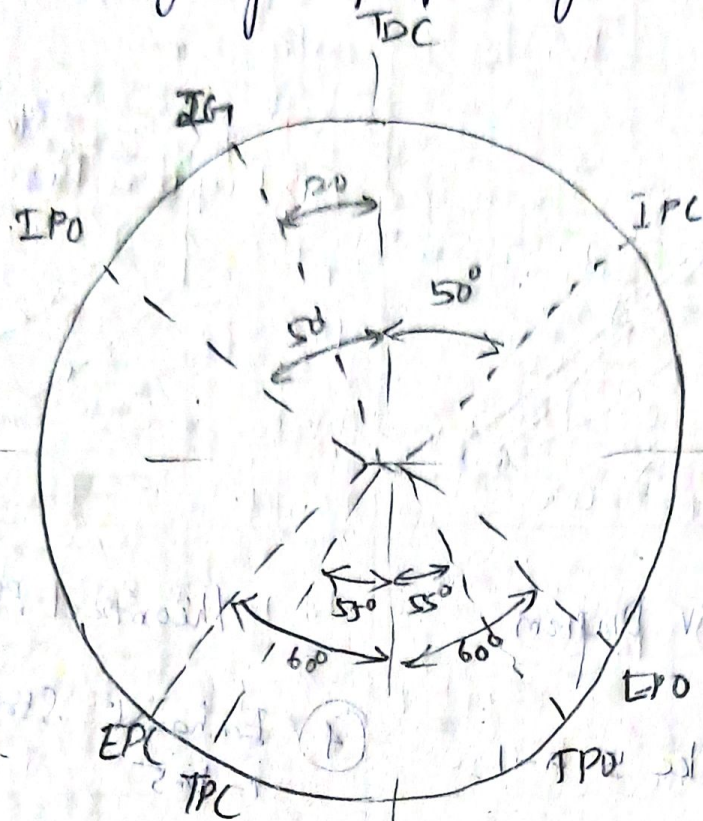


Post Timing Diagram for petrol engine



IPO-IPC - A+F Sucked

IPC-TPC - Crank Case compression

IPO-TPC - CAir to Engnal Cylinder

TPC-IG - A+F mixtu / Compressed

B/C IG - Ignition

IG-EPO - Expansion

EPO-EPC - Exhaust &

(2-4-2) cycle

stroke

(1-2-3-4)

stroke

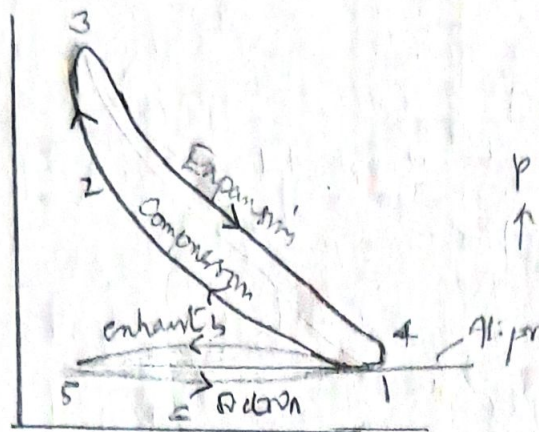
stroke

stroke

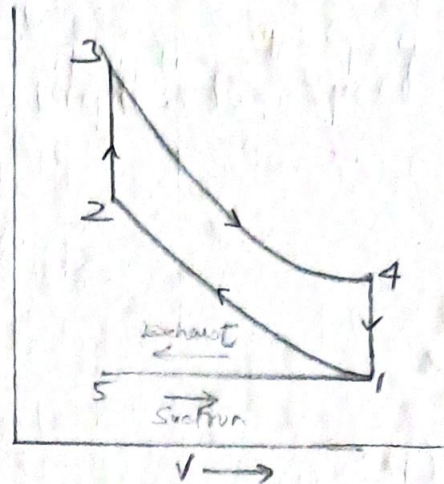
stroke

stroke

VALVE TIMING AND Port Timing Diagram



Actual PV Diagram



Theoretical PV Diagram

①

Suction Stroke 5-a-1

Pressure \downarrow atmospheric pressure

Inlet valve open exhaust valve closes

④

Exhaust Stroke 1-b-5

Burnt gases goes outside
Inlet valve EV opens.
Closed.

②

Compression Stroke 1-2

Air attains high pressure

IV closes at end of
Stroke and before compression
Stroke

Actual cycle - losses are rounded off.

Hatched area - negative loop (5-a-1-b-5)

Net work done

\Rightarrow positive loop - negative loop.

③ Expansion or power Stroke (1-b-5)
Ignition takes place

before TDC.

Both valves closed

Exhaust valve opens before BDC