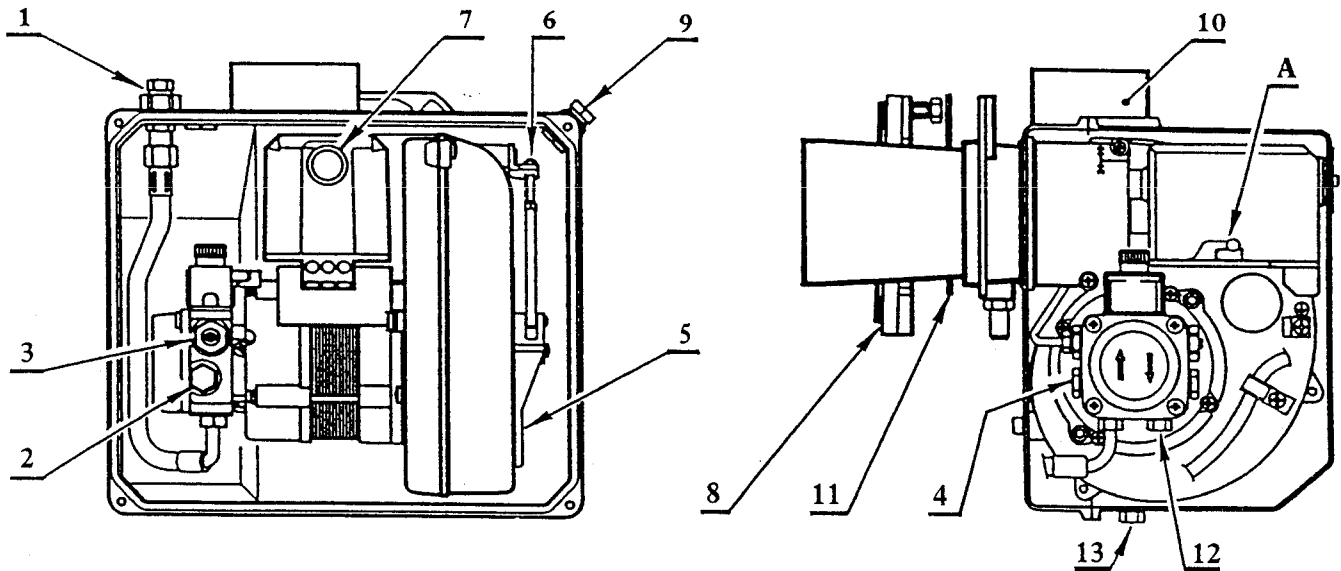


USED ON LATER MK III TRO BALANCED FLUE.

RIELLO

ROOM SEALED BALANCED FLUE TRO OIL FIRED BOILERS

RIELLO BURNER INSTRUCTIONS



- | | |
|-------------------------------|----------------------------------|
| 1 SUCTION LINE | 7 LOCK-OUT LAMP AND RESET BUTTON |
| 2 PRESSURE GAUGE CONNECTION | 8 FLANGE WITH SEALING GASKET |
| 3 PUMP PRESSURE REGULATOR | 9 CABLE GRIP |
| 4 VACUUM GAUGE CONNECTION | 10 AIR HOSE CONNECTION |
| 5 AIR-DAMPER | 11 SEALING RING |
| 6 AIR-DAMPER REGULATING SCREW | 12 RETURN LINE |
| | 13 OIL RELEASE MEMBRANE |

NOTE:
TO REMOVE THE CONTROL-BOX FROM THE BURNER, LOOSEN SCREW (A) AND PULL TOWARDS THE ARROW.

THE PHOTO-CELL IS FITTED DIRECTLY INTO THE CONTROL-BOX (UNDERNEATH THE IGNITION-TRANSFORMER) ON A PLUG-IN SUPPORT.

BURNER SETTINGS

| Boiler | Riello Burner Model | Comb. Head | Danfoss Nozzle USG/H | Pump Pressure P.S.I. | Firing Rate ml/min | Air Setting | CO ₂ % | Smoke No. | Flue Gas Temp °C |
|--------------|---------------------|------------|----------------------|----------------------|--------------------|-------------|-------------------|-----------|------------------|
| TRO 12/14 BF | G5BF | 3005775 | 0.5 x 60°S | 116 | 30 | 3.5 | 11 | 0 | 220 |
| TRO 15/19 BF | G5BF | 3006001 | 0.6 x 80°S | 116 | 41 | 3.7 | 11.5 | 0 | 230 |
| TRO 20/25 BF | G5BF | 3006001 | 0.85 x 80°S | 116 | 53 | 4.5 | 11.5 | 0 | 240 |
| TRO 28/32 BF | G5BF | 3007631 | 1.00 x 60°S | 140 | 67 | 6.5 | 11.5 | 0 | 250 |

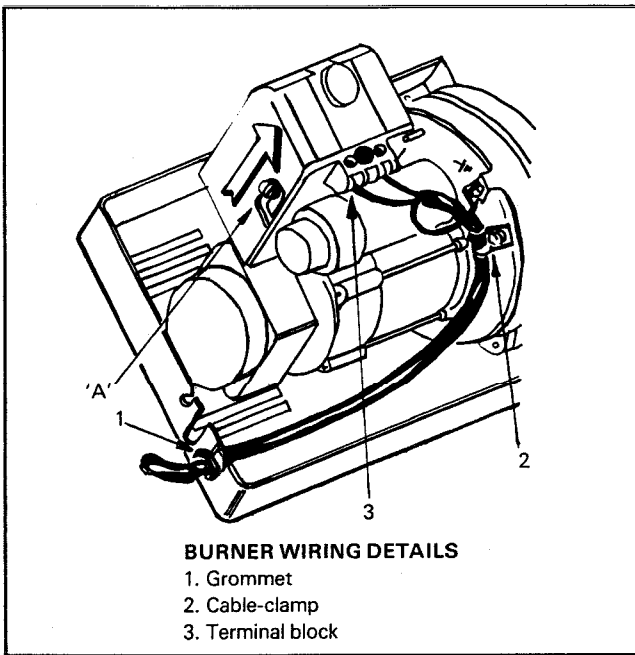
RIELLO NECTRON 10 BURNER FITTED TO TRO 37/45 50/73 73/150 130/150 170/250

| Boiler | Output | Nozzle Danfoss G.P.H. | Firing Rate ml/min | Pump Pressure Bar | Combustion Head Setting | Air Damper Setting |
|-----------|---------------------------|-----------------------|--------------------|-------------------|-------------------------|--------------------|
| TRO 37/45 | 45 kW/hr 154,000 Btu/h | 1.35 60°S | 90 | 9 | 2 | 3 |
| TRO 50/73 | 50 kW/hr 170,000 Btu/h | 1.5 60°S | 102 | 9 | 2 | 4.5 |
| TRO 50/73 | 73 kW/hr 250,000 Btu/h | 2.25 60°S | 150 | 9 | 3.5 | 4.5 |

CONTROL BOX

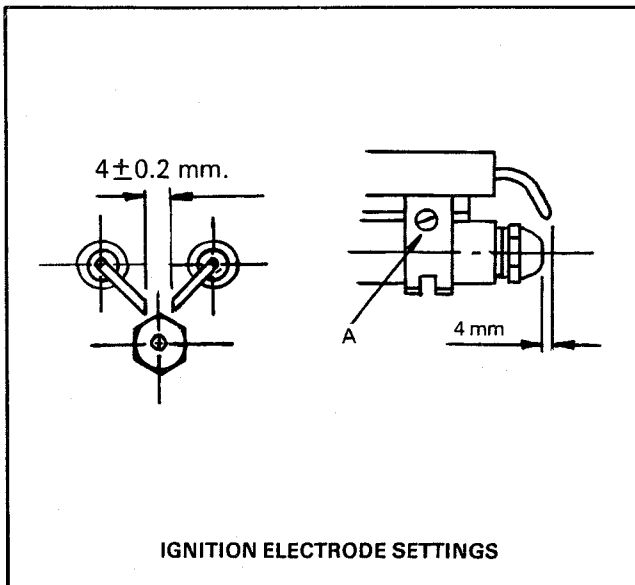
To remove from the burner loosen screw 'A' and withdraw the box in the direction of the arrow.

The photo resistor is fitted directly onto the control box, beneath the ignition transformer, to remove unclip from support.



IGNITION ELECTRODES

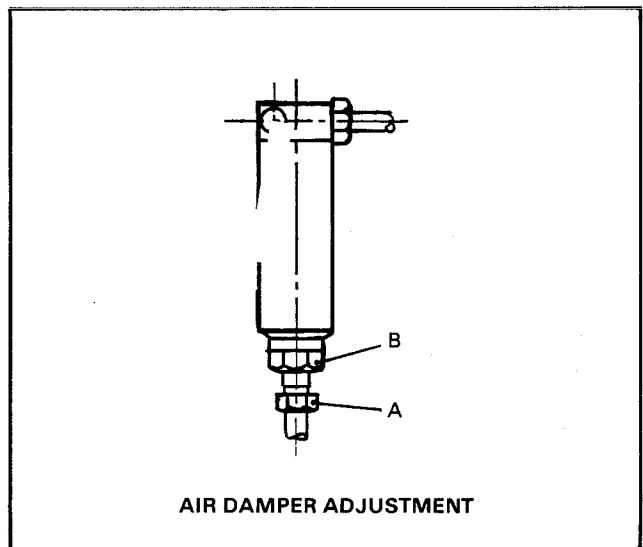
These are factory set but if adjustment is necessary remove combustion head and loosen screw 'A' on the electrode bracket and adjust as shown in diagram.



COMBUSTION DETAILS

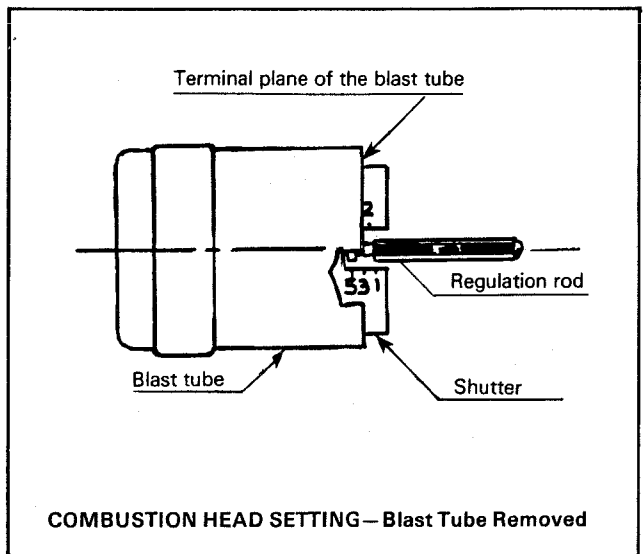
The nozzles and pump pressures are factory set to suit the output required. Adjust the air damper in accordance with the table above.

To adjust the air damper, loosen the nut (B) turn the screw (A) to the required setting and relock nut (B).



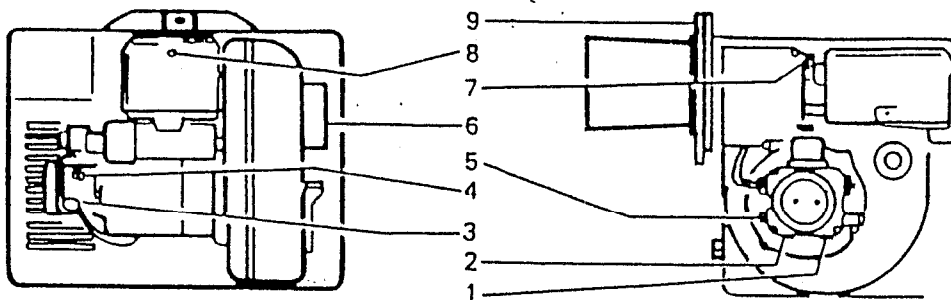
COMBUSTION HEAD SETTING— with Blast Tube Removed

These are factory set. If adjustment is required rotate the regulating rod until the terminal plane of the blast tube is level with the set point—refer to table above.



In the sketch above, the combustion head is set for an output of 2.25 GPH at 9 bar, whilst the shutter is level with set-point 3.5, as required by the table above.

Addendum-Riello Burners Fitted To TRO 12/14, 15/19, 20/25 & 28/32 BOILER HOUSE MODELS



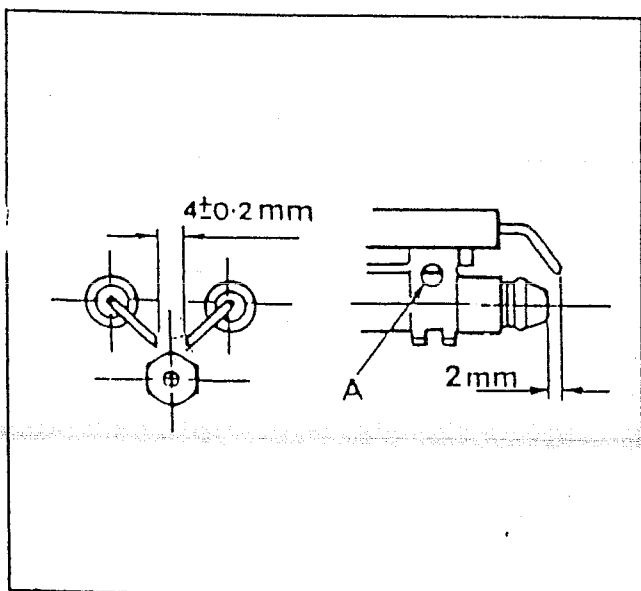
- | | | |
|---------------------------------|-----------------------------------|--------------------------------------|
| 1. Return line. | 4. Pump pressure regulator. | 7. Combustion head adjustment screw. |
| 2. Suction line. | 5. Suction gauge fixing point. | 8. Lock-out lamp and reset button. |
| 3. Pressure gauge fixing point. | 6. Hydraulic jack with air-damper | 9. Flange with gasket. |

| BOILER MODEL | RATE kW | OUTPUT BTU/HR | BURNER MODEL | BURNER HEAD | DANFOSS NOZZLE | PUMP PRESSURE p.s.i. | KEROSENE FIRING RATE ml/min |
|--------------|---------|---------------|--------------|-------------|----------------|----------------------|-----------------------------|
| TRO 12/14 | 14 | 48,000 | RIELLO RS 40 | STANDARD | 0.50 60°S | 100 | 28.7 |
| TRO 15/19 | 19 | 65,000 | RIELLO RS 40 | STANDARD | 0.60 80°H | 120 | 39.2 |
| TRO 20/25 | 25 | 85,000 | RIELLO RS 40 | TAPERED | 0.85 60°S | 115 | 52.1 |
| TRO 28/32 | 32 | 110,000 | RIELLO RS 40 | TAPERED | 1.00 60°S | 132 | 65.5 |

ELECTRODE SETTING

ATTENTION

Before mounting or removing the nozzle, loosen the screw (A) and move the electrodes ahead.



COMBUSTION ADJUSTMENT

The nozzle and pump pressure are factory set to suit output required. Adjust the air damper in accordance with the following table:

| AIR DAMPER ADJUSTMENT | | | | |
|-----------------------|-------|-------|-------|-------|
| Boiler | 12/14 | 15/19 | 20/25 | 28/32 |
| Set Point | 3.5 | 4.0 | 4.0 | 6.0 |

NOTE:

For instructions on how to adjust the air damper see the separate Riello instructions.

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Trianco Redfyre policy is one of continuous research and development. This may necessitate alterations to this specification.



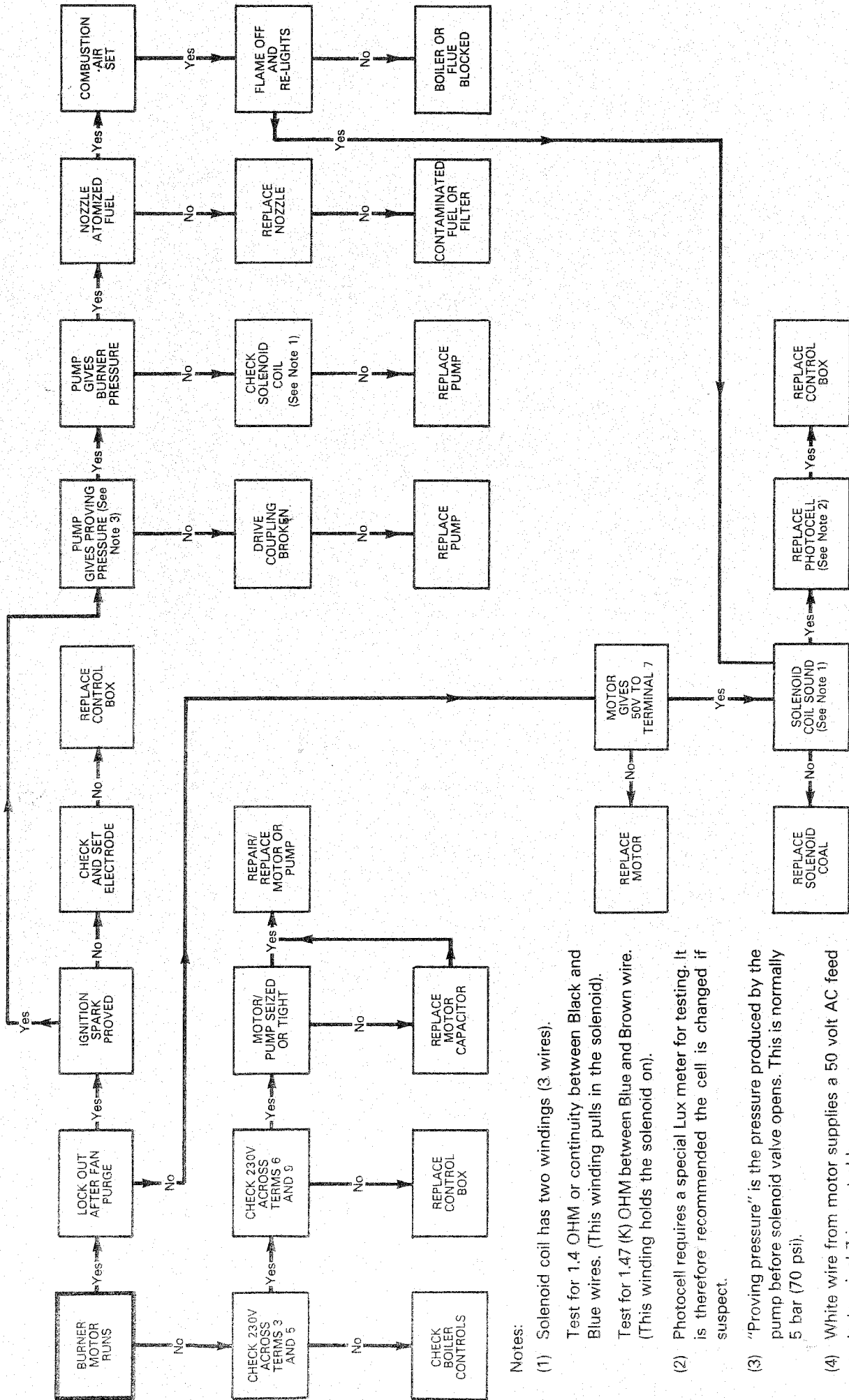
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FAULT FINDING (Cont'd)

FAULT FINDING LOGIC FOR RIELLO G5 BF OIL BURNER WITH TYPE 530 SE/A CONTROL BOX



Notes:

- (1) Solenoid coil has two windings (3. wires).
Test for 1.4 OHM or continuity between Black and Blue wires. (This winding pulls in the solenoid).
Test for 1.47 (K) OHM between Blue and Brown wire. (This winding holds the solenoid on).
- (2) Photocell requires a special Lux meter for testing. It is therefore recommended the cell is changed if suspect.
- (3) "Proving pressure" is the pressure produced by the pump before solenoid valve opens. This is normally 5 bar (70 psi).
- (4) White wire from motor supplies a 50 volt AC feed to terminal 7 in control-box.