

Development of an automotive anti-roll bar: a review

ABSTRACT

In this study, understanding between the operation and mechanism of an automotive anti-roll bar is reviewed. Design consideration of the automotive anti-roll bar is studied from past researchers with the summarized of current invention of automotive anti-roll bar. In development of the automotive anti-roll bar, interaction between design elements such as material, function analysis, forces analysis, failure analysis and geometry specifications are essentially need to be considered in development of it without affecting its conventional function and achieve the performance target. The potential of the fibre reinforced composite such as natural fibre is likely to be the next future generation of automotive anti-roll bar. Considerations of the aforementioned design elements would help design engineers to outcome the challenges in design of composite materials. The inventions that patented by the past inventors would help as a guide.

Keyword: Anti-roll bar; Fibre reinforced composite; Automotive component design