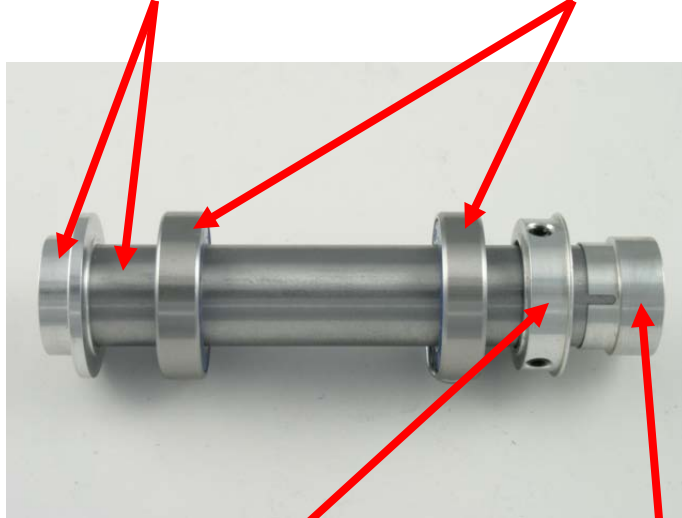


White Industries 15mm Thru Axle Conversion Instructions

For MI5 and MI6 Front Hubs

Tools required: 2mm hex/allen wrench, 10mm deep socket, 20mm socket, mallet, bearing puller or punch, bearing press, (1) 15mm Thru Axle Conversion kit that includes the following:

(1) 15mm axle with a pressed-on axle end (2) MR17287 bearings



(1) Adjusting collar with three set screws (1) Adjustable axle end

Disassembly

1. Loosen the set screws; there are three, located in the adjusting collar by using a 2mm hex wrench. Turn the axle in order to align the set screw in the adjusting collar with the access hole in the hub shell. Insert the 2mm hex wrench through the access hole and into the first set screw and turn 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. Repeat this procedure until all three set screws are loose.



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 a 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 through 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). We used a long 10mm 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. Remove the bearings from the bearing bore utilizing a bearing removal/puller tool; this will insure that no damage is done to the bearing bore. A hammer and punch may also be used by striking at the back inner race of the bearing to push it 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 and the bearing bore is not damaged during removal. *Please note:* Removing the bearing by tapping on the inner race will most likely damage the bearing and render the bearing useless.

Assembly with 15mm Thru Axle

1. Press the new bearings, # MR17287, into the hub shell utilizing a bearing press; this is the best way to install the bearings. Alternately, a socket the same diameter as the **outer** race of the bearing can be used in place of a bearing press: we've used a 21mm socket. Most sockets have a beveled edge, so make sure that the outer edge of the socket makes contact with the outer bearing race. Place the end of the hub on a softer surface, like a block of wood. Align the socket with the bearing race and use a mallet to tap the bearings into place

(Fig.6). 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.

2. If the fixed axle end is loose on the axle, it must be loc-tited back onto 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.7 & 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.7 Installing axle with pressed on end.



Fig.8 Axle visible on side with access hole.

3. Install the adjusting collar (Fig.9). The recess on the adjusting collar should face outwards (Fig.10).



Fig.9 Installing adjusting collar.



Fig.10 Proper orientation for collar.

4. Insert axle end into axle (Fig.11 & 12).



Fig.11 Inserting axle end.



Fig.12 Axle end installed.

5. 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.13 & 14). Press down on the adjusting collar to take up any play in the hub and tighten set screw snugly (Fig.15). 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.13 Slip tubing/socket over axle end.



Fig.14 Tubing/socket resting on collar only.



Fig.15 Tighten set screws.

6. 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.16). 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 #5. If you don't feel any play, you are ready to ride.



Fig.16 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.