School of Mechanical Engineering

Course Code: BAUT3001 Course Name: Automotive Engines

Port injection System

- Injector is placed on the side of intake manifold.
- Injector sprays petrol into the air.
- Mixture of air and fuel through the intake valve enters into the cylinder.
- Every cylinder is Provided with an injector.

Throttle Body Injection (Single point Injection)

- Throttle valve control the amount of air.
- Injector is placed above the throttle body.
- Injector sprays petrol into the air.
- This mixture then passes trough the throttle valve and then enters into the intake manifold.

D - MPFI

- Pressure sensor in the intake manifold detects the intake manifold vacuum and sends the signal to ECU.
- Speed sensor also send the signal about speed of engine to ECU.
- ECU processes the information received sends the proper signal to injector.
- Injector regulate the amount of petrol supply for injection.

D - MPFI

 After injection the petrol mixes with the air in the intake manifold and the mixture enters in the cylinder.

L - MPFI

- It consists of air flow meter which regulate the amount of air entering into cylinder.
- Air flow sensor measures the amount of air enters in the intake manifold.
- Air flow sensor sends the signal to ECU.
- Speed sensor also send the signal about speed of engine to ECU.
- ECU processes the information received sends the proper signal to injector.
- Injector regulate the amount of petrol supply for injection.

L - MPFI

After injection the petrol mixes with the air in the intake manifold and the mixture enters in the cylinder.

Classification of fuels

1) Liquid fuels:

Natural: Petroleum

Artificial:

a) Petroleum based: Gasoline (Petrol), Diesel, Kerosene.

b) Non Petroleum based: Benzol, Alcohols, Acetones



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Thank you