

A REVIEW: TRIBOLOGICAL STUDY OF ADVANCED COATING ON CAST IRON

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ABSTRACT

Mostly in the industrial sector the cast iron is widely used. And the cast iron has high wear rate. Wear (tribological process) occurs when two surfaces are in contact and both/one are moving relative to each other. It has high rate of friction. The friction is analyzed without lubrication, with lubrication and also with nanoparticles added in the lubricant as additives. Again, to reduce the friction the various types of coatings is analyzed to reduce the rate of wear. To apply coating various types of deposition techniques are to be analyzed. The rapidly growing interest for reducing the wear rate and friction between contact materials, from both academics and practitioners has urged the need for review of up-to-date research and development to develop a new agenda. The review primarily attempted to seek answers to the following two questions: (1) What are different research approaches used to study tribological analysis related to advanced coatings? and (2) What are the lubricant additives added in the which lubricant to reduce rate of wear and friction? We propose a framework based on the findings of the review with three parameters. Advanced coating, lubricant, and nanoparticles added in lubricant as an additive.

