



MAGNAGHI AERONAUTICA SpA

LSA

## SERVICE BULLETIN

<b>SERVICE DOCUMENT</b> SB 2_2017 Sky Arrow Issue 1		<b>DATE</b> 21st December, 2017	
<b>APPROVAL REF.</b>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<b>CHANGE / REPAIR</b>	
<b>SUBJECT: NEW MANUALS: PILOT'S OPERATING HANDBOOK AND MAINTENANCE MANUAL</b>			
<b>APPLICABILITY: SKY ARROW LSA SERIES</b>			
This Service Document is			
<input type="checkbox"/>	<b>MANDATORY</b>	<input checked="" type="checkbox"/>	<b>RECOMMENDED</b>
<input type="checkbox"/>		<input type="checkbox"/>	<b>OPTIONAL</b>
<ol style="list-style-type: none"><li>1. Failing to comply with the mandatory Service Document may immediately get the aircraft not airworthy.</li><li>2. Failing to comply with the recommended Service Document does not directly reduce the flight safety of the aircraft.</li><li>3. Failing to comply with the optional Service Document does not affect the safety of the aircraft. Compliance improves the comfort or the performance of the aircraft.</li></ol>			
<b>COMPLIANCE TERMS: This Service Document is Recommended</b>			
<b>STATEMENT / ADDITIONAL NOTES:</b> The technical content of this document is issued under the alternative procedure to DOA ref. EASA.AP180, approved by EASA.			
<b>NOTICE</b> This document, drawings, specifications or descriptions together with all information and know-how disclosed hereby are considered proprietary to and the exclusive property of MAGNAGHI AERONAUTICA SpA, unless otherwise indicated to be property of an associate co-producer, contractor, vendor and/or supplier. No disclosure to other, reproduction, copy or other use of any part of this document or the information contained herein is to be made and no manufacture sale or use of any device, process, trade secret or composition of matter disclosed herein whether patented or not, shall be made except by written authorization of Magnaghi Aeronautica SpA.			
<b>DRAFTED BY:</b>  <b>Domenico Lamanna</b> (Airworthiness)		<b>APPROVED BY:</b>  <b>Giorgio Iannotti</b> (Head of Design Organization)	

## **1. PREMISE AND SCOPE**

This Service Bulletin has been released to inform the flying fleet about the latest issue of Pilot's Operating Handbook and Maintenance Manual available.

The target of this SB is then to provide to Sky Arrow LSA owners / operators information about main updating in applicable Manuals. It is applicable to Sky Arrow LSA series flying in USA, Brazil and other countries where the type above has been validated according to applicable ASTM standards.

Latest revision of this notification is available through the website [www.skayrow.it](http://www.skayrow.it).

## **2. INFORMATION ON MATERIALS AND LABOUR**

See Para. 6: updating of limitation placards must be performed by either an approved LSA repairman maintenance (airplane class) or suitable higher rate mechanic.

## **3. COMPLIANCE**

Tasks at Para. 6 and 7 of this SB must be accomplished at next scheduled maintenance event or before, since this SB released.

## **4. INVOLVED DOCUMENTS**

### **4.1 Airplane docs**

- Pilot's Operating Handbook - AFM-001-2012 Sky Arrow-Issue1, currently at rev. 2 dated 26<sup>th</sup> September, 2017,
- Airplane Maintenance Manual - AMM-001-2012 Sky Arrow-Issue 1, currently at rev. 2 dated 26<sup>th</sup> September, 2017.

## 5. MANUALS REVISION

### 5.1 Pilot's Operating handbook

Here are summarized the main modifications included into latest revision of POH (from issue 2 on):

- performance and limitations - at Sections 2 and 5 are enclosed the speeds (in particular,  $V_{NE}$ ,  $V_H$  and  $V_o$ ) evaluated after:
  - ✓ review of performance coming from statistical data resulting from latest flight test reports (affecting, in particular, increasing of  $V_H$ ),
  - ✓ changes in ASTM F2245 master rule,
- fuel prescriptions - Section 2 is also linked to Notification recommending proper specifications for suitable fuels,
- Section 2: from LSA022 on, fuel capacity is 92 lt + 20 lt reserve,
- Section 2: for European LSA, certified Rotax engine and Hoffmann propeller are required.

Note:

- reduction of  $V_{NE}$  for Sky Arrow LSA does not actually affect safety, considering the airframe of LSA is the same than the one of FAR23 / CS-VLA version, tested and certified at higher  $V_{NE}$ .

### 5.2 Maintenance Manual

The following main topics have been updated in the latest revision of MM (from issue 2 on):

- Section 5: replacement of spark plugs and rubber hoses have been also synchronized to Rotax prescriptions,
- Sections 3 and 23: the Manuals from manufacturers of systems and avionics are considered integral part of the MM itself,
- Section 8: Weight & Balance to be repeated every 36 months,
- Section 34: leakage test and calibration of altimeter and airspeed indicator to be repeated every 2 years,
- Section 51: enclosed specifications of painting products.



# **6. INSTRUCTIONS**

Following Para. 5.1, the following tasks must be performed, according to the prescription at Section 2 of POH:

- ✓ the arcs and red radial on airspeed indicator must be updated as per Para. 2.3 of POH (issue 2 or following); part number 15-05842 from Aircraft Spruce can be used. Also limits in Dynon Avionics system, where installed, must be correspondingly updated, as per Dynon set-up procedure,
- ✓ the operating limitations placard in the cockpit must be replaced with the one at Para. 2.4 of POH (issue 2 or following), for Sky Arrow LSA serial number LSA022 (included) on:

LIGHT SPORT AIRCRAFT	
CHARACTERISTICS	PERFORMANCE (at 1,320 lbs – 599 kg)
MAX TAKE-OFF WEIGHT 1,320 lbs (599 kg)	V <sub>NE</sub> 129 kts / 149 mph
MAX LANDING WEIGHT 1,320 lbs (599 kg)	V <sub>FE</sub> 67 kts / 77 mph
POWER 98 hp (5') – 92.5 hp (max. cont.)	MAX HOR. SPEED s.l.(V <sub>H</sub> ) 115 kts / 132 mph
RPM engine 5,800 (5') – 5,500 (max cont.)	MANOUV. Sp. s.l.@ MTOW 88 KCAS / 101 mph
ENGINE TYPE ROTAX 912 ULS2 / S2	STALL SPEED (30° flaps) 38 kts / 44 mph
FUEL TYPE	RATE OF CLIMB, s.l. (at 65 kts) 1.100 ft/min
MOGAS min RON 95, min AKI 91 oct.	CEILING 13.500 ft
or AvGas UL 94 / 100LL	TAKE OFF RUN (10° flaps) 538 ft / 164 m
OIL TYPE Proper grade	LANDING RUN (30° flaps) 360 ft / 110 m
MAX. USABLE FUEL 29.4 USgals / 111.5 lt	FUEL CONSUMPTION
"G" LIMIT FACTOR + 4.0 / - 2.0 (Flaps 0°)	(cruise power 75% pwr) 5.8 gals/h (21.8 lt/h)
+ 2.0 / 0 (Flaps 30°)	FUEL CAPACITY
MAX BAGGAGE WEIGHT 66+33 lbs (45) kg	92 lt (24.3 gal.) + 20 lt (5.3 gal.) reserve
	ENDURANCE (cruise pwr.) 4.5 <sup>h</sup> + 1 <sup>h</sup> reserve
NO INTENTIONAL SPINS	

For Sky Arrow LSA with serial number lower than LSA021 (included), the following operating limitations placard must replace the one already available in the cockpit:

LIGHT SPORT AIRCRAFT	
CHARACTERISTICS	PERFORMANCE (at 1,320 lbs – 599 kg)
MAX TAKE-OFF WEIGHT 1,320 lbs (599 kg)	V <sub>NE</sub> 129 kts / 149 mph
MAX LANDING WEIGHT 1,320 lbs (599 kg)	V <sub>FE</sub> 67 kts / 77 mph
POWER 98 hp (5') – 92.5 hp (max. cont.)	MAX HOR. SPEED s.l.(V <sub>H</sub> ) 115 kts / 132 mph
RPM engine 5,800 (5') – 5,500 (max cont.)	MANOUV. Sp. s.l.@ MTOW 88 KCAS / 101 mph
ENGINE TYPE ROTAX 912 ULS2 / S2	STALL SPEED (30° flaps) 38 kts / 44 mph
FUEL TYPE	RATE OF CLIMB, s.l. (at 65 kts) 1.100 ft/min
MOGAS min RON 95, min AKI 91 oct.	CEILING 13.500 ft
or AvGas UL 94 / 100LL	TAKE OFF RUN (10° flaps) 538 ft / 164 m
OIL TYPE Proper grade	LANDING RUN (30° flaps) 360 ft / 110 m
MAX. USABLE FUEL 17.8 gal / 67.5 lt	FUEL CONSUMPTION
"G" LIMIT FACTOR + 4.0 / - 2.0 (Flaps 0°)	(cruise power 75% pwr) 5.8 gals/h (21.8 lt/h)
+ 2.0 / 0 (Flaps 30°)	FUEL CAPACITY
MAX BAGGAGE WEIGHT 66+33 lbs (45) kg	68 lt (18 gal)
	ENDURANCE (cruise pwr.) 3.2 <sup>h</sup> (no reserve)
NO INTENTIONAL SPINS	

After updating of airspeed indicator and limitation placard, aircraft logbook must be updated too, by recording performed task linked to this SB.

Note: Sky Arrow LSA from serial number LSA029 on will be delivered from the factory already compliant with data from POH revision 2 or later.

### **7. CONTINUED AIRWORTHINESS**

The manuals for Sky Arrow LSA can be downloaded after instructions from Magnaghi, sending an email to [contact@skyarrow.it](mailto:contact@skyarrow.it) and providing the following data, also useful for data keeping:

- serial number of the aircraft,
- registration marks,
- flight hours,
- owner / operator data.