WET STORAGE STAIN (WHITE RUST)
Service Datasheet 2

Vehicle Technology

General Information:

Hot dip galvanising has been used for many years throughout the automotive industry, and is widely regarded as one of the best forms of corrosion protection.

It does, however, need minimal maintenance in certain circumstances.

In its natural state, zinc is not a corrosion resistant metal, and achieves its corrosion resistance by forming a barrier layer through reaction with the atmosphere. This is mainly caused by the CO2 content forming zinc carbonates. If the zinc is in contact with moisture during these reaction periods, dissolved minerals will also have an effect.

These protective layers cannot form if the surface is covered with moisture of a low mineral content such as condensation, rainwater, thawing snow or distilled water. Insufficient air circulation will also prevent formation of these layers.

These are exactly the conditions experienced during long-term parking, where the moisture content cannot be avoided. Restriction of air circulation, can result in the formation of a soft, porous, light-grey oxidisation layer. This is known as “White Rust” and in this context **should not be confused with rust as applied to steel.**

Light white rust deposits do not affect the performance of Hot Dip Galvanised steel, as the deposits are transformed into a protective layer by the action of CO2. This does, however, require good air circulation.

Light deposits can be removed using a hard nylon or wire brush, but this is only to be applied for reasons of aesthetics.

In winter, road salt is as damaging to a galvanised chassis as it is to motor cars. It is therefore necessary to wash the chassis using a hose or pressure washer if winter towing is undertaken - taking particular care with corners and crevices.

The shiny silver colour of Hot Dip Galvanising will over a period of time turn light or dark grey. This does not denote a failure of the galvanising, but simply shows a formation of the aforementioned protective layer.

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