

Ford Service Bulletin

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Spark Plugs

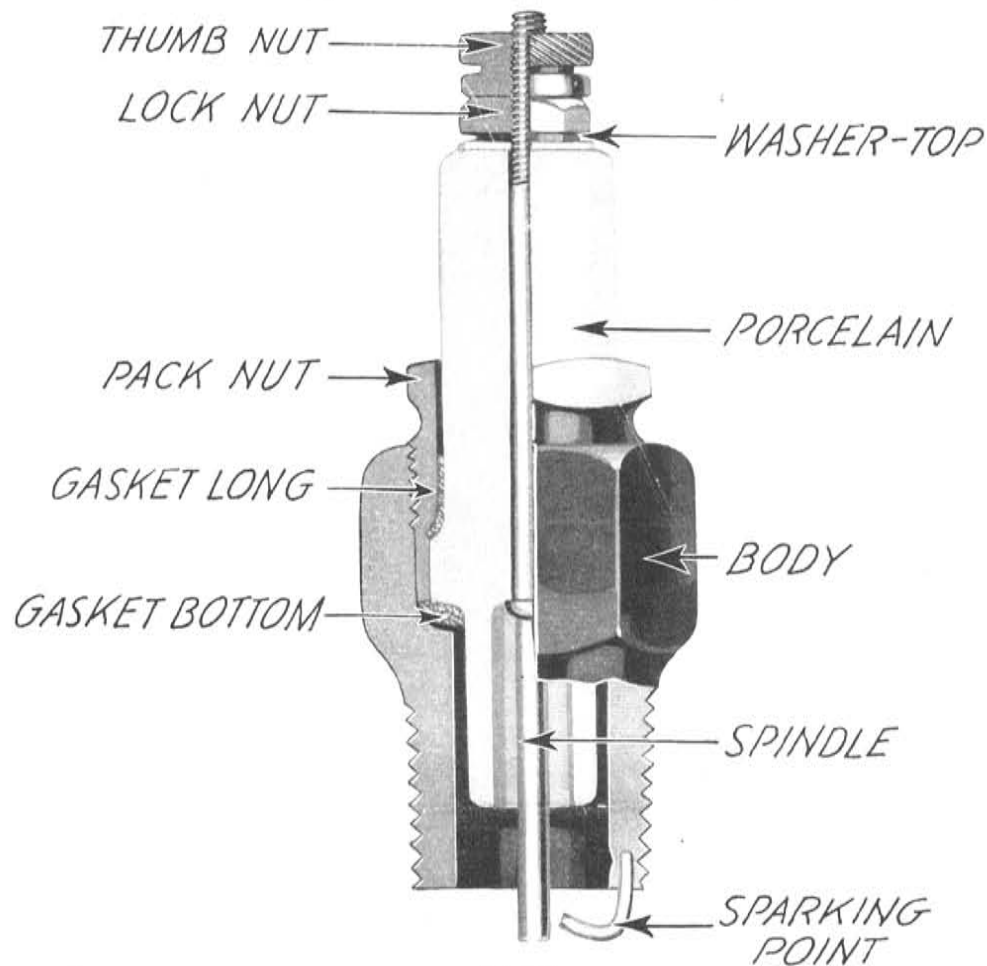


Fig. 126

Although the Spark Plug is a very simple contrivance, it is of the utmost importance in an engine and requires a certain amount of care. It is so constructed, however, that any car owner can keep it in good working condition.

The vital part of a spark plug is the insulator. For several years prior to the war, the Champion Spark Plug Co., manufacturers of the Champion "X" which has been adopted as regular equipment on Model T cars, imported the material going into the manufacture of insulators and in fact many completed insulators. It was generally conceded that insulators made in Europe were better than any that could be manufactured in this country.

With the beginning of the war in Europe and the consequent difficulty in obtaining materials, the engineers of the Champion Spark Plug Co. turned their attention to

developing a satisfactory insulator from materials obtainable in this country. Experimental and research work went on for some time until finally an insulator was developed that is today the best in the world and far enough ahead of present day engine requirements to insure a high factor of safety in operation.

The Champion "X" insulator is what is known as the petticoat type. This type insulator is generally conceded to be less liable to foul than insulators of other types, due to the fact that the surface over which the current must travel is greater. Furthermore, these insulators are able to resist fouling, as they are made of material which will not absorb oil; the glaze on the surface is smooth and hard so as to keep the oil from adhering to it.

Insulators must be strong mechanically. A combination of certain materials in the clay together with just exactly the proper firing have given the present insulators on Champion plugs twice the strength of the insulators formerly used. The gaskets are so designed that when the porcelain is in place, it is seated in soft asbestos both at the top and bottom. This insures against breakage due to expansion from heat.

Insulators must be strong electrically. Every porcelain insulator is what is called a di-electric. The material is an insulator at certain temperatures, while at others, it becomes a conductor. This is a general property of all porcelains. Up to a certain temperature, the current will not leak through the porcelain, then up to another temperature a gradually increasing current will flow until a temperature is reached where sufficient current will flow so that none will be left for the spark at the point. The problem is to hold this so-called critical temperature as high as possible. Champion insulators are constructed to resist sudden changes in temperature and show a safety factor of 300 degrees Fahrenheit over the hottest engine.

The spark plugs may cause a miss in the motor due to the following causes:

1. The porcelain may break, though with the improvements lately made, very few of them should go wrong in this way.
 2. The porcelain may become fouled or sooted sufficiently to cause the engine to miss.
- In either case, the plug must be taken

apart. If the porcelain is broken, a new one with new gaskets should be used. If the porcelain is fouled, it should be cleaned with a cloth dipped in gasoline. The center spindle should not be taken out. It is better to wind a cloth around a small wire or stick and work it around the center spindle and inside wall of the porcelain.

When reassembling the plug, care should be used to screw the bushing down so that it is just snug or fairly tight.

Piston Rings

Ford piston rings are now stamped with the word "Ford" as shown in Fig. 127. The rings should be installed on the piston with the edge bearing the word "Ford" toward the top.



Fig. 127

Keep In Touch With Your Customers

In talking with Dealers from various parts of the country, we are often surprised at the comparatively little attention that is paid to the repair end of the business. Apparently, the majority of our Dealers do not make a practice of following up their customers to see that their cars are working satisfactorily or for the purpose of soliciting their repair business.

In a number of cases where Dealers have sold from five hundred to a thousand cars per year, it is admitted that not more than 25 per cent of these buyers are customers of the dealer. This situation is mainly due to the lack of follow-up work on the part of the Dealer's service organization.

It cannot be denied that the personal touch between Dealer and customer is the most effective means of keeping the business of the customer, either when he comes to buy a new car or have repair work done. Within sixty days after the sale of a car, the Dealer should call on the customer to see if the car is operating satisfactorily. Where personal calls are not practical, the telephone should be used.