STK-040 Banshee, RD350/250LC YPVS STK-043 Yamaha TZ350, YDS7, YR5, RD250 A,B,C,D Suzuki: T20 (250cc)

 $\begin{array}{ccc} \underline{\text{CONTENTS}} \text{ - please check you have the following} \\ \text{Stator unit (BP43)} & \text{Fixing kit} \\ \text{Internal Rotor} & \text{CDI unit x2 (3 cil)} \\ \end{array}$

HT 55 x2 (+bracket x2 + caps)

PRODUCT FEATURES

- Ignition only high performance system for 2 cylinder/2 stroke motorcycles with firing angle of 180 degrees.
- Has a specific advanced/retard curve for maximum performance, race proven.
- The system is lightweight and the rotor (418gms) has low inertia for

Ignition Timing - an explanation

The original RD and TZ models had fixed ignition timing so there is no advance or retard. The factory setting for this fixed timing is typically 1.8-2.00mm BTDC (Before Top Dead Centre).

For STK-043 the timing is not fixed but approximately follows the curve shown in fig. 2 with a small initial advance followed by retard. This gives maximum performance as retarding ignition works in conjunction with the increasing combustion chamber filling from the expansion chambers. Therefore the best performance is obtained when the timing is set between 3.2-3.5mm BTDC and not at the original setting.

Fitting Instructions

- Step 1 Setting the timing: Before fitting the rotor and stator set the ignition timing by using a dial gauge in the cylinder heads in the nearest cylinder. Find TDC then rotate the engine backwards (clockwise) between 3.2 & 3.5mm.
- Step 2 Fit the stator and secure using the two M6x16 socket cap screws and washers. The stator should be movable with the screws loosely fitted, if not remove the stator and check for damage within the crankcase recess. Fully tighten stator screws mid way on slots as shown.
- Step 3 Inspect the rotor before fitting, ensure there is no debris on the inner taper and the outer surface has no metallic particles

attracted to the magnets. Also check the condition of the crankshaft taper for damage. Fit the rotor on the crankshaft aligning the green mark with the green mark (punched dot) on the stator cover. The rotor should 'lock' onto the crankshaft when pushed on by hand if not remove and inspect again for debris etc. Apply loctite or similar thread lock to the M7 bolt and tighten down using the large washers provided. Don't apply loctite to the crankshaft taper.

Note: A keyway is not required for this rotor as the inertia is low.

- Step 4 Note the lead colours from the stator, the plug with the red cable needs connecting to the CDI for cylinder 1 (or nearest cylinder). This corresponds to the timing as shown in step 3/fig 3.
- Step 5 Connect the CDI and HT coil for cylinder 2.
- Step 6 The black/white (white tracer)cable from each cdi can be connected together and then a connection made to the stop switch, therefore ignition will be cut on both cylinders. The cdi's have built in diodes to enable this.

Wiring diagram - Ignition for one cylinder only is shown

Kill switch

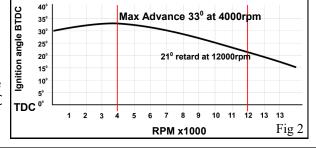
Gables to second CDI
for the other cylinder

Orange

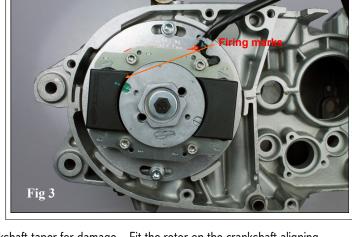
HT-55 Coil

Digital CDI
CD-130

Fig 1



Timing setting
Correct alignment of rotor and stator shown below with the piston set at 3.2-3.5mm BTDC



*Note: Timing figure is a guide only and will vary depending on engine tune/exhaust system etc.