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## A Study on In-Cylinder Flow of Small Engine Using Steady-State Flow Benches

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In-cylinder air flow structures are known to strongly impact on the performance and combustion of internal combustion engines (ICE). Therefore, the aim of this paper is to experimentally study an IC engine in-cylinder flow under steady-state conditions. Steady-state flow bench methods can be used to characterize the in-cylinder flow engine. Here it uses the paddle wheel technique. The experiments were carried out on the small cylinder head with pressure difference across the inlet valves of 600 mmH<sub>2</sub>O. The experimental results are presented in terms of the measured air flow rate, flow coefficient, discharge coefficient and non-dimensional rig tumble. The result of the experiment comparing with the numerical simulation of the converge. The results show that a reasonably good level of agreement can be achieved between methods, providing the methods of calculations of the various parameters are consistent.

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