CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY

Name(s)

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Project Number

35875

Project Title

How Do Underinflated Tires Affect the Difficulty of Riding a Bike?

Abstract

Objectives/Goals

My objective is to use a Newtons spring scale to measure how tire pressure affects the force required to pull a bike in a straight line.

Methods/Materials

This science project requires a bike, a volunteer with a bike and steer in a straight line, a Newtons spring scale to measure force, and a person to pull bike in a straight line, 3 large zip ties to attach the Newtons spring scale to bike and a graph to map results. My method consisted of testing the bike being pulled at 40,30,20, and 10 psi.

Results

My results showed that the lower the tire pressure the more force needed to pull the bike in a straight line. The higher the tire pressure the less force needed to pull the bike in a straight line.

Conclusions/Discussion

My hypothesis was correct. The tire pressure does make difference in the amount of force needed to pull a bike in a straight line.

Summary Statement

Tire pressure will affect the degree of difficulty in riding a bike.

Help Received

Uncle taught me about the importance of psi. My family participated in experiment.