

# **Prediction of IC engine durability with the use of piston ring pack model**

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Wear of cylinder kit components of internal combustion (IC) engine leads to increase in blowby and oil consumption and usually determines engine durability or the necessity for general overhaul.

The paper presents the method of engine life prediction which bases on the results of simulations carried out with the use of the analytical model of ring pack of IC engine. The model can be used for this purpose as it takes into consideration the influence of wear on the ring pack operation and allows for evaluation of the effect of the wear on the drop in effectiveness of the seal. Thus, at some additional assumptions, it can be used to predict the durability of the engine. The results of example calculations for automotive engine are presented.