

AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** SZD-55-1.
- SUBJECT:** Modifications for the issue of an Australian Certificate of Airworthiness.
- BACKGROUND:** During the First of Type Inspection of the first SZD-55-1 sailplane imported into Australia the following modifications and inspections were found necessary for an Australian Certificate of Airworthiness to be issued.
- ACTION REQUIRED:** The following actions must be completed:
- Before first flight for gliders entering Australia after 31 August, 1992.
 - Before renewal of a Maintenance Release for gliders imported into Australia before 31 August, 1992.

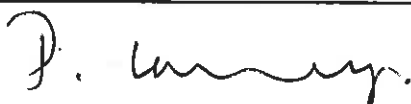
MODIFICATIONS

- Cover plates must be fitted to the Front and Rear face of the lower fin battery box.
- Drain/vent holes must be drilled in the rudder.
- Foreign object seals to be provided at the undercarriage and dive brake lever slots.
- The trim lever must be colour coded GREEN.
- Drill drain/vent hole (6 mm diameter) in the lower fuselage skin aft of the U/C bay.
- The fin water ballast dump cable must be replaced by one made of stainless steel
- A Dive Brake "OUT" stop must be installed in the cockpit.

FLIGHT AND SERVICE MANUAL AMENDMENTS

- Obtain the latest edition of The Flight Manual, the Technical Service Manual and the Repair Manual. At the date of issue of this AD these are Issue 4, Issue 4 and Issue 2 respectively. These are available from the manufacturer.

SIGNED:



CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

**THE GLIDING FEDERATION
OF AUSTRALIA**

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2. Amend the Flight Manual by replacing page 32 with one marked GFA ad 383 Issue 1.
3. Note the revision to the Flight Manual on page 2 (List of revisions) with Rev "GFA1" page 32 "Revised to GFA AD 383 Issue 1.", date and sign.
4. The Technical Service manual is to be amended by replacing the first placard page with replacement placard page marked GFA AD 383 Issue 1.
5. Note the revision to the Technical Service Manual on page 1 (List of revisions) with Rev "GFA1" "Revised to GFA AD 383 Issue 1.", date and sign.
6. Amend the Repair manual by adding page 0 to the front of the manual.
7. Note the revision to the Repair Manual on page 1 (List of revisions) with Rev "GFA1" "Revised to GFA AD 383 Issue 1.", date and sign.

All pages are available from the GFA secretariat on request.

PLACARDING

1. Lower fin battery box to be externally placarded:

MAXIMUM STOWED WEIGHT 2.2 kg

2. Provide an external calibration placard at the transparent windows in the base of the fin for the fin water ballast. Fin tank to be calibrated in litres in the normal ground attitude.
3. Provide cockpit Weak Link placard

WEAK LINK 600 KG FOR AEROTOW AND WINCH LAUNCH.

4. The glider must be replacarded in accordance with the revised placard page in the Technical Service Manual.

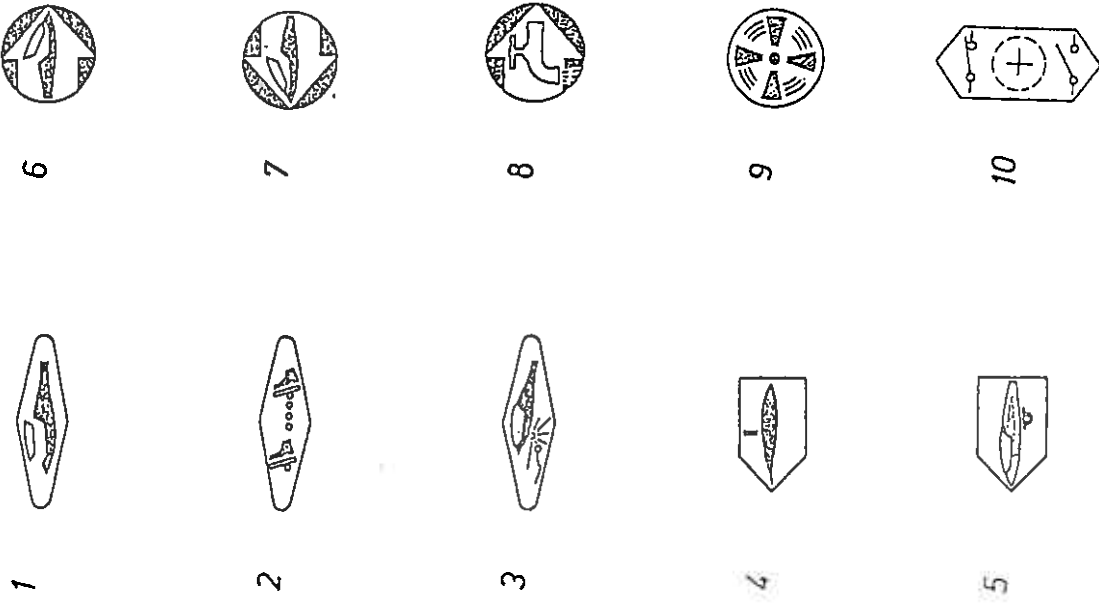
WEIGHT AND BALANCE: Following the addition of any components the weight and balance characteristics must be confirmed by ether calculation or reweighing.

IMPLEMENTATION: These inspections and modifications must be performed by persons rated "Inspection for the Issue of Certificates of Airworthiness" FRP.

COMPLIANCE: The requirements of this Airworthiness Directive are mandatory. This Directive is issued pursuant to the Australian Civil aviation Regulations under the delegated authority of the Civil Aviation Authority (CEO42/90).

THE REPAIR SCHEMES IN THIS MANUAL
ARE APPLICABLE ONLY TO THE SZD-55-1
AND MUST NOT BE USED ON ANY OTHER
GLIDER TYPES.

Fig. 9



4.3. Water ballast.

4.3.1. General direction for applying the water ballast.

1. Decision for filling the water ballast is taken by the pilot providing the max. permissible water amount given in items 4.3.2. and 4.3.4. are respected.
2. It is recommended, as a rule, the full ballast equal to the maximum permissible amount (4.3.4.) or slightly less.
3. It is strongly prohibited to fly with water ballast at the ambient temperature below 0°C (32°F).

NOTE - THE FROZEN WATER MAY RESULT THE SEVERE SAILPLANE DAMAGE, WETTING OF THE STRUCTURE INSIDE, INCORRECT TRIM, LOCKING OF THE WATER VALVES ETC.

When the board thermometer is not installed the following allowable flying altitude with water ballast are stated:

Minimum temperature on ground during the take-off [$^{\circ}\text{C}$]	13,5	17,5	24,0	31,0	38,0
Permissible flight altitude limit [ft]	5000	6500	10000	13000	16500

Minimum temperature on ground during the take-off [$^{\circ}\text{F}$]	56,8	68,2	83,7	95,0	100,6
Permissible flight altitude limit [ft]	5000	8000	12000	15000	16500

4. It is allowed to use the liquids lowering the freezing temperature, chemically non-irritant (e.g. liquid for spraying the motor car windows).
It this case the temperature scale should be corrected.
5. Use only the clear water or liquid.
It is recommended to filter using the nylon stocking in the funnel.

Placard 1

OPERATION LIMITATIONS		
MASSES	kg	IAS AIRSPEEDS
MAX. ALL-UP WITH BALLAST	500	V _{NE}
MAX. ALL-UP WITHOUT BALLAST	350	V _{RA}
MAX. PILOT IN COCKPIT	110	V _A
MIN. PILOT IN COCKPIT	60	V _T
		V _W

Placard 2

MAX. WATER BALLAST IN WINGS /kg/												
EMPTY MASS /kg/	PILOT'S MASS /kg/											
	55	60	65	70	75	80	85	90	95	100	105	110
205	195	195	195	195	195	195	195	195	195	195	190	185
210	195	195	195	195	195	195	195	195	195	190	185	180
215	195	195	195	195	195	195	195	195	190	185	180	175
220	195	195	195	195	195	195	195	190	185	180	175	170
225	195	195	195	195	195	195	190	185	180	175	170	165
230	195	195	195	195	195	190	185	180	175	170	165	160

Placard 3

MAX. FLIGHT ALTITUDE WITH WATER BALLAST					
MIN. TEMPERATURE ON GROUND	C	13.5	17.5	24	31
MAX. FLIGHT ALTITUDE	ft	5000	6500	10000	13000

Placard 4

BEFORE THE FLIGHT

BALLAST - venting ?
- lateral balance ?

BACK-REST - adjust

PARACHUTE - put on

TAKE PLACE - pedals, belts, instrument panel ?

MOVEABLE THINGS ?

CANOPY - close

FULL DEFLECTIONS of controls

AIR BRAKE - retract

ALTITUDE - adjust "0"

STALL WARNING - check

TOWING CABLE - connect, check

TRANSCIEVER - report "ready"

Placard 5

PRZEDS. DOŚWIADCZALNO-PRODUKCYJNE SZYBOW.

PZL - BIELSKO

ODDZIAŁ

MADE IN POLAND

NR ROZPOZN.

SERIA

NR FABR.

ROK BUD.

KONTROLA

Placard 6

STALL WARNING

switch on BEFORE

TAKE-OFF!

Placard 7

DON'T RETRACT UNDERCARRIAGE WHEN TOWED

TAIL WATER BALLAST VS. WING BALLAST

