

## **Assembly manual for 3-piece BBS rims**

### **Safety regulations:**

Only use original BBS parts which are enclosed.

Only use original new BBS screw sets.

It is prohibited to use stainless steel screws, galvanized screws or titanium screws, because these screws are not strong enough.

### **Tools:**

Drilling machine with rotating steel brush or plastic disks. Cylinder press with adhesive-sealer *Sikaflex 221 black* or *Teroson MS 939 black*. 2 pcs. separate screws M6 about 35-40 mm long. Screwdriver with T-grip, hex SW5, about 180 long.

Machinist's hammer about 500 grams. Screw driver with T-grip SW 10, about 180 long or cordless drill/driver with compatible socket head. Torque wrench which can be set at 15-16 Nm. Wrench with grip SW 14. Plastic spatula with about 20 mm radius (only with rims which have a deep rim base).

### **Preparations:**

Grind set-up surfaces of both rim halves with a rotating steel brush or plastic disks as far as the radius. Check whether the outer part is equipped with an air vent. Also check whether the centre of the rim still fits in the inner part after painting and whether the set-up surfaces of the rim parts are not painted too thickly.

With outer parts of size 2 x 13 the centre of the rim should be provided with a notch for the valve. Put some cleaning rags and a glove ready.

### **Assembly 13" rims with deep rim base**

The assembly of rims with deep rim base always goes together with assembly of the tires. If the tires are changed, the rims must be removed as well.

#### **Always use original BBS screw sets!**

1. Bulges on the tires should be rubbed with tire assembly paste (according the prescriptions of the tire manufacturer)
2. Set aluminium valve in the outer rim part and tighten the nuts firmly.
3. Put the inner rim part on the work table with the screw surface at the top.
4. Fix the plastic sealing rings with 2 separate screws and try to leave the screws out as far as possible. Grooves should be filled with adhesive-sealer. The rubber ring should be pushed in by means of rubbing (use the glove). With that, avoid the sealing ring to become longer. If it has become longer, then rub it the other way until the sealing ring fits in the groove. Apply amply sufficient adhesive-sealer on the sealing rings and the outer parts. Remove the fixing screws. Carefully turn the sealing ring and push it gently on the inner rim part until it fits. Set the second rubber ring as described above without fixing screws and apply adhesive-sealer.
5. Push the tire carefully as far as possible on the inner rim part. Take notice of the running of the tires.
6. Put the outer rim part and rim centre in the tire. Centre with two screws which are long enough, with the sealing ring and the inner rim part. For centring you also need two long 5 mm hex T-grip wrenches.
7. While screwing it together, no adhesive-sealer should get on the screw thread underneath the disks and nuts. That is why we recommend the use of an aid set

- of screws. Place one screw. Push the wheel over the sides of the work table until you can set a disk and nut. At the same time push down the screws with the hex T-grip. Set a second screw in the same way at the opposite side. Set the rest of the screws with the hex T-grip and drive them by tapping lightly. Turn the wheel. Put the disks down with the roundest side below and apply the nuts. Four nuts crosswise, the rest of them in a row, tighten at about 10-12 Nm. If you mark the first nut in the inner rim part, it will make your work easier.
8. Let the wheel dry during 1 night (at least 12 hours). Do not wipe off adhesive-sealer which has run between the rim parts and the sealing ring at the inner rim part, but cut it off when it has set.
  9. Remove the aid set of screws and replace them by definitive screws. Tighten them firmly (about 10 Nm). Each second screw should be removed and replaced, so do not remove and replace all 16 screws at once. If you are working with a 32-screw rim you can remove 16 screws at the same time.
  10. Tighten all nuts in two turns at 15-16 Nm with a torque wrench.
  11. Pump up the tires (max. 3-4 bar). Test fitting of the tires and reduce them to normal pressure directly.

### **Disassembly 13" rims with deep rim base**

1. Reduce pressure till 1.5 bar.
2. Unscrew all bolts about 1 turn. With that the sticking should come loose by itself. If necessary increase the pressure till 2 bar. If the sticking then does not come loose by itself lightly tap a thin blade between one rim part and the sealing ring.
3. Push the tires carefully from both sides into the rim. If possible, a modern assembly machine should be used for this which pushes down the tires in a rolling way.
4. Remove the nuts and disks and remove the screws. While doing this hold the rim centre to prevent it from falling and getting damaged.