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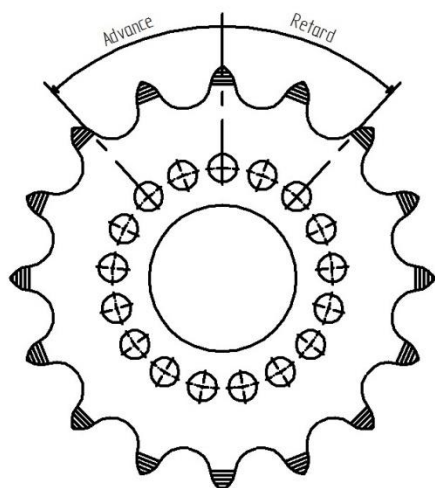
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Instructions for Magneto Vernier Sprocket

Before attempting to fit this sprocket and set your timing it is essential that the taper on your magneto is clean and in good condition. The red centre part of the vernier sprocket has been CNC machined very accurately to the correct angle to ensure that it will stay on the taper after the nut, washer and pin have been removed. In fact, if the taper on the magneto is good enough you should need a puller to remove it!

1. Remove the pin from the vernier sprocket and mount the rest of the assembly onto the magneto shaft with the drive chain in place. Tighten the nut fully to pull the red centre tightly onto the taper to lock it in place.
2. Remove the nut and washer. If the engine is now turned, the drive chain will turn the sprocket which will now rotate on the red centre without moving it or the magneto shaft.
3. Rotate engine to required ignition point. This could be determined by degrees of crank rotation or piston displacement. Refer to the manual for your particular engine.
4. Usually the magneto should be placed in the fully advanced position. Again, refer to the manual.
5. Without moving the engine/chain/vernier sprocket, rotate the magneto shaft/vernier centre in the normal operating direction until the points are just opening. We recommend the use of a Magneto Static Timing Light from www.themagnetoguys.co.uk
6. Looking at the rows of holes in the sprocket, insert the pin in the one that lines up best with a hole in the red centre. The sprocket and/or red centre may need to be moved very slightly to get the pin through both parts.
7. Replace washer and do nut up finger tight.
8. Turn engine to check timing.
9. If the timing is incorrect remove the nut and washer.
10. Move the pin to the adjacent hole.



Note that the pin needs to be placed in the adjacent hole in both the sprocket and the red centre. This will alter the timing by increments of 2.3 degrees on the crankshaft for each hole that the pin is moved. Assuming an anti-clockwise rotating magneto (as seen from the drive end) as fitted to most single cylinder Nortons, move the pin clockwise to retard the ignition or anticlockwise to advance it. This would be reversed on a clockwise rotating magneto.

11. Replace washer and nut, re-check timing and repeat as necessary.
12. Once timing is set to the required figure tighten nut fully and carry out final check.