

TRIANCO

Oil

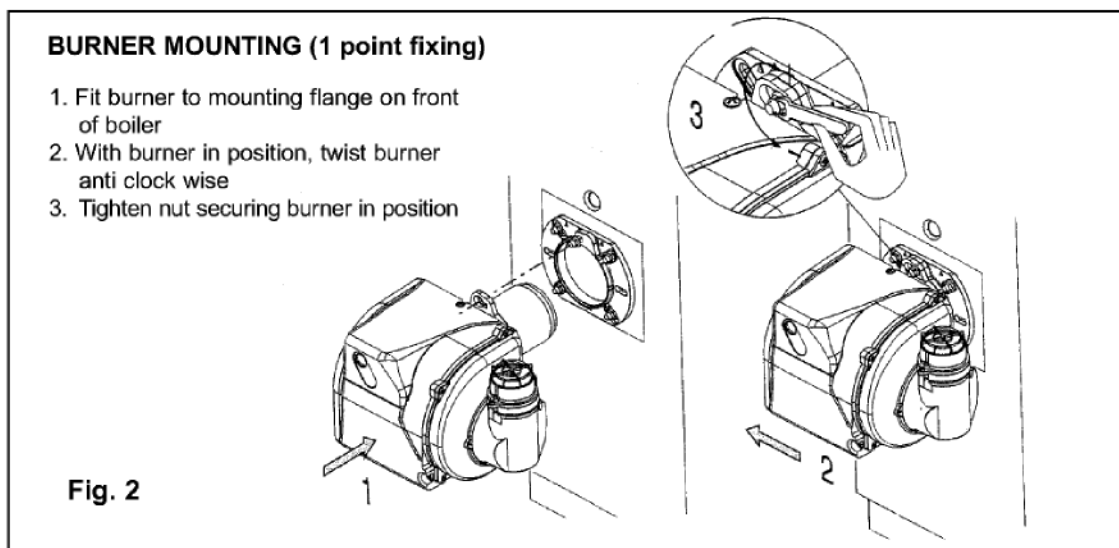
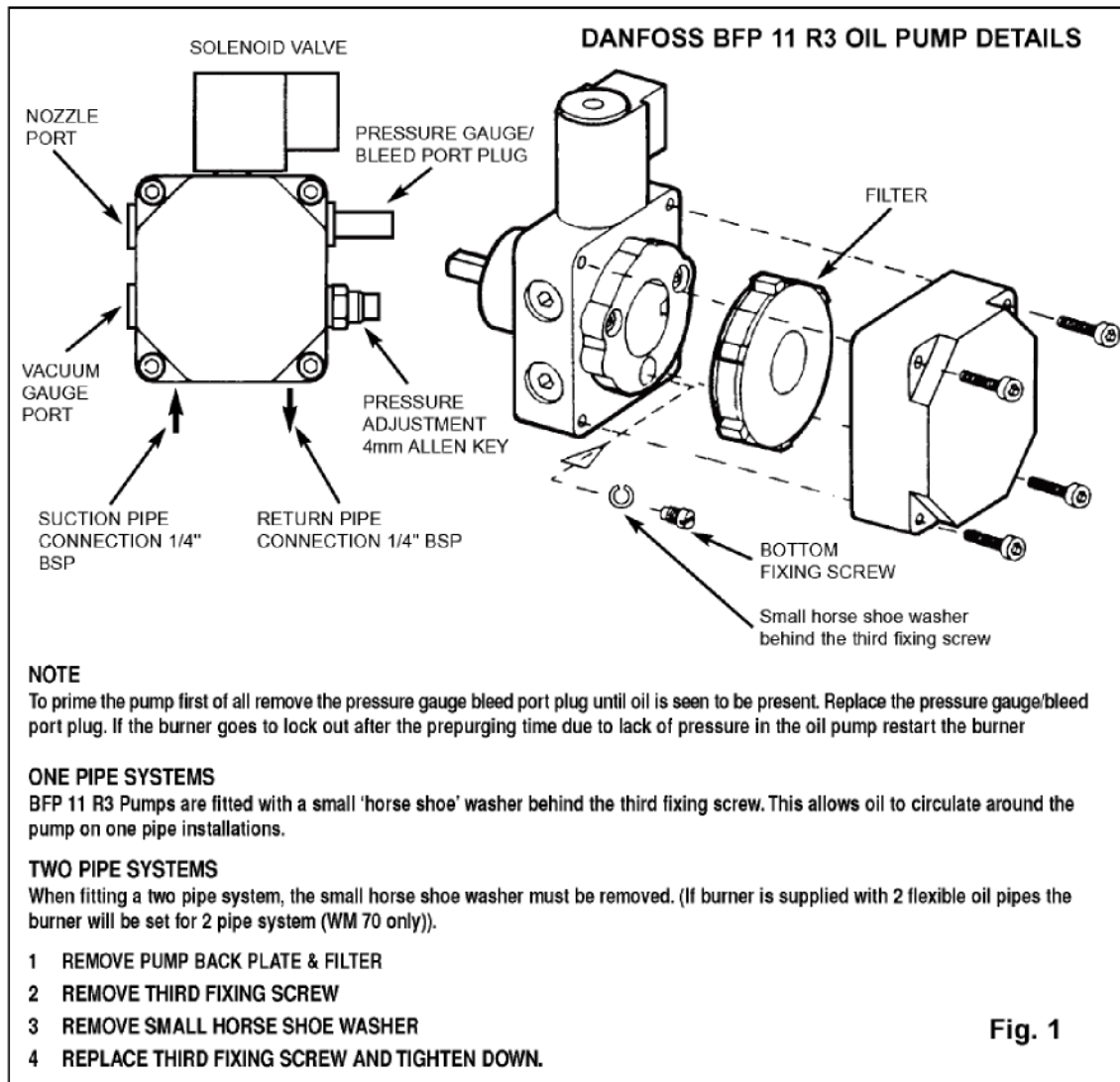
TRIANCO - OIL BURNER*BURNER DETAILS*



**CONTRACTOR
WM70 HE**

To be retained by householder

PRIMING AND ADJUSTMENT OF THE PUMP



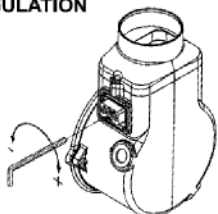
TECHNICAL DATA

Model		Max
Voltage single phase 50Hz	V	230
Motor	W	75W
Ignition Transformer	kV/mA	15/40
Control Box	Satronic	TF 830.3
Fuel: kerosene	Mj/kg	43.3

Note: remove top two baffles when downrating to 50,000 BTU/h. Boiler factory-set at 60,000 BTU/h

Model	Input	Output (non condensing)	Output (condensing)	Nozzle	Pump Pressure	CO ₂ (%)
50,000	52,247 BTUs	50,000 BTUs	50,784 BTUs	0.45 x 80°EH	115 psi	11.5
60,000	62,781 BTUs	60,051 BTUs	61,075 BTUs	0.50 x 80°EH	115 psi	11.5
70,000	74,723 BTUs	70,970 BTUs	72,676 BTUs	0.50 x 80°EH	145 psi	11.5

AIR REGULATION



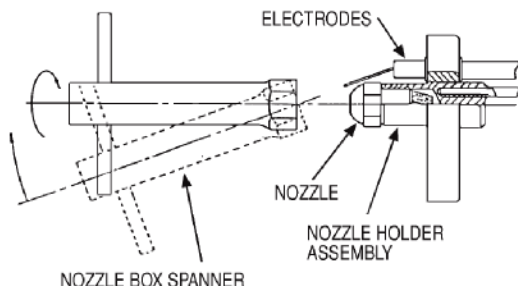
Air Adjustments

To adjust the air, use the allen key provided. Turn the air adjustment screw to + or – setting. The number will be indicated in the display window.

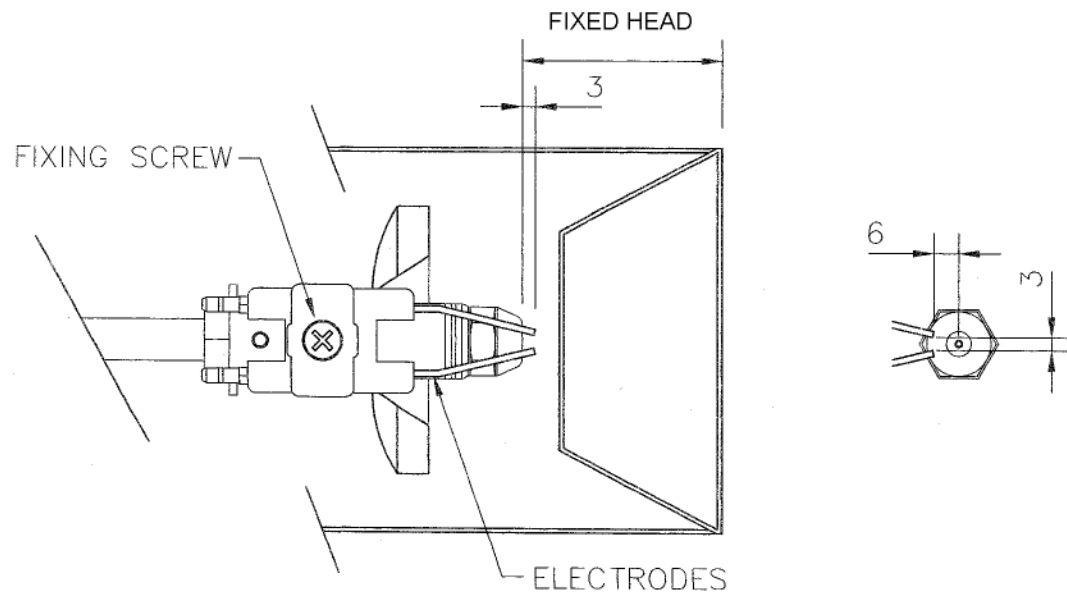
NOZZLE REPLACEMENT

1. Switch off electrical supply to the boiler and turn off oil.
2. Remove burner plug from boiler control box.
3. Undo fixing nuts and remove burner.
4. Remove blast tube from burner, exposing the nozzle holder assembly.
5. Loosen the electrode assembly and remove the flame ring.
6. Taking care not to damage the electrodes, remove the nozzle.
7. Fit a new nozzle of the same specification, ensuring the same level of care.
8. Replace the flame ring in the same position, check position of electrodes and tighten.
9. Refit the blast tube.

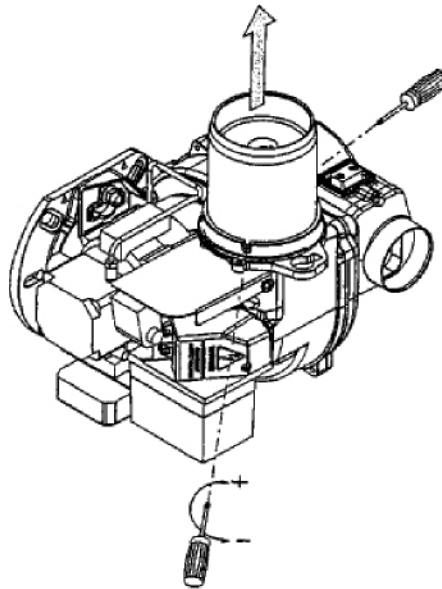
IMPORTANT: BURNER NOZZLES ARE ONLY GUARANTEED UP TO THE FIRST SERVICE.



COMBUSTION HEAD SETTINGS



BLAST TUBE REMOVAL



BURNER FAULT-FINDING

ELECTRICAL SAFETY - before making any electrical checks, switch off the mains supply to the boiler

FAULT	POSSIBLE CAUSE	ACTION
BURNER WILL NOT START	Control box locked out	Press orange reset button on front of burner. NB: ONLY TRY TWICE
	High limit stat tripped	Press red reset button (under control panel) and check function of boiler stat
	System controls satisfied	Ensure all controls are calling for heat
	Fuse blown	Fit new fuse (5A). If problem persists, check for short circuit in wiring
	Motor or pump seized	Check for rotation, replace as necessary
BURNER STARTS BUT FLAME NOT ESTABLISHED	No oil supply	Check oil level in tank, check oil supply for adequate flow
	Photocell not seeing flame	Clean photocell, ensure it is fully inserted
	Air trapped in pump	Bleed excess air via tapping on oil pump
	Solenoid valve faulty	Check coil for continuity, replace as necessary
	Nozzle blocked	Replace nozzle with one of same specification (see burner leaflet)
	Electrodes incorrectly set	Reset gap and position to settings shown in burner leaflet
	Electrode insulator cracked	Replace as necessary
	Ignition transformer or leads faulty	Check for spark, check condition of HT leads, replace as necessary
	Low oil pressure	Check pump pressure and adjust to settings shown in burner leaflet
FLAME ESTABLISHED BUT BURNER LOCKS OUT AFTER A FEW SECONDS	Oil contaminated with water	Run off oil at burner until free of water and drain condensation from tank
	Oil filter partially blocked	Wash filter clean with kerosene
	Photocell faulty	Clean photocell, ensure it is fully inserted, check for damage. Replace as necessary
	Low oil pressure	Check pump pressure and adjust to settings shown in burner leaflet

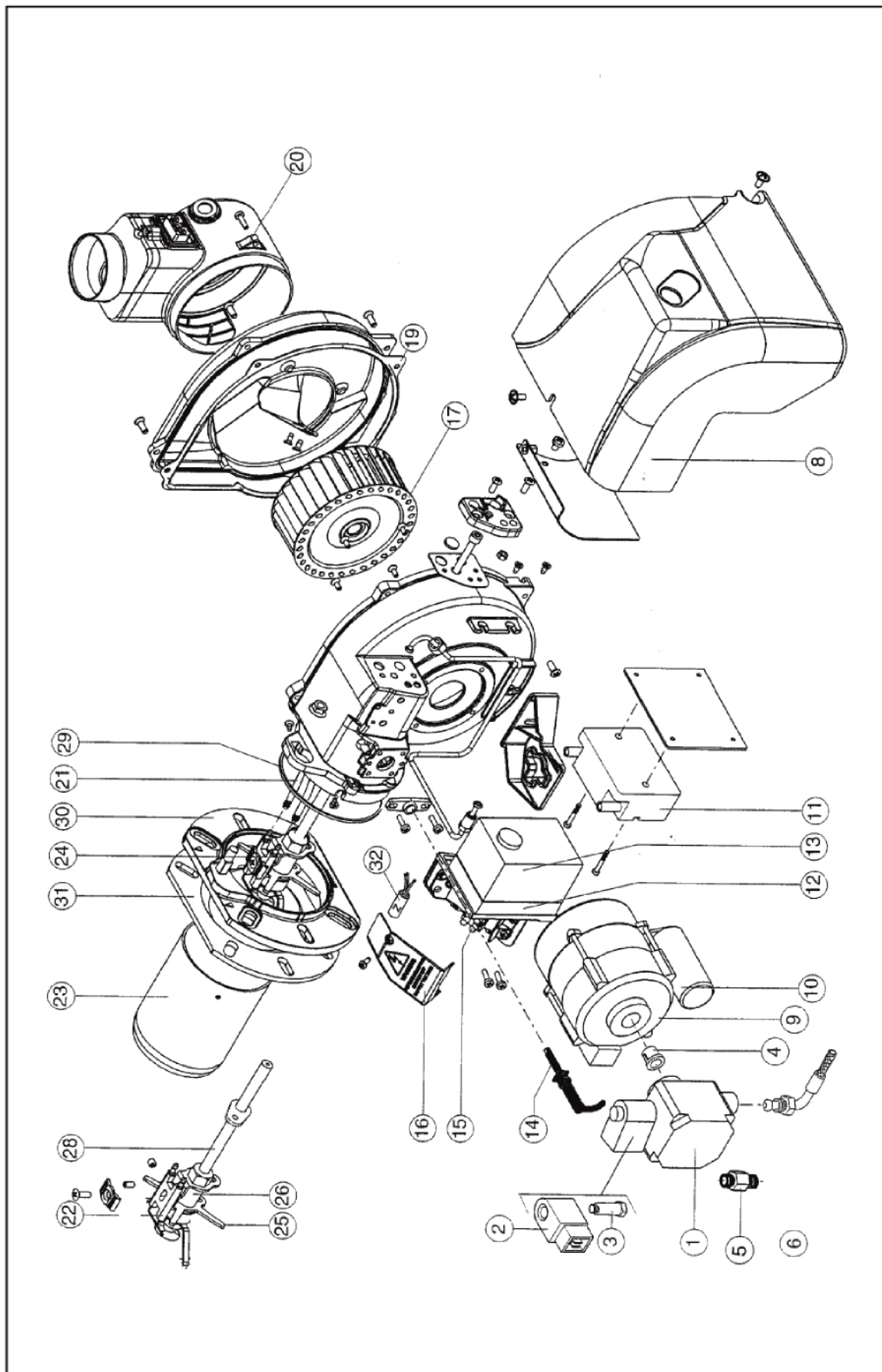
BURNER FAULT-FINDING (cont.)

ELECTRICAL SAFETY - before making any electrical checks, switch off the mains supply to the boiler

FAULT	POSSIBLE CAUSE	ACTION
MORNING START LOCKOUT	Faulty non-return valve or air leak in two-pipe system	Replace non-return valve, cure leak
	Low voltage to appliance	Check with local electricity board
	Combustion settings incorrect	Check combustion under normal running conditions, check against settings shown in burner leaflet
	Oil level in tank falling below burner	Raise tank or fir two-pipe system
DELAYED IGNITION (BURNER PULSATES ON STARTUP)	Nozzle partially blocked	Replace nozzle with one of same specification (see burner leaflet)
	Low oil pressure	Check pump pressure and adjust to settings shown in burner leaflet
	Flue blocked or damaged	Check flue and rectify/replace as necessary
	Fan slipping on shaft	Check fan and retighten/replace as necessary
	Pump coupling loose or worn	Check fan and rectify/replace as necessary
BURNER STARTS VIOLENTLY	Delayed ignition	Reset electrode gap and position to settings shown in burner leaflet
		Check electrodes for damage, replace as necessary
		Check condition of HT leads, replace as necessary
BURNER REPEATEDLY ATTEMPTS TO FIRE (balanced flue only)	Exhaust gas in combustion air	Remove air hose from boiler end of flue, leaving burner end in place. If burner starts normally, check flue for breakdown of seals and repair/replace as necessary If indeterminate, leaving hose attached, pierce a small hole in air hose and use flue gas analyser to check for carbon dioxide. If more than trace elements present, check flue for breakdown of seals and repair/replace as necessary
COMBUSTION FUMES SMELL	Baffle access cover not secure	Tighten wing nuts, securing door in position
	Baffle access cover seal damaged	Replace seal as necessary
	Burner incorrectly fitted, or fixing gasket damaged	Check burner fixing gasket, replace as necessary. Tighten burner mounting nuts
	Flue gasket damaged	Check gasket, replace as necessary. Tighten flue mounting nuts

BURNER SPARES

Description	Part No.
FULL BURNER ASSEMBLY	224390
1 – OIL PUMP DANFOSS BFP 11 R3	221329
2 – COIL	203082
3 – OIL VALVE	221303
4 – COUPLING	221304
5 – NIPPLE	221305
6 – FLEXIBLE OIL LINE	207019
8 – COVER	223153
9 – MOTOR AEG 75W	221340
10 – CAPACITOR	223122
11 – IGNITION TRANSFORMER	203053
12 – CONTROL BOX BASE	207628
13 – CONTROL BOX SATRONIC TF 830.3	29064
14 – PHOTOCCELL SATRONIC	223168
15 – WIRING TERMINAL BLOCK	223154
16 – PROTECTION BOX	223155
17 – FAN	223156
18 – FAN SCOOP	223157
19 – GASKET	223158
20 – AIR INLET MANIFOLD	223159
21 – IGNITION CABLES	223160
22 – ELECTRODES	221322
23 – BLAST TUBE	223539
24 – FIRING HEAD	223124
25 – NOZZLE HOLDER SUPPORT	223125
26 – NOZZLE HOLDER	223126
28 – ROD	223127
29 – 'O'-RING SEAL	223128
30 – MOUNTING FLANGE	223151
31 – MOUNTING GASKET	223152
33 – NOZZLE 0.45 x 80°EH	-
33 – NOZZLE 0.60 x 80°EH	-





TRIANCO

TR ENGINEERING LTD
Thorncliffe, Chapeltown
Sheffield S35 2PH
Tel: (0114) 257 2300
Fax: (0114) 257 1419
www.trianco.co.uk

© TR Engineering Ltd. Copyright in this brochure and the drawings or illustrations contained within are vested in TR Engineering Ltd and neither the brochure or any part thereof may be reproduced without prior written consent.