

Bore (cm)	9.20	Exhaust-valve closing (ATDCE)	12.8
Stroke (cm)	8.60	Intake-valve closing (ATDCE)	240.8
Clearance @ TDC (cm)	0.95	Exhaust-valve opening (ATDCE)	484.8
Comb. chamber vol. (cc)	63.15	Intake-valve opening (ATDCE)	712.8
Top-land crevice vol. (cc)	0.37	Steady-flow swirl ratio	0.4
Spark-plug crevice vol. (cc)	0.02	Engine speed (rpm)	1300
Swept volume (cc)	571.7	Intake MAP (kPa)	40
Geometric CR	10.0	Exhaust MAP (kPa)	101.5
Effective (IVC) CR	8.0	Fuel (plus toluene LIF tracer)	CH ₄ , C ₃ H ₈
Con.-rod length (cm)	23.5	Equivalence ratio	0.66 – 1.56
Piston-pin offset (cm)	0.0	SOIgn (ATDCE)	342

Table 1. TCC-III engine geometry, valve timing and operation.