



AIRWORTHINESS BULLETIN

Cessna Single Engine Nose Landing Gear
Forks

AWB 32-016 **Issue :** 2
Date : 8 February 2012

1. Applicability

Cessna 100 and 200 Series aeroplanes.

2. Purpose

To advise operators that the nose wheel forks of Cessna 100 and 200 series aeroplanes continue to be subject to fatigue cracking and in some cases, failure.

3. Background

This AWB is a revised version of Airworthiness Advisory Circular (AAC) 38-5 which was issued in 1971 to advise operators and maintainers of Cessna 150 through to Cessna 210 aeroplanes of instances of fatigue cracking, and in some cases failure, of the nose gear fork. Although Cessna has addressed the problem over the years by producing improved design forks, reports of cracking and failure of later fork designs persist.

The old AAC states, in summary: "In most of these cases, the cracks are very small and "tight" and in the reported instances of failure, the initiating cracks have obviously been present for some time. Most cracks start in the lower radius of the machined area accommodating the attachment bolt and progress fore and aft. There have been isolated cases of cracks running vertically from the bolt hole".

Cessna Service Letter 63-31 agrees with AAC 38-5 with regard to the location of initial cracking and contains useful inspection criteria. Although only applicable to certain early part number (P/N) forks, this information could be equally useful in detecting cracking in early and late designed forks, especially if severe nose wheel shimmy or a heavy landing is experienced.

4. Recommendations

CASA recommends that all operators and maintainers take the above into consideration when planning maintenance inspection tasks for these aeroplanes.

5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

AirworthinessBulletin@casa.gov.au

or in writing, to:

Airworthiness & Engineering Branch
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601