18 03 2024

MACFLY PARAMOTORS

SERVICE BULLETIN – SECURITY NOTE
ADJUSTMENT OF RINGS AND LEG STRAPS

It is important to adjust the aluminum rings according to the weight of the pilot / and the engine.
In instruction the paramotor is often used by different types of morphology, so we particularly draw the attention of the instructors to the adjustment of the rings according to each student.

The resulting risks are as follows:

<u>Adjusting the rings too far back</u> (pilot too far forward) :

- Difficulty be straightened during the take-off race
- Need more take-off speed
- Touch of the propeller with the heel (in addition to leg straps adjusted too loosely)
- Difficulty getting into the harness
- Bringing the top of the cage closer to the risers and brake control

<u>Adjusting the rings too forward</u> (pilot too far back) :

- Difficulty to land on one's feet
- Significant toggle back of the pilot/paramotor assembly when taking charge at take-off

<u>Leg strap adjustment</u> :

- Too tight: difficulty getting out of the harness
- Too open : exaggerated range of motion possible

Our **recommendations** are as follows, and should be made before undertake a flight :

Ground Presets :

- Refer to the tables below for the approximate adjustment of the rings

(reference pilot weight 70/80kg)

"*Ring adjustment according to motorization*"
and
"*Ring settings based on pilot weight*"

These settings are given as an indication, and are to be adapted according to the size, weight and morphology of the pilot.

Verification on gantry :

- Check the Cage Plan

Plan « Pilot tilt in flight »
-> Note that once in level flight, the engine thrust as well as the airflows modify the Cage Plan: The latter is generally more upright once in flight

- Check that the harness adjustment is consistent for entering and exiting the harness

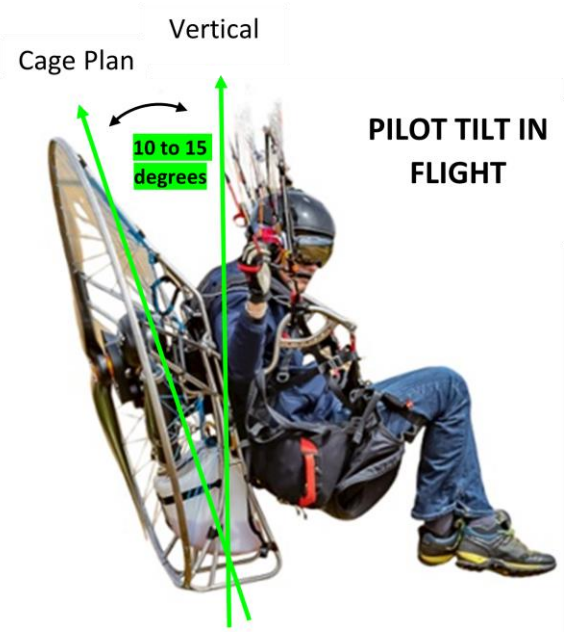
ADJUSTMENT OF THE CAGE PLAN, OR PROPELLER / PILOT TILT IN FLIGHT

The cage must be inclined from about 10 to 15 degrees backward from the vertical of the level flight.

If the **pilot** is rather at zero degrees
(he is **too upright**) :
He will have to **move the two rings forward** according to the standard adjustment.

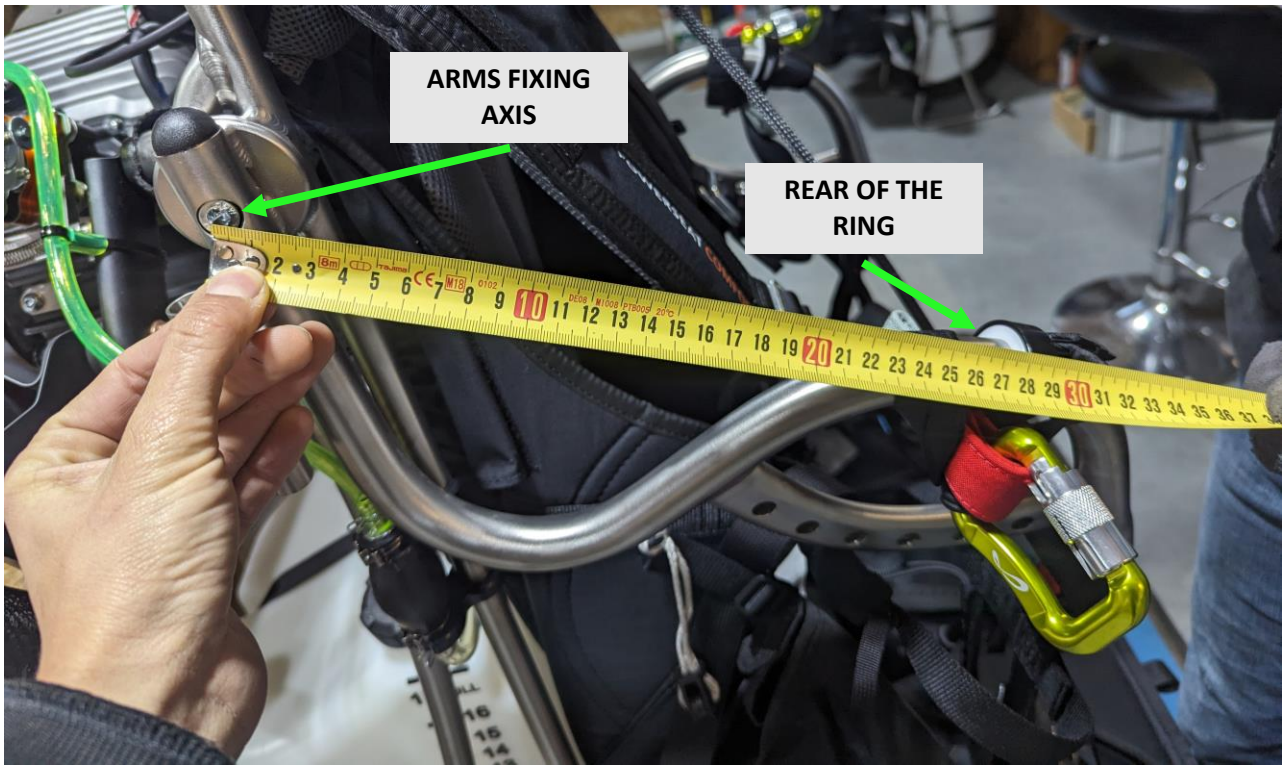
(according to the table "*Ring settings based on pilot weight*")

If **pilot** go beyond the 15 degrees
(he is **too backward**):
He will have to **move the two rings backward** according to the standard adjustment.



RINGS ADJUSTMENT ACCORDING TO MOTORIZATION		
Average weight 70 to 80kg		
Fistances: From the arms fixing axis, to the rear of the ring		
Motorization	**Left (cm)**	**Right (cm)**
Atom	29	28
Thor 80	28	27
Thor 130	27	26
EOS 150	28	29
Moster 185	27	28
Moster DUAL	27	28
Thor 190	26	27
Thor 200	25	24
Thor 202	25	24
Thor 250/303	23	22

RINGS SETTINGS BASED ON PILOT WEIGHT	
Pilot weight	Setting
50 kg to 60 kg	- 1 cm to - 2 cm
60 kg to 70 kg	- 0,5 cm to - 1 cm
70 kg to 80 kg	Standard
80 kg to 100 kg	+ 1 cm to + 2 cm
100 kg and more	+ 2 cm to + 3 cm



The settings of the two tables above are given as an indication, they are very customizable, and are to be adapted according to the height, the weight, and the morphology of the pilot.
Note that the aluminum rings come out of the assembly workshop in the standard setting.
To be finalized on gantry