

**CAUTION**

*In case of mounted spin ballast, it is only possible to close the fairing of the spin ballast compartment, if the safety mechanism of the fairing is locked by screwing in a special knob. This black knob is located in the front instrument panel. After removing the knob a placard becomes visible, which rises the pilot's awareness of the spin ballast. The knob has to be screwed onto the cockpit placard again after removing the spin ballast.*



For more information about handling of spin ballast, see section 7.10 (Spin ballast mounted in the fin) in this manual.

**CAUTION**

*Spinning is approved with as well as without spin ballast in the fin (optional). All other aerobatics is only approved without spin ballast in the fin.*

*Spinning with spin ballast is principally only allowed by dual flights.*

By following the spin ballast table a c.g. of approx. 406 mm (16 inch) is set in for the flight. In any case, a maximum of 12 kg at the tail may not be exceeded. This amount of 12 pieces of ballast may not be sufficient with heavy pilots. With such a loading (larger masses on the front and tail of the glider), the glider may even be spinning at more forward c.g.-positions.

## 7.10 Miscellaneous Equipment

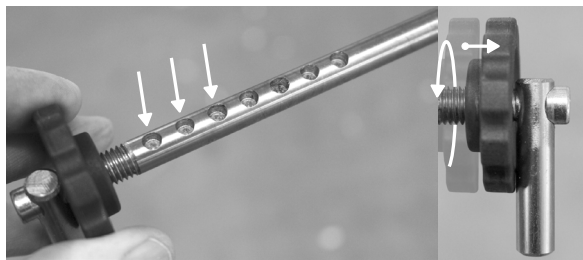
### Removable Trim Ballast

The ASK 21 B is equipped with a fitting for lead trim ballast plates in front of the front seat.

One 1 kg (2.2 lbs) lead trim plate equals a pilot weight of 1.25 kg (2.75 lbs). Thus, a pilot weighing 12.5 kg (27.5 lbs) less than the minimum cockpit load must fit ten trim plates weighing 1 kg (2.2 lbs) each.

A maximum of 12 trim plates (6 on each side) are allowed for installation.

Installation of the trim ballast:

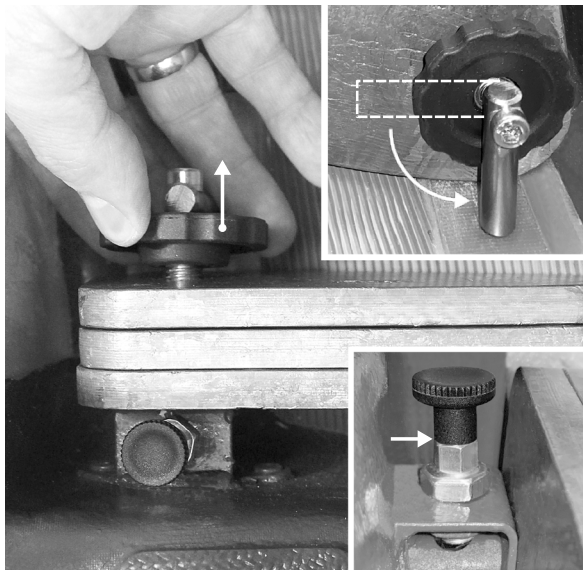


Check snap-in holes at guide rod for soiling. Turn back the clamping wheel completely.



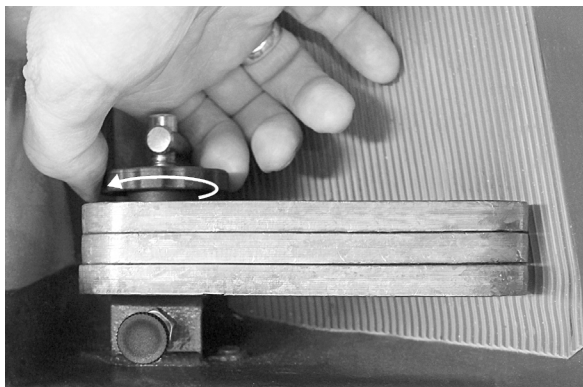
Position the trim plates in front of the mounting support and slide the guide rod through the plates. The handle of the guide rod must be horizontal and pointing outwards.

Pull the locking bolt and push in the guide rod completely.



Now turn the handle of the guide rod vertical downwards and pull back the guide rod to the next locking position.

**CAUTION,**  
*check correct engagement of the locking bolt!*



Finally fix the trim plates with the clamping wheel.

**CAUTION**

*Check correct installation and firm fit of the trim plates!*

Removal of the trim plates is carried out in a reversed order:

First release the clamping wheel. Then pull the locking bolt, turn the guide rod 90° and pull it out.

## Spin ballast mounted in the fin (optional)

For spin training, optional spin ballast can be mounted in the fin. For all relevant information, important for spin training, refer to section 4.5.3.2.

### Inserting the spin ballast weights into the spin ballast box:

Unlock the cover of the spin ballast box and remove it.



The spin ballast weights are placed into the lateral guides of the spin ballast box. Previously, the number of the weights have to be determined – described in section 4.5.3.2.



The knob from the front instrument panel is screwed into the cover. For this, the security mechanism on the back of the cover must be pushed upwards against the spring force.



### **CAUTION**

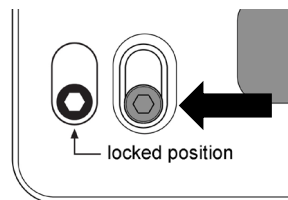
*Without the screwed knob, the cover cannot be fitted if spin ballast weights are in the box!*



Finally, the cover is to be inserted first in the upper mount and then to be locked at the lower end.

**CAUTION**

*Check correct engaging of the lower locking system and the locked position of the handle.*



If the spin ballast weights are taken out, it's recommended to store the weights into the provided transport box to avoid damages. Remove the knob from the cover and put it on its place in the front instrument panel. If there are no weights in the box, the cover can be fitted without the screwed knob.

**Oxygen (optional)**

Up to two oxygen bottles can be mounted in the area above the spar stubs, if the appropriate attachments are installed. Adapters according to the individual bottles are necessary, which are available from AS as optional accessory. In order to support the bottles in the bulkhead behind the spar, various inserts for the bulkhead required by different oxygen bottles are available.

When fitting the oxygen bottle, ensure that it is properly installed and securely anchored.

**NOTE**

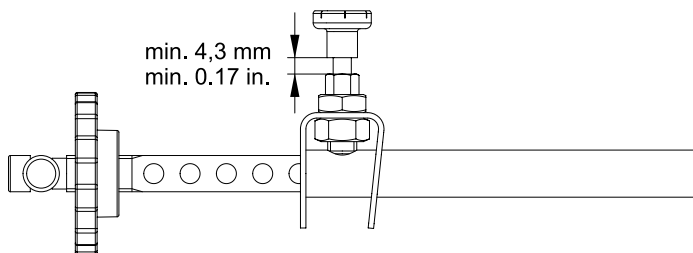
*Fitting of oxygen equipment causes only a minimal change in the empty-mass c.g. position.*

When flying at greater heights while using the oxygen installation, it should be borne in mind that any particular system may only be suitable for a limited altitude range. The manufacturers' instructions should be complied with.

**Emergency Location Transmitter (optional)**

The location least vulnerable to damage in case of accident is the area between the two drag spar pins at either side of the fuselage. Therefore, the emergency location transmitter (ELT) should be fitted to the fuselage wall behind the main spar in an appropriate mounting.

12. The condition and proper functioning of the TOST tow release coupling(s) fitted should be checked. The release actuating cable must have free movement and some play when the tow release coupling is closed and locked, so that they are not under any tension.
13. The canopy jettison release must be operated and examined for corrosion etc., if necessary, rectified and in any case freshly lubricated!
14. Compare equipment and instrumentation with that shown in the equipment list.
15. After repairs, changes in equipment, or at least after four years, the empty mass and C.G. position should be re-determined by calculation or weighing and recorded in the Mass and Balance Form, in Section 6.2 of the Flight Manual.
16. Check all control surface gaps for correct sealing according to maintenance instruction C. Airflow through the control surface gaps can initiate flutter.
17. All elastic fairing strips must have a good, lightly tensioned seating on the control surfaces. Strips sticking out impair performance.
18. For version with optional spin ballast in the fin, the security and locking mechanism on the backside of the cover must be checked for function and ease of operation. The lateral guides of the spin ballast box must hold the spin ballast weights safely.
19. The latching function of the trim ballast mounting support in front of the front seat must be checked. Unlock the guide rod and turn it, so that the snap-in holes are on the side. In this state, the locking bolt must be in following position:



Furthermore, all components must to be checked for wear. See also section 7.10 in the Flight Manual.