

Chemically Blackening Components – My Approach.

Bob Alderman. © 2004

Steel parts.

Blackener – either Birchwood Casey Gun Blue or Carr's Metal Black for Steel.

Buffers.

1. Polish the head to remove any tool marks and the parting-off pip in the centre. I use the modelling drill and some emery paper 120 grit and/or a Blue Garryflex block. Use the drill at mid speed.

This process will also remove any oils or grease left from the manufacturing process.

2. Take a cotton bud and apply the blackener. Only apply it to the head, front and back and the shank immediately behind the head. Avoid the area where the spring sits. The blackening is nearly instantaneous. Rub the bud over all the areas to ensure it is an even colour.

3. Rinse in hot water and allow to dry.

4. There may be a whitish residue left after this. The next stage will see to that.

5. When dry burnish the head with a brass wire brush. The black will shine a little after this.

6. I have found that the rear of the head and the shank may turn rusty after a time. Let it, it looks realistic!

7. Assemble with a little oil on the spring inside the body.

Wheels.

1. Do any necessary truing and remove any plastic moulding pips.

2. I polish the rim with a Blue Garryflex block (a block with an abrasive in a rubber matrix). Again I mount the wheel on an axle and spin it at mid speed in the modelling drill. The block is pressed into the tyre. It conforms to the shape. The tyre becomes shiny. Do not have a large amount of axle protruding from the chuck. Keep the wheel as close to the chuck as possible.

3. When the set has been prepared I apply the blackener with a cotton bud. Around the tread, then the outside of the rim and the back of the flange. Again blackening is nearly instantaneous.

4. Rinse in hot water and allow to dry.

5. There may be a whitish residue left after this. The next stage will see to that.

6. Burnish the tyre with a brass wire brush. Again the steel will shine after this.

Axles.

1. Again polish them to remove any oil residues. For Slater's do the necessary retouching of the square ends to make an easy fit on the wheels.
2. Apply the blackener with a cotton bud ensuring an even coating. I DO NOT blacken the square ends on Slater's axles.
3. Rinse in hot water and allow to dry. Burnish with a brass wire brush. Again the steel will shine after this.
4. If Slater's axles then you MUST ensure the screw hole is dry. I insert a hot soldering iron into the hole and wait until the axle is too hot to hold! Do both ends. When cool insert a drop of thin oil into the hole. This will ensure the future removal of the wheel retaining screw.

Brass and nickel silver parts. – Sheet and Lost wax Castings.

Blackener – either Birchwood Casey Gun Blue or Carr's Metal Black for Steel or Carr's blackener for these materials.

1. Prepare the component. Remove etching cusps, casting sprue etc. and lightly abrade with fine emery or a Brown Garryflex block or a steel wire brush. Note solder will not work on a blackened surface!
2. Clean the surface with Carr's Surface Conditioner. It changes colour, slightly yellow and the surface goes matt.
3. Rinse in hot water and allow to dry.
4. Apply the blackener. Either immerse in the solution or apply with a cotton bud. If immersing then hanging the parts on a fine wire aids retrieval. Do not leave parts in the blackener too long.
If using a cotton bud gentle continuous rubbing may be needed. Replenish the bud every so often.
6. If the solution is too strong the surface will blacken and flake. Diluting the blackener will prevent this.
7. Rinse in hot water and allow to dry.

For items like coupling hooks with three link chains assemble the chain to the hook and blacken as an assembly.