Experimental Investigation of the Tractive Performance of an Instrumented Off Road Tire on a Soft Soil Terrain

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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Science
In
Mechanical Engineering

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June 7th 2013
Blacksburg, VA

Keywords: terramechanics, tires, soft soil, single wheel tester, tire instrumentation

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Figure 2-1. Tire axis system from SAE, Vehicle Dynamics Terminology: SAE J670e: Global Info Centre Canada, 1978. Used under fair use, 2013.

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Figure 2-2. Comparing Programmed -Increasing and -Decreasing slip, Constant slip, and Constant Pull test results from N. R. M. a. A. J. Green, "Effects of Test Techniques on Wheel Performance," Journal of Terramechanics, vol. 6, pp. 37-52, 1969. Used under fair use, 2013.

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Figure 3-8. M1d Valve Diagram (ISO 1219) from Enfield Technologies, "M1d Proportional Pneumatic Control Valve " Datasheet, pp. 1-2, 2010. Used under fair use, 2013.

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Figure 4-4. Timing chart for proper use of the sensor from SHARP, "Wide angle Distance Measuring Sensor Unit," GP2Y3A001K0F Datasheet, 2006. Used under fair use, 2013.

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Figure 5-1. Average ground pressure as a function of inflation pressure and normal load for the 11.0R16 XL tire, obtained from J. Y. Wong, Theory of ground vehicles, 4th ed. Hoboken, N.J.: Wiley, 2008. Used under fair use, 2013.

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Table 5 1. Terrain Profiles obtained from J. Y. Wong, Theory of ground vehicles, 4th ed. Hoboken, N.J.: Wiley, 2008. Used under fair use, 2013.

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Table 5 2. Known tire parameters obtained from J. Y. Wong, Theory of ground vehicles, 4th ed. Hoboken, N.J.: Wiley, 2008. Used under fair use, 2013.

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