

PEREGRINE® SUPER PRO™ 48's Build Instructions

These instructions are specifically for Peregrine branded Super Pro wheels starting in 2024. While the concepts and techniques of wheel building are universal, substituting parts may have different results.

Required Items:

- 1 Set Peregrine Super Pro hubs
- 1 Set Peregrine Super Pro rims
- 48 181mm 14G spokes (rear)
- 48 183mm 14G spokes (front)
- 96 16mm 14G nipples

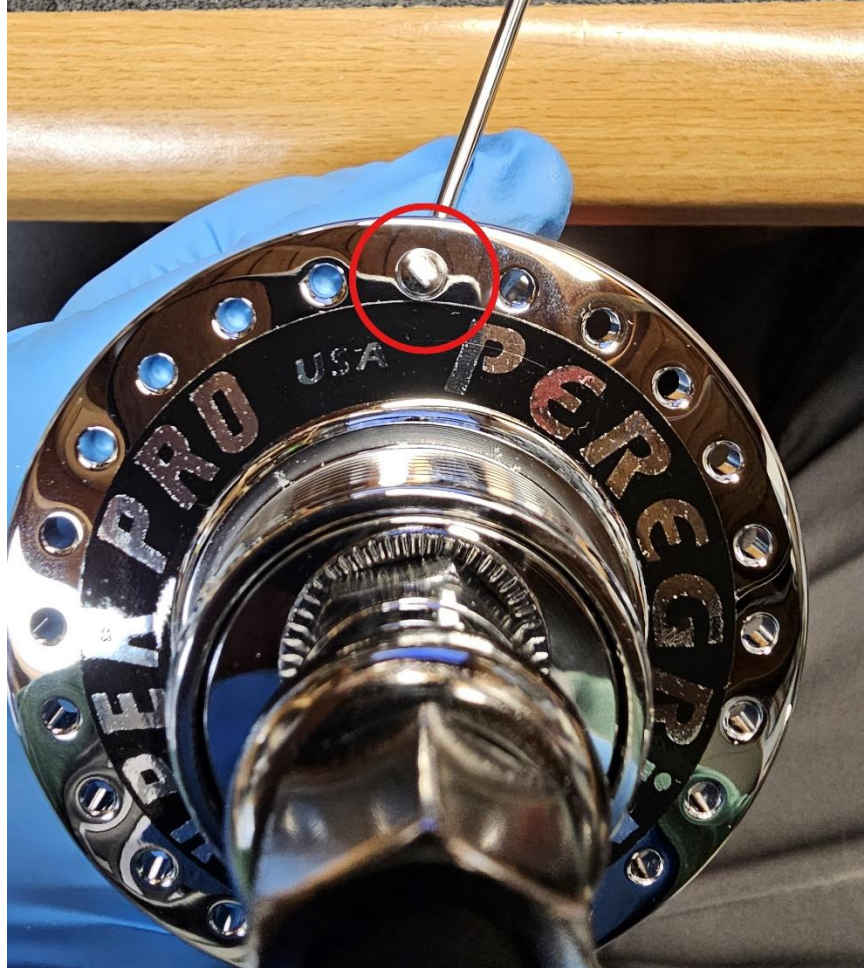
Procedure

1. Ensure you have the orientation of the hub and the rim so that the words can be read from the drive side of the bike. This is a standard you are not required to follow.



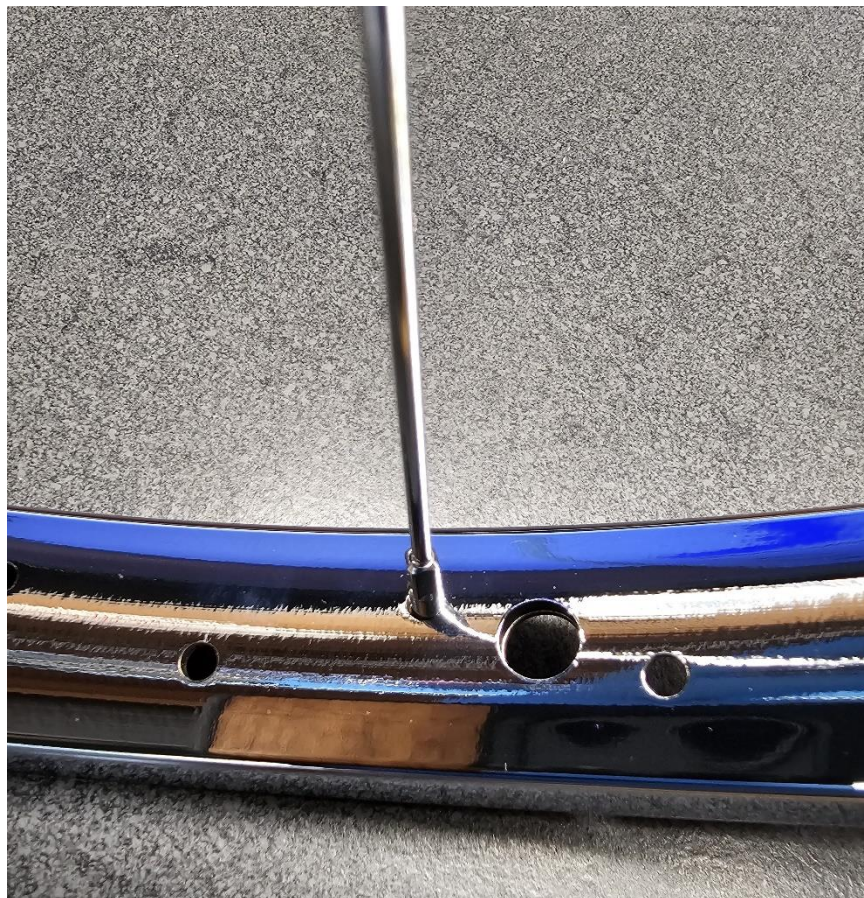
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2. We are starting with the rear hub and one of the rims. Orient the valve hole on the rim to the 12:00 position.
3. Insert the first spoke (from the top) in any one of the holes in the flange closest to you.



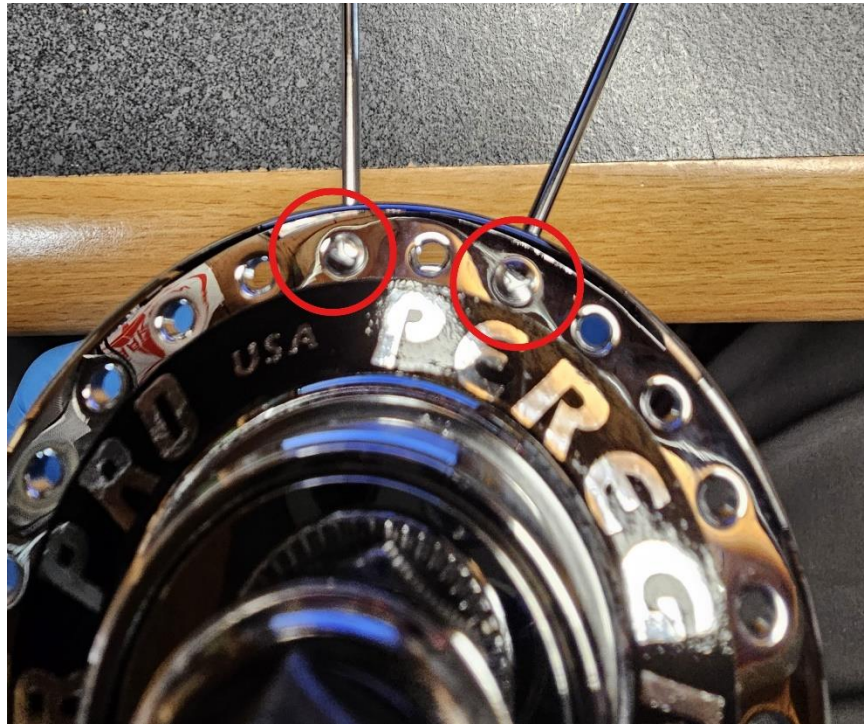
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4. Insert the spoke into the first hole left of the valve hole on the rim and thread on the nipple.



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5. Insert the second spoke in the second hole to the right from the existing spoke.



6. Insert the second spoke in the second hole to the right on the top row of the rim.



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7. When threading on the nipples make sure the nipple stops at the end of the thread. This is important to ensure the tension is even later in the process.



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- Repeat this process until all 12 spokes are installed on the first side. When complete, it should look like this. At this point I switched to my work bench because it was easier.



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9. Next, flip the wheel over. Try to keep the tension on the spokes as it will help to line up the next spoke.



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10. Next insert a spoke behind one of the spokes on the other flange. The holes are already offset, so inserting the spoke should land behind a spoke in the opposite flange, if it does not, you are not in the correct hole (insert joke here).



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11. Insert the spoke into the top row on the rim behind the same spoke.



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12. It should look like this:



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13. Repeat this step for the remaining 11 spokes, skipping holes on the hub and on the top row of the rim. When you are done, this is what it should look like.



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14. I will do my best to describe the next step, because it can be a little tricky. Insert a spoke from the underside of the flange in any of the open spoke holes.



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15. Next cross the spoke over 4 spokes (4 cross). There should be an open hole in the top row where this spoke lands.





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16. Before you put the nipple on, you need to weave the spoke UNDER the 4th spoke. The next three pictures show the sequence of how I weave the spoke.



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17. Repeat this process for the remaining 11 spokes. When you are done, it should look like this.



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18. Next flip the wheel and repeat the process. First insert a spoke from the underside of the flange in an open hole.



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19. Just like you did on the other side, you will cross over 4 spokes, in the opposite direction.



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20. Weave the spoke UNDER the 4th spoke.



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21. Using your other hand, hook the spoke with your index finger. This will prevent the spoke from scratching the rim.



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22. With your free hand secure the spoke and thread on the nipple.



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23. Repeat this for the remaining 11 spokes. When you are done, it should look like this.



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24. Now, at this point you have the choice of taking them to your local bike shop to have them trued, or you can forge ahead. The tightening of spokes is fairly simple. Starting at the valve hole, rotate the first nipple one complete turn. If you are right handed, turn the spoke wrench toward you and if you are left handed, turn the spoke wrench away from you. Always turning the wheel in the same direction.





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25. When you get to the valve hole, flip over the wheel and repeat this step.



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26. You will repeat this 6-7 times, depending on the front or rear. Keep track of which side you have done. The wheel needs to be tightened evenly on both sides, or the wheel will be off center.
27. You can test the tension by squeezing the spokes that are parallel to each other. The first picture shows the tension before tightening.



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28. This picture shows the tension after tightening.



29. I would still recommend taking your wheels to a local bike shop or to a friend who had a truing stand to ensure they are properly trued.