

## **White Industries MR30 Crank Installation**

Tools required: Park BBT22 or BBT32 (Shimano bottom bracket cup removal tool), torque wrench, 10mm allen wrench, included 1.5mm allen wrench, grease.

### **Assembly**

1. Make sure that the threads or press fit shell in your bottom bracket are clean and greased (Fig.1 and 2). **NOTE: It may be necessary to chase the bottom bracket threads and have each side of the bottom bracket faced in order to insure that the bottom bracket can be installed and adjusted properly. Your local bike shop has the tools to do this if you don't.**



Fig.1 BB threads clean and ready for install.



Fig.2 Greased threads.

Grease the threads in BB shell and follow the instructions / install the BB of choice into your frame.

2. Install chainring(s) onto drive side arm. (fig 3) Grease threads on the locking ring and install. Tighten down the locking ring to 40 Nm using the BBT-22 or BBT-32 tool. (fig 4)



Fig.3 Install ring



Fig.4 Tighten locking ring

3. Mate, by hand, the spindle to left arm. (fig 5) grease the spindle then slide it in from non-drive side, through BB shell, to drive side.(fig 6)



Fig.5 Mating spindle to arm



Fig.6 Installing spindle w/ arm in place.

4. Install the drive side arm. Be sure that the drive side arm is clocked 180 degrees from the non-drive side arm. (fig 7) Next, using a 10mm allen wrench torque the drive side bolt down to 48-54 Nm. (fig 8) **Do not be shy about torquing to spec.**



Fig.7 Crank arms clocked 180 degrees



Fig.8 Torque to 50 Nm.

5. Now torque the left non-drive side to same 48-54 Nm. With the arms secured to the spindle, slowly thread the adjustment ring towards the frame until the spindle no longer slides back and forth (fig 9). Now back off the adjustment ring by 1/6<sup>th</sup> of a turn – this is the equivalent to two notches on a BB cup that is designed for a 12 notched removal tool. It is imperative that this is done otherwise the adjustment ring may be preloading the bearings resulting in failure. At this point, check the crank, there should be no or very little side to side play when positioned correctly. The crank arms should spin freely. If the crank does not spin freely, then slowly thread the ring away from the frame until the crank spins freely. With the adjustment ring in the proper location ie little to no play in the crank arms and crank arms spinning freely, tighten the small bolt in adjustment ring using the 1.5mm allen wrench provided, cinch the bolt down until the ring cannot be turned (fig 10)



Fig.9 Adjustment ring placement.



Fig.10 Cinch down adjustment ring

### **Areas of concern:**

Resistance at crank arm: When installed correctly,, there should not be any play at the spindle and crank should spin freely and smoothly. If the adjustment ring is adjusted incorrectly and too tight, the cranks will not spin freely and you will feel resistance. If this is the case, loosen the cinch bolt on adjusting ring and slowly thread towards the crank arm until the crank spins freely. Once crank spins freely and without play tighten down adjustment ring so it is secure (see step 5)

Too little thread engagement for adjustment ring: If after installing the crank arms, there is not enough thread engagement for the adjustment ring to remove all the side to side play, then thread the adjustment ring all the way up against the left crank arm, loosen the bolts on both the drive and non-drive side, repeat instruction steps 4 and-5. Most likely the bolts initially were not torqued down enough and arms are not fully pressed onto the spindle.

**If you do not feel confident in your ability to install and setup the crankset properly, please take it and your bike to your local bike shop and have a mechanic do the installation for you.**