

RC Wire Spoke Wheels Assembly Instructions v.2

www.rcwirespokewheels.com

Thank you for your purchase of these sport scale vintage wire spoke wheels. In this package you will find:

- (64) 1.6mm 304 SS spokes & (4) hub washers
- (2) Rims with pre-positioned spoke holes
- (2) Flanged Hubs with pre-positioned spoke holes
- (1) Assembly Fixture
- (2) 11mm dia rubber pre-cut tyres
- (1) Mixing stick & (1) Epoxy brush

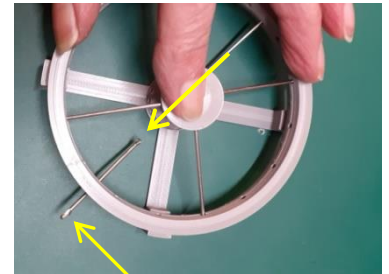


To complete the build a good 30 min Epoxy, Medium CA glue, needle nose pliers, and paper towel/rag will be required. Please read all the way through these instructions before you begin, so as to get a feel for the assembly process.

Assembling the Spokes into the Rims

1. Test fit a spoke into the matching holes in the hub and rim. (The hub and rim holes are angled to point towards each other – the spoke should point to the centerline of the hub, count 32.) The spokes will slide into the hub far enough so the opposite end will be slightly below or flush with the rim surface where the tyre will sit.
2. Place the Assembly Fixture on a flat working surface and lay the rim and hub into position, smooth sides up.

3. Insert the first spoke through the rim into the hub. Slide the spoke out about 1/4th its length (it balances to stay-put that way) and apply a small amount of Epoxy on the very end of the hub end of the spoke, and a small amount on the side of the rim end of the spoke, about 4mm from the end. (The idea will be to *poke* the adhesive into the hole in the hub, and *draw* it into the hole in the rim while rotating the spoke in the holes.)



4. Hold the middle of the spoke with the needle nose pliers and tap the end of the spoke against the hub hole, to ensure epoxy will enter the hole. Insert the spoke and then rotate it with the needle nose pliers, pulling firmly towards the hub. This will spread the adhesive around the spoke and against the inside edges of the holes. On the hub wipe excess adhesive with a rag towards the centre. Inside the rim channel, sweep-up/spread the excess with the rounded end of the mixing stick, being careful not to plug the other holes.
5. Repeat the above step one-at-a-time putting in at least 4 spokes, top and bottom, evenly spaced. Double check around the rim that all spokes are fully pushed into place and wipe away any adhesive. Let dry in the fixture a couple of hours. Then carefully remove from the fixture and do the second wheel. Again make a final check that all spokes are fully pushed in. Let everything dry overnight.

6. You can now install the rest of the spokes around the wheel. Holding the wheel by the hub and rotating it between your fingers is easiest. (If you hold it like the picture you'll end up with sticky fingers...)



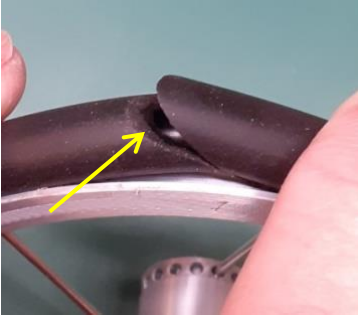
7. For additional strength mix up a small batch of epoxy (thinning 10% with denatured alcohol if you wish) and using the supplied brush, 'paint' the inside of the wheel rim, further strengthening the rim and tying in the spokes. Ensure all spokes remain fully pushed into the hub as the epoxy sets.

(Over)

Bonding the Tyres to the Rims

This kit utilizes our 'pneumatic' tyre (ie. Nitrile tubing, providing some shock absorbency and weight savings.) The tyre can either be wrapped around the rim and the ends bonded, or the ends bonded together free-hand. After test fitting, adhesive is then placed into the rim and the tyre stretched over the rim to seat. Please read the following more detailed instructions with pictures before starting.

8. Examine the tyres and rims for cleanliness and no projecting spokes. If any spoke or adhesive is bumpy or proud of the rim saddle where the tyre will sit, file them down with a rat tail file.



9. The tyres are pre-cut with bevel ends. We suggest either of two methods. A) Wrap a tyre around the rim and bring a tip into position so that it falls between two spokes. To minimize excess glue squeezing to the outside of the tyre, apply medium CA very carefully around one end of the tubing hole edge. Stretching as necessary, gently roll/press the ends together, keeping top and sides as round as possible. Practice this before applying the glue OR B) Without using the wheel rim, apply glue to the edge of the tyre hole on one side, and using two hands bring the ends together, aligning the edges of the tyre.

Practice this first & then apply the glue sparingly. Whichever method you choose, should you wish to wipe away excess adhesive, wipe quickly and downwards towards the centre of the loop/wheel, and ideally with CA remover handy. Any excess on the inside of the loop will be hidden by the rim.

10. Repeat the process for the second tyre.
11. Roll the tyre off the rim if you assembled the tyre on the wheel. If you connected the ends free-hand, trial stretch fit the tyre over the rim to become comfortable with that process. Remove the tyre after trial.
12. After roughing up the epoxy inside the rim channel from Step 7, apply a wiggly line of epoxy, around the rim. Stay above the spoke ends, and below the rim edge to minimize any squeeze-out. (A single bead down the center will not be as effective in preventing tyre roll-out from the rim.) You can wait to do this step after a few flights to see how it all works.
13. If you need to open the axle hole, using a pillar drill/press support the wheel at the rim if possible, and step up gradually (.5mm/ 1/64" per step and plunge & pull out in short steps. You don't want to overheat the material.) Epoxy glue the two washers to the sides of the hub around the axle hole to help protect against wheel collar chaffing.
14. Repeat the process for the second wheel to complete the build. Congratulations! Your finished wheels should look like this:

When installing the wheel you may wish to use PTFE, Silicon or light machine oil lubricant on the axle to ensure smooth rotation. Please feel free to give any feedback, positive or for improvements, on the 'Feedback' page of our website. www.rcwirespokewheels.com

