



INSTALLATION INSTRUCTIONS

Vortex Hub Kit

The Vortex hub/spindle is designed to be a no maintenance hub for 6 years or 100,000 miles whichever comes earlier. If you should need to add grease or remove the hubs for any reason, follow the instructions below.

TO MAINTAIN THE FACTORY WARRANTY, LUCAS OIL MARINE GREASE MUST BE USED WHEN ADDING OR REPLACING GREASE IN THE VORTEX HUB.

Installing the Vortex hub for the first time or the inspection or maintenance should be done in a safe location away from moving vehicles.

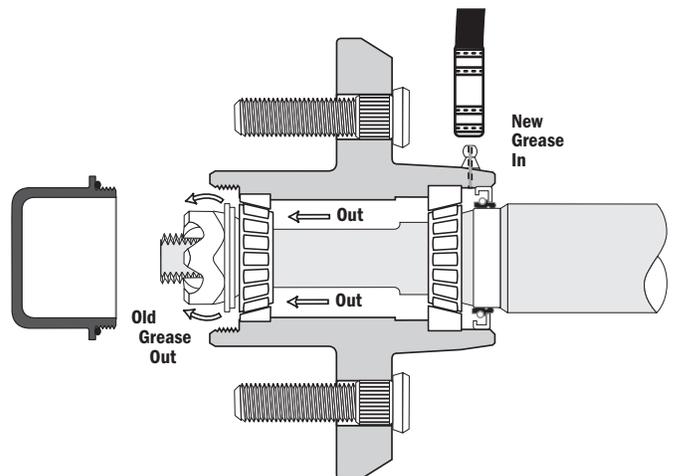
1. Elevate the trailer on level ground using the manufacturers instructions. Always use jack stands or other solid supports. Do not rely on a jack to support the trailer. Block wheels to keep the trailer from rolling.
2. Remove the tire/wheel assembly.
3. Place a newspaper or cloth on the ground under the hub to keep any parts from falling onto a dirty surface.
4. Remove the Vortex cap, unscrewing in a counter clockwise rotation.
5. Remove the cotter pin, castle nut (in a counter clockwise rotation) and washer. If you have a "tang" washer instead of a cotter pin, bend the locking tab to a "free" position to allow the washers and spindle nut to be removed.
6. Remove the hub from the spindle. If you have hat style disc brakes, you will need to remove the brake caliper to remove the rotor first. Follow separate instructions for disc brake rotor removal.
7. Clean the axle spindle with a soft absorbent cloth, inspect the spindle for signs of wear or corrosion. If you detect abnormal wear, you may need to consult a trailer repair shop.
8. Coat the spindle with a thin layer of grease or oil to allow the Vortex hub to slide on easily. Be careful not to allow the bearings to fall out of the hub.
9. Place the Vortex hub on the spindle in reverse order as listed above. Rotate the hub while applying approximately 50 ft. lbs. of torque to the spindle nut. This translates into a full hand pressure load with a 12" long wrench. This "seats" the bearings.
10. Loosen the spindle nut to remove the torque applied. DO NOT ROTATE THE HUB.
11. Tighten the spindle nut until snug, backing off only enough to line up the cotter pin with the hole in the spindle or the locking tab from the "tang" washer (first position).
12. Bend the cotter pin or locking tab into place.
13. Pump the Lucas Oil Marine grease into the zerc fitting while slowly rotating the wheel. Grease will flow out of the hub around the front bearing. When the grease appears to be the new clean grease, remove the grease gun.
14. Install Vortex cap. Turn in a clock-wise rotation until the O-ring on the cap is in contact with the hub surface. Turn an additional 1/4 turn to seal the Vortex cap to the hub. (This is similar to installing an oil filter in an automobile).
15. Replace tire/wheel, torque lug nuts according to wheel manufacturers instructions.
16. Test hub for proper end play by grabbing the tire and pulling the tire from side to side. Readjust if necessary.
17. **VERY IMPORTANT: RE-CHECK LUG NUTS AFTER 25 MILES OF USE.**

Adding or Changing Lucas Oil Marine Grease in Your Vortex Hub

Your Vortex hub is equipped with the Vortex Lubrication System. Should the hub/ bearings require additional lubrication for any reason, the Vortex lubrication system allows you to do so without removing the hub or having to re-adjust the bearings. New Lucas Oil Marine grease is pumped into the zerc fitting on the backside of the hub, travels to the rear bearing where the new grease pushes out the old grease through the rear bearing, center of hub and through the front bearing.

FOLLOW THIS SIMPLE INSTRUCTIONS

1. Remove the Vortex cap, unscrewing in a counter clockwise rotation.
2. Use a standard grease gun loaded with Lucas Oil marine grease to pump grease into the zerc fitting located on the back side of the hub.
3. Pump the Lucas Oil Marine grease into the zerc fitting while slowly rotating the wheel. Grease will flow out of the hub around the front bearing.
4. When the grease appears to be the new clean grease, remove the grease gun.
5. Replace the Vortex grease cap. Turn in a clock-wise rotation until the O-ring on the cap is in contact with the hub surface. Turn an additional 1/4 turn to seal the Vortex cap to the hub. (This is similar to installing an oil filter in an automobile).



Hub Filled With:

