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SMART Grease selection for Roller Bearings of Continuous Casters and Rolling Mills to reduce maintenance cost and extend bearing life.

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The most demanding operations in the steel industry in regard to bearing lubrication and lifetime of bearings are continuous caster strand guide rolls bearings and Hot Strip Mill Work Roll Bearings.

They are operating in wet and hot environments causing water spray off or water washout of lubricating greases resulting in ingress of aggressive mill water. This contaminants and water cause corrosion and increase wear within roller bearings up to fatal damage and collapse of the bearing. As a result, bearings fail premature causing downtime, additional maintenance and spare parts cost and loss of production. This paper describes test methods to determine the behaviour of lubricating greases in regard to water spray off behaviour and how to select greases that provide extra protection under these harsh conditions. Several Thickener systems have been analysed and results will be discussed in this paper.

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