

Vernier Cam Drives/Chains



Vernier Adjustable Camshaft Sprockets/Components

The Ford DOHC 6 cylinder engine has hydraulically adjustable camshaft timing which is controlled by the factory ECU. The factory tuning retards cam timing (of both cams simultaneously) at light throttle above 100 KPH to aid emissions/fuel consumption and subsequently provides no advantage to the performance enthusiast. The VCT units do not allow the cam phasing to accurately follow the crankshaft/piston motion as closely as is required, which brings about tuning and fault code logging issues. Proficient tuners know that accurate cam phasing is critical to extracting maximum power from a given powerplant, so we designed and manufactured adjustable cam sprockets to allow tuners to maximise the VE of their engine combination.

Another advantage of our vernier sprockets is that it eliminates the requirement to retain the original Ford ECU and harness when transplanting the DOHC engine. Very few aftermarket ECU's can control the variable cam function effectively, so with this requirement eliminated a whole world of possibilities of retrofitting the DOHC engine to earlier vehicles becomes available to the enthusiast.

Atomic vernier sprockets are CNC machined from 4140 chrome moly steel with the outer section of the DOHC sprockets gas nitrided for maximum durability. Secured together by four hi-tensile allen head bolts, timing adjustment is quite simple due to the degreed markings on the hub. A full 36 degrees of movement is provided, allowing the professional engine builder a huge scope of adjustment. Atomic timing chains for the DOHC Ford 6 cyl are more than 80% stronger than the stock chain and are highly recommended for use with heavier than standard valve springs. They are pre-stretched at the factory and feature rollerised trunnions with extra thick link plates to provide the utmost in reliability. Will fit standard or aftermarket sprockets and have OE style timing links for easy timing.

The best timing chain in the world is no good if the guides do not keep it in place, so we manufacture a heavy duty replacement for the failure-prone OE timing chain guide pivot. CNC machined from 4140 chrome moly steel, Atomic guide pivots feature larger fillet radii in the corners and a 33% larger locking nut (M8 instead of M6) for positive retention of the guide. Heat treated to 55 HRC and black oxidised for appearance, Atomic pivots are inexpensive insurance against premature valvetrain failure due to erratic timing chain movement.

Rounding out the cam drive system for the DOHC Ford 6 cyl is our Heavy Duty timing chain tensioner. It features a larger oil feed port to provide more oil pressure to the ratchet and a stronger pawl for more secure engagement. The symptoms of a faulty tensioner are intermittent noises coming from the front/top of the engine, especially when held at a constant RPM.

#306560

Vernier adjustable sprockets suit DOHC Ford 6 cyl – pr. Includes M10 Unbrako capscrews.



#306561

Vernier adjustable sprockets and double row chain set suit SOHC Ford 6 cyl – set of 3 pieces inc crank sprocket.

#306562

Induction hardened crankshaft sprocket suit DOHC Ford 6 cyl - all model engines.



#306563

Heavy duty Hydraulic-over-mechanical timing chain tensioner suit DOHC Ford 6 cyl – all model engines. Includes M6 flange bolts.

#306564

Chrome moly timing guide pivot and M8 locknut suit Ford DOHC 6 cyl. Fits all model Ford adjustable guides.



#306620

H/D Single Row Roller timing chain suit DOHC Ford 6 cyl

