

Process Engineering MANUFACTURING

Control &

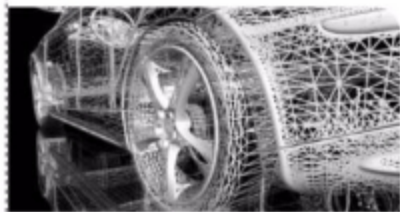
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GO BEYOND THE TRADITIONAL - 04

It's no secret that automotive production lines of the mid-twentieth century weren't quite as 'well oiled' as today's high-tech super factories.



INNOVATION AND PERFORMANCE - 02

Assuming that they are correctly designed, installed and maintained, hydraulic systems should have an operating life of decades.



EVOLUTION OF RESHORING - 04

Last spring the UK experienced a growth in reshoring manufacturing. 18 months later how has this evolved and what will be the impact of Brexit?



CORTEC® DESIGNS CORROSION INHIBITING ADDITIVE COMPATIBLE WITH DIESEL FUEL TANKS AND SYSTEMS!



Corrosion is a common problem on carbon steel components shipped overseas or stored for months in humid climates. Metals in good condition when manufactured may be severely corroded by the time they reach their destination or are unpacked from warehouse storage.

Cortec® has frequently addressed this problem by offering integrated solutions in the form of VpCI® films, coatings, or other delivery systems that best suit the application and are relatively easy and economical to use. During its 40-year history, Cortec® has also developed many new VpCI® products that meet specific end user needs and introduce these benefits to others.

This recently occurred with Cortec's development of a new VpCI® fuel additive for the protection of diesel fuel tanks and systems. A corrosion problem on carbon steel diesel fuel tanks of a major manufacturer's heavy equipment prompted the discovery. Corrosion would occur on the equipment tanks after about one month of overseas shipment and would increase during long months of storage in the humid climate of Brazil.

Cortec® R&D responded to the problem by designing VpCI®-706, an additive fully compatible with diesel and biodiesel fuel and tailored to work in diesel tanks and systems. The product provides superior corrosion protection for ferrous metal surfaces both in contact with the fuel and above the fuel level. VpCI®-706 has many important features:

- May be used in operation, storage, and shipment
- Fully compatible with diesel and biodiesel fuels
- Provides protection in liquid and vapor phase, and at liquid/air interface
- Does not contain trace metals, chlorides, chromates, nitrites, or phosphates
- Does not contain additives known to create precipitates and filter issues
- Can be fogged or poured directly into gas tanks

After running tests and ultimately developing VpCI®-706, Cortec® did a trial on the heavy equipment carbon steel tanks that had inspired the product. The additive was applied to the heavy equipment tanks (which were filled with an operational amount of diesel fuel for equipment loading and unloading) before approximately one month of shipment to Brazil, where further storage would occur. When the equipment arrived at its destination, the filler necks of the untreated and treated tanks were compared. Corrosion was found on the filler necks of the untreated tanks, but the filler necks of the treated tanks had been preserved, and the customer expressed the desire to adopt the new protection method.

Adding VpCI®-706 to diesel tanks before shipment or storage is an important new strategy for protecting truck and heavy equipment fuel tanks and systems from corrosion. It lowers the risk of monetary loss and customer dissatisfaction from equipment that arrives at its destination in a corroded condition.

An important advantage of using VpCI®-706 is that it does not affect engine performance and can be used in the tank during engine operation. The engine can be safely started in order to drive heavy equipment in and out of the shipping or storage compartment for easier loading and unloading. VpCI®-706 can then be left in the diesel tanks for continued corrosion protection during storage and operation of heavy equipment or trucks.

The additive offers protection at a very low dosage rate of 0.5% per volume of the tank to be protected.

The presence of Cortec's proprietary Vapor phase Corrosion Inhibitors means that the tank does not need to be completely filled with fuel, since protection will occur on metal surfaces both above and below the surface of the fuel.

VpCI®-706 is an important addition to Cortec's range of integrated solutions as a corrosion inhibiting additive that is compatible with diesel fuel, protects at a very low concentration, and can be used during equipment operation. By listening to industry needs, Cortec® R&D has been able to make an important advance in the preservation of diesel fuel tanks and systems.

To learn more about VpCI®-706, please visit: www.cortecvci.com/Publications/PDS/VpCI-706.pdf