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INPUT PROCES ANALYSIS FOR TESTING CAR ENGINES

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Rezumat. *Subiectul abordat în această lucrare este un studiu realizat în departamentul de testare auto al Renault Technologie Roumanie. Acest studiu cuprinde: o analiză a procesului de testare de la primirea unei cereri de testare până la generarea rezultatelor și transmiterea acestora spre interpretare către client, analiza tipurilor de teste mecanice de motoare efectuate la Renault România și analiza economică a implementării unui banc de testare a motoarelor hibride, primul de acest fel din România, cu analiză de proiect și analiză SWOT. Ceea ce se urmărește prin acest proces este delimitarea corectă a etapelor de testare, succesiunea și modalitatea de a deveni competitivă pe o piață cu tradiție și care oferă oportunități de dezvoltare progresivă de-a lungul evoluției vehiculelor către hibrid și full-electric.*

Abstract. *The topic covered in this paper is a study conducted in the automotive testing department of Renault Technologie Roumanie.The contains of this study is: an analysis of the testing process from receiving a test request to the generation of results and sending them for interpretation to the customer, the analysis of the types of mechanical engine tests performed at Renault Romania and the economical analysis of implementing a hybrid engine test bench, the first of its kind in Romania, with project analysis and SWOT analysis. What is being pursued by this process is the correct delimitation of the test stages, the succession and the way to become competitive on a market with tradition and which offers opportunities for progressive development along the evolution of vehicles towards hybrid and full-electric.*

Keywords: Test bench, Engine test, Test facilities, Static test bench

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1. Introduction

The future of developement of the cars it is nonsens without the test of the engines. Testing the engines is a complex process with applicability and utility in the development of new performance, but also in the limitation of the harmful effects that the use of internal combustion engines entails. This is possible as an integral part of the research and development process, either in machine-building enterprises or in research laboratories in universities with a profile in automotive engineering. The engines are designed to be integrated and operational in a

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