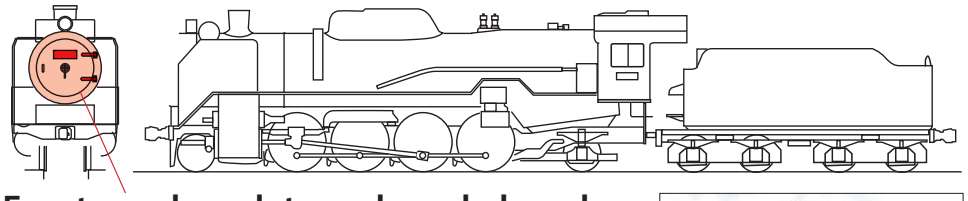
The front number plate and smokebox door



Front number plate and smokebox door

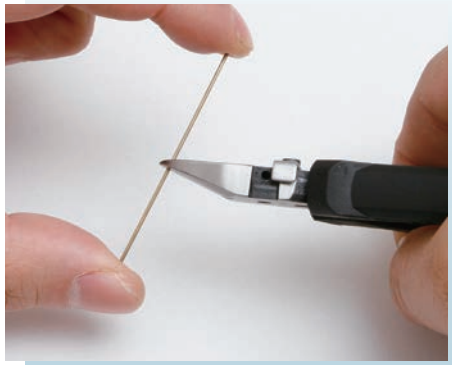
Your parts

- Boiler ring
- Smokebox front plate
- Smokebox door
- Hinge U (upper)
- Hinge L (lower)
- Number plate
- Brass wire
- Number plate mounting jig

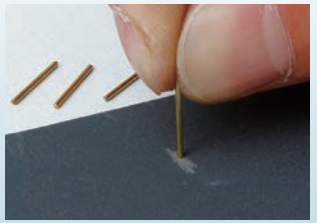
Required Tools

- Cutters
- Sandpaper (400 grit)
- Liquid instant adhesive
- Epoxy adhesive

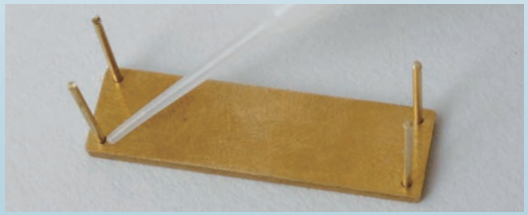
1 Assembling the number plate



Cut the brass wire into four roughly equal lengths.



Smooth the ends of the lengths of wire with sandpaper to remove any rough or sharp edges.



Place the number plate upside down and test-fit the four lengths of wire in the holes in the corners. Adjust the fit if necessary and apply instant adhesive to secure the four lengths in place.

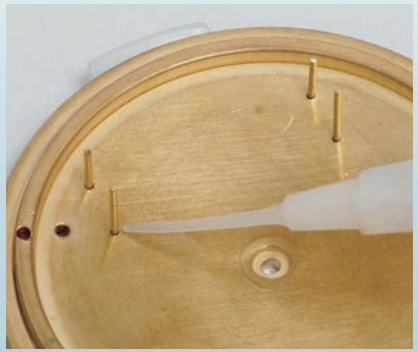
2 Fitting the number plate

Insert the mounting jig between the number plate and the door, at the top.

Place the four lengths of wire on the back of the number plate into the four holes on the smokebox door, as shown.

3 Finishing the number plate

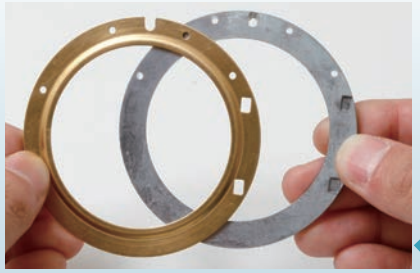
In the photos below, the number plate is glued in place. If you want your model to have a painted finish, keep the number plate to one side until a later stage.



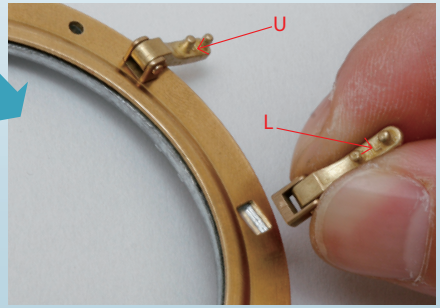
Turn the smokebox door over and apply instant adhesive to the holes where the lengths of wire are coming through.

Once the adhesive has dried, remove the mounting jig and cut away the protruding lengths of wire from the back of the smokebox door.

4 Installing the smokebox door



Align the boiler ring and smokebox front plate, using the holes to determine the correct position. Fix them together with epoxy adhesive.

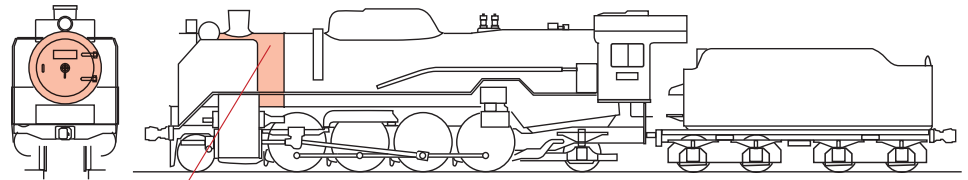


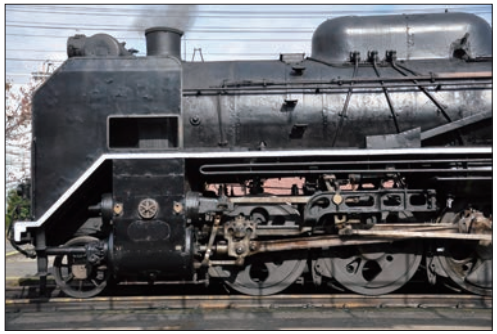
Attach the upper (U) and lower (L) hinges to the front plate and boiler ring, using epoxy adhesive.

Glue the two projections on each of the hinges into the holes (circled) on the smokebox door, using epoxy glue.

Completed parts

The smokebox and boiler hinge joint





Your parts

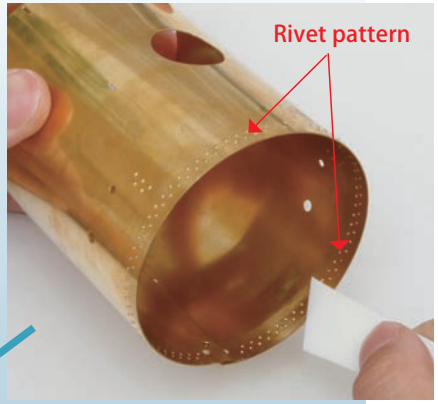
Smokebox
Boiler hinge joint
2 × 5mm screws × 10

Required Tools

Phillips screwdriver
Epoxy adhesive

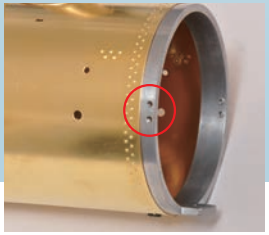
1 Fitting the boiler hinge joint

Remove the transparent band from around the smokebox.



Apply epoxy adhesive to the inside of the smokebox, where the rivet pattern is.

Slide the boiler hinge joint into the smokebox, leaving the circled holes visible.



2 Securing the boiler hinge joint

Before the adhesive sets, align the screw holes in the boiler hinge joint and the smokebox. Place a screw in each of the four aligned holes (circled).

Tighten the screws before the adhesive has fully dried.

3 Fitting the smokebox door

Apply epoxy adhesive, as in Step 1, to the inside of the other end of the smokebox.

Place the smokebox door as shown, and tape it to the front plate to hold it closed temporarily.

Place the smokebox door into the end of the smokebox, aligning the two circled parts.

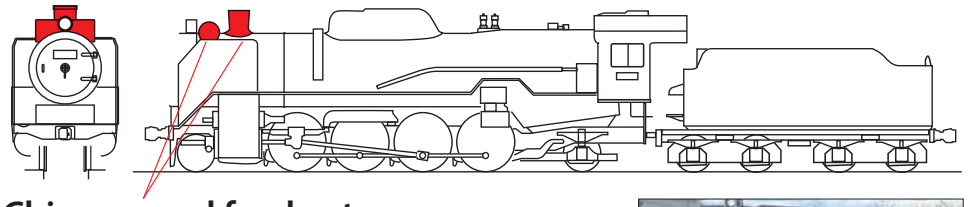
4 Securing the smokebox door

Align the four screw holes underneath the smokebox before the adhesive dries.

Place a screw in each of the four aligned holes and tighten into place before the adhesive dries.

Completed parts

The chimney and feedwater system



Chimney and feedwater

Your parts

- Chimney
- Chimney lip
- Feedwater heater
- Feedwater heater left end piece
- Feedwater heater right end piece
- Pipe joint
- Feedwater pipe

Required Tools

- Tweezers
- Instant adhesive
- Epoxy adhesive
- Adhesive applicator

1 Installing the chimney

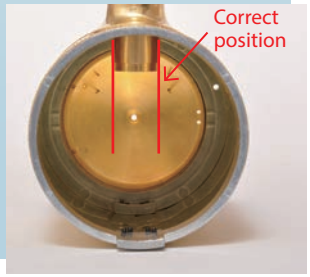
Insert the chimney into the chimney lip, as shown.

Turn the chimney upside down and place a small amount of instant adhesive into the join between it and the lip.

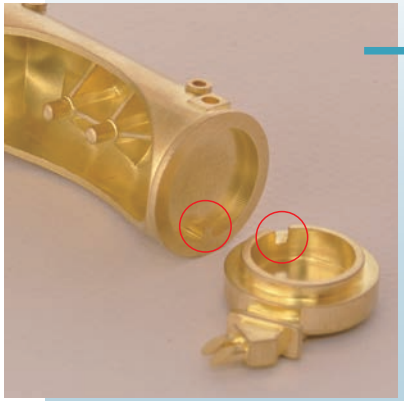
Spread a thin layer of epoxy adhesive onto the underside of the lip.

Match the curved surfaces of the chimney lip and smokebox, and slide the chimney into the hole on the top of the box.

Before the adhesive dries, adjust the position so that the chimney is centred with and at a right angle to the smokebox.



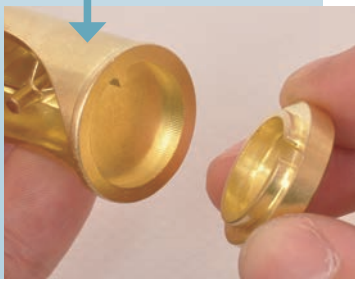
2 Assembling the feedwater heater



Test-fit the feedwater heater left end piece with the feedwater heater, engaging the two circled points.

Apply epoxy adhesive to the inside of the end of the feedwater heater and fix the left end piece in place.

Repeat this process to fit the right end piece to the feedwater heater.



3 Mounting the feedwater heater

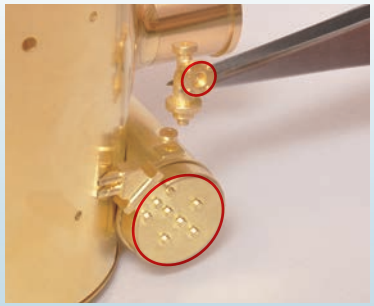
Apply glue to the two projections in the recess on the underside of the feedwater heater.

Engage the two circled projections of the feedwater heater with the two circled holes on the smokebox. Be sure to fit it the right way round – see photograph below.

4 Mounting the feedwater pipe

Locate the hole in the square on the back of the feedwater heater, and apply a small amount of instant glue to it.

Fit the pipe joint into the hole and position it so that the red-circled surfaces are parallel.

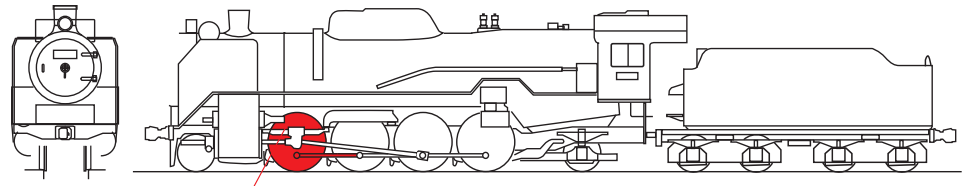


Apply instant glue to the hole in the pipe joint.

Glue the feedwater pipe into the hole in the pipe joint. Position the pipe so that it's vertical, as shown on the right.

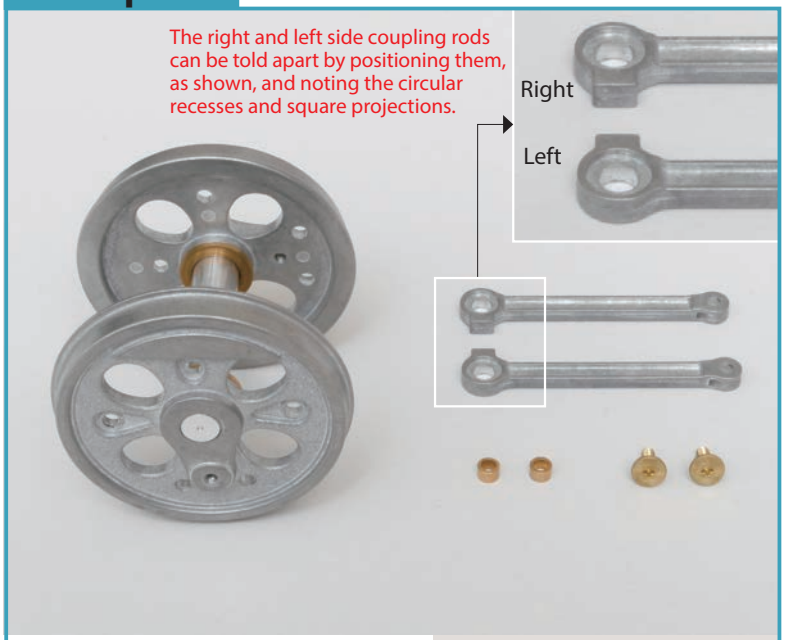
Completed parts

First driving wheels and coupling rods



First driving wheels and coupling rods

Your parts

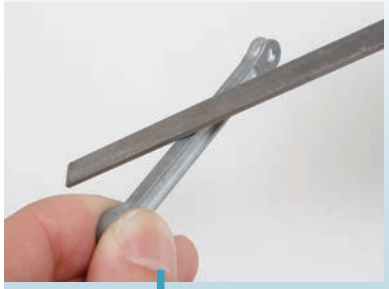


- Driving wheels
- Right side coupling rod
- Left side coupling rod
- Bushings × 2
- Rod pins × 2

Required Tools

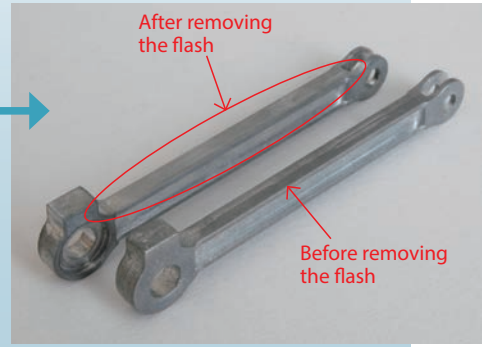
- Tweezers
- Phillips screwdriver
- Flat needle file
- Sandpaper (800 grit)

1 Deburring the coupling rods



There is likely to be casting flash left on the two coupling rods. Use the needle file to remove the majority of the burrs from the rods.

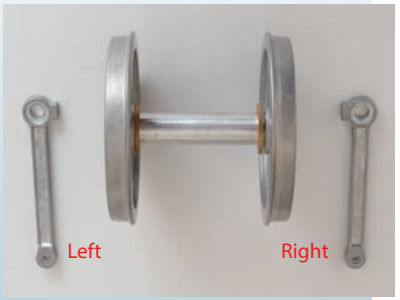
When you have removed most of the burrs and flash from the rods, smooth the surfaces with sandpaper.



The two rods above show the difference between a rod that has been prepared and one that hasn't.

2 Identifying the coupling rods

When the coupling rod is fitted, the recessed side should be facing outwards.

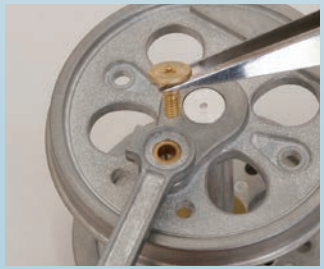


The coupling rods are fitted to the wheels using the bushings and the rod pins. Position the two rods and the wheels as shown.

3 Mounting the first coupling rod

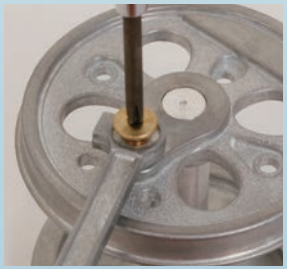
Place the right side coupling rod with the recess facing upward over the hole on the side of the wheel.

Holding the rod in position, use tweezers to place one of the bushings into the hole.



Insert the rod pin into the bushing.

Screw the rod pin into the hole using a screwdriver. Don't fully tighten the pin into the hole.



4 Mounting the second coupling rod

Repeat Step 3 for the wheel on the other side, as shown.

Check that the rods move smoothly. Store this assembly carefully to avoid bending the coupling rods.

Completed parts