

Petrochemical Industry

CASE STUDY

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Key Facts

Sector	Petrochemical Industry
Category	Investigation of Coupling Shims

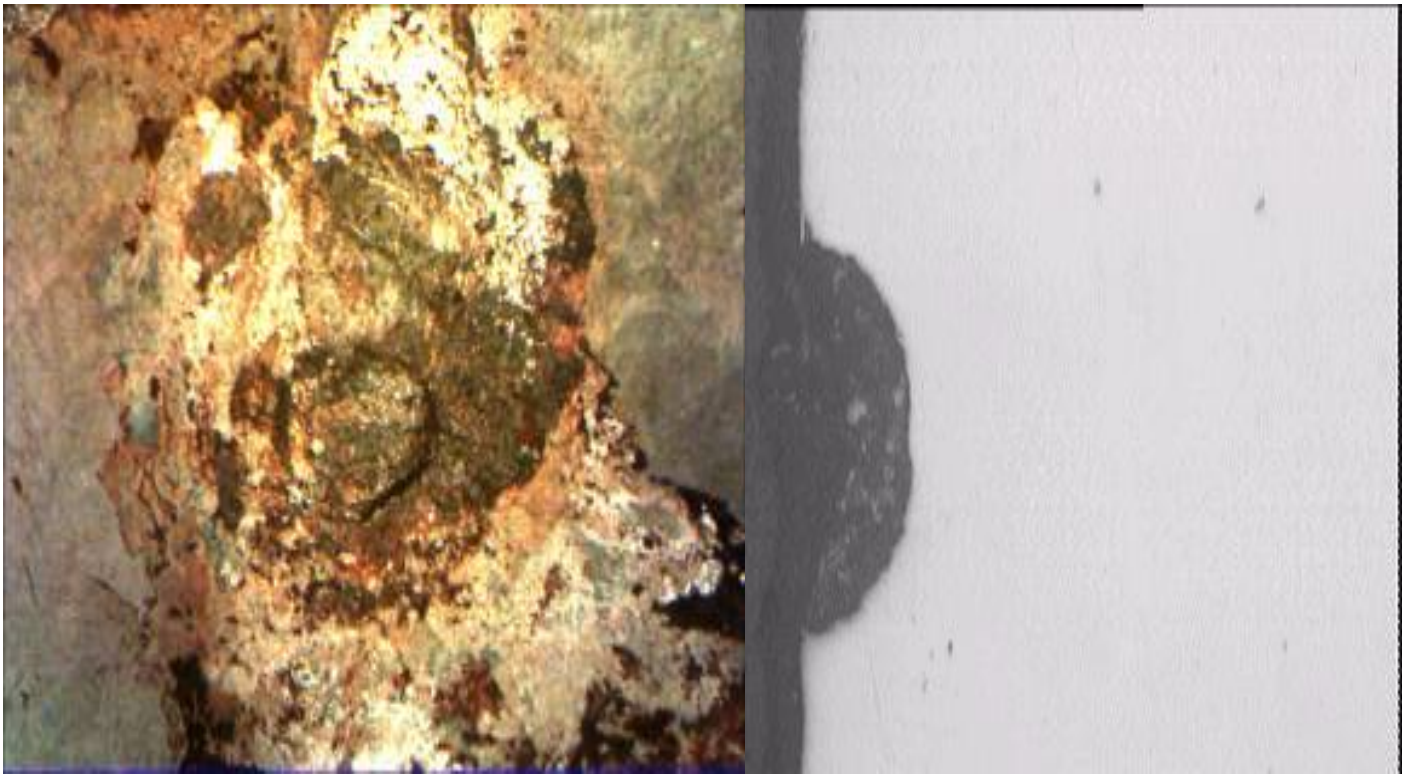
Problem

- Coupling shims of the cooling tower were failing quite premature when they were checked during routine maintenance.
- The failure was in form of breakage and surface corrosion.



Diagnosis

- The failure of the shims due to corrosion initiated in form of crevice corrosion due to water mist present near the cooling water tower and aggravated further due to intrinsic metallurgical condition of the material having carbon on higher side and cold worked surfaces due to prevailing micro gap between seems either due to under-tightening or due to over-tightening.



Solution/Recommendations

- Alternatively, SS 316L shims may be used which has far better corrosion resistance especially in moist chloride content atmosphere.
- Periodical lubrication with proper/suitable lubricant (specified by OEM) may be used extensively on all the wetted surfaces that would help in corrosion prevention.
- Required tightening of the fasteners to the specified torque shall always be ensured. Over tightening and under tightening both should be avoided with the proper shim placements. There should not be any gap between the shim and the coupling.

Contact Us

If you are interested to learn more about TCR Advanced,
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