

*Joe's Place, by Joe Richardson*

## An Introduction to Paint, Painting and Equipment - Part II

When the decision is made to repaint your old car or truck, there are a number of different paths you can take. You are faced with many choices. If you are like most of us, these choices are not taken lightly. Of course, circumstances such as time and cost can be great influencing factors, but the extent of deterioration and the type of paint currently on the vehicle can often make that determination for you. Consider a truck from the early 1950's that is weather beaten with most of the finish being eroded away by weather to the point that most of the primer is exposed and even some of the bare metal surface shows through in places. Conversely, there may be a nice 1960s, convertible that has been repainted several times over the car's lifetime, each one over the previous one and hiding who-knows-what underneath. Most anyone who knows will strongly agree that both of these conditions require stripping off all of the remaining paint and getting down to bare metal. If this is needed, there are choices to be made here as well.

Hand and machine sanding, while being the most direct method, are also the safest and the least complicated way to go; however they are



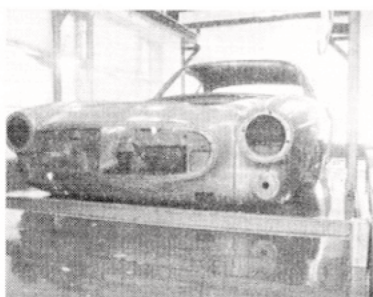
*Hand and machine sanding are time consuming and labor intensive.*

extremely time consuming and labor intensive. Stripping using chemical strippers is faster, but the fumes and chemicals are quite hazardous to people and the environment not to mention they create a real mess in the work area and yield hazardous material to be disposed of. There are also commercial immersion strippers that will do it for you but they can be rather expensive and require transporting the car or truck body components to and from a sometimes distant location. Another method rapidly growing in popularity is soda or media blasting. Soda, of course, is



*Chemical stripping is a viable option. Note that respirator and goggles are being worn.*





**Chemical dipping** is a fast, easy way of stripping paint off a car body. All trim, upholstery, wiring, running gear and gauges must be removed first.

**Media blasting, or soda blasting** is fast and easy, but can make a mess.



bicarbonate of soda or 'baking soda' which is basically the same material that is used in baking and to eliminate odors in a refrigerator or even to brush your teeth with, although the granules are much larger and sharper than the grocery store version. While environmentally safe, soda blasting can create a mess in the garage or shop, and even on the lawn. Ground walnut shells, corn cob and various plastic media designed for paint removal are also available.

It is never a good idea to use aluminum oxide or other harsh abrasives, because the heat generated by friction can build up in matter of seconds and warp a body panel. Also, be sure to never use sand because of the very real danger of contracting the lung disease silicosis from the silica dust produced during the process. (*Editor's note: The paint removed – as sanding dust, in suspension in a stripper, or from media blasting – must be properly disposed of, and not just dumped into the trash.*)

Ok, now that what to do with the old finish has been briefly discussed, it is also very likely that some rust repair and metal work will need to be done before any paintwork is begun. Here again, decisions are often made based on cost, time and panel availability, on whether to replace a dented and rusted section or panel or to devote the time and effort to repair it; to find factory replacements, good used originals or buy often inferior aftermarket reproductions; whether to cut out rust and weld in patches or fill a hole with plastic filler or lead.

Although most will agree that stripping off all old paint and building from there is best, some owners who have a nice solid original car or truck

with sound but worn original paint may choose to prep it and build up from that point. If that is the chosen path, there is still a fair amount of sanding required on the original finish to remove any remaining gloss, dirt and imperfections as well as trim removal work to be done before even a coat of primer is applied.



The next decision path of the process involves the type of paint you want to use. Although rarely done these days, this could be an original type of nitrocellulose lacquer, acrylic lacquer, enamel or acrylic enamel. These types of paint systems are based on old technology and some of the components may be difficult to obtain today. By a wide margin, the overwhelming majority of old car and truck paint jobs today are the more modern 2K urethanes in single stage or base-clear systems. Why are the urethanes so favored? The durability and lifespan of these modern finishes is light years ahead of those old lacquer enamel formulations and if they are applied properly, are virtually indistinguishable in appearance from even the famous top quality, high dollar lacquer paint jobs of 30+ years ago. Whatever your personal preference may be, you should be going with that particular system from bottom to top. I say 'system' because for best results, you should always stick with a single company's products that are developed and tested to be used together as a total system. This assures compatibility between the various components and avoids problems. Although, some highly experienced professional painters will sometimes use primer and sealer products from one paint manufacturer and a finish or base from another or even a clear from yet another, this can be a sure recipe for disaster for the average or novice painter as immediate or long term failure will likely result.

A modern urethane 'system' generally consists of the following basic components:

- A cleaner/degreaser to remove surface contaminants such as wax residue, silicone, grease or skin oils as a last step before applying any component of a paint job.
- Urethane Reducer, used very sparingly as a thinning agent if needed and as an effective spray gun cleaner.



- A quality polyester filler to repair minor dings and surface irregularities. Many professionals prefer to apply this to bare metal before any primer is applied while some choose to apply it over an epoxy primer.

- A 2k epoxy primer which will adhere strongly to a bare metal or properly sanded and prepped existing coating providing a solid base.

- A primer/surfacer which is sandable to provide for a smooth, even surface under the color and finish coats. The primer/surface and sanding process is often repeated several times to achieve a smooth, defect free surface.

- Color Base (1st part of a base-clear finish) provides a color only coat with no gloss or UV (ultra-violet) protection. Cannot be sanded. The color base requires a clear coat.

- Clear Coat (2nd part of a base-clear finish) a 2k product which carries all the gloss, UV and environmental protection. Can be 'color sanded' or 'wet sanded' which is a the process of wet sanding with increasingly finer grades of abrasive paper then eventually rubbed out for a glass-like appearance.

- Single Stage is a 2K finish which, unlike the separate base-clear, has both the color and gloss properties with the UV and environmental protection all in one product. Solid colors can be 'color sanded' or 'wet sanded' and buffed while metallic finishes cannot as the sanding will inter-



*'Color' or 'Wet' sanding, if properly done, will result in a high-gloss, glass-like appearance.*

fere with the metallic particles causing mottling or discoloration.

This is the second part of a continuing series to help clarify much of the information surrounding today's technology in automotive paint

and primers as well as the latest materials such as abrasive paper, tape and masking materials as well as painting equipment including spray guns, compressors and more. I could easily fill an entire issue of SK each month with the amount of information available on the subject of painting. As always, we welcome your comments and input on the subject here at SK, so please feel free to share your experiences with us.

A glossary of some of the terminology used in describing the many types of automobile and truck paints was included in the May issue of *Skinny Knuckles*. Please refer to it for definitions.

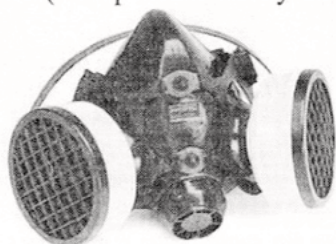
S.K.

## What is

## The most important tool in painting?

What do you think the most important tool for painting might be? Sandpaper? No. Tack rags? Nope. Body files? Paint gun? Air compressor? Air hose? No. No. No. And no.

The most important tool that you can have – make that **MUST** have – when preparing a car for painting or while actually painting is a personal air respirator – a face mask filter. I'm not referring to the little paper mask with an elastic band, but a professional mask with filters designed to filter out toxic fumes. It must be OSHA (Occupational Safety and Health Administration) and NIOSH (National Institute for Occupational Safety and Health) approved. It must have replaceable filters, and it must fit snugly and comfort-



*A breathing respirator with replaceable filter cartridges.*

ably across the nose and mouth to prevent fumes and air-borne particles from entering the body. The

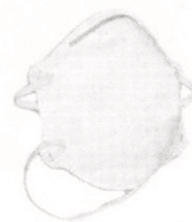


goggles for skin protection. And proper, approved shop ventilation.



Eye protection from safety goggles, skin protection from gloves and long sleeves, or a full face mask for breathing and eye protection are all necessary for safety.

next most important 'tools' include eye protection and long sleeves and



*Those disposable paper filters do not provide adequate fume protection.*



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