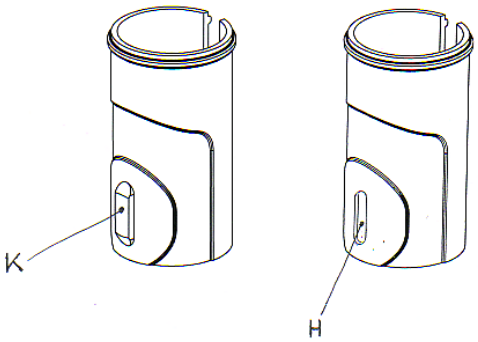
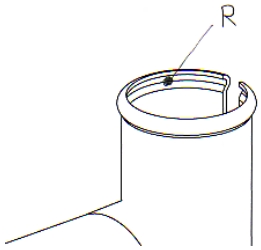
Jan-12

REPLACING SEAT SLEEVES, STANDARD & TELESCOPIC.

Standard seat sleeve replacement



On bicycles shipped after October 2002, a new sleeve, with an upstanding key, "K", is fitted. Two sleeves are supplied with this kit, one with the key, and one where the upstanding key has been removed (there is a hole "H" where it was): one or other will be appropriate for the bike in question. If the bike has a serial number greater than 0211 011000 (on a label on the back of the frame-tube in which the seat sleeve is fitted), then, almost certainly, you should use the new type (with the upstanding key) as the replacement.



Prise out the existing sleeve. When you have removed the sleeve, you will be able to see whether there is a slot cut in the forward wall of the frame tube in which the sleeve sits: if this slot is present, then use the sleeve with the upstanding key as the replacement.

Remove **all** traces of the glue originally used from the inside of the frame tube. With the earlier sleeves, glue is spread all over the outer surface of the sleeve. On a new type, there is a strip of glue round the bead at the top, and a light strip of glue around the base. If you fail to remove the original glue, this may cause the new sleeve to sit proud of the bore of the frame tube, so that the sleeve is then a tight fit on the seat pillar (and awkward filing of the seat sleeve would be needed).

The replacement sleeve should be fitted using a suitable glue: a cyanoacrylate glue (cf. Superglue - preferably 'rubberised') is recommended, and this is available from Brompton. Take care when using cyanoacrylate glue, as it sets quickly and can glue fingers together. DO NOT USE AN EXCESS OF GLUE (especially each side of the slot or at the bottom of the sleeve), as otherwise this may be squeezed out onto the seat pillar.

Before glueing the sleeve in place, it is well worth having a dry-run. Follow steps 3 and 4, below (and for a sleeve with the upstand, step 5a). Next feed the seat pillar into the sleeve, and work it from side to side (to get the sleeve to settle outwards against the bore of the frame tube). Now try sliding the seat pillar up and down. If the action is stiff, then it is likely that the cause is deposits of the original glue still in place (possibly in the bead "R"), or other "high-spots": these must be filed away. To remove the seat sleeve in preparation for fitting it permanently, feed in the seat pillar, upside-down, from below, and, with the flared lower end abutting the base of the sleeve, tap lightly with the seat pillar till the sleeve pops out.

Permanent fitting of the new sleeve:

1. The top of the frame tube is formed into a bead, and a generous strip of glue should be laid into this bead at "R", all round. Also, for a sleeve without the upstand, apply a smear of glue further down the bore of the frame tube, to a depth of say 25mm from the top.
2. Also apply glue around the lower part of the outside of the seat sleeve (some of this will be wiped "upwards" during fitting, but it will still help). Any glue applied must be smeared "thin", otherwise it will pick up around the top of the frame tube as you insert the sleeve.
    a. If the replacement sleeve does not have the upstand, then apply glue around the outside of the sleeve extending say 25mm up from the bottom.
    b. If the replacement sleeve does have the upstand, then a single light strip of glue all round, about 3-5mm from the bottom, is all that is needed.
3. Fitting the sleeve.
    a. Hold the sleeve just above the middle (where there should be no glue), squeeze it so that the slot closes up, and feed it into the frame tube as far as you can before letting go.
    b. Push the sleeve right home, finally squeezing the top together so that the projecting bead around the top engages inside the formed-out top end of the frame tube.

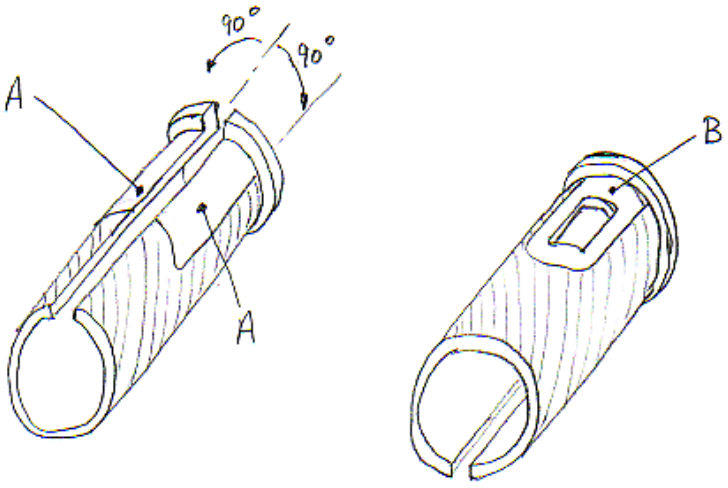
4. It is important now to act quickly (before the glue starts to set):
    a. If the sleeve has an upstand, make sure that this falls (or clicks) into the slot in the frame tube: it may be necessary to rotate the sleeve slightly to allow engagement. If the sleeve doesn't have an upstand, then make sure that the slot in the sleeve aligns with the rear slot in the frame tube.
    b. Now put the seat pillar in place, and "work" it from side to side and around in order to settle the sleeve outwards against the bore of the frame tube.
    c. Next, with the seat pillar still in place, do up the quick release, but at this stage (while the glue sets) the clamping action should be light.
5. After allowing time for the glue to set, adjust the seat-clamp quick release so that the action is firm on doing it up, as for normal use.
6. Check that the seat pillar moves up and down freely. If it doesn't, leave it for a while, with the clamp done up. You may find that the pillar becomes more free as the plastic and glue "settle" into place under pressure.
7. If the seat pillar remains stiff, then some judicious filing of the high spots of the sleeve will be needed. Take care, as if you remove too much material, the clamping action can be undermined, so that the seat pillar slips down in use. If this does occur, a tighter action for the quick release may help, but do not overtighten the quick release as the frame can be damaged.

Telescopic seat sleeve replacement

Remove the old sleeve and all traces of glue. Insert the new sleeve without glue, and check that the upper part of the seat pillar is free to slide up and down. If it is not, the cause will almost certainly be some remaining glue, which needs to filed out.

To fit the new sleeve permanently, use cyanoacrylate glue (take care when using cyanoacrylate glue, as it sets quickly and can glue fingers together). Now this should be present on the sleeve once it is fitted on the shaded area only, avoiding glue at A (an area extending approx 90 degrees either side of the slot and just over halfway down its length) and B (around the key hole).

However, it is not practical to apply glue to the upper half of the sleeve, as you need to hold this while you are inserting the sleeve, springing the sleeve together so that the slot closes up. So,



    a. apply glue to the top 30mm of the bore of the seat tube, corresponding to the pattern called for on the sleeve, i.e. don't apply any glue too near to the punched hole (where the "key" goes) and don't apply any glue between the three slots, and
    b. apply glue to the outside of the sleeve at its lower end, all round, extending approximately 15mm up: make sure that the glue is spread well, with no high spots.
    c. Fitting the sleeve: first, with your fingers clear of the glue (!) hold the top (unglued) half of the sleeve, squeezing it together so the slot closes up and insert the sleeve into main tube with the slots approximately aligned, and push it in as far as you can before releasing it. Next, still squeezing the sleeve (at least at the top end) push it home till the bead on the sleeve abutts the top of the steel tube. Now twist the sleeve to and fro slightly to smear the glue. Finally move to the right position so that the key holes in sleeve and tube are aligned: the alignment **must** be right so that the key can be inserted later. From now on, avoid delay as the glue will be setting.
    d. Wipe off any excess glue.
    e. With the lever undone, position the clamp band - but do NOT insert the key for the time being (in case it gets locked in with excess glue). Insert the top tube and do up the quick release, set at this stage to give a relatively light clamping action while the glue sets.

After say 15 minutes, remove the top tube and fit the key to secure the clamp band properly in place, and reset the quick-release to give the appropriate clamping force.