

CONSTRUCTION AND LAYOUT OF AN ALTERED SHOCK ABSORBER CONSISTING OF CONCENTRIC SPRINGS OF DIFFERENT DAMPING CO-EFFICIENTS

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ABSTRACT

A shock Absorber is a kind of dashpot used widely in automobiles as one of component of the suspension system. The basic shock absorber consists of a coil spring, cylinder, piston and hydraulic fluid or air. Spring performs the function of absorbing energy and the cylinder-piston arrangement serves as a damper and minimizes vibration of the spring so that it comes to equilibrium in minimum time. In traditional shock absorbers one spring is used and that spring is selected based on the type of vehicle and the maximum load on it. In this paper a new design of a shock absorber is explained in which there will be two springs, one for handling light shock and the other for heavy shock. Design is explained with the help of a 3D model made using Autodesk Inventor software.

KEYWORDS: Shock Absorber, Spring, Comfortable Ride, Heavy Vehicles, Easy Handling