

I reviewed this and have made a couple of minor adjustments ....but it is all to do with an odd numbering system and an "error" in the original literature.

Noel in Australia has written it up slightly differently, so please look at his excellent website as well

Plus re-reading the Forum pages, "Welleyes" identified a similar "problem" with numbering in Oct 2016, which was discussed by several people at the time

My version , and it works for me :

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I don't know if this has been written up recently , and I'm sure that other Aprilia owners may have a different way of doing it, but here is how I set the valve timing from scratch.

Aprilias have a slightly odd cylinder numbering system, starting with #1 nearest the rad, by the carb, on the off-side (but second back from the front) and then going around the head anti-clockwise - not staggered with distance from the rad

The firing order follows this ie 1,2,3,4

Additional confusion maybe caused because some distributor caps are marked up as firing 1,3,4,2 - presumably later fitments from other cars. I have some caps that just have #1 marked - So care need when fitting plug leads !

This confusion may have been compounded because the original literature (UK and French shown here) suggested that the firing order is 2,1,3,4 !! - but this isn't possible unless the distributor does a kind of hop-scotch .....

So , I find that the easiest thing to do is imagine that #1 is the piston nearest the radiator and then number anti-clockwise, because this leaves both #1 (near rad) & #3 (back off-side, carb side) at TDC when the -0- mark lines up with the 1/3 on the crankcase.

So now:

- 1/ Set both tappets on #1 at 0.45 mm
- 2/ With dowel removed , rotate engine to TDC ie "0" tooth to 1/3 mark on crankcase (ie pistons 1 & 3 at TDC)
- 3/ Ensure rotor arm pointing to #3 position (not 3 on the cap - see above)
- 4/ Rotate camshaft so that #1 EX valve closes and IN opens - with the tappet set at this precise gap, there is less than half a flywheel-tooth of movement between one tappet and the other moving
- 5/ Fit the dowel in the to the closest aligned hole - vernier setup so very accurate, nb the dowel has an internal thread for easy removal
- 6/ Tighten the front camchain nut ensuring that the holes in the washer line up with the dowel
- 7/ Reset all the tappets to 0.25 mm (IN & EX)

I then rotate the engine a few times and then check it all again

I modified an old screwdriver to rotate the tappet and used an 11 mm brake spanner for the nut - less risk of damage to the nuts