









#### IV. CONCOLOSION

Two fuel dry cell operating conditions named (condition A and condition B ) were manufactured and tested, then are connected to a 183 CC single cylinder air cooled engine (Robin EY 20-3) in order to evaluate the effect of HHO gas on the performance and emissions of SI engines, the following conclusions can be written.

- HHO production rate is depend on the number of neutral plates, condition A which has 3 neutral plates gives high production rate rather than condition B which has 4 neutral plates.
- Reducing the number of neutral plates will increase water temperature.
- The thermal efficiency increased by 14.3% and 5.44% For condition A and B respectively with a reduction of 22.1% and 16.9% in break specific fuel consumption for condition A and B respectively.

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