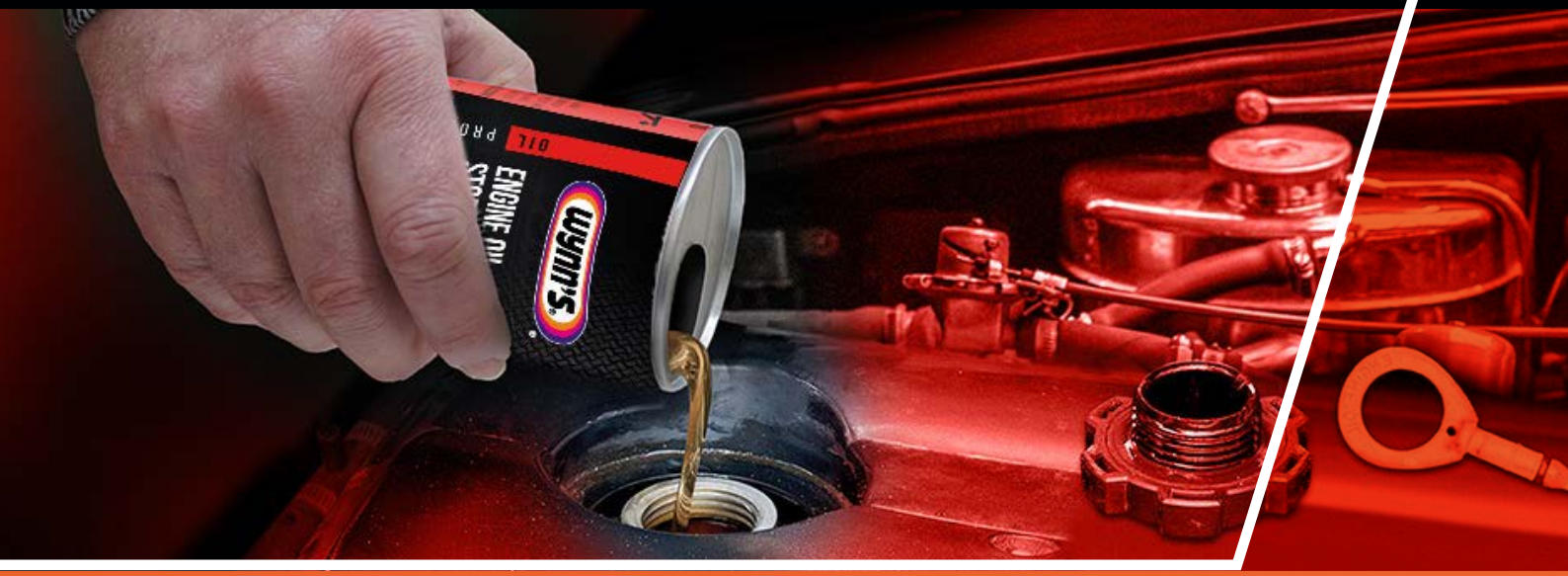
Oil bathed timing belts:



Many manufacturers have adopted **the wet belt technology**.

Wet belts are immersed in oil and can be used for engine timing and driving the oil pump.

What are the benefits of having the straps submerged?

Modern engines are becoming smaller, lighter and more efficient. To meet emission standards, many manufacturers have moved from traditional dry timing belts to “wet belts”— timing belts that run immersed in engine oil.

Benefits are :

- Reduction of friction (up to 20%)
- Reduction of fuel consumption and CO2 emissions
- Reduction of weight and consequently in costs for manufacturers
- Reduction of the belt maintenance interval (from 74.500 to 124.000 miles)

Why do timing belts break down?

Currently, gasoline usually contains **5% to 10% bioethanol**. Due to direct injection, and particularly when the injectors are contaminated fuel parts from combustion pass the pistons and contaminate the engine oil. This mixture will be in continuous contact with the wet belt and it is the acetic acid of the bioethanol that **will cause the timing belt to break down**. Stop Start driving conditions and low mileage vehicles can be more affected due to the oil not reaching operating temperature to evaporate the fuel parts effectively.

Wet belt

What drawbacks does this technology generate?

The belt immersed in oil can break down very prematurely, in some cases **before 37.000 miles**.

What other issue can it generate ?

The decomposition of this belt and the dirty oil, generates a type of rubber sludge that in many cases clogs the oil suction tube and other circuit components. This obstruction can result in damage costly repairs for the driver and can be **in excess of £5000**. In addition to the timing belt, the oil pump and turbo may also need to be replaced.

Wet belts offer clear efficiency benefits, but they are extremely sensitive to oil quality.

Preventative maintenance is essential to slow down this decomposition effect on the belts avoid premature failures.

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Oil bathed timing belts:

How can we slow down this decomposition effect on the belts?

1 WYNN'S PRO OIL SYSTEM CLEANER

Keeping the engine oil as clean as possible: always follow manufacturers recommendations for oil change periods and use the correct recommended specification of oil during servicing.

Up to **15% of the oil** remains in the system at oil change. It is important to neutralise the acids that remain and remove the deposits. If left behind the old acidic oil will compromise the properties of the new oil when added.

Instructions for cleaning the lubrication system and keeping the oil clean:

- *Add a bottle of Wynn's Pro Oil System Cleaner to the oil system before changing the oil.*
- *Maintain the idle speed for 20 minutes.*
- *Remove the used oil and replace the filter. Then fill with new oil following manufacturer oil specifications for the engine.*
- *One 325 ml container treats up to 6 litres of motor oil.*

W47244
12 x 325 ml

2 NEW WYNN'S PRO ENGINE PROTECTOR

Add Wynn's Pro Engine protector to the clean oil to **stabilise the oil properties** and **enhance the oil lubrication** and cleaning.
Reduce friction and wear and slow the formation of black sludge and varnish whilst neutralising acids.

Instructions for use:

- *Add one bottle of Wynn's Pro Engine protector to the oil system with between 3 and 6 Litres of lubricant.*
- *When adding the product, do not exceed the maximum oil level.*
- *One 325 ml container treats up to 6 litres of motor oil.*
- *Use at every oil change or more frequently if necessary*

W48041
12 x 325 ml

Problems in a PSA 1.2 PureTech engine

Maintenance recommendations :

Although preventative measures can be taken with regular oil changes, cleaning the oil system and adding a preventative additive always follow the manufacturers recommendations for timing belt change intervals and it is recommended to carry out a visual belt inspection at service to monitor serviceability.

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