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NPT Test Machine

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NPT TEST MACHINE

Final Report for 4600:461/462/497 Senior/Honors Design Project

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01 May 2022

The University of Akron

Abstract

Located at the Research facility at The Goodyear Tire & Rubber Company, the Non-Pneumatic Tire (NPT) Program is currently in the prototype phase. However, airless tire structures are quickly gaining popularity as an alternative to a traditional pneumatic tire. The NPT Test Machine is a measurement fixture that will perform a series of evaluations to determine the stiffness of an NPT; this will allow the program to expand and evolve more rapidly into a manufacturing phase. In this Senior Design Project, a complete test solution was researched, designed, built, programmed, and validated; data will continually be collected so tires can be approved for use.

Due to the industrial nature of this Senior Design Project, The Goodyear Tire & Rubber Company – as the sponsoring body – has requested for all information herein to remain confidential. Therefore, the full report is not available to view.