

HOW TO MAKE A BRASS NAME PLATE USING ETCHING.

There are times when a name plate is required to replace a lost or badly damaged one. In some instances new name plates can be purchased, such as those for Sundial, Sunshine or some Ronaldson & Tippet engines etc. Also cars and tractors may need name plates or new ones added to bring the vehicle up to date to conform to regulations.

The plate size will need to be decided upon with engine plates normally 50mm x 90mm, round the corners and drill the hold down holes. The plates will need a thorough cleaning with acetone to remove any coatings on the plate.

The process I use is to apply a chemical resistant 'resist' coating to the areas that are left undissolved and the remainder are etched away. The resist is a toner transfer method and works well.

Firstly do the art work on the computer and print it on plain paper. This can be objects and lettering. Keep in mind that lettering image will need to be inverted to give the right configuration on the finished plate.



Next take the art work to a reputable copying company who has copiers that use a toner powder. The latest copiers have a provision to flip lettering backwards. Make sure that you get 100% black as this deposits the most toner. Use good quality copier-safe acetate to required good results. The rectangular black is for the reverse side of the plate so it will not be etched.

The two pictures below show the acetate as printed.



To transfer the image from the acetate to the plate, heat is required and a cloths iron is the best. (Be careful that your better half does not find out or wow betides you!!)

Cut out the black rectangle and the name plate printing art work, leaving a tag on each side. Place a sheet of printing paper onto a clean board and place the rectangle black part onto the paper with the toner facing upwards. Next place the back of the brass plate onto this black acetate, then place the printed part onto the brass plate with the lettering the right way up and the toner facing onto the brass plate. Now place over this another printing paper and place weights at each end to stop movement. Now with an iron on its hottest setting, iron over the top printing paper for a few minutes. The reason for the printing paper is to stop the acetate from burning. Allow cooling and then carefully remove the acetate from the brass plate and you will have the toner image on the plate and it is now ready to be etched.

The next part of the process you will need to obtain chemicals. For brass and nickel-silver sheets you will need hydrochloric acid which can be obtained from most hardware stores and hydrogen peroxide from a chemist shop. Mix two parts hydrogen peroxide to one part acid into a PVC container a little bigger than the plate to be etched. Enough solution will be needed to cover the plate by about 10mm. The etching time would be about 30 minutes and you will need to 'swish' the solution around to remove the build up of liquefied metal. Whatever you do, do NOT do this part of the job on your kitchen stainless steel sink as any splash will leave a black mark that cannot be removed.



Make sure you are wearing rubber gloves so you do not get an acid burn. After 30 minutes, remove the plate and wash with cold fresh water and dry off with a clean rag. To remove the toner from the non etcher areas, wipe over with acetone a couple of times.

The job is now finished and all is required is to fix it to your pride and joy!



Warwick Ward