Instructions to Make RV Wheel Chocks

Tools required:

- Level
- Drill with bit proportionate to the size rod you choose to use
- Tape measure
- Hacksaw to cut the threaded rod to length
- Skill or table saw capable of cutting a 4" x 4"
- File or grinder for eliminating burrs created when cutting down the threaded rod

Parts List:

- 1 salt-treated or pressure-treated 4" x 4"
- 2 threaded rods, 1/2" or 5/8" (A 3/4" pipe clamp will work but it's a lot harder to install because of the three disconnected elements). You'll find the 5/8" rods are more durable and less likely to bend when used. They will also tighten down better.
- 8 nuts (stainless steel or galvanized)
- 6 large flat washers (stainless steel or galvanized) to prevent nuts from cutting into the wood
- 6 lock washers (stainless steel or galvanized)
- 1 tube Loctite

Measure and Mark

Since the distance between axles and the diameter of tires varies from one RV to another, you'll need to determine the length of the 4" x 4" members and the angle by measuring.

1. Using a level, pick a height on your RV’s wheels where you want the bottom of the chock to be positioned.
2. Mark the tire with white chalk, then measure and note the distance between the two tires.
3. Using a tape measure, make a second mark above the first, equal to the width of the 4" x 4" you are using. This mark will determine where you measure distance for the top side of the chock.
4. Place the level on this top mark and then mark the opposite tire at the appropriate place indicated by the level.
5. Now, measure the distance between the two tires at the height indicated by these two top marks.
6. Using the top and bottom measurements, you can determine the angle of the cut you'll need to make on each end, as illustrated in the drawing on the right.
7. Mark the 4” x 4” with the distance determined by the top measurement, then divide it in half. This will establish the centerline.
8. Divide the lower measurement in half and use that number to establish the position of the bottom measurement on the center line. Drawing a line from the ends of the two marks will establish the angle of the cut for each end.

**Cut and Drill**

1. Following the marks you've created with the procedure outlined above, use a skill or table saw to cut the angled ends of the chocks.
2. Once you've cut your first chock, do a test fit by placing the chock in the position you just measured between the tires, to make sure the angle is reasonably close. You want maximum contact between tire and block to get the greatest advantage possible.
3. If you're satisfied with the first piece you've cut out, you'll need to make three more. You can save some wood by turning over the first chock you've cut, matching the angled end to the stock piece of wood and cutting the next three in a similar manner.
   - This method will work as long as you use the first piece cut for the pattern and make sure you're cutting on the outside of the mark.
   - Be careful not to use each piece you cut to pattern the next. Also take care to avoid cutting right on the mark. If you make these mistakes, you'll end up with a fourth piece that is quite a bit shorter than the first because of the width of the saw blade you're using!
4. You will need to drill a hole for the threaded rod. Draw a line on the top side of the chock from opposite corners, creating an X that indicates the center, both top to bottom and left to right. Drill the hole for the threaded rod where X marks the spot.
5. To determine the length of the threaded rod, place the top chock between the two tires and hold up the bottom chock in place. Measure the distance from the bottom of the lower chock to the top of the upper chock and add at least two inches. You'll want the rod to be at least two inches longer than the top of the block so you have plenty of room to back off and remove the chocks when you're ready to roll.

6. Mark and cut the threaded rod according to your measurements and use a hand file or grinder to feather the edges, removing any burrs that could get into your hand or prevent the nuts from going on properly.

7. Do a test fit to see if the nuts thread straight onto the rod and dress up the cut end with the file until it threads on easily. Use the cut end at the bottom of the assembly so you only have to deal with it once.

Assembly

1. Assemble the chocks starting with the bottom of the unit. Install a nut onto the bottom of the threaded rod, using a little Loctite to prevent it from backing off. Note: Using blue Loctite will allow for later disassembly, while red Loctite is permanent. Either type will work, though if you think you might want to take the nut off someday, use the blue type.

2. Slide on a lock washer, then a flat washer, followed by one of your cut chocks with the widest side downward.

3. Slide on a flat washer followed by a lock washer, then a nut, screwing them down until the bottom chock is snugged tight.

4. Follow up with a second nut to be used as a lock nut to prevent it loosening up.

5. Now you'll add the second chock, small side down, followed by a flat washer, lock washer and nut.

6. Assemble the second set of chocks in a similar manner and confirm viability by installing and tightening until movement of the camper is eliminated.