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SERVICE LETTER

Issue Date
August, 2015

Subject/Purpose
It has come to our attention that some CH designs are being operated with improperly adjusted or installed nose gear bearings and damaged nose wheel bungees.

Affected Models
All “CH” designs with nose wheel bungee system.

Compliance Time
Change the bungee yearly.
Perform nose wheel quick test before next flight and yearly.

Change the Bungee
It is recommended that the nose gear bungee be changed annually.
Engines such as the Rotax has the muffler system close to the firewall area and therefore can heat the bungee over time, affecting the bungee's longevity. Adding a cabin heat shroud over the muffler can reduce radiant heat to the bungee, or add a heat deflector around the bungee area.
When pushing down at the front of the engine area, the nose gear should should be stiff. The nose gear leg must be tight against the lower gear bearing. If not, change the bungee before the next flight.

Nose Gear/Nose wheel Centering

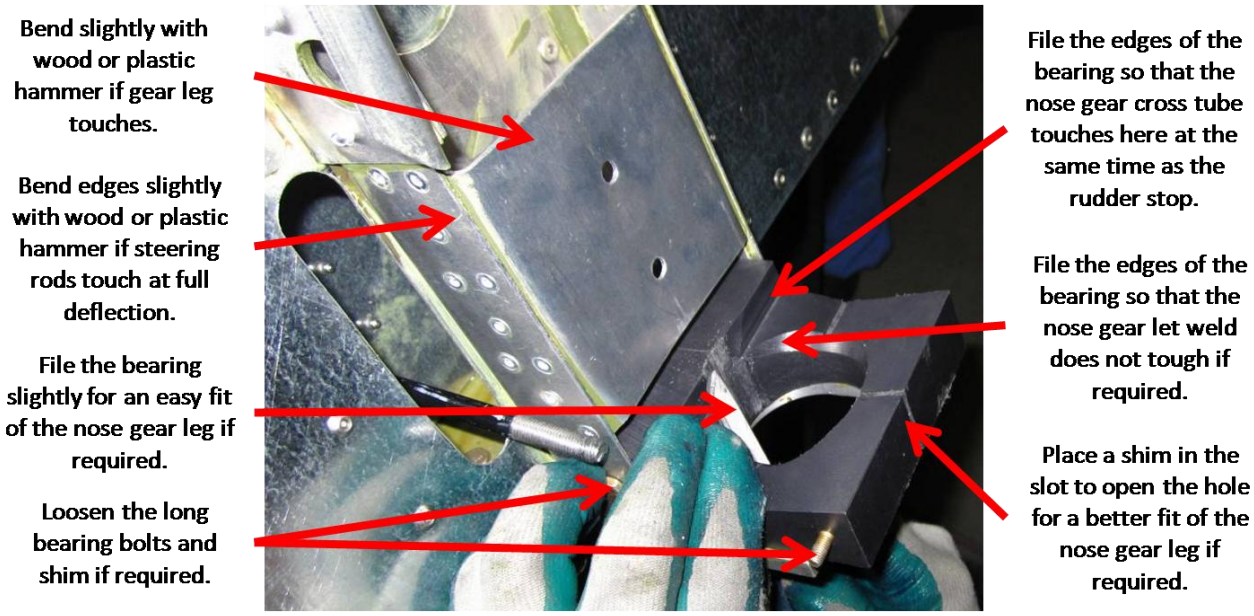
Quick test: With the nose wheel raised off the ground (achieved by lowering the rear fuselage), fully depress the left rudder pedal and release, then fully depress the right pedal and release. The pedals should return to the neutral position after they have been depressed.

It is important to properly adjust the nose gear so that your Chris Heintz designed aircraft flies well without continued use of rudder pedal. The rudder pedals should move smoothly and easily and should return to the neutral position when no pressure is being applied to them.

The nose gear is equipped with a bottom self centering bearing. The nose gear leg is equipped with a bungee chord shock absorber that keeps the nose gear pushed down on the centering bearing. Cables connect the rudder of the aircraft to the rudder pedals which are linked to the nose gear leg. It is important that the nose gear self-centers so that the rudder pedals and rudder are centered in flight, allowing for straight flying without any rudder input from the pilot. If the system does not self-center, it's typically because the system is too tight or the bungee is too loose. This tightness can be corrected with the following procedure (This procedure is also illustrated in a video available on www.newplane.com or at http://bit.ly/nosewheel-bungee

1. Remove the rudder pedal rods linked to the nose gear leg.
2. On the ground with engine off, lower the rear fuselage and move the nose wheel left and right with your hands. It should be easy to move and must self center quickly. See video http://bit.ly/nosewheel-bungee
3. If this does not occur then try each of the following:
    - Oil the upper and lower nose gear bearings.
    - Loosen the bottom bearing horizontal bolts. The bottom bearing is not a clamp so the gear strut must move easily.
    - Expand the bottom bearing by adding a thin shim between the two halves. If this works, tighten bolts and test.
    - Remove the complete nose gear and lightly file the top and or bottom bearings until the gear moves freely. Reinstall and test.
    - With the rudder pedals still disconnected from the nose strut, make sure that they move back and forth easily. If they do not, try each of the following:
        - Oil the rudder pedal bearings
        - Loosen the center rudder pedal bearing. If this works, shim the bearing between the two halves, tighten bolts and test.

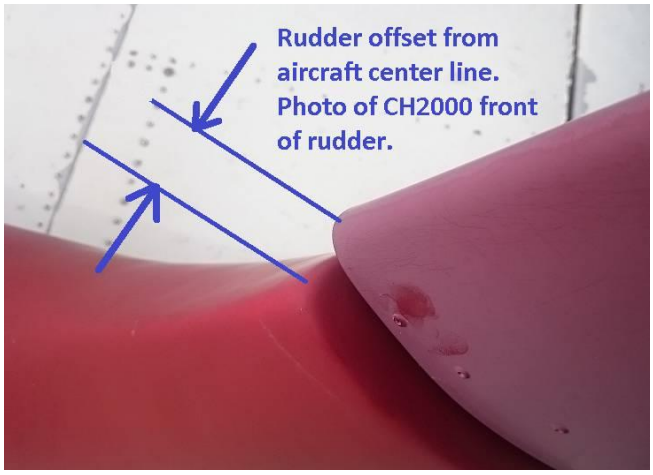
Adjustments to Nose Gear to Obtain Self-Centering Action



Once the nose gear self centers and rudder pedals move freely, reconnect the rudder pedal steering rods and repeat the test to see if the pedals are self-centering.

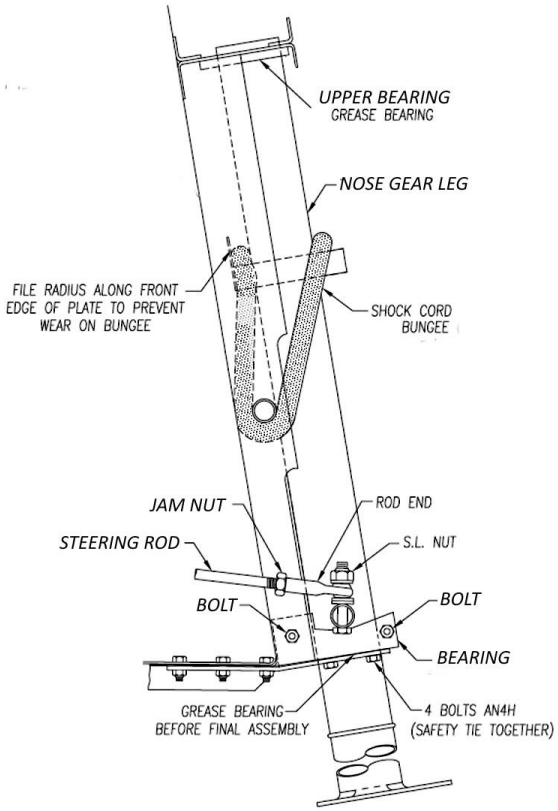
Rudder Adjustment

The slip indicator ball can be centered by trimming the aircraft's rudder by adjusting the control cable turnbuckles. For easy access, the turn buckles are located outside of the aircraft at the rudder. Disconnect the turn buckles at the rudder horn and adjust the turnbuckles so that the rudder is slightly offset to the aircraft center line, which will cause the rudder to act as a trim tab. Check the rudder cable deflections, adjust if required, and reinstall the turnbuckle assembly. In order to get the slip indicator ball centered, the above procedure may have to be performed a few times. On the CH2000, the rudder is typically offset as per the following photo.



Remember that this proceedure only works if the nose wheel system properly self centers.

Typical nose gear set-up



Remember to check www.newplane.com for all the latest Continued Airworthiness documentation.

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