

Student's name:

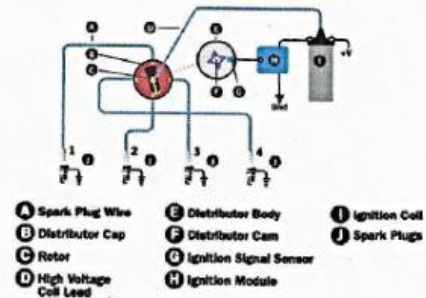
Leer el siguiente texto y realizar las actividades que se encuentran a continuación.

How Automobile Ignition Systems Work

Free Student

BY KARIM NICE AUTO | OTHER SYSTEMS

The internal combustion engine is an amazing machine that has evolved for more than 100 years. In this article, we'll learn about ignition systems, starting with spark timing. Then we'll look at all of the components that go into making the spark, including spark plugs, coils and distributors.



Ignition System Timing: The ignition system on your car has to work in

perfect concert with the rest of the engine. The goal is to ignite the fuel at exactly the right time so that the expanding gases can do the maximum amount of work. If the ignition system fires at the wrong time, power will fall and gas consumption and emissions can increase.

Spark Plug: The spark plug is in the center of the four valves in each cylinder. The spark plug is quite simple in theory: It forces electricity to arc across a gap, just like a bolt of lightning. The electricity must be at a very high voltage in order to travel across the gap and create a good spark. Voltage at the spark plug can be anywhere from 40,000 to 100,000 volts.

The difference between a "hot" and a "cold" spark plug is in the shape of the ceramic tip.

The carmaker will select the right temperature plug for each car. Some cars with high-performance engines naturally generate more heat, so they need colder plugs. If the spark plug gets too hot, it could ignite the fuel before the spark fires; so it is important to stick with the right type of plug for your car.

Ignition System Coil: The coil is a simple device -- essentially a high-voltage transformer made up of two coils of wire. One coil of wire is called the **primary coil**. Wrapped around it is the **secondary coil**. The secondary coil normally has hundreds of times more turns of wire than the primary coil.

Ignition System Distributor: The distributor handles several jobs. Its first job is to distribute the high voltage from the coil to the correct cylinder. This is done by the **cap** and **rotor**. The coil is connected to the rotor, which spins inside the cap. The rotor spins past a series of contacts, one contact per cylinder. As the tip of the rotor passes each contact, a high-voltage pulse comes from the coil. The pulse arcs across the small gap between the rotor and the contact (they don't actually touch) and then continues down the spark-plug wire to the spark plug on the appropriate cylinder.

A) Choose the correct option.

1. El tema central del texto es...

- ☐ Como funciona el motor de combustión interna
- ☐ Como funciona el sistema de encendido
- ☐ Como funciona el sistema de distribución

2. ¿Qué sucede si el sistema de arranque se enciende en el momento equivocado?

- ☐ los gases realizan su máximo esfuerzo
- ☐ la energía aumenta
- ☐ se consume mas gas y aumentan las emisiones de CO2

3. ¿Dónde se encuentran las bujías?

- ☐ En el medio de las cuatro válvulas en cada cilindro
- ☐ Arriba de las cuatro válvulas en cada cilindro
- ☐ Debajo de las cuatro válvulas en cada cilindro

4. ¿Qué tipo de bujías necesitan los autos con alto rendimiento?

- ☐ Frías
- ☐ Calientes
- ☐ De temperatura media

5. ¿Cuáles bobinas tienen mas vueltas de alambre?

- ☐ Las bobinas primarias
- ☐ Las bobinas secundarias
- ☐ Las dos tienen igual cantidad de vueltas

B) Extraer del texto

-dos palabras específicas

-dos verbos en tiempo presente

- una oración que contenga voz pasiva

C) Interpretar con tus propias palabras la porción subrayada del texto
