



# AIRWORTHINESS BULLETIN

AWB 32-027 Issue 1 – 13 February 2018

## Cessna 441 Main Landing Gear Trunnion Fatigue Cracking

### 1. Effectivity

All Cessna 441 series aircraft with Main Landing Gear Trunnion P/N 5741115 type or similar fitted.

### 2. Purpose

This AWB is issued to provide information and recommendations relating to fatigue cracking of main landing gear trunnions.

### 3. Background

A previous ATSB report investigated a runway excursion incident on landing that resulted from a fracture failure of a P/N 5741115-13 left hand main landing gear trunnion.

A second recent incident has occurred on an overseas aircraft with an identical fracture failure of a P/N 5741115 type main landing gear trunnion.

Laboratory evaluation of both failures indicated that pre-existing cracking with associated fatigue crack growth was the likely cause of each failure.

A review of the two failures shows that there is a risk of fatigue failure of main landing gear trunnions.

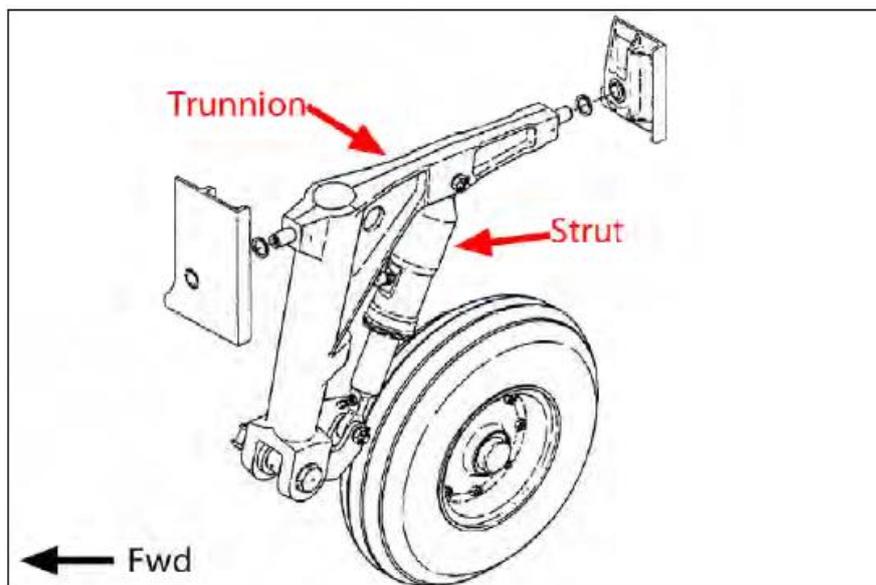


Figure 1. Cessna 441 Main Landing Gear Configuration

Source: ATSB Report AO-2013-072

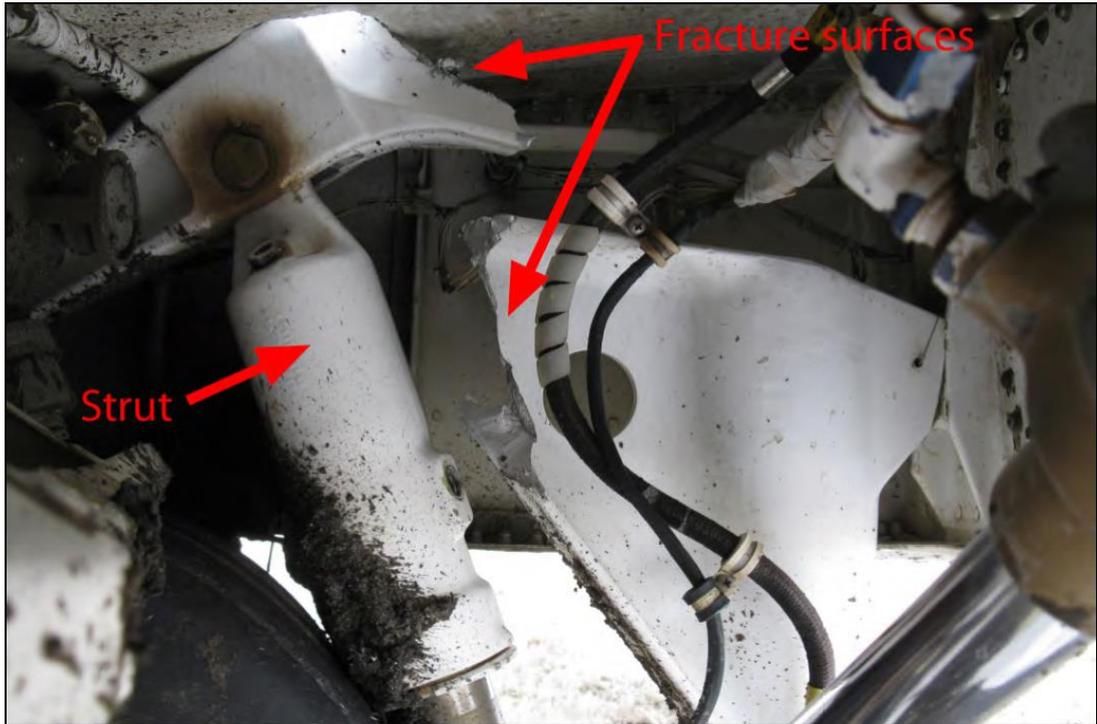


Figure 2. Failed Left Hand Main Landing Gear Trunnion P/N 5741115-13  
Source: ATSB Report AO-2013-072

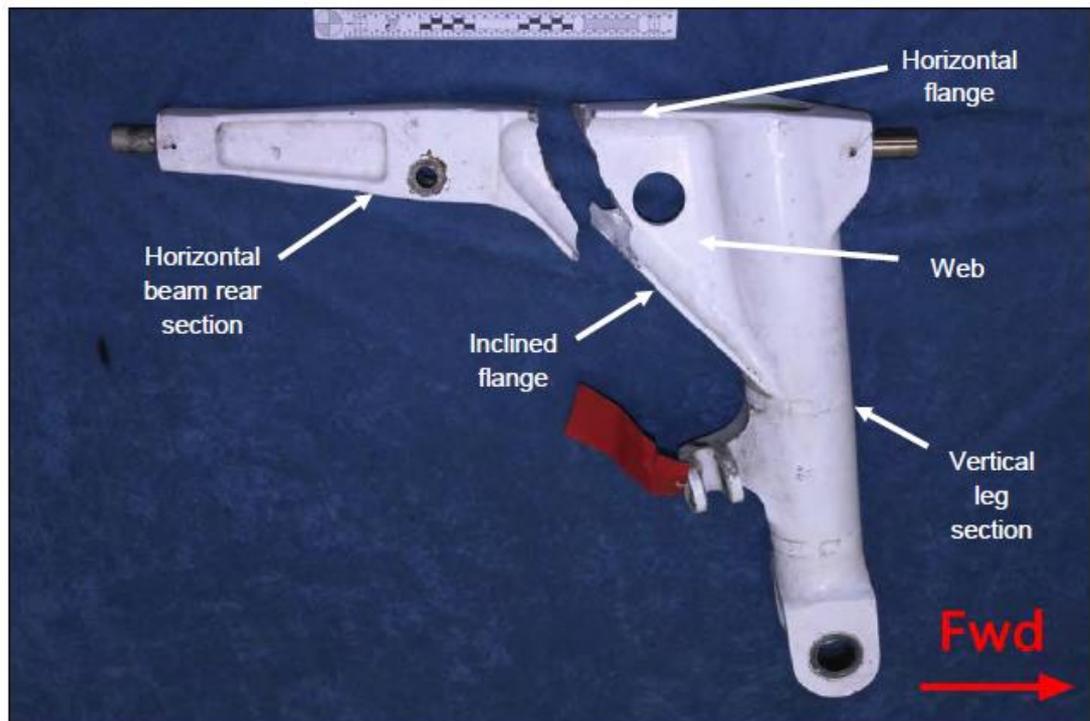


Figure 3. Trunnion removed from aircraft showing fracture location  
Source: ATSB Report AO-2013-072



#### 4. Recommendations

CASA strongly recommends that all operators and maintainers of Cessna 441 aircraft with P/N 574115 type or similar main landing gear to carry out the following;

1. Ensure main landing gear trunnions are cleaned and carefully inspected per the applicable Supplemental Inspection Document (SID).
2. Carry out a targeted surface high frequency eddy current inspection of the trunnion gusset/web region for evidence of cracking concurrently with the aircraft manufacturer's specified periodic inspection.
3. If cracks are present, the affected trunnion should be replaced as a fracture failure during landing may cause significant damage to the aircraft and may cause injury to the occupants.

#### 5. Documentation

ATSB Occurrence Investigation [AO-2013-072](#).

#### 6. Enquiries

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

[AirworthinessBulletin@casa.gov.au](mailto:AirworthinessBulletin@casa.gov.au)

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