Applicable to DT175MX 1978-79 using DT2 CDi unit & Flywheel Stamped F3T250

The Yamaha manual tells us to use a dial gauge to first set piston position to 1.8mm +/- 0.15mm BTDC, then to check that the marks on the flywheel and crank case are in alignment.

In fact there are three marks on the flywheel (not identified as TDC etc), which indicates some form of advance or retard curve. We have run the CDi unit on our test bed and it does have a few degrees of advance built in to it. The timing advances with RPM to a certain point after which RPMs can increase further with virtually no change in timing.

The method described in the manual likely sets the full advance timing position as full advance is the important setting. No RPM is given for when this should occur so you can only use piston position as described to achieve this. Figures we state are observations, given for reference only and do not overrule or replace Yamaha data.

The mark above the adjustment slot on the stator would appear to be the full advance fire (F) mark, it seems to be the reference mark that must align with the flywheel mark. The manual seems to go on to say that the flywheel and stator marks, once aligned and with the piston set at 1.8mm BTDC can be used to check the mark on the crank case is in the right place, which makes a lot of sense. It looks like factory assembly information of the generator to engine has been put straight in to the shop manual which makes the manual a little ambiguous.

For static timing using a DTi: We observed that the central flywheel line aligns with the stator mark when the ignition is fully advanced so the obvious thing to do would be to align this mark with the one on the stator when the piston is at 1.8mm BTDC, in theory the crank case mark will be in alignment with stator and flywheel marks when set this way.

For timing with a strobe light: We found on our test bed using a strobe light that the stator mark aligned with one of the short flywheel marks at engine idle, 1,400 RPM and that the longer centre mark aligned at 3,000 RPM. The advance setting is more important to set correctly.

We hope this is helpful but please be aware this information is given for reference, always follow the Yamaha manual. If you are in any doubt how to time your engine please consult a qualified and experienced mechanic. Should you have any feedback send it to: tech@rexs-speedshop.com