

White Industries ENO Standard Rear Hub Instructions

Tools required: (2) 15mm wrenches, bench vise, and mallet.

Disassembly

1. Remove bolt/washer assembly from hub.
2. Use 15mm wrenches on the flats of each axle end (Fig.1). Turn the wrenches in a counter clockwise direction. Remove one of the axle ends and set aside (Fig.2)



Fig.1 Loosening axle end.



Fig.2 Removing axle end.

3. Now thread the removed axle end back into the axle, but only 3 turns. The axle end will act as a punch. Take a soft headed mallet and hit the end of the axle end (Fig.3). The "fixed" axle end assembly will pop out of the other side of the hub shell.



Fig.3 Tapping bearing out with mallet.



Fig.4 Withdrawing axle/bearing assembly.

4. Unthread and remove the axle end that you struck with the mallet and then pull the "fixed" axle/bearing assembly side out of the other side of the hub (Fig.4).

As you withdraw the assembly you will notice some very thin washers that rest between the bearing and the hub shell (Fig.5). If you don't see any washers, then they are on the other side of

the hub. A given hub will have between one to four washers. These washers take up some of the clearance within the sealed bearing and help minimize play. Keep track of which side they are on, so they can be re-installed correctly. If you have more than one washer, make sure they are installed as a group.



Fig.5 Washers between bearing and hub shell.



Fig.6 Axle in vise to remove axle end.

5. You can wrap a rag around the axle and put it into a vise. We used an old mouse pad that has a rubber side that gripped the axle firmly (Fig.6). Once it is held tight you can use a 15mm wrench to remove the “fixed” axle end/bearing assembly. Remove bearing from axle end.

6. There is one bearing in the hub shell left to remove. Thread an axle end fully into the axle (Fig.7). Insert the axle into the hub shell opposite the bearing (Fig.8).



Fig.7 Axle end installed on axle.



Fig.8 Axle going into hub shell.

Line up the end of the axle and the bearing so you can thread in the other axle end fully (Fig.9). The bearing is now captured between the axle and axle end. Turn the hub over and tap the axle end with a mallet to remove the bearing from the hub shell (Fig. 10). Withdraw the axle/bearing assembly (Fig.11). Disassemble axle/bearing assembly.



Fig.9 Installing axle end to capture bearing.



Fig.10 Driving out bearing with mallet.



Fig.11 Removing axle/bearing assembly.

6. The hub will now be disassembled, and you should be able to perform any maintenance work desired and renew the bearings.

Assembly

1. Place the bearing on the axle end (Fig.12) and thread the axle end with bearing into the axle (Fig.13).



Fig.12 Placing bearing on axle end.



Fig.13 Threading axle end into axle.

2. Insert the axle through the hub shell. To the best of your ability line up the bearing in the bearing bore (Fig.14). Carefully tap the axle end with the mallet, this will seat the bearing in its bore (Fig.15).



Fig.14 Starting bearing into bore.



Fig.15 Tapping bearing into bore.

3. Turn the hub over and place the group of thin washers on the machined shoulder inside the hub shell (Fig.16-17).



Fig.16 Placing thin washers on shoulder.



Fig.17 View of washers on shoulder.

4. Take the remaining axle end, place the bearing on the end, and thread into the axle (Fig.18-19). Finger tighten the axle end/bearing assembly and then use the 15mm wrenches to draw the hub together (Fig.20).



Fig.18 Installing axle end and bearing.



Fig.19 Finger tighten axle end.



Fig.20 Tighten axle ends with wrenches.

5. Once the bearings are seated in the hub shell you can install the frame bolts and washers. Apply grease or anti-seize to bolts and reinstall in hub. Place your wheel in the horizontal drop outs, install your chain and slide wheel back until the desired chain tension is achieved. Tighten axle bolts down to 25 ft. lbs.

6. You are ready to ride.