

White Industries Front Hub Instructions

Tools required: 2mm hex/allen wrench, set of sockets, mallet, bearing puller, bearing press.

Disassembly

1. Loosen the set screws, there are three or one depending upon hub model, located in the adjusting collar by using a 2mm hex wrench. Insert the 2mm hex wrench into the access hole on the hub shell and turn set screw counter clockwise about 1 to 1 1/2 turns (Fig.1). If you loosen the set screws much more than this, they will bind on the inside of the hub shell and prevent you from removing the adjusting collar.



Fig.1 Loosening set screws.



Fig.2 Removing adjustable axle end.

2. Pull out the axle end located next to the hub collar (Fig.2). If the axle end will not pull out by hand, thread a 6mm bolt into the axle end (Fig.3), slide the QR skewer thru the hub from the opposite side. Tap on the end of the QR to drive the axle end from the axle (Fig.4).



Fig.3 Threading in 6mm bolt.



Fig.4 Tapping skewer to remove axle end.

3. Once the axle end is removed, push the axle thru the shell and out the non-adjustable side. You will need to use a dowel or socket that is the same size as the outside diameter of the

axle to get the axle to move thru the hub shell (Fig.4). Ideally use a long socket to push the axle out of the hub shell. Now, you can withdraw the axle from the hub shell (Fig.5).



Fig.4 Tapping axle through hub shell.



Fig.5 Removing axle from hub shell.

4. Check the bearings in the hub shell for roughness. If it is determined that the bearings are in need of replacement, pull the bearings from the bearing bore utilizing a bearing removal/puller tool. A hammer and punch may also be used by striking at the back inner race of the bearing working the bearing from the bearing seat outwards. Be careful to work your way around the bearing as you tap it out so that the bearing is tapped out as straight as possible. Using a hammer and punch will more than likely damage the bearings, so only employ this method if you are going to renew the bearings.

Assembly

1. If new bearings are needed, press the bearings into the hub shell utilizing a bearing press. A socket the same diameter as the outer race of the bearing can be used in place of a press. Align the socket with the bearing race and use a mallet to tap the bearing into place (Fig.6 & 7). Do not tap on the bearing seal or inner race as this can damage the bearing beyond repair. *Make sure the bearing presses into the bearing bore straight.*



Fig.6 Tapping bearing into bore.



Fig.7 Fully seat bearing in bore.

2. If the fixed axle end is loose in the axle, it must be loc-tited back into the axle before assembling the hub. A light coat of oil or grease should be applied to the axle to help its movement thru the bearings. Slide the axle along with the fixed axle end back into the hub so that the open end of the axle emerges on the access hole side of the hub shell (Fig.8.). Give the axle end a firm tap with a soft faced mallet to make sure that the axle is fully seated against the bearing (Fig.9).



Fig.8 Installing axle with pressed on end.



Fig.9 Tap axle end to fully seat.

3. Install the adjusting collar (Fig.10). The recess on the adjusting collar should face outwards (Fig.11). Insert axle end into axle (Fig.12 & 13).



Fig.10 Installing adjusting collar.



Fig.11 Proper orientation for collar.



Fig.12 Inserting axle end.



Fig.13 Axle end installed.

4. In order to adjust the hub, set the hub down on the fixed axle end and apply downward pressure to the hub/wheel rim. This will insure that the axle is fully seated against bearing. Next, find a socket or piece of tubing that will allow you to press down on the collar without applying pressure to the axle end (Fig.14 & 15). Press down on the adjusting collar to take up any play in the hub and tighten set screw snugly (Fig.16). Don't over-tighten the set screws, holding the wrench in the way pictured will help prevent overtightening. Do not adjust the hub by pushing on the adjustable axle end as this will not take play out of the hub. Do not attempt to adjust the hub by applying lateral force such as tightening it with the QR skewer or placing it in a truing stand.



Fig.14 Slip tubing/socket over axle end.



Fig.15 Tubing/socket resting on collar only.



Fig.16 Tighten set screws.

5. Once the set screws are tight, check for lateral play by placing the palm of your hands or thumbs on axle ends. Push back and forth (Fig.17). You should not feel the axle sliding if the hub is adjusted properly. If you do feel some play, loosen the set screws and return to step #4. If you don't feel any play, you are ready to ride.



Fig.17 Checking for play in hub.

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.