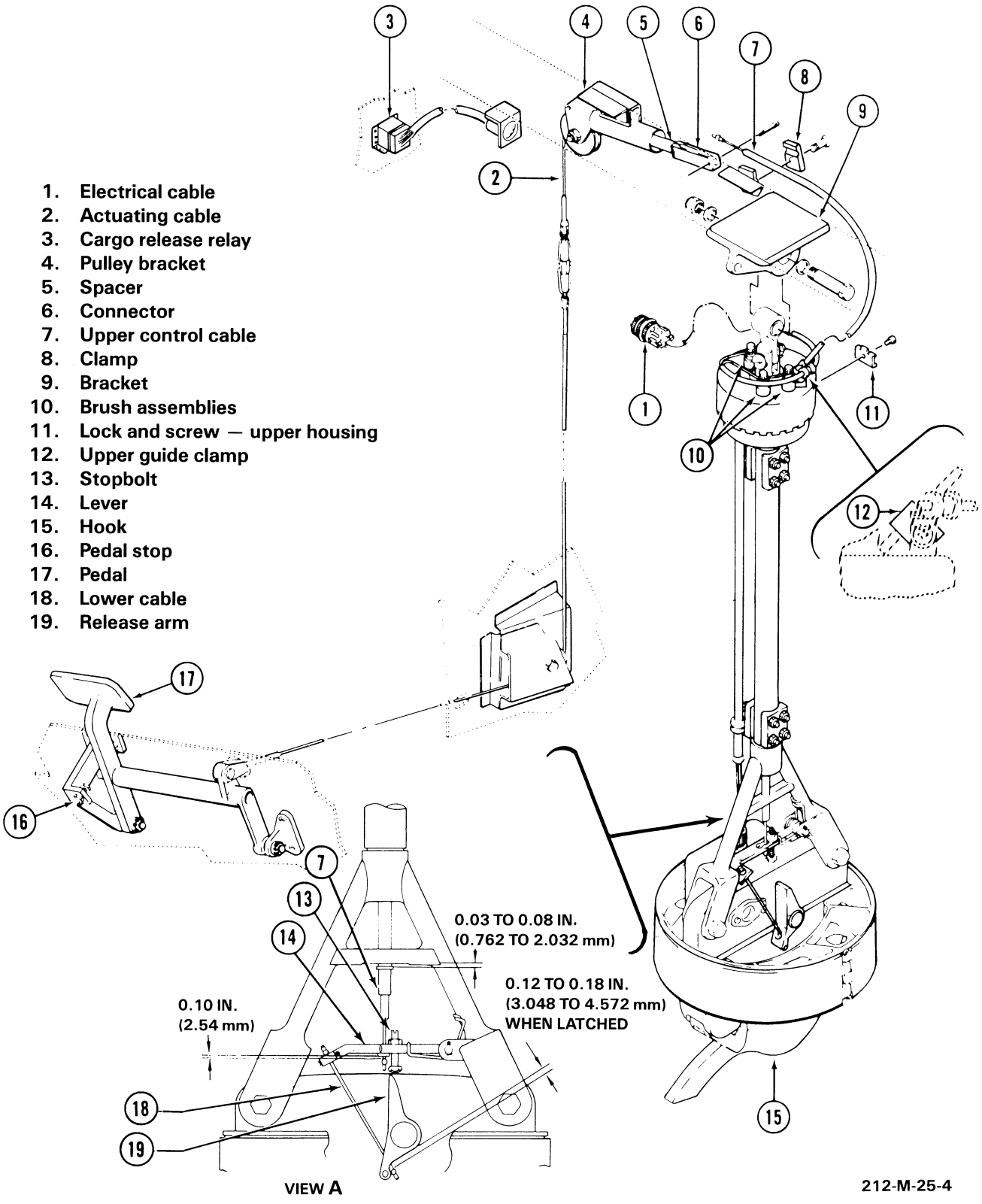


Figure 25-4. Cargo suspension