

## ANALISIS MENINGKATKAN KEMAMPUAN SISTEM PENDINGIN

### SUZUKI KATANA SPESIFIKASI SPEED OFFROAD

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#### Abstrak

Dilakukannya penelitian dikarenakan sering terjadinya *over head* pada mobil suzuki katana. Tujuan perbaikan dan penggantian komponen agar sistem pendingin dapat bekerja lebih baik juga tidak terjadi *over head*. Bagian yang perlu diperbaiki untuk spesifikasi speed offroad *water pump* dan *water jacket* karena terdapat banyak kotoran yang menempel. Yang harus diganti *gasket full set* agar tidak terjadi kebocoran, *tangki radiator* 2ply menjadi 3ply supaya proses pendinginan lebih cepat, dudukan radiator diubah menyesuaikan body tubular, *van radiator* konvensional menjadi elektrik supaya mempercepat putaran kipas radiator, tutup radiator mengalami kebocoran menyebabkan air radiator berkurang dan penambahan *thermostat* 82°C karena sebelumnya tidak ada. Selang radiator diubah menjadi lebih panjang karena perubahan tempat radiator. Setelah pembersihan dan penggantian komponen aliran air lebih lancar, volume air bertambah sebanyak 1000ml karena radiator 2ply di ganti 3ply mobil L300 dan proses pendinginan lebih baik, aliran air lancar karena kotoran pada *water jacket* serta *water pump* sudah dibersihkan, penambahan *thermostat* bertujuan agar mesin cepat mencapai suhu ideal kerja yaitu 90°C. Peningkatan yang didapat bagian ex haust 10,9%, intake manifold 3,73%, radiator atas 6,37% radiator bawah 19,8%. Peningkatan keseluruhan proses pendingin adalah 10,2%.

Kata kunci : Sistem pendingin radiator, Pengaruh thermostat dan Pengaruh tabung radiator.

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#### ***Abstract***

*Conducted research because often the occurrence of over head on the car suzuki katana. The purpose of repair and replacement of components for cooling system to work better also does not happen over head. Parts that need to be fixed for the specification of offroad water pump speed and water jacket because there is a lot of dirt attached. Which should be replaced with a full set of gaskets to avoid leakage, 2ply radiator tank into 3ply so that the cooling process faster, radiator holder adjusted to adjust the tubular body, conventional van radiator to be electrically to accelerate the rotation of the radiator fan, radiator cap leaks cause the radiator water is reduced and addition of 82 ° C thermostat because it was not there before. The radiator hose changed to a longer length due to the radiator change. After cleaning and replacing the water flow components more smoothly, the volume of water increases by 1000ml because the 2ply radiator replaced 3ply L300 car and cooling process is better, the water flow smoothly because the impurities in the water jacket and water pump have been cleaned, the addition of thermostat aims to the engine quickly reach the temperature ideal work is 90 ° C. Increased gain in ex-haust 10.9%, intake manifold 3.73%, radiator above 6.37% radiator below 19.8%. The overall improvement of the cooling process is 10.2%.*

*Keywords: Radiator cooling system, Effect of thermostat and Influence of radiator tube.*