

# SERVICE



# LETTER

Service Letter No. 409

October 9, 1963

TO: Distributors, Dealers, Certified Service Centers and Owners

SUBJECT: Replacement of Nose Gear Retraction Tube

MODELS AFFECTED: PA-30 Twin Comanche, Serial Nos. 30-1 to 30-111 incl., 30-113, 30-115 to 30-124 incl., 30-126, 30-127, 30-128, 30-130 and 30-131 inclusive

COMPLIANCE DATE: Prior to but not later than next 25 hours of operation

An improved nose gear retraction tube, part number 21109-05, is now available for the PA-30 Twin Comanche.

Nose gear retraction tubes now installed on the aircraft indicated by the above serial numbers shall be replaced with this new nose gear retraction tube. The new or replacement tube may be identified by the two bead weld slots on each end of the tube. The new tube will not include the rod end bearings. The presently installed rod end bearings shall be used. Instructions concerning the replacement of the subject tube are on the reverse side of this letter.

The supply of the new nose gear retraction tube, part number 21109-05, will be handled on an automatic factory distribution basis. It will not be necessary to submit a purchase order for your requests. Credit will be issued for the removed nose gear retraction tube under standard warranty procedures.

A compliance card will be included with the new tube. Please return this card promptly when the replacement is completed.

Very truly yours,

PIPER AIRCRAFT CORPORATION

*Wes Holmes*  
Wes Holmes  
Service Manager

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PIPER AIRCRAFT CORPORATION, LOCK HAVEN, PA., U. S. A.

REPLACEMENT OF NOSE GEAR RETRACTION TUBE  
PART NO. 21109-05

The following information is provided as a guide for removal and replacement of the nose gear retraction tube.

1. Place the aircraft on jacks.
2. In the cockpit remove the cover from over the gear retraction mechanism.
3. Loosen the lock nut on the rod end bearing of the nose gear retraction tube.
4. With the aid of an assistant to operate the gear retraction switch, retract the gear until the nose gear retraction fork is aligned with the hole in the left side of the wheel well, so the bolt which connects the tube to the retraction fork can be removed. When the bolt is removed the nose gear will swing forward and lock.
5. Remove the retraction tube from the aircraft by rotating it counter-clockwise until it is free of the rod end bearing at the torque tube in the cockpit. Remove the tube from the aircraft.
6. Remove the rod end bearing from the old tube and install it in the new one maintaining approximately the same length.
7. Place the new tube in position in the aircraft. From inside the cockpit, start the tube on the rod end bearing. Rotate the tube until it contacts the lock nut, then set the lock nut.
8. Swing the nose gear aft until the bolt which connects the tube to the gear retraction fork can be installed.

NOTE

Temporarily install this bolt until proper rig of the nose gear is obtained.

9. After the bolt is installed extend gear and check nose gear rigging. The retraction rod should be long enough to allow the nose gear to lock, and still not place an excessive load on the retraction system. Obtain this adjustment by rotating the rod end bearing (on the wheel well end of the retraction tube) in or out as necessary.
10. After the proper rig is obtained install the bolt at the gear retraction fork in the proper manner.