

SOLAR WINGS LTD

SERVICE BULLETIN

no. 0028

Date 15/1/91

SUBJECT :

Rear Suspension Preload

MODELS AFFECTED :

Pegasus Quasar, Quasar-TC

CLASSIFICATION :

Compulsory

COMPLIANCE TIME :

If cracking discovered, before next flight
or within 10 flying hours.

PURPOSE :

The Pegasus Quasar rear undercarriage incorporates auxiliary suspension by means of rubber blocks in the top of each side strut. The auxiliary suspension works by allowing the main undercarriage beam to flex across the centre section.

Some operators have noticed gel coat cracking of the rear u/c beam in the centre section area each side of the two front mounting bolts (see the enclosed drawing sw-89249 part no. 35). The cracking is caused by excessive compressive strain in the top skin. This increased flexure is due to a slightly softer rubber compound in the suspension blocks (7) used for production.

Gel coat cracking itself is not serious enough to require replacement. Solar Wings have so far only seen damage bad enough to require replacement following a severe impact.

INSPECTION :

Remove the seat and inspect the top surface of the beam visually in good light. Note the extent of any damage. If there is any, mark the edges of any cracks with an indelible pen so that any growth can be monitored.

Repeat the inspection at least every 20 hours. If cracking progresses around the beam to the undersurface, the undercarriage must be taken out of service and repaired to a Solar Wings repair scheme.

ACTION

To reduce the amount of flexing of the beam in the centre section area the rear suspension preload has been increased.

To increase the preload, preload spacers (38) have been incorporated together with a nylon stop.

To fit these packers, refer to Drawing SW-89249.

1. Remove suspension link to rear undercarriage bolt (32).
2. Rotate the rear undercarriage channel (2) through 90 degrees whilst lifting side strut (4) over to one side.
3. Remove grease nipple/locator at the top of the side strut. (19)
4. Remove the side strut. (4)
5. Undo top mounting bolt. (36)
6. Disassemble the suspension unit. Inspect for signs of wear.

Reassembly

1. Reassemble top suspension unit including the preload spacer (38) and the nylon bottom stop. (9)
2. Tighten the 8mm bolt through the assembly until the bolt bottoms against the slider tube (12). This will preload the rubber block. (7)
3. Refit the undercarriage side strut. (4)
4. Refit the grease nipple/locator and secure using locktite. (19)
5. Refit the lower side strut connection bolt. (32)

Repeat the process for the other side.

AVAILABILITY

Kits of parts will be sent out from the factory to enable this service bulletin to be implemented. Alternatively, your Quasar can be modified at the factory. Solar Wings engineers may be called out to implement and inspect the work if required.

INSPECTION OF THE WORK

The aircraft must be inspected by an inspector from the Company or other BMAA inspector prior to further flight.

PRODUCT SUPPORT

A repair scheme is being devised and tested to seal the affected area so as to prevent long term damage through ingress of moisture and freezing.

encls: drawing SW-89249 issue D.

W.G. Brooks



date:

15/1/91

Chief Designer.