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SERVICE BULLETIN 12-09-26

Date Released: September 26th, 2012

Date Effective: September 26th, 2012

Subject: Loose U-1202 Attach Bolts

Affected Models: All RV-12 Models

Required Action: Inspect the security of RV-12 main landing gear attach hardware. All main gear attach hardware should be installed per the Kit Assembly Instructions, Section 35, and then rechecked after the PAP flight tests have been concluded.

Time of Compliance: Before further flight

Synopsis:

The AN5-20A bolts used to attach the U-1202 Outbd Main Gear Attach Bracket may be improperly seated and torqued during initial installation resulting in loose fasteners and possible damage to the landing gear and aircraft structure. As of the date of this bulletin, Van's is actively evaluating this issue to determine if other factors may be relevant.

Method of Compliance:

Remove the AN365-524 nuts and NAS1149F0563P washers that attach the landing gear, U-1202B Outboard Wear Plate and U-1202 brackets. Check the F-1204 Center Section Assembly for cracks around each hole. Check the surrounding area near the cutouts made in center section for the nuts. If cracks are present, do not fly the aircraft and contact Van's for repair information.

If cracks are not present, replace the washers and nuts. Re-torque each nut to the normal value 100-140 in lb plus the prevailing torque (the torque required to turn the nut onto the threads of the bolt. Determine this by holding the bolt stationary and measuring the torque required to turn the nut onto the bolt. All the threads of the nut should be engaged with the threads of the bolt).

Check that the bolt is fully seated prior to torquing the nut/bolt by tapping it with a hammer (protect the bolt head with a wood block), rather than relying on the nut drawing the assembly together. Round off the lower forward corners of the U-1202 if/as required to remove any interference with rivets used for attaching the F-1225-L & -R Seat Floors to the F-1204 Center Sections Assembly. Prime areas where powder coat is removed.

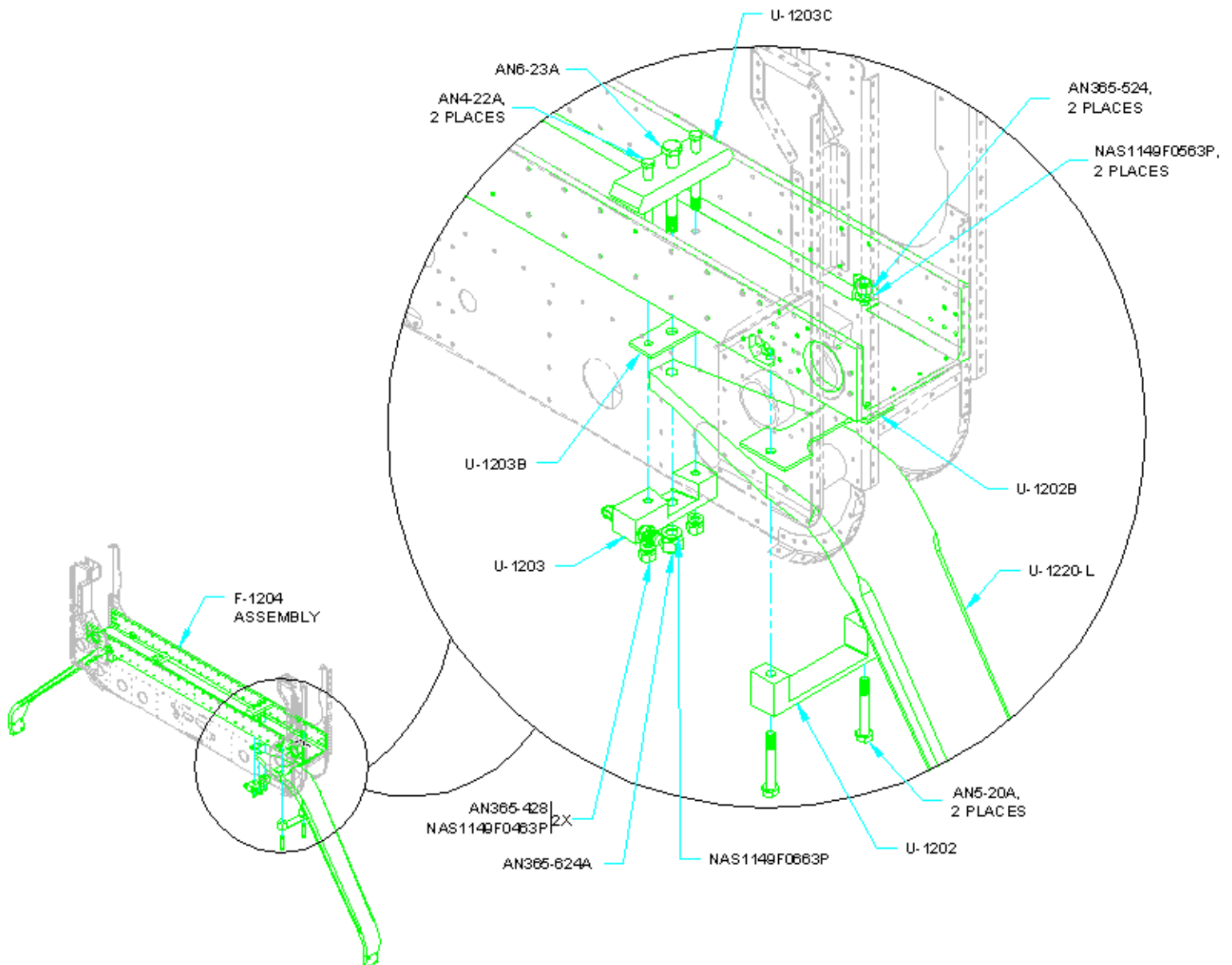
Use an even torquing sequence working back and forth between each of the bolts attaching the U-1202 until the final torque is achieved. Check that the U-202 is holding the gear leg evenly on both sides. Once final torque is achieved re-seat the bolt once again with a hammer and wooden block to protect the bolt head and make a final check of the torque.

Access to these nuts is only possible with a crows foot wrench, so it may be easier to turn the bolt. If so, allowance must be made for the drag torque of the bolt shank. Add the torque required to turn the bolt within the assembly without a nut in place to the nominal and prevailing torques.

*Note: In October 2011, Drawing 35-03, figure 2 was revised (rev 2) to change the length of the inboard landing gear attach bolts from AN6-24A to AN6-23A. While complying with this service bulletin, owners/operators should ascertain which fasteners are installed in these two locations. If AN6-24A bolts are installed, they can be replaced with the shorter AN6-23A bolts or... washers can be installed on the longer bolts to compensate for the extra length.

Replacement and Modification Procedures:

If damage is found during inspection, contact Van's Aircraft for repair information. Van's Aircraft will advise on repairs for damaged aircraft on a case by case basis. Van's engineering staff is actively evaluating the information we've been receiving from the field and will release 'generic' repair/reinforcement information as it becomes available.



SB 12-09-26 Addendum

Issue date: 10-3-12

This Addendum supplements and clarifies the contents of Service Bulletin SB 12-09-26.

1. Refer to Method of Compliance section, paragraph three.

In order to properly seat a U-1202 Main Gear Attach Bracket bolt a brass drift may be used on the head of the bolt. This requires access to the head of each bolt which may be gained in one of two ways.

The first option is to drill $\frac{3}{8}$ dia. [9.5mm] holes in the F-1276 Bottom Skin to allow for insertion of the drift. See Figure 1. This still permits torque to be applied to the head of the bolt, if desired, since a socket extension may be inserted through the new hole before the socket itself is attached.

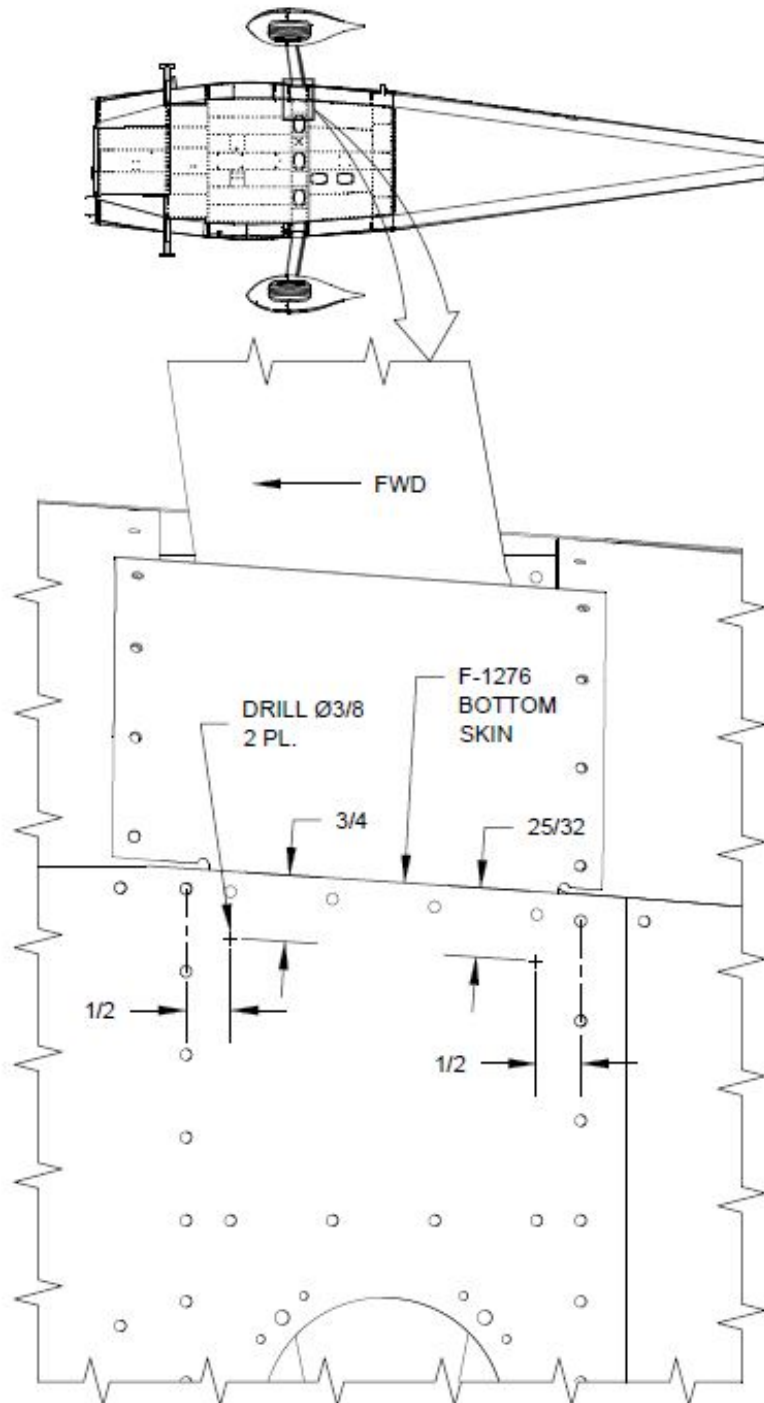


FIGURE 1: DRIFT ACCESS HOLES
BOTTOM VIEW - LEFT SIDE

The Second option is to drill out rivets and remove the F-1275G-L and -R Cover Plates. See the following figure from drawing 35-06 Figure 2.

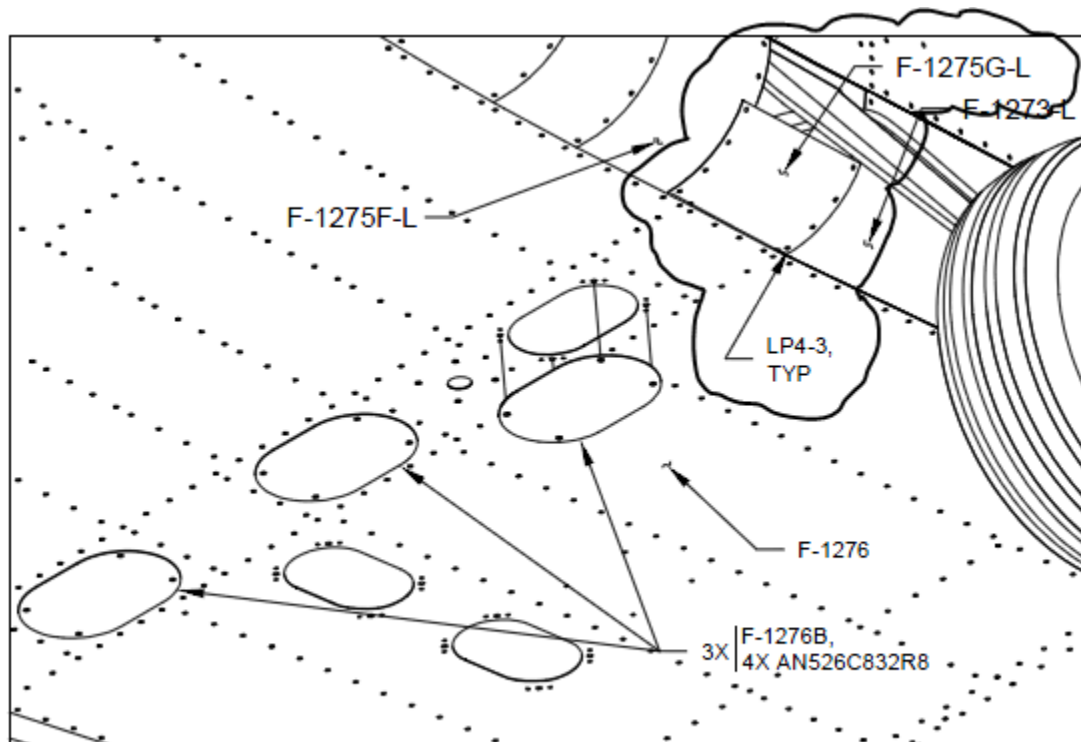


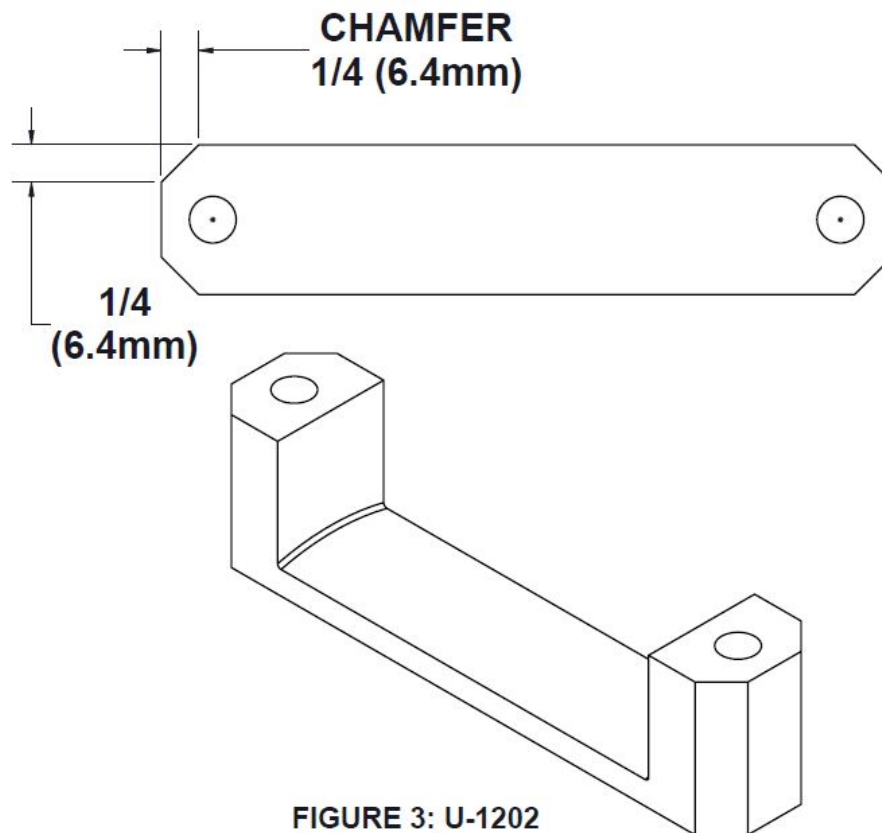
FIGURE 2: COVER PLATE INSTALLATION

2. Jack the aircraft to remove weight from the wheels before attempting to torque the nuts (or bolts) attaching the gear leg to the aircraft.

3. Refer to the Method of Compliance section, paragraph three:

The sentence; "Round off the lower forward corners of the U-1202 if/as required to remove any interference with rivets ..." has been changed to read; "Chamfer the four corners of the U-1202 to remove interference with rivets ..."

See Figure 3 for chamfer locations and dimensions.



4. Refer to the Method of Compliance section, paragraph four:

a) Part number "U-202" should be "U-1202."

b) The sentence; "Check that the U-1202 is holding the gear leg evenly on both sides." is amended for clarity to read: "Check that the gap remaining between U-1202 and U-1202B is the same at both bolt locations indicating that bracket and gear leg are in full contact."

5. Recheck torque after initial flight testing is complete.