CARVEWRIGHT PROJECT INSTRUCTIONS

1938 Ford Fire Truck

By Lovchik Bros.

This fire truck project is modeled after the one that shows up full of firefighters to help remove Ralphie's friend Flick's tongue from a flagpole in "A Christmas Story." It's a 1938 Ford!

The 1938 Ford truck had a distinctive oval grille that was only shared with the 1939 truck. This was also the first truck to have a conventional, front-opening hood.

Finished dimensions are approximately 15" L x 5.5" W x 4.75" T

ITEMS YOU WILL NEED

- Project Files (Included)
  - Old-FireTruck-1.mpc
  - Old-FireTruck-2.mpc
- Bits:
  - 1/16" Carving Bit
  - 3/16" Carving Bit
- Boards needed:
  - .75" x 7.25" x 33" (1x8)
  - .75" x 7.25" x 26" (1x8)
- Other Needed Items:
  - Sandpaper, wood glue, CA glue (superglue) for "tacking" parts in place, woodstain (and/or paint) and clear finish.
  - 1/8" wood dowel
  - 3/16" wood dowel
  - 3/8" wood dowel
  - 1/2 inch #4 wood screws
- Recommended Items:
  - Large 240 grit sanding mop
  - A Dremel-type rotary tool with assorted sanding wheels and bits

STEP 1 - Compile Project

Launch the Designer software and open the included project files. You can then simply compile (upload) the project to your memory card.

When you compile, you may or may not get a pop-up window with an "Auto-Jig" warning message. If you do see the message, you may safely **click "Ignore"** because our actual boards will be large enough that it won't be an issue.

After the Old-FireTruck-1.mpc project is compiled, select "Good or Best" for the File Quality setting. Click "OK" to upload to your memory card.

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Old-FireTruck-1.mpc
NOTE: Carve times are as follows:
Good - 5 hours 18 mins
Best - 7 hours 42 mins

The Old-FireTruck-2.mpc project consists of only contoured parts, so it is recommended that "Good" is selected for the File Quality setting. The Old-FireTruck-2.mpc project also uses the 3/16" carving bit, so the time displayed of 5 hours 23 minutes is not accurate.

Old-FireTruck-2.mpc
NOTE: Actual carving time :
Good - 2 hours 50 mins

Take and insert the memory card into your CarveWright and load the project board.

Turn your machine on and proceed with Step 2!

STEP 2 - Carving

You will see "Project Menu" on your LCD display. Press "1," then scroll to the desired project and press the green ENTER button to select it.

Follow the additional prompts:

- **Stay Under Rollers** - press 1) NO
- **How to place on Length** - press 3)
- **Place on end** (you may see Place on corner which will work the same.
- **Cut Board to Size?** - press 2) NO
- **Load Bit:** It will ask for the 1/16" Carving Bit. Press the green ENTER button. Insert your 1/16" carving bit, then press the green ENTER button.
- After finding the bit and finding the board surface, the machine will begin the carving process.

For the Old-FireTruck-2.mpc the process will be the same except you will install the 3/16" carving bit.

Once the carving is finished, remove it from the machine and vacuum or blow off any excess sawdust.

STEP 3 - Separate the Parts

Now that the project is carved, you will need to separate all the pieces from the tabs using a sharp chisel.

STEP 4 - Cut the Pump Housing

Use the roof or cab sections as a width guide and cut two pieces that are 1.75" long out of the ends of the boards. These two pieces will become the pump housing in the back of the fire truck.

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STEP 5 - Assembly

SEE EXPLODED ASSEMBLY GUIDE AT THE END OF THIS DOCUMENT.

Glue the lights, siren and fenders together. Use the parts legend at the end of this document to identify the correct parts.

NOTE: The front fenders require sanding to blend the seams together. When gluing, align the front fenders as best as you can using the back of the fender as the reference.

Sand all the parts including the glued up parts before assembly. Be careful sanding the mating edges of the dash, cab back, roof, and two pump-house pieces. Take care to make sure that these parts are all the same width.

TIP: If you will be painting, use a sanding sealer such as a spray shellac before sanding.

Clamp and glue the base, back, and top body together. The dash will be installed later.

Bevel the edges of the front parts that mate to the body.

Line the two front sections up and sand the tops flat.

Check the fit of the front and the body and sand as needed to get a good fit.

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NOTE: This is where the fender seam on the actual car is, so you are not trying to make this seem go away—just fit nicely.

Bevel the back of the hood to fit.

Then bevel the front of the hood to fit. You can do this carefully with a rotary tool.

Glue the front sections and grille to the body using the hood as a guide. The narrower portion of the grill goes down.

NOTE: It can be difficult to get these parts aligned! Just take your time and use drops of super glue to tack the parts in place.

Next, glue the front fenders on.

And then the rear fenders.

Then, glue the seat bottom in. If you wish to paint the interior, do it now.

Place the steering wheel on the dash as shown and mark the center of the wheel on the dash.

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Use a 3/16” bit and drill the dash as shown.

Whittle the end of a 3/16” dowel so it fits snuggly in the steering wheel. Cut the dowel to 3/4” in length and insert into the dash.

Dry-fit everything but do not glue it together.

Drill a ⅛” hole in the center of the back of the hood.

Insert a 1/8” dowel that extends at least a 1/4” out. Line the hood up with the dash and mark the location of the dowel.

Using a bur, cut a slot in the dash. This will be used to locate the hood when opening and closing.

Dry-fit and adjust the hood and dash then glue the dash in.

Glue the blocks for the pump housing in place.

Next, sand everything, blending all the seams together.

STEP 6 - Headlights and Siren

Drill holes in the headlights and siren using an 1/8” drill bit. Then glue short lengths of 1/8” dowel in the holes. Leave the dowels long to make it easy to hold these parts while finishing.

Make marks on the fenders 7/8” in from the outside.

Position the light so that it is just proud of the edge of the grille, then mark the position of the mounting holes.

Drill holes in the fenders using a 1/8” drill bit.

Using an 1/8” drill bit, drill a hole in the fender for mounting the siren.

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STEP 7 - Wheels

Drill the center of the front wheels and inner dually wheels using a 3/16” drill bit.

Glue the dually wheels together.

To finish-sand the wheels, chuck a short piece of 3/16” dowel into a hand drill. Wedge the wheels on to this dowel to finish sanding the wheels.

STEP 8 - Ladder and Hose

Cut 10 pieces of 1/8” dowel to 1 1/4” long and bevel the ends. Place a small drop of glue on one end of each dowel and use a mallet to tap them into the side of the ladder.

Place a small drop of glue on the ends of the dowels and align them with the holes on the other side of the ladder. Use a block and a mallet to tap everything together.

Cut 3 pieces of 3/8” dowel 10 inches long. Paint the dowels black with silver ends. Glue the hose caps on and paint them silver.

With all the sub-assemblies complete and sanding finished, we could finally finish all the parts before final assembly. We used a Krylon Banner Red for our truck finish, a matte black for the running boards, engine, and tires, and added details with red and silver paint pens. Feel free to finish however you like!

STEP 9 - Putting it all together.

Glue the hose mounts .75” up from the side of the truck. The front mount is 1.75” back from the cab; the back mount is .75” from the back of the truck.

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Glue the ladder rack .75” up from the side of the truck. The front rack is 1.75” back from the cab.

To set the position of the second ladder rack, put the ladder on the racks and position the second rack so that it will slightly pinch the ladder.

(You know you are going to want to take the ladder off and play with it!)

Glue the bumper on.

Glue up the engine and glue in place.

Cut a 4” length of 3/16” dowel for the back axle and a 4.25” length for the front axle.

Trim the dowels on the lights and siren and glue in place.

Screw two 1/2 inch #4 wood screws into the bottom of the hood, being careful not to go through the hood. Hook a red rubber band around the tab in the dash and the two screws to attach the hood.

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As a final detail, cut two small pieces of 3/8” dowel to make tail lights, then paint and glue in place.

You don’t have to stop there! Add as many details as you want. Make some old-timey fire extinguishers to add to the side, put your favorite fire department logo on the door as a decal, or anything else you can think of.

FINAL

We hope you’ve enjoyed this project and it gave you as much pleasure as it gave us to design and make it.

Thanks!

Lovchik Bros

Find many more projects at the CarveWright Pattern Depot.

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Assembly Guide

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Exploded View