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TECHNICAL REPORT

1.0 1.2 EB PureTech engines:
features, problems and repair



features | EB PureTech engines

The 1.0 and 1.2 Puretech engines from the **Stellantis** automotive group are known for their efficiency and performance. These engines are small displacement, 3-cylinder engines, but offer performance equivalent to **4-cylinder engines**.

They are more compact by reducing the number of mechanical elements, which contributes to their efficiency.

One of the main features of these engines is their oil-immersed timing belt. This means that the belt is in direct contact with the engine's lubricating oil.

This means that the belt is in direct contact with the engine's lubricating oil, which in principle results in less friction, less noise and therefore lower mechanical losses, but an unexpected problem has arisen subsequently.

engine problem | premature deterioration

It has been detected that on some PureTech engines, especially those on short journeys, the timing belt is deteriorating prematurely.

The **oil becomes contaminated** by fuel residue, which affects the integrity of the belt. This debris from the belt can leak into the lubrication ducts and saturate the oil filter.



the solution

The solution to these problems is based on **preventive maintenance** of the lubrication circuit, changing filters and oil every few km or in the period of 1 year, whichever comes first.

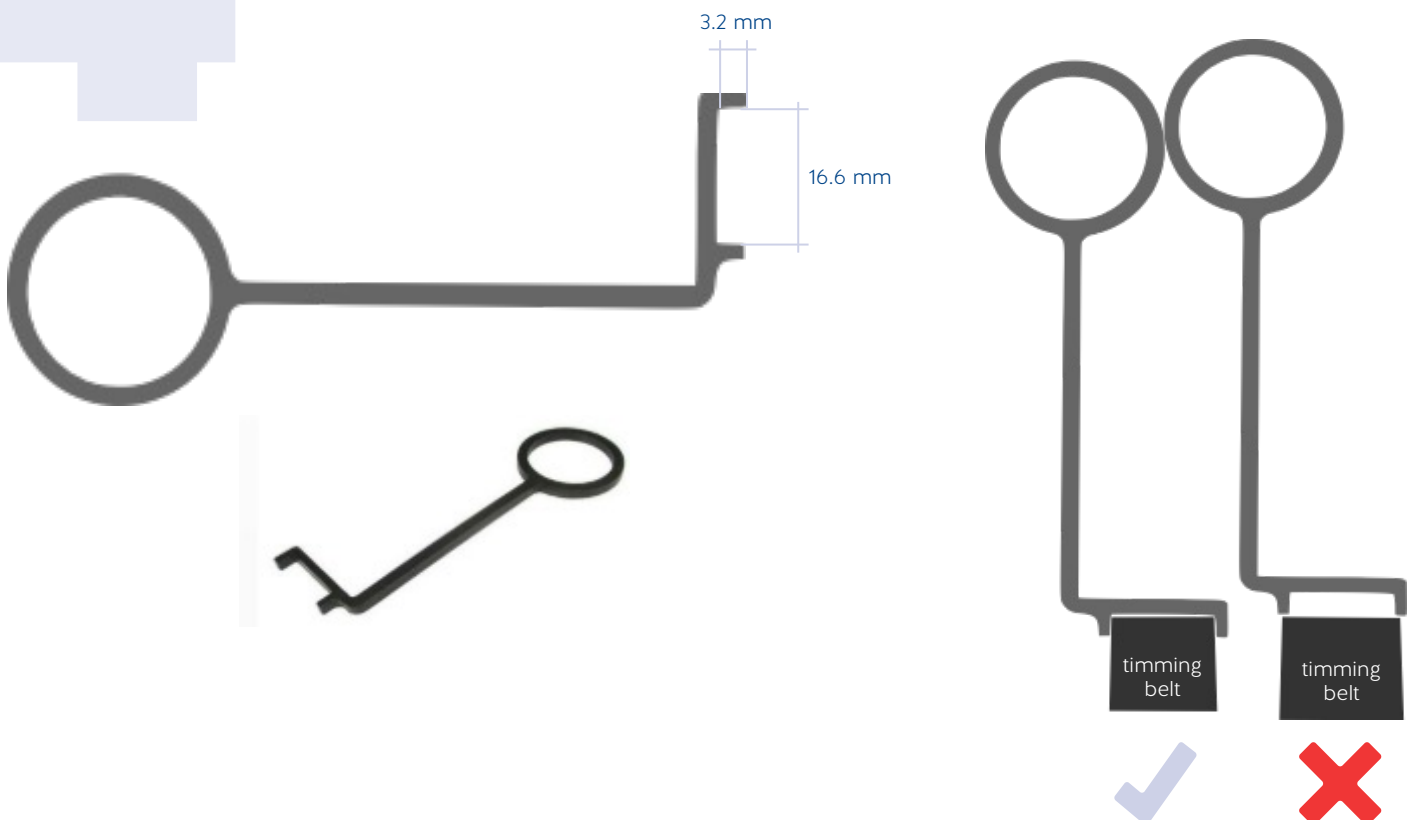
If the maintenance recommended by the manufacturer is not carried out, the following may occur:

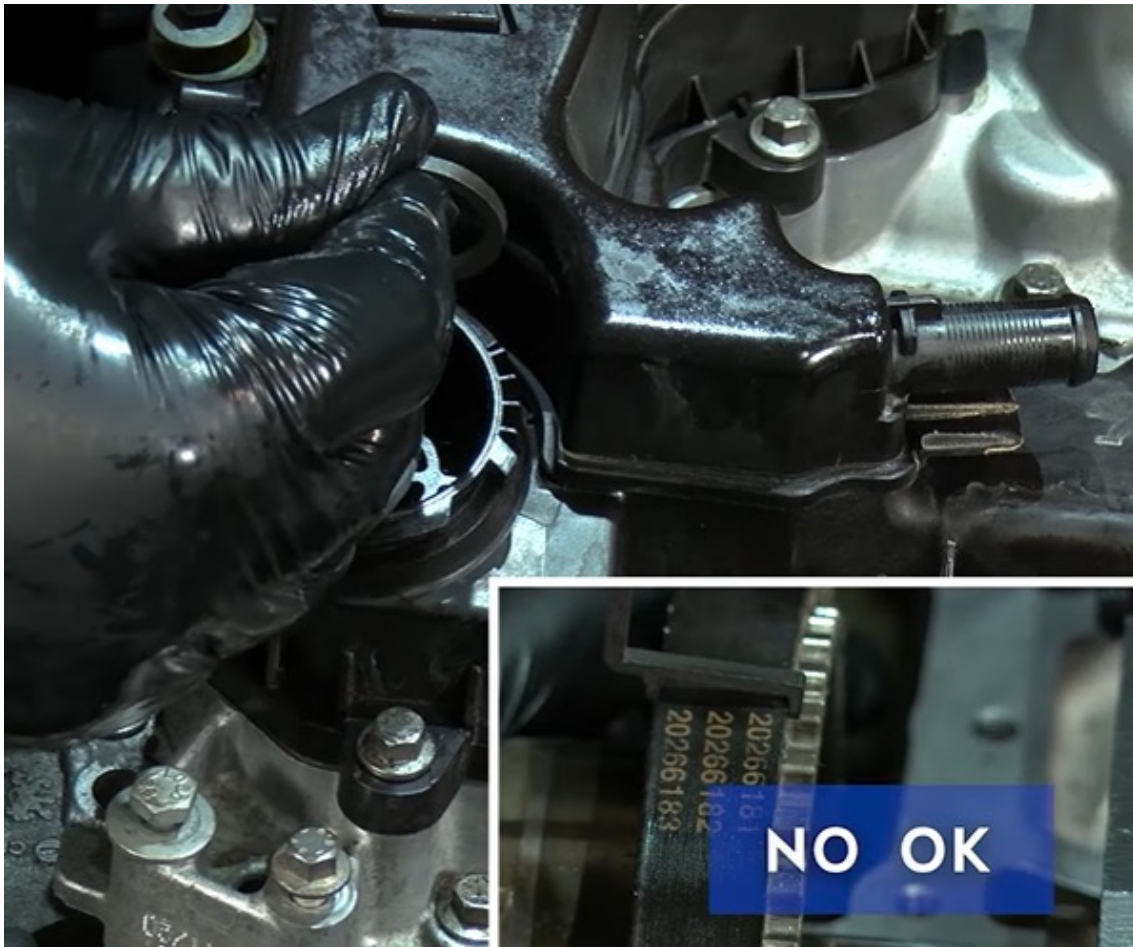
- 1. Lubrication problems:** in all friction elements of the engine.
- 2. Failures in the variable timing system:** because this system works with oil pressure, resulting in inefficient and irregular engine operation.
- 3. The breakage of the timing belt:** causing an aggravated breakdown due to the collision of the valves and pistons.

replacement of timing belt

The brand's recommended maintenance schedule calls for the belt to be replaced every **six years or 100,000 km**. However, it is possible to check the condition of the belt with a pass-fail tool through the oil filler cap.

If the belt is found to be affected, it will be wider, indicating that it is time to replace it before premature failure.





Ajusa solution | sealing components

When replacing the timing belt on these vehicles, it is necessary to access the oil sump, timing cover, cylinder head cover, etc.

Therefore, it **will be necessary to replace the sealing components** (sealant, gaskets and oil seals) that have been removed in order to ensure the correct sealing of these areas.

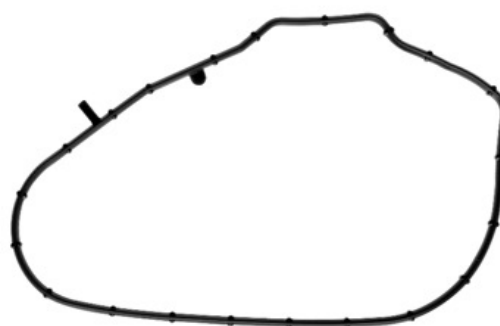
Therefore, Ajusa has different sealing elements for these areas. This repair is only related to the EB2 engine mounted on the PEUGEOT 5008 1.2 HNY model, whose complete set of gaskets is **50410100**.



oil sump: Ajusil sealant 75000100 / 75000200 / tightening 10 Nm



timing cover gasket: reference 01361000 / tightening 10 Nm



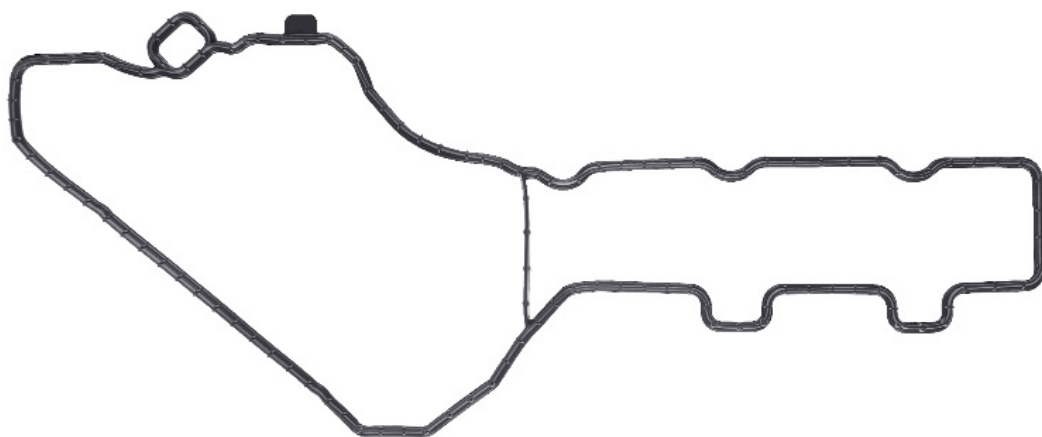
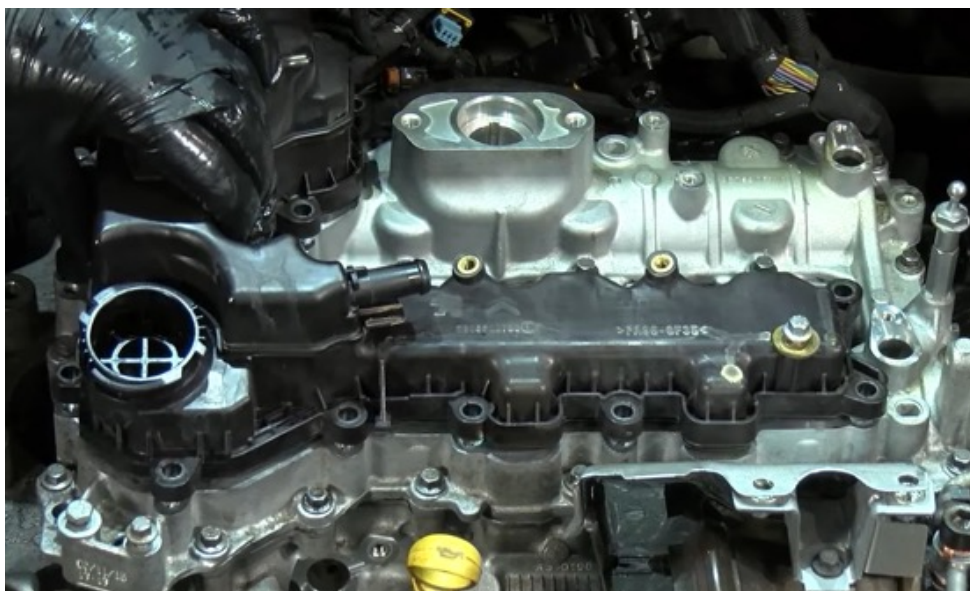
distribution side crankshaft seal: reference 15094500



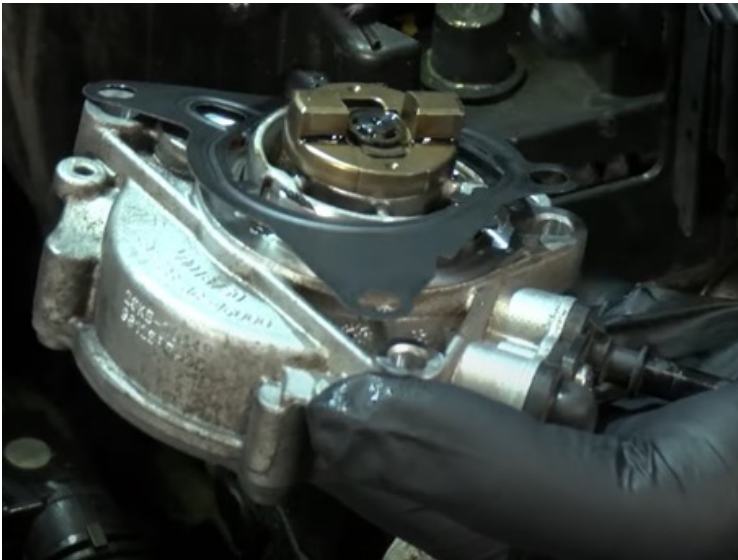
camshaft base: Ajusil sealant 75000100 / 75000200 / tightening 8 Nm



cylinder head gasket: reference 11142500 / tightening 10 Nm



brake depressor seal: reference 01489800 / tightening 10 Nm



o-ring solenoid valve solenoid valve variable distribution: ref. 16502000 x2 / tightening 10 Nm



Visit our **Youtube channel** where you will find the video with the repair and assembly of **Ajusa products** for this engine. **Subscribe!**

