



VPP bearing replacement with crush tube

Version 1.2

Bearing replacement kit contents:

4 maxtype bearings, 2 crush tubes, 1 press bolt, 1 press nut, 2 press washers.

Tools needed:

19mm box wrench, 10mm allen wrench, 5 mm allen wrench, 2mm allen wrench,
Torque wrench, 1/2" or 3/8" socket to 5mm allen wrench, Screw driver with 1/2 wide tip, Mallet.

Misc:

Blue Threadlock, Degreaser



(picture of assembled link)

- 1) Remove rear wheel and remove right crank arm
- 2) Loosen the small 2mm set screws with a 2mm allen wrench from the top and bottom of the main pivot link.
- 3) Loosen both anodized aluminum main pivot bolts with a 5mm allen wrench.
- 4) Remove lower pivot bolt, and pull the rear out of the box link. Be sure to catch the two aluminum washers. The pivot bolt will have a thin stainless steel washer near the head.
- 5) Remove upper pivot bolt. Be sure to catch the two washers. Make sure thin Stainless washer is on pivot bolt.
- 6) Remove the box link.
- 7) From the non-drive side of the bike, using the large 1/2" tip screwdriver insert through the bearing center so that the tip is against the opposite side or drive side bearing.



(picture of screwdriver inserted through bearing)

- 8) Using the mallet carefully tap the opposite side bearing out of its race.
- 9) Using this procedure carefully remove all lower pivot area bearings, in the frame. Use the same procedure to remove bearings for the rear triangle, however you must stabilize the rear, it should be pressed up against a firm surface so that when you tap out the bearings you are not putting sideways movement into the rear.
- 10) Discard old bearings
- 11) **Clean all remaining parts with degreaser pay special attention to the threaded surface of the pivot bolts, and threads in the box link. All grease must be removed from threaded surfaces or loctite will not work.**

12) Install thin spacer on pivot bolts, apply blue loctite to threads of pivot bolts. Set aside.



(picture of pivot bolt with spacer, grease and loctite)

13) Check your bearing locations on the mainframe and rear triangle for cleanliness. You are now ready to install the crush tubes.

14) Assemble the bearing press in the bottom bracket as pictured.



(picture of assembled bearing press, bolt, washer, bearing, & crush tube)

15) Insert press through bottom bracket pivot.

16) The bolt threads will be visible from the opposite side of the frame. Install bearing, then washer, then nut.



(picture of bolt with bearing, washer and nut)

17) You are now ready to press the bearings in place. Begin to tighten by hand the nut until the bearings have contacted the bearing race surface. Check that they are visually lined up straight.



(picture of press assembled and finger tight on bottom bracket)

18) Using the 19mm box wrench and 10mm allen, tighten until bearings bottom out in the frame. This should be evident by the fact that the wrenches become very tight and the washers are flush with the frame surface. Remove the press, the crush tube is held in place between the bearings by pressure.



(picture of installed bearings in bottom bracket pivot)

19) Repeat same procedure for rear triangle.



(picture of installed bearings in rear triangle pivot)

20) You are now ready to reinstall the box link. Locate box link as pictured, press the spacers up against the bearings, there is one for each side.



(picture of bottom bracket pivot with spacers held on by grease, and box link ready to go on)

21) Slide box link on main pivot location. Use a 5mm allen wrench to properly orient spacers through the pivot hole.



(picture of allen wrench through box link to locate spacers)

- 22) Install main pivot bolt, tighten to hand tight with 5mm allen wrench.
- 23) Press the spacers up against the bearings, there is one for each side.
- 24) Slide box link on rear pivot location. Use the 5mm allen wrench to properly orient spacers through the pivot hole. Tighten to finger tight.
- 25) Torque main pivot bolts to 15 Foot-pounds
- 26) Install 2mm set screws to hand tight
- 27) Put cranks on and go ride. Your done.

