# CHAPTER 7

## JACKING AND HOISTING

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CHAPTER 7
JACKING AND HOISTING

7-10 Jacking

CAUTION
Use mechanical or locking hydraulic jacks when available. Unlocked hydraulic jacks are subject to pressure-loss which can effect critical measurements during leveling or cause a raised helicopter to become unstable.

CAUTION
Never jack the 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.

A. Jacking

1. Refer to Figure 7-1. Place one (appropriate capacity) jack under each (landing gear) aft strut assembly jack tab and under the ground handling ball. Install jacking point adapters 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 at tabs and ball. 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.

CAUTION
Minimize personnel movement around raised helicopter.
Aft Strut Assembly (fairing removed for clarity)

Aft Strut Assembly (fairing removed for clarity)

Forward

Jack Tabs (jacking points)

Adapter

Jack

Adapter

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.

Ground Handling Ball (jacking point)

Jack

FIGURE 7-1 JACKING
7-10 Jacking (continued)

B. Lowering

**CAUTION**

Skids spread as aircraft weight settles on landing gear.

1. Refer to Figure 7-1. Slowly and simultaneously (one person per jack recommended) lower each jack ram, maintaining helicopter stability. Lower aircraft to ground.

2. Clear jacks from tabs and ball, and clear equipment from area.
FIGURE 7-2  HOISTING

Hoist
Minimum load capacity 3000 lbs. Position main rotor hub directly under hoist to minimize swing once aloft.

MT527-1 Lifting Fixture
Install bushings in hub lightening holes; position fixture on hub then insert spring pins until pins lock.

Hoist (see above)

Double-Braided Soft Nylon Rope
Minimum load capacity 3000 lbs. Insert rope through hub lightening holes, form a double loop, and knot ends.

Main Rotor Hub
Spring Pins
Lightening Holes
7-20 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 7-2. Verify hoisting equipment has minimum load capacity of 3000 lbs.

2. Position main rotor hub directly under hoist to minimize helicopter swing once aloft.

3. Remove two spring pins and four nylon bushings from MT527-1 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.


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 7-2. Verify hoisting equipment has minimum load capacity of 3000 lbs. Verify minimum work load limit for 1-inch diameter twisted or double braided (preferred) soft nylon rope is 3000 lbs.

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.
C. Lowering

CAUTION
Skids spread as aircraft weight settles on landing gear.

1. Refer to Figure 7-2. 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.