Wear of Engine Oils Using Gaseous Fuels

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The article defines the specifications of engine oils used alternative fuels. Used particle analysis of exploited oils gives the results of the wear mode, which indicates the ratio of large and small wear particles contained in exploited oil. Another very important result is defined as the level of wear, which indicates the amount of wear particles contained in exploited oil. For the level of wear Thin Layer Chromatography was used. It was possible in practical terms to apply discriminant analysis based on the results of these tribodiagnostic methods. Nomogram the wear receives practical information of current oil and engine wear. On oil life and operational reliability of gas engines affected by the choice of oil, according to the specifications. Another parameter is the mode of operation of the engine and preventive maintenance. The results of the oil wear were significantly different and depended just on the current state of the engine. For engines in perfect condition low values of wear were measured, for engines in poor condition critical wear was detected.

Keywords: Pherrography, Engine Oil, Wear Particles, Nomogram the Wear, Discriminant Analysis

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