

# Industrial Metal Case Study

## Cracked Engine Timing Cover Repair

Industrial Metal repairs a crack in a 466 International engine cover, saving a Puerto Rico dairy \$1000 in parts and a week downtime for a delivery truck



The hairline crack in centre of the metal casing

### Defect

Oil was noticed leaking from the timing cover of the delivery vehicle's 466 International engine. Once opened, a hairline crack was found in the casing.

A replacement cover was quoted at \$1000 and a week lead time. The dairy needed the truck to be back in service as soon as possible and so they sought a faster, more cost-effective repair.

### Solution

The ends of the hairline crack were drilled to relieve stress concentration and prevent the crack from spreading further.

A coarse 3-square file was used to widen the top and bottom of the crack, creating two V-shaped grooves in the casing. This increased the surface area with which **Industrial Metal Epoxy Paste** could bond when rebuilding the metalwork.

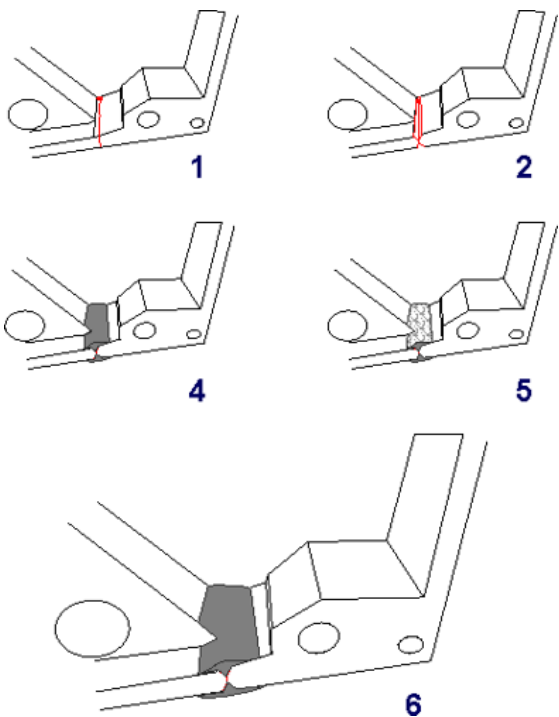
The paste was forced into both ends of the crack with a spatula, filling the widened V-shapes. To ensure full adhesion, the paste was overlapped by 20mm either side of both grooves.

### Result

Industrial Metal has a full cure time of 24 hours. Once set, it had formed a solid metal material seamlessly filling the grooves to repair the crack.

A day after the application had been completed and the delivery truck was back on the road with the timing cover no longer leaking.

The dairy were very pleased with the technical advice received from Sylmasta and the speed and ease of repair.



Repair instructions, showing V-shaped grooves cut in top and bottom of crack and 20mm paste overlap



Completed repair with crack seamlessly filled in