



[www.bro-tek.com](http://www.bro-tek.com)

# Bro-Tek

-Making tractors parts our business

M14 Lug Bolt



[Bro-Tek@hotmail.com](mailto:Bro-Tek@hotmail.com)



## 1. Introduction:

### A. Proud Owner:

. You are now the proud owner of a Bro-Tek Wheel Spacers. These Wheel Spacers are made for your tractor rear axle. Please read these instructions, before installing the Wheel Spacers. The Wheel Spacers have been designed for easy installation. Wheel Spacers are a bolt-on item. Unit will be shipped complete in a box, all hardware included. Designed to be very easy to install.

**⚠️ Important** If you have a Mid Mount Mower, the wheel will be push out & may contact.

### B. Feedback:

. We would love any feedback that you could give us (Positive/Negative), to improve our product line. Please email us your comments/pictures too: [bro-tek@hotmail.com](mailto:bro-tek@hotmail.com) or you can reach us at [www.bro-tek.com](http://www.bro-tek.com)

## 2. Safety Precautions: **⚠️ Important Safety**

- A. Park on a firm level area.
- B. Stop engine, set brake, remove key and wait for all moving parts to stop before servicing, adjusting or unplugging.
- C. Block up before working beneath unit.

## 3. Tools/torque/Parts required:

- A. **Socket** 22mm (7/8"), 19mm (3/4"), 17mm Deep & Short...spin lug bolt into axle) Extension Bar.
- B. **Torque wrench** (capacity rating range 0-130 Lb-Ft).
- C. **Floor Jack & Jack stands.**
- D. Pry-bar or round pipe (see pic below).
- E. Loctite, Medium Strength Thread locker (Blue)

Save these **⚠️** Instructions/Safety Manual **⚠️** owner/operator/installer



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4. Assembly Instructions:

A. Once you have followed the safety precautions & have removed the Wheel Spacers from its packaging, please take notes of all the parts & follow the assembly instruction.

B. Free up work place of all disturbances & clutter. Take your time installing it (This can normally be done by one person in 20 to 35 minutes).

C. Before lifting your tractor, with the jack, break lose the nuts on the rear wheels, this will help out.

D. Jack up & place the jack stand on the tractor. (Ref to owner's manual)

 Jack stands must be stable/secure

E. It's now the time to remove the tire.

 **Caution** if you have loaded tires and haven't taken them off before then beware, they can be VERY heavy. Make sure that the jack stands are stable before removing the wheel.

F. The factory bolts treads are M14 tread, We have supplied new Lug bolt use these to install the spacer to the axle

Now is a good time to test fit the spacer to the Axle & then to the wheel rim. The spacer should make full contact to the axle & the nuts/lug bolt has full tread contact, it's much easier to sort any problems without having anything bolted down.

If everything looks good add some Loctite to Lug Bolt 

G. To install the spacers, you will need a long bar (if hand brake is not strong enough) to hold the axle from turning .

 careful not to damage the wheel spacers stud tread (a Wooden bar or a rag/rubber around the steel bar will help protect the treads. Get your socket & make sure to use the supplied Lug bolt that came with the spacers.  The bolts have a tapered end, make sure only tapered bolts are used to install the spacers to the axle.



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**⚠** Please take the time to make the install/Torque bolt in 3 steps. First hand tightens the bolts; Second torque the bolts to half the torque in a crisscross/Star pattern & finally torque the bolt to their final value of 110 ft. lbs for the spacers to the axle.



H. Get your socket & add Loctite to the studs on the spacer. Install the rim/wheel & now use the new nuts from the spacer (if your wheel had OEM lock washer, make sure to reinstall these), making sure they are flip to the proper end. Torque the nuts to 110 ft. lbs for the rim in the same 3 steps as above.

We have found that having a metal shovel and rolling the tire onto it, makes the job of lining up everything must easier. One can slide the tire around, pry & lever the tire into place.

I. Check clearances around the Wheel, no point of contact should be noticed. Make sure to fully turn the steering left/right.

J. Check everything out for clearances & binding. Recheck nuts & bolts after the first 2 hours of travel & at your regular oil change.

**⚠** A low-speed test drive on a bumpy terrain with steering fully rotated should reveal any problem area. Make sure to **correct the problem before any other driving.**



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Our recommendations would be to make witness marks after installed, using a paint pen on the back side of the axle lug bolts & also on the studs /lug nut of the wheel side. Make for an easy inspection of the tractor.



Using the "Paint pen" leave a line going from the backside of the axle flange onto the end of the tread lug bolts. Do the same on the outside of the wheel side. This way if the lug bolts break themselves lose, the paint line will no longer align, warning you of needing retorque everything up.

5. **Congratulations:**

You have successfully installed your Bro-Tek Wheel Spacers. We hope this was a pleasant experience & that you would recommend this product to all of your tractor friends. The Wheel Spacers can remain on the tractor for all the preventative maintenances & the every day use.

6. **Thank you:**

We would like to thank you for supporting us & hope to do future business with you with our new upcoming line of products.