

## Angel Christmas Ornaments

Most Woodturners take some time each year to make Christmas ornaments, either for craft market sales or just for friends and family. This past year I made a stylized version of an Angel. The following steps describe the procedure I used.

### Qualities Found in Good Ornament design

There are several important qualities that should be considered in any Christmas ornament design.

1. It should preferably be made from a light, low density material to minimize weight.
2. Consider using a high contrast material to provide good visibility and light reflectance.
3. Use materials that machine smoothly, hold crisp details and have a low tendency to tear-out, thus minimizing sanding.

### Wood Selection

One of my favorite woods for making ornaments is Holly. While high quality, pure white Holly without gray streaking and small knots is hard to find and expensive, it is often worth the cost and effort. However, other local woods that will work just fine are Box Elder, Mesquite, Juniper and Cherry. In fact, almost any wood can be used. However, your ornament design may need to take into consideration the characteristics of the wood being used. For example, an ornament from a dense wood will need to be turned thin to achieve the desired lightness.

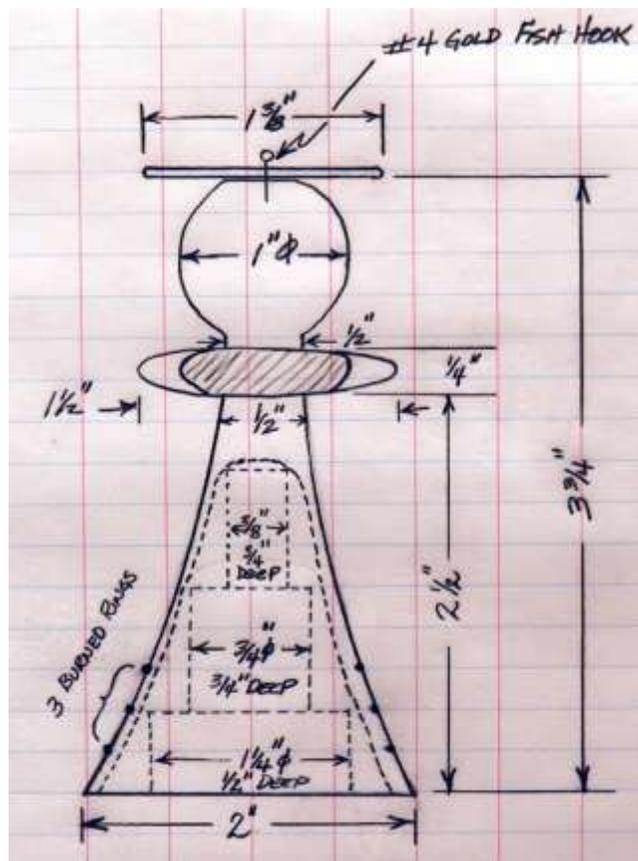


Figure 1 – Angel Christmas Ornament

## Step-by-Step Turning Process

Refer to Figure 1 on the previous page for approximate dimensions.

### Ornament Body

- 1) Start with a 2"x2"x5" wood blank of your choice and mount between centers. Reduce the square block to a 2" cylinder. Add a tenon on one end for your 4-jaw chuck.
- 2) Mount the cylinder securely in your 4-jaw chuck by the tenon just created. Bring up the tailstock and live center for support and true-up the cylinder if needed.
- 3) Drill out the bottom of the ornament in three steps using Forstner bits and a drill chuck mounted in the tailstock. First, drill a 1-1/4" hole, 1/2" deep by advancing the tailstock quill with the hand wheel. Next, drill a 3/4" hole, 3/4" deep using the same procedure. Finally, drill a 3/8" hole, 3/4" deep.
- 4) Hollow the inside of the ornament with your favorite hollowing tool. Sand the inside of the ornament to the desired smoothness. My preferred hollowing tool for this type work is the Hunter #5 tool with the 3/8" round Carbide cutter. The Hunter tool will give an exceptionally smooth end grain cuts.
- 5) Mount a 60 degree cone on the live center and bring up the tailstock to support the end of the ornament. You may want to place a small piece of cloth or paper towel between the cone center and the ornament to prevent marring of the wood.
- 6) Form the outside profile of the ornament using the dimensions from Figure 1 as a guide. None of these dimensions are critical, but you should try to achieve a nice fair curve on the bottom of the ornament. For a nicer appearance, make the head nearly spherical or slightly oblong.
- 7) Sand the outside to final smoothness while it is still on the lathe. Part off the ornament.
- 8) Sand off a section of the wings to give them a more stylized appearance.

### Angel Halo

The halo is made from a round wafer about 1-3/8" x 1/8" thick. This halo should be made from side-grain material and not end-grain stock. An end-grain orientation on a piece this thin has very little strength and will break almost every time if dropped.

An efficient way to make halos is to mount a piece of side-grain wood in a 4-jaw chuck and turn a 1-3/8" cylinder. Part off thin disks from the cylinder, making sure they are slightly over 1/8" thick. As an alternative, part off the entire cylinder and cut the thin disks on a band saw.

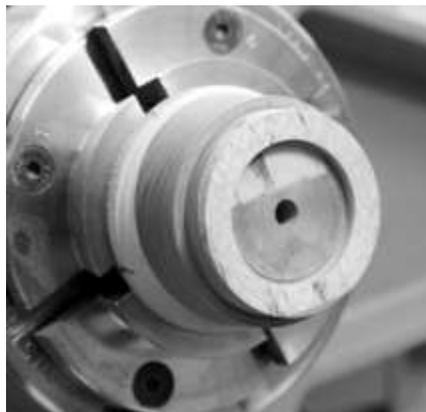


Figure 2 Halo Holder

Next, make a holding jig for the thin disks so they can be easily and quickly finished. I mount a 2" piece of scrap wood in a 4-jaw chuck and drill a 1-3/8" hole in the face that's slightly less than 1/8" deep. A small piece of double-sided tape will hold the disk in place while you finish the top and bottom.

Sand a flat spot on the head with a belt or disc sander. Mount the halo on the head with a drop of thick CA glue.

### **Ornament Hooks**

I like to use #2 or #4 long shank gold plated fish hooks for my ornament hooks. They are small, cheap and look nice.

1. Using a 1/32" drill bit, drill a 1/2" deep hole through the halo and head. 1/32" drills are not common and may be hard to find. If so, use the next largest size fish hook and get a corresponding wire gauge drill bit.
2. Cut off the fish hook, leaving about 1/2" of the shank below the eye
3. With needle nose pliers, make a couple of kinks in the fish hook shank.
4. Force the shank into the hole until it seats against the bottom of the eye. A tight, friction fit should hold the ornament securely. If in doubt, use a drop of thin CA glue in the hole before inserting the shank.

### **Finishing**

Christmas ornaments are one of the few turned items where I prefer a high gloss finish. Since they will normally be hung on a tree with many lights, a shiny finish will better reflect the light and make your ornament more noticeable.

1. For light colored woods such as Holly, Boxelder, etc., I prefer a nitrocellulose lacquer. This will prevent the finish from adding a yellow "ting" to the wood. I normally use Deft High Gloss in the spray can. Although I have never used them, I've been told the water-based lacquer finishes also work well.
2. For darker woods where color preservation may be less important, your finish options are greater. You may choose to use your favorite Wipe-On Poly such as Minwax or Watco.
3. For additional highlights, you may wish to burn some rings on the ornament. This should be done prior to removing the ornament from the lathe.
4. As an alternative to a clear finish, you may wish to spray on an opaque finish using traditional holiday colors such as Silver or Gold.

Good luck and don't wait until the last minute to start you Christmas ornament projects!