

Below are the instructions on setting up the Piper Vernier timing chain set. Demonstrated here with the Piper 285 cam shaft on a Brand new 4.0 litre V8 ([See our engine brochure](#)).



Rotate the crankshaft to true T.D.C (Top Dead Centre). True T.D.C can be found using a dial gauge placed on top of piston No. 1 and rotating the crank till the centre of the duration of T.D.C.

← **Picture 1**

Now attached a piece of stiff wire to the engine block (using one of the bolt holes for the timing cover) and bend it so that it points to the 0° Mark on the Protractor.

**Picture 2** →



Now move the dial gauge to the inlet valve lifter on cylinder No. 1.

← **Picture 3**

Referring to the dial gauge rotate the crank shaft until the lifter achieves full lift. (Stops going up)  
With the Piper 285 cam shaft that was used in this demonstration this should happen at 105°

**Picture 4** →



The Piper 285 cam shaft has a full lift duration of 4° which means dial gauge should start going down at 109° on the protractor.

← **Picture 5**

With the Piper 285 cam shaft true full lift is achieved at 107°.

For our full range of cam shafts please visit our [cam shaft section](#).