CHAPTER 7

JACKING AND HOISTING

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JACKING AND HOISTING

7-10 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.

A. Jacking

1. Refer to Figure 7-1. Place one (appropriate capacity) jack under each (landing gear) aft strut assembly jack lug/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.

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2. Position jack levers for convenient access and engage jacks at lugs/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)

A

FORWARD

Jack Lugs/Tabs
(jacking points; tabs not shown)

B

Aft Strut Assembly
(fairing removed for clarity)

C

Adapter
Jack

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
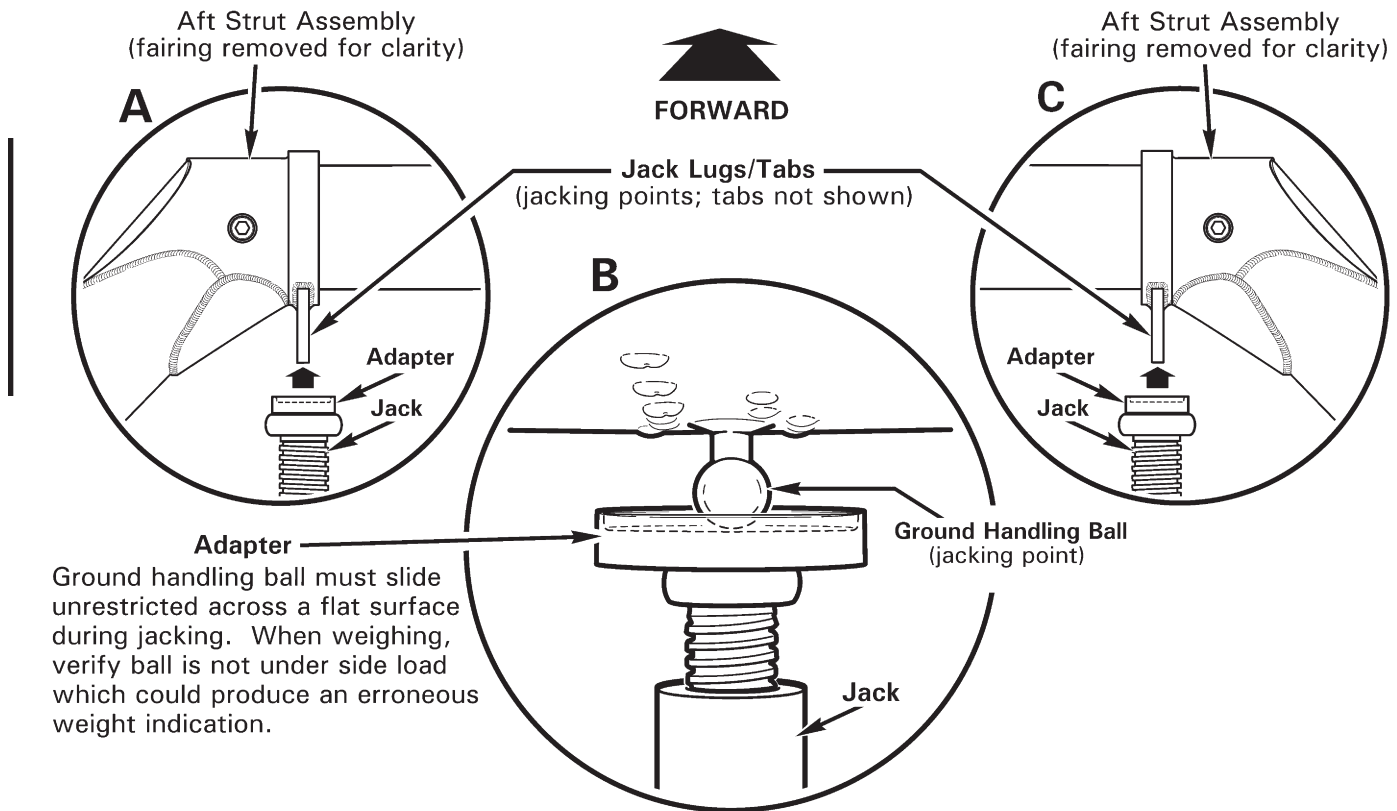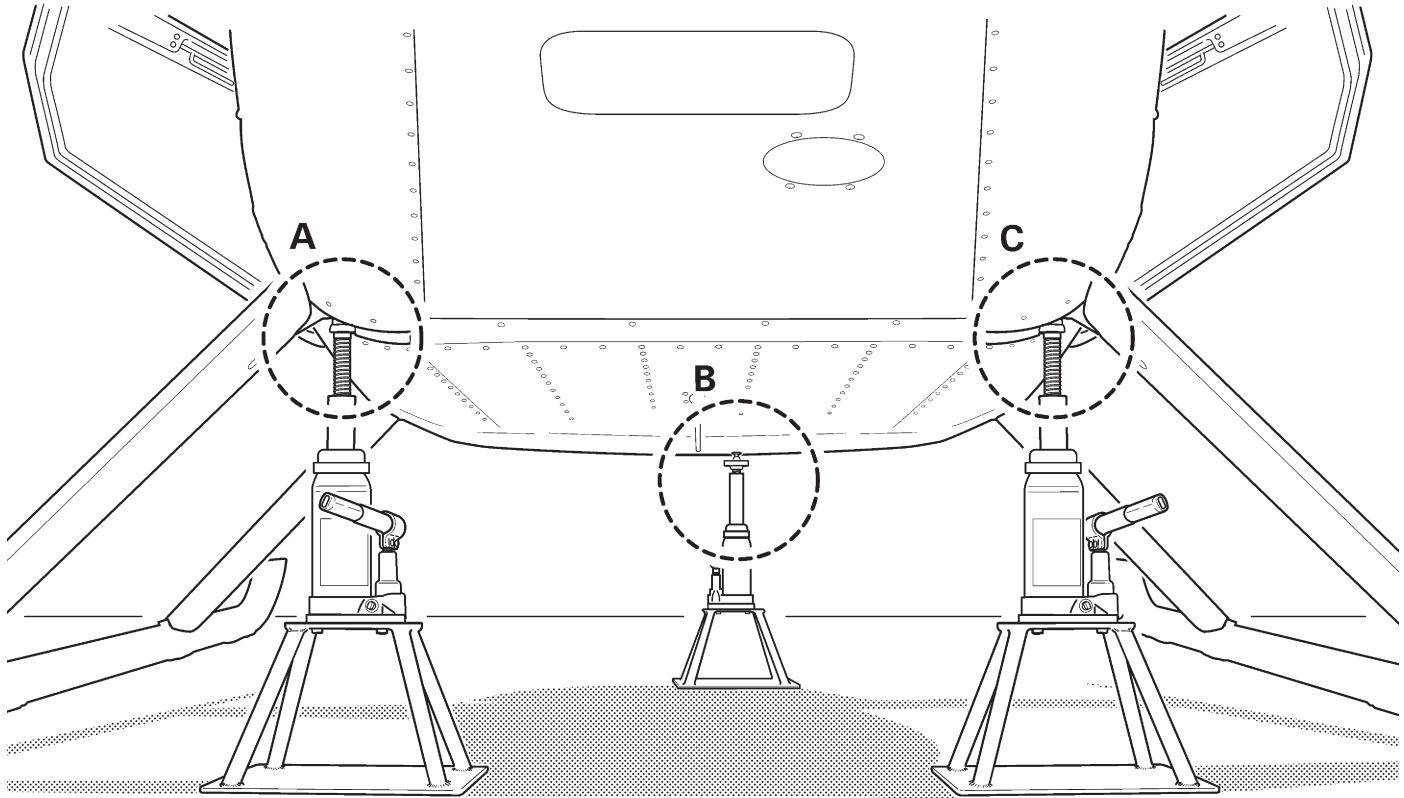
FIGURE 7-1 JACKING

7-10 Jacking (continued)

B. Lowering

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CAUTION

Skids spread as aircraft weight settles on landing gear.

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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.

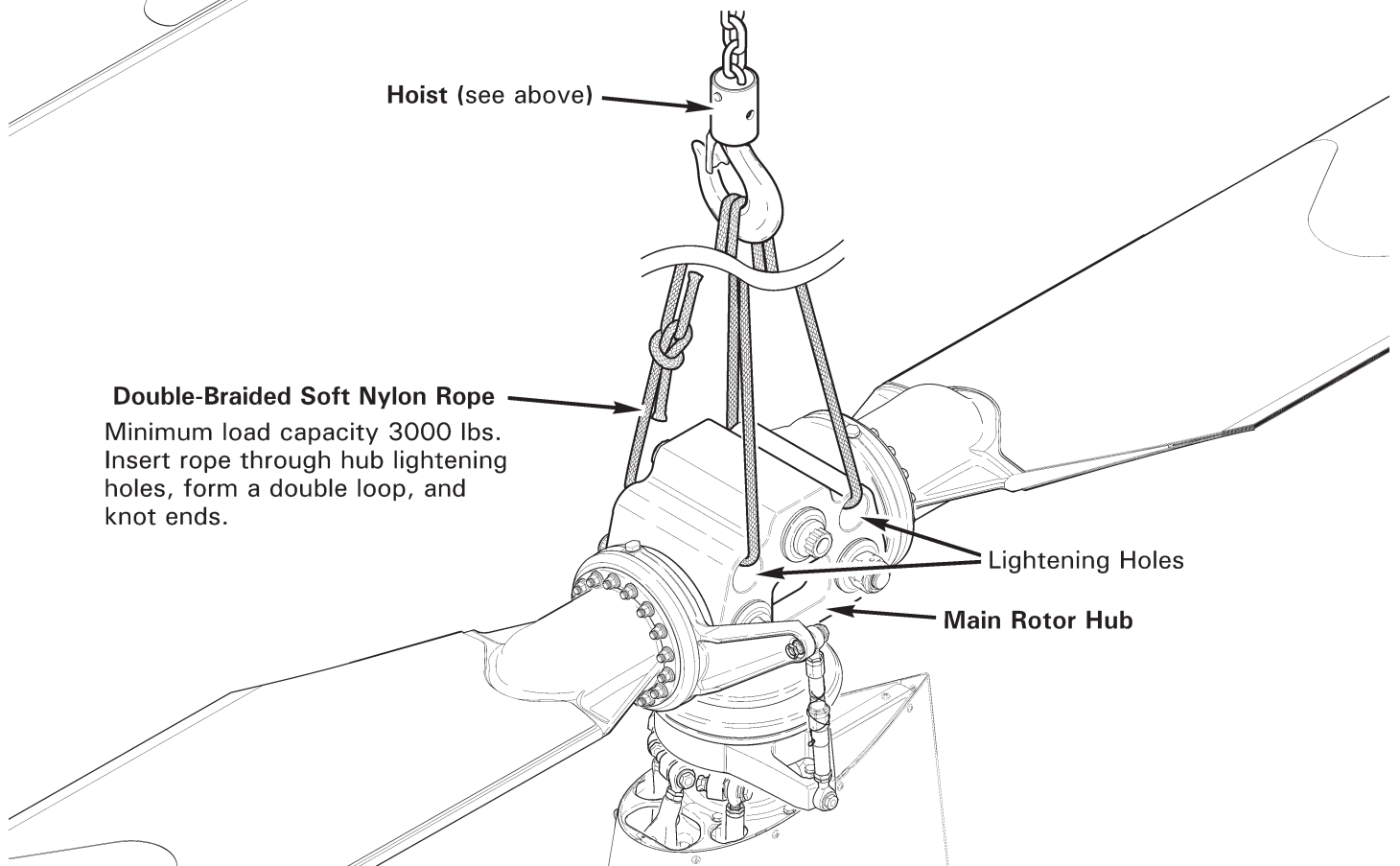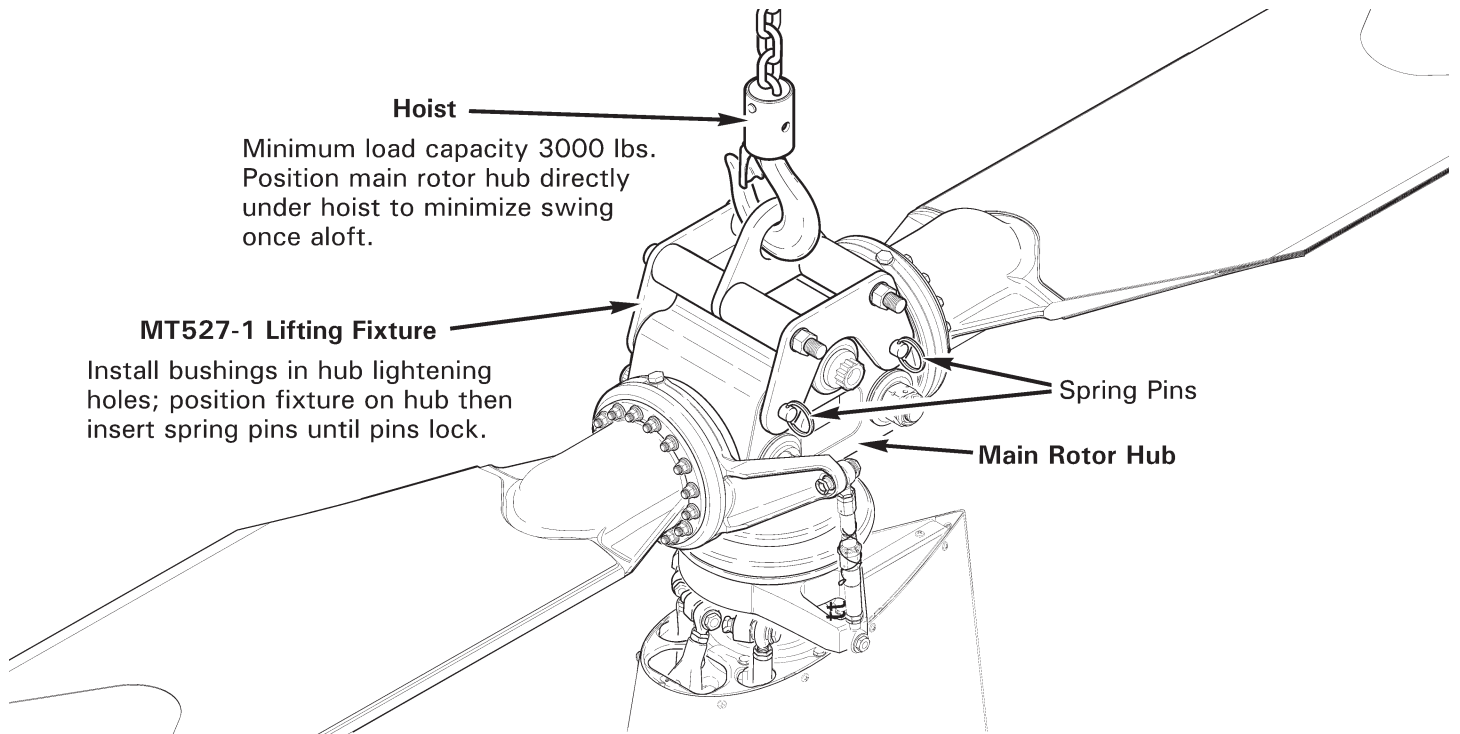2. Clear jacks from lugs/tabs and ball, and clear equipment from area.

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.

Spring Pins

Main Rotor Hub

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.

Lightening Holes

Main Rotor Hub

FIGURE 7-2 HOISTING

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.

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 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.

7-20 Hoisting (continued)

C. Lowering

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CAUTION

Skids spread as aircraft weight settles on landing gear.

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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.