



# Ferrari North America

## Technical Information

Date: August 2019  
Bulletin #: 2605  
Campaign #:  
Supersedes:  
Section: 6

**Model Type:** 488 Pista, 488 Pista Spider  
**Model Year:** All  
**Subject:** Repair procedure for carbon fiber wheels

Please find enclosed the correct procedure for assessing and repairing damage to optional carbon fiber wheels installed on the aforementioned models.

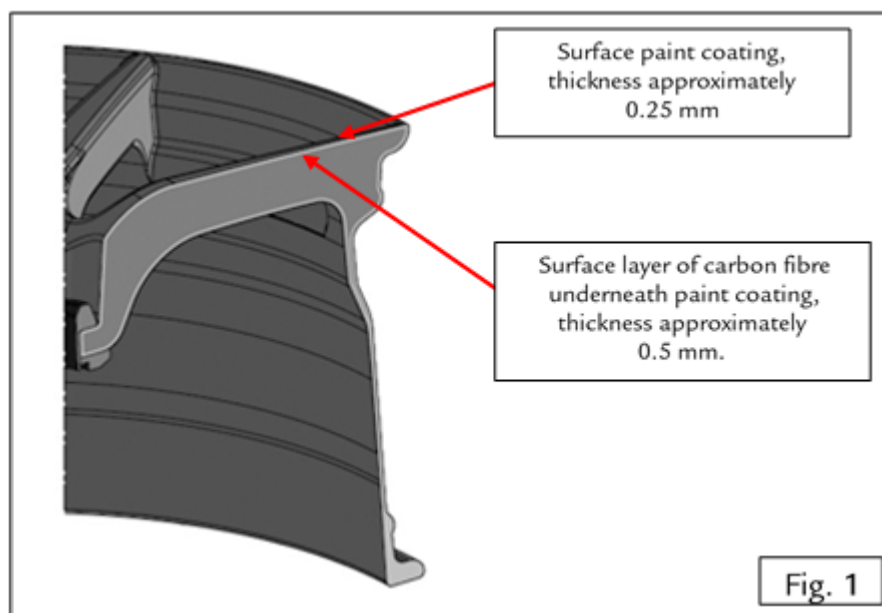
### Assessing damage

The extent of the damage must always be assessed correctly to determine whether to repair or replace the wheel. These wheels have a coating of paint and an underlying layer of carbon fiber – Fig.1.

Cosmetic damage affecting only the surface coating of the clear coat may be repaired following the procedures described in this Technical Information. However, in the case of more extensive or structural damage, however, it is necessary to replace the wheel.

Identify the extent of the damage as follows:

- remove the complete wheel from the vehicle;
- dismount the tire and clean the wheel thoroughly;
- inspect the wheel visually in natural daylight or using strong artificial illumination.



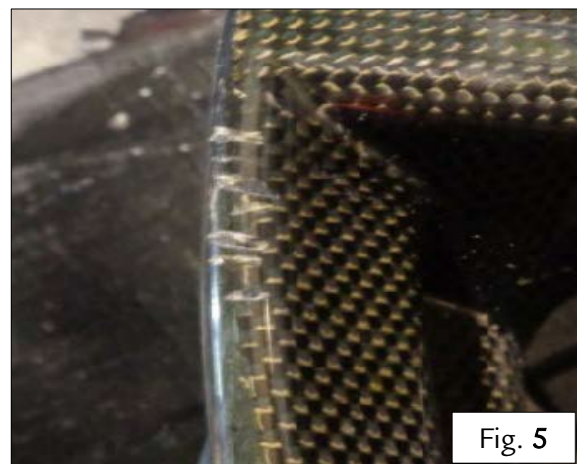
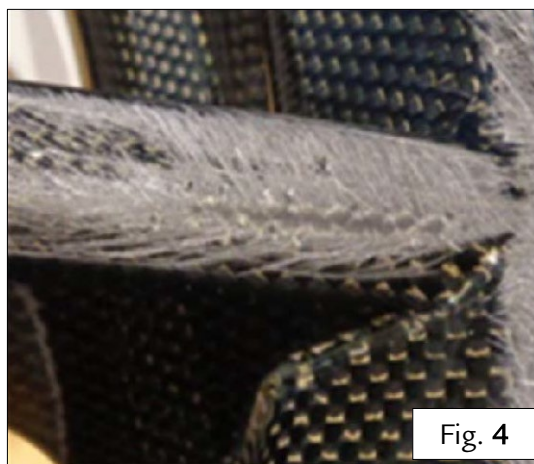
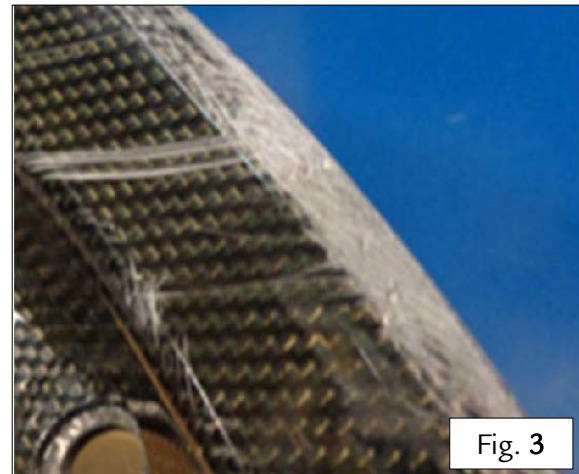
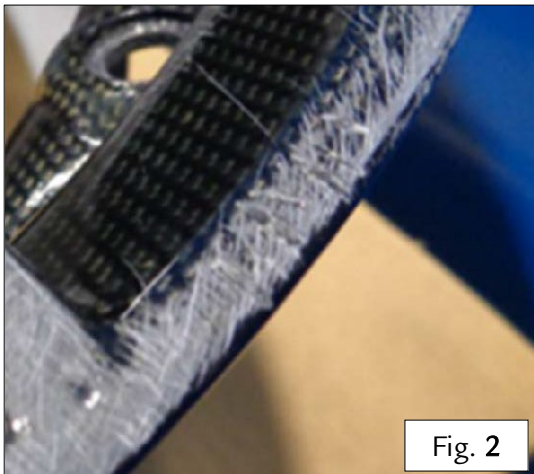


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## Repairable surface damage

The following examples are considered surface damage and are therefore repairable:

- Abrasion/nicks along the rim of the wheel not extending beyond the clear coat (Fig.2, 3);
- Abrasion on the spokes of the wheel not extending beyond the clear coat(Fig.4);
- Nicks in the clear coat not reaching the underlying carbon fiber layer (Fig.5).





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## Non-repairable structural damage

The following examples are considered structural surface damage and are therefore **not** repairable, as they compromise the structural integrity of the carbon fiber:

- Damage to rim of wheel (Fig.6);
- Damage to rim and spoke of wheel (Fig.7);
- Damage and abrasion to rim and spoke of wheel (Fig.8).

In any of these cases of damage, it is necessary to replace the wheel.

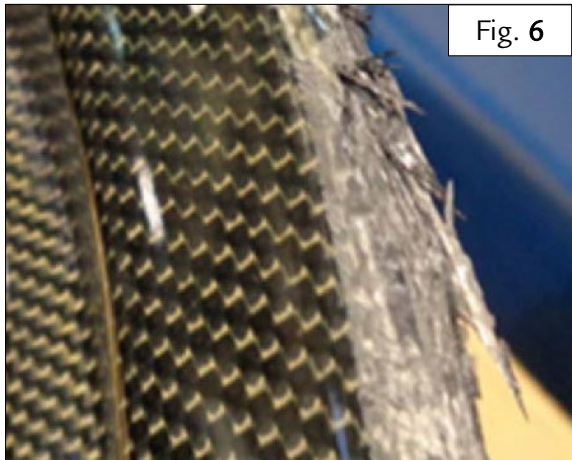


Fig. 6

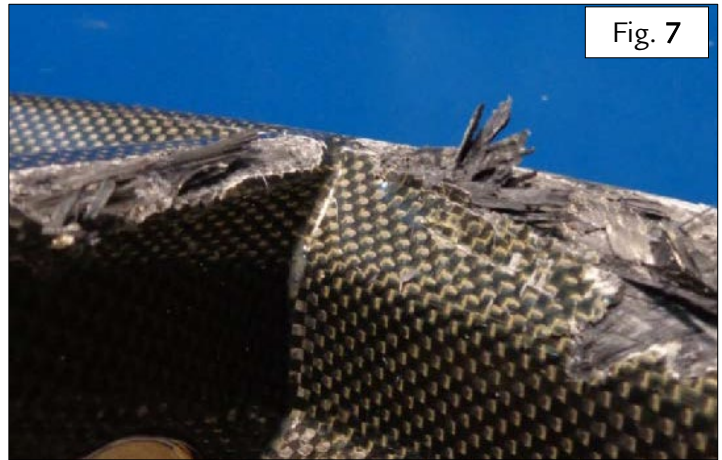


Fig. 7

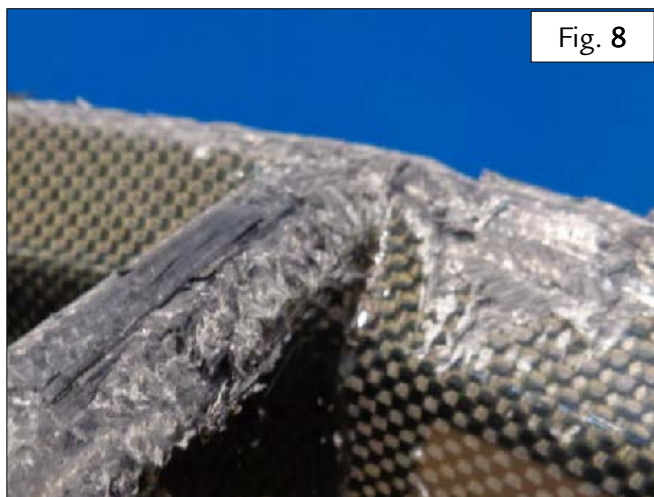


Fig. 8

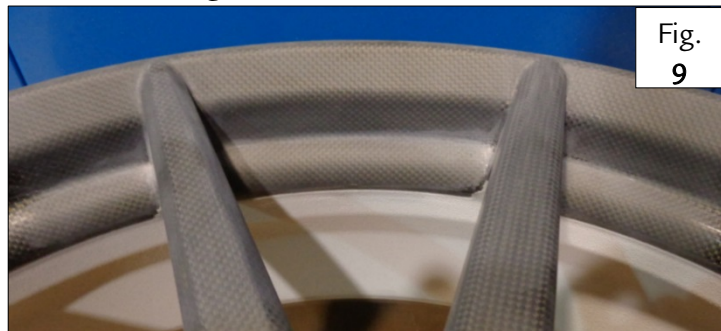


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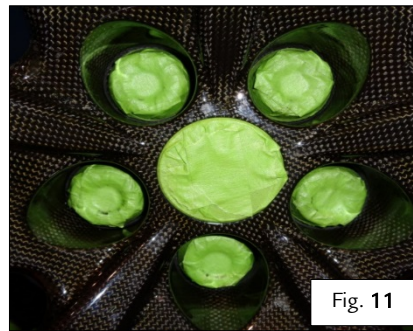
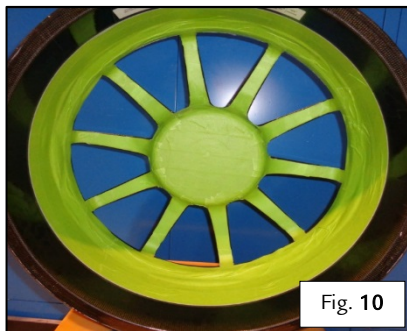
### Procedure for repairing surface damage

Once it has been determined that the damage to the wheel is cosmetic only, the wheel may be repaired with the following procedure.

- Using **P500 – P800 grit sand paper**, dry-sand the damaged area and the surrounding surfaces to remove any residual material and prepare the wheel for repairing.
- Now wet-sand the edges of the area prepared in the previous step with **P1500 grit sand paper** to blend the prepared surface into the surrounding surfaces.
- After sanding, clean the surface with **PPG D845**. At the end of this procedure, the wheel should appear as shown in Fig. 9.



- Mask areas which are not to be repainted with **3M 233+** waterproof paint or an equivalent product (**do not** use paper tape).
- If it is necessary to repaint the entire surface of the wheel, use caution to not apply paint on the seats of the fastener nuts, the mounting plate and the layer of composite material under the seats of the nuts. Also use caution to not apply paint to any zones with thermal barrier coating – Fig.10, 11.



- Use the following products, mixed in the proportions indicated, to paint the wheel:



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- Clear coat: PPG D880;
  - Catalyst (50%): PPG D841;
  - Thinner (25 %): PPG D812.
- Apply two coats of paint to the area with a spray gun. Before applying the second coat, leave the first coat to dry for **15 minutes** at a temperature of **20°C**;
- Apply a coat of **PPG D868** thinner to blend the repaired zone into the existing paint coating.
- To help ensure that the paint coating cures correctly:
- wait **15 minutes** at a temperature of **20°C** for the coating to dry initially;
  - bake at **60°C** for **50 minutes**.
- Polish the repaired area and inspect it visually to ensure that the film thickness and color of the repaired zone match the surrounding areas – Fig.12.



Thank you for your co-operation.