Name(s)	Project Number
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Project Title

Air Powered Engine

Abstract

Objectives/Goals

The use of gasoline in the industry is polluting our atmosphere, and creating all sorts of complications. Worldwide, there is a search going on for the next big energy source. Pressurized air is a big candidate, and it is used in engines in factories, and there are even prototypes for air powered cars. My objective was to figure out if I could build an air engine using common materials.

Methods/Materials

This project mainly uses pine and poplar boards, PVC, PVC fittings/accessories, and screws. Each model was to have some sort of valve to make the piston move, a piston, and a flywheel. I designed three different models, the first with three sub-models, in the process of making this engine. The first (with its sub-models) was made of mostly PVC. The second was made of more wood than PVC, and the third is still being made at the time of this submission. It is going to be made with mostly wood, solenoids, and PVC.

Results

The first model had three sub models. The first two's valves did not work, and the third's valve worked, but the total engine did not work. In the second model the engine worked, but had very high leakage levels. The third model is expected to work, but at the time of the application is still being built.

Conclusions/Discussion

Air powered engines are indeed a candidate for alternate energy sources. Yes, they may need high P.S.I.'s for operation, but all energy sources are needed in certain quantities to ensure good results. An air powered engine could be built using common materials.

Summary Statement

My project is about building an engine using common materials such as wood that will be powered by pressurized airs, which will show pressurized airs a ready candidate for being the US's, and the world's, next big energy source.

Help Received

Father taught me how to use tools, drove me where I needed to go for supplies;