

## A BRIEF REVIEW ON THE THOMPSON CONSTANT-VELOCITY JOINTS IN THE 4 WHEELER

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### ABSTRACT

*Coupling of different driven components is needed in a direct mechanical drive system. The majority of drive elements, such as gear reducers, lead screws, and a variety of other components, are powered by a shaft supported by many bearings. A drive shaft is slightly misaligned due to the couple's stiffness. The objective of the power transmission relation is to transmit torque from the driving shaft to the tube while accounting for shaft misalignment. Unnecessary wear pressures on the shaft bearings may be caused by shaft misalignment. There are few conventional solutions for misalignment issues, such as Oldham's coupling and universal joints, which have many disadvantages. Thompson's constant velocity (CV) coupling addresses these issues by reducing side loads, increasing misalignment, increasing running speeds, improving transmission performance, and more. The nature of constant velocity joints is investigated in this article, as well as their optimization. Many academics' research on transmission relations and constant speed joints is summarized in this article.*

**KEYWORDS:** *Coupling, Power, Thompson Constant, Transmission, Velocity joint.*

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