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SERVICE BULLETIN

SB043-598

Subject: Nose Struts (All Models)

Date: 14 May, 98

Ref: Newsletter

Pages: N/A

Status: Mandatory Inspection and Replacement (if necessary)

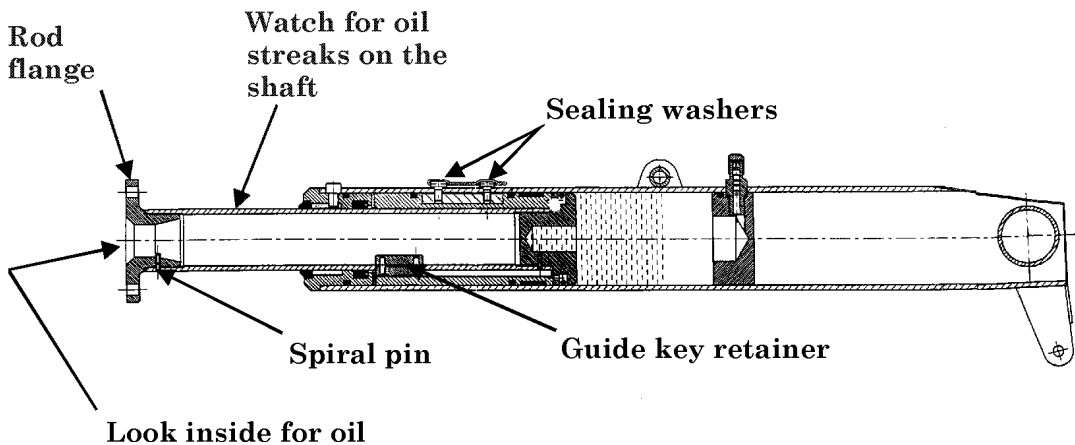
Background:

The purpose of this service bulletin is to stress the importance of maintaining the nose strut of your Lancair. Recently we have heard of two cases of severe nose gear dampening problems (shimmy) resulting in engine mount damage. If the nose strut is working properly, it should never shimmy. **Don't ignore a shimmy; there is a reason for it!** Typically shimmy problems start out small and increase in amplitude with time and use. The engine mount is *not* designed to withstand severe shimmy problems and may fail under such loads.

WARNING: LETTING AIR OUT OF THE NOSE TIRE TO PREVENT SHIMMY IS ONLY A TEMPORARY FIX.

**LIV/LES Nose Strut Cross Section
(L235-L360 is similar)**

Fig. 1



Action:

(OVER PLEASE)

It is important to address the nose gear shimmy at the first sign. A shimmy is usually the result of a low oil level in the nose strut. The most common location of an oil leak is through the guide key retainer. This will result in the oil draining to the inside of the nose strut. It is not visible because the fork seals the inside of the strut. We suggest that if you suspect a leak, remove the fork and look inside the strut. If there is a leak, oil should be pooled up on the top of the fork. Also, if you see any oil streaks draining down the sides of your shaft, you may have another kind of internal leak. If you have a leak please contact our parts department for an RMA number prior to sending the strut to us for servicing.

Another potential location for leaks is through the sealing washers at the front of the strut. This leak is visible on the outside (see figure). In the case of a leak past the sealing washer order new washers through us (P/N Z17B014). Remove the bolts, install the washers, torque bolts to 35 inch-lbs. Use dry Nitrogen to recharge the strut; 170 lbs. for the 320/360, and 250 -300 lbs. for the IV and ES. **IMPORTANT!** Do not use compressed air which contains water or moisture. This will cause accelerated corrosion within the nose gear strut.

Note: If you have experienced nose gear shimmying, there is a possibility that the spiral pin (ref. Figure above) may have sheared. Lift the aircraft nose off the ground and wiggle the wheel while looking for looseness of the pin. Also make sure the rod flange is not rotating (it should remain fixed with the shaft.)

Note: Refer to newsletter of 2nd/3rd quarters of 97 for instructions on refilling the oleo struts with oil.