



BamBuk
E-Trikes & Tandems

2021

Operating instructions

E-Trike Tandem



**BamBuk E-Trikes, Quads &
Tandems e.K.**

Yburgstr.16A , D-77815 Bühl

Tel.: +49 7223 9425877

Fax: +49 7223 9425878

bike@bambuk.de

Table of contents

Your BamBuk E-Trike.....	3
General notes	4
Intended use.....	4
Safety instructions	5
Legal requirements	5
Safety equipment for bicycles according to StVZO.....	5
Before you go	5
Vehicle elements overview	6
Telescoping capability.....	7
Preparing for transport - pushing the trike together.....	9
Preparing for the ride - Pulling the trike apart	10
Components/ Operation	11
Circuit	11
E-motor	12
Battery.....	13
Brake	13
Rear wheel damping	15
Crank and pedals.....	16
Technical data.....	17
Component list.....	17
Tightening torques for screw fittings	18
Weights and payload.....	19
Maintenance and care	19
Maintenance.....	20
Cleaning.....	21
Warranty	21
Recycling.....	21

Your BamBuk E-Trike

DEAR CUSTOMER,

Congratulations on your new BamBuk Tandem E-Trike and thank you for choosing a bike from our company.

We are a small family business and develop special bicycles for you to offer them riding fun coupled with safety and maximum comfort.

BamBuk is derived from the word "bamboo" and, like this renewable and versatile raw material, stands for sustainable, robust bicycles that can be flexibly adapted to their needs.

Your satisfaction and joy with your new bike are most important to us, so please read the instruction manual carefully and follow the instructions!

For questions we are of course always at your disposal!

Your BamBuk Team

General notes

In this manual, we have compiled all relevant information on the functions and setting options of your new E-trike and tried to present them as clearly as possible.

If you still have questions or are unsure after reading these operating instructions, please contact us directly. You will find the contact information on the 1st page of these operating instructions and at www.bambuk.de.

We use the **following** symbols to highlight special content in the operating instructions:



Danger!

The sign means possible danger to your life and health if corresponding requests for action are not observed. In your own interest, read them carefully and comply with them.



Attention! Notice!

Here you will find useful additional information or tips that will help you quickly become familiar with your e-bike and its technology.

Since our wheels are subject to permanent product optimization, it may happen that these operating instructions are kept up to date by additional supplementary sheets. Therefore, please note any additional information enclosed with the wheel. In addition, you will receive further documentation from the manufacturers of our purchased components, e.g. the electric motor and the brake system, which must also be observed.

Intended use

Your BamBuk E-Trike is intended for use on roads and paved paths only.

It is not designed for extreme loads, such as those that occur when driving off-road or climbing stairs, and is not approved for participation in competitions.



Danger!

Please bear in mind that improper use can lead to overloading and thus to component failure. As a result, dangerous situations may arise in which you and others may be harmed.



Attention! Notice!

Furthermore, a warranty is excluded in case of improper use. For more information, please refer to the Warranty section at the end of these operating instructions.

Safety instructions

- Always drive considerately in traffic so that you do not endanger yourself and others
- Always follow the traffic rules
- Wear light colored clothing suitable for cycling with tight pant legs or pant clips
- Never drive hands-free so that you can react at any time (steer, brake)
- Never drive under the influence of drugs, alcohol or medications that affect your ability to drive.
- Do not talk on the phone while driving and do not drive with headphones on.
- Do a quick check before each trip.
- Do not drive too fast.

Legal requirements

- According to the Road Traffic Act, the BamBuk E-Trike is equal to a normal bicycle (§1 paragraph 3 StVG).
- Bicycle lanes that are subject to mandatory use - marked by blue traffic signs with a white bicycle symbol - must be used (§2 paragraph 4 StVO)
- If the e-trike is used in public road traffic, it must be equipped in accordance with the regulations of national legislation. It is delivered in accordance with the StVZO regulations valid in Germany. These are listed below.
- If the trike is to be driven in another country, the regulations valid there must be observed!

Safety equipment for bicycles according to StVZO

- a bright-sounding bell (§ 64a StVZO)
- 2 independent brakes (§ 65 para. 1 StVZO)
- a white headlight and a white reflector pointing forwards (§ 67 para. 3 StVZO)
- a red rear light and a red reflector (§ 67 para. 4 StVZO)
- the lighting can be supplied with power either by a generator or by batteries (§ 67 StVZO)
- yellow reflectors on the bicycle pedals to the front and rear (§ 67 para. 6 StVZO)
- either two yellow reflectors in each of the spokes of the wheels or a white reflective ring on the bicycle tire (§ 67 para. 7 StVZO)

Before you go

Even if you feel confident and experienced on the bike, you should carefully read and follow the instruction manual before using it for the first time.

After reading the operating instructions, we recommend that you familiarize yourself with the operation and handling of your new e-tricycle on an unused area.

**Attention! Notice!**

Two important notes on the operation of the electric motor:

- 1) When switching on the electric motor, do not apply any load to the pedals. Do not place your feet on the pedals.**
- 2) The electric motor must not be switched on and off while driving.**

In both cases, malfunctions occur due to the motor's own sensors and control system.

If it does happen, and you notice an improper behavior, you can easily correct the malfunction by switching off the drive and restarting it.

The motor and sensor system will recalibrate and should then function as usual. If the problem persists, contact us directly or a specialist e-bike dealer.

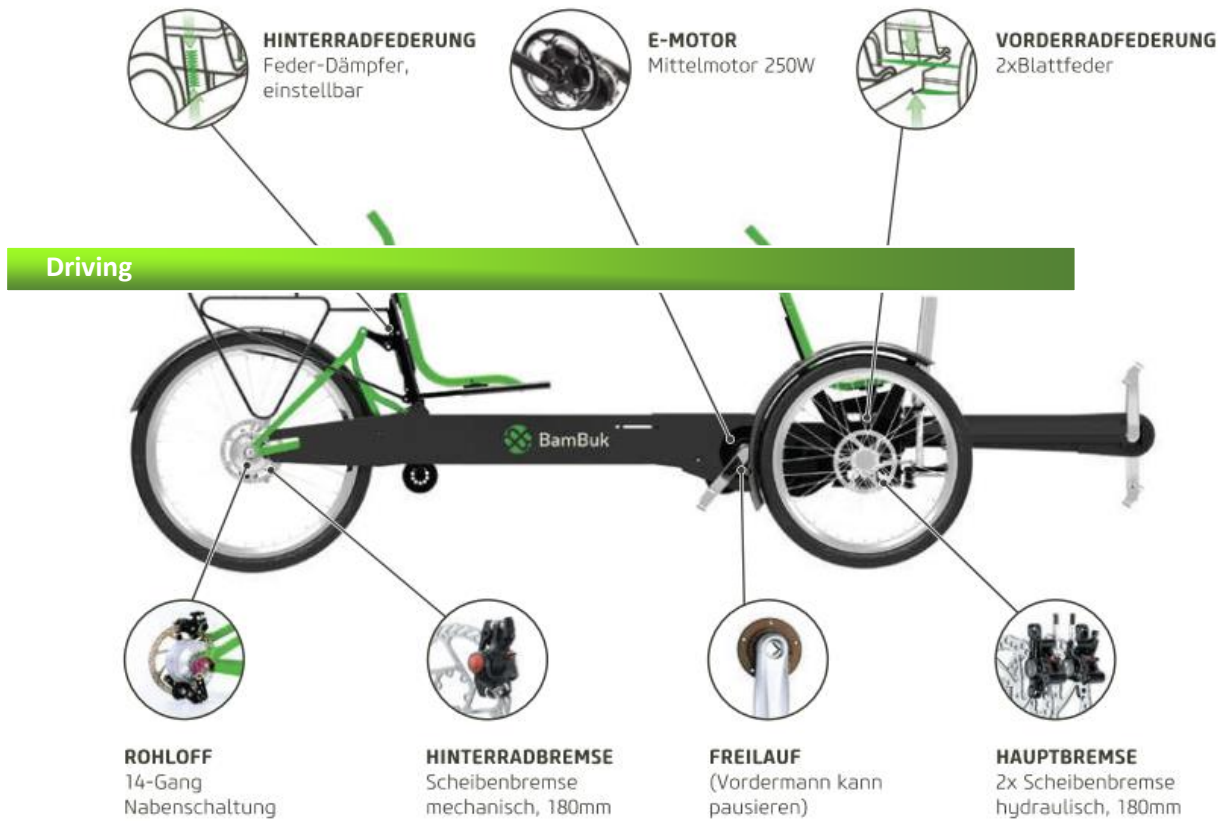
To ensure that you always have fun while riding the e-trike and for your own safety, we recommend performing a quick check before each ride. With a little practice, this can be done very quickly and always gives you an overview of the functionality of the safety-relevant features of your E-trike tandem.

Please refer to the table in the Maintenance and Care chapter for the points to be checked.

Vehicle elements overview

Next, we would like to familiarize you with the components of your BamBuk E-Trike.

1. Main assemblies at a glance
(Add main frame, stem and rear triangle) Mark→that the freewheel is optional)



2. Operating elements at a glance

Telescoping capability

Your E-trike tandem can be pushed together for transport to 1.9m and transported, for example, with a special bike rack (optional accessory) on the trailer hitch of their vehicle.



The following describes how to prepare your E-trike for transport. For the work you will need the supplied on-board tools. (Hexagon wrench set in sizes: 10mm, 8mm and 3mm).

You can find a video on telescoping on our homepage www.bambuk.de

Preparation for transport - pushing the trike together

1. Secure the trike against rolling away.
To do this, actuate the front brake lever and simultaneously move the locking lever upwards until the front brake is locked.
2. The rear brake must be released so that the rear wheel can roll when the rear frame is pushed into the main frame. To do this, briefly actuate and release the rear brake lever. If the parking brake was applied, it is now released again.
3. Unscrew screw (1) and (2) with the 3 mm hexagonal wrench to remove the rear chain guard.
Tip:
Screw both screws back into their threaded holes immediately so that they do not get lost during transport.
4. Push out the chain guard to the rear. This must be transported or stored separately.
5. Use the 8 mm hexagon wrench to loosen one of the two clamping screws of the rear frame clamp (3) (do not unscrew completely).
6. Loosen the quick release (4).
7. Place the 10 mm hexagonal wrench on the axle of the rear chain length compensation device (5) and turn clockwise until the rear frame is completely inserted in the main frame.
8. For transport, tighten the quick release (4), the clamping screw (3) again.
9. Use the 8 mm hexagon wrench to loosen one of the two clamping screws of the front frame clamp (6) (do not unscrew completely).
10. Unscrew the screw on the front chain guard (7) with the 3 mm hex wrench and remove the front chain guard. Screw can then be immediately screwed back into the hole so that it is not lost during transport.
11. Loosen the quick release (8).
12. Place the 10 mm hexagonal wrench on the axle of the front chain tensioner (9) and turn clockwise until the front frame is completely inserted into the main frame.

Note: Caution! When inserting the front frame, it is essential to note: the crank at the front right should always remain aligned vertically upwards!

13. For transport, tighten the quick release (8), the clamping screw (6) again.

The E-Trike Tandem is thus ready for transport.

Preparation for the ride - pull apart trike

1. Secure the trike against rolling away.
To do this, actuate the front brake lever and simultaneously move the locking lever upwards until the front brake is locked.
2. The rear brake must be released so that the rear wheel can roll when the rear frame is extended. To do this, briefly actuate and release the rear brake lever. If the parking brake was applied, it is now released again.
3. Use the 8 mm hexagon wrench to loosen one of the two clamping screws of the front frame clamp (6) (do not unscrew completely).
4. Place the 10 mm hexagonal wrench on the axle of the front chain tensioner (9) and permanently hold it slightly against while carrying out the next steps, otherwise the chain tensioner will slacken uncontrollably. Now loosen the quick-release (8) and pull out the front frame to the front.
 - a) **without** freewheel in front:
Pull the front frame forward and fix the frame clamp (6) at the same time, ensuring sufficient chain tension.
Note: Do not use the chain length compensator to tension the chain. The chain must pass straight between the two rollers without S-beat.
 - b) **with** freewheel in front:
First tighten the front frame clamp (6) again, then use the 10 mm hexagonal wrench on the chain length compensation device (9) and pre-tension the chain.
5. Tighten the quick release (8) again
6. Unscrew the screw from the front chain guard (7) with the 3 mm hexagonal wrench so that the chain guard can be refitted. Insert the front chain guard and fix it with the screw.
7. Use the 8 mm hexagon wrench to loosen one of the two clamping screws of the rear frame clamp (3) (do not unscrew completely).
8. Place the 10 mm hexagonal wrench on the axle of the rear chain tensioner (5) and permanently hold it slightly against while carrying out the next steps, otherwise the chain tensioner will slacken uncontrollably. Now loosen the quick-release (8), grab the luggage carrier and pull the rear frame out to the desired length towards the rear. (if necessary, hold the front seat against it).
9. Once the rear frame is extended to the desired length, the rear
Tighten frame clamp (3)
10. Now turn with the 10 mm hexagonal wrench until the rear chain tensioner (5) is positioned approximately vertically. The chain tensioner should be at about 90° to the horizontal.
11. Tighten the quick release (4).
12. Unscrew screw (1) and (2) with the 3 mm hexagonal wrench so that the rear chain guard can be mounted. Slide the chain guard under the middle chain guard. The rear mounting point of the mudguard can vary depending on the leg length setting. Therefore, first fix the mudguard in the slotted hole at the front with the longer screw (2) and then select the fixing point at the rear and fix it with the shorter screw (1).

Finally, please check again that the locking screws on the base frame (fixing the telescopic frame parts) and also the screws for fixing the mudguards are present and firmly tightened. The E-trike tandem is then ready to ride. Do not forget the quick check!

Components/ Operation

Circuit

Your BamBuk tandem is equipped with the Rohloff Speedhub 14-speed gear system. In this chapter you will learn how to operate Rohloff.



Attention! Notice!

The following explanations do not replace the detailed manufacturer's instructions which were handed over to you together with the operating instructions.

Shifting the gears

All 14 gears of the Rohloff SPEEDHUB 500/14 can be shifted up and down individually one after the other as well as skipping several gears at will via a twist shifter.

The number opposite the marking on the housing of the shift lever indicates the engaged gear. In normal installation, the shift lever is located on the right-hand side of the handlebar (for special applications, installation on the left-hand side of the handlebar is also possible).



Turning the shifting handle in the direction of the number 14 causes upshifting (fast gears). Turning the shifting handle in the direction of the number 1 causes downshifting (slow gears).

Unlike other shifting systems, with the Rohloff SPEEDHUB 500/14 the gear change is not delayed to the actuation of the shifting handle, but occurs simultaneously. The gear change is always completed with the detent of the gear into the selected position, which can be felt in the shifting handle. This enables fast and error-free shifting both when stationary and in all driving situations.

When shifting gears, clutch elements are moved in the transmission, which are under load when pressure is applied to the pedals. When stationary and with a low pedal load, the shift lever can be easily turned from detent to detent. As the pedal load increases, the manual force required to turn the shift lever increases. For fast gear changes in any crank position, it is important to note that the pedal must be unloaded at the exact moment of shift lever rotation without interrupting the pedaling motion. The degree of relief determines the smoothness of the shifting process. Passing through the crank dead centers is associated with a reduction in pedaling force. Shifting when passing through the crank dead centers therefore always takes place with low shifting forces.

Shifting the Rohloff SPEEDHUB 500/14 under pedal load is not necessary when operated correctly. Nevertheless, shifting under high pedal load is possible and harmless for the gearbox due to its solid construction.

**Danger!**

However, shifting under high pedal load is associated with a strong shock-like load on the clutch elements in the transmission. In this case, a momentary idling of the cranks caused by snapping back of the clutch elements cannot be ruled out. Shifting under high pedal load is therefore at your own risk.

Driving noise

When driving, two different types of driving sounds can be heard in certain gears:

Due to the design, a freewheeling noise can be heard in some gears, which is most clearly audible in gears 5, 6 and 7. When pedaling hard or at a high cadence, a buzzing noise typical of precision spur gears can be heard in 1 to 7, becoming louder.

Depending on the frame type, this gear noise is amplified or transmitted differently (the tubes of the frame as a resonance body). The larger the tube diameter, the greater the resonance noise.

When freewheeling, different freewheels operate depending on the gear, which is noticeable by different sounding freewheeling noises.

Running-in time

All gears and clutch elements of the Rohloff SPEEDHUB 500/14 are made of hardened special steel and are manufactured with high precision.

In the course of the first 1000 km, the Rohloff SPEEDHUB 500/14 receives its final polish by micro-fine smoothing of all functional parts. The driving noises are thus quieter and the switching processes run smoother. The break-in period is not associated with any restrictions.

Pushing the wheel

If the wheel is pushed, the cranks may spin. This is caused by the pinion being dragged along by the oil seal of the hub.

Poorly sealed and therefore very easy-running bottom brackets promote the spinning of the cranks. A drop of Rohloff Special Cleaning Oil (Art. No. 8402) applied through the holes of the sprocket to the oil ring reduces the dragging effect.

E-motor

For the best possible comfort and driving pleasure, we have installed a powerful mid-motor.

The rated continuous power of the motor is 250 watts and the maximum speed is 90 rpm, motor torque is 80Nm.

The very low weight of only 3200 grams, in combination with the very low center of gravity provides excellent driving characteristics of the E-trike tandem.



Attention! Notice!

The following explanations do not replace the detailed manufacturer's instructions which were handed over to you together with the operating instructions.

Display:



The display shows the following information:

- Energy status of the battery
- kilometers driven and speed
- Time

The motor can be regulated to three different speed levels via the control panel:

- Normal mode for comfortable driving.
- Eco mode for maximum range
- Turbo mode for powerful and sporty driving pleasure

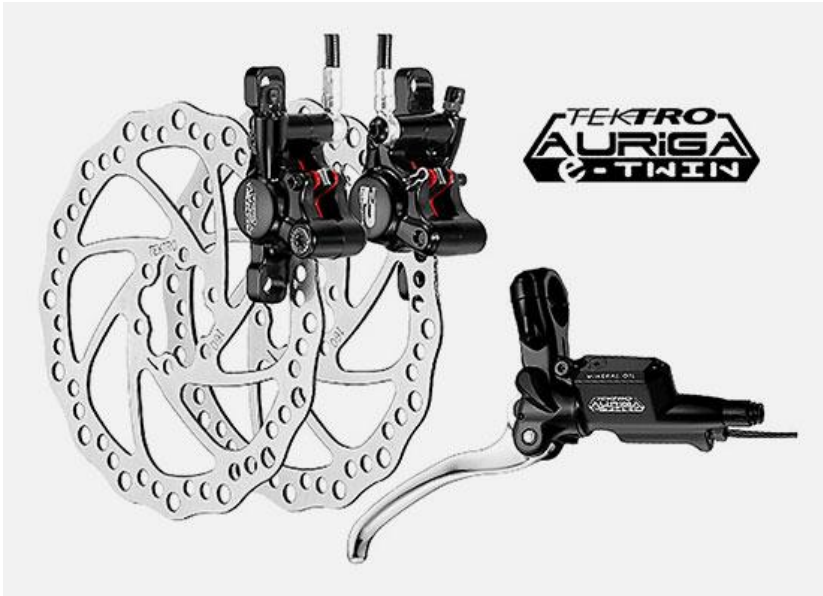
Battery

The lithium-ion battery of your e-trike is removable, is secured by a safety lock on the e-trike. The charging is done via a supplied charger.

Brake

Mechanical disc brake on the rear axle. This is to be used preferably as a parking brake for longer idle times.

Tektro hydraulic double brake for the two wheels on the front axle with the main braking action in driving.



Your BamBuk has a special hydraulic disc brake for recumbent bikes from Tektro. The brake is operated with only one lever. From the connector / connector go two lines to the jewe. brake calipers.

General warning and safety instructions

- Brake calipers, discs and pads of disc brakes become extremely hot during operation. Caution, there is a risk of burns if you touch the hot disc brake! Allow the disc brake to cool down before touching or servicing it.
- Do not continue driving if the disc brake loses oil and repair the brake immediately. Caution, if you continue to drive despite disc brake oil loss, the brake may suddenly fail in operation.
- Always check the brake pads before starting to drive: They must be at least 0.8 mm thick and free of dirt, oil and brake fluid.
- Contaminated brake pads should be replaced as soon as possible.
- The brake pads used are matched for optimum function with the Tektro hydraulic disc brake

Important safety instructions

Precautions

1. Always wear protective goggles when working on the disc brake and make sure that no brake oil gets into your eyes. There is a risk of eye irritation.
2. Always wear protective gloves. Skin contact with brake oil can cause skin irritation, rash and itching.

3. Ensure good ventilation of the work area and cover mouth and nose with a respiratory mask. Inhalation of oil mist and vapors can cause nausea.
4. Do not drink brake oil. Ingestion of brake oil may cause vomiting and diarrhea.
5. Store brake oil out of reach of children.
6. Do not weld, cut open, heat or pressurize the brake oil reservoir. Otherwise there is a risk of explosion and fire.
7. First aid measures
8. In case of eye contact, rinse affected eye with fresh water and seek medical attention immediately.
9. In case of skin contact, clean affected skin area thoroughly with soap and water.
10. In case of inhalation of oil mist or vapors, immediately remove affected person to fresh air, keep warm and stabilized and seek medical advice.

Waste oil disposal

1. When disposing of used oil, the applicable disposal regulations must be observed.
2. Exercise caution when handling used oil to avoid environmental contamination, skin and eye contact.

Brake oil storage instructions

- Keep container tightly closed and store in a cool, dark place away from heat and sunlight.

Rear wheel damping



Your tandem is equipped with the most innovative damper from the company DNM. Thanks to the perfect quality of manufacture from lightweight resistant materials, the damper is very reliable and requires no maintenance in operation.

We have the possibility to choose the spring with the most suitable stiffness for you from three different spring variants. In addition, the spring characteristics can be varied via the spring preload and damping level.

Crank and pedals

Pedals

You can choose between different pedal variants.

- 1) Pedals with additional foot fixation by means of straps with Velcro fastener
- 2) clipless pedals (recommended)



Danger!

Since especially recumbent bikes have a high risk of injury due to slipping off the pedals, we deliver our e-trike tandems exclusively with pedals that give the foot a secure grip.

These holding functions of the pedals are to be used in any case!

If you do not use these holding functions, you do so at your own risk!

Technical data

Components list



gilt ab 01.01.2021

AUSSTATTUNG	TECHNISCHE DATEN
BAUART	Dreirad-Tandem
RAHMEN	Teleskoprahmen einstellbar für Körpergrößen von 150 bis 200cm
ABMESSUNGEN betriebsbereit	2 x 24" Räder vorne, 26" Rad hinten Länge im Betrieb 2600-2900mm je nach Körpergröße Breite 950mm, Höhe max. 1000mm
für den TRANSPORT	Auf 2000mm x 950mm x 1000mm (LxBxH) zusammenschiebbar
GEPOLSTERTE KOMFORTSITZE	Vorne und hinten
FEDERUNG VORNE	Doppelblattfeder
FEDERUNG HINTEN	Federelement mit Dämpfung, individuell einstellbar
HAUPTBREMSE VORNE	2 x Vorderrad-Scheibenbremse hydraulisch, 180mm, mit Feststellfunktion
ZWEITBREMSE HINTEN	Scheibenbremse mechanisch, 180mm, mit Feststellfunktion
SCHALTUNG	Rohloff 14-Gang Nabenschaltung
E-ANTRIEB	E-Mittelmotor
BATTERIE	630Wh, Ladegerät
GEPÄCKTRÄGER	BamBuk Gepäckträger mit LED-Rücklicht, Standard-Seitentaschenaufnahme

Tightening torques for screw fittings

Stem clamping: 10-12Nm

Handlebar clamp: 8Nm

Brake disc: 6-7Nm

Brake caliper: 10Nm

Crank bolts: 35-40Nm

Drehmomenttabelle

Verwenden Sie für alle Schrauben einen Drehmomentschlüssel. Die folgende Tabelle gibt Richtwerte für Schrauben der 8.8 Qualität.

Schraube	Anzugsdrehmoment
M 5	5,5 Nm
M 6	9 Nm
M 8	23 Nm
M 10	46 Nm
M 12	79 Nm

Weights and payload

Weight tandem E-trike:	60kg (incl. battery)
Max. Weight rider front:	110kg
Max. Weight rider rear:	90kg
Max. Weight luggage:	30kg
Gross vehicle weight rating:	290kg

Maintenance and care

For years of enjoyment of a properly functioning E-trike, we have installed only robust and high quality components. So that these are not impaired in their functioning, the E-trike Tandem is to be subjected to regular maintenance and care. The maintenance work is described below. In addition, it is also regularly checked for damage, and to repair.



Danger!

These operating instructions contain assembly and maintenance work that may additionally become necessary between the prescribed inspections that must be carried out by the specialist dealer.

Please only carry out the work described here yourself if you are confident and have the necessary experience and tools (e.g. torque wrench). Otherwise, please also have this work carried out by a specialist dealer.

Maintenance

Component	Activity	Before each trip	Monthly	Annual
Lighting	Check function	X		
Tires	Check air pressure	X		
	Check tread depth	X		
	Check tires for damage	X		
Brakes	Check lining thickness		X	
	Check position to brake disc		X	
	Perform brake testXX			
		X		
Brake hoses	Check for damage	X		
	Check for leakage in the case of the hydraulic brake	X		
Screws of the frame separation (telescopic function)	Check for tight fit	X		
Chain	Check for wear		X	
	lubricate		X	
Crank attachment	Check screws			X
Impellers	Check concentricity		X	
	Check spoke tension		X	
Handlebar	check			X
Steering transmission rod	Check game			X
Control bearing	Check game			X
Hubs	Check game			X
Pedals	Check game			X
Rear derailleur	clean, lubricate		X	
Gear cables	Check for damage		X	
Quick release	Check strength	X		
Nuts and bolts	Check for tight fit and retighten if necessary		X	
Bottom bracket	Check game			X

Cleaning

Clean your trike regularly. Dirt or salt from winter use could cause damage or cover up damage.

Never clean your trike with a high-pressure cleaner. Battery, motor and motor control, as well as bearings and chain can be damaged or negatively affected in their service life.

Make sure that no water gets into the battery. It is best to remove the battery before cleaning.

Wipe surfaces with a damp, non-fluffy cloth. Then take care of the chain. To protect against corrosion, you can apply an anti-corrosion agent, such as wax, to your trike after cleaning.

Warranty

The legal warranty period for your E-trike is 24 months from the date of purchase.

The warranty period for rechargeable batteries is 6 months.

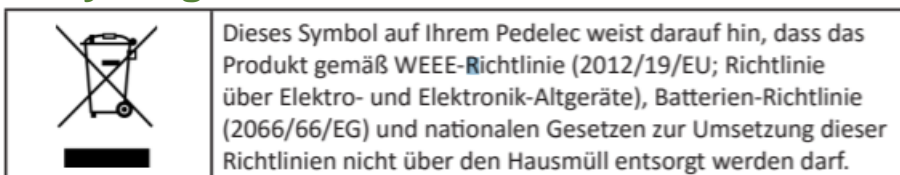
Requirements for a warranty:

- There is a manufacturing, material or processing defect
- The damage was already present at the time of delivery of the goods
- The trike was used as intended.
- The damage was not caused by aging or attempted modification
- You are the first purchaser of the affected e-tricycle

Excluded from the warranty are:

- Accidental damage
- Defects due to wear
- Damage due to vandalism
- Damage caused by use not in accordance with the intended purpose
- Damage caused by technical modifications
- Damage caused by inadequate care

Recycling



Your Tandem E-Trike is classified as an electrical appliance and may not be disposed of in household waste at the end of its service life. In order to fulfill this legal obligation, you can hand in your E-trike free of charge at the municipal collection points, just like all other waste electrical appliances from the household. The battery of your E-trike should - as far as possible - be removed beforehand and collected separately. Used batteries are taken back free of charge by the distributors of industrial batteries.