

EMERGENCY LIFTING - MAINTENANCE PRACTICES

1. General

- A. In some instances (i.e., off-runway landing, collapsed gear, etc.) it may be necessary to use overhead means to lift (hoist) the airplane. This maintenance practice provides information needed to fabricate a spreader jig, attach jig to airplane and lift airplane using overhead means.

2. Preparation For Lifting

- A. The following procedures shall be accomplished prior to emergency lifting (hoisting).
- (1) Defuel airplane. Refer to Chapter 28, Fuel System - Maintenance Practices.
 - (2) Remove cargo from airplane.
 - (3) Remove the antennas that will interfere with hoisting.
 - (4) Secure propeller with propeller anchor assembly. Refer to Chapter 10, Mooring - Maintenance Practices.
 - (5) Check hoist cables assembly for frayed or deteriorated cables and loose bolts or fittings.
 - (6) Ensure cables are not twisted or kinked.
 - (7) Ensure hoist(s) has a minimum capacity of 10 tons.
 - (8) If hoisting airplane in a hangar, ensure that hangar structure will support 10 tons.
 - (9) Cover windshield with padded blankets.
 - (10) Check center of gravity. Airplane should be ballasted as required to locate the center of gravity between hoisting attach points.

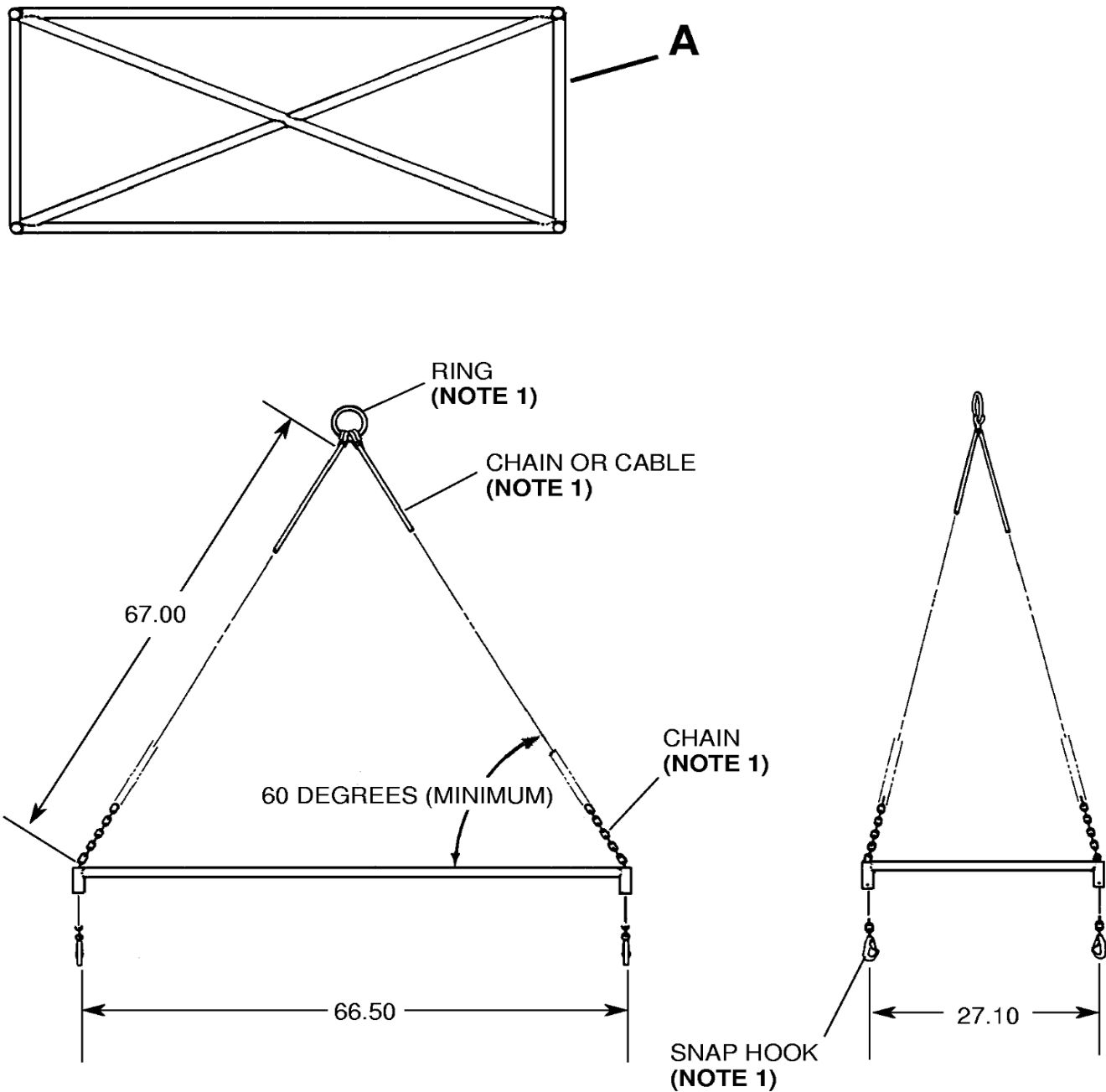
WARNING: Do not attempt to raise the airplane with a sling if airplane is equipped with a float or amphibian kit.

3. Emergency Lifting Procedures

- A. Lifting Procedures (Refer to Figure 201 and Figure 202).
- (1) Fabricate a spreader jig. Refer to Figure 201 for fabrication details.
NOTE: A spreader jig is used to ensure that only vertical force is applied to hoisting rings.
 - (2) Remove wing-to-fuselage fairing strips. Refer to Chapter 57, Wings - Removal/Installation.
 - (3) Attach spreader jig to chain at four points using bolt, washer and nut. Refer to Figure 202.
NOTE: Length of chain below spreader jig should be kept at a minimum.
 - (4) Attach chain to hoisting rings at four points using snap hook.
 - (5) Attach long ropes to tie-down fittings at wing and tail. Use these ropes to stabilize and guide airplane during lifting and lowering.
CAUTION: Raise airplane slowly to assure airplane stability and safety during emergency lifting operations.
 - (6) Raise airplane enough to place jacks under fuselage jack points.
 - (7) Remove emergency lifting devices.
 - (8) Reinstall wing-to-fuselage fairing strips. Refer to Chapter 57, Wings - Removal/Installation.
 - (9) On completion of maintenance, lower and remove jacks.

Figure 201 : Sheet 1 : Spreader Jig Fabrication

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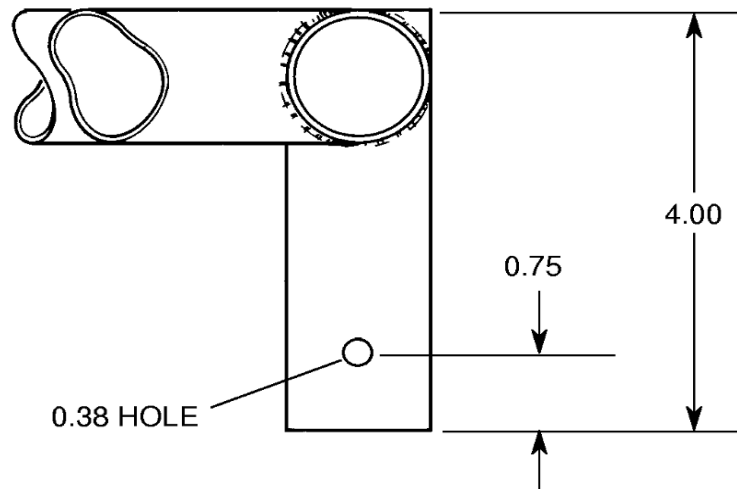
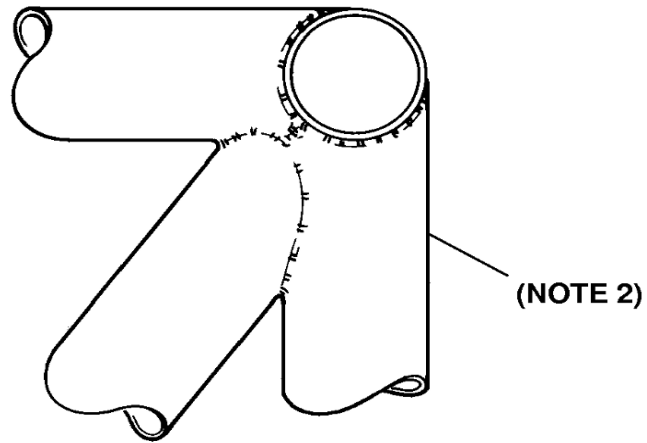
NOTE 1: CABLE, CHAIN, RING AND SNAP HOOK MUST BE CAPABLE OF 10,000 POUNDS TENSILE STRENGTH.

NOTE: ALL DIMENSIONS ARE IN INCHES

2680X1025

Figure 201 : Sheet 2 : Spreader Jig Fabrication

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DETAIL A
FABRICATION OF CORNER FITTING

NOTE 2: STRUCTURAL MEMBERS SHOULD BE CAPABLE OF WITHSTANDING 4,000 POUNDS COMPRESSION. EXAMPLES INCLUDE 0.065 X 2.00 ROUND TUBE (4130 STEEL) OR 0.083 X 1.785 ROUND TUBE (4130 STEEL)

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Figure 202 : Sheet 1 : Spreader Jig Installation

