METALWORKING

CASE STUDY

CORROSION PREVENTIVE
FERROCOTE® 118 DC

CHALLENGES
A major producer of diesel engines was experiencing:

» Severe rusting of cast iron engine heads during production
» Additional processing step to remove rust and scale prior to assembly steps

Quaker recommended introducing FERROCOTE® 118 DC, a water-soluble, interim corrosion preventive, to help eliminate rejects due to rust and scale.

THE SOLUTION
The use of FERROCOTE® 118 DC resulted in:

» Reduction of 250 heads per day being rejected for rust (1500 total production) to an average of one
» Virtual elimination of the rust removal processing step resulting in decreased chemical usage and labor costs
» Elimination of foam and bacterial growth in the application system
» System life increase of 14%
» Elimination of undesirable amine compounds

THE PRODUCT
FERROCOTE® 118 DC is a water-soluble corrosion preventive for interim protection, suitable for all steel and cast iron alloys. It may be applied via immersion or spray application, resulting in protection provided by a light oil film.

PROCESS AND EQUIPMENT

<table>
<thead>
<tr>
<th>Parts</th>
<th>Diesel Engine Head</th>
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</thead>
<tbody>
<tr>
<td>Part Alloy</td>
<td>Cast Iron</td>
</tr>
<tr>
<td>Cleaner/Rust Preventive</td>
<td>3-6% v/v concentration</td>
</tr>
<tr>
<td>Operation</td>
<td>In process cleaning and corrosion preventive application</td>
</tr>
</tbody>
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THE EXPERTISE
Corrosion preventive fluids are designed to protect metal parts during storage and transport during the manufacturing process. Proper selection and application of the fluid can result in substantial cost benefits. Typically, metalworking lubricants represent very minor part of the cost in a metalworking process, typically less than 1%. The impact of a fluid can be a multiple of its costs, making the price of a metalworking fluid insignificant. That is why Quaker focuses on developing fluids with the highest performance without compromise. Fluids that sharpen your competitive edge.

CUSTOMERS
» Bosch
» Cummins
» General Motors
» NTN
» Timken

OEM REFERENCES
» Ransohoff

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