

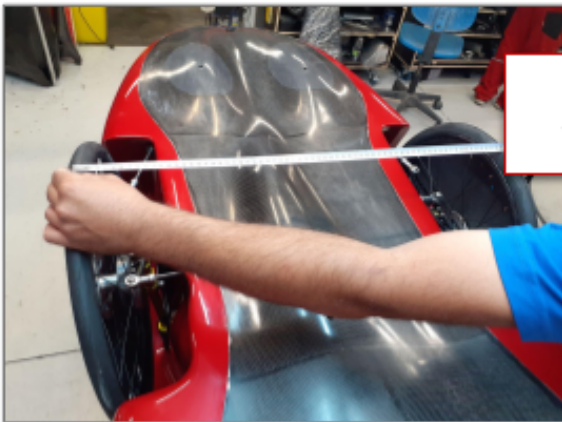
## A. ON THE BACK OF THE VEHICLE

### A1. Rear wheel

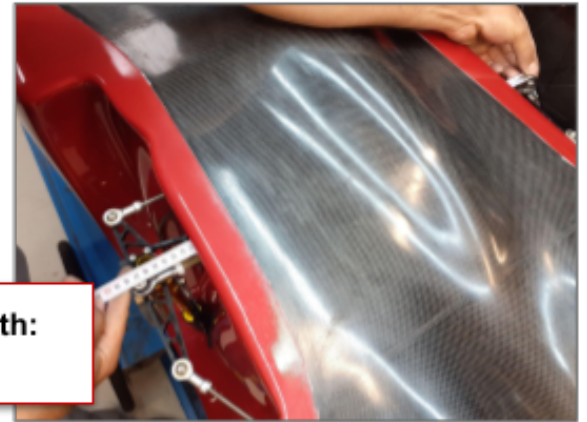
The wheel arch must not rub against the spokes or the cassette



### A2. Axe length (tolerance: $\pm 5\text{mm}$ )



A2.1 Between wheels: 678mm



A2.2 Bar length: 570mm

### A3. Water drain



The five holes for water drain must be neat cut

### A4. Horn



The horn must be centered and its hole must be neat



## B. VELOMOBILE STRAIGHT, ON SUPPORT

**Remove front wheels!**

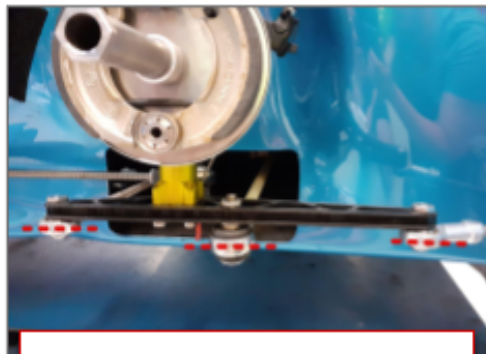
### B1. Rod ends



**B1.1** The rod ends bearings have to be firmly locked with their nuts. Ceramic paste have to be applied.

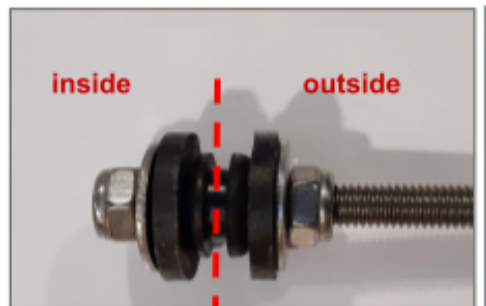


**B1.2** M6 screws must be tightened and Loctite applied



**B1.3** All rod end must be straight

### B2. Trailing arm (safety relevant)



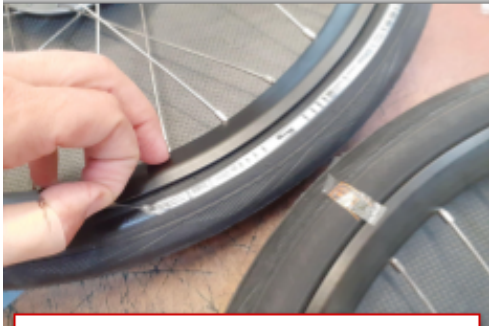
**B2.1** The nuts of the trailing arm need to be tightened enough that the compression washers can be turned with the fingers and not deform the wall



**B2.2** Check that the inner nut is light tightened

## B3. Tyres

**Deflate first!**



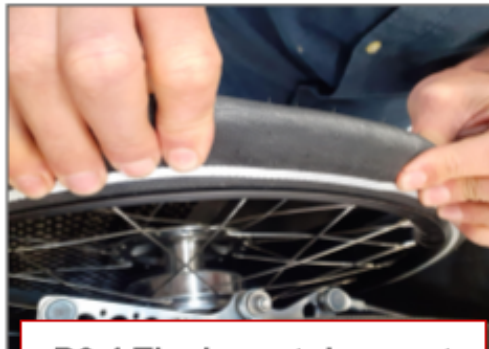
**B3.1** Get off the stickers, if present.



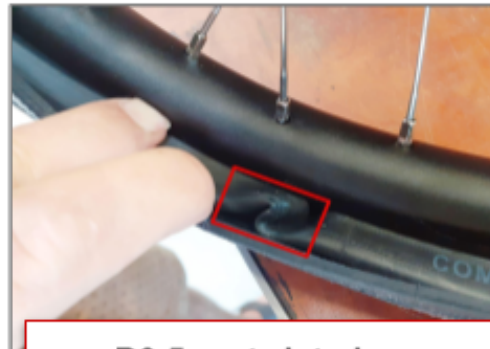
**B3.2** Check valve



**B3.3** The jacket must not have transport damage



**B3.4** The inner tube must not be jammed

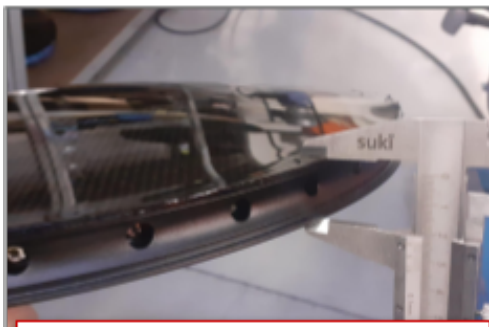


**B3.5** ... twisted or crammed



**B3.6** Double layer rim tape properly centered

## B4. Wheel covers



Check uniform gluing by measuring thickness in several points of wheel

## B5. Front suspension



**B5.1** Suspension's jacket to be 35 mm.



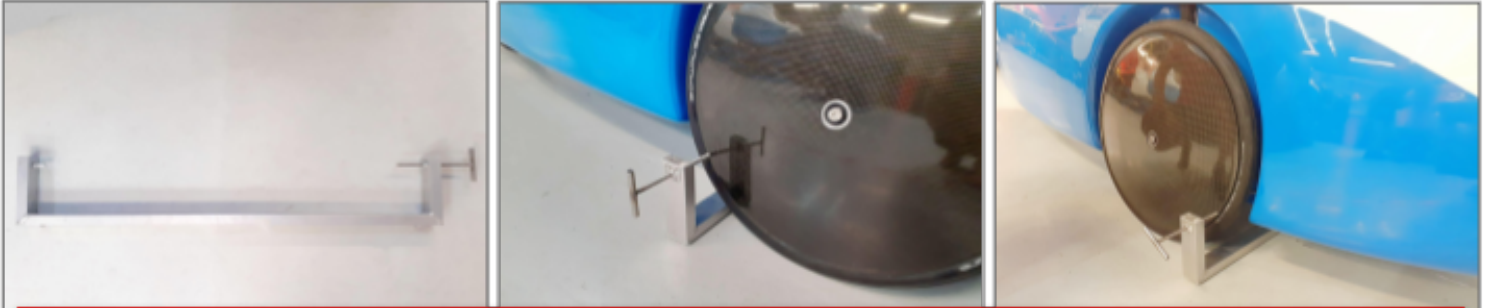
**B5.2** The top screw has to be good tightened.

**Inflate tyres with the right pressure given by the producer!**

**Mount the tyres respecting the rotation!**

## C. ON THE WHEELS

### C1. Axe measurement



Use a tool as in the picture.  
The width on front of the axle must be less than the rear one with up to 3 mm.

### C2. Rear wheel



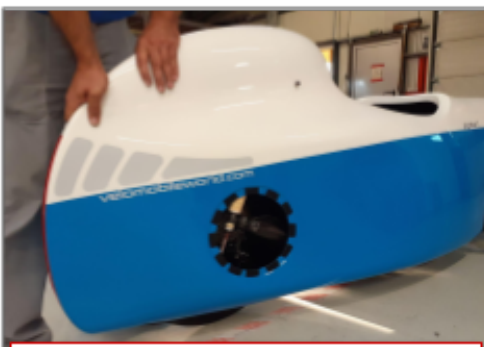
C2.1 Check rotation direction



C2.2 Check that wheel hasn't play



C2.3 Check the bearing of the wheel. When spinned, before spin stop, the wheel must turn back a bit.



C2.4 Push the body of the vehicle to check that the suspension has not jump.



C2.5 The suspension has two nuts, secured with Loctite.

## C3. Brakes



**C3.1 Cables must be well secured**



**C3.2 With the stationary brake on, check both sides. Raise the vehicle on each part pushing down on the wheel to see if the brake keeps resistance.**



**Tiller**



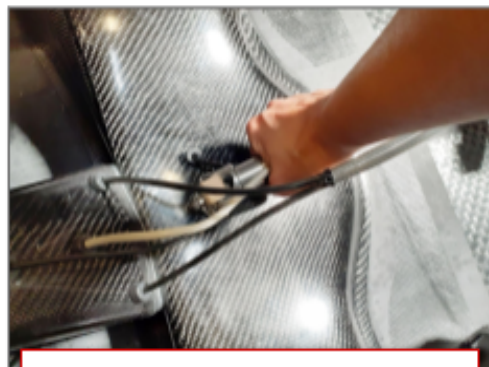
**Tank steering**

**C3.3 The lever / levers must function gradually. After released, it / they should go back. The stationary brake have to be handled with ease.**

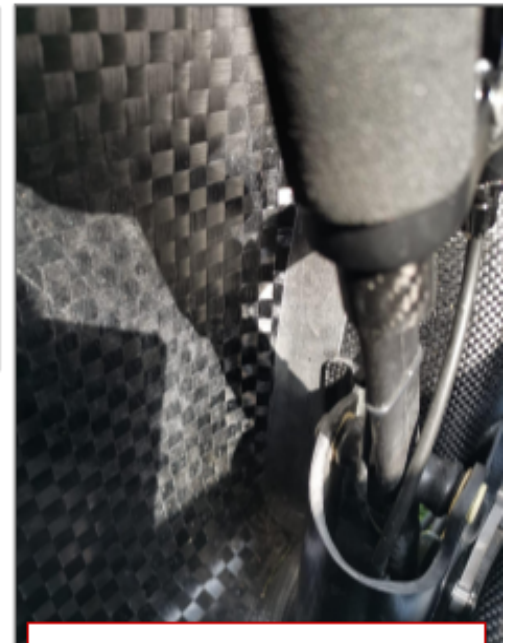
## C4. Steering



**C4.1 Screw well tight**



**C4.2a Tiller: has no play and moves easily**

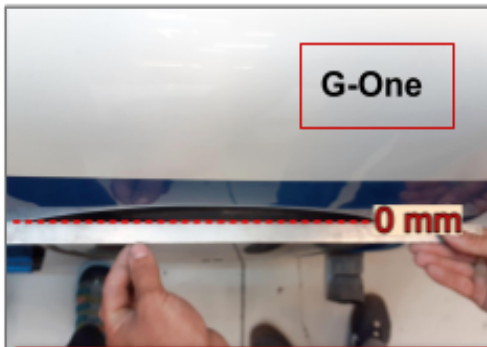


**C4.2b Tank-steering: has no play and moves easily**

Cardan steering adjustment video

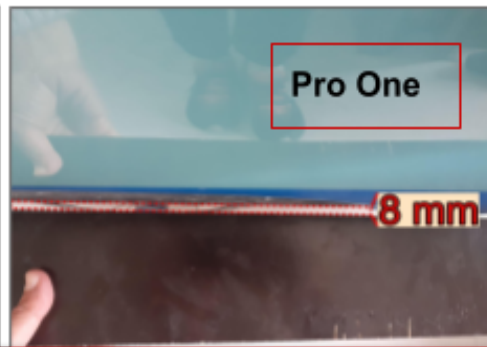


## C5. Front wheels



G-One

0 mm



Pro One

8 mm

**C5.1 Check the correct alignment to the body, respective to the tyre type.**



**C5.2 Wheels spin easy, with no resistance**



**C5.3 Wheel must be correctly centered into the wheel arch. Verify on the horizontal line, several pairs of points.**



**C5.4 Pull to the sides to check play in the suspension or rod bar ends**



**C5.5 Wheel covers must be centered correctly, with no carbon fibre errors. Neat margins with no waves (uniform adhesive)**



**C5.6 Spoke tension to be checked manually**



**C5.7 Must be straight. Tolerance: 1 mm**

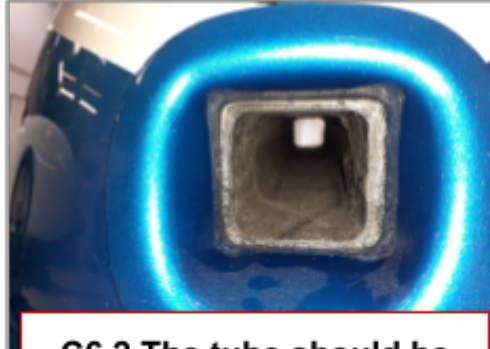


# INSPECTION MANUAL Alpha7

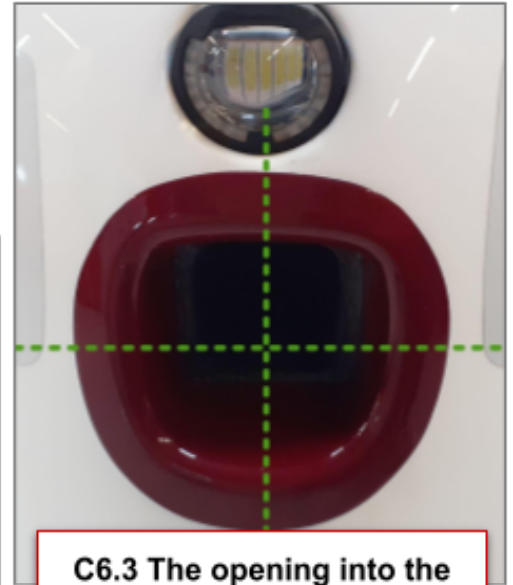
## C6. Air intake and tubel



**C6.1** Air intake must be well glued, no spaces.



**C6.2** The tube should be centered in the bridge and all space in between must be filled with Sikaflex



**C6.3** The opening into the body has to be well centered and stickers to be symmetric. Light support in horizontal position.

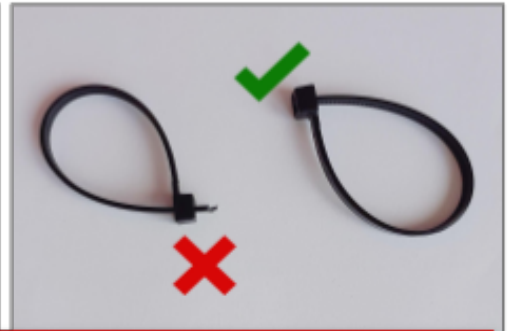
## C7. Tubes and cables



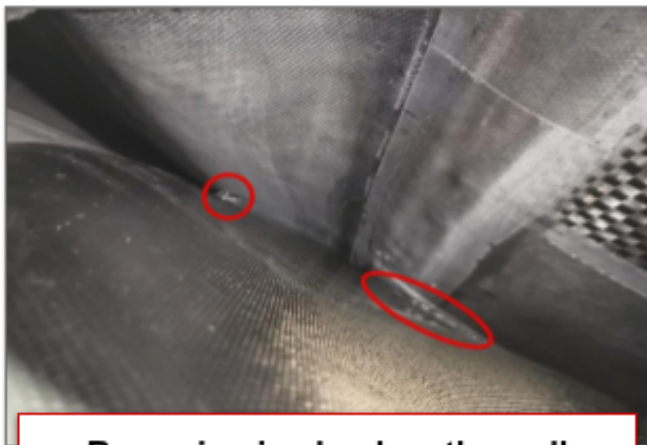
**C7.1** Chain tubes have to be tied with clamps



**C7.2** Clamps on the steering neat cut to not scratch cyclist's feet.



## C8. Gluing



**Rear wing is glued on the wall**

## C9. Internal surfaces



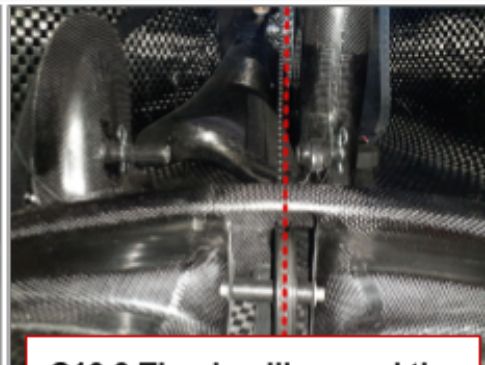
Must be clean, neat and without spray paint surfaces. Abras strip marks good position. No white marks in resin.

## C10. Rear derailleur

C10.1 All gears should work correctly



C10.2 The end stops must be set (**safety relevant**).



C10.3 The derailleur and the idler should be vertically aligned with the 5'th sheet.



C10.4 The idler should be straight and not rub

## C11. Front idler



...has to be aligned with sheet.

## C12. Balance



C12.1 The vehicle must be straight



C12.2 The bridge must be correctly centered



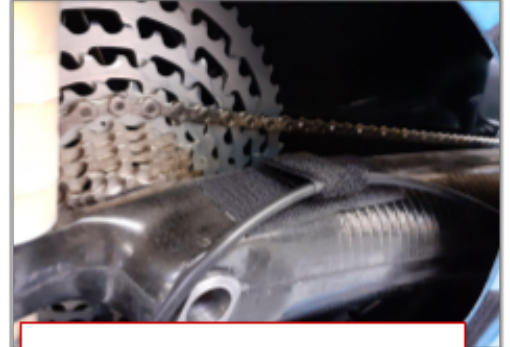
## C13. Rear swing arm



C13.1 Is free of play



C13.2 The screw of the bearing must be fixed and have Loctite. Checklabel should be present.



C13.3 The cable must be tighten with velcro

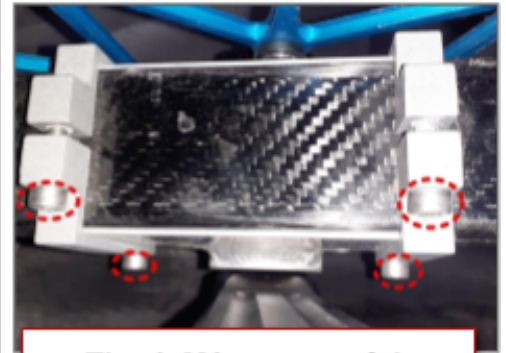


C13.4 Distance to lower part of the cut: 13 cm.



C13.5 When rear wheel is shaken, the axle has no play.

## C14. Pedal support



The 4xM6 screws of the bottom bracket slide should be 6 Nm tightened

## C15. Crank



Check by torque tool: Crank arm screw Radial: 7 Nm, Crank arm screw axial, Pedal screw: ~ 10 Nm

## C16. Chain and idler

C16.1 Must be lubricated.

C16.2 ... not twisted



C16.3 Under the idler, maximum 3 mm to the floor.



C16.4 Check correct spin of idler



C16.5 Check presence of band inside idler

## C17. Tacho

The speedometer must be correctly set and should work properly, according to:

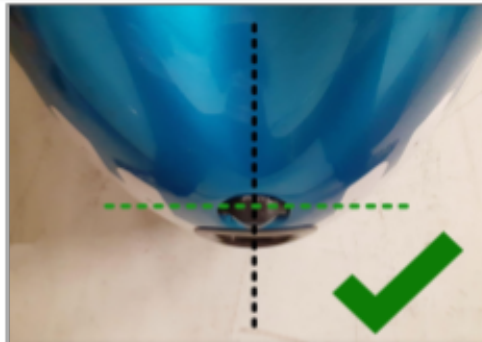
Schwalbe Durano	146
Schwalbe Kojak	149
Schwalbe Shredda	156
Schwalbe Pro One	144
Continental Speed Contact	145

## C18. Electrics

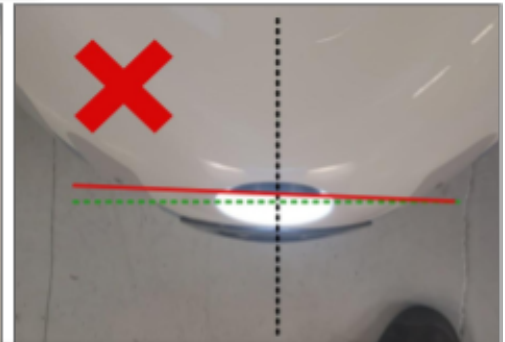
C18.1 All the electrics have to work.



C18.2 The leds must fit their cutouts in the body, with no glue excess.



C18.3 Front light must be mounted straight



C18.4 The front light is correctly adjusted when the light is pointing slightly downwards but almost parallel to the road. On 5 m distance the light should flare in between the road and 30 cm of height.



## C19. Outside look



C19.1 The covers should be stepped correctly and aligned with their space in the housing and velcro correctly glued. Check the TOP is well established (on the side where the most raised area of cover is)



C19.2 Texts, stickers, reflectives to be correctly glued

## C20. Outside look



Velcro for attachment to be properly glued and in the correct positions. The rivets should be intact.

## C21. For delivery

The **charger** and **battery** have to be included. Also the **cleats**.

## D. TEST DRIVE

### D1. Steering



The vehicle must go straight.

Drive on a flat road (watch out that most of the roads are tilting to the right).

First check if the steering is free and without resistance or play.

After it, try to find a straight line and hold the steering like in picture 3.

If it is tank steering, these must be even in straight driving.

Check if the velomobile keeps going straight.

### D2. Brakes

**Safety relevant!**

The vehicle must not pull left or right side when using the brakes.

The brake cables should be tight enough. (brake reserve?)

### D4. Gear shift

All gears should shift correctly.

### D4. Safety

**Safety relevant!**

When applying the brakes at full load the cables must not slip.

### D5. Abnormalities

Any noticeable noise must be observed and any other problem.