

TRIANCO

Oil

TRIANCO - OIL BURNER

BURNER DETAILS



EuroStar Range

To be retained by householder

TECHNICAL DATA

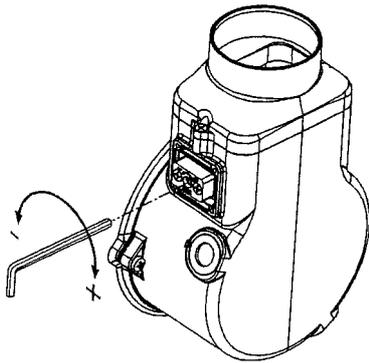
NOZZLE OUTPUT

MODEL	Output	Burner Model	Nozzle	Pump pressure	CO ₂ (%)
EUROSTAR UTILITY	50/65	Max 4	0.6 x 80°EH	7.5 bar (110 p.s.i.)	11.5
	70/90	Max 4	0.85 x 80°EH	7.5 bar (110 p.s.i.)	11.5
	100/125	Max 4	1.1 x 80°EH	8 bar (115 p.s.i.)	11.5
	130/150	Max 8	1.25 x 60°S	9.8 bar (140 p.s.i.)	11.5
	160/180	Max 8	1.5 x 60°S	9.8 bar (140 p.s.i.)	11.3
	190/240	Max 12	2.25 x 60°S	6.8 bar (100 p.s.i.)	12.3
EUROSTAR R 2000	50/65	Max 4	0.6 x 80°EH	7.5 bar (110psi)	11.5
	70/90	Max 4	0.85 x 80°EH	7.5 bar (110psi)	11.5
EUROSTAR TRADER	50/90*	Max 4	0.85 x 80°EH	7.5 bar (110 p.s.i.)	11.5
	100/125	Max 4	1.1 x 80°EH	8 bar (115 p.s.i.)	11.5
EUROSTAR EXTERNAL	50/90*	Max 4	0.85 x 80°EH	7.5 bar (110 p.s.i.)	11.5
	95/115	Max 4	1.1 x 80°EH	6.8 bar (100 p.s.i.)	11.6
EUROSTAR WM	50/70	Minor 1	0.6 x 80°EH	7.5 bar (110 p.s.i.)	11.0
T.T.W	50/65	Max 4	0.6 x 80°EH	7.5 bar (110 p.s.i.)	11.5
EUROSTAR COMBI	50/65	Max 1	0.6 x 80°EH	7.5 bar (110 p.s.i.)	11.5
	70/90	Max 4	0.85 x 80°EH	7.5 bar (110 p.s.i.)	11.5
E-STAR SYSTEM	50/90*	Max 4	0.85 x 80°EH	7.5 bar (110 p.s.i.)	11.5
* To convert to lower outputs follow instructions shown below					

Instructions for converting burners to lower outputs*

To convert burners to lower outputs the nozzle and pump pressure must be changed. For output 50000 Btu's the burner head and backplate must also be changed (see below), in addition the top baffle **must** be removed .

AIR REGULATION

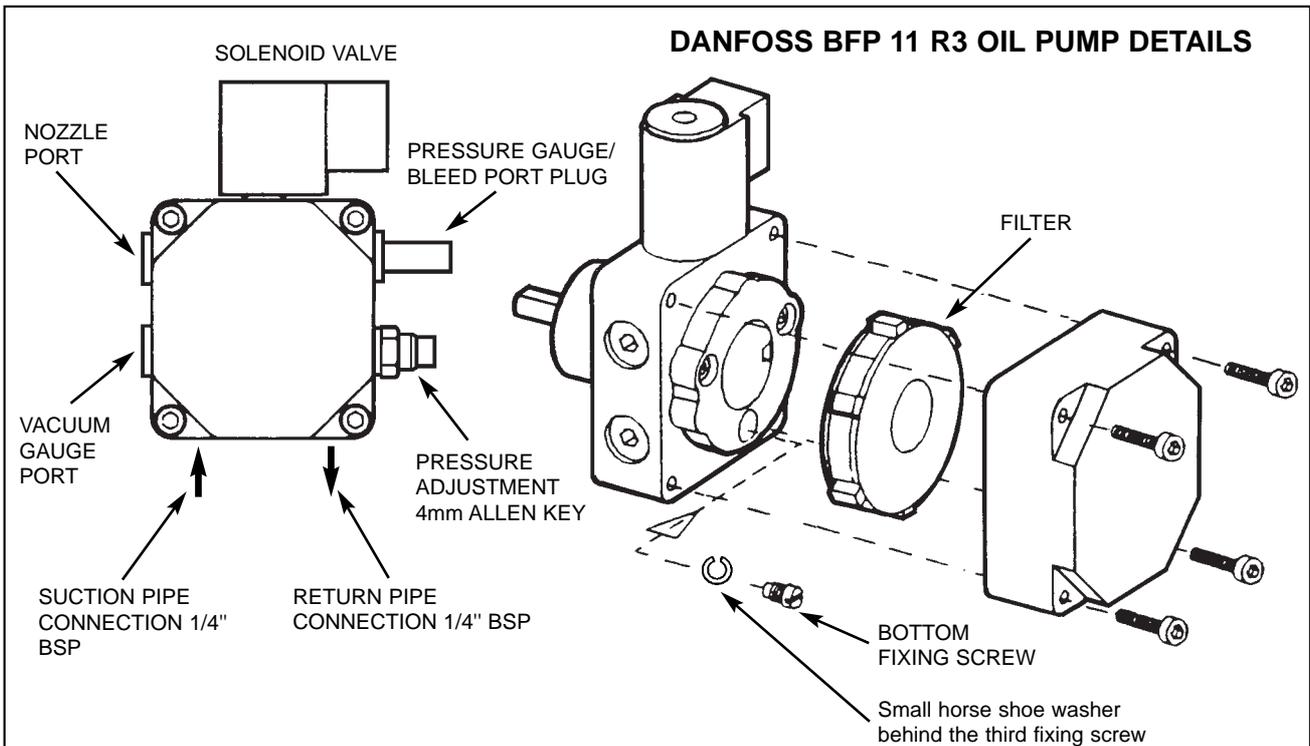


Air Adjustments

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.

On TTW 50/65 air adjustment is made by turning the collar on the top of air intake manifold to required setting.

PRIMING AND ADJUSTMENT OF THE PUMP



NOTE

To prime the pump first of all remove the pressure gauge bleed port plug until oil is seen to be present. Replace the pressure gauge/bleed port plug. If the burner goes to lock out after the prepurging time due to lack of pressure in the oil pump restart the burner

ONE PIPE SYSTEMS

BFP 11 R3 Pumps are fitted with a small 'horse shoe' washer behind the third fixing screw. This allows oil to circulate around the pump on one pipe installations.

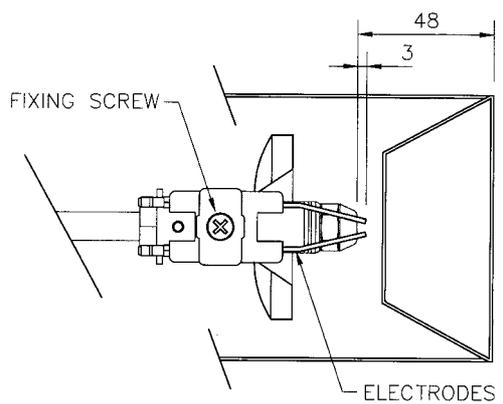
TWO PIPE SYSTEMS

When fitting a two pipe system, the small horse shoe washer must be removed. (If burner is supplied with 2 flexible oil pipes the burner will be set for 2 pipe system (WM 70 only)).

- 1 REMOVE PUMP BACK PLATE & FILTER
- 2 REMOVE THIRD FIXING SCREW
- 3 REMOVE SMALL HORSE SHOE WASHER
- 4 REPLACE THIRD FIXING SCREW AND TIGHTEN DOWN.

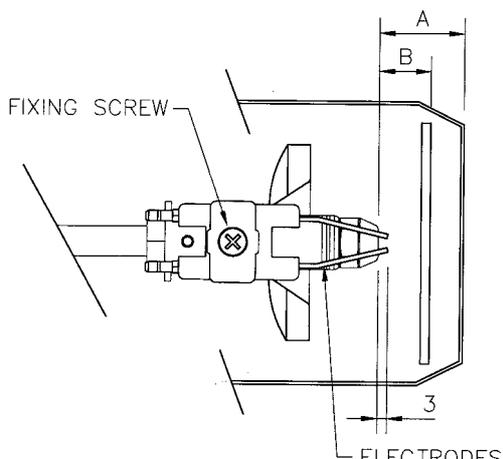
Fig. 1

COMBUSTION HEAD SETTINGS



Eurostar 50/65, 70/90, 100/125, WM 70, Ext 115 & TTW 50/65, Trader 50/90 & External 50/90, System 50/90

1 | **FIXED HEAD**



Eurostar 130/150, 160/180 and 190/240

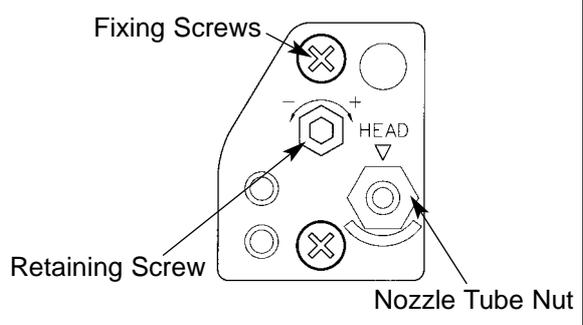
Boiler Type	Dim A	Dim B
130/150	19	10
160/180	23	10
190/240	34	10

ADJUSTABLE HEAD

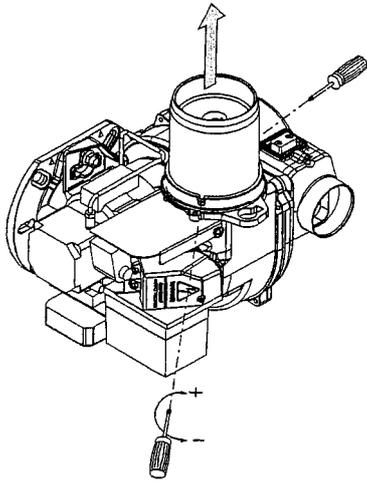
ELECTRODE REMOVAL MAX 4

Isolate the mains power supply to the boiler. Turn off the oil supply and remove the burner cover. On the back of the burner is the head fixing plate, remove the nut from the end of the nozzle tube and then remove the 2 fixing screws and the retaining screw. Remove the blast tube from the burner this will allow the inner nozzle assembly to be pulled forward to give access to the electrode assembly. Disconnect the ignition cables remove electrode fixing screw and replace electrodes. Before re assembly set the electrode position, refer to Combustion Head Settings. Reassemble in reverse order, recheck electrode position before fixing the burner back in to the boiler.

HEAD FIXING PLATE



Blast Tube Removal



BURNER MOUNTING (1 point fixing) MAX BURNER

1. Fit burner to mounting flange on front of boiler
2. With burner in position, twist burner anti clock wise
3. Tighten nut securing burner in position

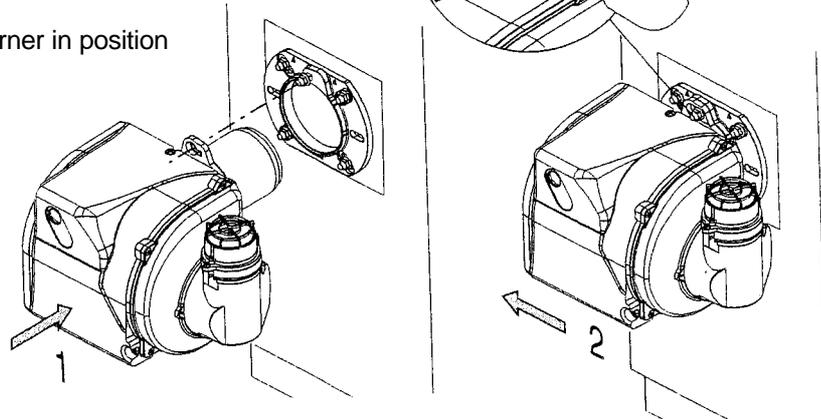


Fig. 2

NOZZLE REPLACEMENT

- 1 Switch off electrical supply to boiler and turn off oil
- 3 Remove burner plug from control box.
- 3 Burner can now be removed from boiler
- 4 Remove blast tube from burner exposing nozzle holder assembly.
- 5 The nozzle can now be carefully removed taking great care not to damage the electrodes. (see Fig. 3)
- 6 Fit a new nozzle of the same specification taking the same care.
- 7 Check the position of the electrodes after replacing the nozzle to ensure they have not moved.
- 8 Refit the blast tube to the burner.

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

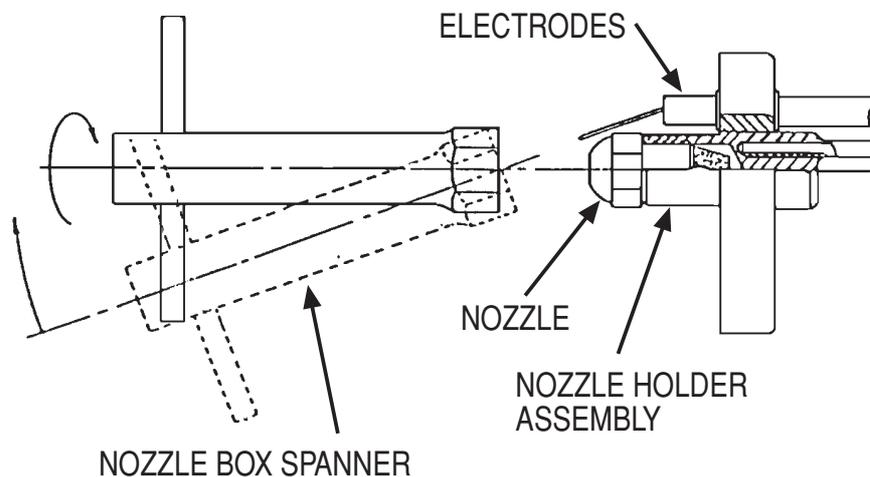


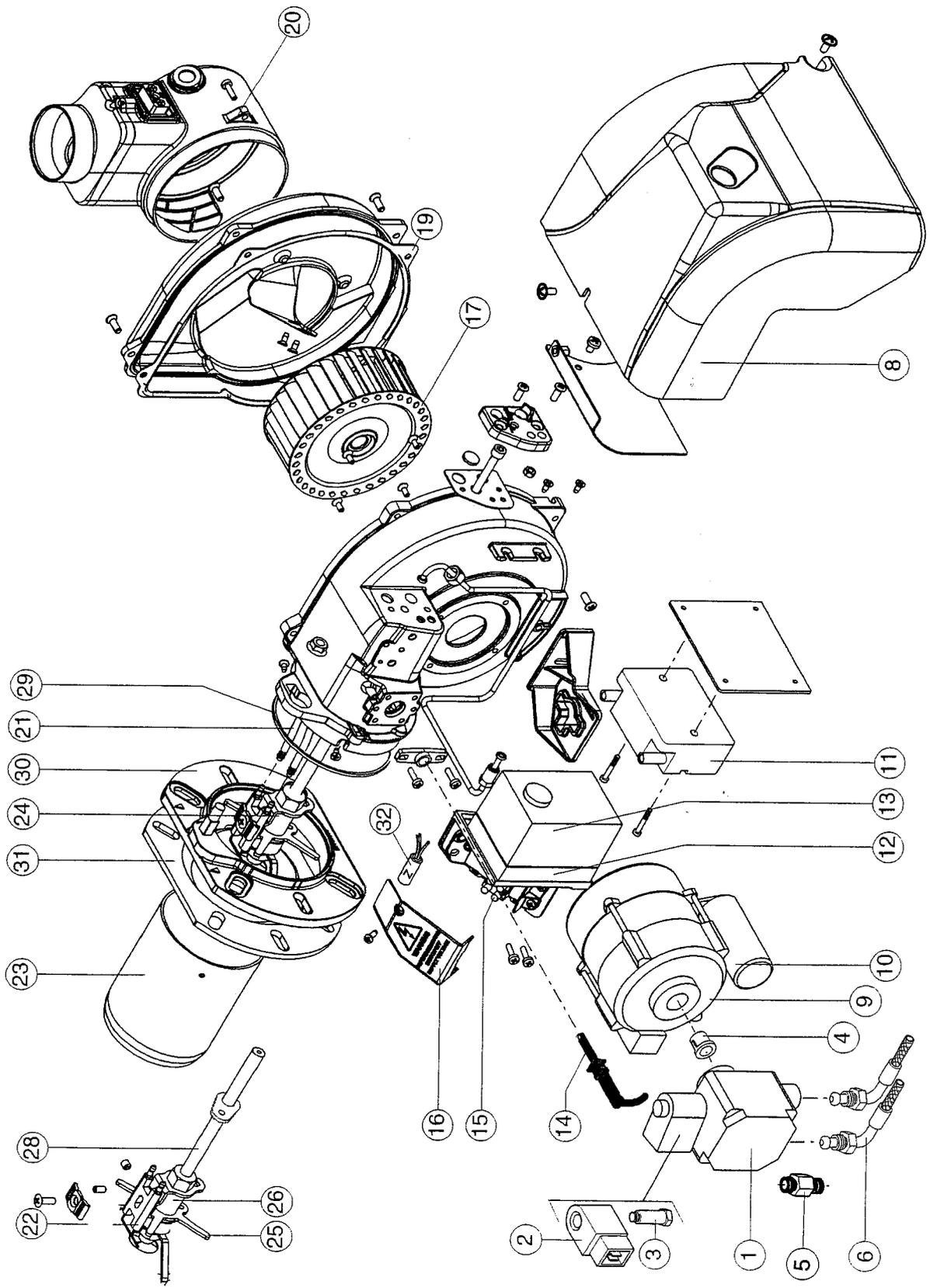
Fig. 3

FAULT FINDING

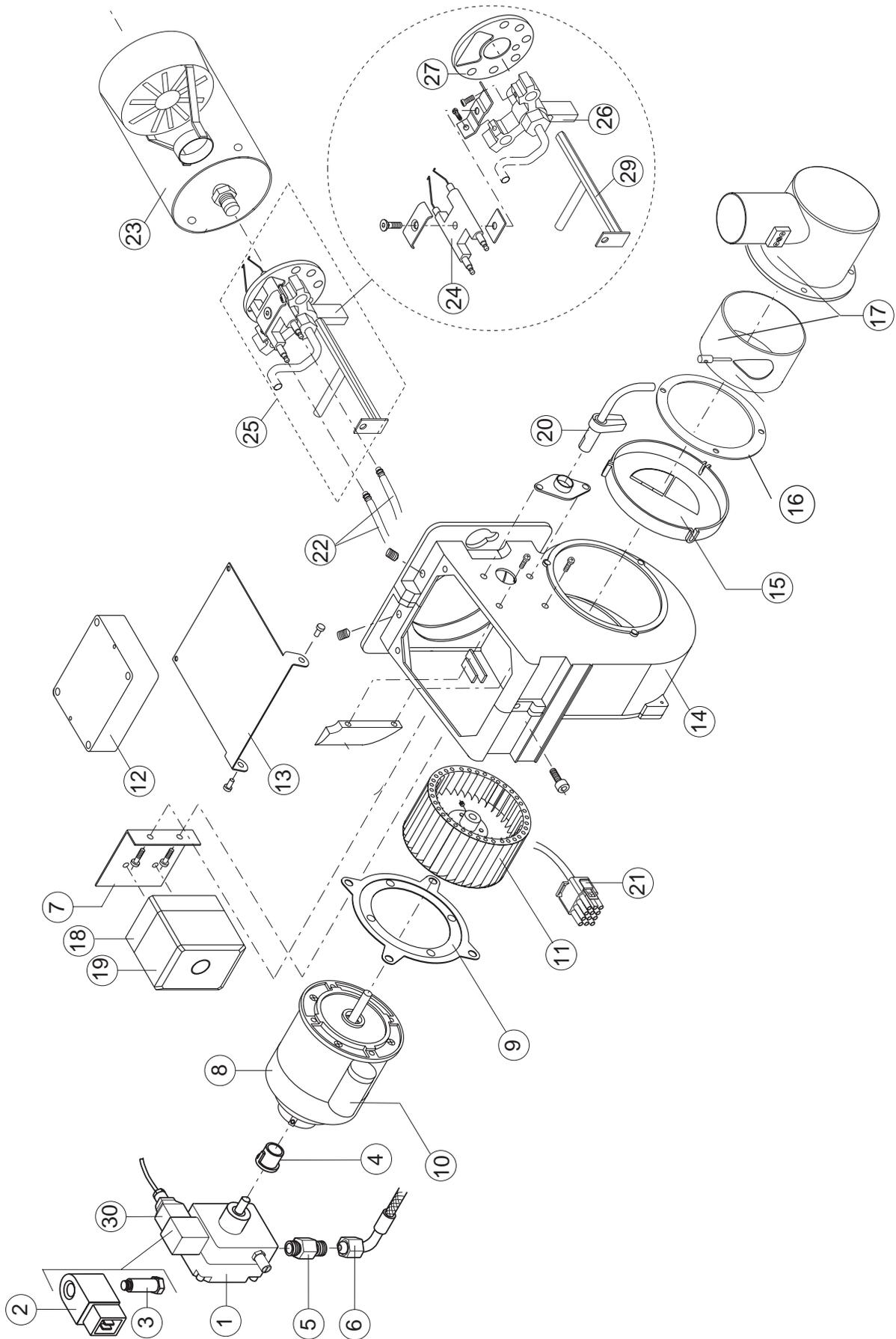
ELECTRICITY SAFETY - Before making any electrical checks, switch off mains supply to boiler.

FAULT	POSSIBLE CAUSE	ACTION
BURNER WILL NOT START	Control box locked out - Light on	Press reset button on front of burner. N.B. ONLY TRY TWICE
	Boiler thermostat or other system controls satisfied	Ensure all controls are calling for heat.
	Fuse blown	Fit new 5 amp fuse, if it blows again, check for short circuit in wiring.
	Check for live supply continuity up to burner	If live supply confirmed, change control box
	Motor or pump seized	Check for rotation and replace as necessary.
BURNER STARTS BUT FLAME NOT ESTABLISHED	No oil supply	Check oil level in tank and feed to burner.
	Photo-cell not seeing flame	Clean photo-cell and ensure it is fully plugged in.
	Air trapped in pump	Bleed off air through pressure gauge tapping.
	Solenoid valve faulty	Check coil for continuity and replace if faulty.
	Nozzle blocked	Replace nozzle with one of same specification.
	Electrodes incorrectly set	Reset gap and position electrodes as shown in Burner diagram.
	Electrode insulator cracked	Check and replace if insulator cracked or crazed.
	Ignition transformer and H.T. contacts	Check for spark and condition of HT contacts. Replace as necessary.
Low oil pressure	Check pump pressure and adjust to correct setting.	
FLAME ESTABLISHED BUT BURNER LOCKS OUT AFTER 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.
	Photo-cell fault	Clean photo-cell and ensure it is fully plugged in. Replace if faulty.
	Oil pressure low	Check pump pressure and adjust to correct setting.

FAULT	POSSIBLE CAUSE	ACTION
MORNING START LOCK-OUT	Faulty non-return valve or air leak in two pipe system	Replace non-return valve and cure leak.
	Low voltage	Check with local Electricity Board.
	Combustion readings incorrect	Check combustion under normal running conditions and compare readings with those given under 'Burner Settings'.
	Oil level in tank falling below burner	Raise tank or fit a 2-pipe system.
DELAYED IGNITION - BURNER PULSATES ON START UP	Nozzle partially blocked	Replace nozzle
	Oil pressure too low	Check and recommission
	Flue blocked or damaged	Check and rectify
	Fan slipping on shaft	Check and retighten
	Pump coupling loose or worn	Check and replace
BURNER STARTS VIOLENTLY	Delayed ignition	Check electrode setting and adjust to correct gap Check electrodes for damage Check H.T. leads for damage and positive connection Check pump pressure
IGNITION CYCLES ON AND OFF WHILST MOTOR RUNS	Seals on balanced flue kit not sealing	Check flue system seals - replace if necessary



DESCRIPTION	MAX 4 50/65	MAX 4 70/90	MAX 4 100/125	MAX 4 100/115	MAX 4 TTW	MAX 8 130/150	MAX 8 160/180	MAX 12 190/240
1 - OIL PUMP	221329	221329	221329	221329	221329	221329	221329	221329
2 - COIL	203082	203082	203082	203082	203082	203082	203082	203082
3 - OIL VALVE	221303	221303	221303	221303	221303	221303	221303	221303
4 - COUPLING	221304	221304	221304	221304	221304	221304	221304	221304
5 - NIPPLE	221305	221305	221305	221305	221305	221305	221305	221305
6 - FLEXIBLE OIL PIPE	207019	207019	207019	207019	207019	207019	207019	207019
8 - COVER	223153	223153	223153	223153	223153	223153	223153	223153
9 - MOTOR	221340	221340	221340	221340	221340	221340	221340	221381
10 - CAPACITOR	223122	223122	223122	223122	223122	223122	223122	223122
11 - IGNITION TRANSFORMER	203053	203053	203053	203053	203053	203053	203053	203053
12 - CONTROL BOX BASE	207628	207628	207628	207628	207628	207628	207628	207628
13 - CONTROL BOX	29064	29064	29064	29064	29064	29064	29064	29064
14 - PHOTORESISTOR	223168	223168	223168	223168	223168	223168	223168	223168
15 - WIRING TERMINAL BLOCK	223154	223154	223154	223154	223154	223154	223154	223154
16 - PROTECTION BOX	223155	223155	223155	223155	223155	223155	223155	223155
17 - FAN	223156	223156	223156	223156	223156	223156	223156	223156
18 - FAN SCOOP	-	-	223157	223157	223157	-	223157	223157
20 - AIR INLET MANIFOLD	223159	223159	223159	223159	223434	223159	223436	223436
21 - IGNITION CABLES	221319	221319	221319	221319	221319	221319	221319	221319
22 - ELECTRODES	221322	221322	221322	221322	221322	221322	221322	221322
23 - BLAST TUBE	221321	221352	221352	221352	221321	221385	221385	221412
24 - FIRING HEAD	223124	223124	223124	223124	223124	223124	223124	223124
25 - NOZZLE HOLDER SUPPORT	223125	223125	223125	223125	223125	223125	223125	223125
26 - NOZZLE HOLDER	223126	223126	223126	223126	223126	223126	223126	223126
28 - ROD	223127	223127	223127	223127	223127	223438	223438	223438
29 - O RING SEAL	223128	223128	223128	223128	223128	223128	223128	223128
30 - FLANGE	223151	223151	223151	223151	223151	223151	223151	223151
31 - GASKET	223152	223152	223152	223152	223152	223152	223152	223152
NOZZLE	26213	221356	221357	221357	26213	26857	208694	221414



MINOR 1 EuroStar 50/70 Wall Mounted (Two Pipe System)

No. DESCRIPTION 50/70 Wall Code 221320	MINOR 1 EuroStar
1 - OIL PUMP DANFOSS BFP11 R3	221329
2 - COIL DANFOSS	203082
3 - OIL VALVE DANFOSS	221303
4 - COUPLING	221304
5 - NIPPLE	207050
6 - HOSES	207019
7 - SUPPORT	221306
8 - MOTOR 70W SIMEL	221307
9 - SUPPORT (Recessed Flange)	221308
10 - CAPACITOR 3.5uF	221309
11 - FAN ø 99x43mm	221311
12 - IGNITION TRANSFORMER DANFOSS	203053
13 - COVER	221310
14 - FAN HOUSING	221313
15 - AIR CONVEYOR	221315
16 - GASKET	221316
17 - AIR INLET ASSEMBLY	221317
18 - CONTROL BOX BASE SATRONIC TF 830.3	207628
19 - CONTROL BOX SATRONIC TF 830.3	29064
20 - PHOTORESISTOR SATRONIC	221318
21 - PLUG and LEAD	207625
22 - IGNITOR LEADS TC	221319
23 - BLAST TUBE TC	221321
24 - ELECTRODES	221322
25 - FIRING HEAD ASS/Y TC	221323
26 - NOZZLE HOLDER TC	221324
27 - REAR DISC	221325
28 - NOZZLE	26213
29 - ROD TC	221326
30 - CABLE DANFOSS	221328



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