

Thank you and congratulations !!!!!

You have purchased the best wheel hub available for your Honda 450R.
With careful installation and a regular maintenance schedule, these will be
the last set of hubs that you will ever need to buy.

Please follow these installation instructions carefully! Without proper installation, premature wear and failure can occur!

1. Remove all contents from its packaging and verify that all parts are present and free from damage.
You should have the following items:
(2) wheel hubs (2) smaller tapered bearings (2) large tapered bearings (2) wheel bearing nuts
(2) dust caps (2) inner bearing seals (6) M3 x .5 screws (2) cotter pins (2) inner bearing spacers
2. Completely remove the old hubs from your quad and clean the spindle and the surrounding areas. It is very important to keep the new bearings and seals clean during installation for long life. Be sure to remove the factory inner bearing spacers from the spindle and discard. They will not be used in re-assembly.
3. Pack your new Timken tapered wheel bearings with a liberal amount of high quality wheel bearing grease. A wheel bearing packer works best, however you can accomplish the task by placing the grease in the palm of your hand and manually working it in between the bearing rollers. We also recommend that you pack the area between the bearing races in the hub with grease for additional lubrication and protection against moisture.
4. Place the large wheel bearing (inner) into the hub and install the inner seal. The seal should bottom out against the step in the bore and the face should be flush with the hub.
5. Remove the brake rotors from your old hubs. Re-install the rotors on your new hubs and be sure to use medium strength Loctite on the threads.
6. Apply a light film of grease or oil to the large diameter of the spindle stud. Install the new o-ringed bearing spacer onto the spindle.
7. Apply a thin film of grease to the seal surface on the bearing spacer and the inside diameter of the seal to prevent the seal from running dry. Install the hub onto the spindle and slide the outer bearing over the spindle and install the new bearing nut furnished with your hubs.
Do not use the factory nut or washer.
8. **SETTING THE BEARING PRELOAD:** It is first necessary to seat the bearing before setting the preload. This aligns the rollers and prevents the bearings from loosening after a short period of use. To seat the bearing, tighten the spindle nut while you rotate the hub until the hub becomes difficult to spin. With the bearing now seated, you must set the bearing preload. Preload means placing a small amount of force against the bearings to remove any clearance between the bearing race and the rollers. This is done by backing the nut off completely and re-tightening it with your fingers. **Do not rotate the hub while setting the preload.** If a hole in the spindle is not accessible for installation of the cotter pin, adjust the nut tighter to bring a hole into alignment. Install the cotter pin and bend the pin around the **outside** of the nut. Do not attempt to bend the pin toward you (over the end of the spindle) or it may rub on the inside of the dust cap.
9. Apply a thin film of grease on the dust cap o-ring and install the cap. Install the M3 x .5 screws and lightly tighten.
Do not overtighten the screws or thread damage will occur.

You have now successfully installed your new hubs. We recommend riding your quad for a short period and then check your hubs for excessive heat. If excessive heating occurs, your wheel bearings have been set too tight. We recommend backing the nut off (1) slot from your original setting. If you need any technical assistance, or need to purchase any replacement parts, call us at (715) 369-7200 between 7am and 5pm Monday through Friday or visit us online at www.hardkorengineering.com

Maintaining your hubs: We suggest removing you hubs from you quad after every 30 hours of use to check for contamination. Pressure washers can force water past the seals and cause corrosion, so we highly recommend using low pressure to clean your quad. Depending on you riding environment, we recommend cleaning your bearings and repacking with fresh grease at least once per riding season. Installing new seals when repacking the bearings is highly recommended.

Terms and conditions of sale.

- 1) The sale of this Hardkor Engineering front wheel hub is expressly conditioned on acceptance of all terms and conditions set forth herein, regardless of any prior oral or written statements made to buyer by any other person, including Hardkor Engineering Inc. If the terms of this agreement as set forth herein are not acceptable to the buyer, the buyer must return the front wheel hubs to the address listed below within 30 days for a full refund.
- 2) These front wheel hubs are intended solely for off road ATV use. Any other use of the hubs is improper. Hardkor shall in no way be responsible for the proper use of the front wheel hubs, and the buyer is urged to exercise caution and take all necessary safety measures, including wearing a helmet, eye protection and riding boots.
- 3) Hardkor Engineering Inc. makes no representations, covenants, warranties, or guarantees, express or implied, other than those expressly set forth herein. Hardkor Engineering undertakes to replace or repair, at it's sole discretion, any defects resulting from faulty design, materials or workmanship provided Hardkor Engineering receives notice in writing of any such claim under warranty within ninety days of purchase from Hardkor Engineering or any Hardkor Engineering authorized dealer, and the buyer provides Hardkor Engineering with written notice promptly of any such claimed defects.
- 4) **Hardkor Engineering hereby expressly disclaims implied warranties of merchantability and fitness for particular purpose, whether express or arising by operation of law, course of dealing, usage of trade or otherwise implied. Hardkor Engineering also disclaims any liability arising from tort, including strict liability. In no case shall Hardkor Engineering Inc. be liable for incidental or consequential damages, including, without limitation, damages for loss of use of the front wheel hubs, or lost profits, even if Hardkor Engineering has been advised of the possibility of the same.**
- 5) This purchase shall be governed by the law of the state of Wisconsin.

Hardkor Engineering Inc.
837 Air Park Road
Rhineland, WI 54501