

ABSTRAK

Analisa pengaruh pemakaian pertalite dan pertamax serta campuran keduanya pada putaran mesin berbeda terhadap gas buang pada mesin 4 langkah 110 cc. Tujuan penelitian ini : (1) mengetahui pengaruh emisi gas bahan bakar terendah menggunakan bahan bakar berbeda dan campuran bahan bakar terhadap gas buang yang dihasilkan sisa pembakaran bahan bakar oleh campuran bahan bakar pertamax oktan 92 dan pertalite oktan 90 dan mengetahui presentasi persen kadar emisi gas buang CO , CO_2 , HC , O_2 . Dari hasil analisis data sebelumnya, didapatkan hasil pengujian mengenai analisis campuran bahan bakar pertamax oktan 92 dengan pertalite oktan 90 terhadap emisi gas buang pada kendaraan sepeda motor. Kesimpulannya adalah kadar zat-zat berbahaya dalam emisi gas buang cenderung menurun. Kadar CO terendah pada putaran mesin 2900 Rpm dengan campuran bahan bakar 70% : 30% yaitu 0.37%, dan tertinggi pada putaran mesin 5000 Rpm dengan campuran bahan bakar 30% : 70% yaitu 0.7%. Kadar CO_2 terendah pada saat 1200 Rpm dengan campuran bahan bakar 30% : 70% yaitu 9.93%, dan tertinggi pada putaran mesin 5000 Rpm dengan campuran 70% : 30% yaitu 15.61%. Kadar HC terendah pada saat 2900 Rpm dengan campuran bahan bakar 70% : 30% yaitu 39 ppm, dan yang tertinggi pada putaran mesin 5000 Rpm pada campuran 30% : 70% yaitu 148 ppm. Namun apabila dibandingkan dengan hasil pengujian perbandingan campuran dengan murni bahan bakar maka nilai dari pertamax murni secara keseluruhan *efficient* pada 2900 Rpm dan yang paling tidak *efficient* bahan bakar yang digunakan adalah pertalite murni pada 5000 Rpm.

Kata Kunci : Analisis, Campuran, Pertamax 92, Pertalite 90, Putaran Mesin, Emisi.

ABSTRACT

Analysis of the effect of the use of Peralite and Pertamax as well as a mixture of both at different engine speeds on the exhaust gas on a four-stroke 110 cc engine. The purpose of this study: (1) to determine the effect of the lowest fuel gas emissions using different fuels and fuel mixtures on the exhaust gas produced by the rest of the fuel combustion by the fuel mixture of Pertamax octane 92 and Peralite octane 90 and determine the percentage of exhaust gas emissions. From the results of the previous data analysis, the test results on the study of the fuel mixture Pertamax octane 92 with Peralite octane 90 were obtained on motor vehicle exhaust gas emissions. The conclusion is that the levels of harmful substances in exhaust emissions tend to decrease. The lowest CO content is at 2900 rpm with a fuel mixture of 70%: 30%, which is 0.37%, and the highest is at 5000 rpm with a fuel mixture of 30%: 70%, which is 0.7%. The lowest level of CO₂ is at 1200 Rpm with a combination of 30%: 70% fuel, which is 9.93%, and the highest is at 5000 Rpm with a mixture of 70%: 30%, which is 15.61%. The lowest HC level is at 2900 Rpm with a fuel mixture of 70%: 30%, which is 39 ppm, and the highest is at 5000 rpm at a mixture of 30%: 70%, which is 148 ppm. However, when compared with the results of the mixture comparison test with pure fuel, the overall value of pure pertamax is efficient at 2900 Rpm, and the least efficient fuel used is pure peralite at 5000 Rpm.

Keywords : *Analysis, Mixture, Pertamax 92, Peralite 90, Engine Speed, Emissions.*

