

## ***Supplement No. 06***

### ***Sensenich 3B0R5R68C Propeller Installation***

Aircraft Registration number:

Aircraft Serial Number:

This Supplement must be attached to the POH when the Sensenich 3B0R5R68C propeller is installed in accordance with the manufacturer's approved documentation.

Information in this Supplement completes or replaces information in the basic POH for the below mentioned parts only. Limitations, procedures and information not mentioned in this Supplement and included in the basic POH stay valid.

This Supplement completes information necessary for the airplane operation with equipment installed on the airplane.

This supplement is EASA approved under EASA Major Change Approval No. 10047966.

Approval Date: 31 January 2014

## RECORD OF REVISIONS

Rev. No.	Affected pages	Revision name	Approved	Date

# Chapter 1 – GENERAL INFORMATION

## 1.1 Airplane specification

### Propeller:

Manufacturer .....	SENSENICH
Model number.....	3B0R5R68C
Number of blades .....	3
Diameter.....	1,727 mm
Pitch setting.....	18.3 ± 0.5°
Type.....	three composite blades, ground adjustable

## 1.2 Summary of performances

### Speeds:

Maximum at sea level.....	117 KIAS
Cruise, 75% power at 3,000 ft .....	92 KIAS

### Range and endurance:

Range.....	486 NM	(900 km)
Endurance .....	5:03 h:mm	

### Conditions:

Usable fuel.....	113 L
75% power of engine .....	5,000 RPM
Altitude.....	3,000 ft
Reserve .....	30 minutes

### Rate of climb:

At sea level.....	833 fpm
Best angle of climb speed (v <sub>x</sub> ).....	55 KIAS
Best rate of climb speed (v <sub>y</sub> ) .....	62 KIAS

# Chapter 2 - LIMITATIONS

No change.

# Chapter 3 – EMERGENCY PROCEDURES

No change.

## Chapter 4 – NORMAL PROCEDURES

### 4.4 Normal Takeoff

#### 4.4.1 Engine run-up

##### **CAUTION**

*The engine run-up should be performed with the aircraft heading upwind and not on a loose terrain (the propeller may suck grit which can damage the leading edges of blades).*

- |                        |                                      |
|------------------------|--------------------------------------|
| 1. Brakes              | - fully applied                      |
| 2. Throttle            | - <b>MAX</b>                         |
| 3. Engine speed        | - check (4,950 ±100 rpm – wind calm) |
| 4. Engine gauges       | - within limits                      |
| 5. Throttle            | - <b>IDLE</b>                        |
| 6. Engine acceleration | - check                              |

##### **CAUTION**

*To prevent impact load, wait for around 3 sec. after throttling back to partial load to reach constant speed before re-acceleration.*

- |                   |   |
|-------------------|---|
| 7. Ignition check | - set engine speed to 4,000 rpm<br>- switch ignition gradually to<br><b>L – BOTH – R – BOTH</b><br><i>(Max. engine speed drop with only one ignition circuit must not exceed 300 rpm. Max engine speed drop difference between circuits L and R should be 115 rpm.)</i> |
| 8. CARBURETOR AIR | - <b>PULL HOT</b><br>- check carburetor preheating function<br><i>(Engine speed drop max. 100 rpm)</i><br>- push <b>OFF</b>   |
| 9. Throttle       | - <b>IDLE</b>   |

##### **NOTE**

*For checking the two ignition circuits, only one circuit may be switched OFF and ON at a time.*

#### 4.4.3 Takeoff

1. THROTTLE - **MAX**
2. Engine speed - check ( $4,950 \pm 100$  rpm – wind calm)
3. Engine gauges - within limits
4. Elevator control - neutral position  
- at 30 - 34 KIAS pull slightly to lift the nose wheel
5. Airplane unstick - at 40 - 44 KIAS
6. Climb - after reaching airspeed 62 KIAS
7. Brakes - apply
8. Flaps - retract ( $0^\circ$ ) at safe altitude  
(max. airspeed for flaps using is 75 KIAS)
9. Trims - as necessary

#### 4.15 Noise characteristics

The noise level in accordance with requirements of the CS-36, Am.2 (ICAO Annex 16, Volume I, Chapter 10 - 10.4 b) has been established as  $63.7 \pm 0.9$  dB(A).

The noise level for aircraft equipped with the after muffler (Dwg. No. SE0490N) has been established as  $62.6 \pm 1.1$  dB(A).

## Chapter 5 – PERFORMANCE

The performance shown in this section is valid for aircraft equipped with **ROTAX 912 ULS2** engine with maximum power 73.5 kW and **SENSENICH 3B0R5R68C** three composite blades ground adjustable propeller with pitch setting  $18.3 \pm 0.5^\circ$  (Pin No. 3).

### 5.1 Takeoff distances

**Conditions:** - Altitude: 0 ft ISA  
 - Engine power: *max. takeoff*  
 - Flaps: 12°

RUNWAY SURFACE	Takeoff run distance		Takeoff distance over 50 ft (15 m) obstacle	
	ft	m	ft	m
CONCRETE	541	165	1,352	412
GRASS	794	242	1,565	477

### 5.2 Landing distances

**Conditions:** - Altitude: 0 ft ISA  
 - Engine power: *idle*  
 - Flaps: 30°  
 - Normal brakes operation

RUNWAY SURFACE	Landing distance over 50 ft (15 m) obstacle		Landing run distance (braked)	
	ft	m	ft	m
CONCRETE	1,463	446	459	140
GRASS	1,447	441	463	141

### 5.3 *Rate of climb*

<b>Conditions:</b> Engine: <i>max. takeoff</i> Flaps: <i>0°</i>	<b>Best rate of climb speed Vy</b>	<b>Rate of climb Vz</b>
<b>Altitude</b>	<i>KIAS</i>	<i>fpm</i>
<b>0 ft</b>	62	833
<b>1,000 ft</b>	62	780
<b>3,000 ft</b>	62	685
<b>5,000 ft</b>	62	620
<b>7,000 ft</b>	62	515
<b>9,000 ft</b>	62	410

### 5.4 Cruise speeds

Altitude	Engine speed	Airspeeds			MAP	Fuel consumption
		ft	rpm	KIAS		
1,000	4,200	75	75	76	22.8	14.8
	4,500	83	82	84	23.8	17.1
	4,800	91	89	92	24.8	19.4
	5,000	96	94	97	25.4	21.0
	5,300	105	101	104	26.3	23.3
	5,500	109	105	108	26.9	24.8
	5,800	115	111	114	28.0	27.0
3,000	4,200	70	71	74	21.8	14.0
	4,500	79	78	83	22.6	16.4
	4,800	87	85	91	23.4	18.7
	5,000	92	90	96	24.0	20.3
	5,300	100	97	103	24.8	22.6
	5,500	105	101	107	25.3	24.2
	5,800	111	107	113	26.2	26.6
5,000	4,200	67	68	73	20.7	13.3
	4,500	75	75	82	21.5	15.6
	4,800	83	82	90	22.2	18.0
	5,000	89	87	95	22.7	19.6
	5,300	97	94	102	23.4	22.0
	5,500	103	98	106	23.9	23.6
	5,800	108	104	112	24.6	26.0
7,000	4,200	62	64	72	19.7	12.8
	4,500	71	72	81	20.3	15.2
	4,800	80	79	89	20.9	17.6
	5,000	86	84	94	21.3	19.2
	5,300	94	91	101	21.8	21.6
	5,500	99	96	105	22.2	23.2
	5,700	103	100	109	22.6	24.8
9,000	4,200	59	61	71	18.6	12.0
	4,500	68	69	80	19.1	14.5
	4,800	77	76	88	19.5	17.0
	5,000	83	81	93	19.8	18.6
	5,300	91	88	100	20.3	21.1
	5,500	96	93	104	20.6	22.6
	5,600	98	95	106	20.8	23.5

### 5.5 RPM setting and fuel consumption

Altitude	ft	1,000					
Engine speed	<i>rpm</i>	<b>4,200</b>	<b>4,500</b>	<b>4,800</b>	<b>5,000</b>	<b>5,300</b>	<b>5,500</b>
Fuel consumption	<i>L/h</i>	14.8	17.1	19.4	21.0	23.3	24.8
Airspeeds	<i>KIAS</i>	75	83	91	96	104	109
	<i>KCAS</i>	75	82	89	94	101	105
	<i>KTAS</i>	76	84	92	97	104	108
<b>Endurance and Range at 113 liters</b>							
Endurance	<i>hh:mm</i>	7:38	6:36	5:49	5:22	4:50	4:33
Range	<i>NM</i>	580	555	536	522	504	492
	<i>km</i>	1075	1028	992	967	934	911
<b>Endurance and Range at 90 liters</b>							
Endurance	<i>hh:mm</i>	6:04	5:15	4:38	4:17	3:51	3:37
Range	<i>NM</i>	462	442	427	416	402	392
	<i>km</i>	856	819	790	770	744	726
<b>Endurance and Range at 60 liters</b>							
Endurance	<i>hh:mm</i>	4:03	3:30	3:05	2:51	2:34	2:25
Range	<i>NM</i>	308	295	285	277	268	261
	<i>km</i>	571	546	527	513	496	484
<b>Endurance and Range at 30 liters</b>							
Endurance	<i>hh:mm</i>	2:01	1:45	1:32	1:25	1:17	1:12
Range	<i>NM</i>	154	147	142	139	134	131
	<i>km</i>	285	273	263	257	248	242
<b>Endurance and Range at 15 liters</b>							
Endurance	<i>hh:mm</i>	1:00	0:52	0:46	0:42	0:38	0:36
Range	<i>NM</i>	77	74	71	69	67	65
	<i>km</i>	143	136	132	128	124	121

Altitude	ft	3,000					
Engine speed	<i>rpm</i>	4,200	4,500	4,800	5,000	5,300	5,500
Fuel consumption	<i>L/h</i>	14.0	16.4	18.7	20.3	22.6	24.2
Airspeeds	<i>KIAS</i>	70	79	87	92	100	105
	<i>KCAS</i>	71	78	85	90	97	101
	<i>KTAS</i>	74	83	91	96	103	107
<b>Endurance and Range at 113 liters</b>							
Endurance	<i>hh:mm</i>	8:04	6:53	6:02	5:33	5:00	4:40
Range	<i>NM</i>	597	572	550	534	515	500
	<i>km</i>	1106	1059	1018	990	954	925
<b>Endurance and Range at 90 liters</b>							
Endurance	<i>hh:mm</i>	6:25	5:29	4:48	4:26	3:58	3:43
Range	<i>NM</i>	476	455	438	426	410	398
	<i>km</i>	881	844	811	788	760	737
<b>Endurance and Range at 60 liters</b>							
Endurance	<i>hh:mm</i>	4:17	3:39	3:12	2:57	2:39	2:28
Range	<i>NM</i>	317	304	292	284	273	265
	<i>km</i>	587	562	541	525	506	491
<b>Endurance and Range at 30 liters</b>							
Endurance	<i>hh:mm</i>	2:08	1:49	1:36	1:28	1:19	1:14
Range	<i>NM</i>	159	152	146	142	137	133
	<i>km</i>	294	281	270	263	253	246
<b>Endurance and Range at 15 liters</b>							
Endurance	<i>hh:mm</i>	1:04	0:54	0:48	0:44	0:39	0:37
Range	<i>NM</i>	79	76	73	71	68	66
	<i>km</i>	147	141	135	131	127	123

Altitude	ft	5,000					
Engine speed	<i>rpm</i>	4,200	4,500	4,800	5,000	5,300	5,500
Fuel consumption	<i>L/h</i>	13.3	15.6	18.0	19.6	22.0	23.6
Airspeeds	<i>KIAS</i>	67	75	83	89	97	102
	<i>KCAS</i>	68	75	82	87	94	98
	<i>KTAS</i>	73	82	90	95	102	106
<b>Endurance and Range at 113 liters</b>							
Endurance	<i>hh:mm</i>	8:29	7:14	6:16	5:45	5:08	4:47
Range	<i>NM</i>	620	594	565	548	524	508
	<i>km</i>	1149	1100	1046	1014	970	940
<b>Endurance and Range at 90 liters</b>							
Endurance	<i>hh:mm</i>	6:46	5:46	5:00	4:35	4:05	3:48
Range	<i>NM</i>	494	473	450	436	417	404
	<i>km</i>	915	876	833	808	773	749
<b>Endurance and Range at 60 liters</b>							
Endurance	<i>hh:mm</i>	4:30	3:50	3:20	3:03	2:43	2:32
Range	<i>NM</i>	329	315	300	291	278	269
	<i>km</i>	610	584	556	539	515	499
<b>Endurance and Range at 30 liters</b>							
Endurance	<i>hh:mm</i>	2:15	1:55	1:40	1:31	1:21	1:16
Range	<i>NM</i>	165	158	150	145	139	135
	<i>km</i>	305	292	278	269	258	250
<b>Endurance and Range at 15 liters</b>							
Endurance	<i>hh:mm</i>	1:07	0:57	0:50	0:45	0:40	0:38
Range	<i>NM</i>	82	79	75	73	70	67
	<i>km</i>	152	146	139	135	129	125

Altitude	ft	7,000					
Engine speed	<i>rpm</i>	<b>4,200</b>	<b>4,500</b>	<b>4,800</b>	<b>5,000</b>	<b>5,300</b>	<b>5,500</b>
Fuel consumption	<i>L/h</i>	12.8	15.2	17.6	19.2	21.6	23.2
Airspeeds	<i>KIAS</i>	62	71	80	86	94	99
	<i>KCAS</i>	64	72	79	84	91	96
	<i>KTAS</i>	72	81	89	94	101	105
<b>Endurance and Range at 113 liters</b>							
Endurance	<i>hh:mm</i>	8:49	7:26	6:25	5:53	5:13	4:52
Range	<i>NM</i>	636	602	571	553	528	511
	<i>km</i>	1177	1115	1058	1025	979	947
<b>Endurance and Range at 90 liters</b>							
Endurance	<i>hh:mm</i>	7:01	5:55	5:06	4:41	4:09	3:52
Range	<i>NM</i>	506	480	455	441	421	407
	<i>km</i>	938	888	843	816	779	754
<b>Endurance and Range at 60 liters</b>							
Endurance	<i>hh:mm</i>	4:41	3:56	3:24	3:07	2:46	2:35
Range	<i>NM</i>	338	320	303	294	281	272
	<i>km</i>	625	592	562	544	520	503
<b>Endurance and Range at 30 liters</b>							
Endurance	<i>hh:mm</i>	2:20	1:58	1:42	1:33	1:23	1:17
Range	<i>NM</i>	169	160	152	147	140	136
	<i>km</i>	313	296	281	272	260	251
<b>Endurance and Range at 15 liters</b>							
Endurance	<i>hh:mm</i>	1:10	0:59	0:51	0:46	0:41	0:38
Range	<i>NM</i>	84	80	76	73	70	68
	<i>km</i>	156	148	140	136	130	126

Altitude	ft	9,000					
Engine speed	<i>rpm</i>	4,200	4,500	4,800	5,000	5,300	5,500
Fuel consumption	<i>L/h</i>	12.0	14.5	17.0	18.6	21.1	22.6
Airspeeds	<i>KIAS</i>	59	68	77	83	91	96
	<i>KCAS</i>	61	69	76	81	88	93
	<i>KTAS</i>	71	80	88	93	100	104
<b>Endurance and Range at 113 liters</b>							
Endurance	<i>hh:mm</i>	9:25	7:47	6:38	6:04	5:21	5:00
Range	<i>NM</i>	669	623	585	565	536	520
	<i>km</i>	1238	1155	1083	1046	992	963
<b>Endurance and Range at 90 liters</b>							
Endurance	<i>hh:mm</i>	7:30	6:12	5:17	4:50	4:15	3:58
Range	<i>NM</i>	533	497	466	450	427	414
	<i>km</i>	986	920	863	833	790	767
<b>Endurance and Range at 60 liters</b>							
Endurance	<i>hh:mm</i>	5:00	4:08	3:31	3:13	2:50	2:39
Range	<i>NM</i>	355	331	311	300	284	276
	<i>km</i>	657	613	575	556	527	511
<b>Endurance and Range at 30 liters</b>							
Endurance	<i>hh:mm</i>	2:30	2:04	1:45	1:36	1:25	1:19
Range	<i>NM</i>	178	166	155	150	142	138
	<i>km</i>	329	307	288	278	263	256
<b>Endurance and Range at 15 liters</b>							
Endurance	<i>hh:mm</i>	1:15	1:02	0:52	0:48	0:42	0:39
Range	<i>NM</i>	89	83	78	75	71	69
	<i>km</i>	164	153	144	139	132	128

## Chapter 6 – WEIGHT AND BALANCE

No change.

## Chapter 7 – DESCRIPTION OF AIRPLANE AND SYSTEMS

### 7.6 Propeller

**SENENICH 3B0R5R68C** three composite blades ground adjustable propeller is installed. The propeller diameter is *1,727 mm*.

**NOTE**

*For technical data refer to documentation supplied by the propeller manufacturer.*

## Chapter 8 – HANDLING AND SERVICING

### 8.8 Aircraft inspection periods

Periods of overall checks and contingent maintenance depends on the condition of the operation and on overall condition of the airplane.

Inspections and revisions should be carried out in the periods listed in:

- *PS-28 Cruiser aircraft Maintenance manual* for aircraft maintenance.
- *Rotax engine Maintenance manual* for engine maintenance.
- *Sensenich 3B0R5R68C propeller manual* for propeller maintenance.