## **CHAPTER 17**

# **JACKING AND HOISTING**

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#### **CHAPTER 17**

## **JACKING AND HOISTING**

## 17-10 Jacking

## **CAUTION**

When jacking helicopter, use mechanical or locking hydraulic jacks, when available. Unlocked hydraulic jacks are subject to pressure-loss which can affect critical measurements during leveling or cause a raised helicopter to become unstable.

#### **CAUTION**

Never jack helicopter in windy conditions.

#### **CAUTION**

Perform jacking on a clean, flat, hard surface free of water, oil, solvent, grease, or residue that could cause equipment or personnel to slip during jacking procedure.

#### **CAUTION**

Do not actuate jacks from underneath helicopter. Remain clear of landing gear skid tubes when helicopter is raised.

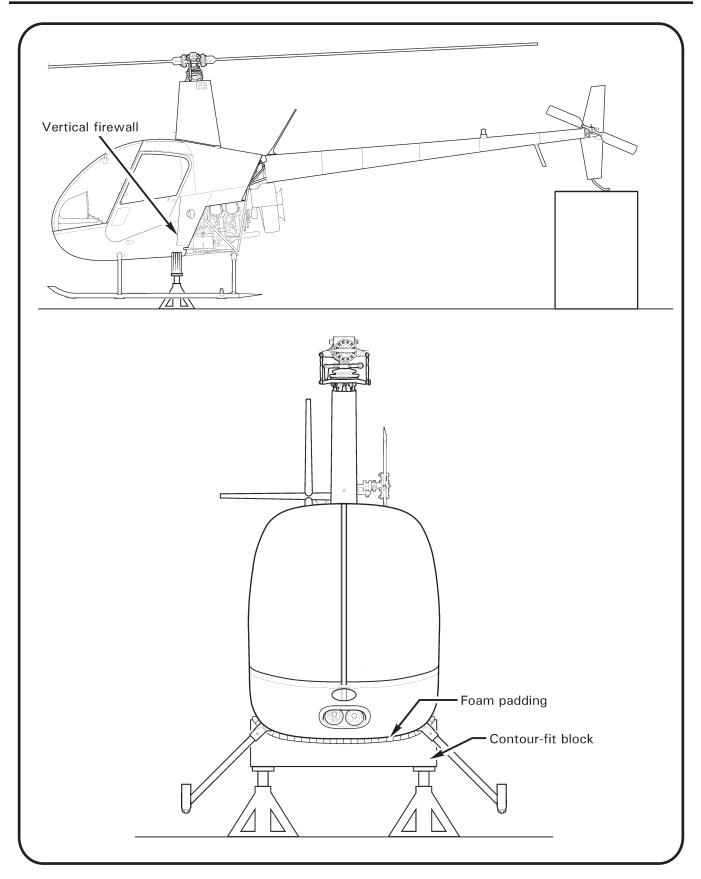


FIGURE 17-1 JACKING

## 17-10 Jacking (continued)

# A. Jacking

- 1. Two methods may be used to jack helicopter:
  - a. Refer to Figure 17-1. Place a foam-covered contour block under vertical firewall. Install skid stand under tail. Place an appropriate capacity jack under each end of contour block.

### **CAUTION**

Contour block must be directly under vertical firewall to support weight of helicopter.

b. Place an appropriate capacity jack under each (landing gear) aft cross tube, one inch inboard of elbow fittings, and under the ground handling ball as required.

#### **CAUTION**

Ground handling ball must slide unrestricted across a flat surface during jacking. When weighing, verify ball is not under side load which could produce an erroneous weight indication.

- 2. Position jack levers for convenient access and engage jacks. Sandbag jacks for increased stability, as required.
- 3. Actuate jacks slowly and simultaneously (one person per jack recommended), maintaining helicopter stability. Raise helicopter to required height (at least 4 inches off ground if removing landing gear).

### **CAUTION**

Minimize personnel movement around raised helicopter.

### **B.** Lowering

#### **CAUTION**

Skids spread as aircraft weight settles on landing gear.

- 1. Slowly and simultaneously (one person per jack recommended) lower each jack ram, maintaining helicopter stability. Lower aircraft to ground.
- 2. Clear jacking equipment from area.

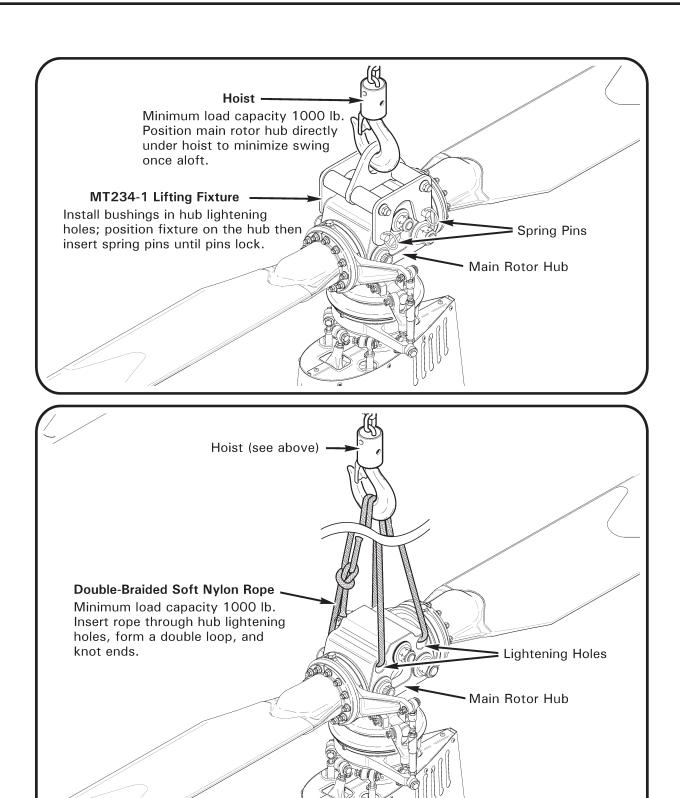


FIGURE 17-2 HOISTING

### 17-20 Hoisting

### **CAUTION**

Avoid hoisting helicopter in windy conditions.

#### **CAUTION**

Verify ground is free of water, oil, solvent, grease, or residue that could cause equipment or personnel to slip during hoisting procedure.

#### CAUTION

Remain clear of area beneath helicopter when helicopter is raised. Minimize personnel movement around raised helicopter.

# A. Hoisting with Lifting Fixture

- 1. Refer to Figure 17-2. Verify hoisting equipment has minimum load capacity of 1000 lb.
- 2. Position main rotor hub directly under hoist to minimize helicopter swing once aloft.
- Remove two spring pins and four nylon bushings from MT234-1 lifting fixture and install bushings in main rotor hub lightening holes. Position lifting fixture on hub then insert spring pins through fixture and bushings until pins lock. Verify security.
- 4. Connect hoist to lifting fixture. Verify security.
- 5. Stabilize helicopter as required by guiding tail skid, but do not exert force (tail skid is secondary structure). Raise helicopter to required height.

### B. Hoisting with Nylon Rope

- 1. Refer to Figure 17-2. Verify hoisting equipment has minimum load capacity of 1000 lb. Verify minimum work load limit for 1-inch diameter twisted or double braided (preferred) soft nylon rope is 1000 lb.
- 2. Position main rotor hub directly under hoist to minimize helicopter swing once aloft.
- 3. Insert rope through main rotor hub lightening holes, form a double loop, and knot ends. Connect hoist to nylon rope. Verify security.
- 4. Stabilize helicopter as required by guiding tail skid, but do not exert force (tail skid is secondary structure). Raise helicopter to required height.

## 17-20 Hoisting (continued)

# C. Lowering

## **CAUTION**

Skids spread as aircraft weight settles on landing gear.

- 1. Refer to Figure 17-2. Stabilize helicopter as required by guiding tail skid, but do not exert force (tail skid is secondary structure). Slowly lower aircraft to ground.
- 2. Disconnect hoisting equipment, remove lifting fixture or nylon rope from main rotor hub, and clear equipment from area.