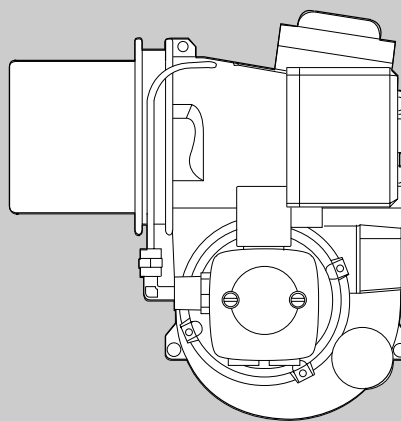


OIL BURNERS



MODEL



MINOR 1 LOW OUTPUT

240 Volt 50 Hz



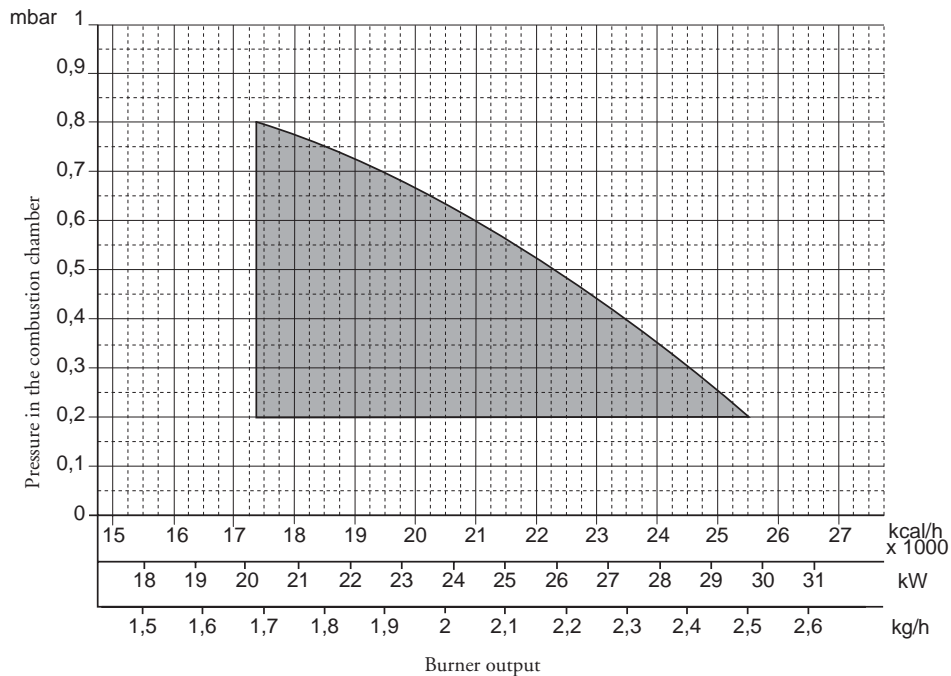
LB 200

10.03.2004

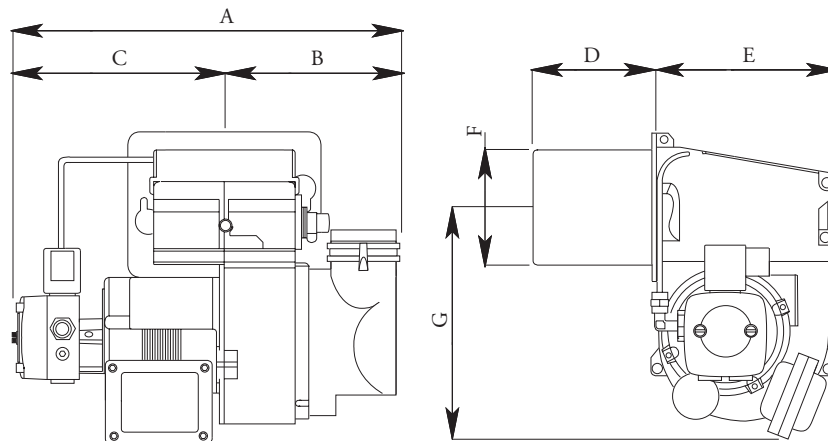
TECHNICAL DATA

| MODEL | | MINOR 1 |
|----------------------------|-----------|---------------------------------------|
| Thermal power max | kcal/h | 25500 |
| | kW | 29,6 |
| Thermal power min | kcal/h | 17300 |
| | kW | 20 |
| Max capacity light oil | kg/h | 2,5 |
| Min capacity light oil | kg/h | 1,7 |
| Voltage single phase 50 Hz | Volt | 240 |
| Motor | W | 75 |
| Capacitor | µF | 3,5 |
| Rpm | N° | 2800 |
| Inition transformer | kV/mA | 8/20 |
| Control box | LANDIS | LOA 24 |
| Fuel : | Light oil | kcal/kg 10.200 Visc.max.1,5°E at 20°C |

WORKING FIELD



OVERALL DIMENSIONS

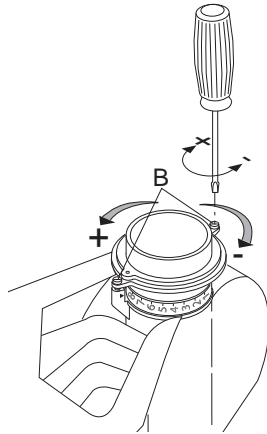


| MODEL | A | B | C | D | E | F | G | H | M |
|---------|-----|-----|-----|----|-----|----|-----|-----|----|
| MINOR 1 | 309 | 149 | 160 | 54 | 165 | 89 | 160 | 125 | M8 |

BURNER START - UP

Make sure there are no leaks on flexible oil line connections. Bleed air from the pump (see page 4). Install a suitable nozzle for the required output. Turn the thermostat to the required setting. The burner will purge for approximately 13 seconds. At this point the oil valve opens and oil is ignited. Regulate the pump pressure (see page 4). Regulate the air. In case of no ignition the burner goes to lock-out in 10 seconds.

AIR REGULATION

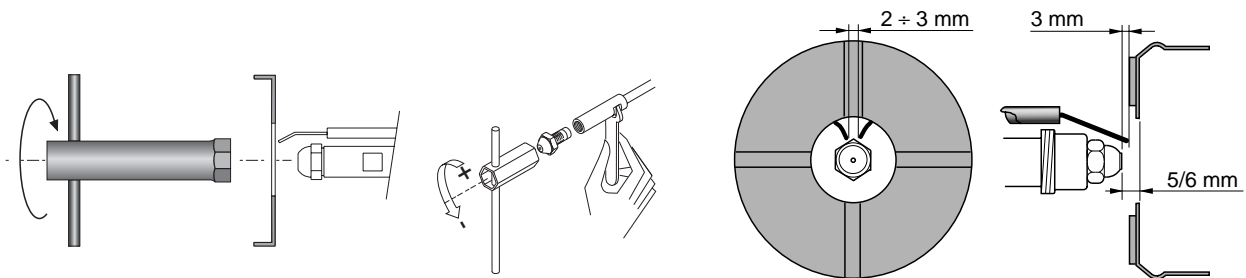


To adjust air flow ,
loosen the two screw B
and turn the air
damper as required.
Tighten the screw B.

NOZZLE REPLACEMENT

Remove the nozzle carefully taking great care not to damage the electrodes.
Fit the new nozzle with the same care.

Notice : Always check the position of the electrodes after replacing the nozzle (see plan).



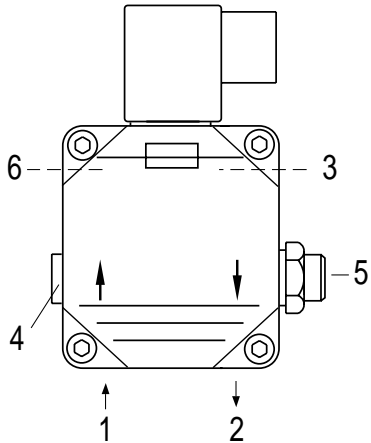
Ignition electrodes setting on firing head

| NOZZLE GPH | SPRAY ANGLE | SPRAY PATTERN | PUMP PRESSURE | PUMP PRESSURE | PUMP PRESSURE | PUMP PRESSURE |
|---------------|----------------|------------------|------------------|------------------|------------------|------------------|
| | | | 9 BAR | 10 BAR | 11 BAR | 12 BAR |
| | | | Output kg/h ± 5% | Output kg/h ± 5% | Output kg/h ± 5% | Output kg/h ± 5% |
| 0,50 | 60°/80° | DANFOSS H/S | 1,8 | 1,9 | 2 | 2,1 |
| 0,60 | 60°/80° | DANFOSS H/S | 2,16 | 2,3 | 2,4 | 2,5 |
| 0,65 | 60°/80° | DANFOSS H/S | 2,34 | 2,45 | 2,59 | 2,71 |
| 0,75 | 60°/80° | DANFOSS H/S | 2,7 | 2,85 | - | - |
| 0,85 | 60°/80° | DANFOSS H/S | 3 | 3,25 | - | - |

PRIMING AND ADJUSTMENT OF THE PUMP

DANFOSS BFP 11 R3

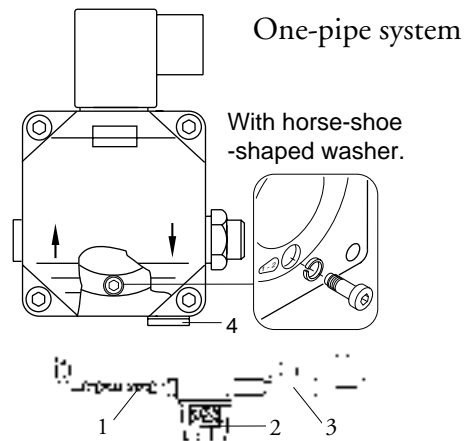
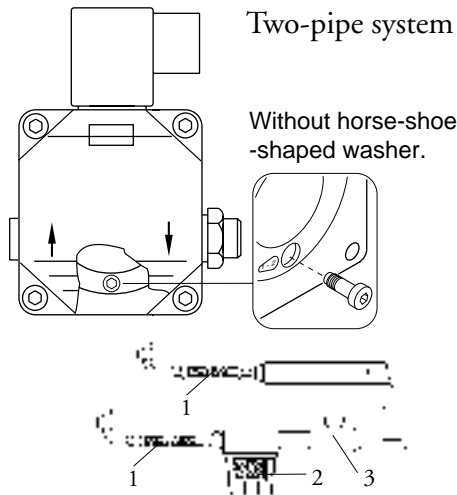
- 1 - INLET
- 2 - RETURN
- 3 - BLEED AND PRESSURE GAUGE PORT
- 4 - VACUUM GAUGE PORT
- 5 - PRESSURE ADJUSTMENT
- 6 - NOZZLE OUTLET



The pump setting indicated by client is carried out in the factory during testing. To prime the pump first of all start the burner and bleed air from the pump through the gauge port. If the burner goes to lock-out after the prepurging time due to lack of pressure in the oil pump, restart the burner.

NOTE : before starting up the burner, make sure that the return pipe is clear. Check that the pipes do not leak. It is advisable to use copper pipes. Do not exceed the depression limit of 4 mt.(0,45 bar) to keep

low noise levels. The return pipe must reach the same level as the check valve at the bottom of the oil tank..



FAULT FINDING

Burner does not start up

- Mains switch not on.
- Blown fuse.
- Boiler thermostats not made.
- Fault in control box.

Burner pre-purges and stops

- Fault in control box.

Burner does not ignite during cycle and stops

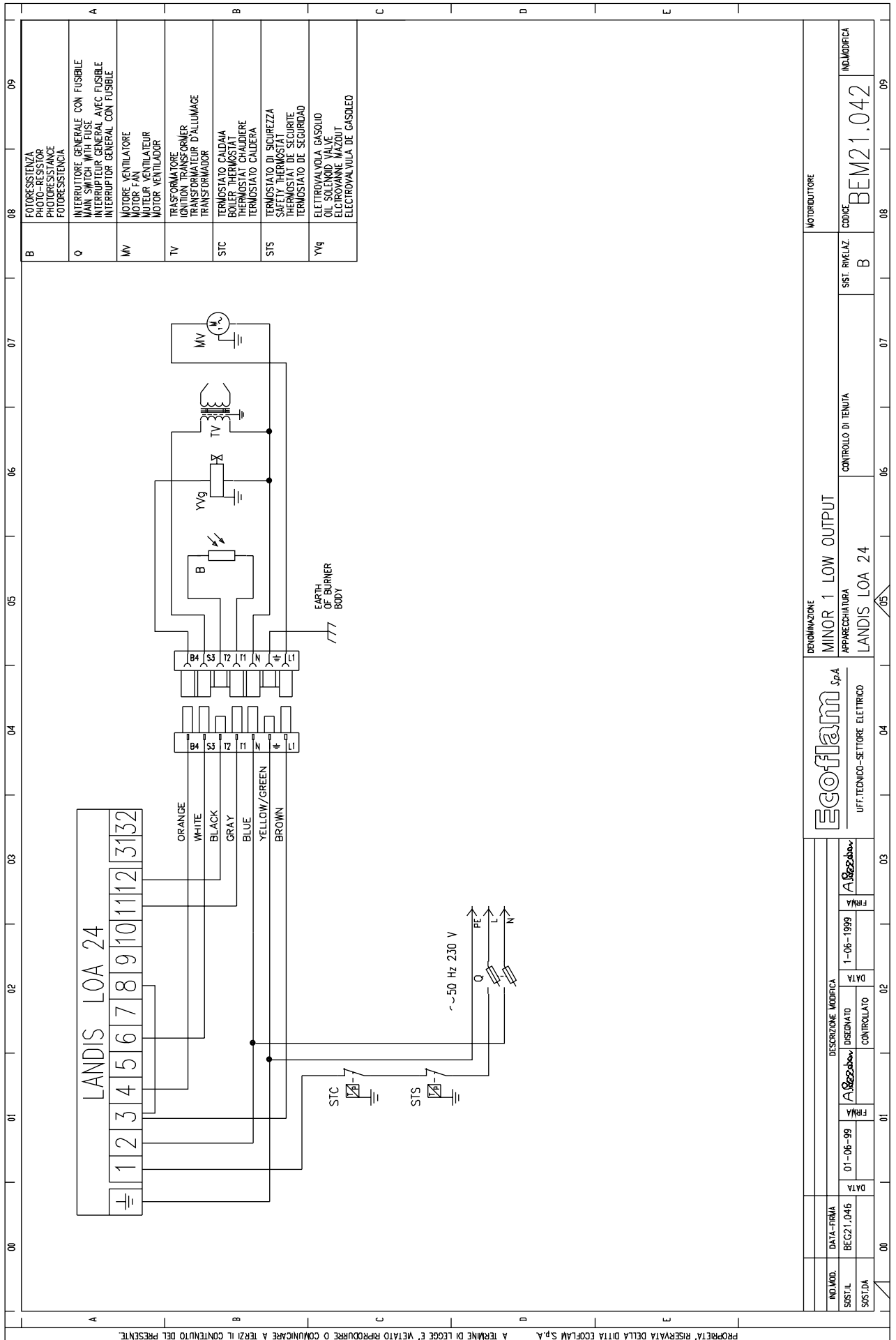
- Fault in control box.
- Fault in photo-resistor.

Burner does not ignite

- Dirty ignition electrodes.
- Fault at electrodes.
- Electrodes installed wrongly.
- Faulty ignition transformer.
- Blocked nozzle.
- Nozzle needs replacing.
- Oil pressure too low.
- Blocked oil filter.
- Excessive combustion air for nozzle capacity.
- Fault in control box.

Burner ignites and then stops

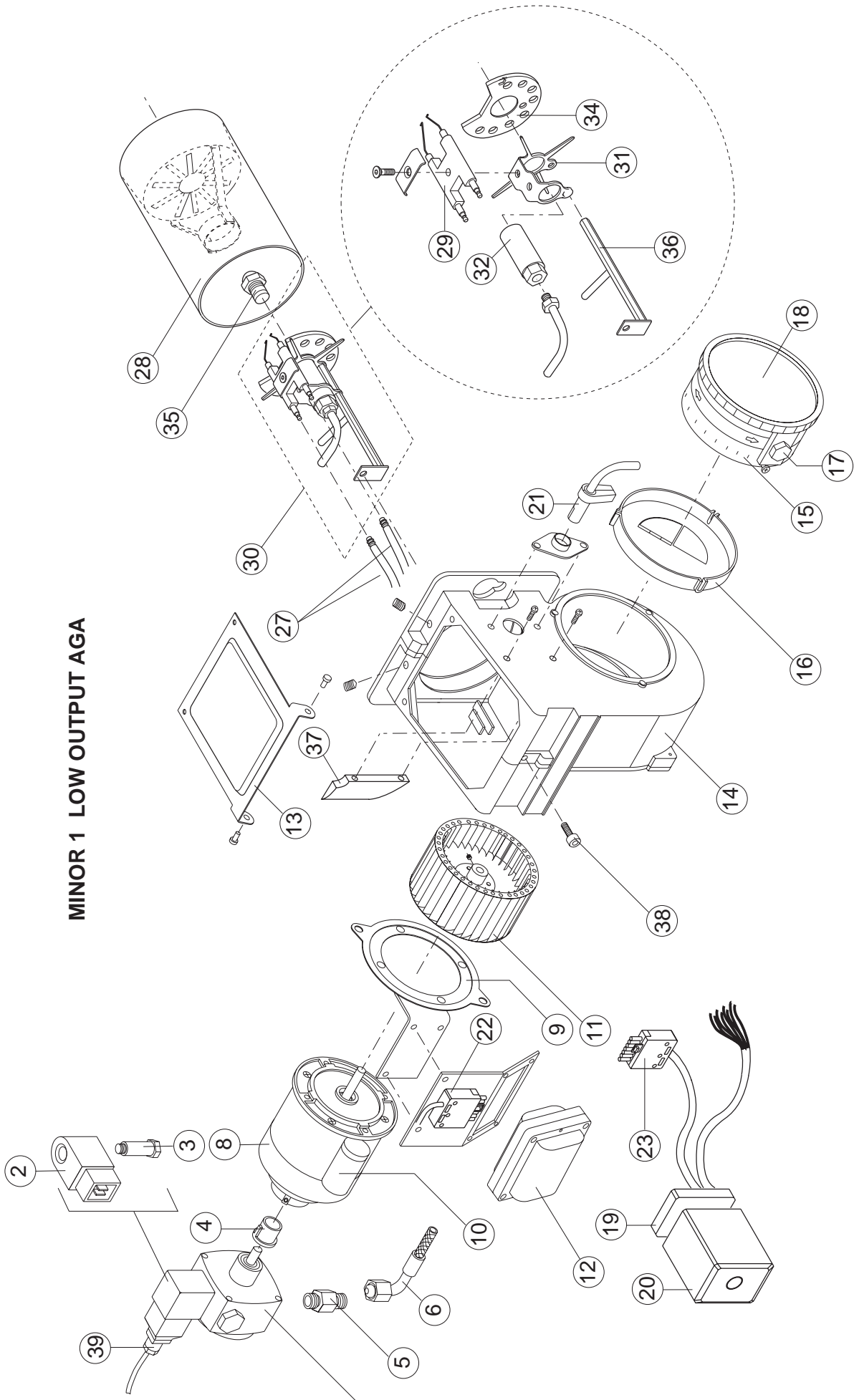
- Faulty nozzle.
- Photo-resistor does not "see" flame.
- Excessive combustion air for nozzle capacity.
- Fault in control box.
- Oil pressure too low.
- Blocked oil filter.



PROPRIETA' RISERVATA DELLA DITTA ECOFLAM S.p.A. A TERMINE DI LEGGE E' VIETATO RIPRODURRE O COMUNICARE A TERZI IL CONTENUTO DEL PRESENTE.

| | | | | | | | | | | | |
|----------------|--|----------------------|--|---------------------|--|---------------------|--|---------------------|--|---------------------|--|
| IND. MOD. | | DESCRIZIONE MODIFICA | | DATA | | DATA | | DATA | | DATA | |
| SOST. I.L. | | DISEGNATO | | DATA | | DATA | | DATA | | DATA | |
| SOSTIDA | | CONTROLLATO | | DATA | | DATA | | DATA | | DATA | |
| DATA-FIRMA | | 1-06-1999 | | 1-06-99 | | 1-06-99 | | 1-06-99 | | 1-06-99 | |
| BEC21.046 | | A. Bazzabov | | A. Bazzabov | | A. Bazzabov | | A. Bazzabov | | A. Bazzabov | |
| SIST. RIVELAZ. | | CONTROLLO DI TENUTA | | CONTROLLO DI TENUTA | | CONTROLLO DI TENUTA | | CONTROLLO DI TENUTA | | CONTROLLO DI TENUTA | |
| B | | B | | B | | B | | B | | B | |
| CODICE | | BEM21.042 | | BEM21.042 | | BEM21.042 | | BEM21.042 | | BEM21.042 | |
| IND. MODIFICA | | IND. MODIFICA | | IND. MODIFICA | | IND. MODIFICA | | IND. MODIFICA | | IND. MODIFICA | |
| | | | | | | | | | | | |

MINOR 1 LOW OUTPUT AGA



| N° | DESCRIPTION | AGA | MINOR 1 LOW OUTPUT code |
|----|-------------------------|-------------------|-------------------------------|
| 1 | - OIL PUMP | DANFOSS BFP 11 R3 | P121/2 |
| 2 | - COIL | DANFOSS | V510/2 |
| 3 | - OIL VALVE | DANFOSS | V412/1 |
| 4 | - COUPLING | | MP501/5 |
| 5 | - NIPPLE | | BFR01103/001 |
| 6 | - HOSES | NW 6X700 | S931/055 |
| 7 | - SUPPORT | | BFS05167/001 |
| 8 | - MOTOR | 75 W | M110/3 |
| 9 | - SUPPORT | | BFF03004/001 |
| 10 | - CAPACITOR | 3,5 µF | C107/8 |
| 11 | - FAN | 99 x 34 | BFV10003/001 |
| 12 | - IGNITION TRANSFORMER | COFI E820 CM | T123/2 |
| 13 | - COVER | | BFC09004/011 |
| 14 | - FAN HOUSING | | BFF04315/011 |
| 15 | - AIR DAMPER | | BFC04012/001 |
| 16 | - AIR CONVEYOR | | BFC08101 |
| 17 | - AIR DAMPER SCREW | | BFT01002/001 |
| 18 | - COVER AIR INLET | | BFC04007/051 |
| 19 | - CONTROL BOX BASE | LANDIS | A402 |
| 20 | - CONTROL BOX | LANDIS LOA 24 | A117/1 |
| 21 | - PHOTORESISTOR | LANDIS | A207/3 |
| 22 | - PLUG WIELAND | 7 pin | E225 |
| 23 | - SOCKET WIELAND | 7 pin | E225/2 |
| 24 | - GASKET | | - |
| 25 | - FLANGE | | - |
| 26 | - O-RING | | - |
| 27 | - CABLES | TC | BFE01401/4 |
| 28 | - BLAST TUBE | TC | BFB01009/1 |
| 29 | - ELECTRODES | | BFE01102 |
| 30 | - FIRING HEAD | TC | |
| 31 | - NOZZLE HOLDER SUPPORT | | BFC10020/001 |
| 32 | - NOZZLE HOLDER | TC | BFC11016 |
| 33 | - DIFFUSER | | - |
| 34 | - REAR DISC | | BFD01012/001 |
| 35 | - NOZZLE | DANFOSS 0.40/80H | U1040/80H |
| 36 | - ROD | TC | BFA05102/001 |
| 37 | - FAN SCOOP | | BFC02040 |
| 38 | - SCREW | | ZM06/12 |
| 39 | - CABLE | DANFOSS | E1103 |

TC = SHORT HEAD TL = LONG HEAD



 **Ecoflam**

DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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