

ABSTRAK

Splitter berkaitan erat dengan stabilitas mobil. Salah satu faktor yang mempengaruhi keamanan dalam berkendara adalah stabilitas mobil ketika melaju di jalan raya dengan fenomena aerodinamika disekitar bodi mobil terutama gaya angkat yang terjadi. Dari masalah ini penelitian dilakukan tentang simulasi *splitter* menggunakan sudut 0° dilakukan dengan variasi 10 cm, 12 cm, dan 14 cm pada kecepatan 100 km/jam yang disimulasikan menggunakan metode *Computational Fluid Dynamic (CFD)*. Dari simulasi didapat kesimpulan bahwa semakin kecil nilai *Coefisient Drag (CD)* maka semakin kecil gaya tekan terhadap body kendaraan dan semakin kecil nilai *Coefisient Lift (CL)* maka semakin kecil gaya angkat terhadap body kendaraan, hal ini berkaitan erat dengan kestabilan dan keamanan dalam berkendara. Dari simulasi dipilih variasi *splitter* 10 cm dengan nilai *Coefisient drag (CD)* 0,32339 N, dan nilai *Coefisient Lift (CL)* -0.20273 N.

Kata kunci : *Splitter, Aerodinamika, Coefisient Drag, Coefisient lift, CFD*



**THE EFFECT OF SPLITTER LARGE ON CAR AERODYNAMICS USING
COMPUTATIONAL FLUID DYNAMICS (CFD).**

ABSTRACT

Splitters are closely related to the stability of the car. One of the factors that affect driving safety is the stability of the car when driving on the highway with aerodynamic phenomena around the body of the car, especially the lifting force that occurs. From this problem the research was conducted on simulation of splitters using 0 ° angles performed with variations of 10 cm, 12 cm, and 14 cm at a speed of 100 km/ h which were simulated using the Computational Fluid Dynamic (CFD) method. From the simulation, it can be concluded that the smaller the Coefisient Drag (CD) value, the smaller the compressive force of the vehicle body and the smaller the Coefisient Lift (CL) value, the lower the lift force for the vehicle body, this is closely related to stability and safety in driving. From the simulation, a 10 cm splitter variation was chosen with Coefisient drag (CD) value of 0.32339 N, and the Coefisient Lift value (CL) -0.20273 N.

Keywords : *Splitter, Aerodynamics, Coefisient Drag, Coefisient lift, CFD*

