

Fig.11: S-DAIS (High-Power ~3750rpm)

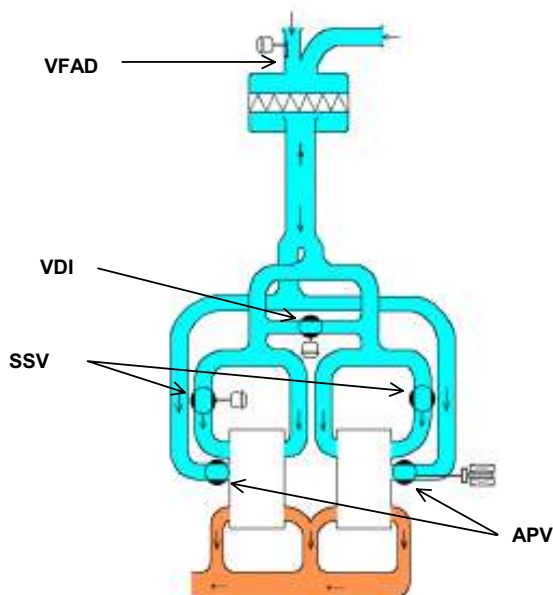


Fig.12: S-DAIS (High-Power 7250rpm~)

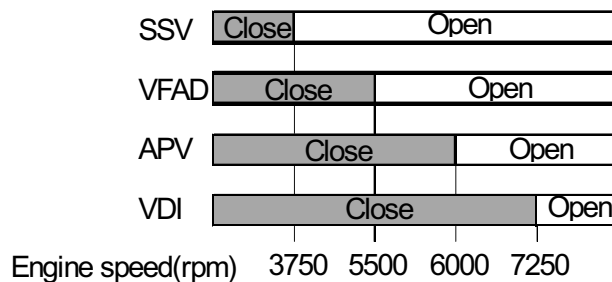


Fig.13: S-DAIS Valve Control

The high-power RENESIS with S-DAIS has high charging efficiency at wide range of engine speed as shown in Fig.14.

Standard-power RENESIS, which has high torque in the most commonly used engine speed range, uses four ports in total on the two rotors (auxiliary port is not included), and controls the two valves.

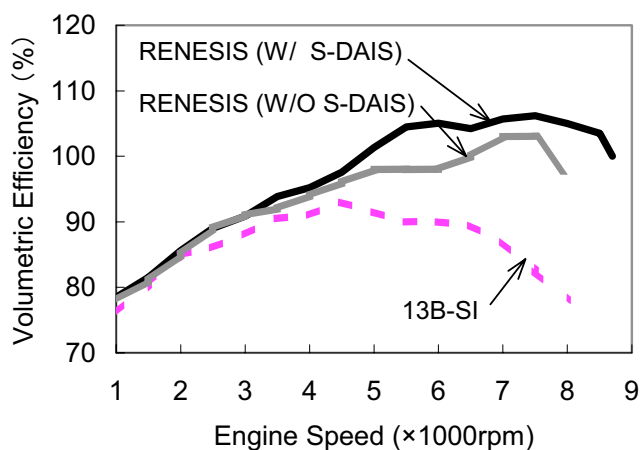


Fig.14: Effects of S-DAIS

3. Fuel Economy

3.1.Overlap Eliminated and cut off seal

With the side exhaust port, the intake port and the exhaust port are laid out on the same surface of the side housing, causing intake/exhaust ports to communicate on the rotor side face and the exhaust gas flows into the intake port. Because of this, cut-off seals were added to the rotor side face to shut off the communication path of the intake/exhaust ports. Further a side clearance between a rotor and the side housing was reduced by 18% and the rotor side face was machined to make a