

Service Letter

Subject:

Care and replacement of crew and passenger seat bases for the following seats:

Pilot Seat P/N GA8-251011-11
Passenger Seat P/N GA8-252011-11 LH
Passenger Seat P/N GA8-252011-12 RH

Applicability:

All GA8 aircraft.

Amendments:

Nil – initial issue

Background:

The seats fitted in the GA8 aircraft have been designed, tested and certified to meet the latest design standards with regard to crashworthiness. The design standard has resulted in seats that provide occupants with a much higher chance of surviving an incident compared to previous seat designs.

The seat bases manufactured by Gippsland Aeronautics comply with the design standard by using light alloy sheet that collapses under significant loads, thereby dissipating impact energy that would otherwise be absorbed by the occupant. The consequence of this design is that the seat bases are more susceptible to inadvertent damage, and require more care in handling than older style seats.

It is envisaged that seat bases will require replacement during the service life of the seat, and this service letter outlines the procedure for removal and installation of the seat base.

Instructions:**1. Crew Seat Removal and Installation:**

Removal and installation of the crew seat from the aircraft is straightforward. Refer to section 25-10-01 of the GA8 Service Manual.

2. Passenger Seat Removal:

Many of the problems that have been reported with regard to the passenger seat may be alleviated by the following procedure when removing:

- 2.1. Remove seat cushion and cushion base.
- 2.2. Push the seat fully into the seat mount otherwise the retaining springs may ride over the seat feet preventing the seat removal tool from depressing the spring.

- 2.3. Engage the seat removal tools (P/N GA8-251014-11) into the floor anchor plates so that the seat retaining leaf springs are fully depressed. Refer to Figure 1.



Figure 1

- 2.4. To remove the seat, grasp the forward and rear corners of the seat as per Figure 2 and pull with an even force at each end so that the seat does not go out of square.

CAUTION:

EXCESSIVE FORCE CAN CAUSE THE SEAT FEET TO RELEASE FROM THE FRONT OR REAR POINTS ONLY CAUSING DISTORTION AND POSSIBLE DAMAGE TO THE SEAT BASE.



Figure 2

3. Passenger Seat Installation

- 3.1. Position the seat with care making sure all feet are aligned. Apply slight downward pressure to depress the springs while pushing the seat into its mounts.

- 3.2. Push the forward and rear corners of the seat as per Figure 3 with an even force at each end so that the seat does not go out of square.



Figure 3

CAUTION:

ALLOWING THE SEAT TO DISTORT OUT OF SQUARE MAY DAMAGE THE SEAT BASE.

- 3.3. Reinstall the seat cushion and its wooden base. Align the cushion base retaining tags before pushing it into place as the tags can damage the seat base top.

4. Crew Seat Base Replacement:

- 4.1. Remove the crew seat from the aircraft in accordance with section 25-10-01 of the GA8 Service Manual.
- 4.2. Remove the forward seat feet by removing the four screws that attach the feet to the seat base. Refer to Figure 4.

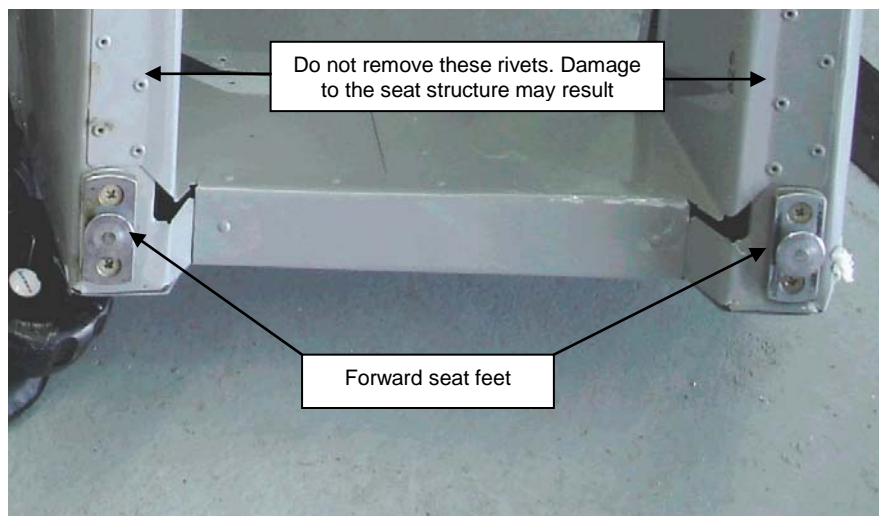


Figure 4

- 4.3. De-ribose the seat base top (P/N GA8-252021-035) and remove from the seat base (P/N GA8-251011-025). Refer to Figure 5.



Figure 5

- 4.4. Remove the four bolts securing the forward mounting blocks to the seat base spine. Refer to Figure 6.

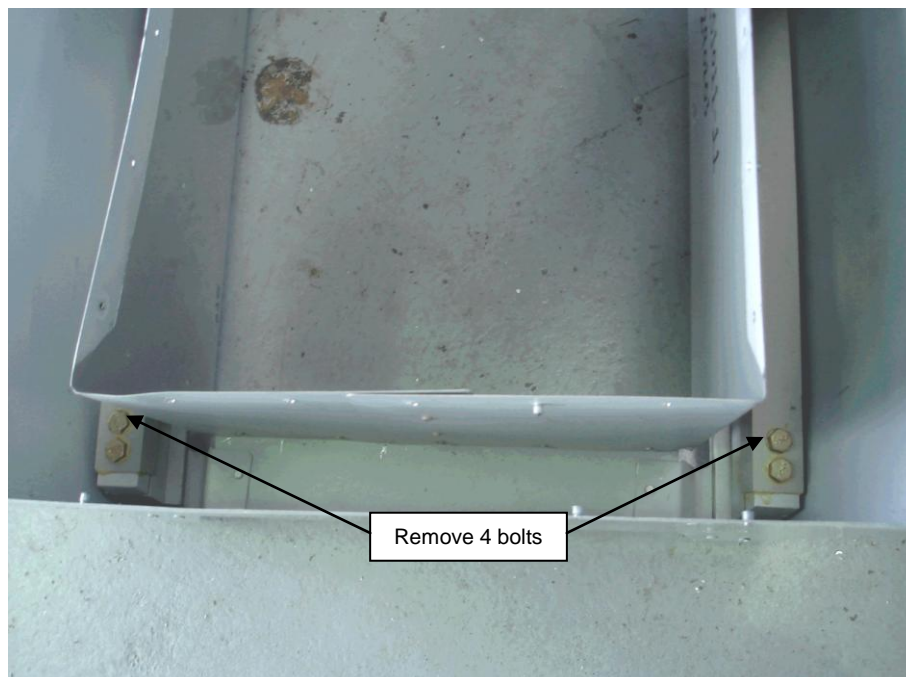


Figure 6

- 4.5. Begin to slide the seat base forward per Figure 7 using an appropriate tool to prise apart the seat base rails per Figure 8. Work from side to side to ease the seat base from the rails. This process can be aided by loosening the seat belt attach points.



Figure 7

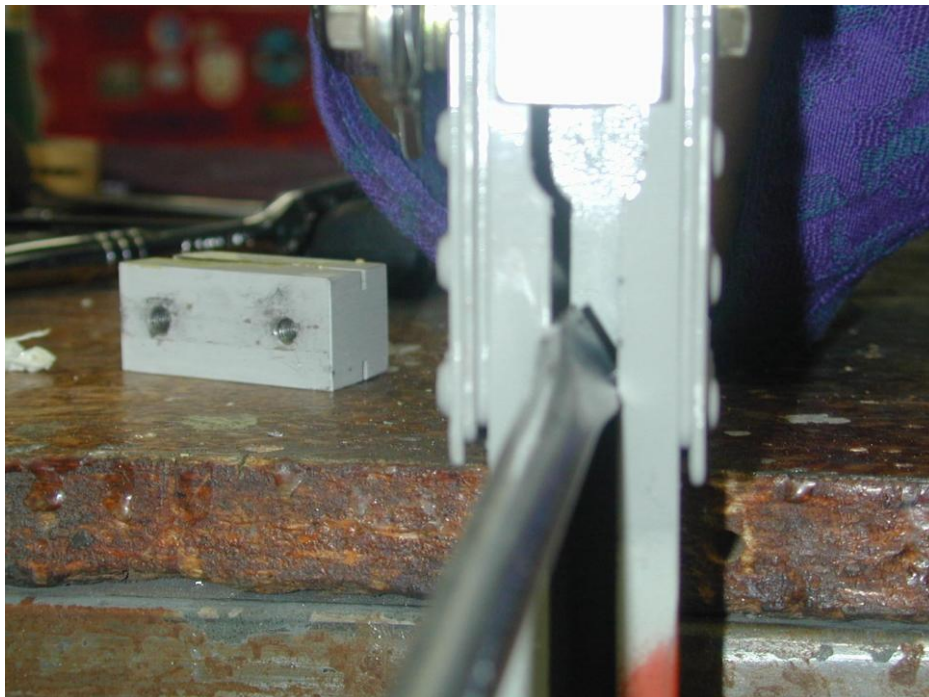


Figure 8

- 4.6. To complete removal of the seat base, remove the forward mounting blocks from the rails by tapping with a suitable drift. Refer to Figure 9.

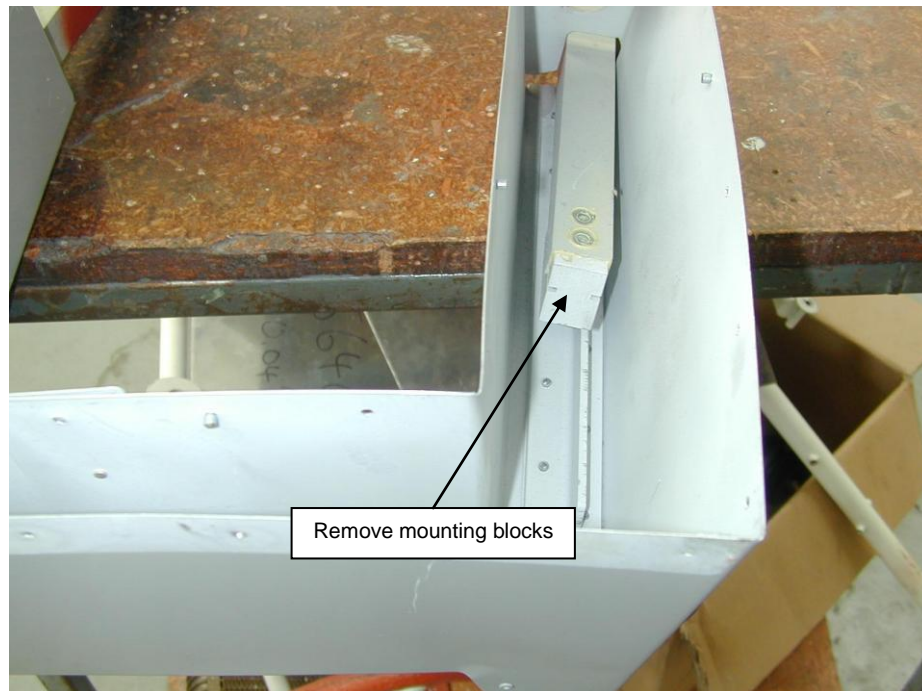


Figure 9

- 4.7. Installation of a new seat base is the reverse of steps 4.4 through 4.6. Take care not to excessively twist or contort the base.
- 4.8. Rivet the seat base top to the seat base using the rivets supplied.
- 4.9. Replace the seat feet removed in step 2.
- 4.10. Refit the seat into the aircraft in accordance with section 25-10-01 of the GA8 Service Manual.

5. Passenger Seat Base Replacement:

- 5.1. Remove the passenger seat from the aircraft in accordance with the procedure outlined in this service letter.
- 5.2. Remove the forward seat feet by removing the four screws that attach the feet to the seat base. Refer to figure 10.

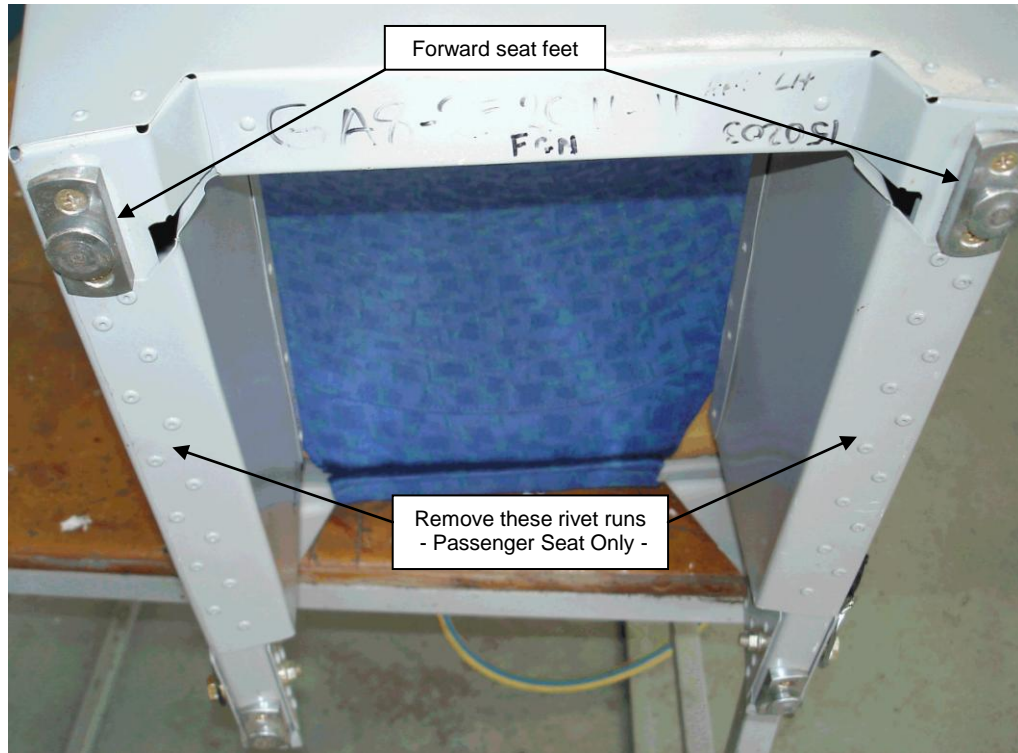


Figure 10

- 5.3. De-rivet the seat base from the seat assembly. Remove only those rivets shown in figure 10.
- 5.4. Pull the seat base forward to remove it from the seat assembly.
- 5.5. Installation of a new seat base (P/N GA8-251011-025) is the reverse of steps 5.2 through 5.4. Take care not to excessively twist or contort the base. Rivet the seat base to the seat assembly using the rivets supplied.
- 5.6. Replace the seat feet removed in step 2.
- 5.7. Refit the passenger seat into the aircraft in accordance with the procedure outlined in this service letter.