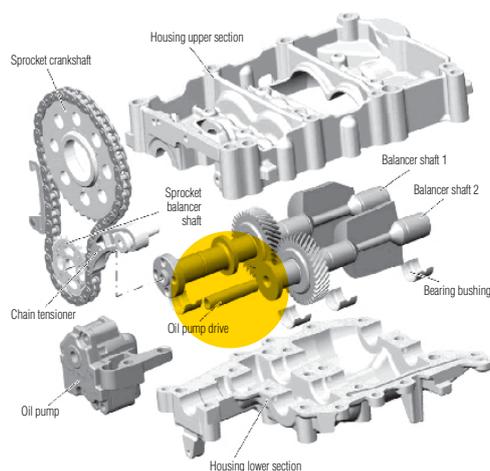


# Engineered solution

**PowerMax Engineering has a remedy for the troublesome oil pump drive on the 2.0 TDI engine.**



**A KNOWN problem with the Volkswagen Group 2.0-litre TDI engines from 2005 onwards\* is that of oil pump failure, due to wear of the hexagonal shaft drive from the end of the balancer shaft.**

While earlier engines had the oil pump driven by a short chain directly from the crankshaft, the introduction of balancer shafts to improve the refinement of the later engines required the oil pump to be relocated and driven directly from the second balancer shaft using a short 6 mm hexagonal shaft.

Very similar in appearance to the straight shank of an Allen key, approximately 75 mm long, this engages in a drive socket in the end of the balance shaft, comprising a bore with machined grooves which locate on the points of the 6 mm shaft.

However, a combination of lack of perfect concentricity and the inevitable wear between the drive grooves and the hexagonal shaft which occurs after a high mileage (70,000 or so), can cause slippage or even complete loss of drive to the oil pump, resulting in loss of oil pressure and subsequent damage to the engine if the warning light isn't noticed in time.

We've recently come across a company in Northern Ireland, PowerMax Engineering, which has developed a process to re-manufacture the existing balance shaft, using a new hardened keyway pressed into place. This allows the use of an OE key to drive the oil



pump, which is supplied as part of the package. The cost of the service is £355.

PowerMax has also engineered a more cost-effective solution to the standard fix of replacing the chain-driven unit with the more modern gear-driven system, by re-manufacturing the existing chain-driven unit to utilise the new gear system. This upgrade can be completed for £595, which also includes the crankshaft gear, idler gear and oil pump gear needed to modify the existing system. The oil pump itself can also be supplied, at extra cost. PowerMax can also supply all the parts to repair the chain-driven system, some of which are no longer available. 🇩🇪



**'POWERMAX ENGINEERING RE-MANUFACTURES THE EXISTING BALANCE SHAFT, USING A NEW HARDENED KEYWAY PRESSED INTO PLACE'**

## PowerMax Engineering

BASED AT premises just outside Cookstown, Northern Ireland, PowerMax Engineering has a combined experience of over 40 years, with expertise in the field of engineering for performance, automotive, commercial, agricultural and heavy plant and machinery. Their 4000 sq.ft. premises houses lathes, milling machines and also a 2-wheel rolling-road dyno, combining traditional craftsmanship and modern technology to achieve the best results.

PowerMax has also developed its own recognised independent motorsport design, development, testing and manufacturing facilities for competitive race engine builds, and also offers a wide range of rolling-road facilities to deal with power outputs up to 2000 bhp as well as Link engine management programming.

Manufacturing and marketing many of their own products, PowerMax Engineering is the main Ireland dealership and distributor for a vast range of high-quality brands and performance products.

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\*Affects Audi engine codes BLB, BPW, BRE, BNA, etc and Volkswagen engine codes BKP, BMA, etc