

## **A. ON THE BACK OF THE VEHICLE**

### **A1. Rear wheel**



**A1.1 Must be aligned with the longitudinal axe**

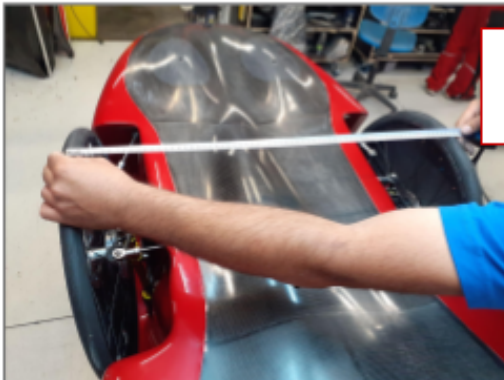


**A1.2 Has to be correctly positioned in the middle of the wheel arch**



**A1.3 The wheel arch must not rub against the spokes or the cassette**

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



**Between wheels:  
678mm**



**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** Must be tightened enough to not deform the wall.



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

### **B3. Front suspension**

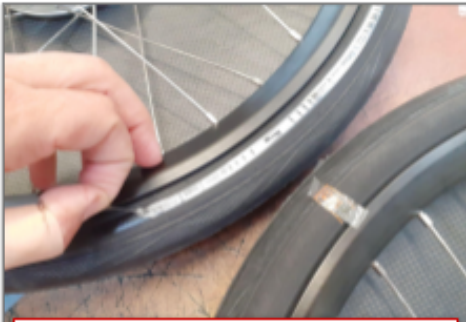


**B2.3** The top screw has to be good tightened.



## **B4. Tyres**

**Deflate first!**



**B4.1** Get off the stickers, if present.



**B4.2** Check valve



**B4.3** The jacket must not have transport damage



**B4.4** The inner tube must not be jammed



**B4.5** ... twisted or crammed



**B4.6** Double layer rim tape properly centered

## **B5. Wheel covers**



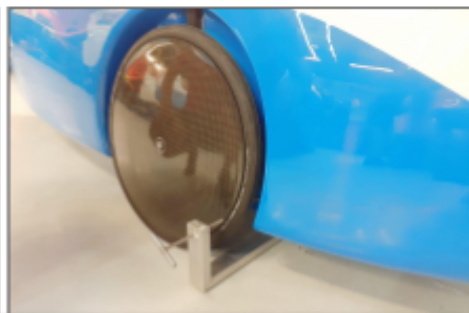
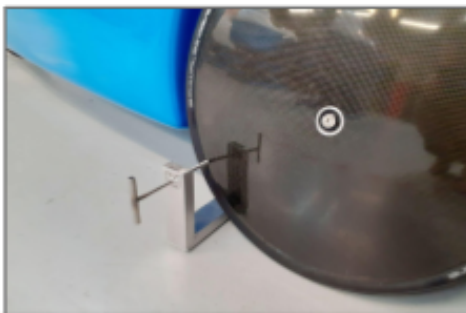
Check uniform gluing by measuring thickness in several points of wheel

**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 axe must be less than the rear one with up to 3 mm.

### **C2. Rear wheel**



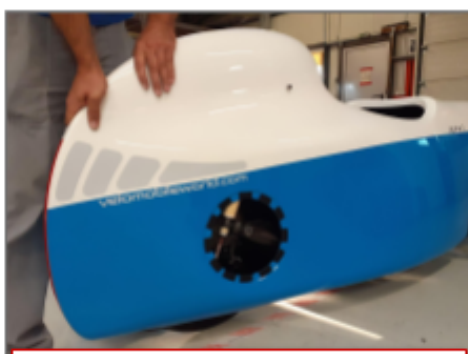
**C2.1 Check rotation direction**



**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.**



**C2.6 The rear wheel must be perfectly vertical.**



## 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**



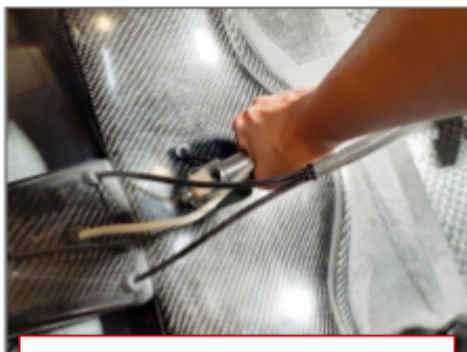
**Tank steering**

**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

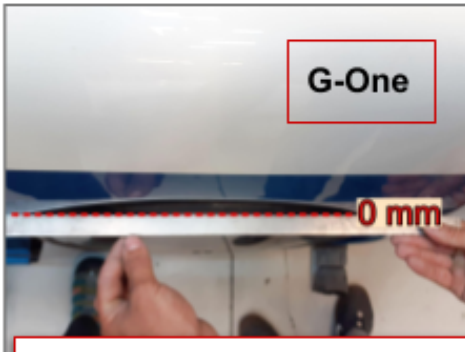


**C4.2b** Tank-steering: has no play and moves easily

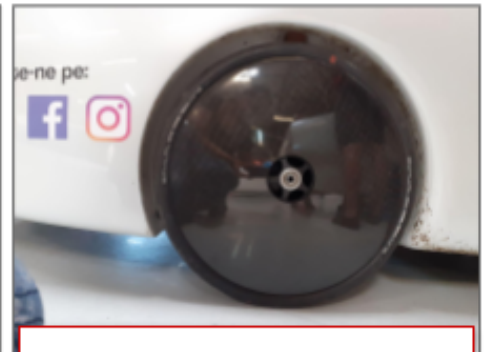
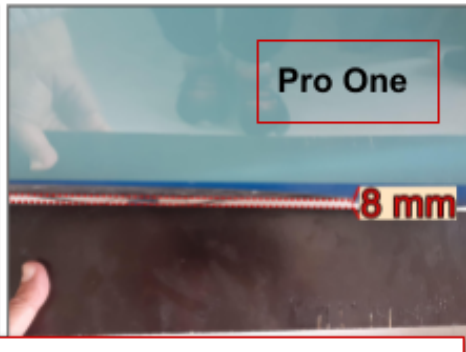
Cardan steering adjustment video 



## C5. Front wheels



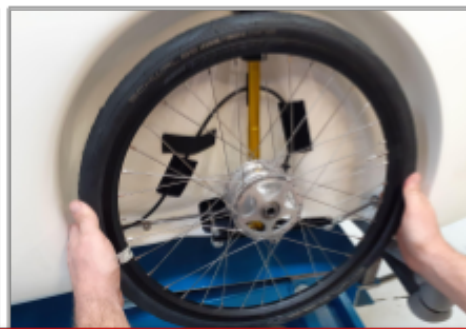
**C5.1 Check the correct alignment to the body, respective to the tyre type.**



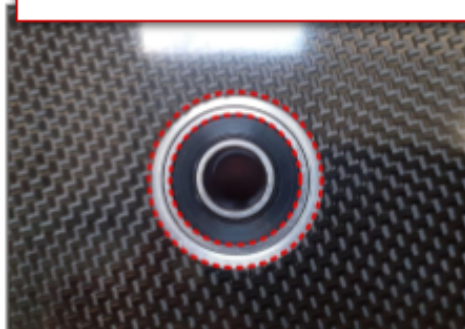
**C5.2 Wheels spin easy, with no resistance**



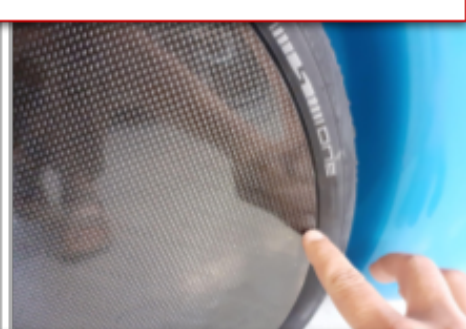
**C5.3 Wheel must be correctly centered into the wheel arch. Verify on the horizontal line, several pairs of points.**



**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**



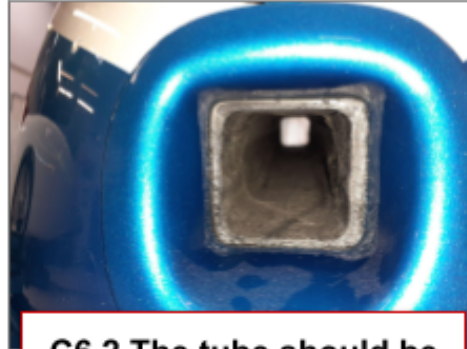
**C5.7 Must be straight. Tolerance: 1 mm**



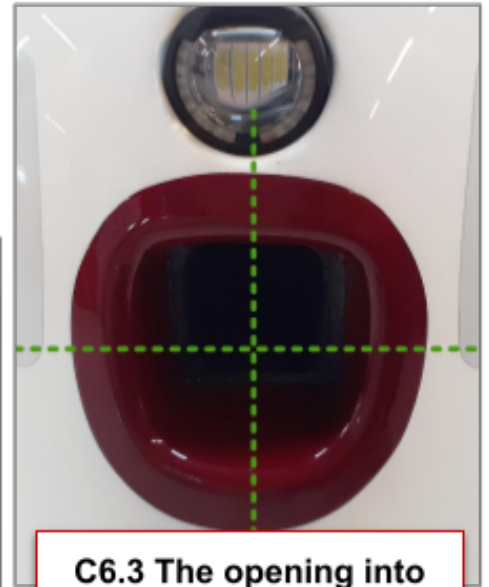
## C6. Air intake and tube



**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.

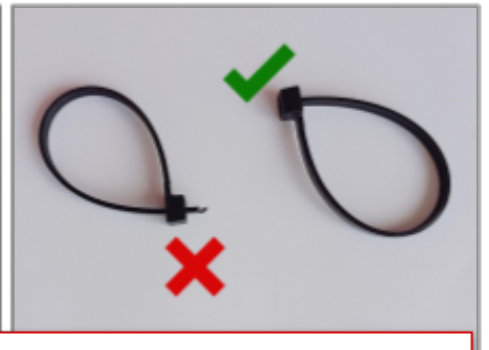
## C7. Tubes and cables



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



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



## C8. Gluing

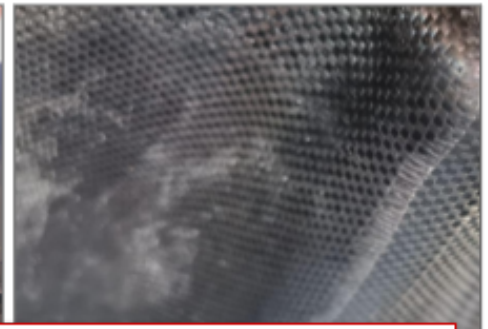


**C8.1** Check proper gluing with a cutter



**C8.2** Rear wing is glued on the wall

## C9. Internal surfaces



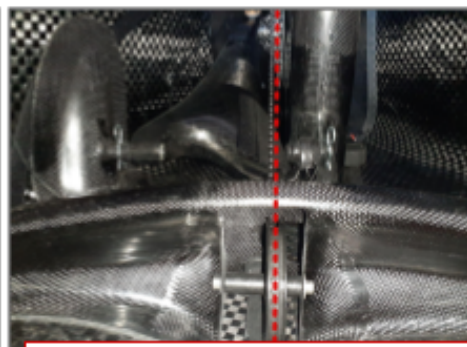
Must be clean, neat and without spray paint surfaces. Abras strip marks good position. No white marks in resin.

## C10. Rear derailleur

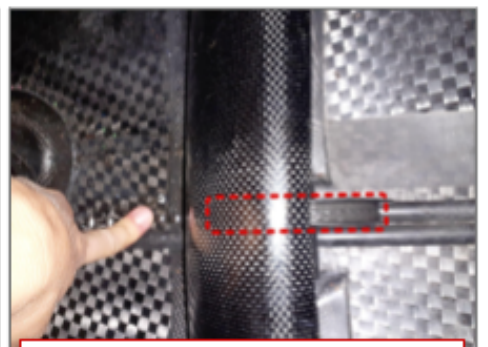
**C10.1** All gears should work correctly



**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. Rear swing arm



**C11.1** Is free of play



**C11.2** The screw of the bearing must be fixed and have Loctite. Checklabel should be present.



**C11.3** The cable must be tighten with velcro

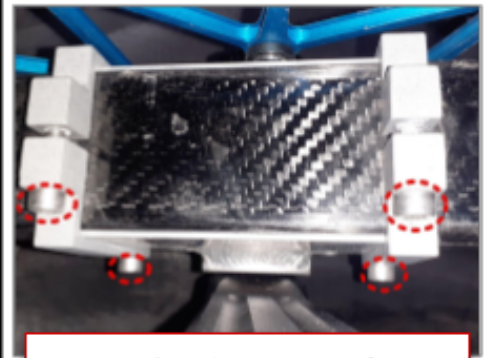


**C11.4** Distance to lower part of the cut:  
13 cm.



**C11.5** When rear wheel is shaken, the axle has no play.

## C12. Pedal support



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

## C13. Crank



Crank screws must be tightened, with no space between crank and support

## C14. Chain and idler

**C14.1** Must be lubricated.

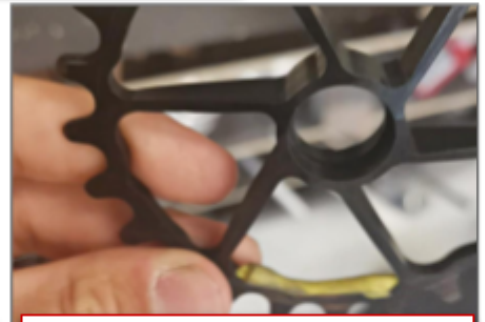
**C14.2** ... not twisted



**C14.3** Under the idler, maximum 3 mm to the floor.



**C14.4** Check correct spin of idler



**C14.5** Check presence of band inside idler

## C15. Tacho

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

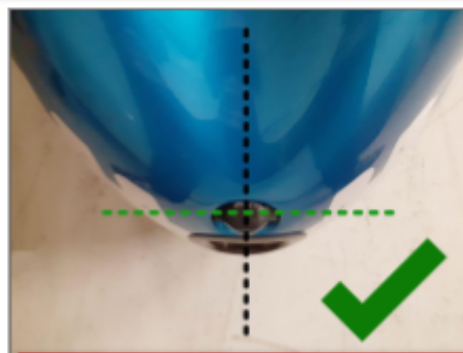
Schwalbe Durano	146
Schwalbe Kojak	149
Schwalbe Shredda	156
Schwalbe Pro One	144
Continental Speed Contact	145

## C16. Electrics

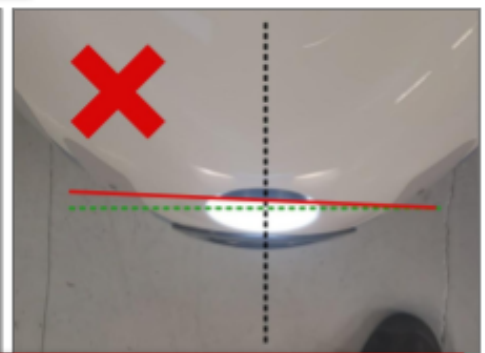
**C16.1** All the electrics have to work.



**C16.2** The leds must fit their cutouts in the body, with no glue excess.



**C16.3** Front light must be mounted straight



**C16.4** 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.





## C17. Balance



**C17.1 The vehicle must be straight**



**C17.2 The bridge must be correctly centered**

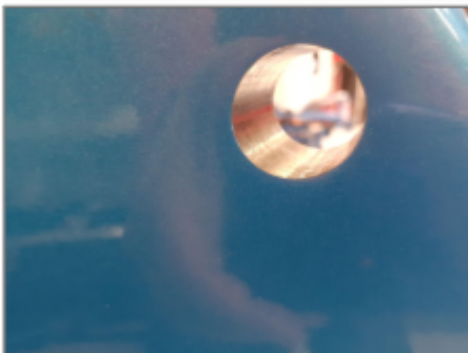
## C18. Outside look



**C18.1 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)**



**C18.2 Texts, stickers, reflectives to be correctly glued**



**C18.3 Lift handle: perfectly round, neat and clean (without paint inside)**

## C19. 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 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?)

### **D3. Rear wheel**

Search for a wider space where you have good asphalt. Make on speed 2-3 full circles to the left and keep on pedaling and 2-3 circles to right and keep pedaling. Listen if you can hear dragging noises.

### **D4. Gear shift**

All gears should shift correctly.

### **D5. Safety**

**Safety relevant!**

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

### **D6. Abnormalities**

Any noticeable noise must be observed and any other problem.