

White Industries Venti 20mm Thru Axle Front Hub Instructions

Tools Required: 1.5mm allen wrench, red handled pin wrench, mallet, 17mm socket, 26 or 27mm socket, bearing puller and press.

Disassembly

1. Remove the thru axle from hub and take the wheel out of the frame.
2. Locate the small screw on the locking collar (Fig.1). With your 1.5mm allen wrench, back off the screw about three turns (Fig.2).



Fig.1 Screw location on locking collar.



Fig.2 Loosen screw in locking collar.

3. Use a red handled pin wrench and unthread the locking ring from the axle (Fig. 3 & 4).
CAUTION: The locking ring is reverse threaded. See directional undo arrow on locking ring and turn clockwise to remove the ring.



Fig.3 Turn lock ring clockwise to loosen.



Fig.4 Removing lock ring.

4. Once the lock ring is removed use a socket, we used a 17mm, or dowel that is the same outside diameter as the axle and butt the end of the socket up against the end of the axle (Fig.5). With a mallet strike the end of the socket thereby driving the axle through the hub shell (Fig.6). Set the axle and the locking collar aside.



Fig.5 Butt socket up against axle.



Fig.6 Drifting axle through hub shell.

5. Check the bearings for roughness. If the bearings need to be replaced, use a bearing puller and pull the bearings. The hub uses two 6805 bearings which are pressed into the shell.



Fig.7 Checking bearings for roughness.

Assembly

1. Install new bearings. Use a bearing press and install the new bearings into the hub shell. If you do not have a press you can place the bearing in the bearing bore and begin to press it in by hand (Fig.8 & 9). Place a block of wood over the bearing and gently strike the block of wood with your mallet (Fig.10). The bearing will begin to press into the shell. It is crucial that the bearing presses in flat and straight.



Fig.8 Make sure bearing goes straight into bore.



Fig.9 Press in with the palm of your hand.



Fig.10 Gently tap bearing until flush with shell.



Fig.11 Use socket to fully seat bearing.

Once the bearing begins to press into the bearing bore remove the block of wood and place a socket the same size as the outer race of the bearing. Make sure you are placing the socket against the outer race. **DO NOT** press on the inner race of the bearing. Use a mallet and tap on the socket driving in and seating the bearing in the bearing bore (Fig.11). Repeat on other side. The bearings should glide smoothly when seated.

2. Lightly grease axle and slide axle into the hub shell *starting at the disc rotor mount side* then through the bearings and out the opposite non rotor side. Rotate the axle. It should feel smooth (Fig.12 & 13). **DO NOT** install the axle in the reverse direction as the locking collar must **ALWAYS** be installed on the non rotor side of the hub shell.



Fig.12 Insert axle on disc rotor side.



Fig.13 Axle fully seated in hub.

3. Next, lightly grease threads for locking ring and install locking ring (Fig.14).
CAUTION: Do not over tighten the locking ring. Please note that the threads are reversed so you will tighten the lock ring by turning counter clockwise. Use the red handle pin wrench and tighten down the lock ring (Fig.15). Do not be heavy handed in tightening down the ring. When you feel the bearing start to bind then back off the ring so it feels smooth and silky once again. Once the locking ring is in position use the 1.5mm allen wrench to tighten the screw locking the collar in place (Fig.16). Don't over-tighten this small screw, 2-3 turns is usually enough to lock the collar in place.



Fig.14 Installing locking collar.



Fig.15 Tighten locking collar.

Check for bearing play by alternately applying pressure to axle ends with thumbs or palms (Fig.17). If you feel any play, you'll need to readjust the locking collar. Loosen the 1.5mm screw and tighten the locking collar a little more, then tighten the 1.5mm screw. Once you've eliminated any bearing play go to step 4.



Fig.16 Tighten 1 ½ mm screw.



Fig.17 Checking for play in bearings.

4. Install the wheel and thru axle back into the bike and take it for a quick ride to make sure everything is in adjustment. Check the hub one last time and make adjustments if necessary.

WARRANTY: This warranty applies to all products sold by an authorized White Industries Dealer to the original owner. It covers any and all material and workmanship defects for one year from the date of purchase. Bearings are the exception and are warranted for 60 days from the date of purchase. With proper maintenance bearings should last much longer. White Industries limited warranty does not cover 1) normal wear and tear 2) damage, failure or loss caused by misuse, accident, improper assembly or installation 3) parts subjected to use not consistent with the use originally intended for the product.