

ABSTRAK

Ogi Suhansyah, 21418967

ANALISA SWING ARM SEPEDA MOTOR LISTRIK DENGAN MENGGUNAKAN SOFTWARE AUTODESK INVENTOR

Penulisan Ilmiah, Fakultas Teknologi Industri, Teknik Mesin 2021

Kata Kunci : *Swing Arm*, motor listrik, *doubleshock*, Inventor (xii + 27 + Lampiran)

The swing arm or what is often called the swing arm is one of the main components of a modern motorcycle rear suspension system whose function is to dampen the shock of the motorcycle when it passes through a hole. There are two types of swing arm, namely twinshock and monoshock (monocross), twinshock is a suspension system that uses two shock absorbers mounted on both swing arm shafts with a fairly close wheelbase. While monocross is a suspension system that uses a shock breaker which is located in the center of the swing arm close to the pedestal of the vehicle's chassis. Swing arm with Carbon Steel SA-691 material with a yield strength of 350 MPa which is sufficient to withstand a load of 273.7 Kg or 2685 N and in testing using software it produces a von Mises value of 123.5 MPa, the displacement obtained is the value or experiencing deformation is 0.5526 mm, and the safety factor value which is a safety factor in a structure is 2.83 ul (Upper Limit), where the safety factor value is safe enough to withstand dynamic loads that can be borne by the swing arm. The simulation or analysis stages use Autodesk Inventor software.

Daftar Pustaka (2013-2019)