Strength Analysis of the T-Triangle Shock Design for Hybrid Motorcycle Vehicles made from Aluminum Alloy 6061 T6

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ABSTRACT

The development of software makes human work easier. computers as a means can help humans in completing a job. namely the use of computers in the field of design using the solidworks application is useful for analysis such as the T Sock triangle for modified two-wheeled vehicles for hybrid vehicles. This solidworks application has the FEA(finite element analysis) feature which is used to carry out material and pressure tests deflection, allowable stress. This study carried out a simulation by replacing the part on the steering wheel by changing the type of material, namely aluminum alloy 6061-T6 and simulated with a load of 789N, 1034N, 1279N and obtained a deflection value of 7,195 mm^2, 9,492 mm^2, 11,660 mm^2. In conclusion, this material is feasible to replace parts in general are cast steel because the material is able to withstand heavy and light loads.

Keywords: Triangle T Shock, solidworks, FEA, Aluminum Alloy 6061-T6