

Crown Service Gliding Club

Schleicher Ka8 Field Retrieve Guide



This Guide should be treated only as an aide-memoire—it is no substitute for a briefing and demonstration. De-rigging and fitting the Ka8 on its trailer is very straightforward if the correct technique is used but it needs at least **four** people.

These notes are primarily for use during retrieve operations using the trailer. De-rigging into a workshop will vary only slightly from this—the essential processes are similar.

This Guide covers the details special to the CSGC open trailer; further details of derigging and rigging the glider can be found in the manual

(<http://www.csgc.org.uk/Manuals/Ka8 Flight Manual.pdf> section D).

Preparation and kit needed

Ensure that the trailer is roadworthy (lights, tyres, number plate, etc.). You may find the wing trestle and fuselage support useful; if you take them make sure they are stowed securely (probably in the car). In addition to the usual trailer checks make sure you have the following before setting off for a retrieve—

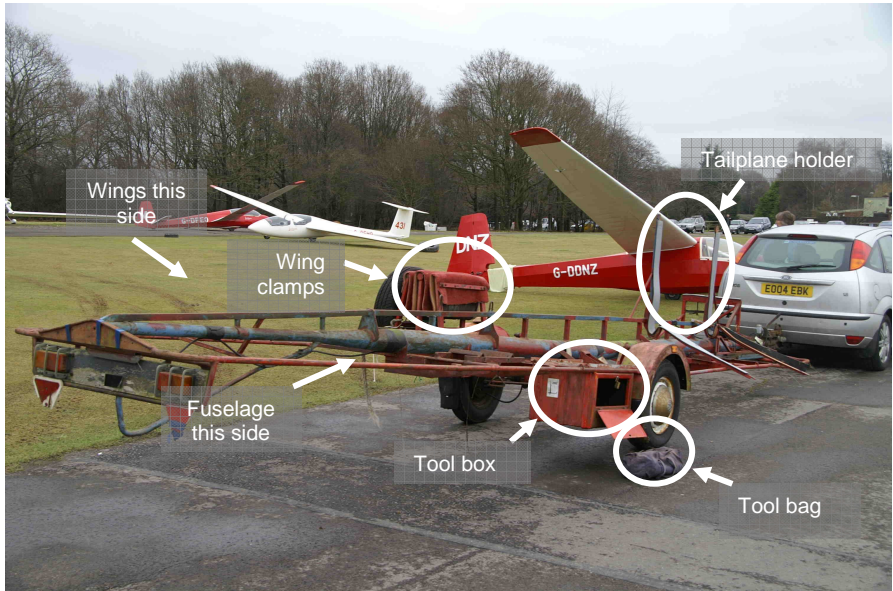
- Holdall with derigging tools:
 - spanner for the wing main-pin retaining nuts (22mm);
 - box spanner for the tailplane retaining bolt (17mm);
 - copper-faced mallet.
 - Fuselage stretcher bar (with cables and locking pins),
 - Aileron locks,
 - Bungee,
 - Rudder lock (normally kept on the tailplane holder).
 - A clean bag (such as a sick-bag!) in which to store the main- and drag-pins.
- } all in toolbox
on trailer

Ensure tailplane, wing root and fuselage restrainer clamp bolts on the trailer are free and undamaged.

Procedure

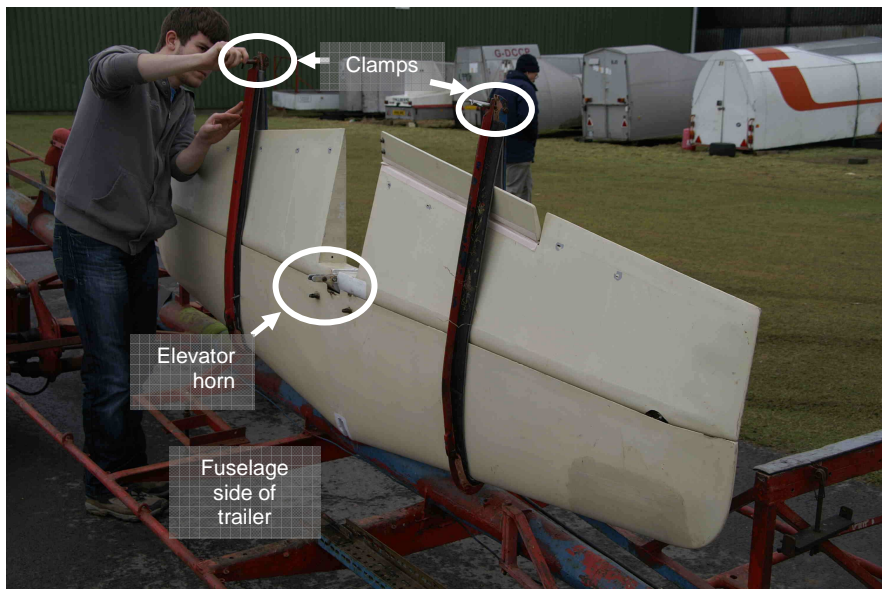
1. Go to the field!
2. Leave trailer hooked on the car—this stops the trailer rocking end-to-end; it evens up heights at each end, but the fuselage will need to be lifted a little higher.

3. Remove the parachute and any personal equipment and place in the towing vehicle.



4. The rudder lock is kept on the tailplane holder (see picture above)—this must be fitted to the glider whilst being towed on the trailer to hold the rudder as the glider is towed tail first. So fit this now.
5. Open the canopy and support it whilst unclipping the canopy support strap and the jettison strap. Remove the canopy and set it down somewhere safe away from the activity. Beware of a strong wind picking it up.
6. Undo the wing-nuts on the centre fairing. Remove the fairing, replace the wing-nuts loosely on their studs and place the fairing near the canopy.
7. Remove the safety pins from the aileron and airbrake control linkages at the wing roots. Withdraw the linkage pins to disconnect the controls. Place the felt pads on the safety pins and secure the safety pins through the linkage pin head loops.
8. Remove the tailplane:
 - First, on the trailer, loosen the clamp bolts and open the clamps on the tailplane holder (as shown on the photograph above).
 - Next undo the small safety pin on the elevator trim tab actuating rod. Remove the pin and washer, disengage the rod from the tab, then replace the pin and washer on the rod, securing them with the safety pin. Tie the rod to the rudder cable to avoid its thrashing about.

- Undo the large safety pin on the tailplane securing bolt. Using the box spanner from the toolkit, undo the bolt and remove the tailplane assembly by gently lifting the leading edge and sliding the assembly forward off the two locating pins.
9. Stow the tailplane on the trailer holder with the elevator horn towards the fuselage side (offside) of the trailer. Close and tighten the clamps. Place the safety pin in the tailplane securing bolt head and replace the bolt securely in its nut in the fuselage.

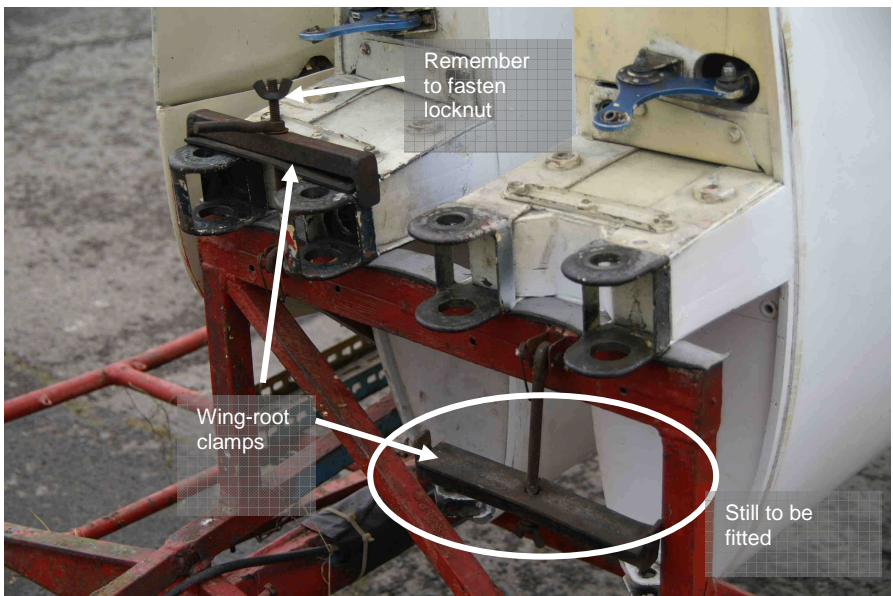
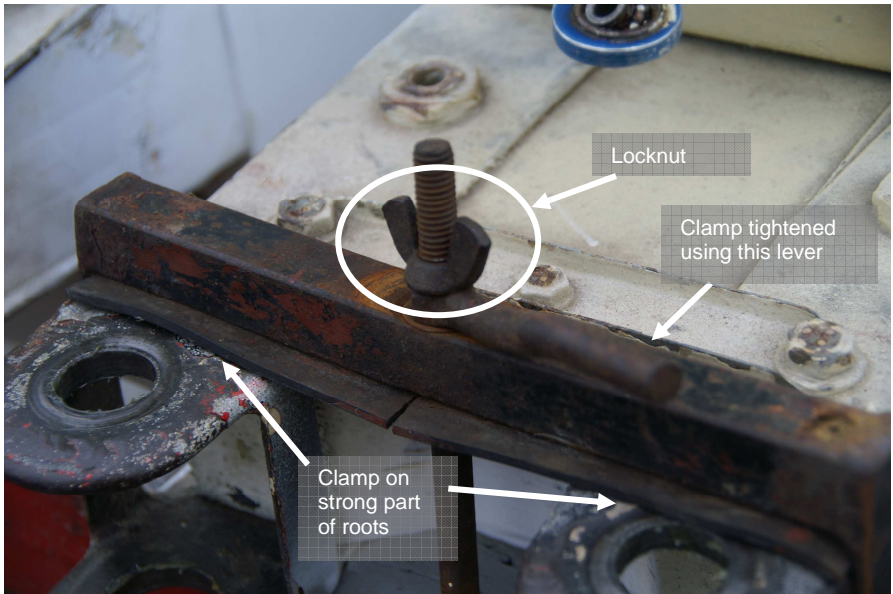


10. The wings are next—they fit on the trailer with the undersurfaces together. The starboard wing goes in-board on the trailer and so is stowed first:



11. Start by loosening the wing root clamps on the trailer and swinging them down out of the way.
12. Level the fuselage and wings. If available, place a suitable trestle or fixed support under the port wing and support the fuselage in an upright position using the fuselage stand. If these are not available, or the ground is unsuitable, people will be needed to hold the wing, and to hold the fuselage upright.
13. Remove the safety pins from the wing main-pins and clip them on a trim wire in the cockpit.
14. Using the 22mm spanner slacken the main-pin retaining nuts to the ends of the pin threads.
15. Whilst gently manoeuvring the starboard wing tip, use the mallet to drive the pins out. Leaving the nuts on the pin threads will reduce the chances of the threads being damaged and stop the pins shooting out uncontrollably.
16. Remove the nuts and remove the main-pins. Wipe the pins, replace the nuts on the pins and place them in a clean bag (a sick bag would do).
17. Remove the starboard drag-pin (painted green) and place in the bag.
18. With one person holding the wing tip and one each on the leading and trailing edges at the root, gently disengage the starboard wing from the

fuselage and carry to the trailer. Rotating the wing to bring the trailing edge upwards, place the wing in the inboard cradle, ensuring the root is fully in the support. Fit and tighten the root clamp not too near the end of the root fitting (it could bend the fitting) and fasten the locknut.



19. Next the port wing: remove the port drag-pin (painted red) and place in the bag.
20. With one person holding the wing tip and one each on the leading and trailing edges at the root, gently disengage the port wing from the fuselage and carry to trailer. Place alongside the starboard wing and fit the root clamp bar as before.
21. With both wings on trailer gently but firmly tighten the clamping screw by reaching through the spare wheel. Tighten just enough to prevent the wings moving vertically but no more:



22. Fit the aileron locks:



23. Keep the bag with the pins (2 main-pins and 2 drag-pins) somewhere safe and clean.

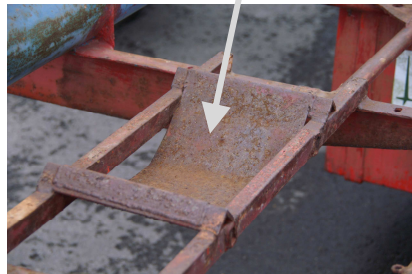
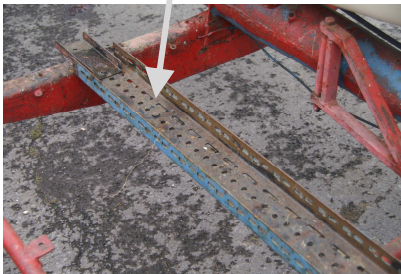
24. Lastly the fuselage is lifted onto the trailer. First fit the shackle of the inboard fuselage stretcher bar cable to the eye in the centre of the trailer



25. With the canopy still removed, manoeuvre the fuselage until it is close to and parallel with the trailer, with the nose pointing to the rear. Lift the fuselage into place:



This needs one person on the tail and 3 to lift the nose; it helps to have one person standing on the trailer to help take the weight of the cockpit. Lift by holding only fixed tubes or the nose skid. The wheel goes in a cradle and the tailskid in its holder.



26. Supporting the fuselage upright, the stretcher bar is then clipped onto the wing spigots on the fuselage:...



...and the shackle of the outboard cable is secured to the eye on the outside trailer tube. The stabiliser bar cables are then tightened to support the fuselage by tightening the turnbuckles on either side. **Do not overtighten.**



27. Attached to the keel of the fuselage near the rear is a small securing plate. This secures to a tensioning device on the bottom of the trailer. Attach and tighten (not too tightly to avoid distorting the fuselage).



28. Tie up aileron and airbrake connections to stop them thrashing around (using bungee provided):



29. Replace centre-section fairing and canopy, making sure it is locked closed. Close the DV hatch.



Replace the tools in the holdall together with the bag containing the pins. Stow the holdall in kit-box on trailer. Lock kit-box cover. Stow trestle and fuselage support if you have them. Carry out final ground check for any over-looked items.

Finished!

(apart from getting home)