

III. EMERGENCY PROCEDURES

III.1. PREVENTING AND TERMINATING THE SPIN

A spin can still be avoided in most cases, if, when the aircraft begins to fall off to one side, the stick and the rudder are brought to the neutral position. If the camber-changing flaps are at a positive setting, moving the flap lever to setting 3 (0°) also helps considerably towards preventing the spin.

The spin is terminated by the standard method:

1. Opposite rudder (movement opposite to the direction of rotation of the spin)
2. Short pause
3. Relax the stick (i.e. give way to the stick pressure) until the rotational movement ceases and the airflow reattaches.
4. Normal setting of the rudder, and recover gently.

Notes:

1. The standard method can be varied as follows: phase 2 "short pause" can be omitted and measures 1 "opposite rudder" and 3 "releasing the stick" can be carried out simultaneously on the ASW 20 B, which results in a more rapid end to the spin.
2. The spin is terminated more rapidly if the camber-changing flaps are brought to the negative setting. Extending the airbrakes slows the rate of rotation, but increases height loss and is, therefore, not recommended.

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3. If the ASW 20 B comes out of the spin by itself, it will take up a spiral-like sideslip and pick up speed rapidly. Recovery by standard measures: opposite rudder, straighten up with ailerons, roughly half maximum control deflections.
4. Spinning in the flap setting L (landing configuration) is prohibited for reasons of structural integrity. If you enter a spin accidentally with the flaps in this setting, then the flaps must be retracted (to setting 1, 2 or 3) immediately, after which recovery from the spin should be initiated.

III.2. CANOPY JETTISONING AND EMERGENCY BAILING OUT

- (1) Open both white canopy locks.
- (2) Pull red emergency canopy jettisoning lever and push the canopy up and off.
- (3) Disconnect safety harness.
- (4) When bailing out, push yourself away from the aircraft strongly. Be sure to avoid the tail-plane !

III.3. OTHER EMERGENCIES

(1) Jammed elevator control

If the camber-changing flap control system jams, then the ASW 20 B becomes an aircraft with fixed airfoil.

- If the elevator control system jams, on the other hand, the pilot will not always realize that he still has at least some degree of pitch control via the camber-changing flaps; by using the flaps he can bring the aircraft into a more favorable position for bailing out, or can perhaps avoid the necessity altogether.

(2) Emergency landing with retracted landing gear

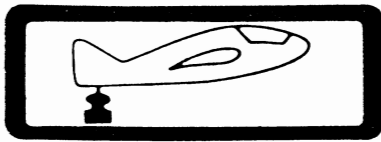
We cannot recommend carrying out an emergency land-

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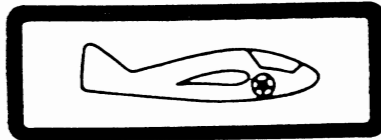
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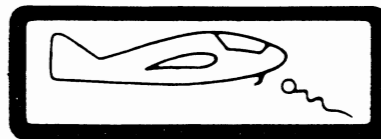
Tail-heavy trim



Landing gear retracted: pull back the lower black handle on the left cockpit wall.



Landing gear extended.



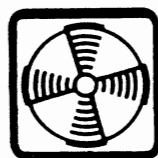
Tow release: yellow knob at left next to the control column.



To open canopy: white handles to the left and right on the canopy frame; push them forwards.



Emergency canopy jettison: pull the red grip at the instrument panel.



Ventilation: knob above the instrument panel; pull to open !

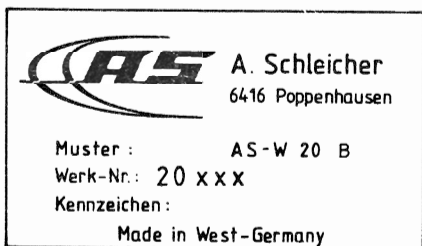
Supplementary ventilation: flap in canopy window.



Water ballast: right-hand lever on cockpit wall; Move forward to open valves.

Anchoring point for parachute static line:

Red ring on main bulkhead.



Serial number and type placard:
on main bulkhead to the right behind the pilot.

S.No. 20 xxx

Component placard on each component.

IV.3. DAILY INSPECTIONS AND

IV.4. PRE-FLIGHT CHECK

Rigging and de-rigging is carried out according to the instructions in the Flight Manual, pages 51 thru 53.

After rigging, check all control surfaces and check the airbrakes and wheel brake.

Check tire pressure: main and tail wheel 2,3 - 2,5 bar (33 - 36 psi).

An aircraft stored in a hangar must also be subjected to a control surface check and a careful inspection. Aircraft stored in a hangar are subject to damage from shunting incidents and small animals.

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III.9.3 Canopy and emergency jettisoning mechanism

To dismount the canopy, pull the red emergency jettisoning lever on top of the instrument panel and then lift off the canopy upwards.

The emergency jettisoning system should be easy to operate at all times, and should therefore be regularly greased and a check for correct operation should be carried out.

To re-fit the canopy, insert the locking bolt of the emergency jettisoning device into the triangle plate of the canopy hinge and push in the red emergency jettisoning lever forwards.

III.9.4 Fitting and removing the water ballast tanks; maintenance instructions

On the underside of the wingtip there is a hole, covered with an FRP disc and sealed with a piece of self-adhesive film. Uncover this opening; now fish around inside the wingtip with a length of wire until you find the water ballast tank fixing cord. This cord should be pulled right out of the wingtip; continue pulling until the washer knotted into the cord comes into view. This washer serves as limit stop at a small hole in the wingtip rib, to ensure that the ballast tank is held in the correct position by the cord; this washer is now untied from the cord and put in a safe place.

Now unscrew the grey union nut to remove the quick-release connector from the thicker water hose, and press both tubes (the vent tube and the filler tube) through their holes in the root rib in the wing. Thread them out again through the large hole in the root rib. The water ballast tank can now be pulled out of the wing by means of the two tubes. Untie the cord from the tank, and be sure to leave it inside the wing !

Check also that there is a sufficient length of cord projecting out of the wing so that the ballast tank can be pulled back into position. If the cord is broken, or pulled right out of the wing by mistake, you will need plenty of skill and patience to thread it through again, using a long length of steel wire.

When fitting the water ballast tank back into place, follow the reverse procedure. Do not forget that the washer has to be tied back into the cord, under light tension, so as to act as a stop !

Inspecting the valves

Referring to Fig. 3.9-1, unscrew the valve at the union nut and clean it; check the seal, the ball and the spring. If necessary, replace the seal and ball. Reassemble the valve.

Checking the seal of the water bags when removed from the aircraft

Connect about 5 m (16,4 ft) of instrument tubing to the vent connector and arrange the tubing as shown in Fig. 3.9-2. Fill with water.

Using an air pump or compressed air - and the appropriate degree of caution - pump up the water bag to about 0,2 bar (2,8 psi) or to 2 m (6,56 ft) water column, i.e. 2 m height difference between the two water levels in the instrument tubing. If after five minutes there has been no drop in pressure, then you can assume that the tank is water-tight. Check both tanks for leaks.

If you encounter difficulties, contact Schleicher direct.

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Heide

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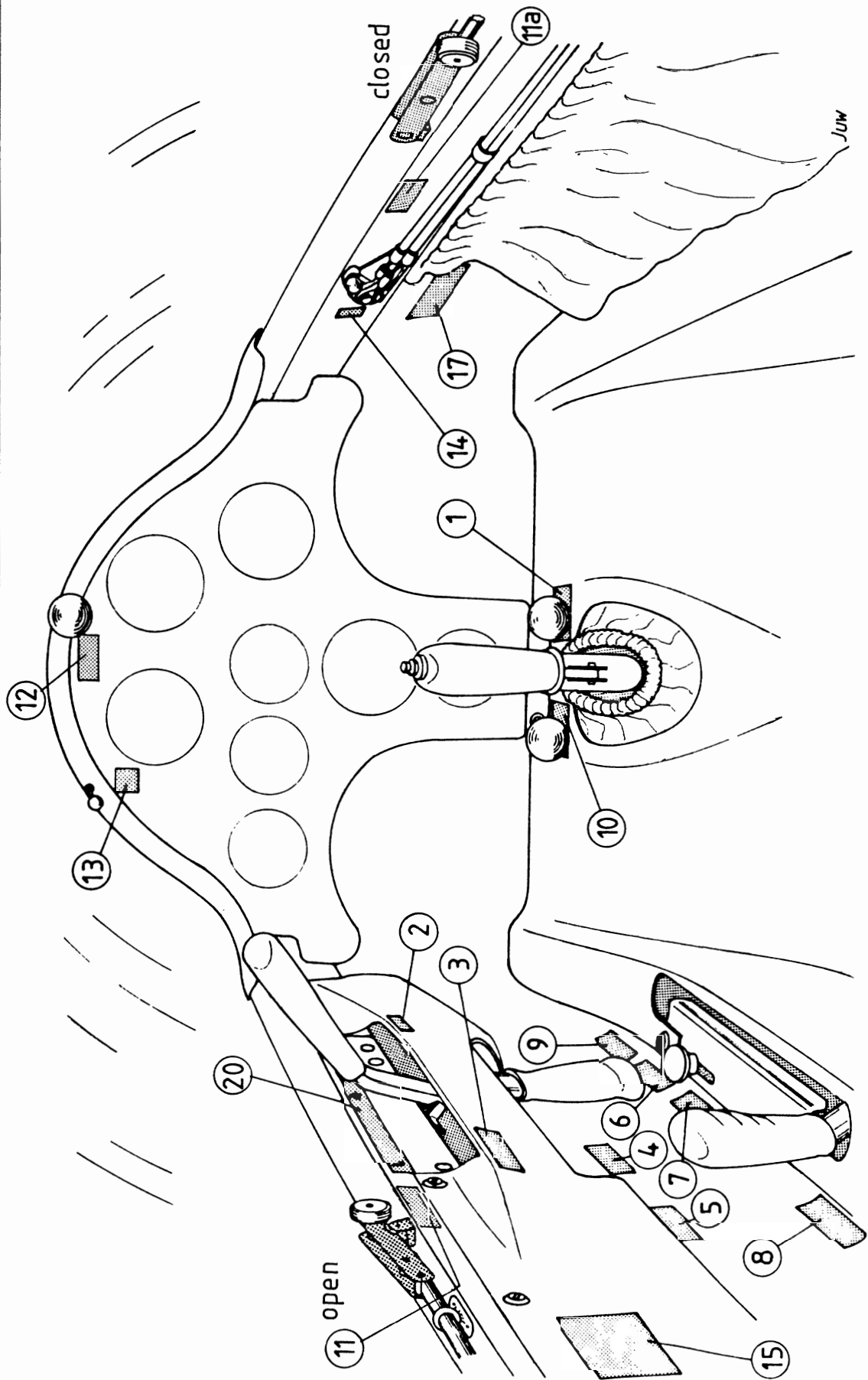


Fig. 5.4-1

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Jumtow

CORRECTION:

V.6. APPARATUS WITH SERVICE LIFE LIMITSTow release mechanisms:

The Tost tow mechanisms installed as standard have a service life of 36 months before inspection, calculated from the date of installation in the aircraft, and/or a maximum of 2000 launches.

Instruments

The flight monitoring instruments do not normally have service life restrictions; as a general rule, abide by the manufacturer's instructions.

Oxygen installations

For permanent oxygen installations the relevant section of the detailed inspection certificate states the overhaul time limit. Over and beyond this, oxygen bottles must be reinspected by a technical inspection institute every five years in accordance with pressure vessel regulations. (This procedure applies to F.R.Germany registered gliders; for other countries equivalent procedures have to be regarded.)

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