ABSTRACT

There are many parameter that determine the completion of combustion process. Incomplete combustion among other thing is caused by insufficient quantity of air, and less turbulence entering cylinder. To overcome this problem, one way is by adding fan onto the carburettor.

Test were done on 4-K 1300 cc Toyota's engine at PPPGT/VEDC – Malang. Measurement were done on natural engine (without fan) and by adding fan onto the carburettor. Measurement was done with engine rotation at 1000, 1500, 2000, 2500, and 3000 rpm.

The experiment showed that modification of fan addition to the carburettor was able to increase torque by 2,197 %, increase power by 2,045 %, reduce specific fuel consumption by 1,441 %, and increase thermal efficiency by 1,303 %. Increasing CO by 5,16 %, increasing CO₂ by 0,09 %, reduce O₂ by 10,38 %, reduce HC by 2,19 %.