



## **Porsche 18" Wheel Restoration**

\*\* Similar to Companies that offer High quality expensive Paint correction & Detailing costing hundreds of pounds and nothing like a cheap local wash and wax!....

The Wheel Restorer performs a Full extensive (No stone unturned) Restoration. Very Time consuming and with a great attention to detail but with Metal (Aluminium, Magnesium & Steel) wheel Restoration (Paintwork) which on average takes 4 days to process a (set of 4 Wheels) to achieve such stunning results.

Anything quicker would be seriously rushed and corners (And quality) cut to achieve the shorter turnaround which a fast in fast out service cannot compete or should be compared to.

A 3 Material system is used as (OEM) manufacturers, only many companies use new (Wet) body panel paint on top of the old, or if they do offer Powdercoating it's very often Only the use of 1 or 2 coats of Powder and NOT a Specific High temperature (200 degree) Wet paint which is sandwiched inbetween a Powder Primer (on to bare metal) and a Dry powder Lacquer on top of the Wet Colour.

It's only possible to get nice colours with this 3 Material OE system, because Coloured Silvers in Powder are very dull and textured & pigmented. Powdercoated Colours are ideal for Metal Gates, brackets, frames etc.. Wheels have become even more cosmetically enhanced over the last few decades and on Sports & Prestige machines a typical cost for (1) New manufacturer wheel can easily be anything from £350 to £1350 each!

These 3 coats are often applied on different working days as it's essential to make sure each coat is clear of any imperfections (Especially the 1<sup>st</sup> coat – The Primer which can often reveal age related marks from corrosion & pitting etc.. )

Any other system (Quicker & Cheaper) and also (1-2 coats powder only) are usually geared up for the Motor trade where time (Done in a day ideally!) and low costs (less than £70 per wheel) are the essence for them as they simply do not need "The best finish & Longevity" when their objective is just to sell cars.

But for some Traders and more so Private individuals there are still some companies that specialise in Restoration (Restoring to the highest ability) all the wheel and not a refurbishment which is usually a quicker and cheaper term / service and finish and often only done on the front face only, worst of all new paint on top of the old...

The Wheel Restorer's process:

Porsche Boxster 18" wheels



This set had succumbed to the water that sits in the valve hole and eats away the thin layers of OE paint, which up to 150 microns is the aim for OE done by Robots, TWR's finished paint thickness has been measured at 2.5 - 3 times thicker than this.

- Tyres Removed



Stick on weights and valves removed, the inside of the wheel had signs of corrosion and paint lift...



- Wheels Chemically stripped back to bare metal



Jet washed.....



Each wheel is prepared by hand & a sander to eradicate any metal damage  
(Severe metal missing requires Aluminium welding)



Sign of corrosion are evident where the metal has been “eaten away”



With the 3 Coat system the 1<sup>st</sup> coat (A thick dry Powder Primer) can be used to flat Down by hand these surfaces to eradicate the pitting marks, time consuming but the final results are always well worth doing this.

- Pre heated to 200 degrees (oven temp) to remove most of any porous gases in the metal but also to allow the first dry powder coat to stick better to the metal and also be applied with a smoother finish as it melts into the metal pores.....



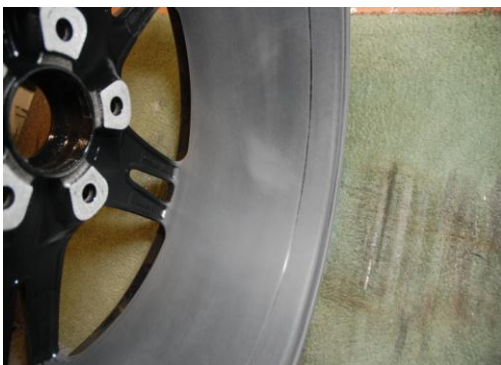
Black Primer part baked and cooling down...



The Black colour hides any irregularities to the surface until the surfaces are Sanded by hand (Paper) to show up what needs attention (Pitting & an Orange peel finish)



- Some wheels can take several (hours) just to flat and get all the areas smooth



- Wet Solvent Colour (High Temp 200 degs) Colour is applied (Spray gun on the whole wheel)



Back in the oven, which is raised from the 50 degree wet colour application to 200 degrees, once this has been reached all 4 wheels are lacquered with a Dry Powder clear gloss coat and a Final bake

- Each wheel is handled and timed from start to finish in the oven 3 times with each baking process time a company secret which has been devised and fine tuned for 15 years, this is important not just for a great finish but also longevity (and Jet washer abuse!) to make sure each of the 3 ingredients: (Dry Primer / Wet Colour / Dry Lacquer) all adhere to the metal & each other!



A Restoration with a large degree of time and effort to produce a finish that is thicker than any OE wheel and as high quality as possible when Restoring 2<sup>nd</sup> hand wheels with age related marks and pitting etc...

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