



NA/NB Billet Enduro Front Hubs

Thank you for your purchase of our Billet Enduro Front Hubs! We at MiataHubs.com stand behind our product 100%. If you have a question or issue please contact us ASAP. For the 2020 season we will continue to offer free bearing replacement labor to go with the purchase of replacement bearings. Should you happen to wear one out, just ship us a complete hub unit that is worn and experiencing play and we will install a new SKF bearing cartridge, inspect the hub body, and ship it back to you in time for your next event.

We are offering this service partially as a thank you for being an early adopter, and partially as a way for us to collect data and look for ways to make our products even better. Replacement bearing cartridges are also available for individual purchase if you prefer to do the work yourself and not ship the hub back.



Warranty Disclaimer

Miata Hubs LLC products and parts are sold "as is" without any expressed or implied warranty of merchantability or fitness for a particular purpose. Miata Hubs LLC shall not, under any circumstances, be liable for any special, incidental or consequential damages, including, person, party, or property, but not limited to, damage, or loss of property or equipment, loss of profits or revenue, cost of purchased or replacement goods, or claims of customers of the purchase, which may arise and/or result from sale, installation or use of these parts. Should such products or parts prove defective following their purchase, the buyer and not the manufacturer, distributor(s), or retailer(s); assume the entire cost of all necessary services or repair as result of a part(s) failure. Installation of these parts could adversely affect the original manufacturer's warranty coverage. This part is intended for off road use only and is recommended to be installed by a professional.

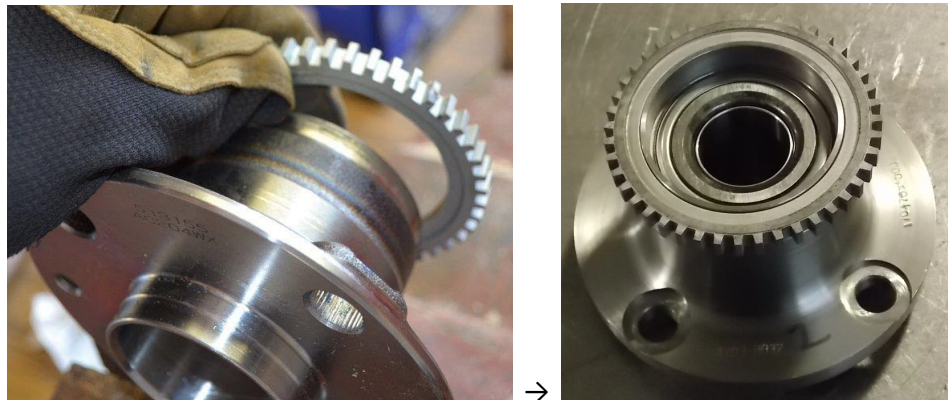
Installation Instructions - CONTACT US WITH ANY QUESTIONS OR CONCERNS

Use a new Mazda OEM spindle nut (D06Y-33-042) and Mazda OEM outer dust cap (B455-26-071) for installation.

1. Remove original front wheel hub hardware per normal procedures.

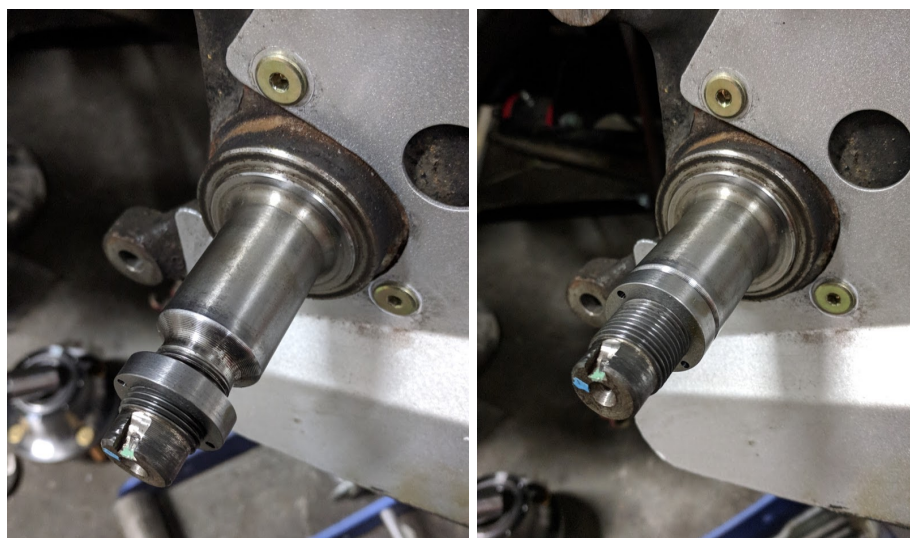
ABS ONLY

2. Remove the ABS sensor and bolt from the back of the upright.
3. Remove the ABS tone ring from your old hub. A 3-jaw puller is recommended, as a 2-jaw puller can warp the ring. The old ring will press straight onto the back of your new Billet Enduro Hub.



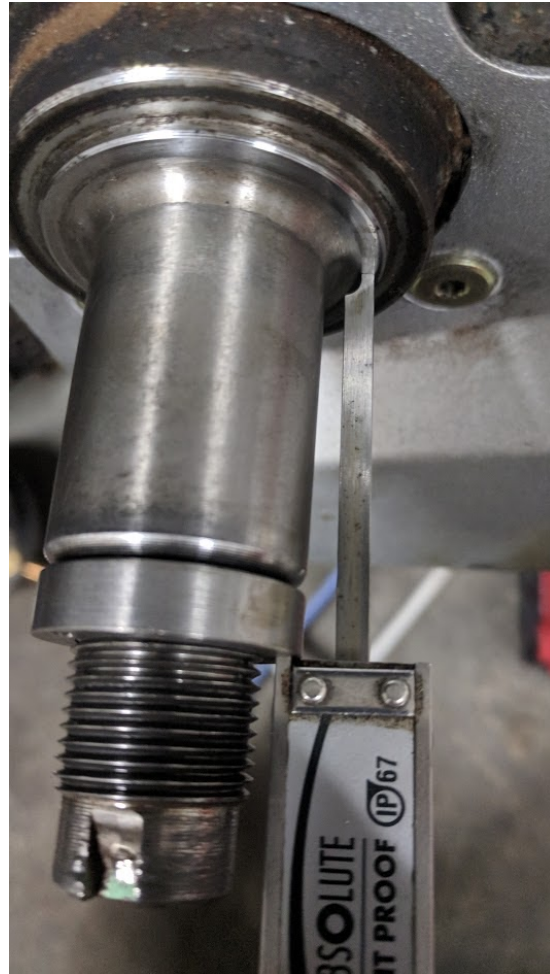
ALL

4. Install the (3) super-low-profile allen head bolts to replace the existing 12mm-hex bolts on your stock brake dust shield or aftermarket brake duct cooling plate.
5. Install the threaded support ring onto the spindle. This needs to be snug but not overly tight, around 40-60 in-lb or so. Our recommended tightening method is with a set of channel locks and a soft rag between the channel locks and support ring, do not mar the surface.



6. **IMPORTANT.** Using a set of digital calipers or other appropriate measuring tool, measure from the outer face of the support ring to the inner face of the spindle on which the bearing rests, as shown in the picture below. Be careful to only measure on the flat surface, not on the radius at the base of the spindle. You should get a measurement of 47.0-47.6mm. If the measurement is greater than 47.8mm, STOP IMMEDIATELY and contact us. A measurement above 47.8mm will prevent the axle nut from being torqued properly and will likely result in premature bearing failure. If the measurement is below 47.8mm but outside of the 47-47.6mm range, you may continue with install, but please contact us with your measurements so that we can add to our data.

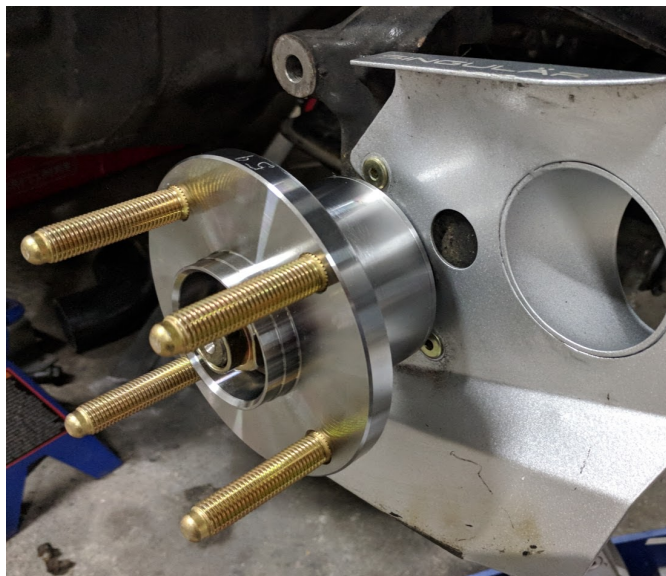
The current support ring design is compatible with 100% of the spindles that we have measured and tested, but we're still unsure how tightly Mazda controlled this thread depth over the 16 years of NA/NB Miata production. For this reason, we feel that it is prudent for all customers to measure their own spindles during install.



7. Slide the adapter sleeve over the spindle and threaded support ring. Since you likely won't have to touch these for quite a while! apply a thin layer of anti-seize or high temp grease on the spindle to help later removal/servicing. The sleeve can be tight, just make sure it's straight and install it over the support ring. You may need to use some fine grit emery cloth on the threaded ring to get the sleeve to slide over it. If it seems too tight please contact us, do not force it on.



8. Install the pre-assembled hub unit onto the spindle over the adapter sleeve, ensure the inner races are straight and do not force it on. Align the bearing and it will slide on and fully seat all the way on to the end of the spindle similar to stock.



9. **IMPORTANT.** Install a new OEM Mazda axle nut (loctite is a good idea) and torque the nut to an **initial** spec of 100 ft-lb. Next, rotate the hub through 3-4 full revolutions in each direction. This step helps to ensure that the bearing rollers are properly aligned in their tracks before torquing to final spec. Once the bearing is rotating smoothly, **torque to a final spec of at least 190 ft-lb.**
10. **IMPORTANT.** Fully stake the new axle nut to the slot in the spindle using a broad tipped chisel or punch and a hammer. **YOU MUST FULLY STAKE THE NUT.** We have seen poorly staked nuts loosen in the past. It is recommended that you **CHECK THIS NUT ROUTINELY,** to ensure it stays tight, if anything ever starts to feel odd on track, this is the first place to look.



11. Install a new OEM Mazda dust cap per normal procedure. The new bearing cartridge has a metal dust “shield” on the outboard side of the cartridge, but it is not a watertight rubber seal like what’s used on the inboard side. It is important to continue using the OEM dust cap to stop water and debris from entering the bearing.

ABS ONLY

12. Reinstall the ABS sensor, adding the optional spacer and extended bolt (source this locally depending on your OEM bolt length) . Check for clearance to the tone ring you installed. It will be close but won’t interfere.



13. Spin the hub 2-3 full rotations by hand before and after installing a wheel to make sure it rolls smoothly and to get a feel for the new bearing. Rolling resistance will decrease as the seals break in during use, but will always be slightly higher than an OEM ball bearing. This was an intentional design choice based on input from the bearing manufacturer, to maximize bearing life and stiffness for the increased aero and tire loading seen on today's Miatas. VOILA! Your new Billet Enduro Front Miata Hubs are now installed!

14. As always, routine inspection of all wear items is your responsibility and of utmost importance. Hubs and bearings are critical safety items and should remain on the list of things to check at the track and in the shop. Things you should check include but are not limited to the spindle nut torque, hub flange for fatigue and the small screws on the rear adapter/ring.

IMPORTANT NOTE. We have spent hundreds of hours testing and developing these hubs before releasing to the public, over three years and on multiple cars. It is recommended that you pay VERY close attention to the bearings during the first few sessions on track. If you notice any unusual sounds or feelings, IMMEDIATELY come into the pits and check for proper nut torque and bearing play. If you find a problem, please contact us immediately.

Thanks again for your purchase and support of Miatahubs.com as we work to better the Miata community and make this chassis the best thing on racetracks worldwide, winning races and breaking hearts of higher dollar competitors. Feel free to call or text us with any questions or concerns, during install or at the track.

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JEFF PRESTON: 859-317-3803

Please leave a voicemail or text if we don't pickup!