

Peace Light Lantern Carrier

The Peace Light Lantern is used to transport the flame from one location to the next. Extreme care needs to be taken when transporting this flame from one location to another location in a moving vehicle. The lantern carrier must provide two functions. One is to provide a stable method of securing the lantern and carrier within the vehicle and second is to insure the flame continues to burn. In 2008, Troop 113 built two such carriers and successfully used them to take the flame from NYC to Saint Paul Minnesota (1400 miles with six stops) without any problems. We want to share with you our design. There are other examples of carriers on the www.PeaceLight.org.uk web site.

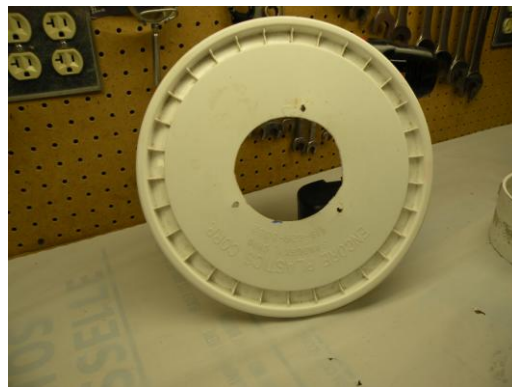
List of materials

- 1 – 5 gallon plastic bucket and lid
- 1 – 4 inch water heater exhaust vent
- 4 – 2-inch drywall screws
- 1 – ¼ x 20 x 1 inch bolt and wing nut
- 1 – clamp with ¼ inch hole
- 1 – 6-inch PVC pipe coupling
- 12 – 1/8 inch pop rivets
- 3 – ½ x 2-inch piece of sheet metal
- 1 – Lantern (12” standard kerosene lantern)
- 1 – small bag of vinyl cement
- 1 – 6-inch diameter food can (optional)
- 2 – finger bandages (optional, use as needed)
- Smokeless paraffin – 8 oz per 12 hours using a low flame

Tools

Jig saw, drill motor, 1/8 and 1/4-inch drill bit, rivet gun, 1-inch drill bit, screwdriver and tin snip.

Step I



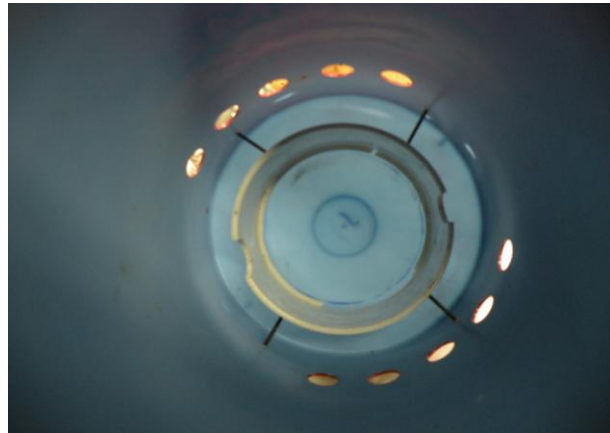
Take the 4-inch vent and center in on the lid. Trace a line around the vent. Cut out the center circle with a fine blade in the jigsaw.

Step II



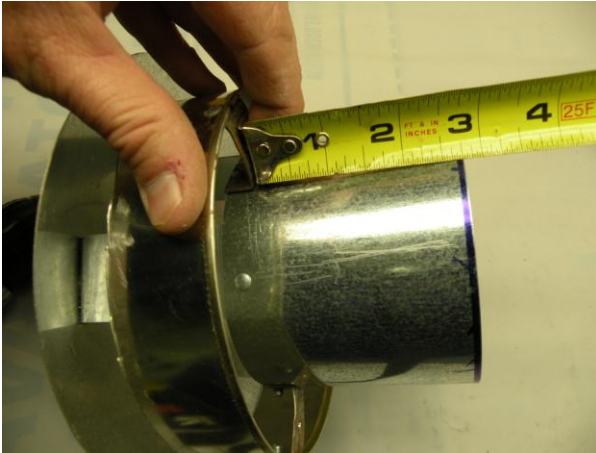
Cut the 6-inch PVC pipe coupling in half along the circumference. This should create two pieces as shown above. The height of the piece will be 3 inches which is normally too high for your lantern to sit inside of without the sides hitting. Use a progressive drill bit to notch out the two sides so the lanterns bottom sits firmly at the same level as the bottom of the PVC piece. Set the lantern in place and test for stability. This piece will become the cradle on the bottom of the carrier.

Step III



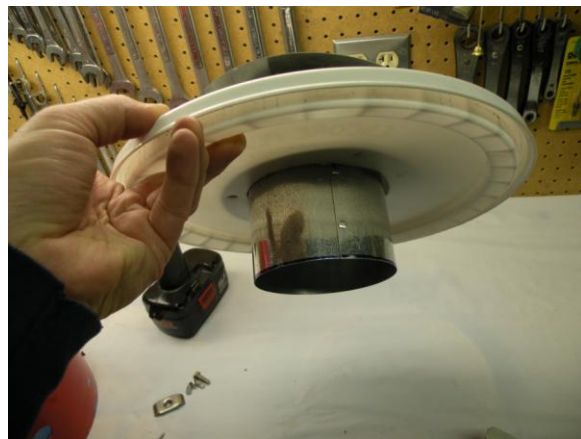
Drill 8 or 10, 1-inch holes, $2\frac{3}{4}$ inches above the bottom of the 5 gallon plastic bucket. Space them out so half of them are on each side of the bucket. Do not make holes that will line up with the notches in the PVC cradle. Use four 2-inch drywall screws at 90-degree locations around the bucket $1\frac{1}{2}$ inches above the bottom on the bucket to center the cradle. These screws will also secure the vinyl cement in place after it dries. The vinyl cement will not adhere to the plastic so it needs to be secured in place. Next mix the vinyl cement with water so it is a little wetter than normal. Pour the vinyl cement in the bottom of the bucket around the outside of the cradle up to the level of the bottom of the cradle notches.

Step IV



Make 3 mounting brackets for the vent. This is where you can, as an option, mount the top 1 ½ inches of a 6-inch diameter food can as a windbreak. You will need to cut the top off with tin snip and the edges are sharp. Be careful! (use bandages as necessary) If you want to only secure the vent to the lid, make 3 L brackets from some spare tin or other metal. If you want to mount the optional windbreak, make 3 U brackets as shown above. The bottom of the brackets need to be riveted to the vent, 2 ¾ inches from the bottom of the vent at 120 degrees around the circumference of the vent. **TIP: drill the 1/8 inch rivet holes in the metal mounts before bending them.** For the L mounts use ½ inch long legs and 1-inch length. For the U mounts add a second ½ inch leg for the windbreak. Mark, drill the 1/8 inch rivet holes in the vent (and windbreak) and rivet together.

Step V



Take completed vent assembly and drop it into the 4-inch hole from the top of the lid. Mark, drill the 1/8 inch rivet holes in the lid and rivet together.

Step VI



Set the lantern in the cradle and let the handle rest against the side of the bucket. Depending on the type of handle clip you use, mark and drill a hole to mount the clip with the $\frac{1}{2}$ x 20 bolt and wing nut.

Completed



Paint and decorate as desired and hit the road!
Using a new lantern and smokeless paraffin will eliminate the noxious kerosene fumes. But be careful, liquid paraffin solidifies at 30 degrees Fahrenheit and will no longer burn.