School of Mechanical Engineering

Course Code : BAUT3001

Course Name: Automotive Engines

Simple Carburettor

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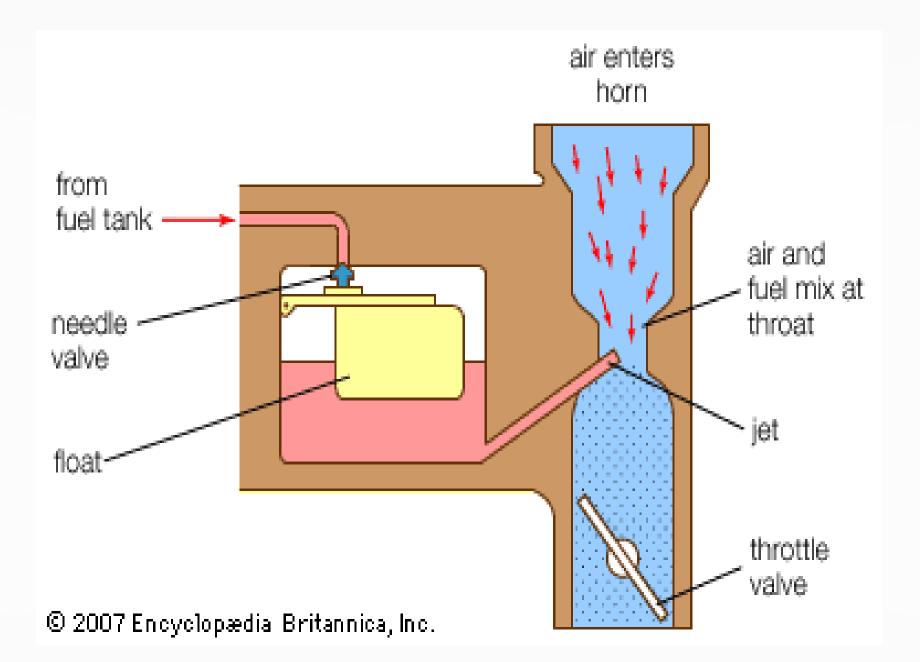
Name of the Faculty: Mr. Brahma Nand Agrawal

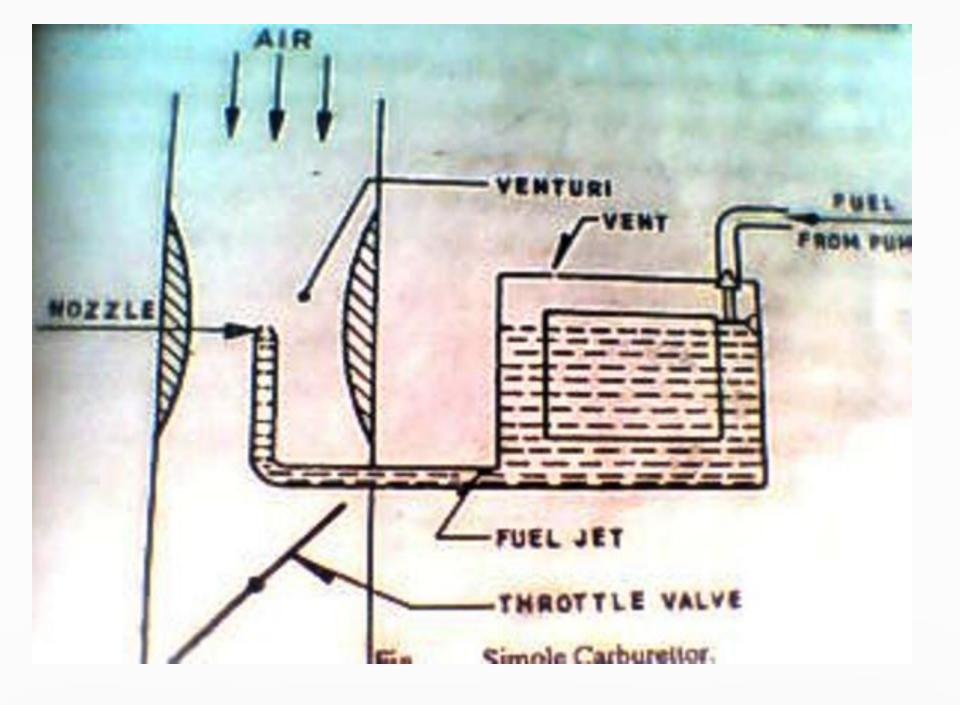
Program Name: B.Tech(AUE)

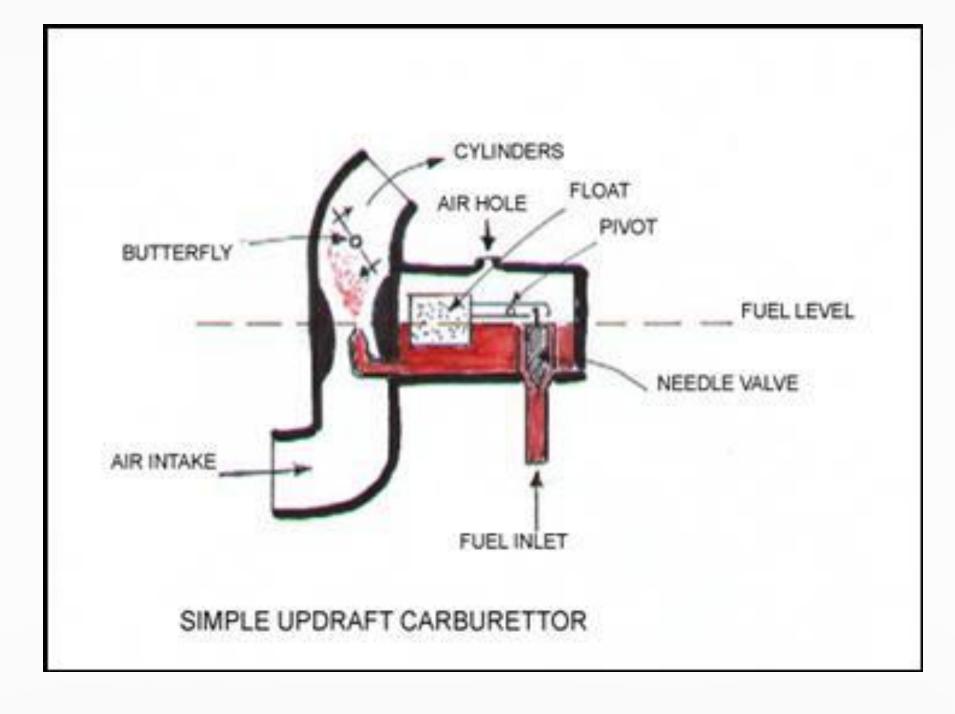
Function of carburettor

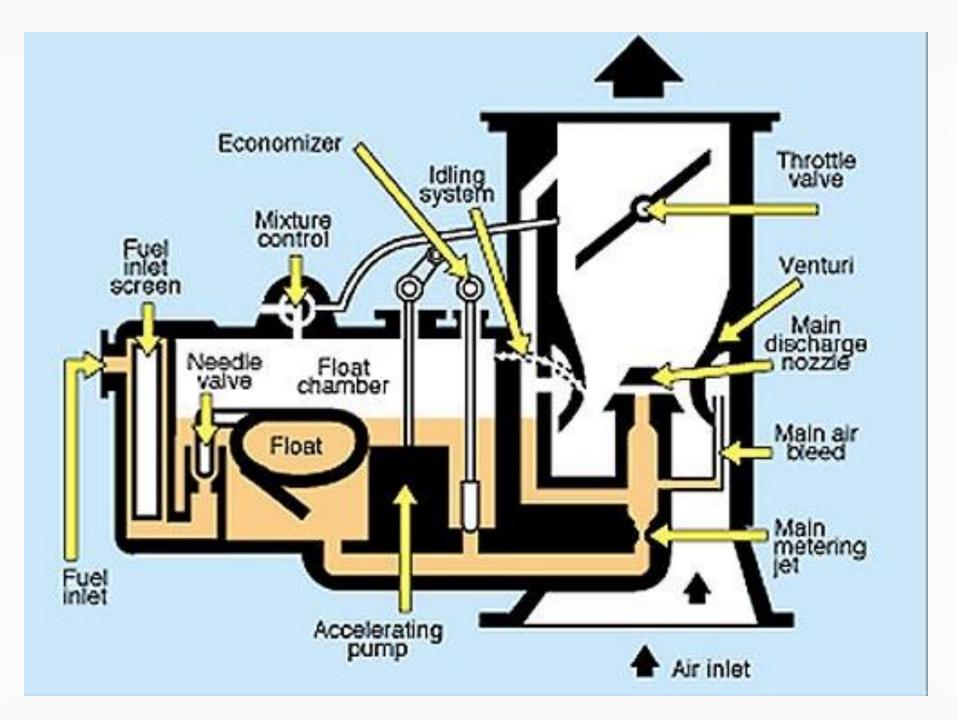
Brake the fuel particles Atomisation To form a mixer of air and fuel

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Construction of simple carburetor

- 1. It consists of
- Float chamber, nozzle with metering orifice, venturi and throttle valve.
- 2. Float chamber and needle valve system maintains a constant level of petrol in the float chamber

If fuel level lowers then float lowers thereby opens the fuel supply valve till the designed level reach in the float chamber.

Float chamber is vented to the atmosphere.

3. Venturi tube gives minimum resistance to air flow.

Working

- 1. During suction stroke air is drawn through the venturi, which has minimum cross section at throat.
- 2. Velocity of the air passing through venturi increases and its pressure decreases.
- 3. Due to pressure difference in throat and float chamber the fuel from float chamber is discharged at throat.
- 4. This pressure difference is called carburetor depression

Working Cont.

- 5. The rate of flow is controlled by discharge jet or nozzle.
- 6. To avoid overflow of the fuel the level of the fuel in the float chamber is kept below the tip of the nozzle.
- 7. Throttle valve regulate the quantity of fuel discharged.
- If load is partial throttle value is partially open and less air-fuel mixture is provided to the engine.
- 9. If load is full throttle valve is fully open and more air-fuel mixture is provided to the engine.

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Thank you

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