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8.1 Introduction

This section contains manufacturer's recommended procedures for proper ground handling and servicing of the motorglider. It also identifies certain inspection and maintenance requirements which must be followed if the motorglider is to retain the performance and reliability of a new motorglider.

Caution: A lubrication schedule must be followed and preventive maintenance be performed based on special climatic and other operating conditions. In particular, the instructions concerning parking (Section 8.4.3) must be observed.

8.2 Motorglider Inspection Periods

Maintenance of Airframe

Under normal operating conditions, the airframe is maintenance-free between annual inspections.

Other than the connecting points for wing and horizontal stabilizer, no re-lubrication is necessary.

Depending on the degree of contamination, clean and lubricate the towing hooks and the wheels as and when necessary.

The following inspections must be performed:

- Annual Inspection
(Inspection schedule see Maintenance Manual Sec. 4.3)
- Daily Inspection
(see Sec. 4.3)
- Preflight Check
(see Sec. 4.4)
- Unscheduled Inspection
(e.g. after rough landings or ground looping, perform inspections in accordance with Maintenance Manual Sec. 4.5).
- Rudder Cables
Every 200 operating hours and at every annual inspection, the rudder cables shall be checked at the front pedal fairlead and inside the plastic guide tubes. In case of damage (even on thimbles and clamps), wear or corrosion the rudder cables must be replaced.
- Further inspections may be necessary because of the publication of Service Bulletins and Airworthiness Directives (ADs or German LTAs) for the motorglider or individual components.

Note: The operator is responsible for the prompt action of any applicable Airworthiness Directive.
- Parts with Limited Life or Operating Time
(e.g. towing hooks or safety harnesses may require additional inspections). For relevant information refer to Maintenance Manual, Section 11).

8.3 Motorglider Alterations or Repairs

- Alterations

Before conducting any alterations, the responsible airworthiness authority and the manufacturer must be informed in order to ascertain that the alteration does not affect the airworthiness of the motorglider.

- Repairs

Before each flight, especially after a long period of storage, a ground check should be made (see Section 4.3). Check for minor changes such as paint cracks, holes, delamination etc.

For classification of damage consult a fiber composite expert.

The repair instructions supplied with the Maintenance Manual provide information on conducting minor repairs.

Major repairs may only be conducted by the manufacturer or by authorized repair shops.

8.4 Ground Handling/Road Transport

8.4.1 Towing on Ground

Tow only at walking pace using a flexible cable in the nose hook. Have an assistant at one wing tip (only to support the wing) and a second person near the fuselage to prevent collisions. A tail wheel device with a towing bar and a sprung wheel which is attached to the wing tip by a brace (min. width 20 cm/7.91 in.) can also be used.

If the motorglider is manually pushed, ensure that this is only done close to the fuselage to keep the forces on the attachment fittings low. The person at the wing tip is only allowed to keep the wings level.

Warning: - Pulling on the wingtips is prohibited. It causes structural damage to the wing/fuselage attachment.
- Pushing on the flight control surfaces is prohibited. It causes structural overstress.

8.4.2 Road Transport and Trailer Storage

Closed, weather-resistant trailers must have adequately sized ventilation openings.

The motorglider parts must be supported smoothly and prevented from shifting. The parts must be stored free of tension. This applies especially at high storage temperatures (e.g. in a dark colored trailer exposed to sunlight).

- Fuselage

Fuselage trolley with shell-shaped support in front of the main wheel. Min. length of shell 400 mm (15.83 in.). The wing attachment fittings can be used to hold down the fuselage. Prevent the tail wheel from shifting sideways. We recommend holding down the rear fuselage in front of the vertical stabilizer by a strap (min. width 4 cm/1.58 in.). The nose wheel can also be supported by a wedge.

- Wings

Special attention must be given to correctly storing the wings. The minimum length of the inboard support for the spar stub is 200 mm (7.91 in.), starting at the root rib. Hold down the spar stub with a strap (min. width 2.5 cm/1 in.). The outboard support at the start of the aileron can be a profiled frame (min. length 300 mm/11.87 in., min. height 400 mm/15.83 in.) or a loop with a min. width of 300 mm (11.87 in.). The wings are to be stored or hung with the leading edges facing down.

- Horizontal Stabilizer

Lay it with the upper surface on the ground and hold it down by straps or store it vertically (leading edge down) in profiled frames.

Warning: Never fix the horizontal stabilizer inside the trailer by its attachment fittings.

The supports must be padded with sponge rubber or felt.

Sectional drawings for the manufacture of fuselage support shells and wing and tail braces can be obtained from the manufacturer.

Caution: The fuselage and wing tanks must always be emptied (by draining or pumping) before the motorglider is transported.

8.4.3 Parking

Parking sailplanes and powered sailplanes in the open air should be avoided. The motorglider should only be stored or parked in well ventilated buildings.

Note: Parking the motorglider in the open air without protection against weather and sunlight affects the life of the paintwork. Without intensive care of the paintwork even after a few weeks, the Gel-Coat may become brittle or crack.

Motorgliders which remain assembled all year round require special care to prevent corrosion of the connecting elements of fuselage, wings and horizontal stabilizer (see Section 8.5).

When parking the motorglider, close and cover the canopies.

When parking the assembled motorglider for a long period of time in a hangar, cover only the canopies with dust hoods. Protective covers over the whole motorglider would retain moisture for a needlessly long period of time. Moisture affects the shape and strength of composite materials.

Mooring

Mooring cables may be drawn through the holes in the wing tip wheels. Additionally, a strap (min. width 4 cm/1.58 in.) can be wound around the fuselage tube forward of the vertical stabilizer.

8.5 Cleaning and Care

The entire surface of the motorglider has been painted with white Polyester Gel-Coat.

Light dirt can be washed off using a mild cleaning agent. Stubborn dirt or stains can be removed with polish. For care of the paint, only use agents which do not contain any silicone (e.g. 1 Z-Spezialreiniger - D 2, Messrs. Sauer & Co., D-5060 Bensberg or Reinigungspolish, Messrs. Lesonal).

Decorative stripes, registration numbers and/or anti-collision paint (if any) are applied using adhesive film or synthetic resin paint and are not solvent-resistant.

Where possible, protect the motorglider against wet and moist conditions. Wet surfaces must be dried as soon as possible. Water which has entered the structure must be removed by storing the motorglider in a dry environment and by turning the disassembled parts frequently.

Clean the canopies with Plexiklar or a similar plexiglass cleaner. If nothing else is available, luke-warm water may be used. For removing the water, use a chamois leather or glove fabric only. Never rub plexiglass with a dry cloth.

The safety harnesses must be frequently checked for damage and wear. The metal parts of the harnesses must be regularly checked for corrosion.

Due to its installation in front of the main wheel, the towing hook for winch launching is subject to severe contamination. For this reason it must be frequently cleaned and lubricated and checked for damage. The hook is easily removed after the rear seat pan has been removed. Send the towing hooks for general overhaul to Messrs. Tost.

Note : The mandatory operating and maintenance instructions published by the safety belt and towing hook manufacturers are applicable.

Bearings and bolts of the wing and tail connections must be cleaned and lubricated with non-corrosive grease before assembly of the motorglider.

The wheel brake of the motorglider is a disk-type brake. The brake master cylinder is located below the rear seat. Pay particular attention to the markings for min./max. level in the brake fluid reservoir.

When refilling, use brake fluid DOT 3/DOT 4.