

The Modification of System for the Angle of Attack Setting at Roller Rig RAILBCOT

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The aim of the article is to present suitable changes at the conception of the angle of attack setting mechanism and the modification of the spring element at the load module SIMRAIL, part of roller rig RAILBCOT which faithfully simulates the behavior of the vehicle on a real track. RAILBCOT is the acronym for RAIL vehicles Brake Components Test stand. During the measurements were recorded imperfections, which could influence continuous testing, and would lead not to reliable and fully trustworthy results. The article describes three steps to improve the situation. The first step describes the stabilization of the members to prevent the occurrence of clearance. In the second step were started measurements at the roller rig at different operating speeds. In the third step is modified the angle of attack setting mechanism where was mechanical spring element changed by hydraulic spring element. Mentioned is also the need for increasing the stiffness of the spring element, which lack of stiffness caused loss of stability before the requesting speed. Modified was the gear lever, where was changed the transmission ratio and dimensioning of spring element.

Key words: RAILBCOT, SIMRAIL, test stand, rail vehicle brakes, simulation computations

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