



## ROTAX MOJO MAX Challenge Technical Regulations 2013

### Appendix for 125 Mini MAX and 125 Micro MAX

(The Technical Regulations 2013 replace the Technical Regulations 2012)

Bulletin 1-2013 Version 04.03.2013

#### **9.5) Technical Specification (within the engine seal) for ROTAX kart engine 125 Mini MAX (10 kW):**

For the engine configuration 125 Mini MAX, everything that is not specified below, latest technical regulation 2013 for engine configuration 125 Junior MAX is valid. It is the responsibility of the competitor to check his equipment (all components outside the engine seal and mentioned below), to assure that his equipment is in line with the technical specification below!

##### **9.5.1) Squish gap:**

###### **a) 125 Mini MAX 1,20-1,80mm**

Authorized distributors organizing a national MAX Challenge for the category 125 Mini MAX may determine a more restrictive squish gap within this tolerance.

The squish gap must be measured with a certified slide gauge and by using a 2 mm tin wire. The crankshaft must be turned by hand slowly over TDC (top dead center) to squeeze the tin wire.

Recommended 2mm tin wire (ROTAX part no. 580 130).

The squish gap must be measured on the left and right side in the direction of the piston pin.

The average value of the two measurements counts.

## **9.6) Technical Specification (outside the engine seal) for ROTAX kart engine 125 Mini MAX (10 kW):**

For the engine configuration 125 Mini MAX, everything that is not specified below, the Technical Specification of items 9.2 for engine configuration 125 Junior MAX is valid. It is the responsibility of the competitor to check his equipment (all components outside the engine seal and mentioned below), to assure that his equipment is in line with the technical specification below!

### **9.6.1) Intake restrictor:**

Authorized distributors organizing a national MAX Challenge for the category 125 Mini MAX may determine which intake restrictor must be used.

#### a) Version 1

The intake restrictor (ROTAX part no. 267 535) must be fitted between the carburetor flange and the carburetor.

The intake restrictor must show an inner diameter of  $19,0 +0,0/-0,2$  mm.

The intake restrictor must show a blue anodized surface.

#### b) Version 2

The intake restrictor (ROTAX part no. 267 530) must be fitted into the carburetor flange.

The intake restrictor must show an inner diameter of  $19,0 +0,2/-0,2$  mm.

The intake restrictor must show 4 fins in the inlet bore.

### **9.6.2) Exhaust system:**

a) The exhaust restrictor (ROTAX part no. 273 972) must be used instead of the original exhaust socket (fitted to the cylinder).

b) The exhaust restrictor must show an inner-diameter of  $22,0 +0,2/-0,2$  mm.

c) Exhaust steel mat is an allowed option.

### **9.6.3) Noise emissions:**

~~a) Noise isolating mat (see illustration exhaust system) has to be replaced by an original ROTAX spare part, if the noise emission is exceeding 90 dB (A).~~

~~b) Noise emission measuring procedure:~~

~~The measuring place has to be at section of the track where the engine is operated under full load and at a range between 9.000 and 10.000 rpm.~~

~~The microphone has to be installed 1 meter above the level of the track in a rectangular angle to the track.~~

~~The distance between the microphone and the kart on the ideal line on the track has to be 7,5 meters.~~

~~The kart has to be operated under full load at the ideal line on the track.~~

## **9.7) Technical Specification (within the engine seal) for ROTAX kart engine 125 Micro MAX (5 kW):**

For the engine configuration 125 Micro MAX, everything that is not specified below, the Technical Specification of items 9.1 for engine configuration 125 Junior MAX is valid.

### **9.7.1) Squish gap:**

- a) 125 Micro MAX 2,40-2,70mm

Authorized distributors organizing a national MAX Challenge for the category 125 Micro MAX may determine a more restrictive squish gap within this tolerance.

- b) To achieve the defined squish gap, a spacer (ROTAX part no. 626 420, same shape as a cylinder base gasket) with a thickness of 1,25mm OR 1mm plus the different required base gaskets must be used.

The squish gap must be measured with a certified slide gauge and by using a 3 mm tin wire. The crankshaft must be turned by hand slowly over TDC (top dead center) to squeeze the tin wire.

Recommended 3mm tin wire (ROTAX part no. 580 132).

The squish gap must be measured on the left and right side in the direction of the piston pin.

The average value of the two measurements counts.

## **9.8) Technical Specification (outside the engine seal) for ROTAX kart engine 125 Micro MAX (5 kW):**

For the engine configuration 125 Micro MAX, everything that is not specified below, latest technical regulation 2012 for engine configuration 125 Junior MAX is valid.

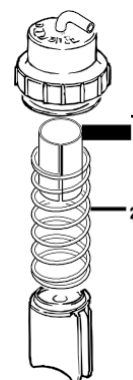
It is the responsibility of the competitor to check his equipment (all components outside the engine seal and mentioned below), to assure that his equipment is in line with the technical specification below!

### **9.8.1) Exhaust restrictor:**

- a) The exhaust restrictor (ROTAX part no. 273 972) must be used instead of the original exhaust socket (fitted to the cylinder).
- b) The exhaust restrictor must show an inner-diameter of 22,0 +0,2/-0,2 mm.

### **9.8.2) Carburetor:**

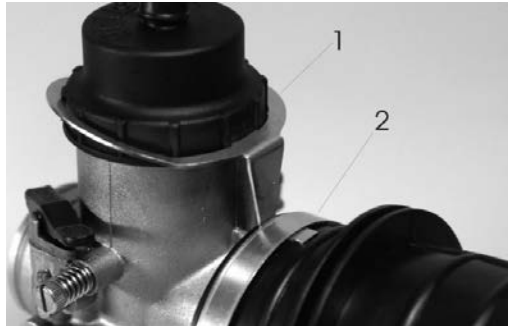
- a) The spacer (pos. 1, see illustration below, ROTAX part no. 251 730) must be fitted in the carburetor to limit the opening of the throttle.
- b) The length of the spacer has to be 38,0 +/-0,2 mm.



- c) The tolerance gauge (ROTAX part no. 277 400) must **not** be able to turn around (opening limit of carburetor slide)!



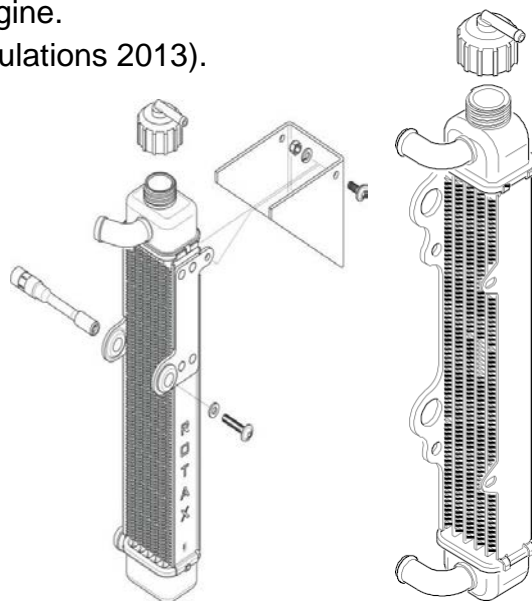
- d) The position of the cap of the carburetor must be fixed by means of the fixation plate (pos. 1 see illustration below, ROTAX part no. 251 790, see attached picture).
- e) The cap of the carburetor has to be screwed completely on to the carburetor.



- f) Only one rubber gasket is allowed to be used in the carburetor cap.

### **9.8.3) Radiator:**

- a) A specific "Micro MAX" radiator (ROTAX part no. 295 924 or 295 923) must be used instead of the original radiator.
- b) Radiator must be mounted with all components similar to the illustration version 2 or 3 for the 125 MAX engine.  
(see item 18.8 of the technical regulations 2013).
- c) Cooling area:  
height = 280 - 300 mm  
width = 58 - 62 mm  
thickness of radiator = 30 - 34 mm

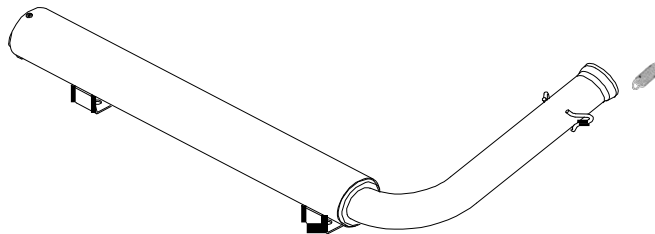


- d) No additional non-original-cooling-device is allowed.  
For version 1 and 2 tape applied around the radiator is the only allowed air flow control. Tape may not be removed from the radiator during operation on the track. All other means of air flow control through the radiator are prohibited. For version 2 the original plastic flap must not be removed.

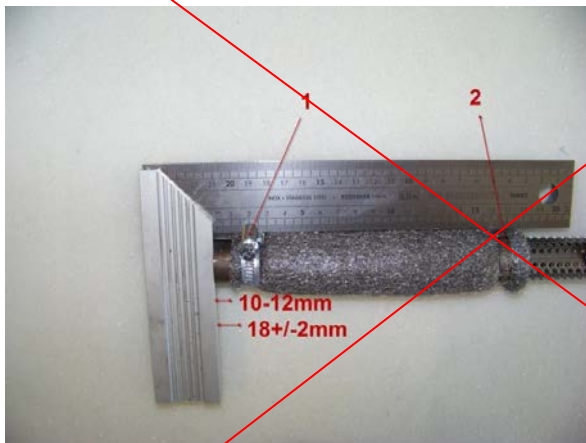


#### **9.8.4) Exhaust system:**

- a) The specific "Micro MAX" exhaust system must be used instead of the original exhaust system (see illustration below).  
b) The inner diameter of the 90° tube at the end of the silencer must be 15 +/- 0,30 mm.



- c) No exhaust leakage allowed (no signs of oil). Exhaust must be sealed with heat resistant silicone ("XPS KartTec instant gasket black part no. 25151" or equivalent).  
d) Additional to the standard isolation mat a special steel isolation mat of the square dimension of 165 +10 mm is mandatory to be assembled underneath the standard isolation mat as in following illustration (ROTAX part no. of kit 297983).



Clamp (1) must be fitted at a distance of 18+/-2mm, measured from the end of the tube.

Clamp (2) must be fitted at the end area of the steel isolation mat.

10-12mm is a specification for assembly purpose only!

Both clamps are mandatory.

- e) ~~For measuring the exhaust gas temperature, it is allowed to weld on a socket of the exhaust in an area of 50 – 80 mm from the ball joint.~~  
f) The exhaust cover outlet must be installed as supplied by ROTAX in the downward pointing position.



#### 9.8.5) Noise emissions:

- a) ~~Noise isolating mat (see illustration exhaust system) has to be replaced by an original ROTAX spare part, if the noise emission is exceeding 90 dB (A).~~

- b) Noise emission measuring procedure:

The measuring place has to be at section of the track where the engine is operated under full load and at a range between 8.000 and 9.000 rpm.

The microphone has to be installed 1 meter above the level of the track in a rectangular angle to the track.

The distance between the microphone and the kart on the ideal line on the track has to be 7,5 meters.

The kart has to be operated under full load at the ideal line on the track.

#### 9.9) General information:

	<b>125 Micro MAX</b>	<b>125 Mini MAX</b>
Age limits	8 – 10 years	10 – 12 years
Chassis wheelbase	950 mm	1010/1040 mm
Weight limits	105 – 115 kg	125 – 135 kg
Dry tyres	Mojo CX or C2	Mojo D1
Wet tyres	Mojo CX or CW	Mojo W2

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