

# TANK ENGINE and COACHES

*This blockish little puffer will pull as many of the sturdy little coaches as you care to make. Richard suggests three as a good number.*

**T**HIS pocket-sized tank engine is an ideal 'first' to make for any youngster who you wish to play 'trains' with!

## Power tools

Makita battery powered screwdriver/drill and palm sander.

## To make

Make a start by shaping the body section of the tank engine. Using a tenon or hand saw make the vertical cut at the front of the cab and then turn the wood round in the vice to make the cut along what will be the top of the boiler. Make one more vertical cut at the front and then an angled cut to form the cowcatcher on the front. These

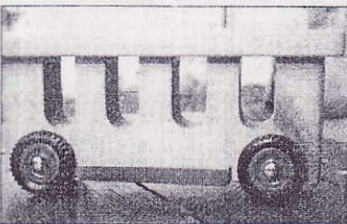
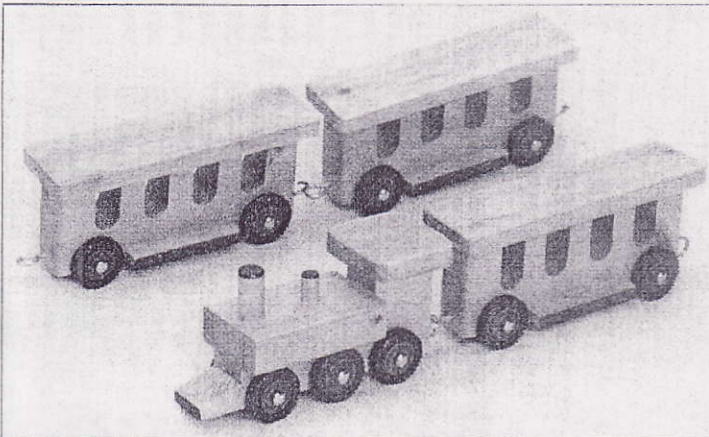
saw cuts are pretty basic and should present no real problems.

Drill holes for the chimney, steam dome and (changing the drill bit size) the holes for the wheels. Dowel rod is used for the chimney, but do chamfer the edges; it looks neater and removes sharp corners.

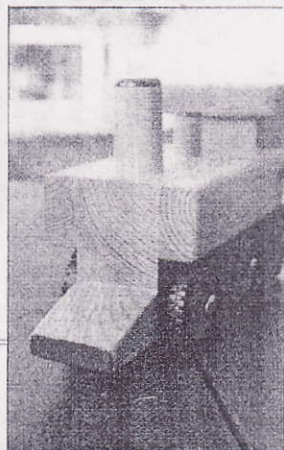
Cut out and shape up the wide tanks and roof; these are then glued in place.

The hook at the back needs to have a really good length of threaded section otherwise it will just pull out and cause the driver great frustration. I discovered that the really strong hooks and eyes found in a good ironmonger are best.

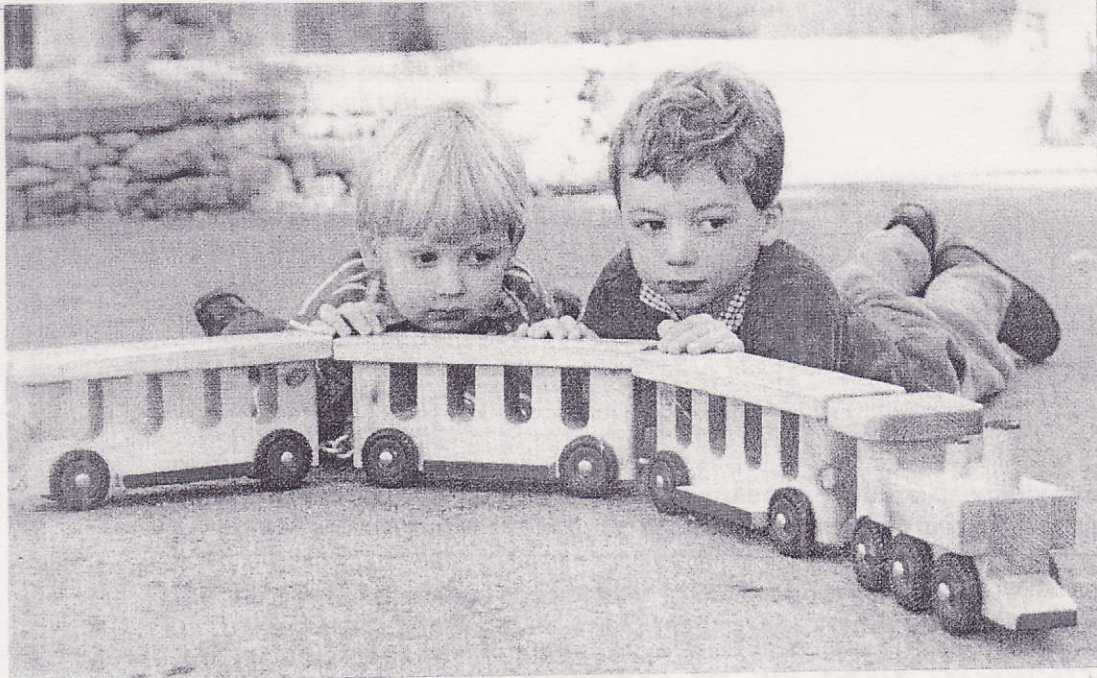
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*Simple and strong, construction of the engine and coaches is from basic block shapes.*







### The carriages

Any railway engine needs a good train of coaches. The method of construction is exactly the same for all three. You will find that it's far easier to mark out three coaches onto one length of wood and do all the cutting and shaping in one operation.

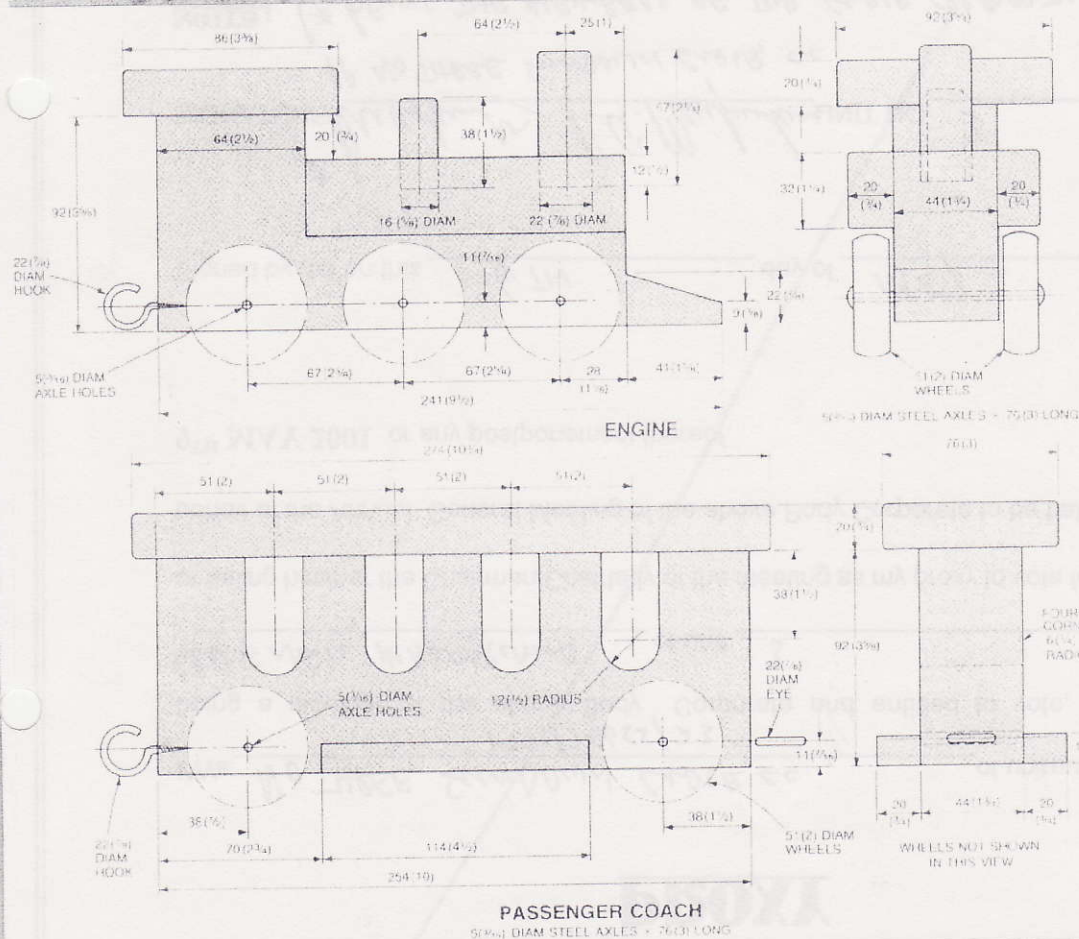
The passenger accommodation radialized centres should be marked with a bradawl so that when it comes to the drilling stage it gives the drill bit a good start. Now using a flat bit (in an electric drill) bore the holes out. It is of tremendous help to have a vertical drill stand to keep things at 90 degrees in both planes while you drill.

Using a tenon saw, cut vertically from the top downwards to the hole that forms the bottom of the passenger accommodation. Two vertical saw cuts are needed to remove the waste wood to form one passenger compartment. The same operation is repeated on all three carriages. Using a piece of glasspaper wrapped around a dowel rod remove all saw and drill marks from each compartment.

Separate the individual carriages and shape all the roof sections. Cut and shape the small running boards. Now glue on roofs and running boards.

You will need to fit screw hooks and eyes alternatively so that the train can be coupled up to the engine. Fit the wheels remembering that spring caps will only fit on the ends of steel axles if you have filed a chamfer on the end of each axle end.

The cream colour of the wood does need offsetting with a little red paint. To achieve this I painted the cowcatcher, chimney top and outside edges of the running boards.



### TANK ENGINE

Engine body	1 off	241 by 92 by 44 mm (9 1/2 by 3 3/4 by 1 3/4 in.)	
Side tanks	2 off	136 by 32 by 20 mm (5 3/8 by 1 1/4 by 3/4 in.)	
Cab roof	1 off	92 by 36 by 20 mm (3 5/8 by 3 3/4 by 3/4 in.)	
Funnel	1 off	57 mm (2 1/4 in.) by 22 mm (7/8 in.) dia.	dowel
Dome	1 off	38 mm (1 1/2 in.) by 16 mm (5/8 in.) dia.	dowel
Ancillaries:			
Road wheels	6 off	51 mm (2 in.) dia.	
Axles	3 off	76 mm (3 in.) long by 5 mm (3/16 in.) dia.	steel
Spring dome caps	6 off	5 mm (3/16 in.)	
Screwed hook	1 off	22 mm (7/8 in.) dia.	

### COACH

Passenger coach body	1 off	254 by 32 by 44 mm (10 by 3 3/4 by 1 3/4 in.)	
Runningboards	2 off	114 by 20 by 12 mm (4 1/2 by 3/4 by 1/2 in.)	
Roof	1 off	274 by 76 by 20 mm (10 3/4 by 3 by 3/4 in.)	
Ancillaries:			
Roar wheels	4 off	51 mm (2 in.) dia.	
Axles	2 off	76 mm (3 in.) long by 5 mm (3/16 in.) dia.	steel
Spring dome caps	4 off	5 mm (3/16 in.)	
Screwed hook	1 off	22 mm (7/8 in.) dia.	
Screwed eye	1 off	22 mm (7/8 in.)	dia.