

Kiddies ride-on truck

Don Jordaan shows you how to make a robust truck from easily assembled sections, which will allow children to play indoors if it's raining and outdoors when the sun shines.

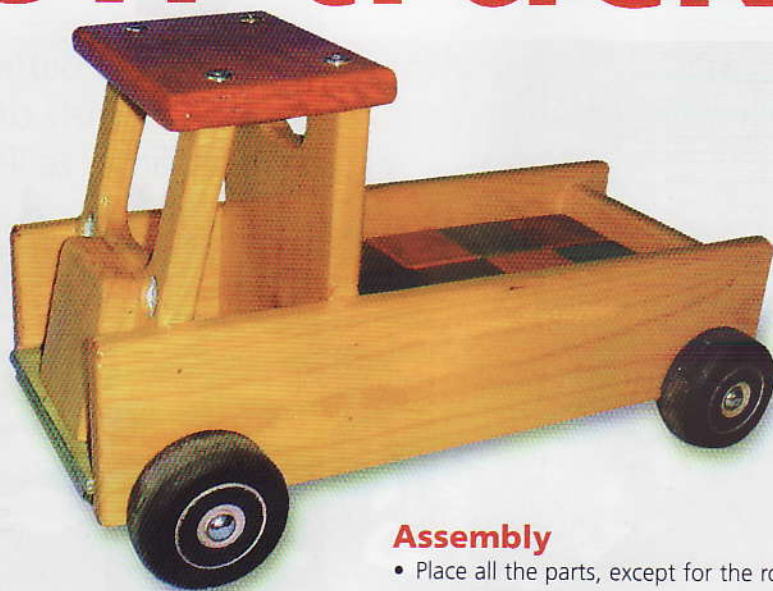
If you follow the step-by-step instructions below, you will not only get the satisfaction of making a sturdy truck, but of watching all the children having fun riding on it.

Preparation

- Cut a 5mm deep x 6mm wide groove 15mm from the bottom of the two sides as well as the tailgate. You can do this with a bench saw, provided that you lower the blade to protrude by only 5mm and set the fence accordingly.
- Mark the position where the two screw holes are to be drilled to fasten the cab front, the cab rear as well as the tailgate.
- Drill these holes with a countersink drill bit set.
- Drill a 6mm hole on each side (50mm from the ends) as indicated in graphic 1. These will serve as the axle holes.
- Trim the two sides all round, using a 4,8mm rounding-over cutter.
- Now trim only the long edges of the tailgate and then proceed by trimming

all around the roof.

- Adjust your saw to 75° and trim the top and bottom of the cab front as indicated in graphic 1.
- Mark the position of the front window onto the wood and then cut it out with a bandsaw.
- Use a 20mm spade bit to drill the front lights to a depth of about 3mm.
- Mark the position of the rear window and then cut it out.
- Trim both sides of the two windows with the rounding-over cutter. Then trim the upper 100mm edges of the cab front as well as the cab rear. This will be the area that will protrude above the sides when the truck is assembled.
- Glue the portion that was cut out from the front window to serve as a radiator. However, first make sure that the bevelled edges form a straight surface.
- Wipe off any excess glue with a damp cloth and allow the radiator piece to dry.
- Trim the surround of the radiator with the rounding-over cutter.
- Glue the bumper strip to the base, wipe off any excess glue and allow it to dry.
- Trim the bottom two edges of the bumper strip, using the rounding-over cutter.
- Sand all parts to a very smooth finish with 100-grit sandpaper followed by 150-grit.



Assembly

- Place all the parts, except for the roof, in a dry-fit position.
- Ensure that the tailgate is correct and square in position and that the base fits into the groove.
- Extend the two pilot holes on each side to a depth of 35mm.
- Insert the screws to keep everything in position, but do not tighten them yet.
- Check that the rear cab rest on the base is 260mm from the tailgate.
- Extend the two pilot holes per side to a depth of 35mm and insert the screws to hold it together.
- Place the cab front in position, making sure that the bottom edge is flush with the end of the sides as well as with the edge of the base.
- Also extend the pilot holes in the sides of the front cab to a depth of 35mm and insert the screws.
- Place the structure on its side, remove the screws and the one side.
- Apply sufficient glue to all parts that will make contact with the side, before placing it back into position. Also check that it fits well before inserting and tightening the six screws.
- Now place the structure on its other side and follow the same procedure as described above.
- Turn the structure upside down and drill two pilot holes through the bumper –

Tools

- Bench saw
- Drill press
- Countersink drill bit set
- 16mm & 20mm spade bit
- Adjustable circle cutter
- Router
- 4,8mm rounding-over cutter
- Bandsaw
- Clamps

30mm from the front edge.

- Insert and tighten the two screws.
- Place the roof in position and carefully drill the pilot holes through the roof into the uprights, using the countersink set.
- Apply some glue to the uprights and then fasten the roof with four screws.
- Use a damp cloth to remove excess glue and allow the roof section to dry properly.
- Apply two coats of sanding sealer to all parts and allow them to dry.
- Sand the truck lightly with some used 150-grit sandpaper.
- Fill in the lights by painting over them with aluminium or silver paint.
- Apply one or two coats of brightly coloured non-toxic paint to the different parts. Remember that kids love colours like red, yellow, green and blue.

Making the wheels

The wheels are the most important part of any mobile toy. You can buy 90mm ready made plastic or wood wheels at many hardware shops or make your own. The following method will produce very strong wooden wheels that will even resist breaking under the weight of any adult who may wish to ride on the truck.

- Use a pencil to divide the 400mm x 100mm piece of Supawood into four equal squares of 100mm x 100mm.
- Now mark the exact centre of each square, as this is where the axle hole will be drilled.
- Insert a 16mm spade bit into the drill press and drill each wheel to a depth of only 3mm. Make sure that the point of the spade bit enters exactly on each centre mark.
- Insert an adjustable circle cutter into the drill press and adjust its setting to a 45mm radius. It is important to make sure that the long edge is pointing inwards so that the bevelled scrap is not left on the edge of the wheel.
- Clamp the Supawood onto a wooden facing on the worktable of the drill press and adjust it so that the pilot bit of the cutter is exactly in line with the pilot hole made by the spade bit.
- Set the drill press to a slow speed and carefully cut all six wheels to a depth of about 18mm. *Note:* don't try to lower the cutter too quickly.
- Turn the Supawood over, adjust the position of the worktable so that the pilot bit of the cutter fits into the pilot hole. Now clamp it into position and cut

the rest of the way through.

- Sand the wheels to a smooth finish. Remember to give special attention to the outer edges.
- Apply two coats of sanding sealer to the six wheels. Give the sealer sufficient time to dry, before sanding the wheels lightly.
- Apply one or two coats of non-toxic black paint and allow it to dry thoroughly.

Attaching the wheels

- Insert one end of the 6mm rod into a domed cap star lock, followed by a wheel and then a washer. Push this assembly through the axle holes of the truck. Now insert another washer followed by a wheel, which can then be closed off with a domed cap star lock. You will notice that the 'dome' of the domed cap star lock fits exactly into the recess made by the spade bit, giving it the appearance of a hubcap.
- Repeat this procedure for the other set of wheels. ↑

Cutting list

All 20mm SA Pine:

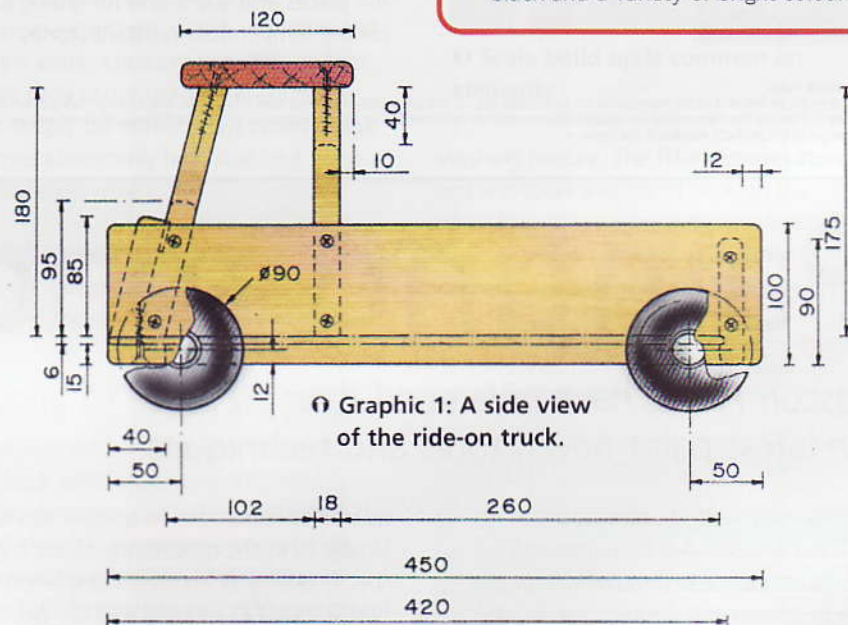
- Sides: 2 x 450mm x 100mm
- Cab front: 1 x 190mm x 150mm
- Rear of cab: 1 x 175mm x 150mm
- Tailgate: 1 x 150mm x 90mm
- Roof: 1 x 160mm x 120mm
- Bumper: 1 x 150mm x 40mm

Other materials:

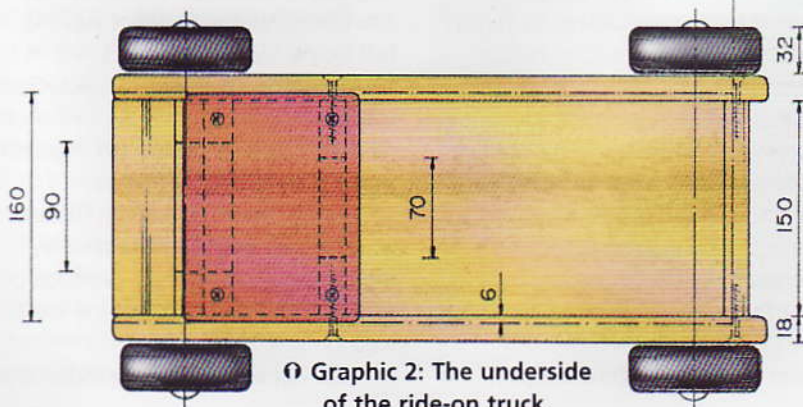
- Base: 1 x 6mm ply or Supawood (420mm x 160mm)
- Wheels: 1 x 32mm Supawood (400mm x 100mm)
- Axles: 2 x 6mm round steel bar (260mm)

Sundries:

- 4 x M6 clip-on domed-caps for the wheel hubcaps
- 4 x M6 washers
- 18 x no 8 x 40mm Pozi-drive screws
- 100-grit and 150-grit sandpaper
- Cold glue
- Wood filler
- Sanding sealer
- Non-toxic paint - aluminium or silver, black and a variety of bright colours



Graphic 1: A side view of the ride-on truck.



Graphic 2: The underside of the ride-on truck.