

Scapula

**Scapula
Scapula SP**

Instruction book



THM Scapula_3_en, 2010-10



Don't forget that your THM component is a lightweight carbon design. Be aware of this when carrying out assembly and maintenance work and when handling the component. Proceed with utmost care!

Instruction book

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Preface



This manual is an integral part of your THM component and it provides you with information regarding the safe operation of your THM-Scapula racing fork.

Carefully read this manual prior to assembling your THM components. Always read and observe all of the assembly and maintenance instructions in this manual, as well as those provided in the manuals of other manufacturers whose products are used on your bicycle (headset, stem, brakes, frame, wheels etc.).

WARNING

Non-observance of the information contained in this manual could result in an accident and fatal or serious injury.

You will encounter the following symbols and references in this manual:

-  The index instructs you to perform a particular action.
-  The arrow indicates the consequence of your action.

WARNING

This safety message indicates a hazardous situation which, if not avoided, could result in fatal or serious injury.

CAUTION

This safety message indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

This message warns of a risk of material damage.



This refers to additional information or tips.

Retain this manual for other users of your THM components.

Make sure that all users read, understand and observe this manual.

If you ever sell or give away your THM components, this manual should be transferred to the new owner.

We hope you get a lot of joy from your THM components!

Your THM-Carbones Team

Intended use

⚠ WARNING

Any use other than the intended use can lead to accidents resulting in fatal or serious injury.

THM-Scapula racing forks are designed exclusively

- for installation on standard race- and time trial bikes.
- for use on a paved or tarred surfaces (streets/roads).

Fundamental safety precautions

The following warnings for the THM-Scapula forks apply to all Scapula models (ScapulaSP, ScapulaF etc.), unless otherwise specified.

For the time being the manufacturer limits the service life of your THM-Scapula to 100000km (62000 miles) or 10 years. It is imperative you contact us before continuing to use your THM-Scapula forks after one of these limits has expired!

Always remember that riding a bicycle involves potential danger for the rider and other road users, as well as for the bicycle and its components.

Even if protective equipment and safety devices are used, accidents resulting in death or serious injury can still occur.

You should therefore use your common sense and avoid any unreasonable behaviour!

Assembly & maintenance

⚠ WARNING

Risk of accident caused by assembly and maintenance work which has not been conducted in a professional manner.

- Do not overestimate your technical ability. All assembly and maintenance work should be performed by a specialist workshop for bicycles. This is the only guarantee of having this work done in a professional way.
- Observe and follow all assembly and maintenance notes in this manual and in the manuals provided by third party manufacturers whose products you have used on your bicycle (headset, stem, brakes, frame, wheels etc.).
- Always observe the minimum and maximum values specified – see **Technical specifications**, from page 8.
- Only use suitable, undamaged, high-quality tools.
- When conducting assembly steps that require a specific tightening torque, always use an appropriate torque wrench that is designed for the tightening torque specified.
- Only ever use original THM components which are available from your specialist dealer or directly from THM.
- Never make any modifications to your THM components.
- Always ensure your bicycle is maintained in a flawless condition. Care and maintenance will prolong the service life of your bicycle and its components and also improve your personal safety.

On the road

⚠ WARNING

Risk of accident caused by erratic riding behaviour or improper equipment.

- Always ride with foresight, attention and a readiness to brake.
- Adjust your speed to the prevailing conditions (traffic, weather, visibility, etc.).
- Do not use your THM components at ambient temperatures below -10°C (14°F).
- Do not exceed the maximum overall weight for which your THM components have been approved – see **Dimensions**, page 9.
- Do not perform jumps with your bicycle as this generates an enormous amount of force.
- Always comply with the traffic regulations that are in force in the country where you are using your bicycle.
- When riding your bicycle you should always wear a high quality cycling helmet (e.g. ANSI certified) that is in excellent condition. Your clothing should be close-fitting but not restrictive.
- Only ride your bicycle if you are in good physical condition and your bicycle and all of its components are operating in a flawless manner.
- If you are involved in a heavy fall you should not continue to ride your bicycle. If such a case occurs, send us your THM components for inspection, even if no external damage is visible. In your own interest you should treat all of the components on your bicycle which have been produced by other manufacturers in the same manner.

Transport & storage

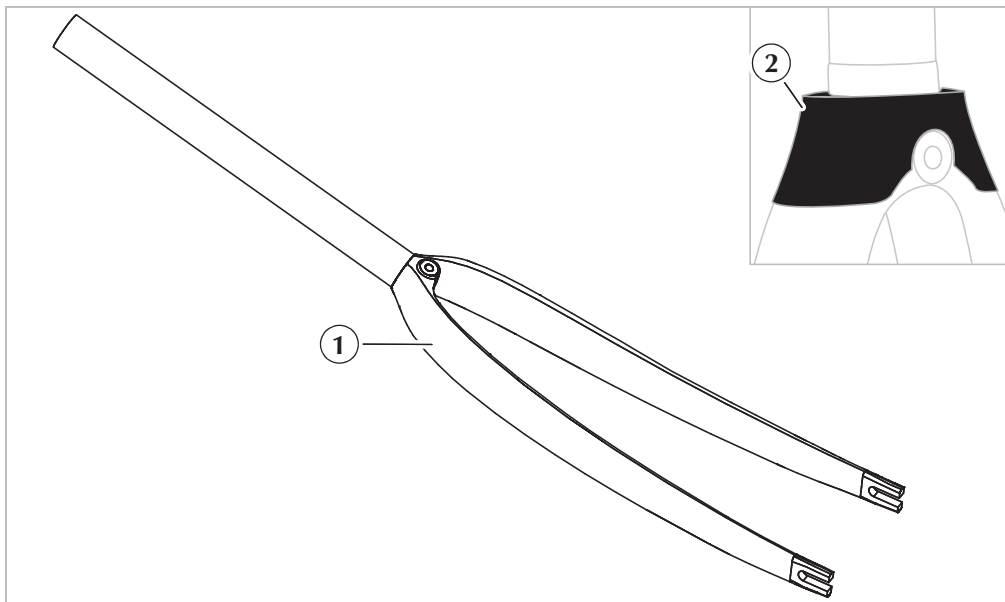
⚠ WARNING

Risk of accident caused by damaged bicycle components.

- Always transport your bicycle in an appropriate and careful manner.
- When transporting your bike in a bag or other similar product always place a spacer (100 mm) between the dropouts of the THM-Scapula forks.
- Never secure your bike without the front wheel attached and do not transport it on roof racks or bike racks without additional lateral support. Never use roof racks, bike racks or exercise bikes that require you to use your THM-Scapula forks without the front wheel attached.
- Do not store your THM components at an ambient temperature below -15°C (5°F) or above 55°C (131°F).

Risk of accident.

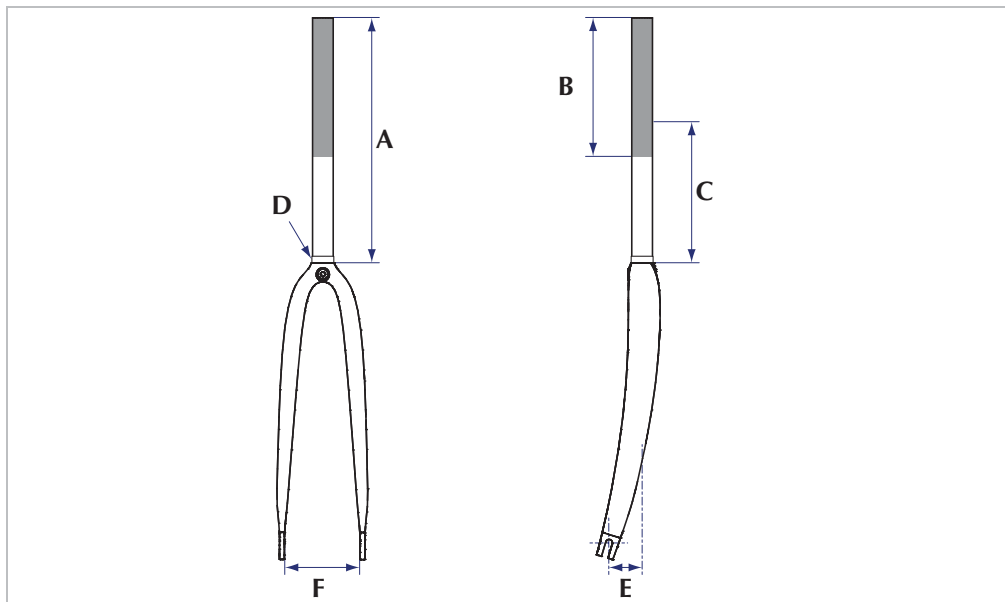
- Do not allow children to play with your bicycle.



Delivery specifications

- 1 Fork
- 2 Spina Scapulae
(optional accessory, not included in scope of delivery)

Instruction book



Dimensions

		Scapula	Scapula SP
*			
A	Steerer tube** (Ø 1 1/8")	300	
B	Clamping area (Ø 28.65 ± 0.1)	170	
	Internal Ø stem clamping	28.60 ± 0.05	
C	Steerer tube, min.**	160	
D	Ø installation diameter	30.00 + 0.03	
	Internal Ø fork cone	30.00 - 0.05	
E	Fork rake	44	
F	Installation dimension (hub)	100	
	Tyre dimensions, max.	25-622	
	Weight***	g	320/355
	Total weight, max.****	kg(lb)	120(265)
			260/285
			100(220)

* Technical specifications, dimensions and weights are to be understood with the corresponding tolerances and can differ slightly from your THM components.

** Special lengths available on request.

*** in case of steerer tube length 200mm/300mm

**** Total weight = rider + bicycle + luggage

Tightening Torques

	N-m (lbf-in) max.
tensioning screw, head	6 (53)
clamping screw, stem	10 (89)
sleeve nut, brake body	12 (106)

Installing the Scapula

⚠ WARNING

If not properly performed, assembly and maintenance work can cause accidents resulting in serious or fatal injury.

-Do not overestimate your technical ability. All assembly and maintenance work should be performed by a specialist workshop for bicycles. This is the only guarantee of having this work done in a professional way.

Shortening the steerer tube



In most cases it will be necessary to shorten the steerer tube of your Scapula to the correct dimension. It is imperative you read and observe the safety and assembly information provided by the manufacturer of the headset.

⚠ WARNING

Risk of accident as a result of sudden braking due to carbon fibres being damaged by clamping outside the clamping area.

-The length of the steerer tube should never fall below the minimum required length.
-Make sure the entire clamping section of your stem is within the clamping area of the steerer tube.
– see Dimensions, page 9

⚠ CAUTION

Risk of damage to health caused by inhaled dust.

-Wear a dust mask when shortening the steerer tube.

Risk of injury

-Wear protective gloves when sawing the steerer tube.

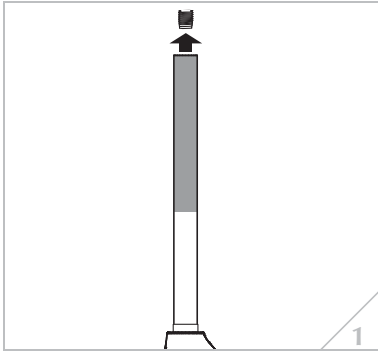
NOTICE

Useless, irreparable fork caused by over-shortening the steerer tube.

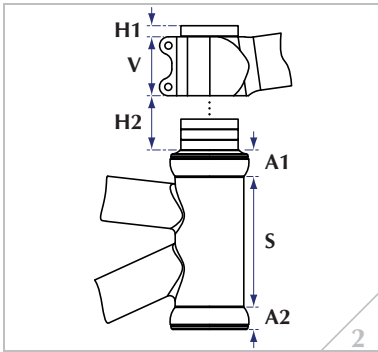
-Measure the length to be cut extremely carefully and check this measurement again before shortening the steerer tube of your Scapula forks.
-It is better to use an extra spacer at the first shortening step. Performing a further shortening procedure will be no problem at all!

Risk of damage to the carbon fibres.

-Never use a pipe cutter to shorten the steerer tube.
-Only use a sharp hacksaw for this purpose.



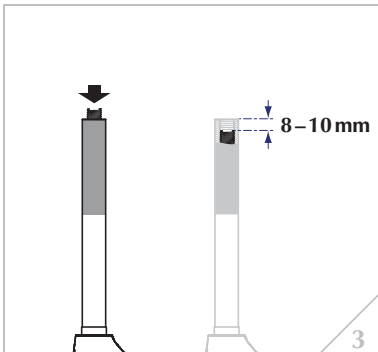
- ☞ Drive the aluminium insert out of the steerer tube. (fig. 1)



- ☞ Proceed as follows to determine the correct length of the steerer tube:

- H1** Top Spacer (**5 mm recommended!**)
- V** Clamping height – Stem
- H2** Lower Spacer (**max. 40 mm!**)
- A1** Overall height/top – Headset
- S** Height – Head tube (frame)
- A2** Overall height/bottom – Headset

$(A1 + A2 + S + H1 + H2 + V) - 2\text{ mm} = \text{Steerer tube length}$
(fig. 2)



- ☞ Shorten the steerer tube to the desired dimension. Be sure to cut exactly at a right angle!
 - ☞ Use a file to remove all burrs from the edge.
 - ☞ Exerting gentle pressure turn the aluminium insert approximately 8–10mm into the steerer tube. Take care to keep the thread straight!
- (fig. 3)

Installing the fork cone

⚠ WARNING

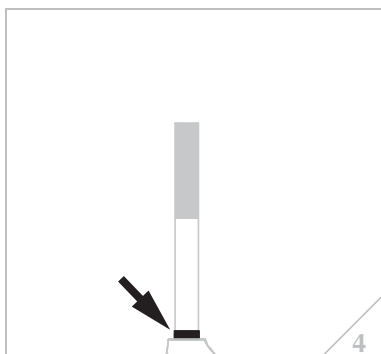
Risk of accident as a result of sudden braking due to carbon fibres being damaged through improper assembly.

- Make sure the internal \varnothing of the fork cone for your headset corresponds with the required dimensions – see **Internal \varnothing fork cone**, page 9.
- Never rest the fork on its dropouts when installing the fork cone.
- Hold one fork blade firmly in your hand as close to the top as possible during mounting. Use your other hand to guide the mounting tube.



It is imperative you read and observe the safety and assembly information provided by the manufacturer of the headset.

- ☞ Slightly grease the bearing surface for the fork cone. (fig. 4)

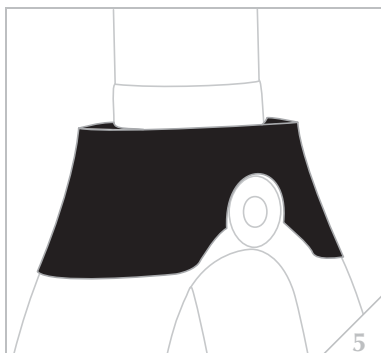


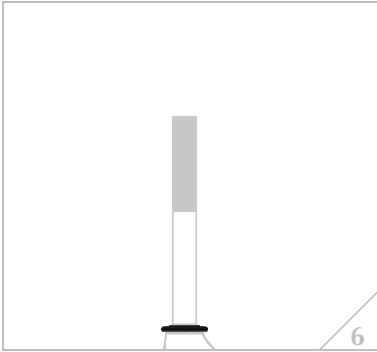
For an attractive interface to an integrated headset, you can purchase the **THM Spina Scapulae** from us or your dealer

– for more details, see www.thm-carbones.com.

- ☞ Install the Spina Scapulae if available. Be sure the circular hole faces in the direction of travel!

(fig. 5)





☞ Knock the fork cone onto its seat on the steerer tube using an appropriate mounting tube.



Turning the mounting tube by 5 to 10° after each stroke will ensure a more uniform installation of the fork cone.

➔ The fork cone is seated without clearance on its bearing surface.

(fig. 6)

Fitting the scapula to the head tube

⚠ WARNING

Risk of accident as a result of sudden braking due to carbon fibres being damaged through improper assembly.

- Make sure the entire clamping section of your stem is within the clamping area of the steerer tube – see **Dimensions**, page 9.
- Make sure the internal \varnothing of the clamping section for your stem corresponds with the required dimensions – see **Internal \varnothing stem clamping**, page 9.
- Never exceed the max. permissible height of the lower spacers. (fig. 7)
- Never exceed the max. permissible overhang of the top spacer or stem. (fig. 7)
- Make sure the stem edges are free from burrs and have no sharp edges. Remove all burrs as required.
- Never exceed the tightening torque of 6 N·m (53 lbf·in) under any circumstances when tightening the headset adjusting screw. (fig. 8)
- Never exceed the tightening torque of 10 N·m (89 lbf·in) when tightening the clamping screws on your stem. Also never exceed the maximum tightening torque for the clamping screws on your stem. (fig. 9)
- Never use your Scapula forks if you can hear any cracking or clicking noises when tightening the stem clamping screws – if such a case occurs, please send us your Scapula forks for inspection immediately.

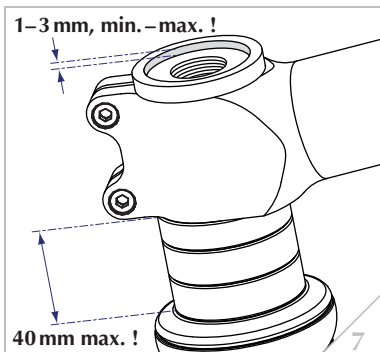
Risk of accident caused by a slipping handlebar stem as a result of reduced friction.

- Never apply grease to the steerer tube.



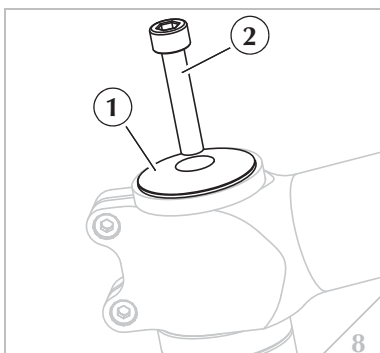
Applying an appropriate carbon assembly paste between the stem clamping area and steerer tube enables the required tightening torque to be reduced – e.g. **DYNAMIC Montagepaste** (for more information please visit www.bokhoven.de).

☞ Apply carbon assembly paste to the clamping area between the stem and steerer tube if required.



- ☞ Assemble the fork, spacer, stem and headset components in the head tube of your bike frame in accordance with the manufacturer's instructions.
- ☞ Make sure that an overlap of **1 mm to max. 3 mm** is present between the upper edge of the top spacer (recommended!) and between the upper edges of the stem and steerer tube.

(fig. 7)

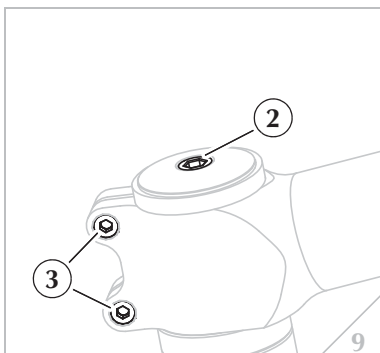


- ☞ Install the headset cap (1).
- ☞ Drive in the adjusting screw (2).
- ☞ Adjust the headset according to the instructions of the manufacturer.
- ☞ Align the stem in a straight position.

(fig. 8)



It is imperative you read and observe the safety and assembly information provided by the manufacturer of the stem.



- ☞ Tighten the clamping screws (3) on the stem initially by using half of the maximum tightening torque specified by the manufacturer.
- ☞ Check the stem to make sure it is seated correctly.
- ☞ If necessary, tighten the clamping screws (3) on your stem gradually in steps of **0.5 N·m (5 lbf·in)** until the stem no longer moves on the steerer tube.
- ☞ Tighten the adjusting screw (2) using a tightening torque of **3 N·m (27 lbf·in)**.

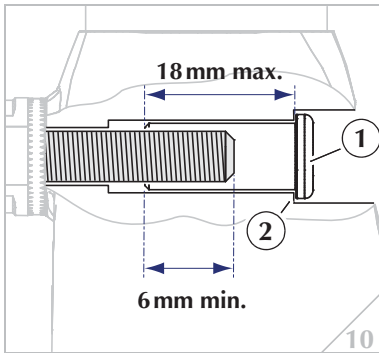
(fig. 9)

➔ Installation of your Scapula is now finished.

Assembling the brake body



Please read and observe the safety and assembly instructions provided by the manufacturer of your brakes.



- ☞ Determine the correct sleeve nut (1) for your front brake body.
- The maximum permissible shaft length for the sleeve nut is 18 mm.
- The sleeve nut must be capable of being screwed onto the thread of the brake bolt through at least 6 rotations (6 mm).

⚠ WARNING

Risk of accident as a result of sudden fork breakage due to carbon fibres being damaged through improper assembly.

- Make sure the head of the sleeve nut is seated against the front shoulder (2) of the fork head hole.
- Never exceed the tightening torque of 12 N·m (106 lbf·in) when tightening the sleeve nut.

(fig. 10)

Important maintenance information

⚠ WARNING

If not properly performed, assembly and maintenance work can cause accidents resulting in serious or fatal injury.

-Do not overestimate your technical ability. All assembly and maintenance work should be performed by a specialist workshop for bicycles. This is the only guarantee of having this work done in a professional way.

Improperly performed assembly and maintenance work could also result in a loss of your warranty rights (liability for defects)!

⚠ WARNING

Risk of accident caused by damaged components.

- Observe and follow all assembly and maintenance notes in this manual and in the manuals provided by third party manufacturers whose products you have used on your bicycle (headset, stem, brakes, frame, wheels etc.).
- Always observe the minimum and maximum values specified – see **Technical specifications**, from page 8.
- Only use suitable, undamaged, high-quality tools.
- When conducting assembly steps that require a specific tightening torque, always use an appropriate torque wrench that is designed for the tightening torque specified.

NOTICE

Never use a high-pressure cleaner or steam cleaner to clean your bicycle, as the seals of your bicycle components are not able to withstand the pressure. If such cleaners are used, it would result in corrosion and material damage.

Never use caustic solvents (such as paint thinners, acetone, nitro compounds, etc.) as they can attack the surface of your THM components.

Only use commercially available paint care products and water to clean your THM components. Spirit or petrol should be used carefully

- when using such products avoid excessive wiping and prolonged exposure times.

Always ensure your bicycle is maintained in a flawless condition. Care and maintenance will prolong the service life of your bicycle and its components and improve your personal safety!

If you suspect that your bicycle is defective or is not functioning properly, stop using it and contact a specialist bicycle workshop immediately!

Disposal

If THM components are defective or no longer in use, you can dispose of them with your non-recyclable waste or domestic refuse, or ask a local waste disposal company for other disposal methods (e.g. recycling).

Before every journey

WARNING

Risk of accident caused by material damage or improper assembly.

- Check to ensure the quick release elements and your wheels have been firmly and correctly secured.
- Check your headset to make sure it is undamaged and functioning properly before every journey. Do not use your bicycle under any circumstances if your headset exhibits even just a small amount of play, as the shaft of your Scapula fork can break suddenly.
- Check the stem before every journey to ensure it is seated correctly.
- Check your THM components before each journey to ensure the bonded joints are completely undamaged (dropouts, bearing surface for fork cone, brake fastening components). Send us your THM components for inspection before further use if damage is visible (cracks, fractures, clicking sounds, wobbling, etc.) or if you are in any doubt about their functionality.
- Check the functionality of your THM components before each trip and ensure that there are no signs of damage. Send us your THM components for inspection before further use if damage is visible (cracks, breaks, deformation etc.) or if you are any doubt about their perfect working order.
- Check your THM components before each journey to ensure the surfaces are completely undamaged. Send us your THM components for inspection before further use if damage is visible (deep scratches in the paintwork which extend into the carbon structure, large abrasions, etc.) or if you are in any doubt about their perfect working order.
- Do not exceed the maximum overall weight for which your THM components have been approved – see **Dimensions**, page 9.

Regular maintenance

The maintenance intervals required for your bicycle depend on how often and in which weather conditions it is used.

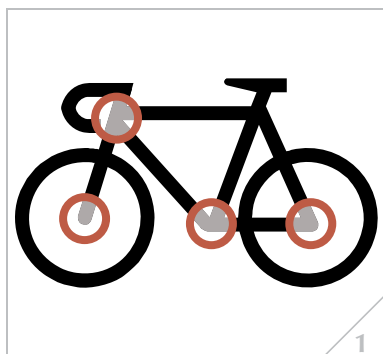
The following maintenance measures should be conducted more frequently if the bicycle is used in extreme conditions (rain, dirt, long distances etc.).

When conducting regular maintenance procedures make sure your bicycle is always clean and well protected by lubricants and cleaning agents. Ask your specialist dealer about appropriate lubricants and cleaning agents as well as information relating to their correct application.

⚠ WARNING

Risk of accident caused by malfunctioning brakes.

-After conducting any cleaning, maintenance or repair work make sure that the braking rims of your wheels are free from lubricants (such as grease, oil, silicon, Teflon, wax or other similar agents).



NOTICE

Never use a high-pressure cleaner or steam cleaner to clean your bicycle, as the seals of your bicycle components are not able to withstand the pressure. If such cleaners are used, it would result in corrosion and material damage.

If you are using a hose, handle it with care – never aim the hose directly at the bearing components (fig. 1).

- ☞ Clean your THM-components at regular intervals by using water and a non-abrasive, environmentally-friendly cleaning agent.
- ☞ When cleaning your THM components always check for signs of damage (dents, cracks, scratches, large abrasions, worn areas etc.).
- ☞ Periodically preserve the surface of your THM components using a high quality protecting wax or other similar agent.
- ☞ Periodically check the gear and brake cables to ensure they are moving freely.
- ☞ Periodically check all bolts to ensure they are firmly secure; when doing this observe the respective tightening torques.



Please contact us **before** returning a defective THM product!

If products are returned without our previous agreement, the shipping costs incurred will be charged to your account!

When returning a defective THM product to us please ensure adequate postage costs are provided. Any shipment which is not prepaid will be rejected and returned to the sender!

Materials defect liability

We provide a warranty for all THM products which covers material and processing defects.

During this period all products accepted to be defective are replaced at no cost to the user.

The liability period starts at the time the relevant THM product was purchased.

Liability does not extend to any kind of damage caused by normal wear and tear, accidents, unauthorised modifications, negligence or improper handling and use.

Liability shall expire if repair work or any other work on the THM product has been conducted by unauthorised persons.

The same shall also apply to any direct or indirect damage resulting from an action described in the preceding sentence.

Commercial goodwill

Minor damage to your THM products will be repaired by our workshop free of charge even after expiration of the legal liability period, provided that the work required does not exceed 0.5 hrs.

The decision regarding whether or not a repair is to be carried out free of charge rests solely with us. If the damage has been self-inflicted, there is no entitlement to free repair work!

In the event of self-inflicted damage please send us the product concerned for inspection. We will then assess the level of work required and either perform the repair free of charge or send you a quotation. It is then up to you to decide whether or not to go ahead with the repair work.

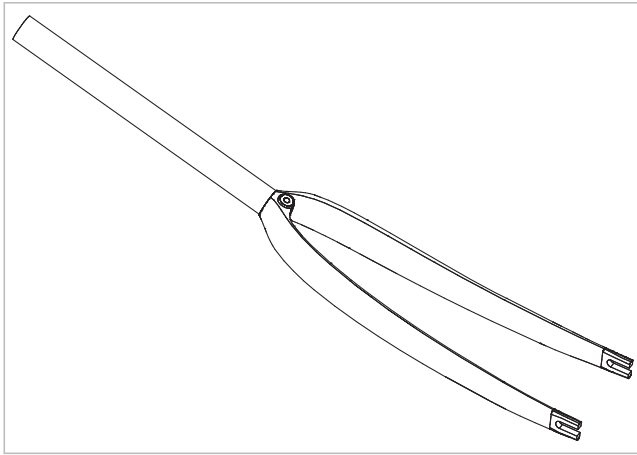
Crash Replacement

In the event of irreparable damage (e.g. caused by an accident) we will provide a 40% discount from the respective list price if you purchase a new THM product as a replacement.


The relevant claim must be forwarded directly to THM Faserverbund-Technologie GmbH. The irreparable product shall then remain our property.


The company THM Faserverbund-Technologie GmbH is constantly striving to improve product designs as technical developments continue. We therefore reserve the right to make alterations which must not correspond to the text and illustration contained in this manual, and without incurring obligation to alter any products previously delivered. Technical specifications, dimensions and weights are to be understood with the corresponding allowances.

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