

Rob's Briefings : Bicycle Renovation & Refurbishment



A series of easy-to-understand guides to help enthusiasts repair or rebuild bicycles

Re-finishing

- powder coating or paint

A frame and/or forks that is to professionally repainted (either spray enamel or powder coating) will need to have all components removed (including headset and crown race) before being blast cleaned to remove all traces of paint, rust etc.

The processes will affect all plating and any threads on the frame, including :

- Bottom bracket shell
- Gear hanger (*if integral to the frame*)
- Gear-lever/stop braze-ons
- Mudguard eyes
- Pannier rack braze-ons
- Bottle cage bosses etc

In order to protect the threads insert either old bolts or short lengths of studding in all the holes, and a pair of old-style BB cups in the BB shell (check for English or Italian thread and remember that one side is LH thread).

Don't screw any of these "masks" all the way in, leave them proud of the surface so that the paint coats the surfaces (and the masks are easier to remove)

Mask the thread on a threaded fork steerer with cling film and then some masking tape (the cling film stops the glue getting in the threads)

When the frame and forks are blasted and painted/powder coated the internal threads will remain unpainted. To remove the bolts/cups that have masked the threads give them a tweak to tighten first (to break the seal on the paint/powder coat) before removing.

The painter/powder coater should be able to mask the very thin area on the fork where the crown race sits with masking tape (after blasting) - if not it will be necessary to clean this area up with either emery cloth or very gently with a fine flat file.

It may be possible for any chrome plating (e.g. fork ends) to be masked - you'll have to ask the people doing the work what's possible.

Paint or powder coat?

Powder coating is usually much cheaper than a painted re-finish job . . . BUT is restricted, normally, to plain colours rather than fancy "billiard cue" and other designs that can be achieved with paint.

The finish on powder coat is usually thicker than paint and in normal use seems more durable, but lacks some of the sheen that paint has. Most powder coaters will be able to apply a clear lacquer to increase the sheen.

Heat?

There is a question about heat and powder coating - heat is applied in the oven to cure the "powder" (it's really actually just a sort of paint) - for a steel frame there should be no issues as the heat is way less than anything that would affect brazing etc.

However, there are schools of thought that suggest aluminium (using the word for *any alloy*, non-steel) frames may have the tensile strength of the material adversely affected by the heat of the oven.



Internal corrosion (steel frames)

Cycling lore has it that steel frames can suffer from internal corrosion as a result of both ingress of water and the formation of condensation - especially at the end of the top-tube (that's *cross-bar* in old money) on the underside where it meets the head-tube.

When reassembling machines, whether re-finished or not, I always try and spray some *Waxoyl* into the frame tubes to reduce the risk of internal rusting.

It is usually possible to find holes at the ends of the top and down-tubes inside the head-tube, seat tube and possibly the BB shell where the *Waxoyl* nozzle on the spray can be inserted. The front forks and rear stays also frequently have small holes that can be used to apply *Waxoyl*.

I have no idea whether it makes any difference, but it seems worth doing for minimal cost.

If you have any ideas or tips that you would like to share then e-mail : cyclebriefings@beewee.co.uk

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