Fitting Instruction ignition Kit forLaverda 750

1) Ignition Box
2) Spinner Assembly
3) Stator Assembly Adaptor Plate
4) Stator Assembly
5) 2*4mm C/Sunk Screws
6) Double Ended Coil
7) Coil Mounting Plate
8) 2*Spark Plug Caps
9) Wiring Diagramm
10) Fitting Instructions
11) Coil Mounting Information
12) 2-Way Connector Block

Remove all existing timing gear leaving only the advance/retard carrier bolted to the oil pump shaft. Mount the new spinner assembly to carrier using screws supplied. Fit stator plate in place of original points plate. Fit stator assembly onto plate using the 5mm clamping screws & washers, do not overtighten the screws. Loosen stator clamping screws, then gently spin stator round at least one turn. Make sure the magnet retaining screws do not hit the solder behind stator plate. If they do, file the screw heads to clear if this is still not enough, the solder can be carefully filed as well. Fit new plug caps to h.t. leads (these have correct resistance for this system). Mount coil & bracket to the original rear coil mounting bracket. If you decide to mount coil somewhere else, read the information about retaining the heat sinking properties of bracket supplied. Make sure the ignition box is rubber- or simularly anti-vibration mounted, away from excess heat, but out of reach of any damp. The original front coil mounting could be used. When extending any wires, or making electrical connections, make good connections using proper connectors, the connector block (supplied) is to connect the short wires of the stator plate to original wires. Refer to wiring diagramm, and wire up kit.

Set the motor at tdc (PM) & align one of the screws in the magnet with the hole that is the one for the right direction, The timing will be approximately set by this procedure, but if engine does not start, loosen the clamp screws & turn stator a few millimeters either way. The machine should be strobed using original marks with motor spinning in excess of 5000 rpm.

Handle all parts with care, especially the stator plate. Do not use force turning the coils to adjust timing, the ptate will turn freely when the clamp screws are loosened enough. If the A/R unit retaining setscrew is replaced with an alien srew, the whole unit will become self extracting as alien screw is undone with spinner plate still in situ.

Under no circumstances should the motor be run with either spark plug not property earthed! Severe damage will be done to system!

Black Box wird wie folgt angeschlossen:

Weisses Kabel Fahrzeugmasse

Schwarzes Kabel zur Doppelzündspule

Rotes Kabel zu einer freien Sicherung im Sicherungskasten, die nur Strom bekommt, wenn der Zündschlüssel auf on steht

Schwarzweiss +Schwarzgelb zur Statorplatte.

Anschlüsse der Doppelspule: (in Gummi aufhängen, Montageplatte= Kühlblech)

Schwarzes Kabel zur Zündungsbox.

Oranges Kabel an Zündungsplus (15).

Die Zündspule wird oberhalb des Gleichrichters montiert wo die Org. Spule sitzt.

Org.Zündung und Fliehkraftregler entfernen

Stattdessen Magnetplatte auf die Grundplatte montieren**,** Magnetplatte muß evtl. nachgearbeitet werden, weil Durchmesser etwas zu groß. Wenn Du die Halteschraube im Ölpumpenrad durch eine Inbusschraube M6x20 ersetzt, wird das ganze später leichter zu demontieren sein, es drückt sich dann selbst ab.

Motor auf OT. drehen(pm oder l).

Statorplatte an den org. Befestigungspunkten der alten Kontaktplatte montieren.

Die beiden Schrauben der Spulen lösen und so drehen, daß die Spulen in einer Linie mit den Magneten liegen.

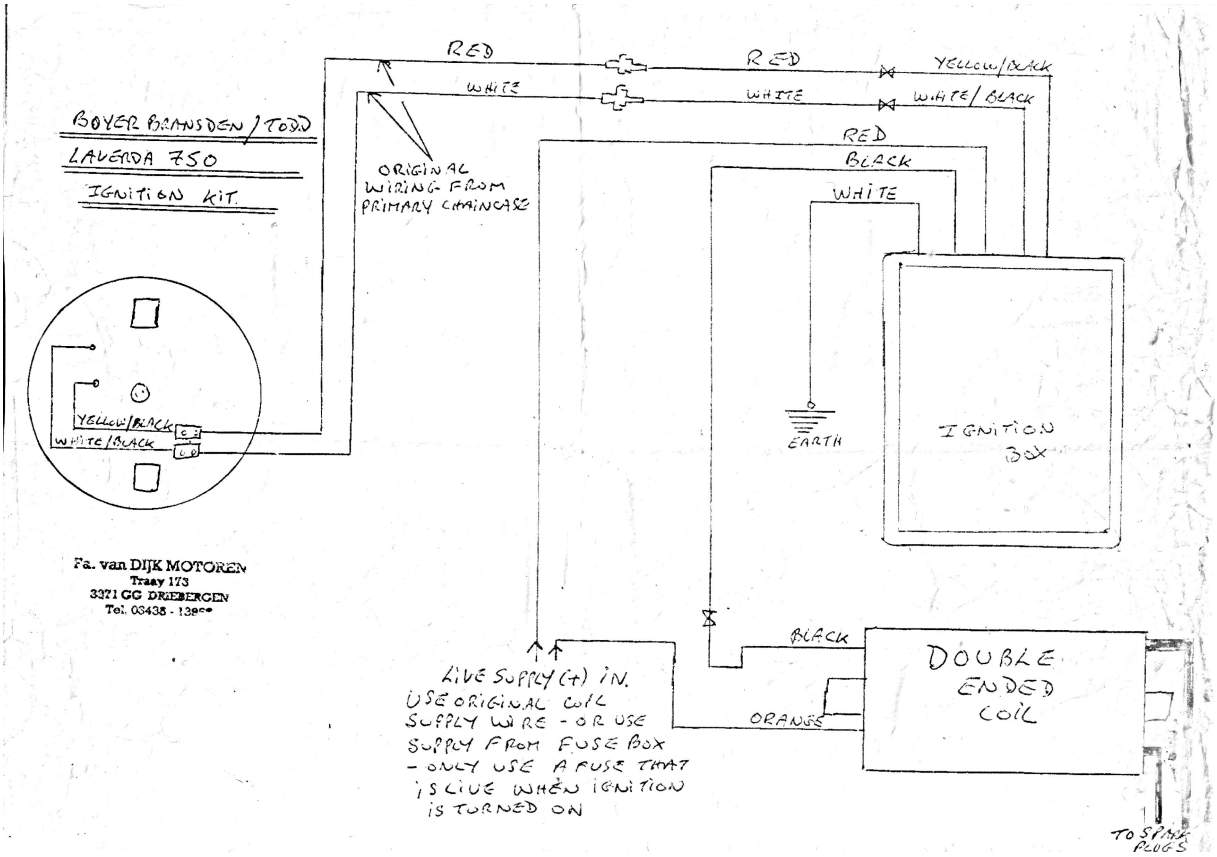
Vor dem ersten Start unbedingt den Anlasser mit geerdeten Kerzen durchdrehen lassen und dabei abblitzen, um Frühzündung zu vermeiden!

Niemals die Zündung ohne geerdete Kerzen betreiben, das killt sie!

(Ich hatte das damals nicht gemacht, sondern mich nur nach der Einbauanleitung gerichtet. Es gab beim ersten Startversuch eine Frühzündung, die mir den Keil für den Anlasserfreilauf zertrümmert und den Kurbelwellenstumpf beschädigt hat.)

Nach dem Einbau auf jeden Fall die Zündung abblitzen, durch Verdrehen der Statorplatte genau einstellen, dabei auch Vorzündung prüfen.

(Die Zündverstellung funktioniert bei der Boyer gleichmäßiger als original, volle Vorzündung wird auch erst bei höherer Drehzahl, so um die 4500/5000 upm erreicht.)


BOYER BRANSDEN / TODD
LAVERDA 750
IGNITION KIT
RED
WHITE
ORIGINAL WIRING FROM PRIMARY CHAINCASE
RED
WHITE
YELLOW/BLACK
WHITE/BLACK
RED
BLACK
WHITE
YELLOW/BLACK
WHITE/BLACK
EARTH
IGNITION BOX
Fa. van DIJK MOTOREN
Traay 173
3321 GG DREUMERGEN
Tel. 03438 - 1388
LIVE SUPPLY (+) IN.
USE ORIGINAL COIL SUPPLY WIRE - OR USE SUPPLY FROM FUSE BOX - ONLY USE A FUSE THAT IS LIVE WHEN IGNITION IS TURNED ON
BLACK
ORANGE
DOUBLE ENDED COIL
TO SPARK PLUGS

SOME HELP WITH FAULT FINDING ON MACHINES FITTED WITH BOYER BRANSDEN IGNITIONS.

NO SPARK CHECK :-

BATTERY HAS POWER.(Switch on headlamp, this should stay bright for one minute)
THE FUSE KEEPS BLOWING.Replace the fuse with a 21 watt indicator bulb.As the electrical circuits are switched on the bulb will glow dimly,if a faulty circuit is connected the bulb will glow brightly.If the bulb glows bright with nothing switched on, remove wires from components in turn until the bulb goes out,the last one removed will be the area of the faulty circuit.

IGNITION UNIT HAS POWER. Using a bulb or voltmeter check the main power feed in to the ignition unit.This would be the wire from the ignition switch or kill switch.A 21 watt indicator bulb with wires attached makes a very good test lamp.With this connected between the frame and ignition feed wire, the lamp should glow brightly,if dim or varying try moving the fuse holder,wiring,handlebars,to locate any faulty connections.Also test between the feed wire and the wire used to ground or earth the system, as a poor earth connection can be most difficult to find.The bulb draws similar current to the ignition and is a more useful test than the voltmeter only.

THE UNIT HAS POWER. Most MKIII ignition units will produce a spark on switching on and off,if this is so and sparks are produced on all cylinders then the ignition coils must be in good order .If one or more fail to spark a coil could be faulty.On four cylinder machines try disconnecting one coil at a time ,and switching on and off,checking for sparks.On other machines the coils are used singularly or connected in a chain in series. One coil failing can stop sparking but if it becomes short circuit to its case the coils after it in the chain will stop working.It is possible that a working coil is shorting to case,and stopping the other coils in the chain from working.This is very common when a Lucas coil is overtightened in the metal clamp,the case becomes crushed and touches the windings inside.This can occur when the coil warms up.The Micro-MKIII, Micro- Digital and Micro-Power units all turn off when not being triggered, therefore it is best to carry out the next test as you may not always have a spark on turning on and off.

SPARKS ON SWITCHING ON & OFF but not on cranking.Disconnect the wires from the ignition box that go to the stator plate.With the ignition on, touch these two wires together ,making and breaking should produce a spark at the spark plugs.If sparks are present then the ignition box is most likely to be in good order,if none are present the box is faulty.The only units that will not trigger in this way are the racing crank triggered Digital, and Norton rotary units.Check that the rotor magnets are running within the two metal pole pieces.On British machines,if necessary the rotor can be moved out slightly by placing a thin metal shim around the taper.The ignition will not fire if turned by hand at less than 200 RPM.

CHECKING THE STATOR PLATE . A full visual check of the condition of the circuit board and coils looking for loose or broken parts.Check for signs of the rotor touching the solder connections.Using a multimeter check the resistance of each pickup coil and then the total resistance across the wires or terminals.With the meter still connected,run your fingers round the coils, if the resistance changes there could be a broken winding inside.

CHECKING THE ROTOR..The magnets should just hold the weight of the rotor when placed against a piece of steel.Check the marking spots are the same way round. All magnets should have a similar amount of strength.

SPARKS ON CRANKING BUT WON'T FIRE. Check the stator wires do not change colour in the wiring loom, as swopping these will make the ignition fire over 50° retarded. With a digital system check you have suppressed plug caps fitted of approx.5000 ohms.If timing has just been done, don't forget that the timing angle on the camshaft is half of the crankshafts (ie on a 650 Triumph full advance timing is 38°crankshaft but is set at 19° on the camshaft.).

CONTINUOUS SPARKING WITHOUT CRANKING THE ENGINE. A poor battery with a battery charger connected or one or more bad cells in the battery.A high resistance in the wiring circuit or earth return.Check that the engine is earthed back to the frame and battery circuit. Plastic coated frames must have a good earth return to the engine case.A wrong type of ignition coil with a very low primary resistance,this will draw a very high current and produce a large volt drop across the wiring .The unit will keep turning on and off generating a chain of sparks.