



LSA AIRCRAFT MAINTENANCE MANUAL

This manual is common to the following aircraft:

Sinus 912 LSA (glider and aeroplane)

Virus 912 LSA (glider and aeroplane)

Virus SW 80/100 LSA (aeroplane)

ALPHA Trainer (aeroplane)

Equipped with Rotax 912 (80 hp) and 912 series (100 hp) engines
Valid for tail-wheel and nose-wheel versions

Document No.: AMM-100-00-60-001*

*This document supersedes LSA maintenance manual REV 5 (19th November 2015)

REVISION A00

Date of Issue: March 22nd, 2019

Aircraft Registration Number:

Aircraft Serial Number:

All rights reserved. Reproduction or disclosure to third parties of this document or any part thereof is not permitted, except with the prior and express written permission of Pipistrel Group's R&D division, Pipistrel Vertical Solutions d.o.o., which is authorized to publish technical documentation for Pipistrel Group's subsidiaries.

05-10
TIME LIMITS**05-10 TIME LIMITS**

Certain components installed on the Pipistrel's aircrafts have time limits which dictate when they're supposed to be overhauled or replaced. This chapter provides information about these limits. Pipistrel recommends the following items be overhauled or replaced at the following intervals or "On Condition" (O/C). O/C items must be overhauled or replaced when, upon inspection, it's determined that they're faulty, have incurred damage, are unserviceable or in bad condition.

CAUTION: All of the time limits outlined in Table 05-001 must be considered when performing the 100 hour/Annual inspection. Removal or overhaul of any these items must be entered into the aircraft technical log book.

CAUTION: If a components time limit is to occur before the next planned inspection, it must be included in the current inspection.

NOTE: The limits mentioned in Table 05-001 DO NOT indicate product lifetime and must not be interpreted as such.

NOTE: The aircraft owner/operator and/or the person maintaining/servicing the aircraft is required to acquaint themselves with and implement the time limits listed in the various maintenance manuals referred to in Table 05-001.

Item No.	Description	Interval		Maintenance		Notes/Reference
		HRS	YRS	OH	RPLC	
1	Beringer wheel/brake assembly		10		X	Caliper pistons and piston seals. Wheel o-rings, bearings and bolts. See [4]
2	Beringer wheel/brake assembly		5		X	Brake disc. See [4]
5	Landing gear tires		5*		X	*On condition or every 5 years. See 32-00.
6	Standard wheel/brake assembly - brake lines	10000			X	See 32-00
7	Hydraulic brake fluid	1000*	5*		X	See 32-40 and 12-10 *Whichever comes first
8	ELT battery	1*			X	* After one hour of real transmission or before/on the battery expiration date. [5]
9	ELT system		6*			* Various tests, inspection and replacements. [5]
10	Propeller Assembly	Depending on propeller installed				See [2]
11	Engine Fuel Pump		5		X	See [1] and Pipistrel video PV-111-001**
12	Auxiliary Fuel pump	2000			X	
13	Akrapovič single and double tail pipe muffler	2000			X	See 78-20
14	Standard muffler	1000			X	See 78-20
15	Exhaust system springs and fire protection				X	On condition - all springs
16	Throttle and choke cables		5		X	See Pipistrel video PV-111-001**
17	Engine	2000	15	X		See [1] – Extending or exceeding the TBO by %5 or 6 months is allowed, whichever comes first
18	Coolant		5		X	Or during overhaul at the latest or when the engine is replaced, whichever comes first. See Pipistrel video PV-111-001**
19	Nose gear shock absorber	2000			X	See 32-20
20	All flexible fuel lines		5		X	See Pipistrel video PV-111-001**
21	Flexible oil lines		5		X	See Pipistrel video PV-111-001**
22	Flexible vent lines		5		X	See Pipistrel video PV-111-001**
23	Rubber coolant hoses		5		X	See Pipistrel video PV-111-001**
24	Gascolator filter		5		X	See Pipistrel video PV-111-001**
25	Engine mount rubber isolators		5*		X	*Replace earlier if required. See [1] See Pipistrel video PV-111-001**
26	Fuel filter (ALPHA Trainer)	500	5*		X	*Whichever comes first
27	GRS ballistic parachute rescue system		30		X	*Rescue system needs to be removed, sent to OEM and replaced. See 95-00
28	GRS ballistic parachute rescue system		6*			*Rescue system needs to be removed and sent to OEM for repacking. See 95-00
29	TOST tow release mechanism	*	*	X		* (if present), 2000 takeoffs (equivalent to 10000 actuations/releases). See [3]
30	Elevator trim cable (mechanical trim)	1000			X*	* cable replacement
31	Control system springs (rudder, el.trim, stabilizer main bolt)				X	On condition
32	Electrical wiring	10000			X	

**This video depicts the maintenance procedures required to be performed every 5 years. To gain access to the video send a request to andrej.horvat@pipistrel.si

For Sinus and Virus aircraft the required kit part number is 1150267

For ALPHA Trainer the required kit part number is 1150270

Table 05-001
Time Limits

05-20 SCHEDULED MAINTENANCE

The inspection schedule outlined in this chapter is what the manufacturer, PIPISTREL, regards as the minimum, in order to keep the aircraft in airworthy condition. The owner/operator is responsible for keeping the aircraft in airworthy condition and shall use this chapter as a guide. It is not, however, by any means the only guide that should be used. The airworthiness directives issued by the aviation authority in the country the aircraft is registered in **MUST** be adhered to as well. The aircraft owner/operator is responsible to ensure maintenance/service personnel, chosen to perform maintenance, meet the required qualifications, as outlined in this manual.

CAUTION: The owner/operator must give any personnel carrying out maintenance/servicing procedures on the aircraft access to records of any past maintenance, as well as all of the aircraft's documentation.

VISUAL INSPECTION

The most common task found in the Aircraft's inspection schedule is the visual inspection. This is essentially an inspection to determine the general state of a component and typically does not require disassembly/removal of any other assemblies/equipment nearby. It is to be performed according to the following criteria and with any/all aids deemed necessary:

Metal Parts – discolouration due to heat exposure, distortion, wear/cracks due to fatigue, corrosion, weld damage, cleanliness and any other forms of damage.

Moving Components – Proper and unhindered operation, alignment, sufficient sealing, cleanliness, sufficient lubrication, travel, general condition, fastening material secured, signs of excessive wear, cracking, corrosion, deformation, and any other forms of damage.

Fuel, Air, and Oil Lines – Kinks, deterioration, chafing, poor flexibility, obstruction, bend radius, cleanliness, sufficiently secured/fastened and any other forms of damage.

Fastening Material - corrosion, wear, damage, loosening (paint marker) and safety wiring intact.

Composite Components – general condition, cleanliness, deformation, dents, warpage, cracks, scratches and any other forms of damage/wear. Composite surfaces that are bare, therefore, not painted, can also be checked for signs of delamination, fluid saturation and wear.

NOTE: If any composite component damage is found, a tap test should be performed to determine how extensive it is. Refer to 51-10 for additional guidelines on how to properly perform a visual inspection and/or tap test on composite components.

Electrical Installations - loose, corroded, or broken terminals/connectors; chafed, broken, or worn insulation; fastening material intact, heat deterioration, deformation, hardening, and any other forms of damage.

Filters and Screens - contamination, obstructions, signs of wear/damage.

Areas with Liquids - Evidence of leaks, sealant condition, signs of bacteria growth, cleanliness, corrosion, delamination, separation of bond, and structural fatigue.

OPERATIONAL INSPECTION

The second most common task found in the Aircraft's inspection schedule is the operational inspection. This is essentially an inspection to determine whether the component/part/assembly functions properly and does what it's supposed to do. Operational inspections of control surfaces must include a positive check, which is where one person holds the control surface steady, while the other moves the flight controls in both directions. This check confirms that movement of the flight controls results in movement of the control surface.

NOTE: It is expected that whenever a specific part or component is inspected, the inspection will include observation and evaluation of the component's surrounding area.

SCHEDULED MAINTENANCE PROGRAMS AND REQUIREMENTS

All airplanes of EU registry must undergo a complete "a 100 Hour Inspection Program" each 12 calendar months and additional requirements of the NAA of the country where the airplane is registered.

The 100 Hour Inspection Program is required, in addition to a complete Annual Inspection, for all airplanes of EU registry.

Inspection Program Intervals

Annual Inspection Time Intervals

The inspection interval to the next Annual Inspection may not exceed twelve calendar months. For Example: If an inspection were signed off on 14 June 2005, the next Annual Inspection would be due and must be accomplished no later than 29 June 2006. All subsequent Annual Inspections will be due in June unless the schedule is reset by performing an Annual Inspection early.

100 Hour Inspection Time Intervals

The interval between 100 Hour Inspections should never be exceeded by more than 10 hours, and then only if additional time is required to reach a place where the inspection can be satisfactorily accomplished. Additionally, the time the interval was exceeded must be included as hours in the next interval. For example: If a 100 Hour Inspection was due at 650 hours and was actually signed-off at 658 hours, the next 100 Hour Inspection is due at 750 hours, not 758 hours. Inspection tolerances cannot be accumulated.