

**ANALYSES TRANSMISSION AND STEERING SYSTEM
CITY CAR
(Study case on Tawon Car)**

Author : ZAINAL ABIDIN
NRP : 210 109 025
Departement : Teknik Mesin FTI ITS
Thesis adviser : DR. Ir. H. Agus Sigit Pramono, DEA

Abstrack

City car is designed for use in city area. It's small size enable it to maneuver in traffic jam and only needs small parking space. The other advantage of city car is its small engine capacity that is very efficient on fuel use. Tawon is one of national city cars besides Arina and GEA in Indonesia. This car, which is manufactured in Rangkasbitung, has a 650 cc engine capacity almost similar with GEA. This car is using CNG power resources and meets Euro III standardization about a friendly environment. For commercial use, Tawon is another alternative for BAJAJ because its relative economic price and meets with local citizen capability.

In the first development Tawon's design is not maximal yet and still research by technician, its final result needs to be reviewed technically. In this research we will analyze on transmission and steering system. The first step on this research is to review transmission condition system which is on 3rd and 4th gear. The power has shown a slight drop. Analyses also slightly show uncomfortable on driving. It's caused by uncreated Ackerman angle maneuver. The next step is collecting data for analyses. The last step is analyze according to available data.

Analyses result shows that this car need to repair.The repair covering tie-rod's height and length,balance wheelbase size,repairing bolljoint and knuckel position and reseting toe have to negative because of front wheel drive.For transmision there is no problem because of graphic trend are machth with teorical book

Keywords : transmission system steering,engineering, Tawon car