OBTAINING OF INDICATORS OF ECOLOGICAL SAFETY LEVEL OF DIESEL ENGINE THAT OPERATES ON TESTING CYCLE ESC

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In the study was obtained technical end ecological indicators of operation process of diesel engine D21A1 (2Ch10.5/12 in accordance with GOST 10150-2014) that operates of standardized steady testing cycle ESC (UNECE Regulations № 49) and also magnitudes of complex fuel and ecological criterion and its components. This data obtained by processing of results of motor bench tests in [1] an application of mathematical apparatus of complex fuel and ecological criterion of Prof. I.V. Parsadanov (NTU «KhPI») K_{fe} [2] and illustrated on Fig. 1 – 3.

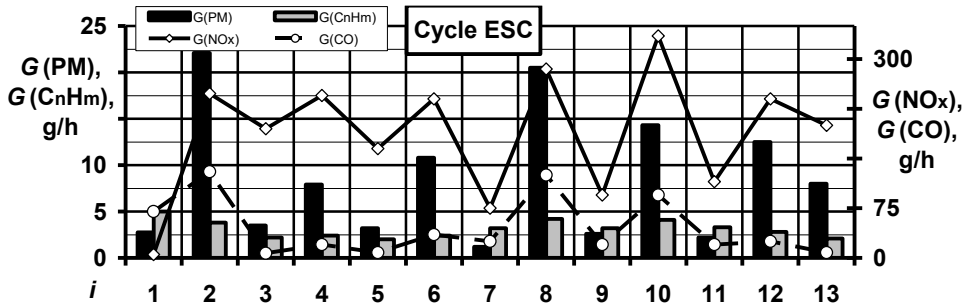

Figure 1 – Ecological indicators of 2Ch10.5/12 diesel engine

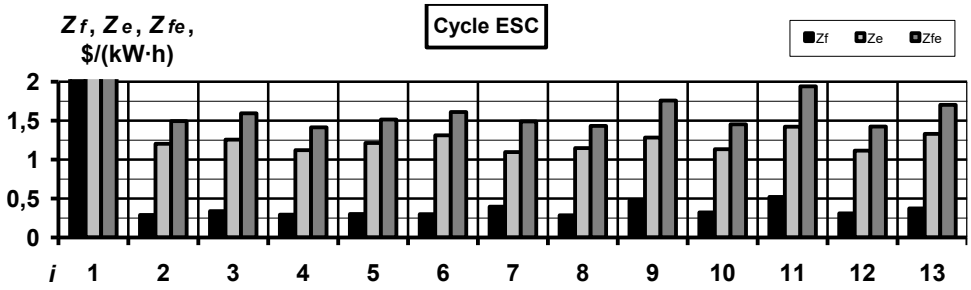

Figure 2 – Monetary components of criterion K_{fe}

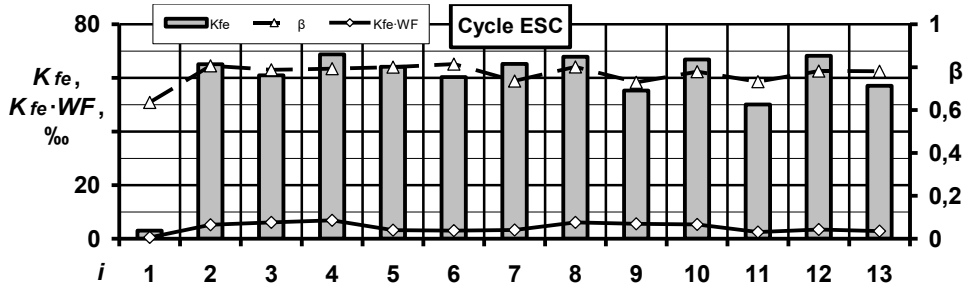

Figure 3 – Distribution of magnitudes of complex fuel and ecological criterion K_{fe}

References:

1. Kondratenko O.M. (2019). Metrological aspects of complex criteria-based assessment of ecological safety level of exploitation of reciprocating engines of power plants: Monograph. Kharkiv. Publ. Style-Izdat. 532 p. ISBN 978-617-7738-33-5. **2.** Parsadanov I.V. (2003). Improving the quality and competitiveness of diesel engines based on complex fuel and ecological criteria: Monograph. Kharkiv. Publ. Center NTU “KhPI”. 244 p. ISBN 966-593-319-1.