

NG-2B / MKNG-2B Installation

Disclaimer:

My Liability Consultant (otherwise known as “wife”) insisted that I put a waiver of responsibility in here to let everyone know that you’re all responsible for yourselves (I’m sure your mothers all told you that at some point). As builders and pilots, you use this system and these instructions at your own risk. You should know that I explicitly designed both the parts and the instructions contained herein so that they would ensure your quick and certain demise should you make the mistake of using them, even as exactly directed. I hereby absolve myself of any responsibility for anything that happens either before or after you install these components into your aircraft.

She’s happy now. Well, with respect to this, anyway.

Included Parts:

1X - NG-2B Foot

Or:

1X - MKNG-2B Foot

Required Hardware:

2X - AN3-12A Bolts

4X - MS21042-3 Nuts

8X - AN960-10 or AN960-10L washers as needed

Required Tools:

- 3/8” socket
- 1/4” socket
- Socket wrenches
- Torque wrench

Introduction:

The NG-2B Foot is fabricated in a jig from 304SS to ensure a safe, high quality and aesthetically pleasing unit. The base is substantially thicker than previous NG-2 or NG-2A units to ensure robustness and to prevent motion of the NG-15 assembly on the NG1-L strut. It is also designed to ensure full 180 degree steering rotation capability of the nose wheel with the new, 3:23 Composites NG-15X and MKNG-15X.

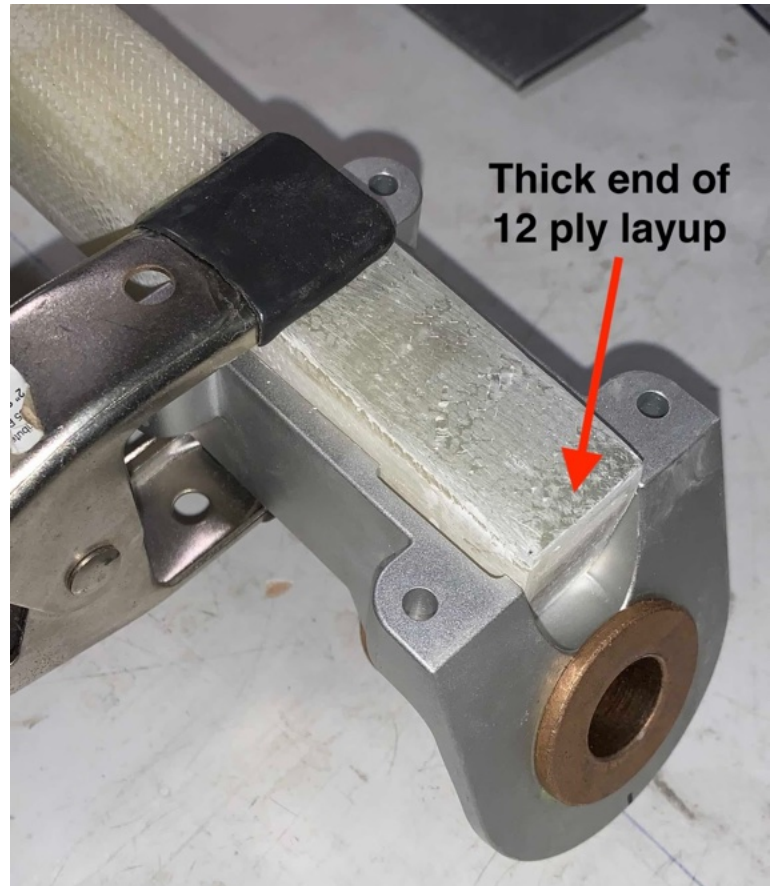
The MKNG-2B Foot is ¼” wider and will ONLY fit the original MKNG-15 or MKNG-15A struts castings for the COZY MKIV. Instructions for the MKNG-2B Foot installation are identical to the NG-2B installation instructions.

These instructions assume that you’ve floxed the NG-15 assembly onto the NG1-L strut.

New Installation (NOT a Retrofit):

1. Sand and clean the top of the NG1-L strut where the NG-2B Foot will be attached.
2. Install a tapered 12 ply BID layup with ⅛” ply drops on the top surface of the NG1-L strut, opposite the NG-15. The thick end of this layup should be at the end of the strut, and is applied to ensure that the strut is a constant thickness so that the four bolts holding the NG-2B onto the NG-15 assembly sit perpendicularly to the lugs on the strut and the face of the NG-2B foot.

Peel ply and allow to cure.



3. After cure, remove the peel ply and sand the layup so that the distance from the four lugs to the top of the NG1-L strut is even. The distance should look like this when the NG-2B is placed on the top of the strut:

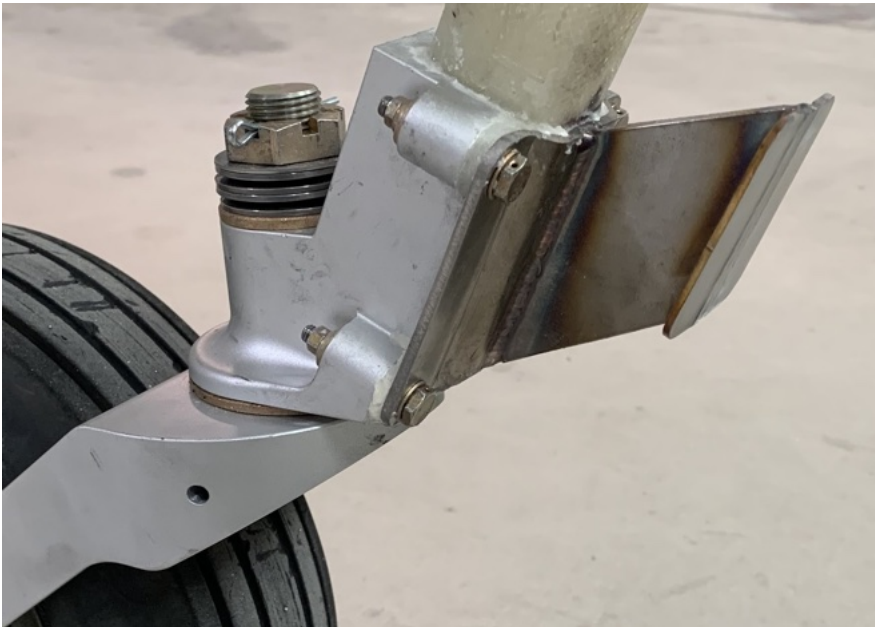
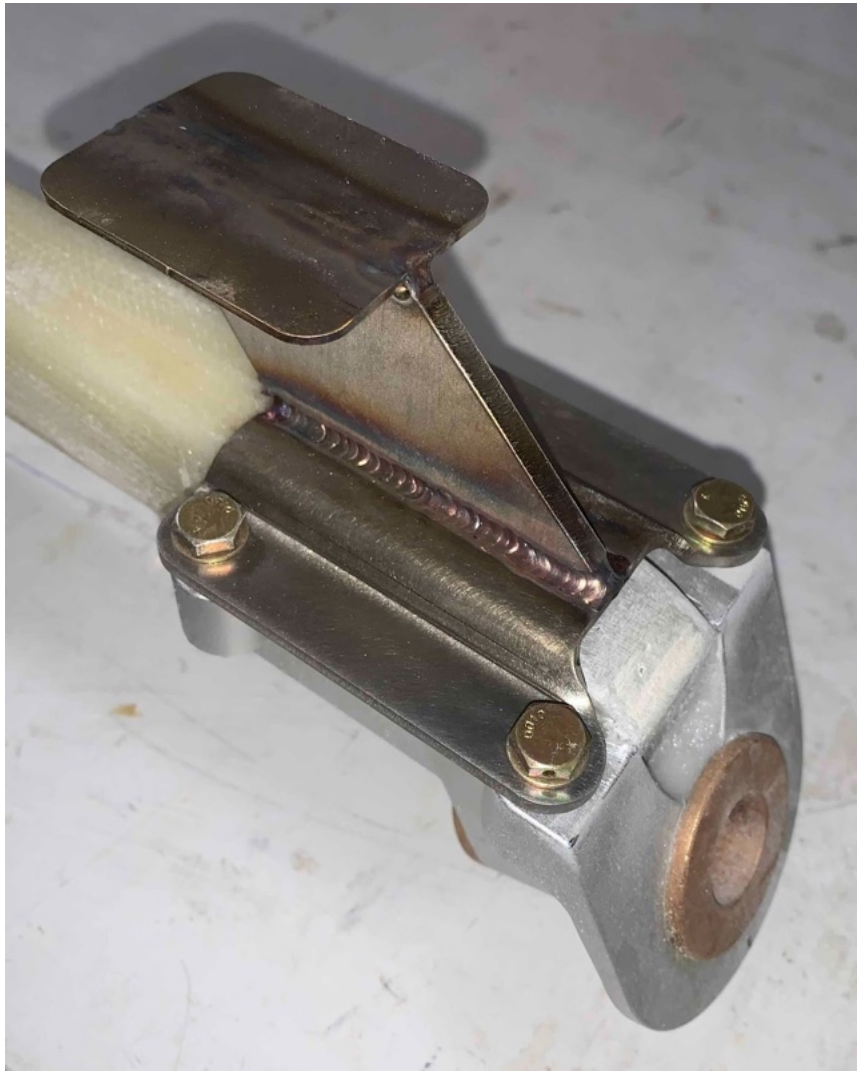
Take care not to damage the 2 ply BID torsional wrap above the NG-15/NG-2B area on the NG1-L strut.



4. Sand and clean the top of the NG1-L strut where the NG-2B Foot will attach. Sand and clean the mating surface of the NG-2B.
5. Flox the NG-2B foot onto the top of the NG1-L strut. Do NOT put flox between the NG-15 lugs and the NG-2B flange (yet).
6. Install the four AN3-12A bolts with washers under the heads. Install washers and the MS21042-3 nuts on the bolt threads as shown above and snug all four nuts in turn, ensuring that the same number of threads and length of bolt is protruding from the nut. Even the number of exposed threads to ensure a square and even NG-2B install, and ensure that flox squeeze out occurs around the perimeter of NG-2B. Do NOT torque the bolts/nuts at this time - only snug them up.
7. Apply flox between the NG-2B and the MK-15 lugs, around the bolt shafts.
8. Scrape off all excess flox. Allow to cure.

9. After cure, tighten all four bolts and nuts to 40 in-lb.

Ensure that at least one thread protrudes past the end of the nut, but no more than 3 - 4 threads. Multiple washers are acceptable (up to three, total) under the nuts to ensure correct thread protrusion. The assembly should look like this:



Retrofit Installation Instructions:

1. Support the nose of the plane and take the weight off nose gear.
2. Remove the four screws/bolts/washers/nuts holding the existing NG-2/NG-2A to the NG-15 / NG-15A / NG-15X / MKNG-15X and NG1-L strut.
3. Remove the existing NG-2/NG-2A from the NG-1L strut.
4. If the NG1-L strut is not a constant height above the lugs on the NG-15, follow the “New Installation” instructions, starting at step (1).
5. If the NG-1L strut is already a constant height above the lugs on the NG-15, follow the “New Installation instructions, starting at step (4).

Troubleshooting:

N/A

Revision List:

Date	Revision	Description
2/19/2024	1	<ul style="list-style-type: none"><li data-bbox="646 323 873 357">● Initial Release
2/25/2024	2	<ul style="list-style-type: none"><li data-bbox="646 390 1036 424">● Add MKNG-2B references