INTISARI

Dalam menjalankan aktivitas sering digunakan sumber energi berbahan bakar minyak bumi. Bensin merupakan salah satu sumber energi yang sering digunakan, karena minyak bumi terbuat dari fosil maka memerlukan proses pembentukan yang lama. Salah satu cara untuk menghemat konsumsi bahan bakar dan untuk meningkatkan torsi, daya serta memperbaiki emisi gas buang perlu memperbaiki sistem pengapian dan sistem pada karburator.

Pengujian dilakukan untuk mengetahui daya, torsi, dan jangkauan bahan bakar terhadap unjuk kerja Suzuki Shogun RR 125 cc dengan menggunakan variasi CDI, Koil, dan Karburator. Pengujian daya dan torsi dilakukan dengan alat *Dynamometer* dan jangkauan bahan bakar dilakukan dengan jarak sejauh 4 km dengan kecepatan 40-60 km/jam.

Hasil penelitian menunjukkan daya tertinggi didapat pada variasi variasi CDI Standar, Koil Standar, dan Karburator *Racin*g V 24 mm dengan daya sebesar 10,66 pada putaran 8281 rpm. Daya terendah juga didapat dari pengujian variasi CDI BRT *Racing Hyperband*, Koil KTC *Racing*, dan Karburator Standar dengan daya sebesar 8,83 HP pada putaran 7679 rpm. Torsi tertinggi di dapat pada pengujian dengan variasi CDI Standar, Koil Standar, dan Karburator Standar dengan torsi sebesar 11,52 N.m pada putaran 4146 rpm. Torsi terendah juga didapat pada variasi CDI BRT *Racing Hyperband*, Koil KTC *Racing*, dan Karburator *Racing* V 24 mm dengan torsi sebesar 7,18 pada putaran 8527 rpm. Dari pengujian jangkauan bahan bakar, jangkauan bahan bakar terjauh terdapat pada penggunaan CDI BRT *Racing Hyperband*, Koil KTC *Racing,* dan Karburator Standar yaitu sebesar 52,2 km/l. Jangkauan bahan bakar terdekat didapat pada variasi CDI Standar, Koil Standar, dan Karburator *Racing* V 24 mm yaitu sebesar 46,9 km/l.

Kata Kunci : Minyak Bumi, CDI, Koil, Karburator

ABSTRAK

In carrying out activities often used energy sources fueled by petroleum. Gasoline is one of the energy sources that is often used, because petroleum is made from fossils, so it requires a long process of formation. One way to save fuel consumption and to increase torque, power and improve exhaust emissions needs to repair the ignition system and the system in the carburetor.

Tests are carried out to determine the power, torque, and performance fuel range of the Suzuki Shogun RR 125 cc using variations of CDI, Coil, and Carburetor. The power and torque tests are carried out with the Dynamometer tool and the fuel range is carried out with a distance of 4 km with a speed of 40-60 km / hr.

The research results showed that the highest power obtained in the variations of Standard CDI, Standard Coil, and 24 mm V Racing Carburetor with a power of 10.66 at 8281 rpm rotation. The lowest power is also obtained from testing variations on the BRT Racing Hyperband CDI, KTC Racing Coil, and Standard Carburetor with a power of 8.83 HP at 7679 rpm. The highest torque is obtained in the test with a variety of Standard CDI, Standard Coil, and Standard Carburetor with torque of 11.52 N.m at 4146 rpm. The lowest torque is also found in variations of the Hyperband BRT Racing CDI, KTC Racing Coil, and 24 mm V Racing Carburetor with a torque of 7.18 at 8527 rpm. From fuel range testing, the furthest fuel range is found in the use of the Hyperband BRT Racing CDI, KTC Racing Coil, and the Standard Carburetor, which is 52.2 km / l. The nearest fuel range is obtained in the variation of the Standard CDI, Standard Coil, and 24 mm V Racing Carburetor which is 46.9 km / l.

Keywords: Petroleum, CDI, Coil, Carburetor