

# A RANGE OF ENGINE TIMING KITS WITH WATER PUMP

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## WHY CHANGE THE WATER PUMP?

A worn water pump, whatever their change in performances, can have serious consequences on engine timing. With play on the pump axis, there is a risk of wear on the timing belt edge due to misalignment and consequential damage to the engine timing. This likely outcome will certainly cost considerably more than buying and fitting a new water pump at a scheduled engine timing <u>service. Labour costs will only be paid once</u>.

When changing the engine timing of a vehicle, the mechanic is generally advised to change the water pump. If a change is made, as a precautionary measure, it will avoid a drop in engine performance due to less efficient cooling or even broken engine (seizure).

### THE QUALITY CHOICE

We chose water pumps of original quality. Our supplier is a major force in the manufacture of pumps; in Europe it delivers water pumps to OES, GM, FORD and LAND-ROVER and in addition several Automotive Aftermarket players.

The approval process for these water pumps is identical to that of pumps supplied to OES, including the choice of components and materials

# **COMPOSITION OF A WATER PUMP**

A water pump is consists of 5 components

A Pump Body - in aluminium, cast iron or composite material 1 Bearing - a 2 row ball bearing or 1 row ball race + 1 row of rollers, based on the load

1 Pulley - smooth or toothed and belt driven

#### A Turbine

in composite, steel, bronze or cast iron material. Engine cooling is dependent mainly on the diameter, number of blades, their geometry and their height.

#### A Seal

This is the weak spot of a water pump since it is the seal between the rotating shaft and stationary casing.

#### PRECAUTIONS

- The use of an unsuitable type of coolant "tap water" is not acceptable, and can damage the water pump. In such a case there will be limestone deposit on the pump body. With these problem circumstances, the guarantee cannot be applied.
- An incorrect belt tension will have a destructive effect on the pump that can lead to a failure. The effects are identical to those seen with engine timing rollers.

# **THE NTN - SNR RANGE**

NTN-SNR offers its clients thirty references covering over than 800 vehicle applications, mainly for French, Italian, Asian and German vehicles.

### THE PACKAGING

The KDP packaging is one of the most compact on the market. It follows the design developed with our KD boxes which were well received by our customers when released. The water pump is at the base of the box, in its original secured packaging.

Then the timing rollers are next in place with the timing belt at the top of the box.

### NUMBERING SYSTEM FOR WATER PUMPS

#### **KDP459.080**

- consider the reference for Timing kit : KD459.08
- the P shows that the kit contains a water pump
- the last number (e.g.: 0) is an incremental number

This numbering system makes it easy to trace the KD concerned and the associated vehicle applications.









