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Dolly Tire Failure



NEW SOLID WHEEL TIRE

WHY DOES A TIRE FAIL?

We have never seen a tire that gets a hole caused by a nail or screw.

That said the main reasons are as follows:

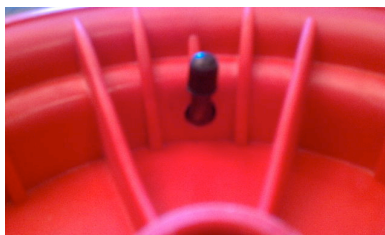
- **Over inflation** caused by over filling or the heat of the day causing the pressure to rise. The max allowable pressure is printed on the side wall of the tire. Depending on manufacturer it will be between 22 and 30 psi. We recommend 18 to 20 psi.
- **Under inflation:** Over time tires loose air pressure. In cold weather the tire pressure drops. If the tire was already low to begin with, the rim seal can let loose or allow dirt to enter. This only occurs with tubeless tires. In addition the plastic hub has a flashing line from where the mold half's come together. If this is very high it can create a channel for the air to escape. To prevent this in the first place it is a good idea to check tire pressure when ever you disassemble the dolly. At a minimum check it the spring before the season begins.
- **Defective stem fitting.** This is caused by dirt or sand getting lodged in the stem mechanism or the stem seal wearing out. In a tubeless tire the seal with the wheel hub can be leaking.
- **Defective Tube.** Over time the rubber in the inner tube can age and spring a leak.

If you have any questions about the instructions below give us a call and we will help you out. 800 784 6478, or send an e mail to sales@optistuff.com

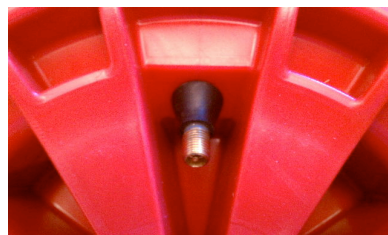
First determine what type tire you have, tubeless or with an inner tube.



18 to 20 psi recommended



Tube has open hole at stem



Tubeless is sealed at stem



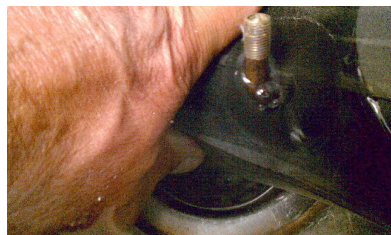
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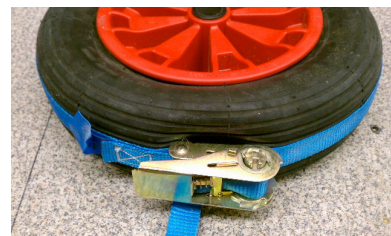
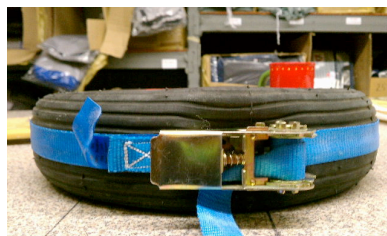
With an **inner tube tire** there is a chance it is just the stem mechanism. But in most cases the tube is defective and it will have to be replaced. Fill the tire and submerge the stem in water. If bubbles come only out of the stem a then a bicycle or tire store can replace the mechanism. Otherwise see the section on changing a tube.

With a **tubeless tire** fill it with air and submerge it in water or apply a solution of water with a little dish soap in it. The leak will appear as bubbles coming out of the rim seal or stem.



This tube tire leaked at the stem See the suds created by soap

If the rim seal has opened up you may have to force it into place before it will accept air. You can do this by evenly applying pressure to the thread. A belt or rope can be use but the best method to use is a tie down strap with a tightening mechanism.



Solutions to a leaking tubeless tire rim seal.

1. Fill the tire to near maximum allowable pressure. Many times this will force a good seal with the rim that will hold even at a lower pressure.
2. Break open the seal on the leaking side and clean any girt or dirt out of the area. If the hub flashing line is pronounced sand it off. Note there are two of these 180 degrees apart on both sides of the hub. Put a thin cost of Vaseline on the rim, seal and inflate as recommended above.
3. Another method is to apply an indoor outdoor clear sealant to the rim. Make sure the rim seal is not broken. Press down to open up the seal allowing the sealant to get as far in as possible without breaking the seal. Spread into the gap with your index finger. Wipe off the excess. In the case below we used a sealant that becomes clear after 7 to 14 days. Allow this to dry about 2 hours until no longer tacky. Fill with air.





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- Put a tube into the tire.** This is the most effective way to repair both a tubeless or tube tire. The tubes are not always easy to find. Tractor Supply Company TSC or Pep Boys should have them or the best place is the McLaughlin store www.optistuff.com 800-784-6478 for about \$13.



The hard part is breaking down the tire seal and releasing one side of the tire. I have seen this done with flat smooth handle silverware knives but it normally takes special hand tools as shown. A little WD-40 or similar lubricant helps the process. Even easier is to take it to a bicycle shop or auto tire center. You better buy the tube in advance as they will not have it. They can quickly break the tire down and put a tube in it. They probably won't charge over \$5 to \$10. If you do it yourself when installing the tube it helps to put a little air in the tube and put the stem through the hole early in the process. Note that the maximum tire pressure remains at 22 to 30 psi and we recommend 18 to 20 psi.

5. If you are going to buy a new tire!

When looking at replacing your tires consider a solid wheel tire. These came out in the spring of 2012 and have proven to give the best hassle free service. They can not be punctured and need no periodic refilling of air. They also have the benefit of being slightly taller putting the boat higher in the air. You can order them from www.optistuff.com or call 800-784-6478.



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