

Safety Regulation Group
Applications and Certification Section

27 April 2005

Our Ref 9/97/CtAw/171

LETTER TO OWNERS/OPERATORS NO 2785
PIPER PA-34-200T
PROPOSED WING SPAR INSPECTION

The UK-CAA has received a report of cracks being found in the main spar on a high proportion of Piper PA-34-200T Seneca II aircraft being flown by one operator. Damage is located at the wing spar attachment point of the bracket assembly – main gear truss on both wings, (Piper Aircraft PA-34-200T Seneca Parts Catalogue item 11 on pages 1A12 and 1A14). The photographs on page 2 and 3 show the location and typical orientation of cracking described above.

A review of data with the Type Certificate Holder (TCH) has concluded that such damage does not pose an immediate risk to flight safety. The CAA in conjunction with Austro-control (EASA lead authority for the PA-34) has determined that at present there is insufficient evidence to justify publication of an Airworthiness Directive. The TCH and the CAA are seeking feedback on any further the damage found in the UK fleet irrespective of hours flown.

Damage detected so far would seem to be restricted to aircraft that have flown at least 7,000 hours. It has previously been found that the following inspection procedure applied to both main wing spars in the region of the bracket assembly – main gear truss (Main U/C side stay bracket) attachment points should identify any existing damage and should be carried out to standards set out in the manufactures maintenance manual: -

- i Support the aircraft on jacks.
- ii From inside the wheel well remove the access covers from the main spar web lightening holes either side of wing station 49.25".
- iii Remove the 3 bolts securing the upright face of the bracket assembly - main gear truss where it attaches to the main spar.
- iv If necessary, clean the affected area prior to the inspection.
- v Working inside the forward wing section with the aid of a torch and mirror or boroscope if available, visually inspect the area adjacent to the vacated mounting holes in the main spar web and lower forward angle for cracks.
- vi On satisfactory completion of the inspection reinstall the bolts and access covers removed in steps ii and iii, carry out retraction tests and lower the aircraft to the ground.
- vii On completion of the inspection and any rectification actions necessary the aircraft should be returned to service with an accompanying Log Book entry.

The TCH advises that any damage revealed by this inspection should be repaired prior to further flight.

Feedback on any of inspections performed above would be welcomed to the CAA by 1 December 2005 and should be sent to the Certification and Approvals Department at the address below.

A Mandatory Occurrence Report should also be submitted if cracking is revealed as a result of performing this inspection.

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Picture 1



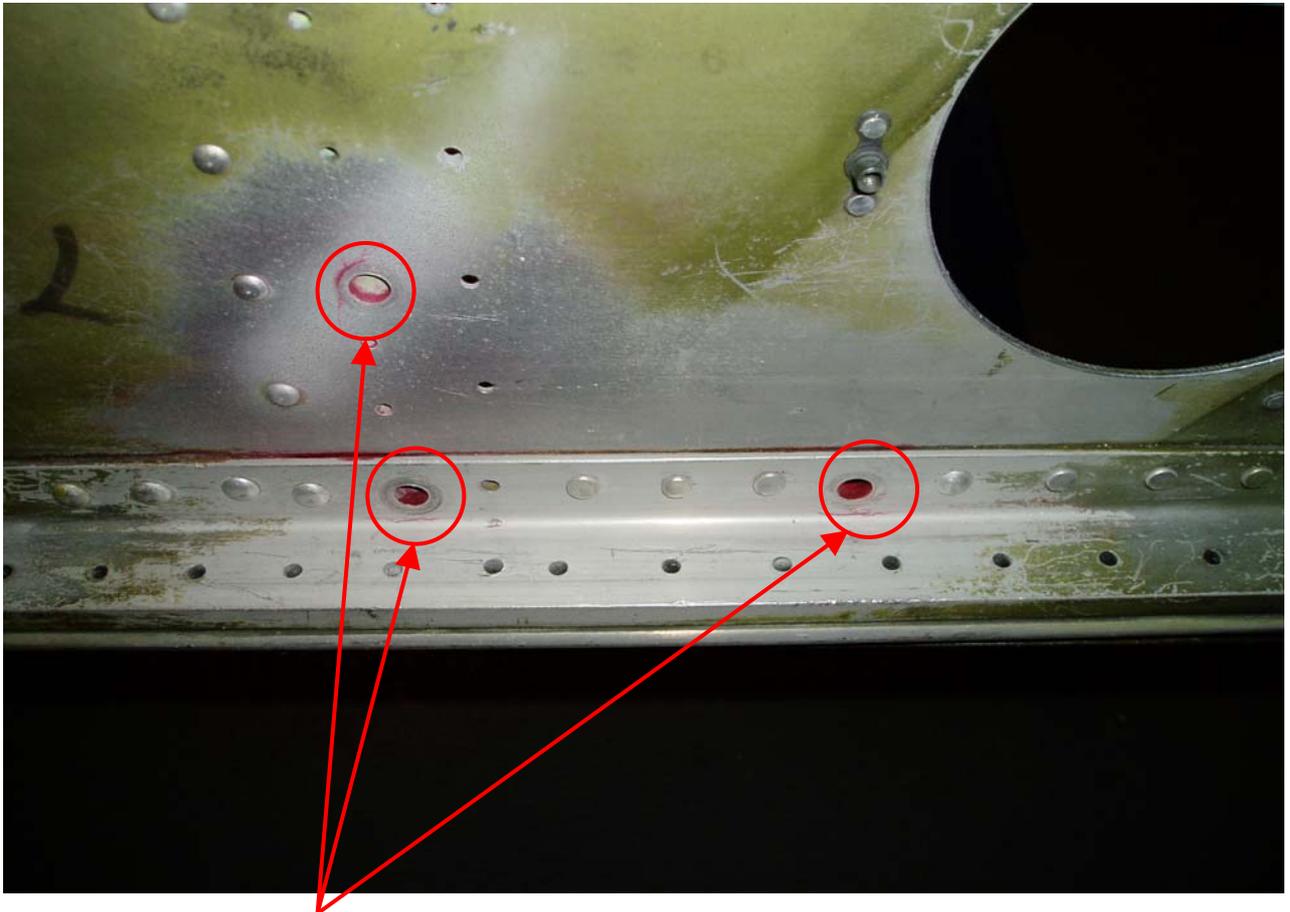
View on left wing main spar main landing gear truss attachment point.

Picture 2



View showing holes in main spar either side of wing station 49.25. Inspection of the forward face of the spar at the landing gear truss attachment point can be performed through these holes.

Picture 3



View of forward face of main spar at wing station 49.25 showing typical crack locations.