

# 1

## Chassis & Body



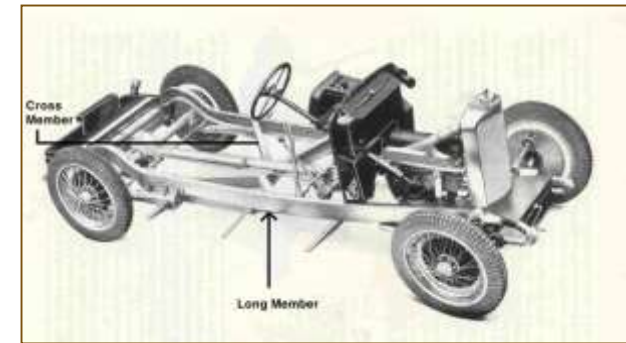
# Body Construction

## There exists 2 main ways of automobile construction

- The Chassis and Body method &
- The Monocoque method.

### The Chassis and Body method

- Body is separate unit joined with ladder type chassis.
- All other parts like steering, suspension etc. are attached to the chassis.
- The benefits are higher load capacity and strength.
- Disadvantages are vibrations less refined handling
- Used mostly for MUVs, SUVs and bigger vehicles.



# Body Shapes

No hard & fast rules for classification as new segments and sub segments keep emerging

## **Broad classifications of the vehicles.**

- Hatchback
- Sedan/Notchback
- Station Wagon/Estate
- MUV/MPV
- SUV
- Pik Up
- Vans
- 3 Wheeler

# Broad classification based on Indian market



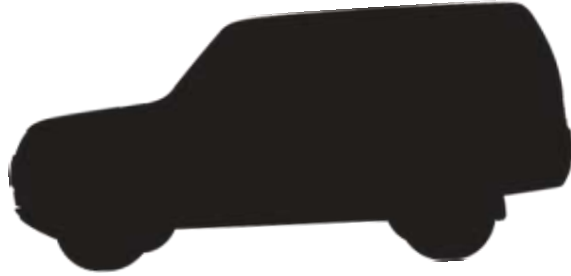
HATCHBACK



SEDAN/NOTCHBACK



ESTATE/STATION  
WAGON



MULTI-PURPOSE VEHICLE  
MULTI-UTILITY VEHICLE



SPORTS UTILITY VEHICLE



PICK-UP TRUCK



VAN



3-wheeler

# Hatchback



- Separate engine area, and passenger area
- Luggage area merged the passenger area behind the rear seats.
- The luggage area is generally smaller than notchback.
- 5 doors (4 passenger doors + hatchback) or 3 doors (2 passenger doors + hatchback)

# Sedan / Notchback



- Separate engine area, passenger area, and boot area,
- 4 doors.

# Estate / Station Wagon



- Much like hatchback
- Large luggage area extended till the roof

# MPV / MUV



- Two versions

1. Engine, passenger area and boot area enclosed together.
2. Passenger and boot area enclosed with separate engine area

- Can also have third row of seating.
- Taller and generally more spacious as they are people carriers.
- Not feature rich hence cost is usually on the lower side.



# Sport Utility Vehicle (SUV)



- The engine area is separate and the passenger and boot area are enclosed together.
- Equipped with 4 wheel drive or has as an option of 4 wheel drive.
- Highly performance oriented. (Powerful Engine)
- Designed for off road usage.
- Are generally equipped with technologically advanced & luxury features.

# Pick Up



- They have a separate engine area, a passenger area and a large loading area.
- Large tyres
- High load carrying capacity
- Good ground clearance.

# Vans



- The engine is placed below the passenger area. Vans can also have Third row of seating. They are also taller and generally more spacious.

# 3 Wheelers



- Generally employed as rickshaws or goods carriers
- Separate area for driver with a comparatively larger area for passengers or goods