## **SERVICE BULLETIN**

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Number: 96-09-1:

Synopsis: Some nose wheel forks used on the RV-6A (Part # WD-630) may have suffered cracking during manufacture. Even though there has never been a failure in service, Van's Aircraft would like to be sure of the extent of the problem and replace defective units as a precaution.

Correction: The problem occurs where the 5/16 thick arm (Part # WD-630A) is bent. The cracking occurs on the outside of the bend where the metal is stretched. All nose wheel forks should be inspected as follows:

- The nose wheel fork arm (WD-630A) must be clearly visible. Remove the nose wheel fairing and, if necessary, remove the nose wheel fork from the nose gear leg. Any paint or primer on the outside of the bend should be removed with a solvent.
- The nose wheel fork arm material could have the grain either parallel or perpendicular to the bend. Cracking is likely to occur
  when the grain direction is perpendicular to the bend. See Figure 1 for a graphic explanation of grain direction and where the
  cracks are likely to occur.
- Often if the bend and grain direction are perpendicular, the surface of the aluminum will be highly mottled (a rough, irregular appearance caused by stretching). Such a condition can make inspection difficult even for a trained eye. If you have any doubts about whether a crack is present, take the nose wheel fork to an experienced A&P mechanic and have the bends inspected for cracks. The area should be subjected to a die penetrent check for complete confidence.
- If a crack is found, call us for shipping instructions and return the nose wheel fork and the nose gear leg to us for modification or replacement. Please mark the crack so we can easily identify it. Every effort will be made to speed the repairs and minimize the time your airplane is down. But depending on the nature of our repair we may have to route the part through several vendors. This will take up to four weeks, so some patience will be required.

This inspection is required one time only. If the part was not cracked during bending then it is not likely to crack in service.