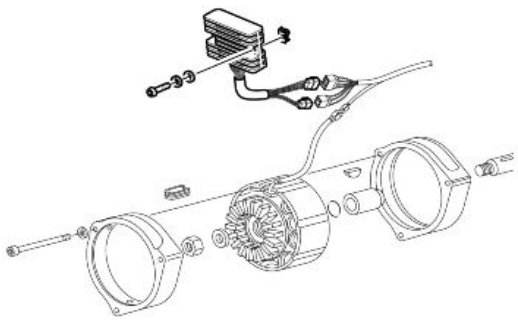
39 Right heated handgrip
40 2-way connector
41 Ignition switch
42 4-way AMP connector
43 IAW 15RC control unit
44 Air temperature sensor (NTC ATS05)
45 3-way AMP diagnosis connector
46 4-way AMP lambda probe connector
47 Left HV cylinder ignition coil (BAE850AK)
48 Right HV cylinder ignition coil (BAE850AK)
49 Power relay for injection (MINIRELAY switch)
50 Protection diode
51 ECU relay (MINIRELAY switch)
52 Fuel pump
53 Left injector (IV031)
54 Right injector (IV031)
55 Timing sensor (SEN813)
56 Engine oil temperature sensor (NTC WTS05)
57 Throttle valve potentiometer (PF3C)
58 Max. pressure sensor inside the electronic unit ECU
59 2-way AMP connector (key closed supply)
60 1-way AMP connector (rpm sensor in the injection side)

Checks and inspections

Battery recharge circuit

Checking the stator

IF CONNECTIONS ARE INVERTED THE REGULATOR WILL BE IRREVERSIBLY DAMAGED.
CHECK THAT THE REGULATOR EARTH CONNECTIONS ARE EFFICIENT.
POSSIBLE CHECKS TO BE CARRIED OUT ON THE ALTERNATOR OR REGULATOR IF THE BATTERY FAILS TO RE-CHARGE OR THE POWER SUPPLY IS NO LONGER REGULATED.



With the engine switched off, disconnect the two yellow generator cables from the rest of the system and then carry out the following tests with a ohmmeter:

CHECK THE WINDING ISOLATION TOWARDS EARTH

Connect one connecting point of the ohmmeter to one of the two yellow cables and the other connecting point to earth (laminar pack). The instrument should indicate a value above 10 MW.

CHECK THE WINDING CONTINUITY

Connect the two connecting points of the ohmmeter to the two yellow cables.

The instrument should indicate a value of 0.2 - 0.3 W.

CHECK THE VOLTAGE OUTPUT

Connect an alternate 200 Volt capacity voltmeter to the two yellow cables.

Start the motor and check that the voltage output is included within the values indicated in the table.

ALTERNATOR CHECK

	Specification	Desc./Quantity
1	Alternating current voltage at 1000 rpm	higher or equal to 15V
2	Alternating current voltage at 3000 rpm	higher or equal to 40V
3	Alternating current voltage at 6000 rpm	higher or equal to 80V
4	Direct current intensity at 1000 rpm	9.50 Amp
5	Direct current intensity at 1200 rpm	13.0 Amp
6	Direct current intensity at 1500 rpm	16.50 Amp
7	Direct current intensity at 2000 rpm	20.0 Amp
8	Direct current intensity at 3000 rpm	23.50 Amp
9	Direct current intensity at 4000 rpm	25.0 Amp
10	Direct current intensity at 6000 rpm	26.50 Amp
11	Direct current intensity at 10000 rpm	27.50 Amp

Voltage regulator check

The regulator has been calibrated in order to maintain the battery voltage at a value between 14 - 14.6 Volts. The pilot light (illuminated when the engine is not running, but the key is in ON position) will switch off when the generator begins to charge, (approx. 700 rpm).

Regulator checks

Normal work-shop tools are generally insufficient for regulator checking, however, listed below are certain operations that can be carried out in order to detect regulators that are defective.

The regulator is certainly defective if:

After having isolated it from the rest of the system short circuits can be detected between the earth (aluminium casing) and any of the output cables.

See also

Checking the stator