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| (31) Priority Document No | :NA | 1)G. SANKARANARAYANAN |
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| Filing Date | :NA | (72)Name of Inventor : |
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(57) Abstract :

Power screws are used to convert rotary motion into translatory motion. A screw jack is an example of a power screw in which small force is applied in a horizontal plane is used to raise or lower a large load. The principle on which it works is similar to that of an inclined plane. The mechanical advantage of a screw jack is the ratio of the load applied to the effort applied. The screw jack is operated by turning a lead screw. The height of the jack is adjusted by turning a lead screw and this adjustment can be done either manually or by integrating an electric motor. In this design spur gears are used to transmit power from DC motor to the screw jack, Spur gears are used because of lower speed requirements. An electric motor will be integrated with the screw jack and the electricity needed for the operation will be taken from the battery of the vehicle and thereby the mechanical advantage will be increased.

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Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (AUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
Palani Road, Dindigul - 624 002.