

Efficiency of the Two Car Draft

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Abstract

Stock cars came to be what they are today because of Bill France Sr.'s idea of racing the cars that can be seen driving on the road. Racing is not all about bolts and nuts. It takes a lot of techniques and strategies. One particular strategy used is the two car draft. The two car draft is a method of drafting in which one car displaces air and another car drives where the air used to be pushing the first car. This method of drafting works best on big tracks with lower temperatures. The one major flaw of the two car draft is warmer weather because the cars over heat. This experiment was conducted to see how effective the two car draft is in reducing the air resistance on the second car. This experiment was performed by placing a model race car with strings attached to it in front of a fan to show how air flowed around a car racing by itself. For the second part of the experiment, two cars with strings attached to them were placed in front of a fan to simulate the two car draft. In the car racing by itself simulation, the strings had a lot of movement because of all the air flowing around the car. In the two car draft simulation, the strings had very little movement. This revealed that the two car draft does effectively reduce the air resistance on the second car.