



Painting the Crank Cases

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Summary:

This article covers the procedure we use to paint the Commando crank cases. The Commando crank cases came painted from the factory, and when you rebuild your engine it is nice to make the crank cases look as original as possible.

PLEASE NOTE: The PJ1 paint we used to recommend would change when heated, as on the cylinder, this paint turns a gold color. We have tested several other paints and found that two provide an acceptable paint finish. We found both paints at our local auto parts store. They are VTH Flat Aluminum (SP117) and Dupli-Color Clear (DE1636). We found that heating the painted cases with a heat gun will set the paints, otherwise spraying the PJ1 contact cleaner on the painted cases would remove the paint. The Dupli-Color works great when the cases have been bead blasted. Please try both paints prior to using to make sure that you like the finish. The PJ1 paint is no longer available, probably because of the color change when heated.



Preparations for Painting:

After splitting the cases and removing the crank bearings ([See Crank Case Bearing Removal](#) for a simple way to remove the crank case bearings), thoroughly clean the case halves using a strong solvent like PJ1 Contact Cleaner (part number 78-300001, \$8.49) After cleaning the cases, it is recommended to have the cases bead blasted with walnut shells to remove all the old paint. If bead blasting is not an option, try a stiff scrub brush or a wire brush to rough up the surfaces to be painted making sure you avoid any mating surface like where the two halves fit together.

Make sure that all dry fittings of the cam and crank have been completed and the crank bearings are installed in the cases before painting the cases. Just prior to taping off the cases clean the cases again with PJ1.



- Using a couple of case bolts, bolt the two halves together.
- In this picture an old aluminum base gasket was taped off with masking tape to make a blanking plate and placed over the top opening. You can use a base gasket as a pattern and cut out of cardboard a blanking plate. Use three of the cylinder studs to position the blanking plate. Tape the studs to prevent them from being painted and they will also serve as good places to pick up the newly painted cases.
- Using about three of the timing cover screws, fasten the timing cover to the case and tape it off.
- Tape off the drive side, primary case mating surface.
- Place the tach drive housing in the case and tape it off.
- Tape off the mating surface where the oil junction block fastens to the case.
- Tape off the breather pipe.
- Insert the drain plug and/or the sump plug and tape them off.
- Tape off any other openings or things that you do not want to get painted.



Follow the instructions on the paint can and apply a couple of light coats of paint. We find that placing the cases with the top down and painting the bottom first works for us. After the bottom second coat is fairly dry, turn the cases over and finish painting the top.

The paint should be applied at temperatures above 70°F and in a well ventilated place. If you are doing this in the winter and do not want to paint in your shop, we found that as long as the temperature is not below 40°F you can get the cases good and warm in your shop, take them outside to a previously prepared painting area, quickly paint the cases and take them back into the shop to dry between each coat.



This is a picture of the cases after painting.

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