

Performance of gease under vibrating conditions

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20241544&lokasi=lokal>

Abstrak

Oil separation in grease is known to be caused by temperature, pressure, centrifuging or by bleeding. There has been a new issue of separation caused by vibration. This occurs primarily in centralized lubrication systems where a positive displacement pump delivers grease to a number of lubricating points located some distance from the pump.

A test rig was built to investigate this issue. It consists of two parts, one is a vibration simulation rig, and the other is a measuring rig. The vibration rig, when coupled with a vibrating table will be able to simulate vibration. The measuring rig was designed to be used with Load Cell machine, to push grease through the grease line. Oil separation is identified by uneven force distribution needed to push the grease.

Testing was done using grease number 2, commonly used grease in industry. There is quite a promising indication that oil separation in grease due to vibration does occur.