

The new or amended text in the revised pages will be indicated by a black vertical line in the right hand margin, and the Revision No. and the date will be shown on the bottom left side of the page.

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**0.2 LIST OF EFFECTIVE PAGES**

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|------|----------|------------|------|----------|------------|
| 0-1  | 01       | 04.02.2014 | 4-15 | 01       | 04.02.2014 |
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| 0-3  | 01       | 04.02.2014 | 5-1  | 01       | 04.02.2014 |
| 0-4  | 02       | 18.12.2014 | 5-2  | 01       | 04.02.2014 |
| 0-5  | 01       | 04.02.2014 | 5-3  | 01       | 04.02.2014 |
| 0-6  | 01       | 04.02.2014 | 5-4  | 01       | 04.02.2014 |
|      |          |            |      |          |            |
| 1-1  | 01       | 04.02.2014 | 6-1  | 01       | 04.02.2014 |
| 1-2  | 01       | 04.02.2014 | 6-2  | 01       | 04.02.2014 |
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| 2-3  | 02       | 18.12.2014 | 7-3  | 01       | 04.02.2014 |
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|      |          |            | 7-9  | 01       | 04.02.2014 |
| 3-1  | 01       | 04.02.2014 | 7-10 | 01       | 04.02.2014 |
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| 4-1  | 01       | 04.02.2014 | 8-1  | 01       | 04.02.2014 |
| 4-2  | 01       | 04.02.2014 | 8-2  | 01       | 04.02.2014 |
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| 4-7  | 01       | 04.02.2014 | 8-7  | 02       | 18.12.2014 |
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| 4-9  | 01       | 04.02.2014 | 9-1  | 01       | 04.02.2014 |
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| 4-12 | 01       | 04.02.2014 | 10-1 | 01       | 04.02.2014 |
| 4-13 | 02       | 18.12.2014 | 10-2 | 01       | 04.02.2014 |
| 4-14 | 01       | 04.02.2014 |      |          |            |

### 2.3. Airspeed indicator markings

Airspeed indicator markings and their colour code significance are shown below:

| Colour code significance | Airspeed  |           | Significance   |
|--------------------------|-----------|-----------|--|
|                          | KIAS      | IAS       |  |
| White arc                | 41 - 79   | 76 - 146  | Operating range with extended flaps.<br>(Lower limit is $v_{S0}$ . Upper limit is $v_{FE}$ .)    |
| Green arc                | 48 - 121  | 89 - 225  | Normal operating range.<br>(Lower limit is $v_S$ . Upper limit is $v_C$ .)                       |
| Yellow arc               | 121 - 149 | 225 - 276 | Manoeuvres must be conducted with caution.<br>(Lower limit is $v_C$ . Upper limit is $v_{NE}$ .) |
| Red line                 | 149       | 276       | Never exceeded speed $v_{NE}$  |

### 2.4. Powerplant

| Engine                            |                                 |                                    |
|-----------------------------------|---------------------------------|------------------------------------|
| Engine manufacturer               | -                               | BRP-Powertrain GmbH, Austria       |
| Engine model                      | -                               | Rotax 914 UL                       |
| Maximum power                     | Take-off ( <i>max. 5 min.</i> ) | 84,5 kW / 115 hp                   |
|                                   | Continuous                      | 73,5 kW / 100 hp                   |
| Maximum RPM                       | Take-off ( <i>max. 5 min.</i> ) | 5800 min <sup>-1</sup>             |
|                                   | Continuous                      | 5500 min <sup>-1</sup>             |
| Airbox temperature                | Intervention temperature        | 88 °C                              |
| Coolant temperature               | Maximum                         | 120 °C                             |
| Cylinder head coolant temperature | Maximum                         | 120 °C                             |
| Oil temperature                   | Minimum                         | 50 °C                              |
|                                   | Normal                          | 90 - 110 °C                        |
|                                   | Maximum                         | 130 °C                             |
| Oil pressure                      | Minimum                         | 0,8 bar / 12 psi                   |
|                                   | Normal                          | 2,0 - 5,0 bar / 29 - 73 psi        |
|                                   | Maximum                         | 7 bar / 102 psi                    |
| Fuel pressure                     | Minimum                         | 0,15 bar / 2,18 psi                |
|                                   | Normal                          | 0,25 - 0,75 bar / 3,63 - 10,88 psi |
|                                   | Maximum                         | 0,85 bar / 12,33 psi               |
| Oil consumption                   | Maximum                         | 0,06 l/h                           |

## 2.5. Powerplant instrument markings

Digital powerplant instrument Dynon SkyView SV-D1000 for monitoring of engine parameters complements an analogue manifold pressure indicator and a fuel pressure indicator. Ranges are marked with following colour code significance:

| Digital instrument (Dynon SV-D1000) | Unit              | Red Line Minimum Limit   | Green Arc Normal Operating | Yellow Arc Caution Range   | Red Line Maximum Limit |
|-------------------------------------|-------------------|--|----------------------------|----------------------------|------------------------|
| Tachometer                          | min <sup>-1</sup> | 1400   | 1400 - 5500                | 5500 - 5800                | 5800                   |
| Manifold pressure                   | inHg              | -  | 10,0 - 36                  | 36 – 40,5                  | 40,5                   |
| Coolant temperature                 | °C                | 50   | 90 – 110                   | 50 – 90<br>110 – 120       | 120                    |
| Cylinder head coolant temperature   | °C                | 50   | 90 – 110                   | 50 – 90<br>110 – 120       | 120                    |
| Oil temperature                     | °C                | 50   | 90 - 110                   | 50 - 90<br>110 - 130       | 130                    |
| Oil pressure                        | bar               | 0,8  | 2,0 - 5,0                  | 0,8 - 2,0<br>5,0 - 7,0     | 7,0                    |
| Exhaust gas temperature             | °C                | 250  | 300-950                    | 250-300<br>950-1000        | 1000                   |
| Fuel pressure                       | bar               | 0,15   | 0,25 – 0,75                | 0,15 - 0,25<br>0,75 - 0,85 | 0,85                   |
| Fuel flow meter                     | l/h               | -  | 0,0 - 25,0                 | -                          | over 25,0              |
| Fuel level                          | l                 | Red light annunciator will be illuminated with the remaining 15 litres of fuel in the fuel tank. |                            |                            |                        |

## 2.6. Miscellaneous instrument markings

No additional miscellaneous instruments.

## 2.14. Maximum passenger seating

The maximum number of passenger on board is one passenger sitting in the right seat in the cockpit.

## 2.15. Other limitations

### (a) Wind speed

The maximum demonstrated crosswind velocity for take-off and landing is 24 kts (12,4 m/s).

### (b) Smoking

No smoking on board the aircraft.

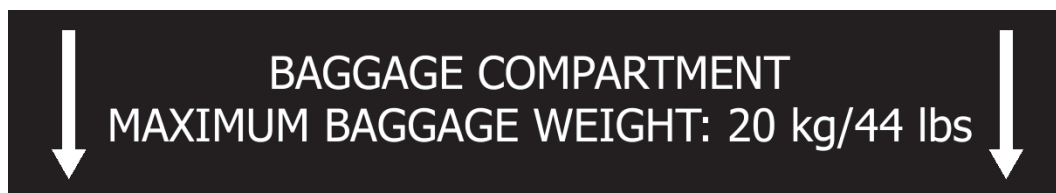
### (c) Minimum equipment for flight operation:

- 1 Airspeed indicator.
- 2 Sensitive barometric altimeter.
- 3 Magnetic compass.
- 4 SkyView SV D1000 with following indications:
  - a. Fuel quantity indication
  - b. Engine RPM indication
  - c. Oil temperature indication
  - d. Oil pressure indication
  - e. Cylinder head coolant temperature indication
  - f. Manifold pressure
  - g. Fuel pressure
- 5 Safety harness for each occupied seat.

## 2.16. Limitations placards

| AIRSPEEDS:      |         | AIRSPEEDS:      |          |
|-----------------|---------|-----------------|----------|
| V <sub>NE</sub> | 149 kts | V <sub>NE</sub> | 276 km/h |
| V <sub>A</sub>  | 99 kts  | V <sub>A</sub>  | 184 km/h |
| V <sub>FE</sub> | 79 kts  | V <sub>FE</sub> | 146 km/h |
| V <sub>LO</sub> | 79 kts  | V <sub>LO</sub> | 146 km/h |
| V <sub>SO</sub> | 41 kts  | V <sub>SO</sub> | 76 km/h  |

|   |  |
|---|--|
| WARNING<br>IFR flights and flights in icing conditions<br>are prohibited! | WARNING<br>Aerobatic manoeuvres and intentional<br>spins are prohibited! |
| APPROVED FOR: DAY - VFR   | WARNING<br>Do not exceed maximum<br>take-off weight: 600 kg / 1320 lbs   |
| NO SMOKING  |  |



Note: this placard is in two pieces (one for each section of baggage compartment)

**4.5.5. Before take-off**

- |                              |  |
|------------------------------|--|
| 1. Control stick:            | Freedom of movement.                                   |
| 2. Elevator trim control:    | Set neutral position.                                  |
| 3. Wing flaps:               | Set take-off position (15°) (see also Chapter 4.5.14). |
| 4. Fuel selector:            | Select non-empty tank.                                 |
| 5. Auxiliary fuel pump:      | Switch ON.   |
| 6. Landing gear:             | Set DOWN.  |
| 7. Hydraulic pump:           | Switch ON.   |
| 8. Powerplant instrument:    | Check for correct readings.                            |
| 9. Flight instrument:        | Check altimeter setting.                               |
| 10. Seat and safety harness: | Adjust and lock.                                       |
| 11. Canopy:                  | Latched and locked.                                    |
| 12. Landing lights:          | Switch ON.   |

**4.5.6. Normal take-off with active TCU**

- |                             |  |
|-----------------------------|--|
| 1. Throttle lever:          | 115% (max. 5 min.).  |
| 2. Control stick:           | Set into neutral position.   |
| 3. Direction on the ground: | Control by rudder pedals.  |
| 4. Unstick:                 | At speed at 49-51 kts (90-95 km/h) (according to take-off weight).   |
| 5. Accelerating:            | Accelerate to 65-70 kts (120-130 km/h) (acceleration after unstuck). |

For take-off from short runway keep the wing flaps retracted and at speed 32 kts (60 km/h) set the flaps to the take-off position (15°) (see also the Chapter 4.5.14).

**4.5.7. Climbing**

Monitor cylinder head coolant temperature and oil pressure during climb. Oil temperature limits must not be exceeded. In the case of high readings, increase airspeed and reduce engine power setting.

- |                         |  |
|-------------------------|--|
| 1. Throttle lever:      | Reduce the 100% max. continues power.                                    |
| 2. Airspeed:            | Conduct at speed 70-76 kts (130-140 km/h).                               |
| 3. Landing gear:        | Set UP.  |
| 4. Wing flaps:          | Retract the flaps slowly at height 200 ft (60 m) AGL.                    |
| 5. Landing lights:      | Switch OFF.  |
| 6. Auxiliary fuel pump: | Should be switched OFF after take-off in safety altitude 500 ft (150 m). |

## 8.7. Winter operation

### Pre-flight inspection:

In addition during the pre-flight inspection in winter operation must be done:

- Remove the ice from the aircraft surfaces.
- Check control surfaces free movement and cleanness of slots of control surfaces and flaps.
- Check cleanness of the fuel tank venting.

### Engine and oil pre-heating:

There is possible to start an engine without need of pre-heating if outside temperature is not below +5 °C. It is recommended to pre-heat the engine and oil if temperature falls below +5 °C. Use suitable air heater or a dryer.

Blow the hot air from the front into the hole around the propeller hub. Temperature of hot air should not exceed 100 °C. Pre-heat until cylinder head coolant temperature and oil temperature exceed +20 °C.

### Parking and taxiing:

Check wheel brakes for freezing when parking outside and temperature is below 0 °C. Check wheels free rotation prior to taxiing (hold a propeller and tow the aircraft). Heat the brakes with the hot air to remove ice. Do not remove the ice by braking during taxiing!

#### WARNING

Never use open fire to pre-heat an engine!

#### CAUTION

If cylinder heads coolant and oil temperatures fall during parking among flights than is recommended to start and warm up engine from time to time. Do not open choke when starting hot engine!