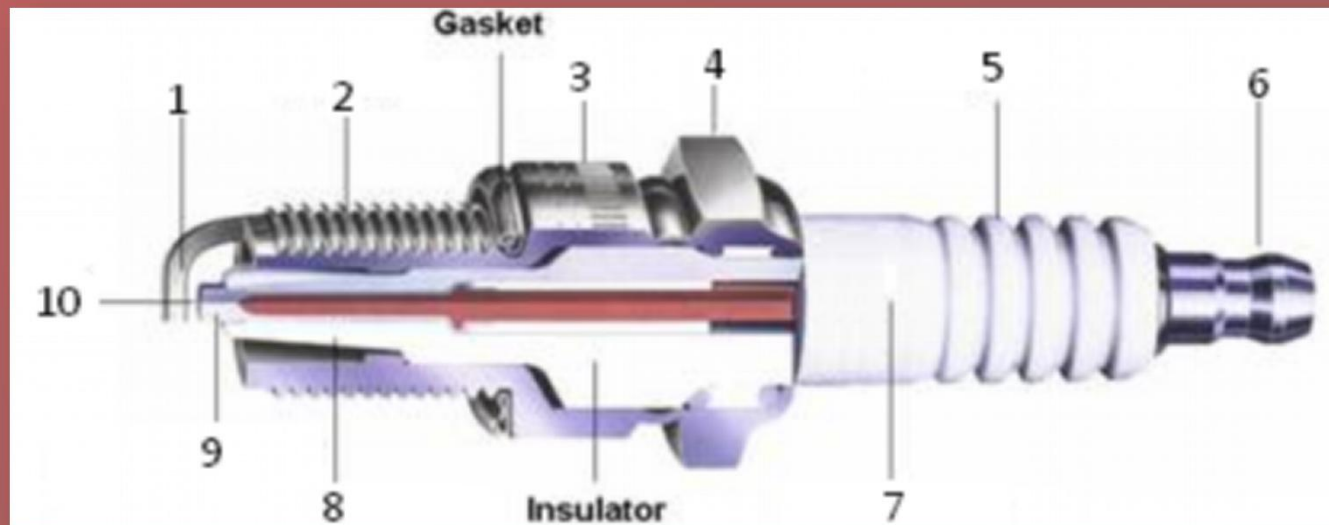


Unit 5 Automotive Ignition System

EXERCISE 5

Write down the name of the parts in English according to the figure below.

Metal Shell Terminal Nut Top Insulator Thread Ground Electrode
Electrode Gap Insulator Nose Corrugations Hexagon Center Electrode



Unit 5 Automotive Ignition System

EXERCISE 5

Write down the name of the parts in English according to the figure below.

1. **Ground Electrode**

3. **Metal Shell**

5. **Corrugation**

7. **Top Insulator**

9. **Center Electrode**

2. **Thread**

4. **Hexagon**

6. **Terminal Nut**

8. **Insulator Nose**

10. **Electrode Gap**

Unit 5 Automotive Ignition System

EXERCISE 6

There are 10 incomplete statements here. You are required to complete each statement by choosing the appropriate answer from the 4 choices marked A, B, C, and D.

1. In conventional ignition system, **D** belongs to the secondary circuit.
A) switch key B) battery C) breaker point D) distributor cap
2. In the electronic ignition system, **B** and condenser are replaced by electronics.
A. distributor cam B. breaker points C. ignition coil D. ignition switch
3. The **C** is the nerve center of the ignition system.
A. coil B. distributor C. spark plug D. battery
4. The primary circuit consists of the battery, ignition switch, coil primary winding, **A**, and connecting wiring.
A. distributor contact point B. distributor cap C. spark plug D. distributor rotor

Unit 5 Automotive Ignition System

EXERCISE 6

5. An electronic ignition system has an armature or reluctor, a **B**, and electronic control module.
- A. breaker plate B. pickup coil C. condenser D. distributor cam
6. The major components of a distributorless ignition are: engine control unit; ignition control unit; **A**; and coil packs.
- A. magnetic triggering device B. pickup coil C. distributor cap D. coil primary winding
7. In conventional ignition system **B** is the heart of the ignition system.
- A. spark plug B. ignition coil C. distributor D. The ignition switch
8. The secondary circuit consists of ignition coil secondary windings, distributor cap, distributor rotor, **C** and spark plug wires.
- A. ignition switch B. coil primary winding C. spark plugs D. connecting wiring

Unit 5 Automotive Ignition System

EXERCISE 6

9. External to the distributor is the A, which is nothing more than an electrical transformer.

A. ignition coil B. distributor cap C. breaker points D. spark plug wires

10. In the distributor-less ignition system, the spark timing is controlled by B.

A. ICU and coil packs B. ICU and ECU C. coil packs and ECU D. distributor

Unit 5 Automotive Ignition System

Troubleshooting Guide

Sample 1

Symptom: Steering wheel vibrates:

Description of the problem: At 45 to 60 miles per hour the steering wheel begins to vibrate. You also notice that the car is vibrating or twitching. This can be very dangerous. If you notice the problem only occurs when you step on the brakes, it will make diagnosis simpler.

Probable Causes:

1. Wrapped or damaged brake rotors and/or drums.
2. Loose wheel lug nuts.
3. Out-of-balance wheel and tire assemblies.
4. Parts of the steering linkage are loose and need to be tightened.
5. Bent or damaged wheels.
6. Severely worn or damaged tires.

Unit 5 Automotive Ignition System

Troubleshooting Guide

Sample 2

Symptom: Steering wheel shimmies:

Description of the problem: You notice a side-to-side wobble in the steering wheel when traveling at steady speeds. The vibration gets worse when you are on an uneven road surface or after going over a pot hole.

Probable Causes:

1. Tire pressures are not equal.
2. Out-of-balance wheel and tire assemblies.
3. Worn or damaged tires.
4. Parts of the steering linkage are loose and need to be tightened.
5. You have worn suspension parts.

Unit 5 Automotive Ignition System

Exercise 7

The part is to test your ability to choose the best answer.

Symptom: Noises while turning a corner:

Description of the problem: You notice a knocking, clunking and/or squeaking noise when you turn a corner. Everything else seems to be fine except for the noise. The problem seems to be getting worse over time.

Probable Causes:

1. The steering gear needs to be lubricated or repaired (repaired, adjusted).
2. Parts of the steering linkage are loose and need to be tightened (be changed, be tightened).
3. Your tires are hitting or rubbing against something.
4. You have worn suspension parts (parts, springs).
5. Something is rubbing against or hitting the rubbing column (rubbing column, steering column).

Unit 5 Automotive Ignition System

Issuing the Information about a New Car

Sample Dialogue 1

A: Good afternoon, ladies and gentlemen. First of all, on behalf of our company I'd like to thank you all for coming today. Now I'll tell you that we have developed a remarkable new car.

B: Would you please briefly explain the details about your car?

A: OK. That's our latest development. It was developed by the researchers for five years.

B: The new car gives you an edge over your competitors, I guess.

A: Certainly.

B: Will you put it on the market recently?

A: Yes, we do.

B: Do you have any plan to sell at abroad?

A: Not at the moment. We are now more concerned with the domestic market.

Unit 5 Automotive Ignition System

Issuing the Information about a New Car

Sample Dialogue 2

A: Now I've told you all about our latest car, and I'll open the floor to answer any questions you might want to ask.

B: Do you think your old cars are best and are well received by customers?

A: Yes, of course.

B: Then why do you want to develop a new car now?

A: There are many reasons. A very simple one is that we can't live on old products forever.

B: As you know, no other companies can match us so far as quality is concerned.

A: It sounds good....

B: Do you have any plan to sell in Southeast Asia?

A: Not at the moment.

B: What's your next product?

A: I'd like to give you that information, but you may realize it is secretive.



Unit 6 Introduction to Brake System (制动系统)

Passage A Brake System (I)

The brake system is the most important system in cars. (制动系统是汽车最为重要的系统) If the brakes don't work effectively, the result can be disastrous. So good brakes are essential for safety. (性能良好的制动器是安全行车的关键)

There are two completely independent brake systems. One is service braking system, (行车制动系统) which makes a moving car on road slow down or stop. The other is parking braking system, (停车制动系统) which keeps an unattended (无人看管的) car stationary (静止) and prevents it from sliding.

The typical brake system consists of disk brakes in front and either disk or drum brakes in the rear connected by a system of tubes and hoses that link the brake at each wheel to the master cylinder. (典型的制动系统是由前盘制动器和后盘制动器或者后鼓制动器构成的, 由制动管路和制动软管系统将其连接, 将每个轮子上的制动器连接到制动主缸上) See figure 6-1.

Figure 6-1 Brake system

