



A Novel Air Engine

Development and Analysis of Air Engine is an alternative to fossil fuel driven engine for light vehicles. Worldwide focus on search for alternative to fossil fuel has led to emergence of compressed air as one of the potential options. The use of existing compressed air engine technologies are still under development. The novel air turbine considered here works on the reverse working principle of air compressor. The compressed air stored in a cylinder has enough power for running air turbine. The power requirement for running motorbike is considered approx.4-5kW (5.2-6.5HP) and use of such air engine is emission free, though the air is compressed by using electricity. The air powered engine is in infancy & is good alternate to fossil fuel. Thermodynamic modeling includes power out put due to flow and expansion power. The performance efficiency of air engine is determined considering the input and output. The investigations and analysis are done by varying the rotor and casing diameters, vane angle, injection angle and injection pressure. The air engine is fabricated for required capacity & experimental setup is carried out for validation of theoretical results.

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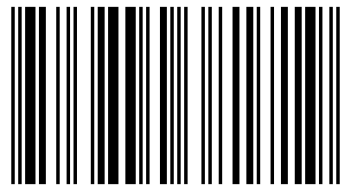
Development and Analysis of a Novel Air Engine

Could air engine technology curb 50-60% emission,
if implemented widely on Motorbikes?



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Received B.E.(Mech)in 1972, M.E.(Design)in 1988, and Ph.D.in 2011. Served Govt.& Academics for 39 years. Was recipient of many recognitions and awards. Published more than 50 papers in leading National, International Journals and Conferences. Specialized in Energy, Environment and zero pollution engines. Became FIE(I)& CE(I)-1985, IAENG-105641.



978-3-8443-8171-9

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