

Section 8 – Airplane Handling, Servicing and Maintenance

IMPORTANT NOTE

The Pilot's Operating Handbook for SE-MMJ has several supplements that add to or modify the Airplane Handling, Servicing and Maintenance information. In order to help the pilot to find the correct and complete information, the aircraft owner has compiled this consolidated Airplane Handling, Servicing and Maintenance information using the basic POH and the POH supplements..

Only the original POH text is official

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8.1 Introduction

This section includes the procedures for airplane handling, maintenance and operation recommended by the manufacturer.

It is necessary to follow the set-down lubrication plan, scope and periodicity of preventive maintenance depending on climatic and flight conditions according to the Aircraft Maintenance Manual of SportStar RTC airplane.

Airplane owner should be in a permanent touch with the manufacturer, either directly or through the network of business representatives, which enables him to get the newest information concerning airplane operation, handling and maintenance. The manufacturer distributes this information to users through Service bulletins (Mandatory bulletins), Information bulletins (letters) and further instructions.

Mandatory bulletins are especially important for keeping up airworthiness and the manufacturer considers them mandatory although they do not come into effect before Airworthiness Directive is issued by aviation authority of user's country.

All correspondence with the airplane manufacturer, distributor or service center must contain the **airplane serial number**. The airplane serial number is shown on the title sheet of this manual and on the production plate behind the rest of pilot seats.

The manufacturer delivers along with the airplane "Pilot's Operating Handbook for SportStar RTC" and the "Airplane Maintenance Manual for SportStar RTC".

8.2 Airplane Inspection Period

Periodical inspections and reviews of airplane must be carried out at the latest in the following intervals:

- After first 25 ± 2 hours of operation
- After first 50 ± 3 hours of operation
- After every 100 ± 5 hours of operation
- Annual inspection

Details on periodical inspections are provided in the Airplane Maintenance Manual for SportStar RTC.

Refer to the Rotax 912 Maintenance Manual for engine maintenance.

Refer to the Propeller Maintenance Manual for propeller maintenance.

8.3 Modifications or Airplane Repairs

All airplane repairs and modifications of airplane must be carried out by qualified personnel in an approved service center.

Before any repairs/modification is made to the aircraft, consult the Civil aviation authority of the country in which the airplane is registered to assess effect of the repair/modification on the airworthiness.

Basic repairs of airplane are described in the Airplane Maintenance Manual for SportStar RTC.

8.4 Road Transport

8.4.1 Airplane Towing

It is possible to move the airplane on a short distance by holding the fuselage end in the position before the fin, eventually by holding the root part of wings.

The hand towing bar can be used for airplane relocation which will be fastened to the nose wheel axis.

To turn the airplane on the spot, push on the fuselage end part in the area before the fin, lift the nose wheel and turn the airplane in required direction.

WARNING

SWITCH OFF IGNITION BEFORE GROUND HANDLING WITH THE AIRPLANE!

CAUTION

AVOID EXCESSIVE PRESSURES ON THE AIRFRAME STRUCTURE, ESPECIALLY ON THE WING TIPS, HTU, AND VTU ETC.

WHEN HANDLING THE AIRPLANE BY MEANS OF THE TOWING BAR, PROPELLER BLADES MUST BE SET TO HORIZONTAL POSITION. MAXIMUM DEFLECTION OF THE NOSE WHEEL IS $\pm 10^\circ$.

AT MANUAL ENGINE STARTING GRASP THE PROPELLER BLADE AREA, I.E. NOT ONLY PROPELLER EDGE.

8.4.2 Airplane Parking

It is the most suitable solution to place the airplane into a hangar possibly into another covered room with stable temperature, good venting, low humidity and dust-free environment. In case of parking out of the hangar it is necessary to anchor the airplane and at long-term parking to cover the canopy, possibly the whole airplane with suitable tarpaulins.

8.4.3 Airplane Anchoring

The airplane is anchored at parking out of hangar after termination of flight day or according to need. Anchoring of the airplane is necessary for its protection against possible damage, caused by wings and gusts. For this purpose the airplane is equipped with fixing eyes on the lower side of wings.

Procedure:

1. Check of fuel selector, off-position of all switches, ignition and master switch.
2. Lock manual control, e.g. by using safety belts.
3. Release parking brake
4. Close and lock the cockpit canopy
5. Place wheel chocks
6. Anchor the airplane to the ground by means of cables pulled through fixing eyes which are located on the lower side of wings. Further it is necessary to anchor the nose landing gear.

NOTE

In case that long-term airplane anchoring is supposed, namely in winter period, it is suitable to cover the canopy, eventually the whole airplane by appropriate tarpaulins which must be properly secured to the airplane structure.

8.4.4 Airplane Jacking

Airplane jacking presents no big difficulties due to relatively low airplane empty weight and can be performed by two persons.

On the bottom of the fuselage there are three jacking points intended for placing jacks. Jacking points are marked with **SUPPORT HERE** placards.

The airplane can be jacked in the following way:

- By pushing from the above to the fuselage rear part in the position before the fin the front part of fuselage can be jacked and subsequently supported under the fire wall.
- Rear part of fuselage can be slightly jacked only by grasping in the position near the auxiliary skid and by pushing from below and then the lower part of fuselage can be supported by the rest located in the area of the skid.
- Wings van is jacked by pushing on the wing from below in the area of the main spar. It is necessary to avoid jacking by grasping the wing tip.

8.4.5 Leveling

Leveling procedure is described in the Airplane Maintenance Manual for SportStar RTC.

8.4.6 Road Transport

The airplane can be transported on communication after its loading on an appropriate trail. It is necessary to dismount wings. The airplane must be secured against possible movement. This way you will preclude possible damage to the airplane.

8.5 Airplane Servicing

8.5.1 Airplane Fuelling

8.5.1.1 Approved Fuel Grades

Approved fuel grades are stated in Section 2, para 2.13.2 Approved Fuel Grades.

8.5.1.2 Fuelling Procedure

WARNING

NO SMOKING OR OPEN FLAMES DURING FUELING!

FIRE EXTINGUISHER SHOULD BE WITHIN REACH!

UNDER NO CIRCUMSTANCES ADD FUEL WITH THE ENGINE RUNNING!

NO PERSON ALLOWED IN THE COCKPIT DURING FUELING!

1. Connect the airplane to ground.
2. Open fuel tank cap.
3. Fill airplane with necessary amount of fuel.
4. After fuelling, wipe the remaining fuel out of the fuelling neck and close the fuel tank cap.
5. Disconnect the airplane from ground.
6. Perform the fuel draining procedure.

8.5.2 Draining of the Fuel Tank and Fuel Filter

Draining should be done after each airplane fuelling and prior to first flight each day.

There is a drain valve of each wing tank located on its bottom.

Procedure:

1. Put a transparent cup under the drain valve.
2. Open the drain valve by pressing in.
3. Drain required quantity of fuel.

NOTE

Fuel tank draining serves to elimination of impurities and deposits from the fuel. Drain until clean fuel flows from the drain valve.

4. Repeat procedure for the opposite tank.

8.5.3 Oil Refilling**8.5.3.1 Recommended Oil Brands**

The recommended oil brands are listed in latest issue of Service Instruction SI-912-016.

8.5.3.2 Oil Filling Procedure

1. Check oil quantity in the oil tank.

NOTE

Before the check oil quantity, turn the propeller by hand (ignition must be switched OFF!) in the sense of engine rotation so that oil can fill in the engine space or operate the engine for 1 minute in idle mode. Oil level must lie between min and max marks (flattening) on the dipstick.

2. Remove the upper engine cowling.
3. Fill appropriate amount of oil so the oil level is between min and max marks.

CAUTION

ALWAYS REFILL SAME OIL BRAND THAT IS IN OIL SYSTEM.

4. Close the cap of the oil tank and install the upper engine cowling.

8.5.4 Coolant Refilling**8.5.4.1 Coolant Types**

Refer to the Rotax 912 Operator's Manual for recommended coolant types.

8.5.4.2 Coolant Filling Procedure

1. Remove the upper engine cowling.
2. Fill appropriate amount of coolant into the reservoir located in the engine compartment.
3. Install the upper engine cowling.

8.5.5 Brake Fluid Refilling

8.5.5.1 Recommended Types

Refer to the Airplane Maintenance Manual for SportStar RTC airplane for recommended brake fluid types.

8.5.5.2 Brake Fluid Refilling Procedure

1. Remove the upper engine cowling.
2. Fill the brake fluid into reservoir located in the engine compartment on the firewall. A brake fluid level must be approx. 25 mm in the reservoir.
3. Step repeatedly on the pedal during refilling.
4. Bleed the system after refilling.
5. Install the upper engine cowling.

8.5.6 Backup Battery IBBS-12v-3ah

Refer to the Airplane Maintenance Manual for SportStar RTC airplane (Doc. No. ERTC022-10-AS, Edition 02) for battery maintenance practices.

8.5.7 ELT Battery – KIT BAT200

The internal battery must be replaced according to expiry date written on the battery pack and on the ELT label.

8.6 Cleaning and Care

Always use appropriate cleaning agents when cleaning airplane surface. Residuum of oil and fat can be removed from the airplane surface (excluding the canopy) by suitable detergents, possibly by petrol.

The canopy only to be cleaned by washing with ample stream of tepid water with addition of appropriate detergents. Use soft rag, sponge or wash leather. Use suitable polishing agent after wiping rests of water.

CAUTION

**NEVER DRY-CLEAN THE CANOPY AND NEVER
USE PETROL OR CHEMICAL SOLVENTS!**

Coating, upholstery and carpets in the cockpit can be removed from the cockpit, brushed and, if need be, cleaned with warm water with addition of appropriate detergent. Dry up upholstery after doing this.

Make sure that no dust or grit accumulates at the bottom of the display glass. The GDU 460 display uses invisible infrared beams for touch detection, this makes it very important to keep the screen clean, especially along the edges.