

## **SECTION 8 - HANDLING, SERVICING AND MAINTENANCE**

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## 8.1 GENERAL

This section contains important information on the handling, servicing and maintenance of the aircraft. The information about the maintenance is limited to the determination of the scheduled maintenance and periodic inspections and further to the preventive maintenance works as required for the reliable and safe operation of the aircraft between the periodic inspections.

Detailed information about scheduled inspections is described in the Maintenance Manual Z 242 L, Volume I and Vol. II.

All owners of the Z 242 L aircraft are recommended to contact regularly their authorized distributor or dealer and to have all maintenance inspections and/or repairs accomplished by the authorized stations.

In case of any contacts with the aircraft manufacturer, the distributor, the dealer or the service station do not forget to mention the aircraft serial number.

The aircraft Serial Number (S/N) is entered on the title page of this Flight Manual, stamped on the production placard located on the floor of the baggage compartment and on the identification placard at the vertical fin of the fuselage.

### 8.3 AIRCRAFT INSPECTION PERIOD

The approved system of scheduled inspections:

a) Airframe

- 1) Inspection - after first 50 hours of operation
- 2) Inspection A - after each 100 hours of operation or once in 12 calendar months
- 3) Inspection B - after each 500 hours of operation
- 4) Inspection C - after each 1500 hours of operation

b) Engine

- 1) Complete inspection
  - after first 25 hours of operation
  - after each 50 hours of operation
  - after each 100 hours of operation
- 2) Check of the valves and cleanliness of the crankcase front part
  - after each 400 hours of operation

c) Propeller

- 1) Inspection after each 100 hours of operation

**NOTE:**

Detailed information about individual scheduled inspections are described in the Maintenance Manual Z 242 L, Volume I, Chapter 5.

**CAUTION:**

THE AIRCRAFT OWNER IS RESPONSIBLE FOR PERFORMED THE SCHEDULED INSPECTIONS AND THE OTHER MANDATORY MAINTENANCE PROCEDURES.

## **8.5 PREVENTIVE MAINTENANCE THAT MAY BE ACCOMPLISHED BY A CERTIFIED PILOT**

Pilot of an aircraft that is not used as a means of public transport may perform a limited preventive maintenance of his aircraft as specified in the FAR regulation, Part 43.

List of permitted activities which may be carried out by the pilot is given in Regulation FAR, Part 43, in the latest valid issue.

Pilots of aircrafts registered outside the USA must follow the regulations of the country where the aircraft is registered, and they have to request information from the Aviation Authority regarding the preventive maintenance that can be performed by pilots.

All other aircraft maintenance must be performed by qualified personnel in approved service centres. For more information, contact your distributor, dealer or service centre.

Preventive maintenance shall be performed in accordance with applicable documentation accompanying the aircraft, which the pilot must have available prior to the implementation of preventive maintenance.

## **8.7 ALTERATIONS OR REPAIR TO AIRCRAFT**

All repairs and alterations must be performed by qualified personnel in authorized service stations.

Whenever the aircraft owner intends to make any alteration of the aircraft (installation of other navigation equipment) he is obliged to contact the Civil Aviation Authority of the country of aircraft registration, which will reconsider the effects of the alteration on the aircraft airworthiness.

## **8.9 GROUND HANDLING**

### **8.9.1 Aircraft towing**

Use the steering draw-bar inserted onto the nose wheel axle for steering. Ground personnel push the aircraft at the upper wing skin at ribs locations in case of moving it on short distance.

Do not pull or push at the propeller cover, wing skin between the ribs, at wing tips and other parts provided with "DON'T PUSH HERE" placards.

For towing the aircraft by the motor vehicle, use the tow-bar, fastened on the landing gear axle. The tow-bar is delivered optionally.

The instructed person steering and braking the aircraft, as necessary must be at cockpit controls during such towing.

### **CAUTION:**

DO NOT USE THE RUDDER TO MOVING THE NOSE LANDING WHEEL AT THE PUSH THE AIRCRAFT ON THE GROUND – IMPENDENCE OF RUDDER DAMAGE.

### 8.9.2 Aircraft anchorage

The aircraft is anchorage when parking outside the hangar after operational day or as necessary.

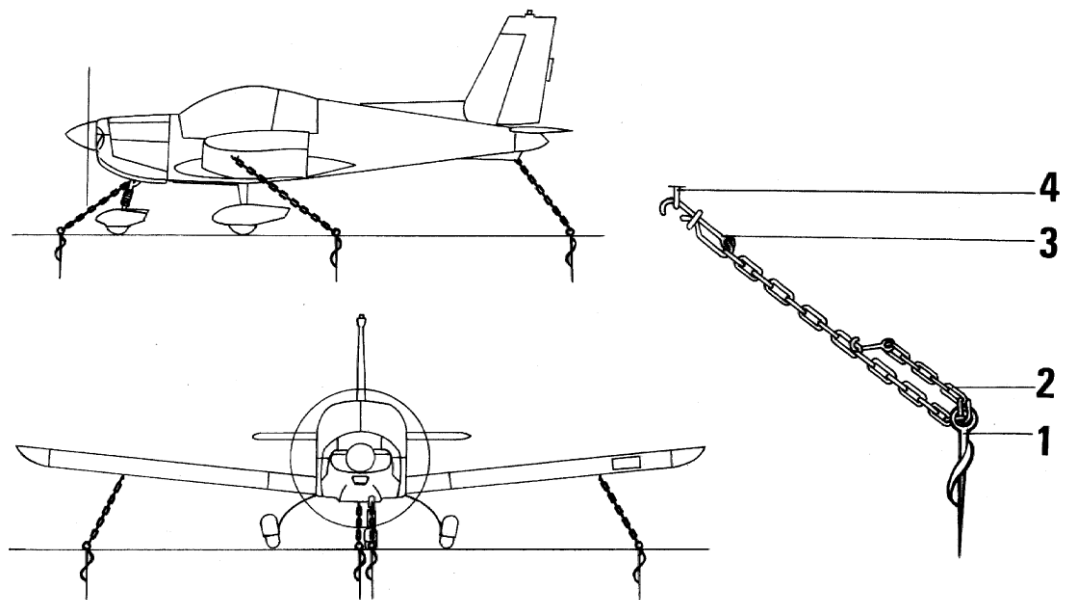
Procedure:

- 1) Check the fuel valve selector, all circuit switches and master switch and cockpit lighting are turned "OFF".
- 2) Lock the control stick.
- 3) Close and lock the canopy.
- 4) Anchorage the aircraft using ropes or chains acc. to the Fig. 8-1 inserted into the rings provided on the bottom side of the wings and on the nose landing gear to the anchoring points.

Use tow-hook on the fuselage rear part or tail skid as a complementary anchoring point, if necessary.

**NOTE:**

Whenever long-term parking and winter period is recommended protection of the aircraft with canvas covers.



**Fig. 8-1**

### 8.9.3 Aircraft jacking

The aircraft is jacking when disassembly of the landing gear, at leveling etc. by means of front and rear lifting jacks.

The front jack located below the first fuselage bulkhead so that the pans of the lifting bars lie below the spherical terminations welded to fuselage frame.

The rear jack is placed below the four bulkhead of the rear part of the fuselage.

**NOTE:**

The jacking points are marked by "SUPPORT HERE" placards on the fuselage.

## 8.11 SERVICING

### 8.11.1 Filling the aircraft with fuel

The pilot is always responsible for filling the aircraft appropriate fuel grade.

**NOTE:**

The approved kinds of fuel are mentioned in Chapter 1, subsection 1.17.

Observe the safety regulation during filling the aircraft with fuel:

- 1) Filling may be performed only instructed persons familiarized with safety precautions.
- 2) It is prohibited to fill the aircraft with fuel :
  - during heavy rain
  - during thunderstorm
  - inside the hangars and closed areas
  - during engine run and any electric system "ON"
- 3) The aircraft **must be connected by bonding cable with the mass of the filling gun** before each filling the aircraft with fuel.

**NOTE:**

The extendable bonding pin is provided close to each filling hole to enable the proper connection of the filling gun bonding-clip.

- 4) The person operating the filling gun should not wear a dress made of any electric cloth (nylon or similar materials).
- 5) Smoking and any operation with fire is **STRONGLY PROHIBITED** during filling the aircraft with fuel.

Filling procedure:

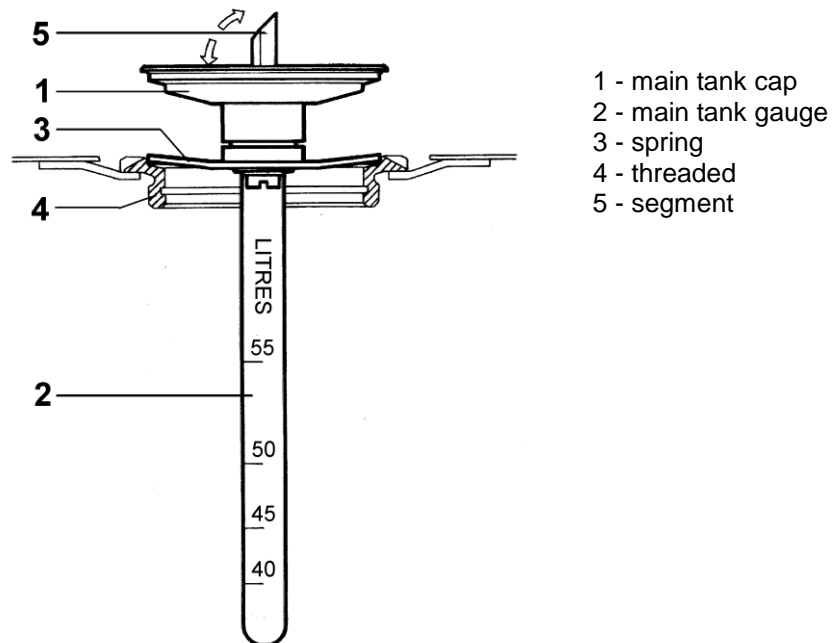
- 1) First fill the main tanks.
- 2) The auxiliary fuel tanks may be filled only after the main fuel tanks are full and their caps properly closed.

The pilot is responsible for checking the fuel quantity after each fuel filling following procedure:

- a) Aircraft's up to S/N 0740 incl.:
  1. Four-pointer fuel indicator, located on the instrument panel.
  2. Gauges, attached on the main tanks caps (when the auxiliary fuel tanks is empty).
- b) Aircraft's from S/N 0741 incl. and up:
  1. Four-pointer fuel indicator, located on the instrument panel.

**NOTE:**

Aircraft's from S/N 0741 incl. and up are equipped with float system for measured of the fuel quantity in the whole capacity of fuel tanks and have not installed gauges on the main tanks caps.



**Fig. 8-2 Main tank gauge (aircraft's up to S/N 0740 incl.)**

Procedure of the fuel quantity check using the main tank gauge for aircraft's up to S/N 0740 incl.:

- 1) Swing away the segment (5), move it round slightly with the main tank cap (1) to the "OPEN" position and remove this cap
- 2) Wipe off the fuel from the gauge (2).
- 3) Insert the gauge into the main tank so that the spring (3) fits on the through put of threaded part (4).
- 4) Remove the gauge from the main tank and read off the fuel quantity in the main tank.
- 5) Insert the main tank cap (1) into the main tank, move it round slightly to "CLOSED" position and tilt the segment (5).

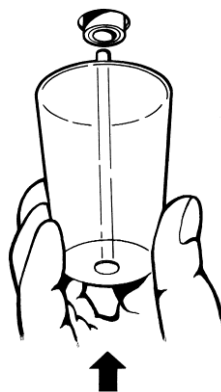
#### 8.11.3 Fuel draining of fuel tank/s and fuel strainer

**CAUTION:**

**DRAIN OFF:** THE **FUEL TANKS** BEFORE THE FIRST FLIGHT OF THE FLIGHT DAY AND AFTER EACH FUEL FILLING  
THE **FUEL STRAINER** BEFORE THE FIRST FLIGHT OF THE FLIGHT DAY

Quick operation valves for the fuel system draining are provided in lowest points of the fuel tanks. The master draining valve on the bottom part of the fuselage in the lowest point of the fuel system should ensure the general system drainage.

The special transparent vessel with pin provided for fuel drainage. The pin after being inserted an slightly pressed-in the drain valve hole, opens the valve and allows the fuel to flow into the vessel. The valve is automatically closed after the vessel is removed. Position of drainage vessel is illustrated in Fig. 8-3.



**Fig. 8-3**

The content of the vessel is checked on the presence of water or any other sediments, that could appear in the fuel tank. Repeat the draining until pure sample of fuel appears

**CAUTION:**

IF WATER AND/OR SEDIMENTS ARE PRESENT AFTER REPEATED DRAINING, THE WHOLE FUEL CONTENT MUST BE DRAINED-OFF FROM THE SYSTEM AND THE AIRCRAFT REFILLED BY THE NEW, NON-CONTAMINATED FUEL.

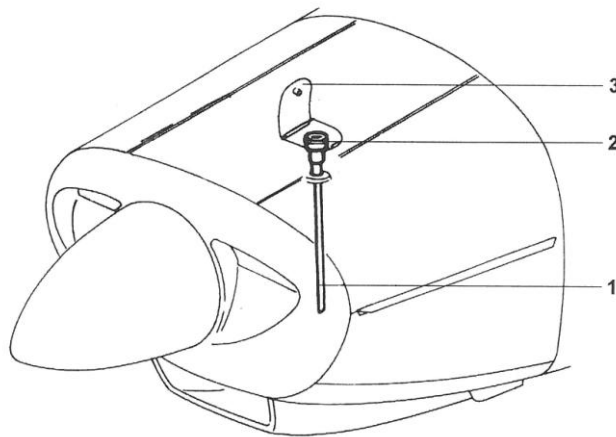


### **8.11.3 Filling the aircraft with oil**

- 1) Lift-off the door (3) on the top cover of the engine.
- 2) Unscrew the filler cap (2)
- 3) Pour the required quantity of oil.

#### Checking the quantity of oil:

To check the quantity of oil in the engine, use the oil filler cap (2) with a dipstick (1).



**Fig. 8-4**

### **8.13 CLEANING AND CARE**

#### **8.13.1 Cleaning the aircraft outer surfaces**

The outer surface of aluminum sheets and composite fairings parts is provided with a durable painting, which under normal conditions keeps a good polish and requires no frequent treating. The aircraft should be washed after daily operation (e.g. flight day ending) with a mild soap or suitable shampoo and water. After washing, dry the surface. It is recommended to performed the 2 times a years, e.g. before and after the winter season renew painted surface preservation. Use only suitable autowax to clean and the soft cloth.

#### **CAUTION:**

- 1) DO NO REMOVE THE STAIN AND DUST DRY – THE SURFACE PAINTING AND PROTECTION MAY BE SERIOUSLY DAMAGED.
- 2) DAMAGED PAINTING REPAIR BY APPROPRIATE PAINT, REGRINDING THE POLISH PASTE AND POLISH.

**NOTE:**

Observe the instructions for use of different kinds of polish, shampoos, grinding and similar agents given by the manufacturer of these products.

**8.13.2 Cleaning the engine and propeller**

Clean the engine with a suitable degreasing product, such as CHEMSEARCH ND 165 or technical gasoline.

The propeller may be cleaned with water and detergent or with an inactive soap. After rinsing, the propeller blades and the propeller spinner should be wiped dry.

**CAUTION:**

IT IS NOT ALLOWED TO USE EITHER A HARD WIRE BRUSH OR SIMILAR MEANS TO CLEAN THE PROPELLER BLADES BECAUSE THEY COULD SCRATCH THE SURFACE OF THE PROPELLER BLADES.

**8.13.3 Cleaning canopy glass and windows**

Rinse the dirt from outer surfaces with a flow of clean water. Use special organic-glass cleaner for polishing the canopy glass. To apply cleaner, use a soft cloth and rub soiled surfaces with a light pressure until clean. After the cleaner dries, polish the whole glass surface with a clean cloth.

**CAUTION:**

- 1) DO NOT USE GASOLINE, ACETONE, ALCOHOL, TETRACHLORIDE, FAMILIAR STAIN WINDOWS REMOVER AND OTHER ORGANIC SOLVENT - THIS CHEMICALS MAY CONSIDERABLY DAMAGE THE GLASS SURFACE.
- 2) DO NOT CLEAN THE GLASS BY DRY CLOTH - THE GLASS IS RELATIVELY WEAK AND THE GLASS IS SCRATCHED AT DRY WIPING.
- 3) PUT-ON AND REMOVE THE CANOPY CANVAS COVER CAREFULLY TO AVOID DAMAGE OF THE CANOPY GLASS. APPLY THE COVER ONLY IF NECESSARY, AT HARD WEATHER CONDITION (FREEZING RAIN, HAIL SNOW ETC.).

**8.13.4 Cleaning the cockpit interior**

The regular care for the interior extends appearance and makes the stay in the cockpit more pleasant and comfortable.

- 1) Use the preferably the vacuum cleaner to remove dust and garbage.
- 2) Brush the cloth parts and remove dust by vacuum cleaner.
- 3) Use the detergent agent with saponate for upholstery cleaning – wipe dry after the upholstery cleaning.
- 4) Stain that reseat shampooing, can be cleaned with a special cloth-detergent.
- 5) Clean the leathers covers, plastic handles and pushbuttons by the cloth wet in saponate.