



## OWNER MAINTENANCE REMINDER

RE: Wheel Torque  
8/21/2018

**OVERVIEW:** This Maintenance Reminder covers the inspection and proper maintenance of the wheel torque on your Little Guy Max or Little Guy Mini Max travel trailer.

Recently we have heard reports from customers with wheel issues. Upon investigation of these issues we found that multiple times the proper maintenance and checking of wheel torque was not being performed. It is very important for your safety and the safety of others that you verify your wheel torque is 100 ft/lbs. If you find that your wheels are torqued above or below 100 ft/lbs you will need to adjust them as necessary.

**MODELS:** Little Guy Max and Little Guy Mini Max

**WHAT TO LOOK FOR:** Before each trip it is important to perform the proper inspection of your wheel torque. A torque wrench is required to verify that your torque is appropriately set at 100 ft/lbs.

**WHAT TO USE:** 3/4" torque wrench.

**SUMMARY:** Maintenance of your wheel torque is very important as an RV owner. We recommend that you check this before each and every trip as well as periodically during travel when you arrive at a rest stop.

**ATTACHMENTS:** Attached you will find a Wheel Torque Guide that has been prepared in conjunction with the wheel and axle manufacturers.

**Please contact us with any questions, concerns or comments:**

877-545-4897

warranty@golibertyoutdoors.com

Sincerely,  
Liberty Outdoors, LLC

A large, stylized black and white graphic of an eagle's head in profile, facing left. The eagle's beak is sharp and pointed. The background behind the eagle's head is a large, curved, black shape that resembles a wing or a swoosh, extending from the top left towards the right. The overall design is minimalist and high-contrast.

# **LIBERTY OUTDOORS**

WHEEL  
TORQUE  
GUIDE

**2018**

## SHOCK ABSORBERS

If equipped, shock absorbers may provide a “ride enhancement” to the trailer. They do not affect the stability or towability of the trailer.

## SPARE TIRE

If equipped, can be utilized in an emergency if a trailer tire loses air pressure or goes flat. Certain brands use different wheels than original with the intent for the spare to be temporary.

## TIRE CHANGING BASICS

1. Use emergency flares when near a road or highway.
2. Block the wheels on the opposite side from the tire you wish to change to prevent accidental movement.
3. Position a hydraulic jack on the frame close to the spring hanger. (Never attempt to use a stabilizer jack to lift the RV)
4. Raise the trailer until the tire clears the ground.
5. Set a jack stand under the frame just to the rear of the tire being changed.
6. Follow the Wheel Nut Torque and Wheel re-installation instructions provided in this section.

## WHEEL NUT TORQUE

The information contained in these printed instructions outlines the most recently recommended processes involving Lug Nut Torque and takes precedence over any information regarding Lug Nut Torque shown in your Lippert or Dexter Owner’s Manuals.



***ALWAYS TORQUE WHEEL NUTS TO THE WHEEL MANUFACTURER’S SPECIFICATIONS. OVER OR UNDER-TORQUED WHEEL NUTS CAN CAUSE THE WHEEL TO SEPARATE FROM THE WHEEL MOUNTING SURFACE DURING OPERATION, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.***

The axle and wheel assemblies of your RV are designed differently than those on your car. The overall size, weight and center of gravity of a recreational vehicle subject the wheels to pressures unique to trailering. During normal cornering, the tires and wheels experience a considerable amount of stress called “sideload”. Therefore, the lug nuts on your recreational vehicle require periodic torque maintenance.

Torque is the amount of rotating force applied to a fastener, such as a lug nut. Proper torque of lug nuts can only be achieved by using:

- Torque wrench (Dial indicator or Adjustable dial, not supplied by Liberty Outdoors).
- 7/8” or 13/16” socket (Not supplied by Liberty Outdoors)

These instructions will show you how to maintain proper lug nut torque by following these important steps:

1. Check torque before every trip.
2. Use proper tools.
3. Follow the appropriate star pattern sequence.
4. Torque lug nuts in the correct stages and follow-up intervals after any wheel reinstallation.

Some wheel assemblies require an extension. DO NOT USE a flexible extension. Also, DO NOT USE a 4-way socket or any other type of wrench which does not measure the actual pressure applied to the lug nut.



**Step 1: Wheel Reinstallation**

- 1** 20-30ft/lbs
- 2** 55-60ft/lbs
- 3** 90-100ft/lbs

**Step 2: Follow-up**

- 3** 100ft/lbs

**Re-torque after first:**  
10 miles → 25 miles → 50 miles

**USING TORQUE WRENCHES**

- Most torque wrenches are required to be set at “0” when not in use to maintain calibration.
- Please refer to the manufacturer’s instructions for further information on care and use.

**SETTING TORQUE VALUE ON A DIAL INDICATOR WRENCH**

1. Make sure your indicator needle is set to “0”.
2. As you apply clockwise pressure to the lug nut, both needles will show the current amount of torque being applied.
3. When you reach your desired torque value, stop applying pressure and your indicator needle will stay at the highest torque value reached.

**SETTING TORQUE VALUE OF ADJUSTABLE DIAL WRENCH**

1. Unlock the handle and set the dial to your desired torque value.
2. Lock the handle back in place.
3. As you apply clockwise pressure to the lug nut, you will hear an audible “click” when the desired torque wrench value is reached. Do not apply further pressure once you hear the “click”.

## PRE-TRIP MAINTENANCE

### ALWAYS REMEMBER

- Check lug nut torque before every trip. Liberty Outdoors recommends this maintenance procedure to ensure proper torque has been applied to lug nuts before heading out on the road.
- Lug nuts should be torqued to 100 ft/lbs.
- Always follow the appropriate star pattern as indicated in these instructions or in your axle manufacturer's owner's manual to assure proper torque.

### PRE-TRIP PROCEDURE

1. Set your torque wrench to 100 ft/lbs.
2. Begin with the appropriate bolt for your wheel (12 o'clock position for 8 and 6 hole wheels and 2 o'clock position for 5 hole wheels, as illustrated) and apply torque to all lug nuts following the star pattern indicated.
3. Complete the procedure on each wheel. Before moving to each new wheel, be sure to verify your preset torque wrench value.



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### WHEEL REINSTALLATION

After removing a wheel from your RV for any reason, you must carefully follow a 2 step process:

1. Wheel re-installation.
2. Follow-up.

### STEP 1) WHEEL RE-INSTALLATION

During wheel reinstallation, the lug nut torque must be applied in 3 stages. This will ensure the wheel studs are centered in the wheel holes, and will help the lug nuts maintain proper torque. Start all lug nuts by hand.

**Stage 1:** Set your torque wrench to 20-30 ft/lbs. Begin with the appropriate bolt for your wheel (12 o'clock position for 8 and 6 hole wheels and 2 o'clock position for 5 hole wheels, as illustrated) and apply torque to all lug nuts following the star pattern indicated.

**Stage 2:** Increase your torque wrench setting to 55-60 ft/lbs. Begin with the appropriate bolt for your wheel and apply torque to all lug nuts following the star pattern indicated. Following stage 2, the wheel can support the weight of the trailer and can be lowered off of the jack stand.

**Stage 3:** Increase your torque wrench setting to 90-100 ft/lbs.

Begin with the appropriate bolt for your wheel (as illustrated) and apply torque to all lug nuts following the star pattern indicated.

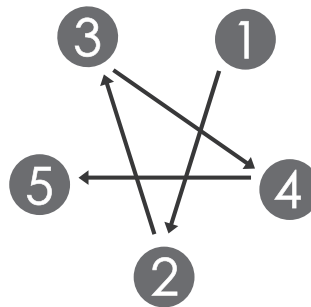
**NOTE: Start all lug nuts by hand to prevent cross threading. Wheel nut torque requirements vary depending on the size and manufacturer of the wheel. Always use the wheel manufacturer's recommendation but do not exceed 100 ft/lbs. on 1/2 inch studs.**

**STEP 2) FOLLOW-UP: RETORQUE AFTER 10, 25, AND 50 MILES:**

1. After the first 10 miles of your trip, pull your recreation vehicle off the road into a safe work area.
2. Set your torque wrench to 100 ft/lbs.
3. Begin with the appropriate bolt for your wheel and apply torque to all lug nuts following the star pattern indicated.
4. Re-apply torque at 100 ft/lbs and repeat steps 1, 2, & 3 again at 25 miles and at 50 miles of your first trip.

The follow up process is complete and you should refer to the general lug nut torque maintenance process described in “Pre-Trip Maintenance”.

**WHEEL NUT TORQUE SEQUENCE**



***IF YOU ARE UNCERTAIN OR UNFAMILIAR WITH ANY PROCEDURE, PLEASE CONTACT YOUR LOCAL DEALER.***

**SUMMARY**

1. Check torque before every trip.
2. Use proper tools.
3. Follow the appropriate star pattern sequence.
4. Torque lug nuts in the correct stages and follow-up intervals after any wheel reinstallation.



***DO NOT TOW THE TRAILER WITH MISSING OR DAMAGED AXLE STUDS. AN INCREASED RISK OF WHEEL SEPARATION WILL OCCUR.***

***INSTALLATION OF WHEELS WHICH ARE NOT COMPATIBLE WITH THE MANUFACTURER INSTALLED AXLE ASSEMBLY COULD RESULT IN WHEEL SEPARATION, WHICH CAN LEAD TO PROPERTY DAMAGE, SERIOUS INJURIES OR LOSS OF LIFE.***



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