

## Paint like a Pro Using a Spray Can

A restoration or repair project on your Model A often requires some painting in order to complete the job. Most Model A owners do not have professional spray equipment and are limited in the options available to paint a part prior to installing it on their car. Years ago, a brush and a can of paint was all that was needed but the results were more toward preventing rust and having something that looked somewhat presentable as long as you were standing at least 20 feet away. It was not a professional looking repaired or restored component.

Now, don't get me wrong, a lot of high quality work has been accomplished by applying paint with a brush. Up until the early 1920's when spray equipment was perfected and became commercially available, most components of the automobile were painted either by dipping the part in a vat of paint or applying the paint with a brush.

By about 1915 when the Model T was in mass production, most of the individual components were dipped and then sent thru an oven to dry. This is one reason that during this time, Ford made all the Model T's the same color, black. All sheetmetal parts like hoods, fenders, body parts, steering columns and chassis components were all dipped. This cut down on the labor required and made inventory control a lot simpler. The same hood or fender would fit any car, it did not have to be a specific color as all the cars were black.

Even later on when our Model A's were manufactured, most of the components on the car that are black were originally dipped using a special fast drying enamel that was very durable when it was baked. This included the fenders, wheels, frames, brake components, steering columns etc. Even the components that made up the horn were all individually dipped in black paint prior to assembly.

Some components such as engine castings, starters and generators were spray painted. The bodies were painted with spray equipment using nitrocellulose lacquer paint. Lacquer paint could be applied smoothly and would dry quickly. Lacquer paint was easily manufactured in a wide verity of colors and could be polished to a high luster. Scratches or imperfections could be easily repaired and when properly done, would be undetectable.

Most Model A hobbyists do not have the facility or equipment to spray lacquer paint and if they did, it is becoming more difficult to purchase lacquer paint and all the other materials needed to apply it. Most of us also do not have the ability to dip anything but very small parts so what options do we have left?

The easiest way to paint small parts is with a spray can. If the surface preparation is done properly and if we carefully apply quality paint, professional results can be obtained. Spray can paint varies widely in quality so for best results, always start with good quality paint of the type that is best suited for your project, but first, you will not get professional results that you are proud of if you do not properly prepare the part prior to applying the paint.

The first rule of preparation is to be sure the part is absolutely clean. It is not absolutely necessary to remove all of the old paint but I find I have better results when starting with bare metal. I often start with paint remover and then follow up with a wire wheel. A lot of components can also be bead blasted to remove old paint, grime and rust. Complete any repairs to the surface that you will be painting such as removing dents and gouges or welding up cracks or imperfections. Do the best you can to smooth out any damaged or repaired places on the surface of the part. How much time you spend depends on how you want the finished job to look.

If you have repaired a part that fits under the chassis and is hidden from view, you may only want to preserve the part and keep it from rusting. In such a case, just cleaning the part and applying a few coats of good quality black enamel is sufficient.

If you are restoring a component to closely resemble how it would have looked when it left the factory, you will want to spend more time on preparation but you have to be careful and not make things look too good. For example, the water inlet casting on the engine had a rough surface and the factory did not attempt to smooth it out. The part was just cleaned and painted and the roughness in the cast surface would show thru the paint so doing a lot of extra work to smooth out the rough casting would not be correct for a restored car.

However, a stamped sheetmetal part such as a steering column or tail light mounting bracket should be smooth with a glossy black finish and may only show a few minor die marks from the manufacturing process that are detectable thru the finished paint.



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Second Installment.

Last month, we discussed preparing the surface to be painted: cleaning the part, removing old grime, grease rust and old paint and repairing surface imperfections if the part will be visible. We talked about the necessity of proper preparation in order to obtain the desired results. Now that we have the part ready for final color, it is time to choose the best paint for our project.

Let's talk about painting parts black. You don't just grab a spray can of any old black and paint away because there are many different kinds of black paint. What black paint you chose will depend on where the part is used and how you want the final finish to look. For example, enamel is usually the type of paint that is best for most chassis parts as well as interior and exterior parts. If you are painting brake drums, a thin coat of high temperature paint works well. Carburetors and other components of the fuel system will require a paint that is impervious to our modern day fuels that contain ethanol. Now we also need to consider the appearance of the finished part. You may want the steering column to be a glossy black while a chassis part would look best if it had more of a satin appearance. So the amount of gloss in the final finish is a factor to consider.

Some of the paint I have had good success with include:

### Rust-oleum Professional High Performance Enamel

I use this paint for most of my black painted parts. It is available in either **High Gloss** or **Semi-Gloss** finish. It covers very well and will cure to a hard durable surface that will withstand a lot of wear and tear. Use the high gloss paint for components that are highly visible such as the headlight bar, horn, spare tire and tail light brackets. When applied correctly, High Gloss Black very closely resembles the original factory dipped paint process. Semi-gloss paint will not show surface imperfections as a gloss finish would and works well for chassis components that are not highly visible.



### Rust-oleum Satin Black

This is a good choice for chassis and other components that do not require a glossy finish. This is a good quality general purpose black paint that covers very well, is easy to use and tends to conceal minor surface imperfections. One tack coat followed by two full coats will usually provide a good durable long lasting finish. **Satin Black** also works well for the lower part of the 1930 and 1931 radiator shells.



### Rust-oleum High Heat, Satin Finish

This is a very good choice for brake drums. It is durable and will withstand the heat developed by the brakes. For best results, apply 2 thin coats. Too thick of a paint layer will lessen the ability of the drums to cool. Do not use primer or undercoats, just apply over clean bare metal.



### Krylon ColorMaster Semi Flat Black

This is a good choice for painting the depressions in the late 1930 and 1931 instrument panels. A couple of light coats are all that is necessary for a professional looking finish. Krylon Semi Flat Black is also a good choice for your radiator. Try to get the radiator as clean as possible and then apply a couple of very thin coats. It looks good and can be easily touched up without showing. Krylon is not as durable as an enamel but works well especially for small interior parts.



## Dupli-Color Engine Enamel with Ceramic

This is the best fuel resistant paint I have found for the Model A carburetor and cast iron sediment bulb. When applied over clean properly prepared cast iron and fully cured, our modern fuel with ethanol does not seem to affect it. I use **Ford, Semi-Gloss Black** which leaves a dull finish that very closely resembles the original factory finish. Dupli-Color paints are available at most of the larger auto parts stores. I buy mine at O'Reilly Auto Parts which is just a few blocks from my shop.



Now that we have chosen the paint for our project, let's talk about how to get the paint from the can and onto the part. For best results when using spray cans, always be sure the paint is well mixed. If a spray can has not been used in the past day or so, sometimes it is necessary to shake the can a minute or more to be sure the components that may have settled to the bottom are mixed well with the rest of the paint. This is especially true for a new unopened spray can.

Hold the can 10-12 inches from the part applying the paint in a smooth uniform motion. Do not apply too much at one time or the wet paint may sag or runs may develop.

Paint outside or in a very well ventilated area and wear a painter's mask. Have a place inside or under a cover or shelter to hang the parts after they are painted. Some of the slower drying enamels will collect dust from the air if just hung out in the open to dry. This is most important if you are painting parts that require a high quality glossy finish. Do not try to paint in very damp or cold weather. Cold parts on a damp day may collect moisture as the paint is being applied and the finish may "Blush" or appear cloudy when it cures.

A little extra care must be taken when applying enamels. It is easy to apply too much paint at one time and which can result in sags or runs in the final finish. First, apply a thin "tack" coat being sure to evenly cover the whole part. Wait a few minutes for the paint to "tack up" or just start to dry. Use your finger on a place that will not show to test the paint to see if it sticks to

your finger. If so, the part is not ready for a second coat. When the paint is sticky or "tacky" but will not transfer to your finger, the part is ready for the next coat. Apply the second heavier coat going over the part twice. Keep the surface wet but use caution to not get any sags or runs. If necessary, additional coats can be applied after the previous coat becomes tacky. When using enamel, usually no more than three coats are necessary to produce a professional long lasting finish.

A word of caution when applying enamels, do not allow the paint to completely dry before applying additional coats. Apply additional coats when the previous coat is still "tacky". Also while enamel paint may seem to be dry after several hours and the part can be handled, it actually takes a lot longer for enamel paint to completely cure. The length of cure time depends on temperature and the how thick the paint was applied. Additional paint applied during this curing process may cause the underlying paint to dull or wrinkle.

There are a lot of different types of black paint available in spray cans but the ones we have discussed will go a long way to meet the needs for most Model A repair and restoration projects. Remember, quality paint properly applied to a well prepared surface will usually result in a finish you can be proud of.

Next month we will discuss other types of paint and spray can coatings for special applications.

## Tech Tip

One of the main problems when using spray cans to achieve a good finish is the paint is not always well atomized when it leaves the nozzle which results in a grainy surface with lots of "orange peel". Increasing the pressure in the can and decreasing the viscosity of the paint will help with to better atomize the paint. The easiest way to do this is to be sure the spray can is warm. Usually, if you place the can in the sun for about fifteen minutes to a half hour before you are ready to use it will warm the contents. Warm paint will be less viscous than cold paint and the gas propellant will increase in pressure if it is warm. Warm paint will also flow out better which also helps promote a smooth even finish.

Another way to warm up a spray can is to submerge it in a container of hot water. Every minute or so, remove the can and shake it to help get all the paint warmed up. This procedure really helps on a cold day.



## FROM THE BENCH - CONTINUED

At this point in the process you have to decide if you want to apply the final paint directly over the bare metal or first use some type of primer. This depends on what you are painting, the condition of the surface to be painted and your expectations of the finished project. Finish paint can be applied directly onto the bare metal of most small parts such as castings, forgings or machined components as long as they are absolutely clean and free of grease and oil. I always like to wipe down every part with a grease and wax removing agent or lacquer thinner prior to painting.

When painting most bare metal parts, you will have better results if you first use a coat of self etching primer. Self etching primers are formulated to go right over bare metal and provide a good base for other primer coats or the finish color.

If the part you are painting has rust pits or other minor imperfections that you do not want to show, you will need to use a primer that is formulated to fill minor pits and imperfections and can be sanded. Sandable primer or as it is sometimes referred to as “Primer Surfer” will help with this process.

If the surface has a lot of pitting or imperfections that the sandable primer will not easily fill, you can purchase “High Build” sandable primer that will do a better job of filling pits and imperfections.

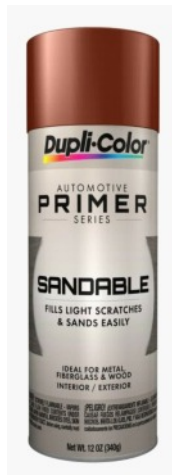
After the sandable primer has cured, sand with fine “wet or dry” sand paper, available at most hardware or paint stores. I like to sand the parts wet using warm water with just a little liquid dish washing detergent to help remove the sanding material and keep the paper clean. If you are using enamel for the finish paint, you can use 320 grit as the final paper but if you are using lacquer, you will have better results with 400 or even 600 grit as the final paper.

Lacquer will show more imperfections than enamel so the surface to be painted must be smoother. If after sanding out the primer the first time, there is still evidence of pitting or surface imperfections that you do not want to show, apply additional sandable primer and sand again. Keep in mind, the quality the

appearance of the finished part is directly related to how well the surface was prepared before the final color was applied.

If a part is rusty and the rust cannot be easily removed, use a primer specifically designed to control rust. Eastwood makes some excellent products specifically for this purpose. Just be sure the product you use is “paintable” which means you can apply other paint over it. Most Eastwood products are paintable but be sure to read the label. Other manufacturers also make rust inhibiting primers but use caution, not all are paintable.

Now that you have the parts clean, repaired, primed, have the rust pits filled and the surface prepped, most of the work is done and you are ready for the finish paint. This part of the process can be very rewarding and hopefully, the end results will meet your expectations. In order to achieve a professional looking result, you will need to use the correct paint and apply it in a careful manner. To learn how to do this, tune in to the second installment in the next Spoken Wheels.



## Tech Tip

When preparing parts to be painted, be sure to keep things clean and free of grease and oil and this includes your hands. Wash your hands with soap and water to remove any natural oil on your skin or any residue from hand lotion.

Oil or grease on the surface to be painted will often prevent good adhesion of the paint or may not allow the paint to actually cover the surface. Silicones are to be avoided if at all possible. They are very hard to remove and can cause small imperfections or “Fish Eyes” in the paint that will not cover over with additional coats.

Grease and Wax remover will help clean the parts prior to applying paint or primer. Remember, when it comes to painting parts for your Model A, Henry always said “Cleanliness is next to Fordliness”.



## Paint Like a Pro Using a Spray Can- Final Installment - 3 of 3

Over the last 2 months, we talked about cleaning the part, removing old grease, grime, rust and old paint, repairing surface imperfections, preparing the surface and painting parts black. We have determined the quality of the final finish desired. Is the part going to be highly visible when installed and do we want it to stand out with a glossy finish? Is the part a component of the under carriage and will not easily be seen so therefore should have a semi gloss or satin finish? Now that we have painted our parts black and have achieved professional results, what do we do about the finish on other components of our Model A?

### Ford Engine Green

The Engine and Transmission assembly of the Model A Ford was painted green at the River Rouge Plant in Detroit. The castings were painted individually and then assembled so the nuts and bolts did not have any green paint on them. Even the part of the gaskets that showed between the castings were not painted. To do a correct Fine Point Restoration, this process should be repeated however for most restorations, the decision may be made to paint the engine and transmission after everything has been assembled.



There are several sources of Ford Engine Green and each will be a slightly different shade of green. I like the paint Snyder's sells as it seems to have a color that is very close to what was originally used but the final choice is up to the individual.

Painting the engine castings is very easy. Just be sure the surface to be painted is absolutely clean and free of any oil or grease. Use grease and wax remover as a final cleaner prior to painting. It is not necessary to prime the parts; just apply the paint directly over the clean bare castings. Apply three or four even coats allowing the previous to "tack up" before applying the next coat.

## High Temperature Coatings

There are special high temperature coatings available for the exhaust manifold and the muffler assembly that will protect these components from rusting and will keep them looking like new for many years.

### Exhaust Manifold Gray Coating

I have had good experience with what comes from **Eastwood**. It is gray in color that closely simulates the color of the original cast iron. The part must be clean and as free of rust as possible. It is best to coat a new manifold before it is installed on the engine and try to handle it as little as possible until the engine has been run for a few minutes. Heat from the exhaust will help "cure" the coating and make it more durable. You can also use this to coat the "manifold to exhaust pipe clamp" to keep it from rusting.



### High Temperature Black

If you are doing a "Fine Point" restoration, you may want to use some high temperature black to coat the muffler to keep it from rusting and looking good. Eastwood, as well as other manufacturers, offer good quality high temperature satin black finishes. Again, the trick here is to have the surface as clean as possible and try not to handle the part too much until the coating has been cured with heat.



## Clear Coating

Sometimes, we want to leave the part unpainted with just the bare metal showing. This would include nuts and bolts as well as other small parts that were not originally painted. If a part is to be left as bare metal, the surface must be protected to keep it from rusting or corroding. There are many clear coatings available but the one I like to use is **Eastwood Diamond Clear Satin Finish**. It provides a very durable clear finish that will not chip or crack, even on nuts and bolts where wrenches are used.



## Cad Plated Parts

Some of the small parts on our Model A's were cad plated at the factory and we want to be able to replicate that finish. Today it is hard to find a plating shop that still plates with cadmium and when you can find one, you will also find cad plating is expensive. With a little ingenuity however, you can easily replicate a finish that very closely resembles the original factory cad plating. After the part is absolutely clean, apply an even coat of **Krylon Dull Aluminum**. When dry, coat with **Eastwood Diamond Clear**. The end result will be a finish that is durable and long lasting and looks like cad.



## Raven Finish

Just like cad plated parts, the factory Raven Finish can also be replicated. First apply a thin coat of **Krylon Flat Black** and then coat with **Eastwood Diamond Clear**.



## Other Eastwood Coatings

Eastwood also sells other quality paints and finishes including coatings that replicate cast iron, cast aluminum and stamped steel. They have a very good on-line catalog that I always find interesting. I have been using Eastwood products for many years and have been very satisfied with the final results.

## Painting Large Areas.

Spray cans are best suited for small parts. As the area gets larger a spray gun will yield better results and is more cost effective but there is really no limit to how large of an area can be painted with spray cans. I once had a white car with a very bad scratch on the rear fender. The car had old lacquer paint that was showing some chips and areas where it was just about worn thru and I wanted to do a temporary repair so it would not look so bad until I could get around to refinishing the whole car. I fixed the scratch and primed the area and as a temporary measure, I thought I would apply a little white paint over the repair. I had a can of Krylon glossy white paint that I used to spray a light coat over the repair and was amazed to find it was a very good color match for the white that was already on the car.

Krylon is basically lacquer so it was compatible with the old lacquer paint. I applied a little more Krylon and after color sanding and a little polish, it looked so good that I decided to fix a few other places that needed some help. Every week or so, I would fix another area and over the next 6 months, I wound up refinishing almost the entire car.

A problem I did encounter was I did not buy all the Krylon at the same time so the paint did not all come from the same batch. Different batches of paint may vary slightly in the actual color and if you look closely at my project, you can see slight variations in the shade of white. If you are planning to paint a large area, be sure to buy all the paint you will need at one time and be sure it is all from the same batch. The batch numbers are on the bottom of the cans.

Now that the car looks so much better than when I started and with all the other projects I am working on, it may be a while before I get around to doing a complete refinish. I would not recommend that this is the way to paint a car but with patience and perseverance, it can be done.

With a little imagination, you can use products in spray cans to paint or coat many components on your Model A. Just take your time and with proper preparation and careful application, you can achieve a professional looking result that you will be proud of.

## Tech Tip

When doing a lot of painting with spray cans, I have found it is much easier if you use a spray can handle. They are made to snap onto the top of the can and have a grip and a trigger that operates the nozzle. You will find your hand does not get tired and you will have better control of the spray valve. There are several different models available but the one I like is the "Can Gun 1". It is comfortable, easy to use and allows for good control of the paint. This particular spray can handle is also sold under several other brand names.

