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SERVICE BULLETIN

SB039-1197

Subject: Lancair IV Fast Built, Gear Box Installation

Date: 19 Nov., 97

Ref: Lancair IV Manual

Pages: Chapter 19, pages 57/58

Status: Mandatory Inspection/Installation

Background:

Most of the landing gear loads are transmitted into the fuselage through the GM461 brackets (installed on the forward face of gear box). In the Lancair construction manual, pages 19-57/58 shows bolts "A", "B", and "C", which are the load carrying bolts that secure the gear box to the side of the fuselage.

During the alignment process in building the fast build, we only install one of these bolts. The remaining two bolts must be installed by the builder. The one bolt installed on the fast build is not sufficient to carry the loads of the landing gear.

Action:

Verify that three AN5 bolts have been installed (including the bolt installed on the fast build). All bolts must go through the GM461 corner bracket, the forward face of the gear box, and the flange of the gear box.

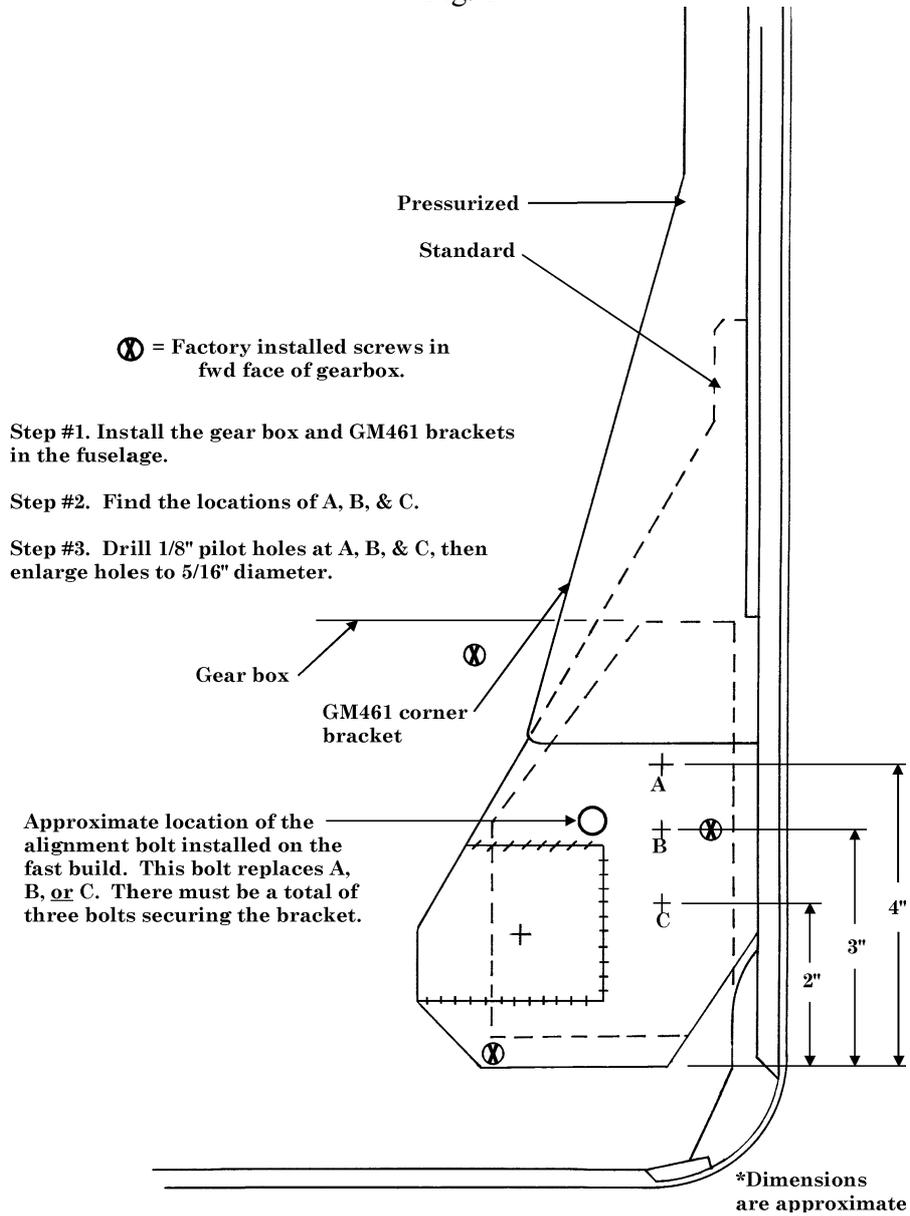
You may have difficulty installing the bolts at locations "A" and "C" as these locations are close to the corner of the gear box. In the procedure below there is an alternate location for the bolts should you have this clearance problem.

Procedure:

(The wings must be removed for the installation of the bolts).

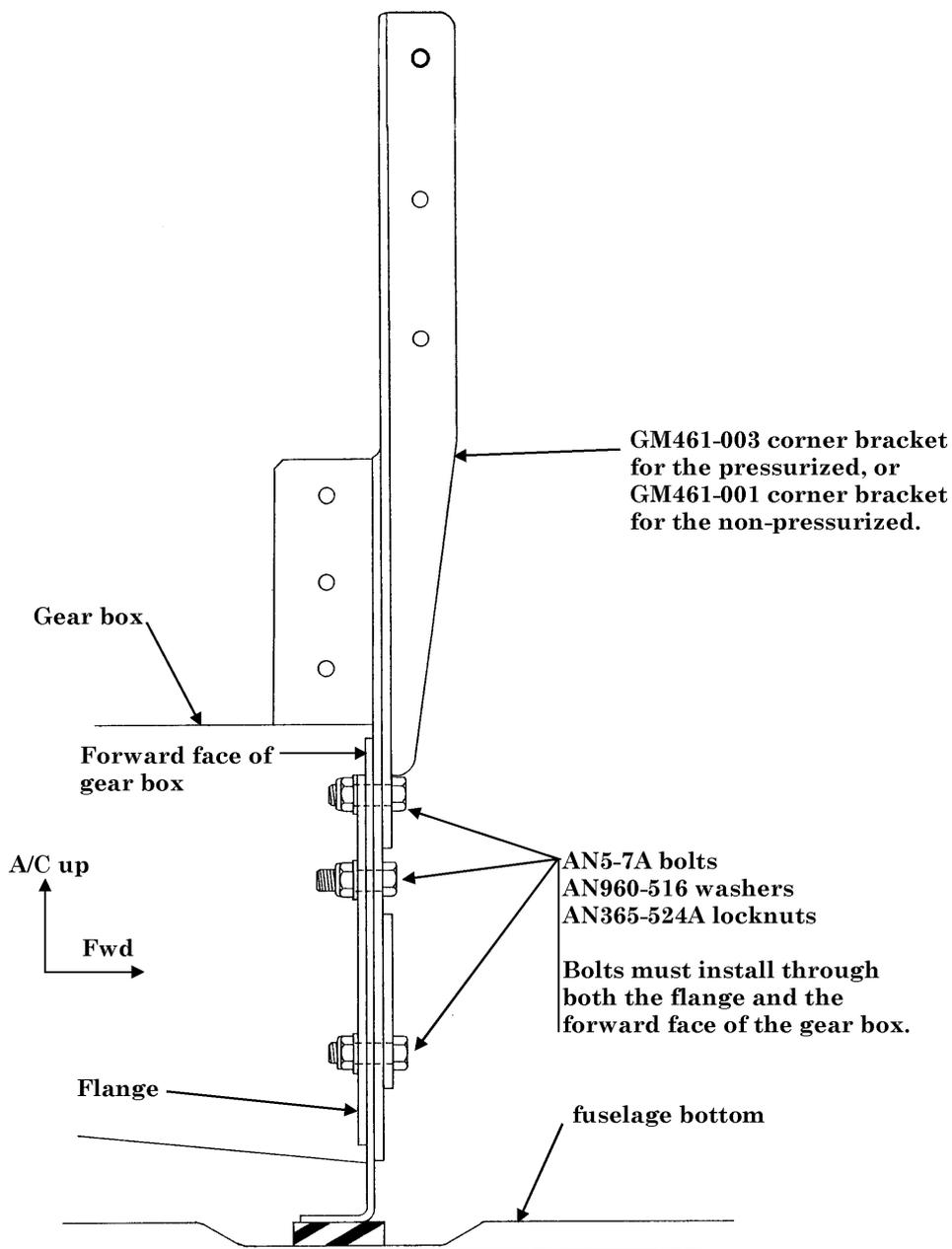
Bolt Locations

Fig. 1



Cross Section of Gear Box

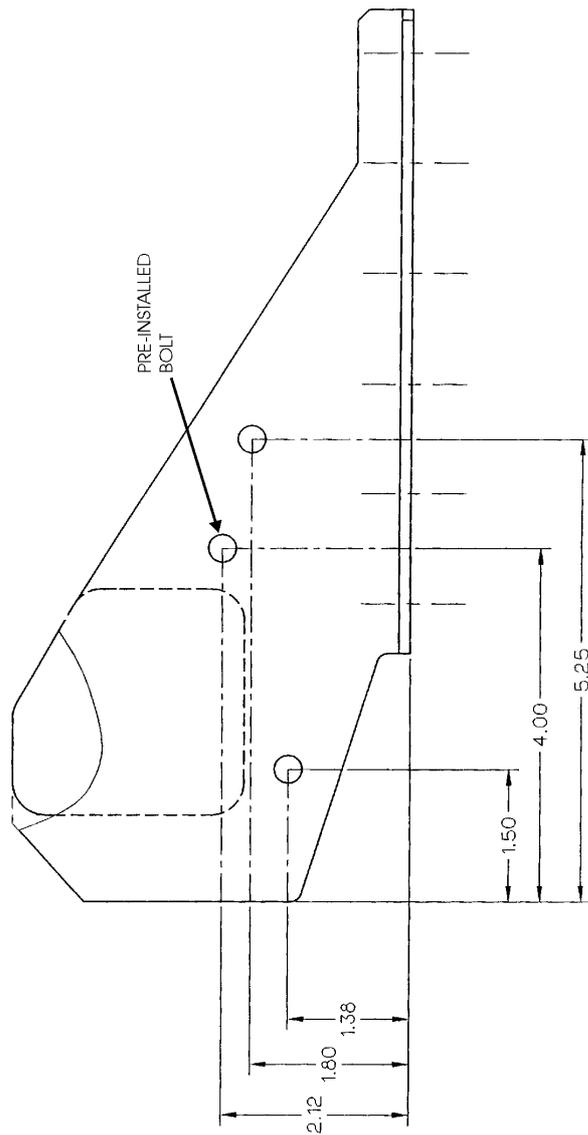
Fig. 2



- 1) Mark the location of the bolts in the Figure above.
- 2) Check that the locations clear the factory installed screws in the forward face of the gear box. Check that the holes would go through both the flange of the side of the gear box and the front of the gear box (Refer to above figure). If you have difficulty installing the bolts at these locations refer to the Alternate Installation Locations of Figure 3.

Alternate Bolt Locations

Fig. 3



- 1) Drill 1/8" pilot holes.
- 2) Enlarge the holes to 5/16" diameter.
- 3) Install the AN5 bolts.