

Design and Development of Pneumatic Jack in Automobile

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Abstract: *There are many types of jacks available in the market to lift an automobile to access the underbelly of the vehicle. However, these jacks are too huge to carry around or require the vehicle to be taken to some garage. The dependency of an individual on garage or other services increases. During emergencies or in places where the probability of finding a service station is very low such as hilly regions, rural areas, forest areas and etc. It becomes extremely hard to replace a punctured tire or temporarily fix a broken axle on one's own. The time taken for a support system to reach is tiresome. The service provided in high demand areas such as hilly regions or forests is also expensive. This project focuses on helping individuals and physically challenged persons to change a punctured tire. As most of the civilians out there are not trained to place a mechanical jack properly and lift a car. The main target of project is to improve version of mini pneumatic jack this will be more efficient for the user this machine is pneumatic powered which has low co-efficient of friction. A Pneumatic cylinder erected provides power to lift the Wheel. This is a pneumatic powered machine and requires no other means of power to operate. The required components are Compressor (portable), Receiver tank, Pneumatic cylinder, 4/3 DCV, Check valve, Flow control valve, FRL unit, etc.*

Keywords: Pneumatic Jack, Pneumatic Circuit., etc.

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