JACKING - MAINTENANCE PRACTICES

1. General

A. The entire airplane may be lifted by using jacks. Jack placement is dependent on specific model and cargo pod configuration. The recommended method of jacking the airplane utilizes integral jack points located on the bottom of the fuselage area. An alternate method is also provided which uses tall jacks in conjunction with fabricated jack pads under the wings to raise the airplane.

B. Airplane jacking is used to aid in removal/installation of the landing gear and anytime the airplane must be supported off the floor. When jacking, observe the following notes:

NOTE: The airplane may be jacked with full fuel tanks.

NOTE: When possible, the airplane should be on a level surface. The jacking site should be protected from the wind, preferably inside a hangar.

NOTE: In some instances, it may be necessary to use optional hoisting rings for the initial lift; to be followed up with jacks.

NOTE: Jacks should be used in conjunction with wing and fuselage shoring.

2. Tools, Equipment and Materials

A. Refer to Lifting and Shoring - General for a list of required tools, equipment and material.

3. Description and Operation

A. Two jack points are provided on the underside of the fuselage for jacking the main landing gear. These jack points may be used singularly to lift one wheel, or in conjunction with the other two jack points to lift the entire airplane.

(1) For 208 and 208 Cargomaster airplanes without a cargo pod, jack points are located at each aft main landing gear support (FS 207.44, BL 23.77 left and right).

(2) For 208 and 208 Cargomaster airplanes with a cargo pod, jack points are located at each aft main landing gear fitting using the outboard cap attach bolt (FS 207.44, BL 31.125 left and right).

(3) For 208B airplanes, jack points are located at FS 227.44, BL 31.125 left and right.

NOTE: Main landing gear to fuselage fairings must be removed to access jack points on all airplanes with cargo pods.

B. One jack point is provided for the nose wheel. The location of this jack point is common for all 208 Models. This jack point is located on the centerline of the airplane, aft of the nose gear at the firewall (FS 100.00).

CAUTION: A tail stand must be used when servicing airplane inside tail section. Ensure the tail stand is strong enough to support the airplane.

C. Airplanes may be equipped with two additional jack points for changing the main landing gear tires. These integral jack points are located on the aft side of main landing gear axle fittings.

NOTE: These jack points are standard equipment on 208 serial 20800061 and On; on 208 Cargomaster serial 20800113 and On; and on 208B Models serial 208B0001 and On.

4. Jacking Procedures For Airplanes Without Cargo Pods

A. Jacking Instructions.

NOTE: This is the recommended jacking procedure for airplanes without cargo pods.

(1) Ensure static ground wire is attached to airplane.

(2) Position jacks beneath each jack point. Refer to Figure 201 for specific jack point locations.

(3) Ensure that jack base is level and jack cylinder is vertical at start of jacking operation.

(4) Raise jacks simultaneously, keeping airplane level until tires are clear of ground.

NOTE: Raise airplane no more than required for maintenance being performed.

(5) Position tail stand under tail tie-down for stability.

(6) On completion of maintenance, remove tail stand.

(7) To lower airplane; lower jacks simultaneously.

(8) Remove jacks.

5. Recommended Jacking Procedures For Airplanes With Cargo Pod

A. Jacking Instructions.

CAUTION: Do not use cargo pod structure for jacking or blocking surface.

(1) Ensure static ground wire is attached to airplane.

(2) Remove main gear to fuselage fairing. Refer to Chapter 32, Main Landing Gear - Maintenance Practices.

(3) Position jacks at left and right main landing gear attach trunnion bearing caps (aft outboard bolt heads). Refer to Figure 202 for specific jack point locations.

(4) Position jack at nose gear on centerline of airplane (FS 100.00).

CAUTION: Jack base must be level and jack cylinder vertical at start of jacking operations.

(5) Raise jacks simultaneously, keeping airplane level.

NOTE: Raise jacks no more than required for maintenance being performed.

(6) Position tail stand under tail tie-down.

(7) On completion of maintenance, remove jack stand and lower jacks simultaneously.

(8) Remove jacks and ground wire.

6. Alternate Jacking Procedure For Airplanes With Cargo Pod

A. Jacking Instructions.

CAUTION: Do not use cargo pod structure for jacking or blocking surface.

(1) Ensure static ground wire is attached to airplane.

(2) Position jack under tail tie-down ring.

(3) Position a jack at WS 141.2 or WS 155.9 on the front spar rivet line of each wing. Refer to Figure 203 for specific jack point locations.

(4) Fabricate jack pads. Refer to Figure 204.

(5) Place jack pads on jacks.

CAUTION: Wing jacks must be equipped with jack pads to protect wing structure.

CAUTION: Jack base must be level and jack cylinder vertical at start of jacking operation.

(6) Raise three jacks simultaneously, keeping airplane level.

NOTE: Raise airplane no more than required for maintenance being performed.

(7) When airplane has been raised to a sufficient height, position a jack stand under nose gear jack point for stability.

(8) On completion of maintenance, remove jack stand from nose.

(9) Lower all jacks simultaneously.

(10) Remove jacks and ground wire.

7. Jacking Individual Main Gear Wheels Using Integral Jack Pads

A. Jacking Instructions.

(1) Position wheel chocks at wheels that will not be jacked.

(2) Remove optional brake fairing if installed. Refer to Chapter 32, Wheels and Brakes - Maintenance Practices.

(3) Position jack beneath integral main landing gear jack pad.

(4) Ensure that jack base is level and jack cylinder is vertical at start of jacking operation.

NOTE: Raise wheel no more than required for maintenance being performed.

(5) On completion of maintenance, lower and remove jack.

(6) Install brake fairing. Refer to Chapter 32, Wheels and Brakes - Maintenance Practices.

(7) Remove wheel chocks.

Figure 201 : Sheet 1 : Jack Points Airplanes Without Cargo Pods

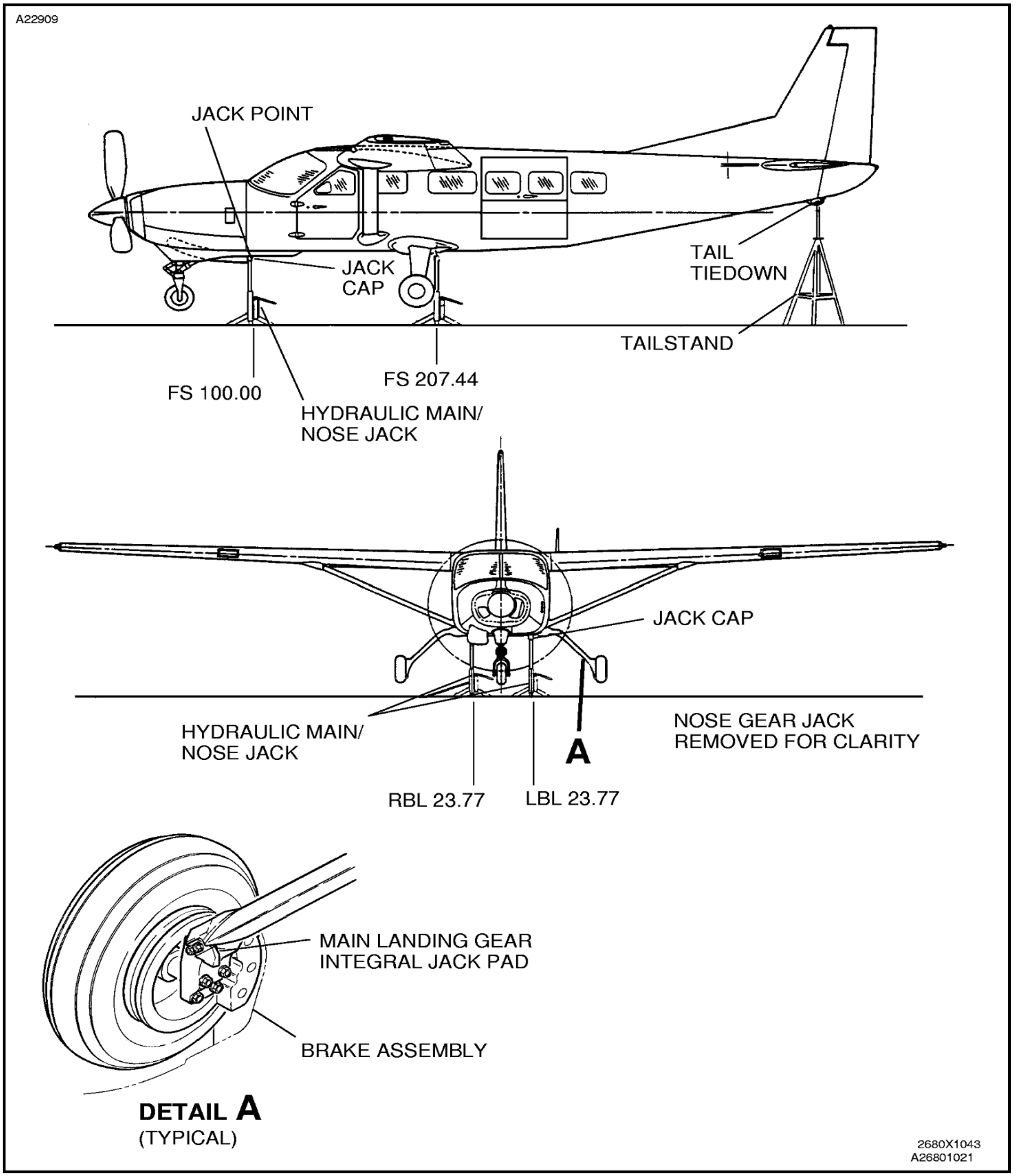

Figure 202 : Sheet 1 : Jack Points for Airplanes With Cargo Pods

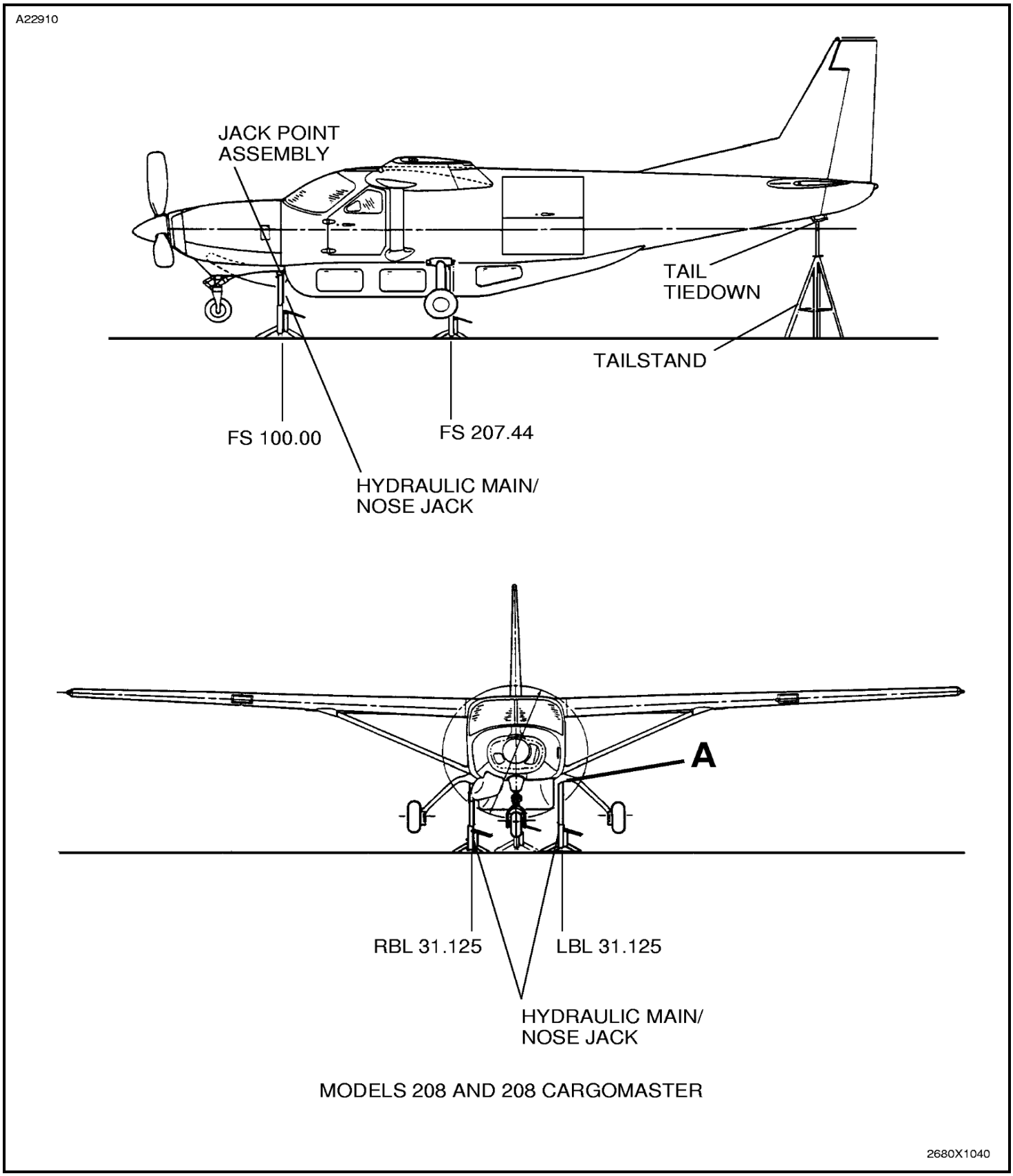

Figure 202 : Sheet 2 : Jack Points for Airplanes With Cargo Pods

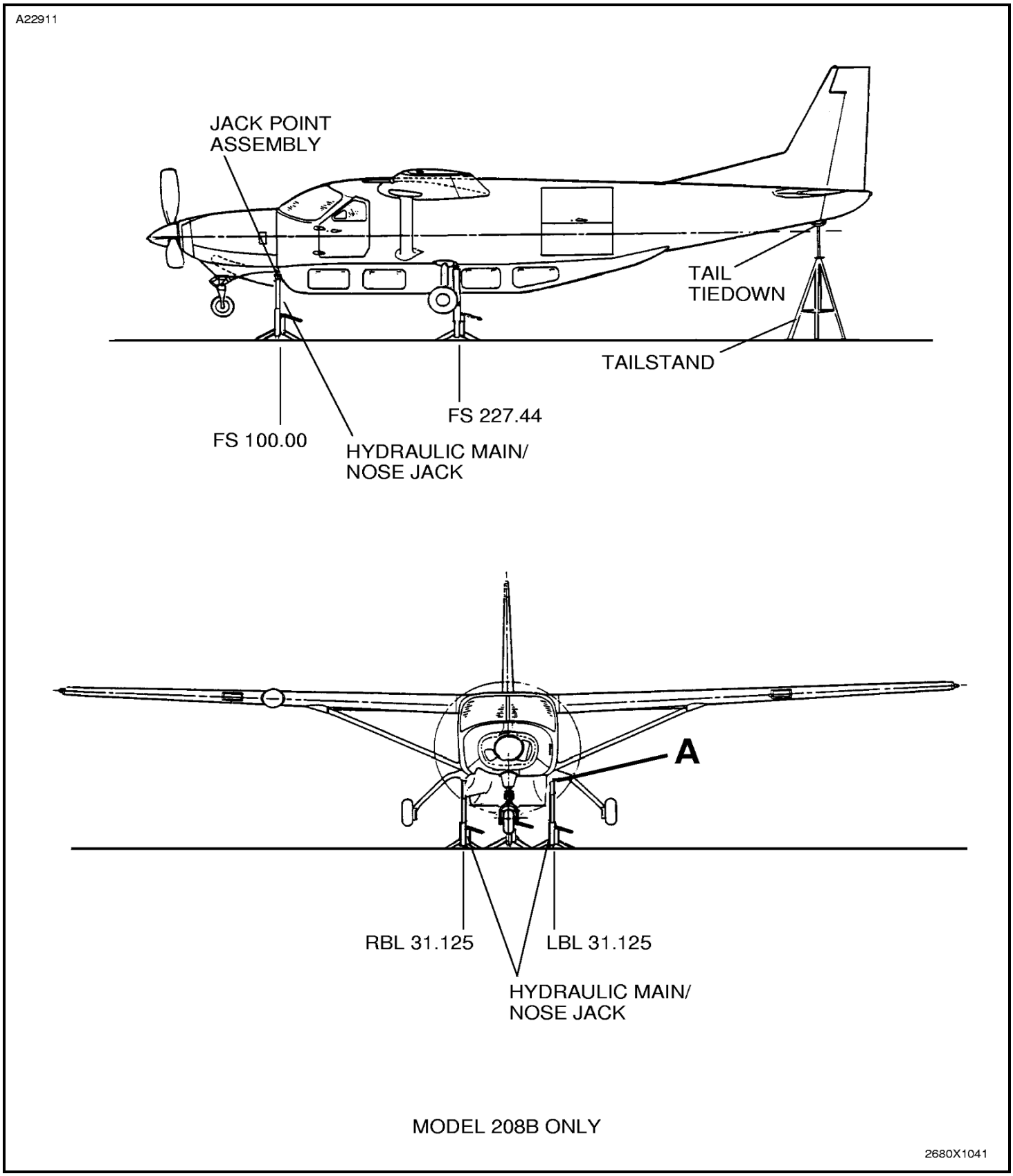

Figure 202 : Sheet 3 : Jack Points for Airplanes With Cargo Pods

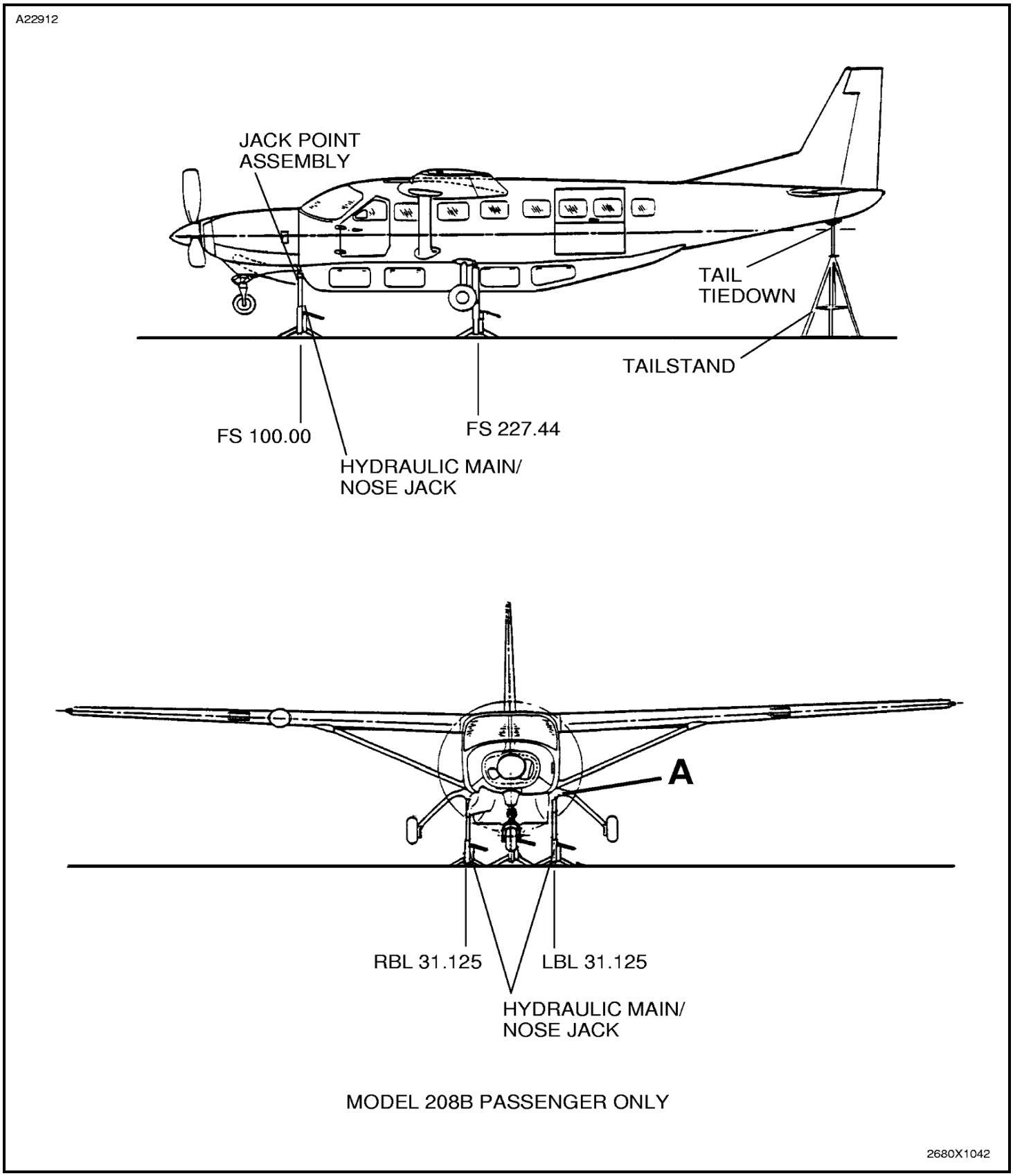

Figure 202 : Sheet 4 : Jack Points for Airplanes With Cargo Pods

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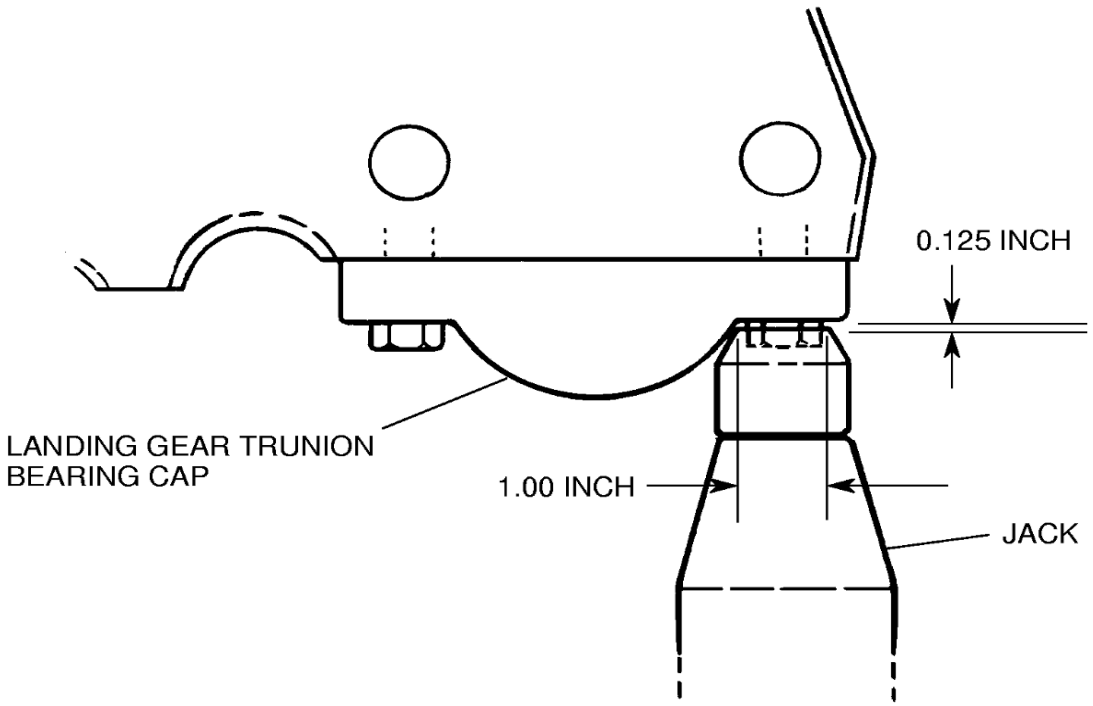

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Figure 203 : Sheet 1 : Alternate Jack Points for Airplanes With Cargo Pods

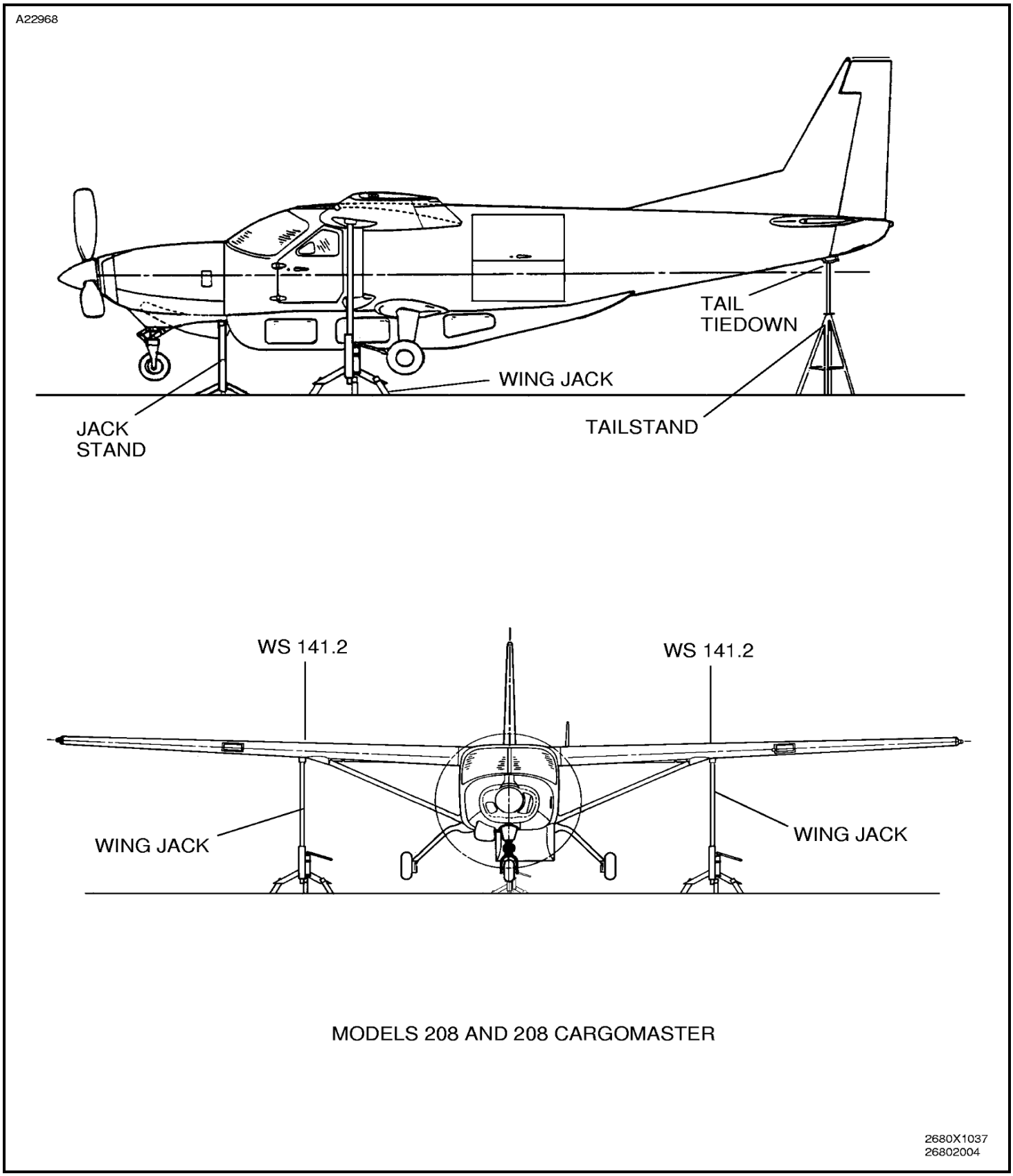

Figure 203 : Sheet 2 : Alternate Jack Points for Airplanes With Cargo Pods

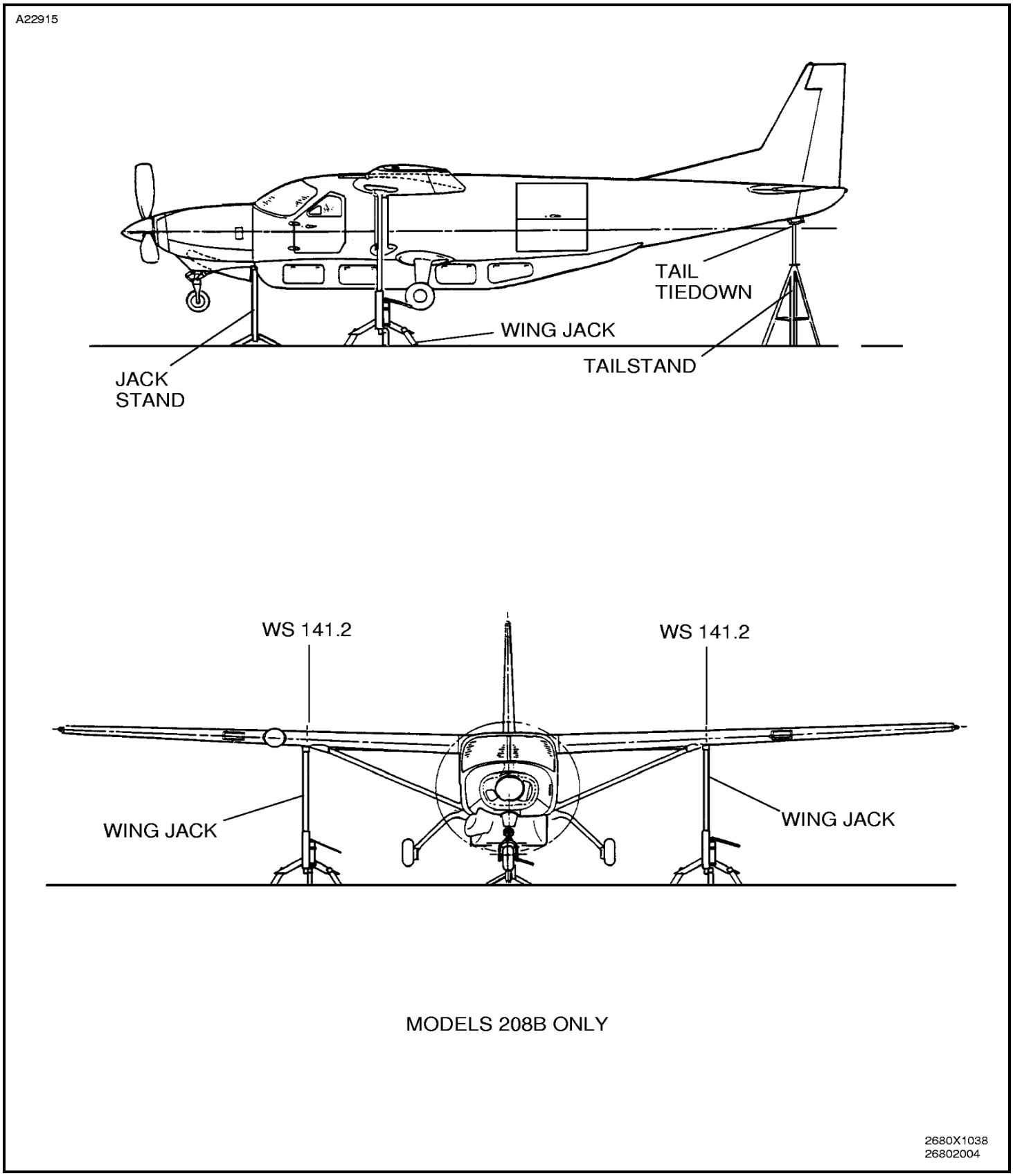

Figure 203 : Sheet 3 : Alternate Jack Points for Airplanes With Cargo Pods

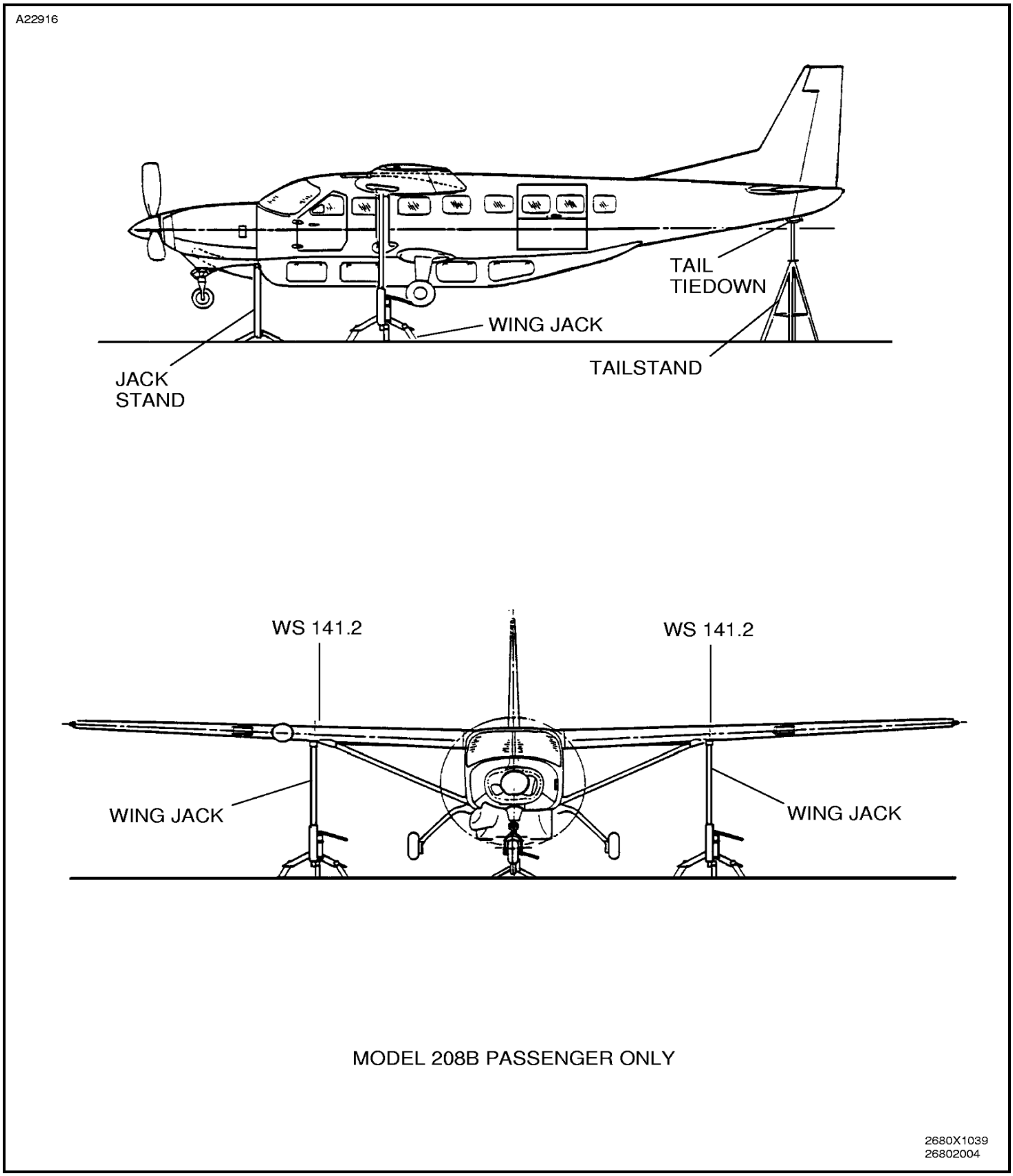

Figure 204 : Sheet 1 : Fabrication of Wing Jack Pad

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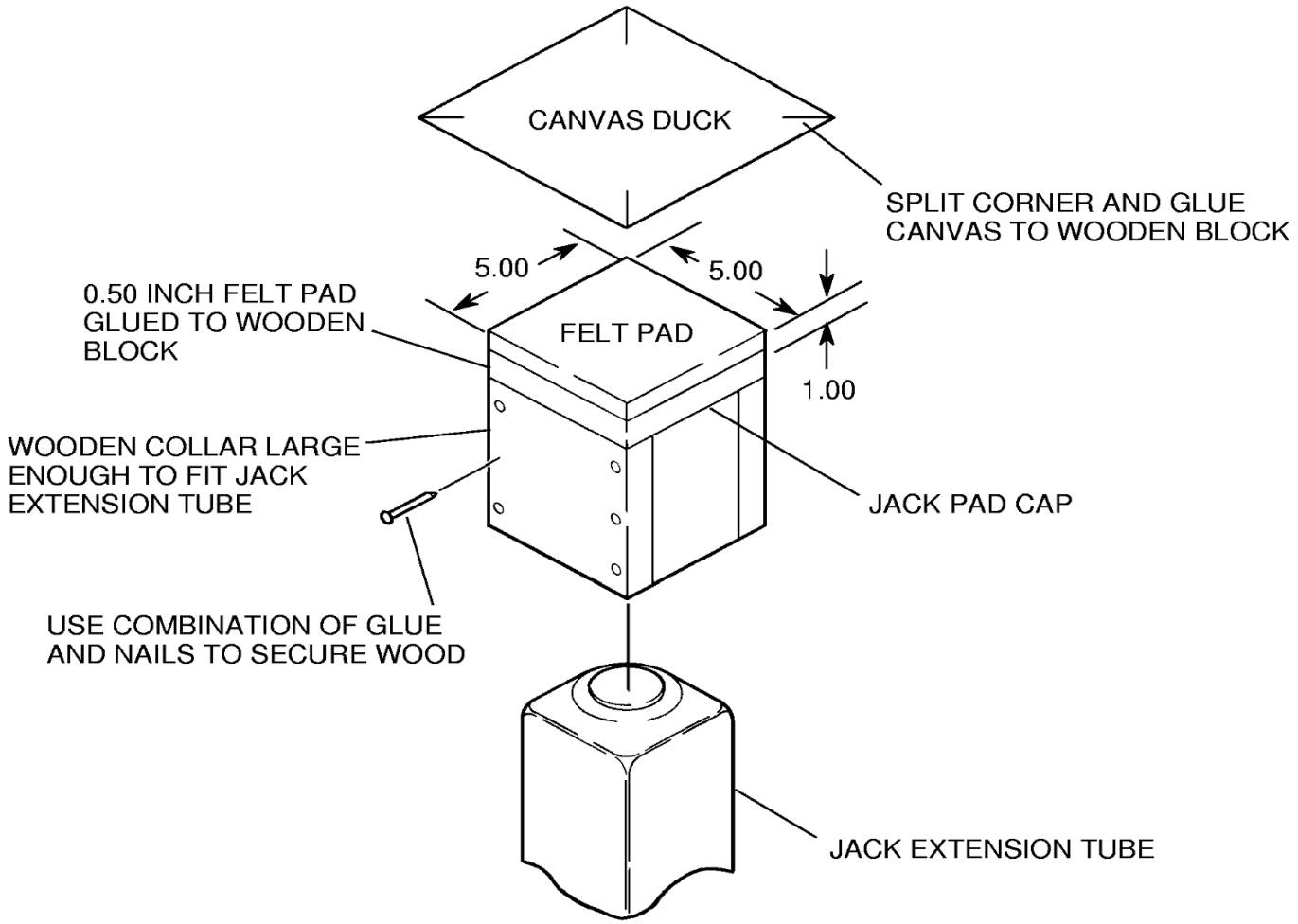

NOTE: PADS SHOULD BE CONSTRUCTED OF 1.00 INCH PLYWOOD WITH 5.00 X 5.00 INCH CAP. CAP SHOULD BE PADDED WITH 0.50 INCH FELT AND COVERED WITH CANVAS DUCK OR EQUIVALENT. PAD SHOULD PIVOT ON TOP OF JACK EXTENSION TUBE SUFFICIENTLY TO ALLOW PAD CAP TO REST SQUARELY AGAINST LOWER SURFACE OF WING AND PROVIDE A MINIMUM OF 5.00 SQUARE INCHES OF CONTACT. LOCATE PADS AT LEFT AND RIGHT WS 141.2 OR LEFT AND RIGHT WS 155.9 ON FRONT SPAR RIVET LINES.

NOTE: ALL DIMENSIONS ARE IN INCHES

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