

CONTROL ID: 2377903

PRESENTATION TYPE: Oral

CURRENT TOPIC: Condition Monitoring

TITLE: Retrospective Approach for Establishing Predictive Wear Signatures for Lubricating Oils

AUTHORS (LAST NAME, FIRST NAME): Byrne, Brian¹

INSTITUTIONS (ALL):

1. Engineering, Dublin Institute of Technology, Carlow, Tullow, Ireland.

ABSTRACT BODY:

Body: Collection, evaluation and presentation of data is an essential element of condition monitoring and lube oil analysis. This paper intends to review current popularised means of condition assessment through data evaluation of lubricating oil analysis . Furthermore, an attempt to establish a predictive pattern or signature for wear and contamination will be attempted retrospectively. A review of tendencies within asset types and identification of indicators of abnormal conditions will be reviewed and modelled mathematically. Additionally an attempt to apply this model on specific assembly, asset, fleet and global levels will be made. A synopsis of different approaches for statistically establishing thresholds and limits for parameters will be given and a method for identifying outliers presented. Finally, data compilation and presentation will be discussed, including the use of trending tools and visual representations.

KEYWORDS: Maintenance:Oil Condition Monitoring, Maintenance:Equipment Monitoring, Maintenance:Failure Analysis.