

## MINOR SCRATCHES

## DEEPER SCRATCHES

### How to rectify scratches on your Carl Douglas Custom or Special shell

If damage is slight and not through to underlying wood laminate, water applied to the scratch will not seep into it and darken the wood. You can either leave well alone (the safe and easy approach) or make a cosmetic repair (more fiddly and slightly more risky).

#### PREPARATION & NOTES

For a good repair, the objective is that you restore the surface but remove none of finish surrounding the scratch. You build up finish in the scratch and re-level it once cured. Your boat should be properly dry before attempting any repairs.

#### Notes:

If you do have any problems, questions or concerns about repairs please contact [carl@carldouglasrowing.com](mailto:carl@carldouglasrowing.com) and we will do our best to give helpful advice.

It is easier to damage a good surface than to restore it, so go easy!

Using other materials than those recommended will give a worse result and make proper re-finishing more difficult.

Never be tempted to "slap a bit of varnish on it". You wouldn't brush paint over scratches on a good car, so please never treat such a fine boat in that way. If you feel the need for temporary protection, use tape!

#### EQUIPMENT & MATERIALS

- **Masking tape**
- **Piece of plastic card**
- **1000 grit wet & dry paper**
- **1500 grit wet & dry paper**
- **Varnish or lacquer**  
**either**  
Single-component moisture-cure clear polyurethane varnish or lacquer (often available from a marine chandlery),  
**or more preferably**  
Two-component acrylic clear-coat lacquer as used for automobile refinishing over metallic or base-coat finishes.
- **Polishing compound paste.**  
We use Farecla G3, but there are many reputable compounding products usually available from automotive repair shops.
- **Soft cloth**

#### PROCEDURE

1. Mask right up to all edges of the damage with clear Scotch or masking tape.
2. Mix (if two-component) a small amount of lacquer. In either case apply a thin line of lacquer right along the scratch, filling but not over-flowing the indent.
3. If necessary, repeat the application immediately the first hit has part-hardened. You want to bring the surface just above the surroundings, because it will contract on fully curing and you need spare to level down to the surroundings in the final stage of this treatment.
4. Remove the masking and **allow to cure for a couple of days.**
5. Now you must level the newly-applied material, with very fine wet & dry papers, and without more than marginally abrading the original surface. This is where real skill shows!
6. Unless the area is more than a narrow line, don't use papers coarser than 1000 grit. **Use only under a steady sprinkling of water.** And have the paper wrapped around a stiff card e.g. an old credit card, but preferably larger and not with any emboss towards the boat!
7. It helps to protect the original finish from unintended damage if you mask with clear tape about 1/4"/6mm away from the area to be treated.
8. Rub gently, with a flat, circular action and almost no pressure, until you've eliminated the upstanding lacquer and just started to touch the surrounding finish. Then STOP! A change just before this to around 1500 grit paper will give even better results.
9. With a soft, very damp cloth and some car-body compounding paste, rub hard until the surface shines. Job done!



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## MINOR SCRATCHES

If the scratch is deeper – to the wood or it lets water into the wood – you need to repair both the finish and underlying epoxy primer. Usually in this situation the scratch will be white and a bit crackled.

## DEEPER SCRATCHES

### How to rectify scratches on your Carl Douglas Custom or Special shell

### PREPARATION & NOTES

If there is any loose material, very carefully pick that (and nothing else) out without damaging any wood fibres. That done, the first step is to infuse clear epoxy resin. This re-seals the underlying laminate without discolouring it. But first the underlying material must be bone dry, so leave for a couple of days in cold weather, or at least 24 hours in hot, before starting.

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### EQUIPMENT & MATERIALS

- **Masking tape**
- **Piece of plastic card**
- **180 grit sand paper**
- **1000 grit wet & dry paper**
- **1500 grit wet & dry paper**
- **Hair dryer or hot air gun**
- **Slow cure epoxy resin**  
Araldite Precision  
West System 105  
System-3 resin.
- **Varnish or lacquer**  
**either**  
Single-component moisture-cure clear polyurethane varnish or lacquer (often available from a marine chandlery),  
**or more preferably**  
Two-component acrylic clear-coat lacquer as used for automobile refinishing over metallic or base-coat finishes.
- **Polishing compound paste.**  
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- **Soft cloth.**

### PROCEDURE

1. If the scratch comes with any associated indent, then very carefully abrade only the indented area with a folded edge of ~180 grit abrasive paper. Then mask right up to all edges of the damage with clear Scotch or masking tape.
2. Now get a hair dryer, or a hot-air gun set to a **low temperature**, and some **non-rapid epoxy**. Rapid-set epoxies are wholly unsuitable for this, are inferior adhesives and should never be used on boats. Slow-set paste or liquid epoxies are fine
3. Gently warm the affected area, but not so hot that the Scotch tape starts to shrivel. While keeping it warm, apply well-mixed epoxy to the affected area.
4. Air may bubble through the epoxy, and the epoxy should go clear. Let any bubbles separate and the resin to cool before hardening. Resin may then draw into the laminate.
5. If the resin shrinks back, you can bring the level back up by adding more.
6. You may be able roughly to level off the cooling epoxy by stretching Scotch tape sideways across the curved surface, but take care not to entrap air bubbles.
7. When the resin has fully cured (next day), remove all masking and check the result.
8. You now have two choices:
  - either level off and polish the epoxy as indicated from Step 5 on the other page of this document
  - or
  - lightly sand it to the very slightest depression before coating with lacquer and again rubbing back and polishing as for a minor scratch – from Step 5

