

Operating and Assembly Instructions

English version 06-04-2004

*Accurate adjustment of the
handlebar height within seconds using
the integrated quick release unit*

*Adjustable range of up to 100 mm,
with safety stop (anti-theft device)*

*Safe and permanent protection of
the stem against turning*

*Individual adaptation at any time
when not in motion without
the use of any tools*

Easily adjusted by hand, safe handling

SAARLÄNDISCHER STAATSPREIS



FÜR DESIGN 2003

tested + certified
according to
DIN Plus
by Institute VeloTech

patented system



speed *lifter*®

Thank you!

You have chosen the unique Speedlifter handlebar height adjustment system constructed of forged CNC aluminum from by.schulz GmbH. The Speedlifter-System has been allocated the European patent number 0834447. Speedlifter has been tested in respect of all the newest criteria of the DIN Plus (German Industry Standard) by Ernst Brust at the VeloTech Institute. It fulfills these criteria completely and has been certified by DINCertco.

Speedlifter can therefore be recommended for city-, trekking- and racing-bikes, as well as for tandems and mountain-bikes (downhill competitions excluded – see warranty conditions). The following operating and assembly instructions contain important information for the safe operating, service and assembly of your Speedlifter-System.



We ask you to carefully read these instructions so that you fully understand how to use the Speedlifter-System and may enjoy our product to its maximum.

Chapter 1 describes the functions and the handling of the system.

Chapter 2 outlines care, inspection and service.

Chapter 3 contains the assembly instructions, which must not be read if the system is already assembled on the bicycle.

To ensure the correct functioning of your Speedlifter, the system should only be mounted in a qualified specialist workshop. Only there are the specialist tools to be found (see also Warranty Conditions) and the installation by an expert with the necessary knowledge and qualification can be guaranteed.

If Speedlifter has already been mounted on your bicycle and you still have questions concerning its function or operation after reading through these operating instructions, please contact the specialist bicycle dealer from which you obtained the product.

Further information regarding our product and practical tips can be found on the internet under the address: <http://www.speedlifter.com/>

by.schulz wishes you lots of fun with your »Speedlifter-bike«, wherever you may travel.

Speedlifter parts list

- 1 **Top cap** with Speedlifter Logo
- 2 **Alloy Shim** for 1 1/8 inch stems on the 1 inch Speedlifter shaft tube
- 3 **Rubber Seal** for the Speedlifter-Body
- 4 **Alloy Nut Bolt** for quick release adjustment
- 5 **M5 Allen bolt** with bolt lock and washer
- 6 **Speedlifter-Body**, strong aluminum, CNC finish
- 7 **Composite Sliding Washer** for operating-lever
- 8 **Speedlifter-Operating-Lever** constructed of aluminum
- 9 **Headset Adjusting Nut** slitted, CNC aluminum (key width 36 mm)
- 10 **Spacer**, aluminum (2 mm)
- 11 **Speedlifter Alloy Quill**, constructed of CNC aluminum, with stop
- 12 **Speedlifter »SimpleDraw« Tool** for a quick and easy cutline drawing (optionally included)

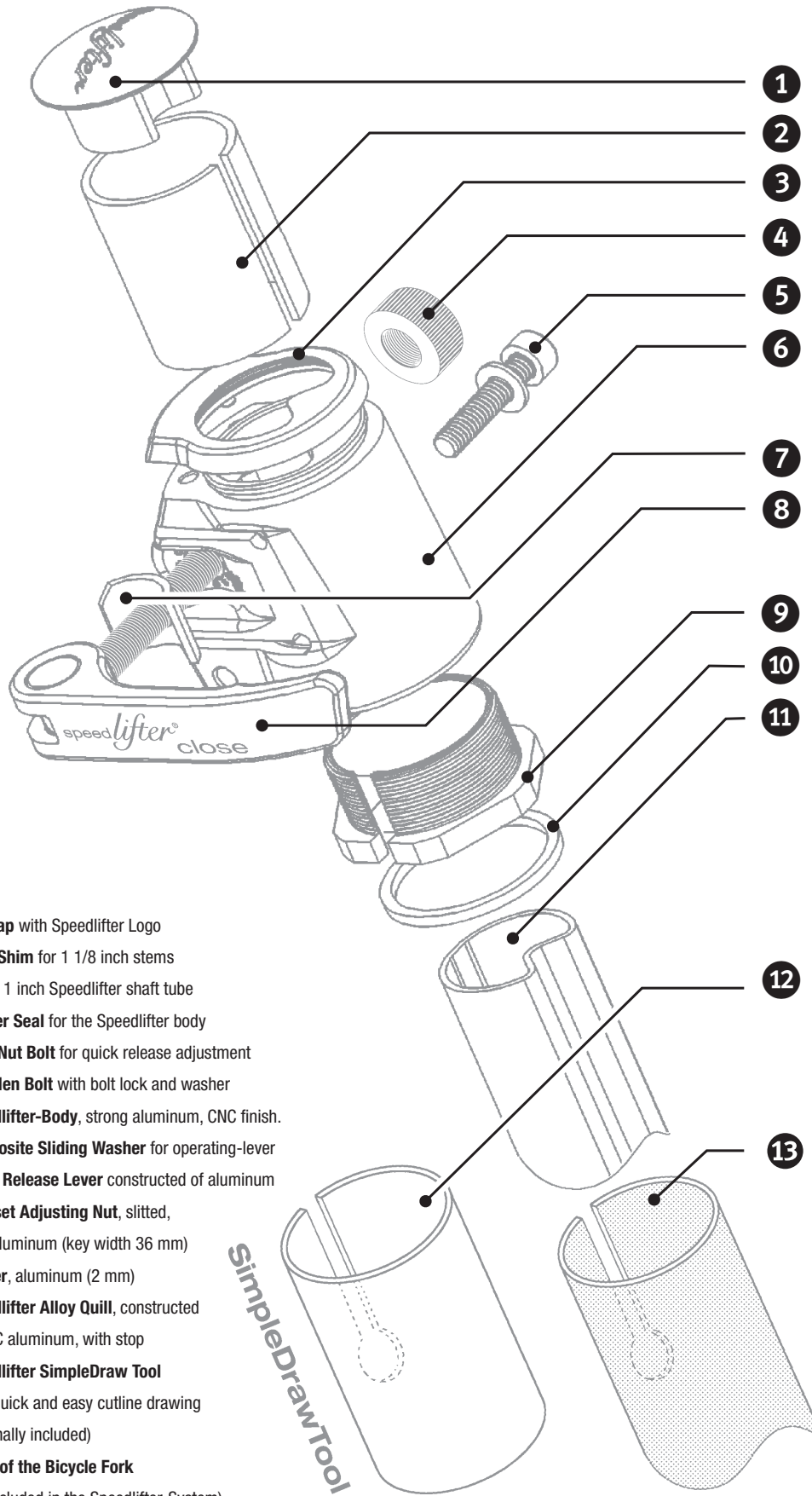
(Diagram please see following page)



Only those parts listed in the list above are included in the delivery of the Speedlifter-System. Handlebar, stem, headset, steerer 13 etc. are not included.



*The Speedlifter-System may only be installed in 1 1/8 inch diameter »A-Head«-forks with steel steerer and an inner diameter of 25.4 mm!
The system is NOT compatible to aluminum steerers!
(See also instructions on pages 11-12)*



- ❶ **Top Cap** with Speedlifter Logo
- ❷ **Alloy Shim** for 1 1/8 inch stems
on the 1 inch Speedlifter shaft tube
- ❸ **Rubber Seal** for the Speedlifter body
- ❹ **Alloy Nut Bolt** for quick release adjustment
- ❺ **M5 Allen Bolt** with bolt lock and washer
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CNC aluminum (key width 36 mm)
- ❿ **Spacer**, aluminum (2 mm)
- ⓫ **Speedlifter Alloy Quill**, constructed
of CNC aluminum, with stop
- ⓬ **Speedlifter SimpleDraw Tool**
for a quick and easy cutline drawing
(optionally included)
- ⓭ **Stear of the Bicycle Fork**
(not included in the Speedlifter-System)

Please read first

Please pay special attention to the following symbols:



Danger: This symbol indicates a possible danger for life or health if the relevant operational instructions and guidelines are not followed or if the necessary safety measures are not met.



Please Note: This symbol warns of inappropriate use that could cause damage to property and to the environment.



Advice: This symbol provides information on the handling of the product or its respective part contained in the operating instructions, to which special attention should be paid.

The above-mentioned explanations will not be repeated each time these symbols appear!

1. Operating Instructions

A special feature of Speedlifter is that the height of the handlebar may be altered within seconds and without the use of any tools.



Please check that the Speedlifter-System is functioning correctly before each journey. For your own safety, please also check all other parts of your bicycle according to the manufacturer's instructions. Only by following these steps is the perfect functioning of all parts guaranteed.

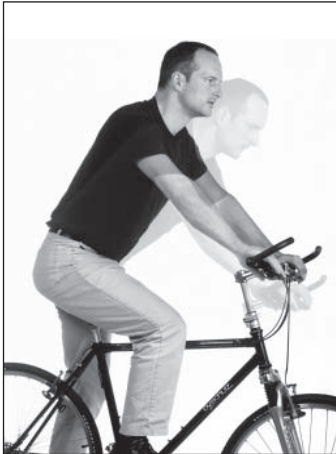


Under no circumstances should an additional weight on the handlebar, caused e.g. by a handlebar bag or basket, exceed 5 kg.



Tip: if necessary, add some grease between the Speedlifter-Operating-Lever ⑧ and the composite sliding washer ⑦ of the operating lever. The pressure needed to open and close the lever is thereby reduced.

What benefits does Speedlifter provide?



The Speedlifter-System enables you to quickly adjust your bicycle's handlebar height with little effort and without the use of tools.

It takes just seconds to switch from a relaxed, upright position to a more sportive seating position.

How to adjust the height of the handlebar...



Open the Speedlifter-Operating-Lever (quick release unit) ⑧ by hand and move the handlebar to the desired position.

Close the Speedlifter-Operating-Lever ③ completely to secure the handlebar in place.

That's it. Finished.

Important: What to always watch out for...



The Speedlifter-Operating-Lever ⑧ must always be closed tightly when in motion!

Make sure that the lever is securely closed before each journey!

Never attempt to adjust the handlebar height while in motion!

Always pull over and stop the bicycle before attempting to alter the height of the handlebar!

Risk of accident!

For safety, check the stability of the handlebar...



Using both hands, support your weight on the handlebar as shown.

Speedlifter functions correctly if the handlebar does not slide downwards when the Speedlifter-Operating-Lever is **closed**.

If the handlebar does slide downwards, the tension of the lever must be readjusted.

Adjusting the Operating-Lever tension...



Open the Speedlifter-Operating-Lever **8** completely.

Turn the alloy nut bolt **4** slightly clockwise and re-close the Speedlifter-Operating-Lever **8** completely.

Check the stability of the handlebar. If it still moves downwards, repeat the above described procedure.

If you are unable to completely close the lever, turn the M6 Allen Bolt **4** in the other direction.

(First model without alloy nut bolt see page 13)

General tips for care and maintenance



Speedlifter is robust, yet continuous care leads to more safety.

Remove any adhering dirt from the Speedlifter-System.

To do so, use only a clean cloth and water.

If necessary, add a drop of grease to the stem shaft tube. Finished.



Never open the Speedlifter-Operating-Lever **8 to adjust the height of the handlebar while in motion! Risk of accident.**

2. Maintenance and Service

Although Speedlifter is constructed carefully of the finest materials, it nevertheless requires specific maintenance and service.

- Speedlifter should be cleaned regularly to remove any adhering dirt and perspiration. Only water, with a little dishwashing liquid if necessary, should be used.
- Check that the handlebar, the stem and Speedlifter are all securely bolted together. Stand in front of the bicycle and clamp the front wheel between your knees. The Speedlifter-Operating-Lever **8** must be securely closed. Grasp the handlebar grip and try to turn the stem. The stem should not rock, twist or turn.
- With the Speedlifter-Operating-Lever **8** closed, support yourself against the handlebar to check the tightness of the fitting. The Speedlifter stem **11** should not move downwards into the steerer **13**. If the stem does move downwards, the torque of the alloy nut bolt **4** must carefully be increased with the quick release unit **8** open by turning the bolt 1/4 of a turn clockwise. Then close the Speedlifter-Operating-Lever again and re-check the tightness of the stem **11** fitting.
- Check the slackness of the headset by placing the finger of one hand around the upper headset race. With the other hand, pull the brakes and try to push the bicycle backwards and forwards. The two parts of the race should not rock against each other.
- If noticeable slackness is evident, it must be eliminated as soon as possible to prevent possible damage to the fork or the bearing. Adjustments should be made by a specialist bicycle retailer. If you wish to try this yourself, please read Chapter 3 Headset Adjustment first.



If you wish to check the bolt connections on the stem, please ensure that you use an appropriate torque wrench and follow the manufacturer's instructions.

Conditions of warranty

In the case of claims, please contact the specialist dealer from where the Speedlifter System or the bicycle fitted with Speedlifter was originally purchased. Statutory regulations apply. For the efficient processing of any claims, the original receipt is necessary. Please retain it for this eventuality.

by.schulz is only the distributor of the Speedlifter-System. The party responsible for the assembly of Speedlifter is, therefore, fully responsible for the compatibility, the condition and the quality of the assembly parts (e.g. stem, handlebar etc.).

The mounting or the new assembly of the Speedlifter-System (European patent no. 0834447/ tested and certified at Institut Velotech according to DIN PLUS (German Industry standards)) must be carried out **professionally** and with aid of the necessary »Profi-Cut« Tool **P**. When using the »Simple-Draw« Tool **12** the same care must be taken, and the same instructions given by the manufacturer apply: The assembly instructions provided by the manufacturer must be strictly followed. The specified torque must be adhered to. The assembly must be carried out precisely and with special care. The use of parts other than the originals is at your own risk.



The unconditional responsibility for personal or property damage lies with the user in the case of improper or extreme use (i.e. jumps, acrobatics, stunts or similar situations such as downhill competitions) of the Speedlifter-System. The warranty conditions of the manufacturer apply to any material or production defects on bicycles bought with an installed Speedlifter-System. Further claims do not apply. No warranty whatsoever if technical alterations have been made to the Speedlifter-System.

- The guarantee does not include personal damage or damage that occurs due to improper use, accidents or normal wear.
- The original receipt and a written description of the problem must be included in case of claims.



*Speedlifter must never be adjusted whilst on the move!
Improper use could result in accidents.*

3. Instructions for assembling a Speedlifter-System in an authorized specialist workshop, with the aid of the »Profi-Cut« Tool



*The initial assembly of the complete Speedlifter and the cutting of a slot into the head tube should be carried out either by a bicycle manufacturer or by a specialist workshop with the specialist »Profi-Cut« Tool **P**. The »SimpleDraw« Tool **12** is simply an aid in transferring the necessary steps onto the fork. It does not provide the functions of the »Profi-Cut« Tool. In the case of improper fitting, there is an acute risk of accident.*

Operating principles / Description of parts

The Speedlifter-Body **6** is constructed from strongest forged CNC aluminum and is subdivided into three parts: **A**, **B** and **C**. These perform the following functions:

The upper positive fit of the Speedlifter-Body **6** with tang **A** is secured against twisting by a grooved and molded Speedlifter Alloy Quill **11** and acts as a safety stop (and at the same time as an anti-theft device) to prevent the maximum height of the handlebar from being exceeded.

When the Quick Release Unit reads »close«, the middle part **B** of the Speedlifter-Body **6** tightly clamps the molded Speedlifter Alloy Quill inside the head tube. When the Quick Release Unit is in the position "open", the Alloy Quill **11**, and along with it the handlebar, allow height adjustment. Depending

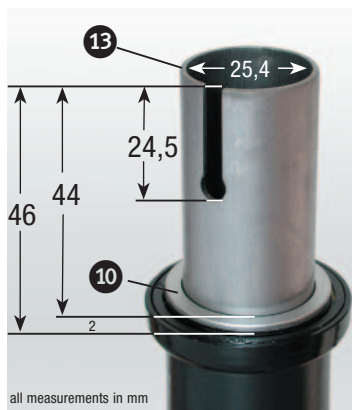
on use, it may be necessary to shorten the Speedlifter Alloy Quill and thereby vary the height between 50 mm and 100 mm as required. **The process of shortening the Speedlifter Alloy Quill is described in detail on pages 21 and 22.**



The lower part **C** of the Speedlifter-Body **6** and the slitted adjustment ring **9** are fixed to the unslitted part of the head tube with an M5 Allen bolt **5**. The screwed-in, slitted adjustment ring **9** is used to position the headset.

Assembly pre-requisites

To assemble Speedlifter, the bicycle needs to be equipped with a threadless fork with a steel steerer and 1 1/8 inch diameter (28.6 mm) (with an inner diameter of 25.4 mm). Furthermore, the steerer **13** of assembled forks should project out at least 46 mm over the headset. Speedlifter's minimum assembly measurements are 44 mm plus a 2 mm spacer **10**. Longer projections must, in any case, be trimmed to the appropriate length and the cutting edges deburred. The overall height of Speedlifter is 52 mm. On this basis, the stem / handlebar, can be continually adjusted between 50 and 100 mm, dependent on the Speedlifter Alloy Quill **11**.

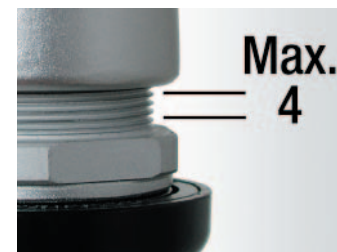


There should be a longitudinal slot in the projecting headtube **13** in a backwards facing direction. The longitudinal slot (24.5 mm long) that ends as a drill hole, terminates at the cross cut between the middle **B** and lower **C** part of the Speedlifter-Body **6** (see Chapter 4 Trimming and Cutting a Slot in the Headtube).

Only an »A-Head« stem can be built onto Speedlifter's Alloy Quill **11** (Option: adjustable angle). In any case, the stem length may not exceed 150 mm or an angle of 15°.

The stem should be constructed of aluminum and the clamping device (binder bolt and slot) must be positioned at the rear.

After adjusting the headset, a maximum of four (4) threads may be showing on the adjustment ring **9**. The maximum height of the spacers **10** used must not exceed 6 mm!



For the assembly of Speedlifter, the bicycle needs to be equipped with a threadless 1 1/8 inch steel fork (with an inner diameter of 1" = 25.4 mm.)

Please note: The Speedlifter System is NOT compatible to aluminum steerers!





The party assembling the Speedlifter-System must ensure that the handlebar and stem are compatible and in good condition, e.g. that the stems are deburred!

The brake and gear cables must be of a correct length so that they are free from kinks and in no way obstruct the headset when in the highest possible handlebar position. If this is not the case, they must be re-fitted.



Do not alter any of the parts of the Speedlifter-System. Only the original grooved Speedlifter Alloy Quill 11 with adjusted stop can be used. (Shortening no more than 50 mm suggested – see pages 21-22). Alterations and the use of foreign parts can lead to a malfunction of the construction.

Assembly

Shorten the 1 1/8" steel tube (inner diameter 25.4 mm) of the bicycle fork to project 46 mm out over the »A-Headset«. Please note the detailed instructions regarding this in Chapter 4 – Trimming and Cutting a Slot in the Steerer with the Speedlifter »Profi-Cut« Tool. 44 mm of the steerer length of the upper edge of the headset are required for the Speedlifter-Body 6 and 2 mm for the standard spacer 10. If a wider spacer is used, the measurements should be altered accordingly.



The maximum height of the spacer 10 must not exceed 6 mm.

- To fix the headset, turn the adjustment ring 9 in the lower part of the wedge completely (greased thread).
- Push the 2 mm spacer 10, included in the delivery pack, over the already slitted and shortened, projecting steerer 13, level with the assembled headset.
- Guide the molded Speedlifter Alloy Quill 11 with the sloping end that is showing, through the lower part C of the Speedlifter-Body 6, downwards.



Push the Speedlifter Alloy Quill 11 upwards to the adjusted stop A.

- Make sure that the seal 3 of the Speedlifter-Body 6 remains in position during this procedure.
- Guide the **greased**, sloping end of the Speedlifter Alloy Quill 11 into the slitted head tube. When viewed in the direction of travel, the **longitudinal**, slitted section of the Speedlifter-Body **should be positioned at the rear**.



For shorter frame heights it may be necessary to shorten the Alloy Quill 11 in the case that it should be fully inserted into the fork shaft 13.

When in the lowest handlebar position, the Speedlifter Alloy Quill 11 should under no circumstances protrude over the crown of the fork. Shortening the Speedlifter Alloy Quill 11 see pages 21 and 22.

- Push the Speedlifter-Body 6 far enough onto the projecting steerer 13, until the groove in the upper part of the body meets the end of the steerer. The gap in the Speedlifter-Body (in section B) should lie over the longitudinal section of the steerer. To finely adjust Speedlifter, line up the gap and the front wheel level to the upper tube.
- Close the operating lever 8 by hand. The handlebar stem 11 will be wedged in the slitted steerer 13 with the wedging force.
- Adjust the quick release unit 8 so that when in a closed position, the lever points in the direction of travel, parallel to the front wheel and »close« is visible.
- Push the grease-free stem onto the Speedlifter Alloy Quill 11 until it is level with the top. Now fix the »A-Head« stem provisionally onto the protruding end of the Speedlifter Alloy Quill. Later, the stem will be aligned accurately and the bolts tightened to the stem manufacturer's specified torque.
- If you wish to fit a stem with a 1 1/8" clamping device, you must use the aluminum barrel 2 delivered in the pack.
- Turn the adjustment bolt 4 with the operating-lever 8 open clockwise just until the operating-lever may still be closed by hand. Now check the stability of the handlebar as described on page 8. Should the handlebar slide downwards under pressure, this adjustment process must be repeated. *For older Speedlifter models without adjustment bolt, the M6 Allen Bolt 4 must be tightened with the operating-lever closed using a torque wrench (Torque 5-6 + 0.5 Nm).*
- Lightly loosen the bolts on the rear of the stem and point the stem straight in the direction of travel. (Reminder: only »A-Head« stems with a clamping device at the rear – when viewed in the direction of travel – can be combined with the Speedlifter-System.)
- Turn the bolts tightly to the stem manufacturer's specified torque.



Torque M5 Allen Bolt 5

4 + 0.5 Nm



Older Speedlifter models without adjustment bolt:

Torque M6 Allen Bolt 4

5-6 + 0.5 Nm

- Cover the top of the stem and the Speedlifter Alloy Quill 11 with the covering cap provided 1.

Adjusting the headset and securing the Speedlifter-Body onto the steerer.



- Loosen the adjustment bolt M5 (5) with a 4 mm Allen key. The operating-lever (8) remains closed.
- Turn the adjustment ring SW 36 (9) carefully and in small increments with the aid of a 36 mm spanner (see picture).

By turning the adjustment ring (9) clockwise (viewed from above) the bearing is tightened.

By turning anti-clockwise, the bearing is loosened.

- Adjust the bearing appropriately, without slackness (see Chapter 2). Ensure that the front wheel can turn freely from right to left without any noticeable resistance.



After adjusting the headset, a maximum of four (4) threads may be showing on the adjustment ring (9).



- If more than four threads are showing, additional spacers should be used to correct this difference. The maximum height of the spacers (10) must not exceed 6 mm!
- If necessary, start again with the basic position for the adjustment ring (9), as described in Section 3.
- Clamp the lower area (C) of the Speedlifter-Body tightly to the unslitted side of the steerer (13) above the adjustment ring (9) using a 5 mm Allen bolt (5) by turning in a clockwise direction. The torque of the M5 bolt (5) should be 4 + 0.5 Nm.

With these steps, the permanent mounting and adjustment of the bearing is guaranteed. At the same time, the Speedlifter-Body (6) is fixed firmly on the steerer (13). The bearing slackness and the slight movement of the headset remain unaffected by future height adjustment of the handlebar.

- Now check to see that Speedlifter functions properly. Loosen the Speedlifter-Operating-Lever (8), push the stem up and down and close the quick release unit again. With the quick release unit closed, support yourself against the handlebar to check the tightness of the fitting. The Speedlifter stem (11) should not move downwards into the steerer (13). If it does move downwards, re-check the torque of the screws as described on **page 7**.

- Check to see if the brake and gear cables are long enough. Please ensure that they are free of kinks in the highest handlebar position. If this is not the case, the cables must be adjusted or re-fitted. Please take care to follow the manufacturer's instructions.
- Please ensure that the handlebar as well as the front wheel are able to move freely from right to left.

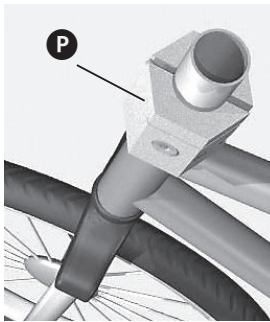


The bearing slackness should be checked regularly and professionally adjusted as necessary. In the event that the Allen Bolt ⑤ is loosened, this can be corrected with medium strength bolt lock (e.g. blue Loctite®). Please make sure to also refer to the bicycle manufacturer's instructions.



Tip: if necessary, add some grease between the Speedlifter-Operating-Lever ⑧ and the composite sliding washer ⑦ of the operating lever. The pressure needed to open and close the lever is thereby reduced.

4. Trimming and cutting a slot into the steerer with the Speedlifter »Profi-Cut« Tool.



by.schulz has developed a special tool to trim and cut a slot into a conventional bicycle fork with a 1 1/8 inch »A-Head« steel tube. This »Profi-Cut« Tool **P** is constructed of hardened tool steel and serves also as an assembly tool, saw and drill device.

You can slit the steerer **13** of your »A-Head« fork with 1 1/8 inch steel tube (inner diameter 25.4 mm), preferably in an assembled state, although also possible in an unassembled state, with the »Profi-Cut« Tool **P**. The following is a description of how to cut a slot into the steerer with the fork built into the bicycle frame.



For the assembly of Speedlifter, the »A-Head« steel steerer tube of the fork must be sawn off at a height of 46 mm over the headset with the aid of the »Profi-Cut« Tool **P. Take care that the 2 mm spacer **10** included in the delivery is used **below** the tool **P** so that the steerer **13** may be shortened through the horizontal slit of the tool at an exact height of 46 mm. **Important:** The slot ending in the 6 mm drill hole in the steerer must lie centered at the back when viewed in the direction of travel.**



The trimming and cutting of a slot in the steerer should only be carried out in a specialist workshop, where the necessary specialist »Profi-Cut« Tool is available. With improper use there is a risk of accident!



The assembly must be carried out professionally using the necessary tools. If the purchaser decides to assemble the Speedlifter-System on his or her own, he or she carries the full risks of damage associated with a potentially incorrect assembly. We therefore strongly recommend that the assembly be carried out by your specialized bicycle dealer.

The procedure for trimming and cutting a slot with the »Profi-Cut« Tool:

We recommend that the bicycle stands on the workshop floor in a rear section stand to hold it securely during the entire process.

Measure the length of the projection of the head tube whilst the fork is assembled in the frame. A minimum of 46 mm should project from the upper edge of the headset to the end of the steerer.



If a stem and »A-Head« clamp have not yet been assembled on the bicycle, you may disregard both of the following steps!

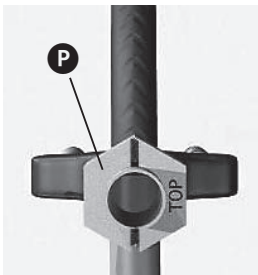
- Unscrew the existing »A-Head« cap, where applicable. Using a hammer, drive the »A-Head« clamp down through the head tube with the help of a cylindrical bar. The stem should be secured so that no pressure is exerted on the headset bearing!

Please note: In the event that the »A-Head« clamp cannot be driven downward easily due to a butted steerer near the head of the fork, for example, this must be pushed out upwards.

- Loosen the stem and remove all spacers. If you have suspended the bicycle, hold the fork securely.



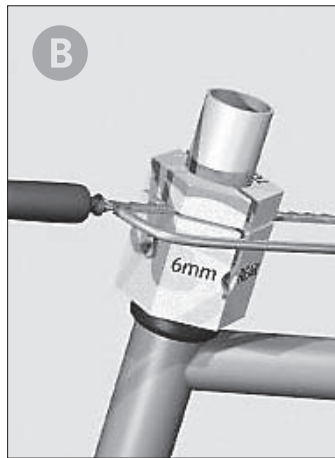
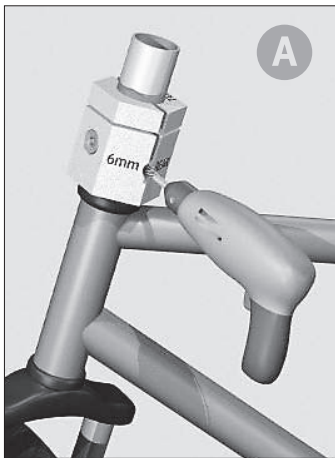
Assemble the supplied 2 mm spacer 10 underneath the »Profi-Cut« Tool. (The maximum height of all spacers together may not exceed 6 mm).



- Align the front wheel exactly with the frame.
- Place the »Profi-Cut« Tool P on the steerer 13. Please ensure that »top« is showing on the upper side of the tool. Align the tool so that when viewed from the direction of travel, the 6 mm drill hole in the longitudinal section is positioned to the rear and an imaginary middle line of the longitudinal section is aligned exactly with the direction of travel. Fix the tool to the steerer gently using the integrated Allen Bolt (6 mm).



Tip: Prior to the drilling and cutting of the slot, place a cloth around the area of the headset and around the front part of the bike. This will keep sawdust and other particles out of easily damaged areas



A Using a hand drill and the supplied 6 mm HSS metal drill bit, drill a hole into the steerer with the aid of the drill guide provided with the »Profi-Cut« Tool.

Advice: The special extra short drill bit prevents accidental damage of the inner wall of the steerer.

B Saw the steerer **13** through the horizontal slit in the tool to the required length using a hack saw (metal saw). Remove the sawn off tube end from the tool from above.

C Using the metal saw, saw at a slant from above, once along the left and once along the right edge of the vertical saw guide marking in the »Profi-Cut« Tool. There should now be an approx. 4 mm wide, parallel longitudinal slit in the steerer, that ends at the 6 mm drill hole.

- Now loosen the binder bolt and remove the tool from the steerer **13**.
- D** Using a half-rounded file, carefully deburr the cut and the drill hole on the steerer **13** inside and out.
- Remove the cloth and any accumulated sawdust.
- Now you can mount Speedlifter as described in Part 3 of the operating instructions.

The following section describes the use of the »SimpleDraw« Tool...

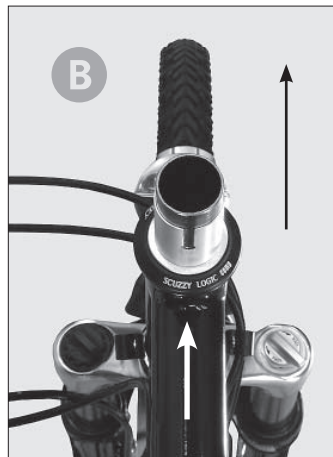
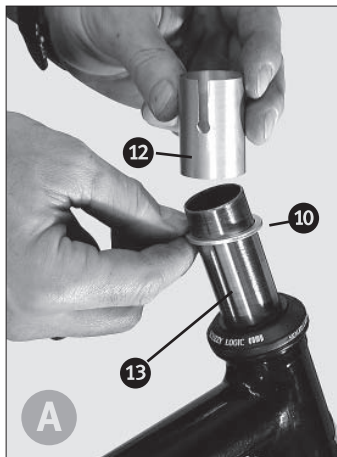
Sketching drill- and slit marks onto the steerer using the »SimpleDraw« Tool

The »Profi-Cut« Tool **P** is constructed of steel and may be used as an assembly-, sawing- and drilling-device simultaneously. The Speedlifter-System may also be assembled without the use of this tool. This chapter describes the use of the »SimpleDraw« Tool.



*The »SimpleDraw« Tool **12** is a stencil which may be used to accurately mark drill- and slit-areas. Sawing and drilling freehanded on the basis of these marks is a procedure requiring experience! A delicate and skilled handling of the tools is necessary. The »SimpleDraw« Tool does NOT provide the safe and precise guidance that the »Profi-Cut« Tool does and is NOT intended to replace it. It should only be used to draw marks and for a visual control of the handling.*

We exclusively recommend the »Profi-Cut« Tool for work on the steerer.



- Loosen the stem and remove all spacers (A-Head fork is removed). If you have suspended the bicycle, hold the fork securely so that it cannot slide downwards.

A First attach the included 2 mm Spacer **10** under the »SimpleDraw« Tool **12**.

Now rest the »SimpleDraw« Tool on the steerer **13** over the spacer.

B Align the tool so that its slit is positioned to the rear and an imaginary middle line of the longitudinal section is aligned exactly with the direction of travel.



C First draw the upper slit-mark using a suitable marker. Be sure to draw exactly along the metal rim of the tool.

D Remember to hold the tool in place with your free hand while making the necessary marks to avoid it from slipping. Then draw the vertical slit-marks.



E You now have a neat contour of the slit- and the drill-marks in the lower section. Now, drill and saw within and along this contour line **according to the instructions given on page 17**:

- Before drilling and slitting, wrap a cloth around the area of the headset and the front part of the bicycle. This way, these sensitive parts can be kept free of sawdust and debris from drilling.
- **Before sawing, be sure to re-check if the marks made are correct (compare measurements page 11) and if the slit is correctly aligned as described under **B** on the previous page.**

- **Drill** a hole in the steerer on the marked rounded contour using a hand drill and the supplied 6 mm HSS metal drill bit. Mark the area to be drilled with a center punch to guide the drill bit. Drill slowly and take care not to damage the inner part of the steerer in which the alloy quill **11** must be able to move freely.
- **Then saw** the steerer **13** off **horizontally** along the marked line using a metal-saw.
- **Now saw** diagonally from the top **once along the left** and **once along the right** marking (saw direction as shown on page 17). A parallel slit about 4 mm wide and ending in the 6 mm drill hole results in the steerer
- **Carefully deburr** the cut and the drill hole on the steerer **13** inside and out using a half-rounded file (as shown on page 17).
- Remove the cloth and any accumulated sawdust.
- Now you can mount Speedlifter as described in Part 3 of the operating instructions.

Shortening the Speedlifter-Alloy-Quill to lower heights

Before being shortened, the Speedlifter Alloy Quill ⑪ has a standard total length of **225 mm**, which corresponds to a maximum height extension of 100 mm upwards. This Alloy Quill ⑪ may be shortened by a **maximum of 50 mm*** if necessary (also see pictures next page).



All work on safety-relevant parts like the alloy quill are a job for experienced persons and requires a delicate and skilled handling of the tools! We recommend that such work be carried out by a professional bicycle dealer of your choice.

If the Speedlifter-System is not yet installed in the bicycle, **shorten the alloy quill ⑪** to the desired length **with a horizontal slit in the upper part**. Follow these instructions to do so:

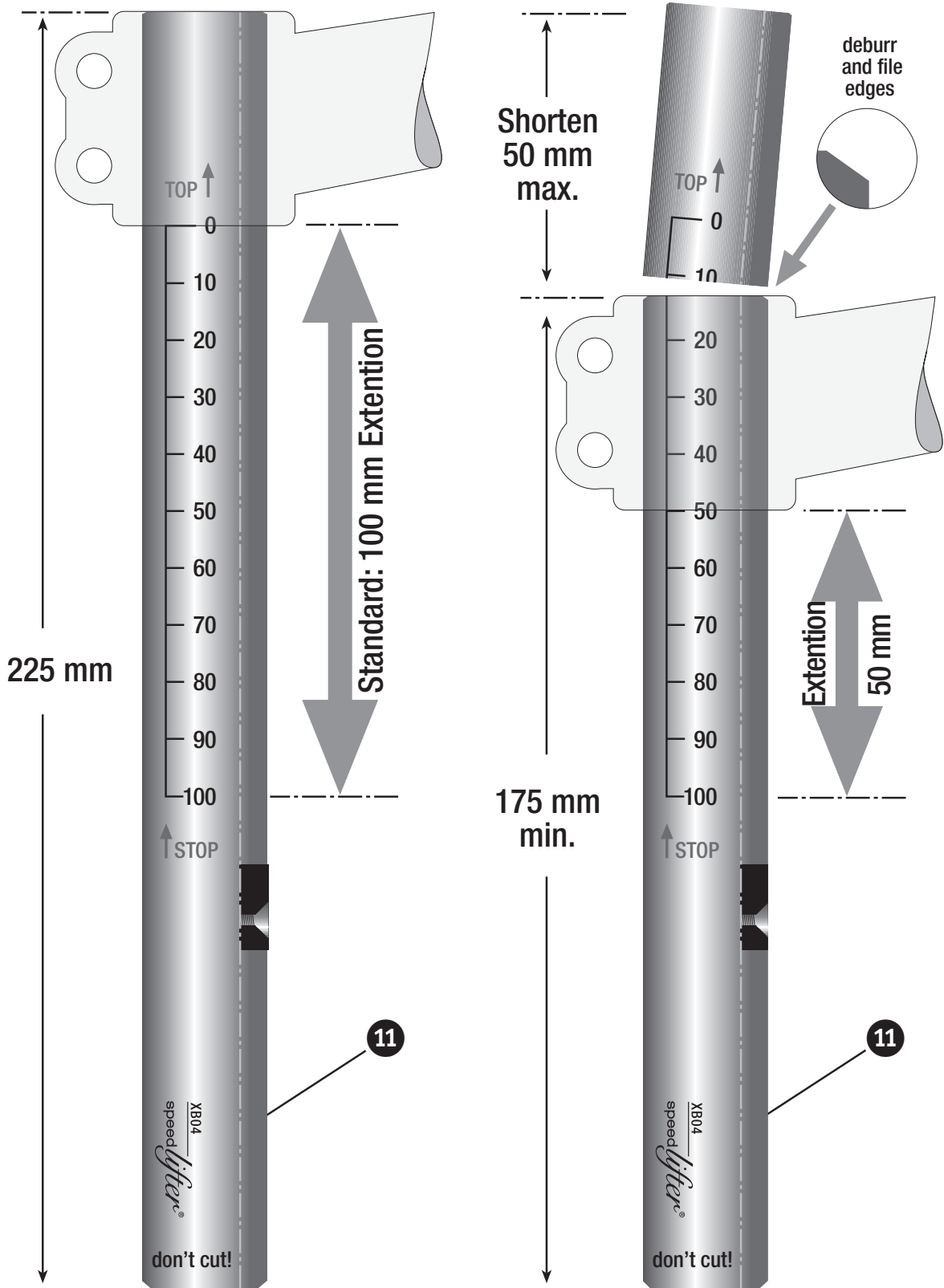
- Draw or etch the slit-marking onto the upper section of the Speedlifter-Alloy-Quill ⑪. This mark should **not be made below the marking 10** of the printed scale, **but on or above this marking 10**.



*By sawing on the marking 10 the Speedlifter-Alloy-Quill ⑪ is shortened from 225 mm to the minimum measurement of 175 mm total length, which corresponds to a maximum extension of 50 mm upwards. Shortening the Speedlifter-Alloy-Quill by more than 50 mm is not recommended. It may **NOT** be shortened in the lower part! (printed: don't cut)*

- **Span** the unfitted/removed Alloy Quill ⑪ into a vice. Take care not to damage or exert too much pressure on the aluminum tube.
Tip: with the help of the »Profi-Cut« Tool P and the alloy shim ②, the tube ⑪ is protected and a precise slit-guidance is provided.
- **Saw** off the desired part of the upper section of the alloy quill ⑪ using a metal saw (see page 22).
- **Carefully deburr the cut inside and out** using a half-rounded file. Take care to keep the Alloy Quill **free from sawdust**.

**Note: Please note that the high-quality forged CNC-aluminum tubes ⑪ of the first generation Speedlifter may not be shortened in the described manner since the covering cap may then not be reattached. These quills may be recognized by the missing inscription and by their massive core of the quill.*





The tools should be cleaned after each use. To prevent corrosion, the tools should be oiled regularly.



If Speedlifter is dismantled, the »A-Head« stem must not be mounted directly onto the slitted steerer. It will be necessary to insert an »A-Head« clamp (approx. 5 cm from the upper edge of the steerer) and to use by.schulz's special re-assembly head. The head should be mounted in the slitted area with an »A-Head« cap using an extra long Allen bolt M6. Further information can be obtained from your specialist retailer.



An excellent diagrammatic representation of the assembly is presented in film format on the Speedlifter CD and on our website at <http://www.speedlifter.com>. If you have access to a computer (with internet access or CD-ROM drive), we recommend the viewing of this as a supplement.

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