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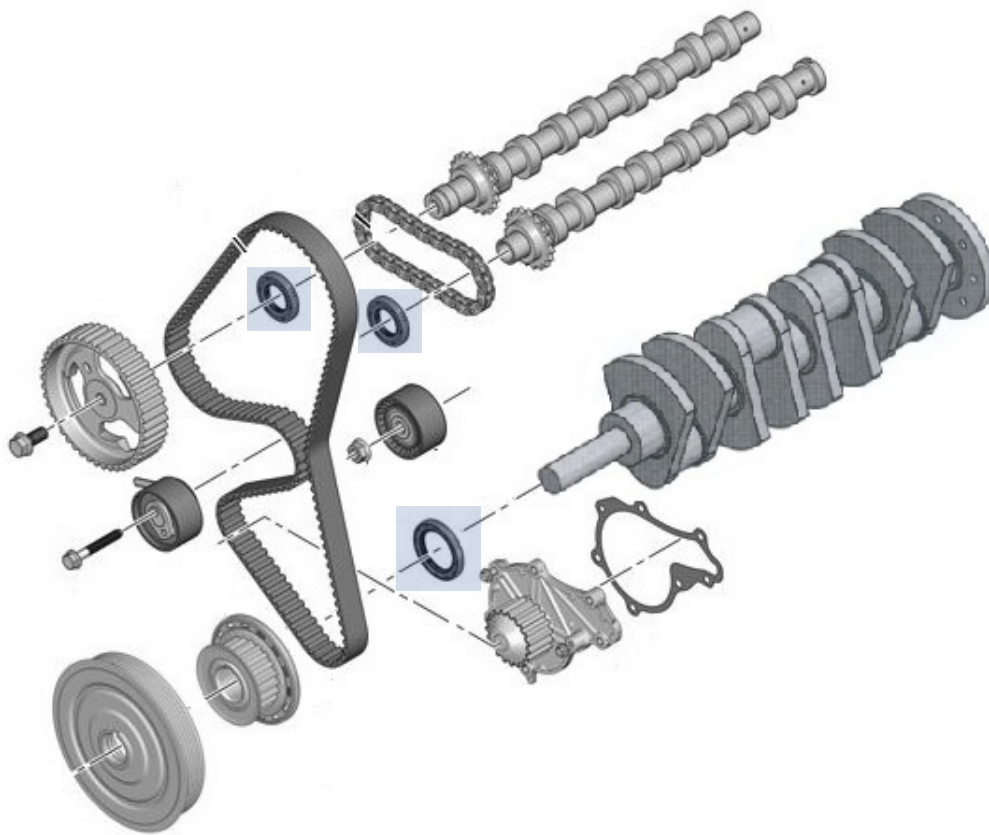
TECHNICAL REPORT

Shaft seals kits



DESCRIPTION

The **timing system** of an internal combustion engine is responsible to manage the **opening and closing of the intake and exhaust valves**, corresponding with the position of the crankshaft, from which it receives the movement; keeping the perfect synchronization between these elements.



The **replacement of the timing elements** of the engine such as belts, tensioners, inverter roller, coolant pump in some cases, is **essential for the maintenance** that we must carry out in our vehicle according to the intervals recommended by your workshop of confidence.

The belts are made of rubber and polymers with metal reinforcements. Despite being resistant, they rotate millions of times at high speeds experiencing wear and therefore it has a shorter life than the engine. If its not replaced, it will begin to deteriorate reaching the breakage of the belt. If this happens, there will be lack of synchronization between the camshaft and the crankshaft, and



the valves can collide with the pistons, because they are occupying the same space at the same time, concluding into a serious breakdown of the engine.

Besides, but not less important, are the **oil seals of the engine timing (shaft seals)**. An oil seal is an element that once placed in the housing, allows the movement of the shaft and ensures the sealing, keeping the oil inside and prevent dirt entrance in the engine.

The first oil seals of the automotive industry used strings around the axes, passing by felt and leather reaching the currently materials as synthetic rubbers and Teflon. In addition, the design has been improved to achieve a better performance and minimizing shaft damage.

As the time goes by the oil seals experiments wear, specially in the area of the sealing lip and if this one is excessive, it will produce leakage of oil. This is critical in the timing seals because they are near to pulleys and belts, so they can impregnate them and accelerating their degradation reaching the possible breakage of them.

If this leakage occurs, belt and pulleys must be removed for the replacement of this type of oil seals, being necessary to dismantle of all the timing elements to accede ant them a make possible the replacement of all their components, generating a high labor and material cost.

For this reason, **Ajusa offers to our customers oil seals for the engine timing**. These contains all the necessary oil seals to replace the timing bolt of the engine. The replacement of these oil seals are highly recommended, because they are accessible once the timing elements are removed, being the correct moment to replace these oil seas and also ensuring a correct maintenance with guarantees in our engine.



You will be able to identify these SETS whose **reference begins with 78**, and on their label the composition and measurements of the oil seals will be indicated.

➤ Example oil seals of the timing for engine **9HX de PSA:**



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