



HON3 Derrick Car and Idler Car

Step 1: CLEAN UP

File and sand the burs left over from the printing process.

Step 2: Paint

I would highly suggest painting all the parts before assembly or at least before threading the pulleys.

Step 3: TRUSS RODS

Drill 4 .5mm holes at an angle through the under frame work of each car. Drill one hole in each corner(see figure 1). Only drill through the frame and not through the top of the car. The holes will be used for the making of the truss rods.

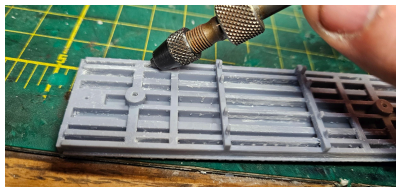


Figure1

Find the fishing line to use for the truss rods. Cut this into 4 4 inch pieces. Insert one end of the line into one of the holes drilled earlier and glue it in place. Run the line over the standoffs and into the corresponding hole. (See figure 2)

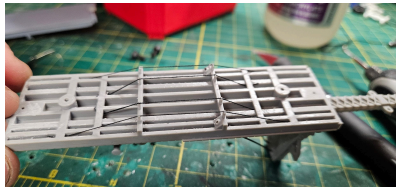


Figure 2

Repeat on the other side. For the inner truss rods, they have to be glued closer to the middle for clearance of the trucks. Run one end of the line under the cross brace and glue it in place. Run that thread over the standoffs to the other side and glue in place. (See figure 2) for locations. Repeat these steps on the other car as well.

Step 4: Boom Tower and boom mounting.

Locate the crane tower, pivot mount, and lower hole mount. (See figure 3) insert the pivot mount into the tower and glue the lower hole mount into the bottom of the tower. **DO NOT GLUE THE PIVOT MOUNT, IT NEEDS TO ROTATE**(see figure 4)
Cut and sand the bottom of the tower and pivot Smooth.



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Figure 3

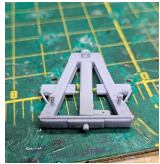


Figure 4

Mount the boom with the piano wire provided. Bend one end of the piano wire and insert it through the bottom of the arm and the pivot mount. **MAKE SURE THE LOOP AT THE OTHER END OF THE ARM IS FACING DOWN AND THE ARM IS STICKING OUT OF THE SIDE WITH THE UPPER AND LOWER LOOPS STICKING OUT.** Glue the pin in place. (See figure 5)



Figure 5

Next we will need to find the Derrick car. The Derrick car is the one without a brake wheel at one end. Glue the tower in between the two raised boards with the boom facing the shorter end of the car. (See figure 6)

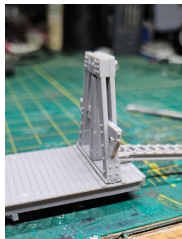


Figure 6

Cut two pieces of the larger piano wire at 2 ½". These will be the supports for the boom tower. Bend and fit the piano wire through the holes in the car deck up to the two lower holes on the top of the tower. (see figure 7)

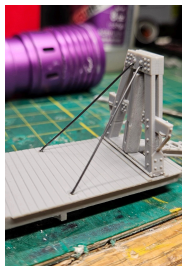


Figure 7



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Step 5: Mounting the Winch

Locate the winch frame and drums. (See figure 8)



Figure 8

Next you will need to file and fit the drums into the frame but do not glue them yet. (See figure 9)



Figure 9

The winch will sit on The derrick car about $\frac{3}{4}$ " from the back of the car (see figure 10)

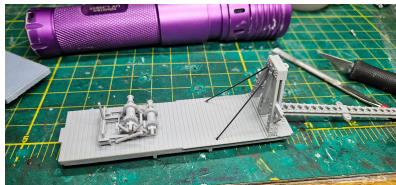


Figure 10

Step 6: Mounting of the pulleys

Create four small $\frac{3}{32}$ " squares out of the smaller piano wire, and one $\frac{3}{16}$ " out of the larger wire. (See figure 11) These will be the shackles for the pulleys.

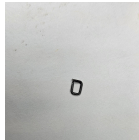


Figure 11

Open the larger wire square and insert the largest pulley and the top loop on the boom tower into the square then bend it closed. (See figure 12)

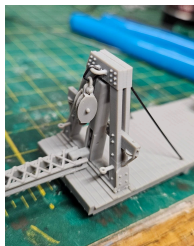


Figure 12

Repeat this step with the last four pulleys. (See figure 13/14)



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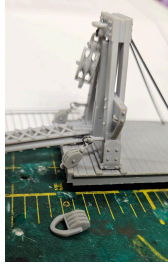


Figure 13



Figure 14

The pulley on the end of the boom is the one with the two long arms. Spread the two arms over the two pins at the end of the arm. (See figure 13)



Figure 15

Step 7: Threading the Derrick

Start with the larger thread for the top lift pulleys. Run the thread under the top roller inside the pivot. (See figure 16) feed the thread through the pulleys and tie it off on the top pulley.

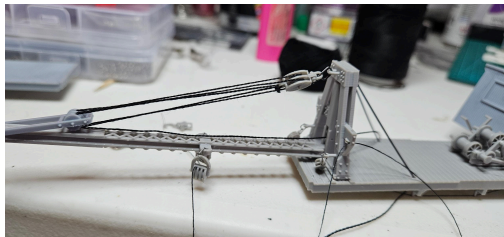


Figure 16

The other pulleys are optional depending on if you want the car to be static or not. With the side pulleys threaded the arm can not swing from side to side to negotiate curves. Personally I don't thread the pulleys. I like to loosely tie down the crane arm to the idler car. This allows the boom to follow through the curves and not hit anything. To thread the side pulleys it is necessary to drill a 1/64" hole next to the pulleys on either side of the crane tower. (See figure 17)



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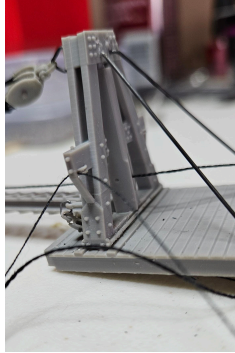


Figure 17

A needle threader will be your best friend for this part. Run the smaller thread through that hole and through the pulleys on the side tying it off on the end of the smaller pulley. Repeat this on the other side. (see figure 18)

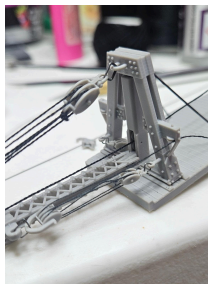


figure 18

For the hook, run more of the larger thread through the lower roller of the pivot then down the boom under the top boom pulley and over top of the end pulley. Feed the tread through the hook then tie the end off on the loop on the underside of the boom.

Step 8: Loading the winch.

The thread from the hook will be wound around the lower drum of the winch. Next the thread from the boom lift will need to be wound around the upper drum. If you threaded the side pulleys the thread will be wrapped around the outer part of the drums on their corresponding side. (see figure19)



figure 19

Step 9: Mounting the winch shelter.

First we need to mount the brake wheel to a 1 ¾ inch piece of the smaller piano wire. Next drill and insert the wire into the mounts on the back of the shelter. (see figure 20)



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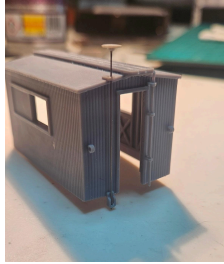


figure 20

The shelter can either be glued or not. I prefer to not glue mine so I can remove it later to show the winch off. Before the shelter is glued the front supports from the top of the shelter to the top two holes on the boom tower. Use the bigger wire for this purpose. The shelter can just be slid on the car.

Step 10: Idler car

All that's needed for the idler car is to mount the support for the boom to rest on. The support will be mounted 1 /38 inch back from the end of the car without the brake wheel.

Step 11: Finishing Touches

All that's needed to finish is to mount the trucks with the wheels and the couplers. I have included extra small wire in the kit for adding grab irons to the model. Here are some pictures of where to put the grabs.



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RRPictureArchives.NET Image Contributed by Charles Stookey