TIRE CHANGE & JACK PLACEMENT

If possible, nudge the trailer until you can get it on a solid surface and have the trailer as level as possible. Sand or gravel can be unstable causing the jack to give way just enough to cause the trailer to heed the call of gravity. If this happens while your hands are awkwardly changing the tire, it could mean serious injury, damage to the trailer or both. So, if you are on gravel, dig down till you can find a solid base to set the jack. If you are on sand, find a way to move the trailer to where it is solid.

1. Ensure the trailer is hooked-up to the tow vehicle because it will provide a secure fixed point to help prevent movement.
2. Remove the weight distribution bars from the trailer.
3. Set the parking brake on the tow vehicle.
4. Place two chocks on whichever trailer wheel isn't the one you are replacing. Chocks go in front and behind the tire so there is no possibility of it rolling.

5. Locate this white 2" PVC tube sitting on top of the large grey pipe running along the back wall of the middle compartment under the bed. Inside will be a long chrome ½" breaker bar with a 3/8" adapter. A 3/8" x 6" extension is connected to a ¾" deep socket for the lug nuts and both have red reflective tape in case you drop them. The two black rods hook-into the jack letting you raise the jack from alongside the trailer. We chose these tools because here is very little space between the wheel housing and the lug nuts preventing you from using a traditional lug nut wrench. The jack is also in this compartment.

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6. Locate the RED REFLECTIVE sticker just forward of the axle located on an L shaped piece of metal parallel to and alongside the tire being replaced. This is the lowest physical part of the trailer and the most structurally stable for lifting.
7. You will be placing the jack assembly under this point. If you are on anything other than a flat paved surface, use the 8" x 8" metal plate marked "JACK BASE" under this point. Note: nuCAMP doesn't provide a jack or lug nut wrench and this came from a Ford F-250. If lost, Part numbers #7C3Z-17080-AE & #HC3Z-17005-H are shown here.

8. Align the jack so the cradle is perpendicular to the tire and the crank handle connection point is angled so the crank handle can turn the big orange knob. Put just enough upward jacking pressure that it is "finger tight" but NOT lifting the trailer. The idea here is to
    a. place the jack into place where you know it is stable and can safely lift the trailer but before you drop the spare tire. The red stand just behind the jack isn't something you will have on the road, but these photos were taken outside the garage and one was available.
9. Assemble the rod pieces, angle it into the connection point, slip the end into the center of the lug wrench handle so it forms a T, and you have a jacking handle you can use while safely away from the vehicle.
10. Attach the ¾" deep socket & 3/8" x 6" extension to the breaker bar making a lug nut wrench.

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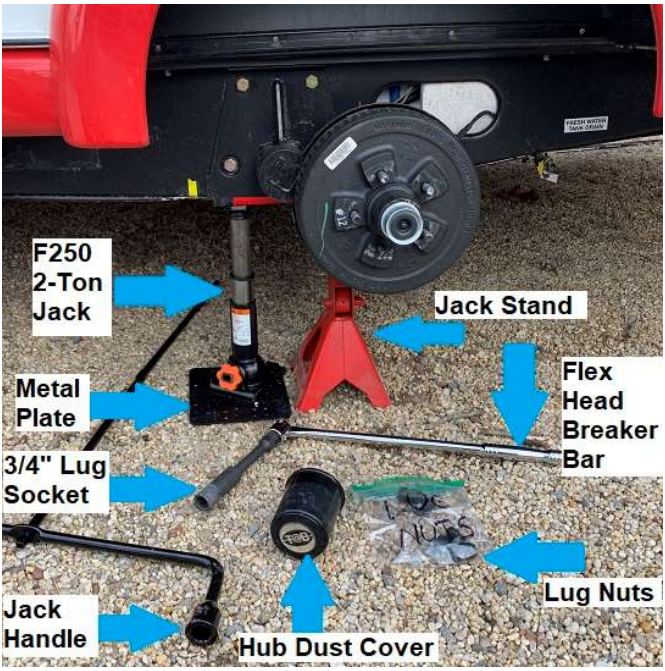
11. The spare tire is tucked into the front of the trailer between the main rails of the "A" frame. A winch crank is located on the passenger side just behind the propane tubs. Take the ¾" wrench stored in the TIRE bag and crank, the one with the blue plastic along the sides, follow the instructions on the label below the winch nut, and lower the tire. In case the label has been damaged, turn left to LOWER and right to RAISE the tire. DO NOT USE A DRILL!

12. Follow the wire down from the trailer through the center of the tire and remove the cradle that holds the tire against the frame. Place the tire nearby so it can easily be put into place once the damaged one is removed. You want to minimize the amount of time that the trailer is being supported by the jack. While the trailer is still resting on the tire, loosen the lug nuts applying as much pressure as needed. The lug nuts may be set very tight and need a hard jolt to get them moving. It's much safer to do this while the trailer is on the ground and not in the air on the jack.

13. Use the jack to raise the trailer making sure to keep any body parts away from the trailer frame. Vigilantly watch the jack making sure it stays perpendicular to the ground and doesn't start to lean over. You only need to lift the trailer enough to remove the tire. Once the tire is off the ground, take a moment to slowly turn the wheel for two rotations. If you hear a grinding noise, you may have wheel bearing damage and that would have to get checked & fixed

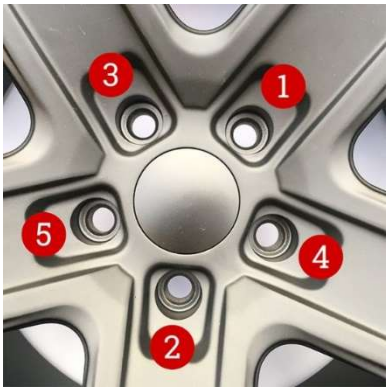
immediately after changing the tire and moving to a safe spot. See the section on BRAKES & AXLES & BEARING



14. Remove the remainder of the lug nuts and remove the tire. Find the ziplock bag labeled LUG NUTS in the HITCH BAG and use it to keep the lug nut from getting lost and/or filled with dirt and grime if left on the ground. Remember that the trailer is 3500# and is resting on a 1" surface connected to a hydraulic ram which itself is resting on a 4" x 3" base; so, don't do anything that would jar the trailer and cause the jack below to slip.
15. The plastic shroud around the wheel well will make it a little tricky to remove the tire. Tilt the bottom toward you as pull the tire off the threaded wheel studs while also pulling the dust cover towards you. That cover slides and most removal/replacement problems occur when the cover gets wedged part way. As soon as the tire is off the

wheel studs, let it slide down to the ground while shifting it to the RIGHT and angling it so it will roll out of the wheel well to the LEFT

16. Replace the damaged tire with the spare.
17. Put the lug nuts back into place by hand screwing them loosely as far as they will go. You might need to rock the wheel a bit like a sea saw as you push it back, gently, onto the trailer.
18. Follow the star configuration shown in the chart to the right and tighten the lug nuts until you feel resistance. No hard-jerking motions. Just get the tire tight on the drum.



19. Lower the trailer to the ground
20. A Husky 20-100 ft-lb torque wrench was in the 18" PVC tube. Pull the collar back and twist the handle until the rim sits on the line between 90 and 100. The wrench uses 3/8" drive sockets and there is a ¾" one in the HITCH bag. With the wrench set to 100 ft-lbs, follow step #14 again making sure to keep tightening until you hear the wrench click which means you've reached the torque setting required.

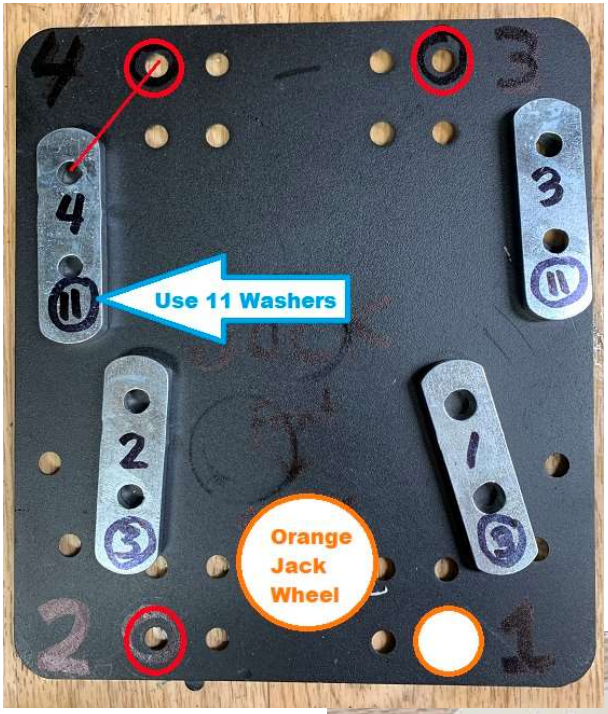
21. Do the opposite of what you did in Step #6 to secure the damaged tire.
22. Return the torque wrench to 0 ft-lbs as this relieves spring tension and helps maintain accuracy of the settings.
23. NOTE: nuCAMP factory hasn't provided guidance on the tire changing process nor provided any equipment to do so. My guess is they want to avoid liability for what accidents might come from people misunderstanding their instructions. Either way, you have each gone

through this procedure with Dad before heading out so just use street senses. Follow the idea behind these instructions and remember it's just a piece of equipment. It can be replaced! If in doubt, of your abilities or the situation you find yourself in, call for help.

Anyone not our family… Use any of these recommendations at your own risk!

NOTE: A Vehicle Jack Adapter Plate can be found along with the jack in a black zipper pouch. If you are in a situation where you want to make the base of the jack longer, such as where the surface is uneven or soft, using the jack plate may be the safest route to take. Using the picture below, note that there is a black plate with four silver oval metal tabs. These tabs have been numbered 1, 2, 3, & 4 and a corresponding number is on the plate. The hole to which that number corresponds is circled. On the metal tab is a number inside a circle. That number corresponds to the number of washers you should put under the tab to make it level with the base of the jack. For example: Tab # 1 & 2 each has 3 washers while Tabs #3 & 4 use 11 washers. The photo to the right shows you what it should look like once it's fully assembled.

NOTES: If the jack extension rods get lost or damaged and all you have is the jack, a drill adapter has been included as a backup. Set the drill on its LOWEST setting and it will raise and lower the jack. Only your arm should be under the trailer at that point and use extreme care. Street sense prevails.


4
3
4
11
Use 11 Washers
3
11
2
3
1
3
Orange
Jack
Wheel
2
1


Vehicle
Jack
Drill Adapter