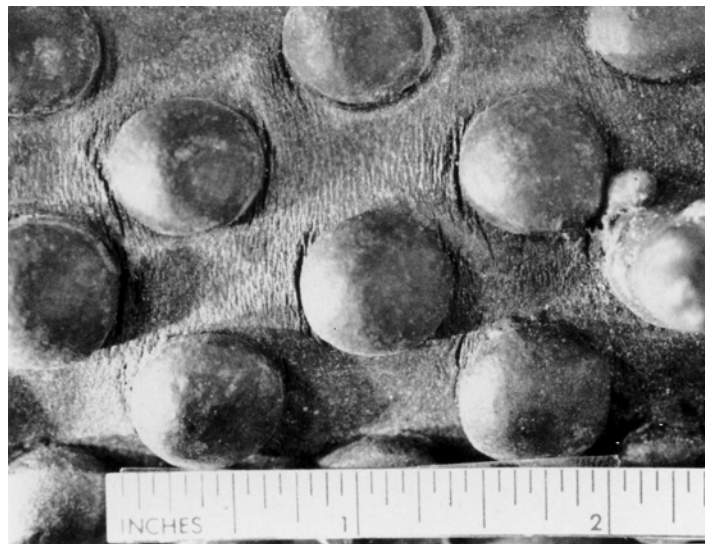
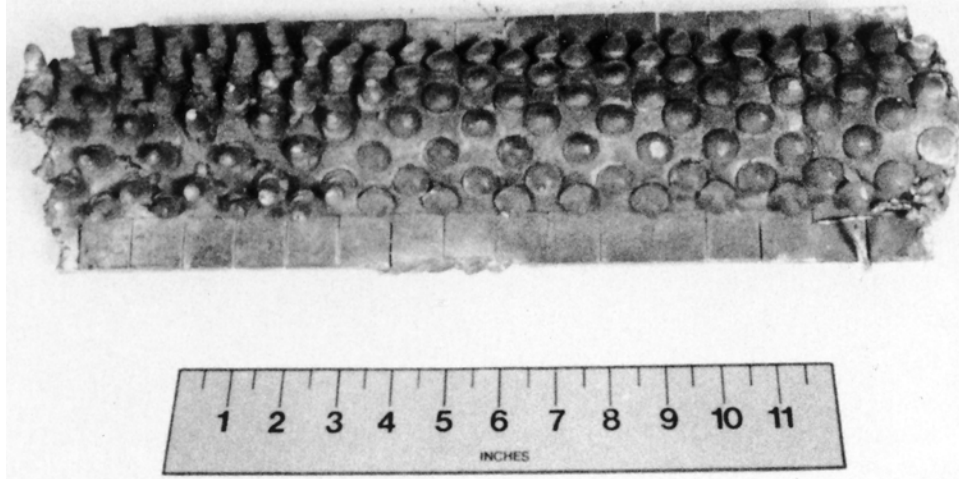


M&M Engineering's Boiler Tube Failure Handbook



Crack—Not in or near a weld—Transverse



Locations	Studded Waterwall
Boiler Type	Recovery
Industry	Pulp and Paper

Appearance	Fine cracks around studs
Mechanism	Thermal Fatigue
Comments	Thermal cycling from intermittent wetting by slag/smelt causes fatigue.

