# Mechanics of the Car

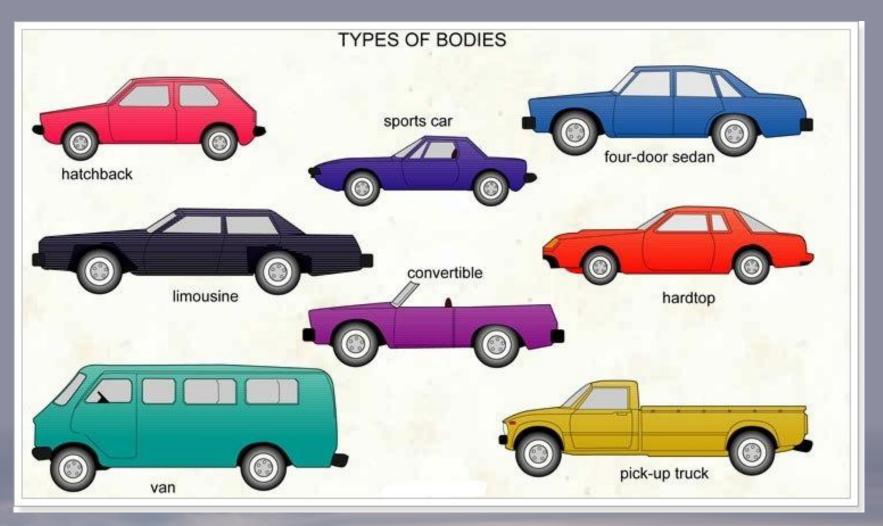
ГПОАУ «Амурский технический колледж» Преподаватель Гуриценко Е.В.

I know a lot about cars, man. I can look at any car's headlights and tell you exactly which way it's coming. Mitch Hedberg



## Types of vehicles

## There are a lot of car body configurations. Let's look at them.



### A sedan or saloon is a passenger car, the most common among the car body configurations.



A hatchback is a car body configuration with a rear door that swings upward to provide access to a cargo area.



A convertible or cabriolet is an automobile body style that can convert between an open-air mode and an enclosed one.





# A **Sport Utility Vehicle (SUV)** is a vehicle classified as a light truck, but operated as a family vehicle.



A **pickup truck** is a light duty track having an enclosed cab and an open cargo area with low sides and tailgate.



A **limousine** is a luxury sedan or saloon car generally driven by a chauffeur and with a partition between the driver and the passenger compartment.





# A Lorry / Truck is a motor vehicle designed to transport cargo.

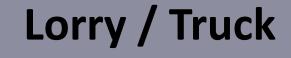




### Look at the pictures and name types of car







#### Limousine

#### Look at the pictures and name types of car



### Sedan / Saloon



### Sport Utility Vehicle

### Well done!!!!!!



### Car's anatomy

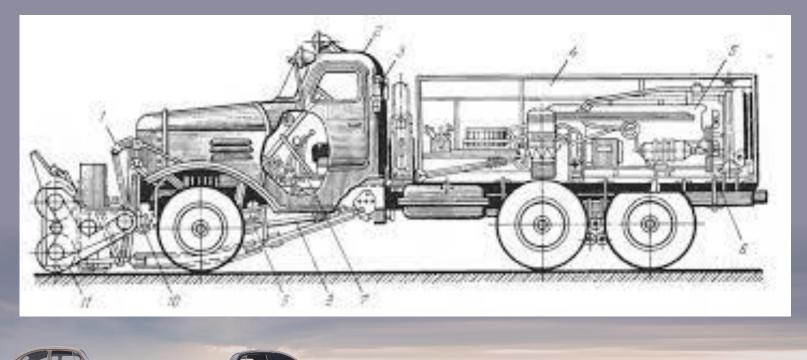
# Let's look at the main components of the vehicle

- Body кузов
- Bonnet капот
- Boot отделение для багажа
- Bumper бампер
- Glovebox бордачок
- Front seat переднее сиденье
- Passenger seat пассажирское сиденье
- Roof крыша
- Wheel колесо
- Windscreen переднее, лобовое стекло

### Let's look at the main components of the vehicle

- Cab кабина
- Front / back door передняя / задняя дверь
- Dashboard приборная панель
- Safety seat детское сиденье
- Air bag подушка безопасности
- Outside / wing mirror зеркало заднего вида / боковое зеркало
- Steering wheel руль

There are a lot of tubes, pipes, wires and components under the bonnet of a car. A typical car consists of 13,000 different parts. Nearly 60 different materials go into the construction of a car: from steel to nylon.



Although modern cars differ in style, performance and cost, they have the same principles. Usually people divide the mechanics of a car into seven groups.



Engine It burns fuel and converts the heat into mechanical energy which turns the wheels.



### Engine

 There are temperatures of over 700°C inside the engine. The engine converts only a quarter of this heat into power: the cooling and exhaust systems take the rest away. An engine has 120–150 parts. They operate efficiently because oil separates them.

### Transmission

This carries the power from the engine to the wheels. It usually consists of clutch (педаль сцепления), gearbox (коробка передач) and propeller shaft (карданный вал



Bodywork

Few modern cars have a chassis ( ходовая часть), and the bodywork holds the car together.



### Steering

That is necessary in order to steer the car, that is, to turn it in the direction in which the driver wants it to move.



### Suspension (подвеска)

**Modern suspension** systems of springs (пружины), torsion bars and dampers (амортизаторы) help to make driving conditions on any road surface (поверхность) comfortable.



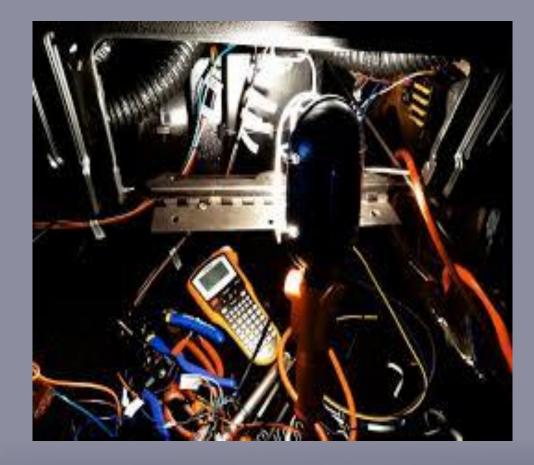
#### Wheels, tyres (шины) and brakes (тормоза)

Wheels with tyres move the car along the road. If the driver wants to stop the car, he uses brakes. When a car stops from 60 mph, its brakes generate enough heat in order to boil 2 pints of water.



### **Electrics**

A 12 volt battery provides the primary source of power which starts the engine. The system also includes the starter motor (CTAPTEP), lights, heater (обогреватель), windscreen wipers (стеклоочистители) and other devices.



### Let's check yourself



### Let's check yourself



### Excellent!!!!!



### Let's read the dialogues