REMKO DZH

Oil Heaters

Operation· Technology · Spare Parts

Edition GB – D04

Contents

CE

Before commissioning/use of the equipment, these operating instructions must be read carefully!

These instructions are a part of the device and must thus always be kept in the direct vicinity of the mounting site or on the device itself. This operating manual is a translation of the German original.

Subject to change; errors and typographical errors excepted!

Safety Notices

When using the appliance, always observe the respective local construction and fire protection ordinances as well as the regulations of the employers' liability insurance associations.

The appliances were subjected to extensive material, functional, and quality tests before delivery. Nevertheless, the equipment may present a danger if it is used by untrained personnel, improperly, or not according to regulation!
Please observe the following notices:

- Before maintenance or servicing work, the mains plug must be removed from the socket
- The unit may be operated only by personnel who have been trained in its operation
- The unit must be set up and operated in such a way that people are not endangered by exhaust fumes and radiated heat and no fires can break out
- The unit may be set up and operated in rooms only if there is a sufficient amount of air for the combustion
- The unit may be operated without an exhaust duct only in well-ventilated rooms. People may not constantly be in the mounting room **Corresponding prohibition signs must be posted at the entryways!**
- The unit may not be operated without supervision
- Mount the unit only on a level, non-flammable base
- The unit may be set up and operated only in an environment not at risk of fire or explosion
- The unit may not be set up in atmospheres containing oil, sulphur, or salt
- A safety zone of 3 m around the exhaust and 1 m around the unit and non-flammable objects must be observed
- The protective air suction grille must always be free of dirt and loose objects
- Never insert foreign matters into the unit
- The unit may not be exposed to direct water jets, such as **high-pressure cleaning unit, and so on**
- All electrical cables of the unit must be protected from damage (e.g. due to animals)
- Safety equipment may neither be bridged nor blocked!
- Due to the design, a permanent, fixed-location installation is not intended for this type of unit

Device Description

The unit is a mobile heater and is directly fueled with EL heating oil or diesel fuel.
The unit works without an exhaust connection and is solely designed for commercial use.

The unit is equipped with a fuel container underneath, fuel filters, maintenance-free axial fans, high-pressure spraying furnace with optical flame monitor, room thermostat socket, and mains cable with an earthing contact plug.

The unit complies with the basic safety and health requirements of the relevant EU stipulations and is easy to operate.

Among other things, the devices have the following uses:

- Spot heating of outdoor workplaces
- Spot heating of workplaces in open, non fire-hazard production rooms and halls
- Temporary heating of rooms with a sufficient fresh-air supply
- De-icing of machines, vehicles, and non-flammable warehouse goods
- Temperature control of parts at risk of frost

⚠ CAUTION

The units may be set up only in well-aerated rooms and not in living areas or lounges.

Mounting Regulations

Sequence of functions

After the unit has been switched on or in case heating is reqired (automatic function with room thermostat), the supply air fan also switched on.
After the preliminary ventilation of the burner, the solenoid valve opens the fuel supply for the oil nozzle.

The fuel, sprayed under high pressure, is enriched with an amount of oxygen that has been adapted to the heating capacity and ignited using an electrical, high-voltage ignition spark.
As soon as a flame is burning without a problem, the automatic burner relay assume the optical flame monitoring function.
After a short period of time, hot air is blown out.

The automatic burner relay perform all device functions fully automatically and monitor them securely.

In case of any irregularities or an instable or extinguished flame, the unit is deactivated by the automatic burner relay.
The pilot lamp on the automatic burner relay lights red.

A restart of the unit is only possible after a manual reset of the automatic burner relay.

After the unit has been shut down using the operating switch or by the room thermostat, the supply air fan continues to run for a certain period of time to cool the combustion chamber and then shuts down independently.

Concerning to each room temperature the thermostat operation repeats the descripted operation automatically.

When the unit is in use, the safety guidelines of the employers' liability insurance associations, the respective country construction ordinances, and the burning appliance regulations basically apply.
For example for Germany:

- Feuerungsanlagenverordnung (FeuVo) (Furnace Installation Ordinances) of the individual states

- Unfallverhütungsvorschrift (UVV) (Accident Prevention Regulation) „Heiz-, Flämm- und Schmelzgeräte für Bau- und Montagearbeiten" (Heating, Burning, and Melting Equipment for Construction and Mounting Work) (VBG 43)

- Unfallverhütungsvorschrift (UVV) „Verwendung von Flüssiggas" (Use of Liquefied Gas) (VBG 21)

- Arbeitsstättenrichtlinien ASR 5 (Workstation Guidelines)

- Arbeitsstättenverordnung (Workstation Ordinance) §§ 5 and 14

Outdoor mounting

- Due to the operation of the unit, no dangers or unreasonable nuisances may arise

- The unit operator must guarantee that unauthorised persons cannot manipulate the unit or the energy supply

- To avoid damage due to inclement weather, the unit must be mounted in a protected manner

Mounting in closed, well-ventilated rooms

- According to the type, the unit is designed without an exhaust connection and may be used in closed rooms only under certain circumstances

- To exclude an impermissible pollution of the room air, a reliable exhaust of the combustion gases must always be guaranteed

- The supply of the fresh air required for proper combustion must be guaranteed. The fresh air supply should come through windows and doors or through sufficiently sized openings in the outer wall

- The unit may be used for room heating only with a room thermostat (accessory)

The unit may be operated indoors only if:

- A sufficient air volume for combustion is supplied to the device.

- The unit is well aerated and ventilated

- The amount of pollutants in the breathing air that is hazardous to health may not reach an unreasonable concentration

⚠ CAUTION

Avoid underpressure or overpressure in mounting rooms since these states always lead to combustion-technical problems.

Commissioning

Before commissioning, the unit should be checked for noticeable defects of the operating and safety appliances, as well as for proper mounting and correct electrical connection.
Someone who has been sufficiently trained in the corresponding handling of the unit must be assigned with its operation and monitoring.

CAUTION

In case of defects that endanger the operating safety of the unit, the operation of the unit must be shut down immediately and the supervisor must be informed!

Connecting the devices to the power supply

1. Switch the operating switch to the „0“ position (off).

2. Connect the mains plug of the device to a properly installed and secured mains socket. **230 V/50 Hz**

NOTE

The electrical connection of the unit must be performed at a certain supply point with an earth-leakage circuit breaker according to VDE 0100 § 55.

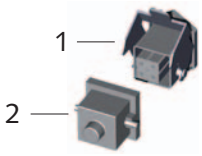
CAUTION

All cable extensions may be used only when unrolled.

Heating without room thermostat

The unit works in continuous operation.

1. Connect the jumper plug 2 included in deliver with the thermostat socket 1 on the device.



2. Switch the operating switch to the „I“ position (on).

Safety distances

- To guarantee a safe unit operation, a safety distance of 1 metre around the device must be observed
- To blow out the unit, a distance of at least 3 metres must be observed
- The floor and ceiling must be fire-resistant
- The intake and exhaust cross-sections may not be pinched or blocked by foreign objects

NOTE

In case of overheating of the devices is a safety shutdown of the burner relay.

CAUTION

The appliances may not be placed and runed in fire and explasition danger vicinities.

Paraffin formation at low outdoor temperatures

Even in case of low temperatures, free-flowing heating oil must be available in sufficient quantities.

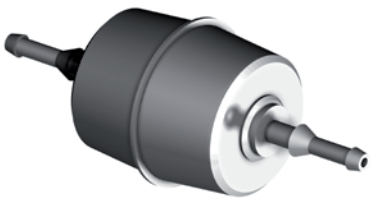
NOTE

Paraffin formation can already take place at temperatures below 5°C. Corresponding measures and precautions must be taken to prevent it.

An optional tank heater is available as a REMKO accessory.

- Fill the fuel container with clean heating oil or diesel fuel
  Do not use biodiesel
- Use only clean, suitable containers for the filling procedure

Before the start-up of every appliance and every filling of the tank, the fuel filter must be checked for soiling or paraffin formation.



The filter is located directly next to the tank filler neck. The fuel tank may be filled only when the tank filter has been inserted into the filler neck.

NOTE

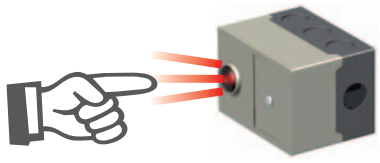
Only clean fuel through a funnel with a fine filter fill.

Notices regarding the safety cut-off of the unit

The unit fuel supply takes place in a single line system.
In this regard, the fuel supply to the nozzle can be interrupted by blowing air during the initial start-up or after the fuel tank has been completely emptied.

The automatic burner relay of the appliances shut down due to malfunction in this case.
This shutdown due to malfunction is indicated by the red pilot lamp on the control panel.

Reset the automatic burner relay by pushing this red pilot lamp.



NOTE

The automatic burner relay can get unlocked after a waiting periode of 60 sec., only.

If the appliance does not start after several start attempts,
read the **„Trouble Shooting“** section

Refill fuel if necessary

NOTE

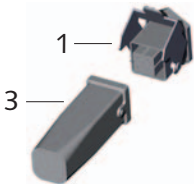
Never (except in emergency situations) interrupt the mains connection before the entire cool-down phase comes to an end.

Heating with room thermostat (accessory)

The appliances operate fully automatically depending on the room temperature.

1. Disconnect the jumper plug 2.

2. Connect the plug 3 of the room thermostat 4 together with the thermostat socket 1 of the device.



3. Place the room thermostat (4) at a suitable position in the room.
   The thermostat sensor may not be in the path of direct hot air flow and should not be placed directly on a cold foundation.

4. Adjust the desired temperature on the room thermostat.

5. Switch the operating switch to the „I“ position (on).

In case heating is needed, the unit now switches on automatically and then off when the desired room temperature is reached.

Shutdown

1. Switch the operating switch to the „0“ position (off).

NOTE

The supply air fan runs to cool off the combustion chamber further and switches off later on its own. The fan may run several times until it switches off permanently!

2. In case of longer downtimes, disconnect the unit from the power mains.

CAUTION

Never interrupt the mains connection before the entire cool-down phase comes to an end.
No warranty claims exist for damage to the unit due to overheating!

NOTE

In case of longer downtimes or storage of the unit, always fill the fuel tank with heating oil or diesel fuel.

Maintenance and Care

The regular care and observance of some basic prerequisites guarantee malfunction-free operation and a long service life of the unit.

After every heating period or independent of the previous operating conditions, the complete unit including the combustion chamber and burner must be cleaned of soot, dust, and dirt.

⚠ CAUTION

Before all work on the appliance, the mains plug must be removed from the mains socket. Especially when the appliance casing is open, there is an acute danger of injury due to the automatically activating fan.

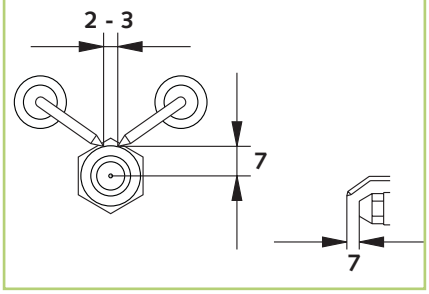
- For cleaning, use a clean, slightly moistened cloth with which you can wipe off the dirt from the surface .
  Do not use a water jet (high-pressure cleaner)!
- Do not use strong cleaning agents that contain solvent. Even in case of extreme soiling, only use suitable cleaning agent.
- Clean the fuel tank regularly and then rinse it with clean fuel or another suitable means.
  Do not use water!
- Always keep the burner head clean.
- Check parts subject to wear such as the oil nozzle, seals, and so on, and exchange them if necessary.
  We recommend that the oil nozzle be changed in any case before the beginning of every heating season!
- Clean the tank filter in the filler neck of the fuel tank regularly.
- Exchange the fuel filter (observing the direction of flow) according to its condition, but before every heating season at the latest. The filter is in the direct vicinity of the tank filler neck. **Note the direction of flow!**
- Use only clean EL heating oil or diesel.
  Look for paraffin formation!
- Allow only authorised, expert personnel to clean the gauze filter in the fuel pump (only by DZH 90) and exchange the nozzle.
- Regularly check the safety appliances for correct function.
- In case of a weakening heating capacity, formation of smoke, and/or bad ignition, inspect the unit and adjust the burner.
- Observe the regular maintenance and care intervals.

⚠ CAUTION

A safety- technical test must be carried out after all work at the appliances.

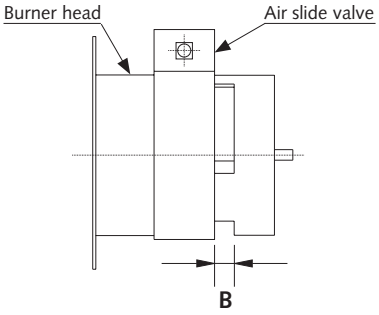
Parameters of initiating electrodes and air slide valve

Adjustment of the initiating electrodes



All dimensions are values in mm

Adjusting the air slide valve



Dimension B:

DZH 20-2 = ca. 20 mm
DZH 30-2 = ca. 12 mm
DZH 50-2 = ca. 20 mm
DZH 90 = ca.13 mm

All dimensions are standard values in mm

⚠ CAUTION

The exhaust values must be checked and set by authorised, expert personnel.
The flame must burn out within the combustion chamber. The flame may not extend outside of the combustion chamber.

NOTE

Adjustment and maintenance tasks may be performed only by authorised expert personnel!

Trouble Shooting

Faults:	Cause:
The supply air fan does not actuate.	2 – 3 – 4 – 6 – 7 – 8 – 25
The fan is running, but the burner does not ignite.	1 – 5 – 6 – 9 – 10 – 11 – 12 – 13 – 14 – 15 – 16 – 17
Das Gerät geht ohne Flammbildung auf Störung.	20 – 21 – 23 – 26
Das Gerät schaltet während des Betriebes aus.	4 – 5 – 6 – 7 – 8 – 9 – 10 – 11 – 13 – 15 – 16 – 17
(The pilot lamp on the automatic burner lights)	19 – 20 – 21 – 22 – 23 – 26
Formation of smoke during the unit is running	7 – 10 – 11 – 13 – 15 – 17 – 19 – 21 – 22
The appliance does not switch off in „0“ position.	18 – 25

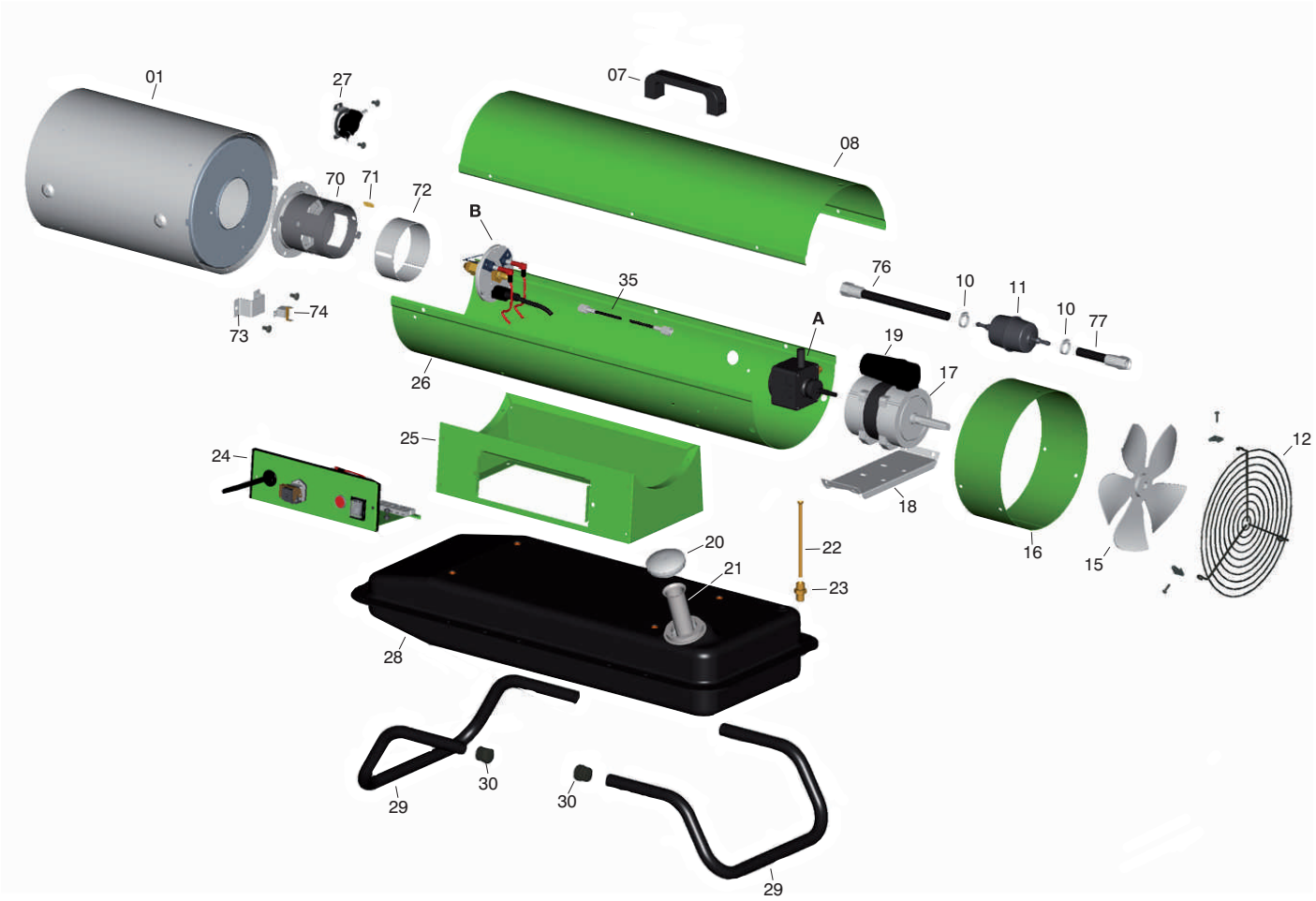
⚠ CAUTION

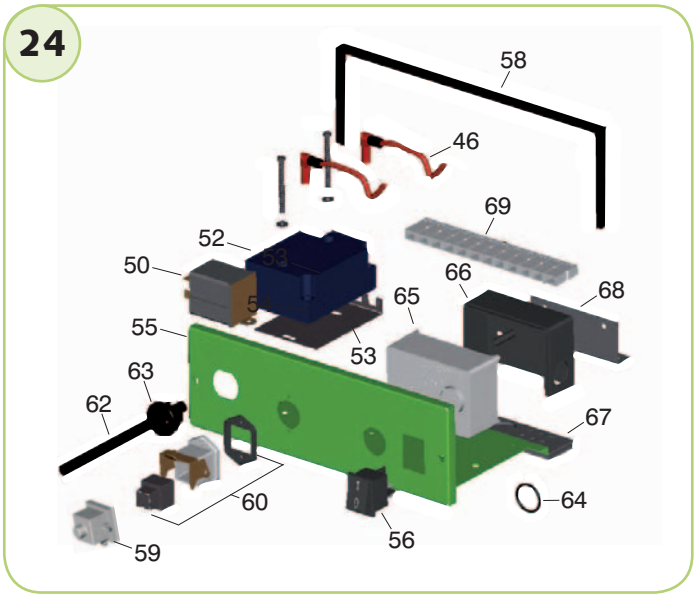
Repair work on the electrical installation and on the burner may be carried out only by authorised, expert personnel for safety-technical reasons.

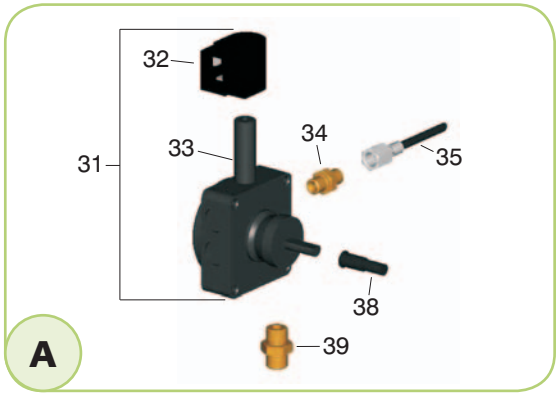
Cause:	Remedy:
1. Air bubbles in the fuel system during initial start up.	Reset the fuel system by pushing the red pilot lamp. Repead it 3 times if necessary.
2. The appliance does not have a voltage supply.	Check the voltage supply and electrical connection.
3. No plug in the thermostat socket.	Connect the thermostat or shunt plug with the thermostat socket.
4. The thermostat is set too low.	Set the thermostat higher than room temperature.
5. The red pilot lamp of the burner relay is shining.	Reset the burner relay by pushing the red pilot lamp.
6. Control relay fault.	Change the control relay.
7. The motor is overloaded. (The fan is running irregularly or is blocked.)	Let the motor cool down. Check the fuel pump. Check the electrical and mechanical functions of the motor.
8. The fuel pump is blocked.	Check the fuel pump and exchange if necessary.
9. The fuel container is empty.	Fill the container with clean fuel.
10. The oil filter is stopped up.	Clean or exchange oil firter.
11. The nozzle is stopped up or has the wrong size.	Exchange the nozzle (Pay attention to the right type and size).
12. The electrode is incorrectly adjusted, die isolation is defective.	Adjust or exchange it.
13. The air inlet plate of the burner head is not correct or dirty.	Adjust it with the CO_2-Indicator and pump. (CO_2: 11 – 12 %, Bacharach: 0 – 1).
14. The solenoid valve does not open.	Check the solenoid valve and exchange it if necessary.
15. The pump pressure is not correctly set.	Adjust the pump pressur using a pressure gauge.
16. The pump coupling is defective.	Exchange the pump coupling.
17. Leakage in the suction or in the fuel filter.	Check and exchange if necessary.
18. The solenoid volve does not close.	Temove the fuel line on the main filter. The flame extinguishes.
19. The protection grille of the supply air fan is dirty.	Clean the protection grille.
20. The safety limiter (STB) switchs off.	Check the air inlet grill and clean if necessary and unlock the burner relay (only DZH 90).
21. Air bubbles in the fuel system.	Start the appliance so that the air escapes through the nozzle. Repead it 3 times if necessary.
22. Ventilation does not suffice.	Open the door or windows.
23. The photoelectric cell is dirty or incorrectly adjusted.	Clean the photoelectric cell or exchange it if defective.
25. The operation switch is without function.	Check the operation switch and exchange it if necessary.
26. Paraffin formation in the fuel.	Clean the fuel system; fill the contain with clean fuel. Have a look at “Maintenance” too.

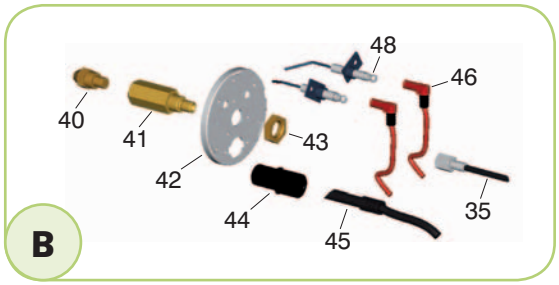
REMKO DZH

Exploded view DZH 20-2









We reserve the right to make changes in dimensions and design in the interest of technical advances.

Spare parts list

No.	Designation	EDP-No.
01	Combustion chamber, complete	1111660
07	Transport grip	1103903
08	Inspection cover	1111661
10	Hose clamp	1103762
11	Fuel filter (disposable)	1102146
12	Intake guard grille	1111662
15	Fan blade 200/31	1111663
16	Fan housing	1111664
17	Fan motor, complete. 75W	1111665
18	Motor carrier	1111666
19	Capacitor 3,15	1107114
20	Tank cap	1102148
21	Tank filter	1103776
22	Intake tube	1111686
23	Connecting nipple ¼“-12x1,75	1111667
24	Electrical module, complete	1107367
25	Support housing	1111668
26	Bottom of housing	1111669
27	Cool-down thermostat	1107182
28	Fuel tank	1111670
29	Stand stirrup	1107121
30	Protective cap	1107122
31	Fuel pump, complete	1107123
32	Magnet coil	1103766
33	Magnet coil core	1111671
34	Connecting nipple prssure line	1111672
35	Oil pressure line	1111673
38	GE coupling, complete	1107129
39	Connecting nipple intake line	1111674
40	Nozzle	1107131
41	Nozzle cradle	1107132

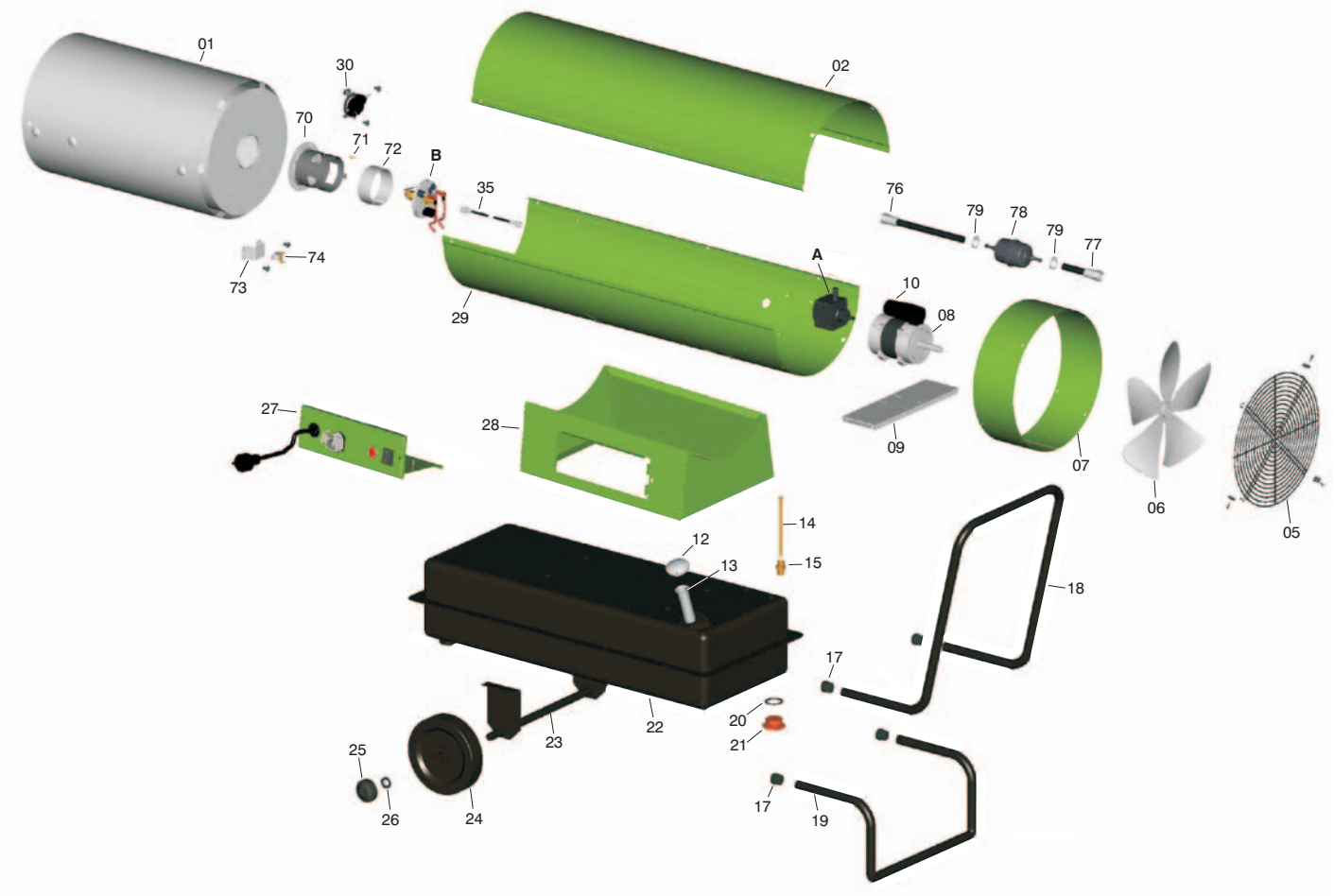
No.	Designation	EDP-No.
42	Mounting plate	1111675
43	Nut	1107134
44	Photoelectric cell mount	1111676
45	Photoelectric cell	1108209
46	Ignition cable with plug	1107137
48	Ignition electrode	1107139
50	Auxiliary Relay	1107375
52	Ignition transformer	1107143
53	Support plate PE	1107188
55	Switch cabinet housing	1107189
56	Operating switch	1111677
58	Seal housing	1107190
59	Jumper plug	1101019
60	Thermostat socket, complete	1101018
62	Mains cable with plug	1107148
63	Pull relief	1107149
64	Sealing ring OR 22	1111678
65	Automatic burner relay	1102239
66	Relay socket	1102534
67	Plate PG	1102533
68	Relay fitting	1107191
69	Terminal strip	1103781
70	Burner pipe	1111679
71	Protective cap	1111680
72	Air slide	1111681
73	Support plate (STB)	1111682
74	Temperature limiter (STB)	1111683
76	Suction pipe PF	1111684
77	Suction pipe TF	1111685
xx	Undercarriage, optional	1011225
xx	Tank heater, optional	1002518

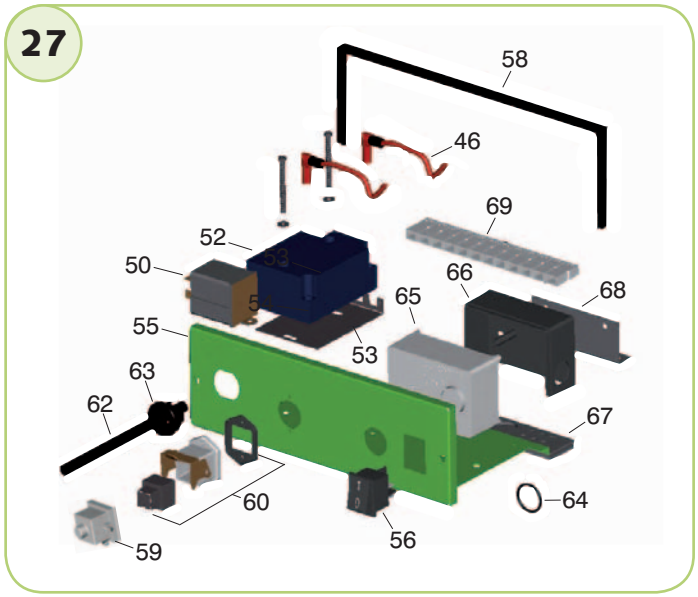
xx = not shown

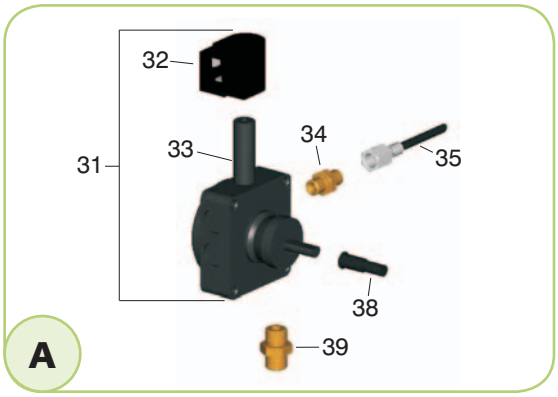
When ordering spare parts, always list the device number and the device type (see the type plate) in addition to the EDP number.

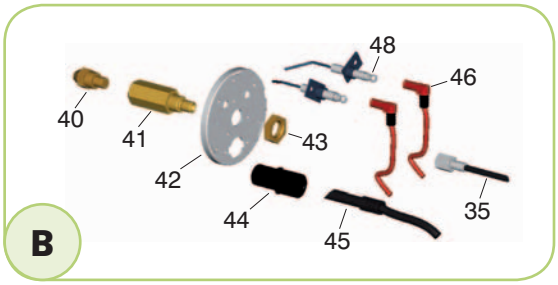
REMKO DZH

Exploded view DZH 30-2/50-2









We reserve the right to make changes in dimensions and design in the interest of technical advances.

Spare parts list

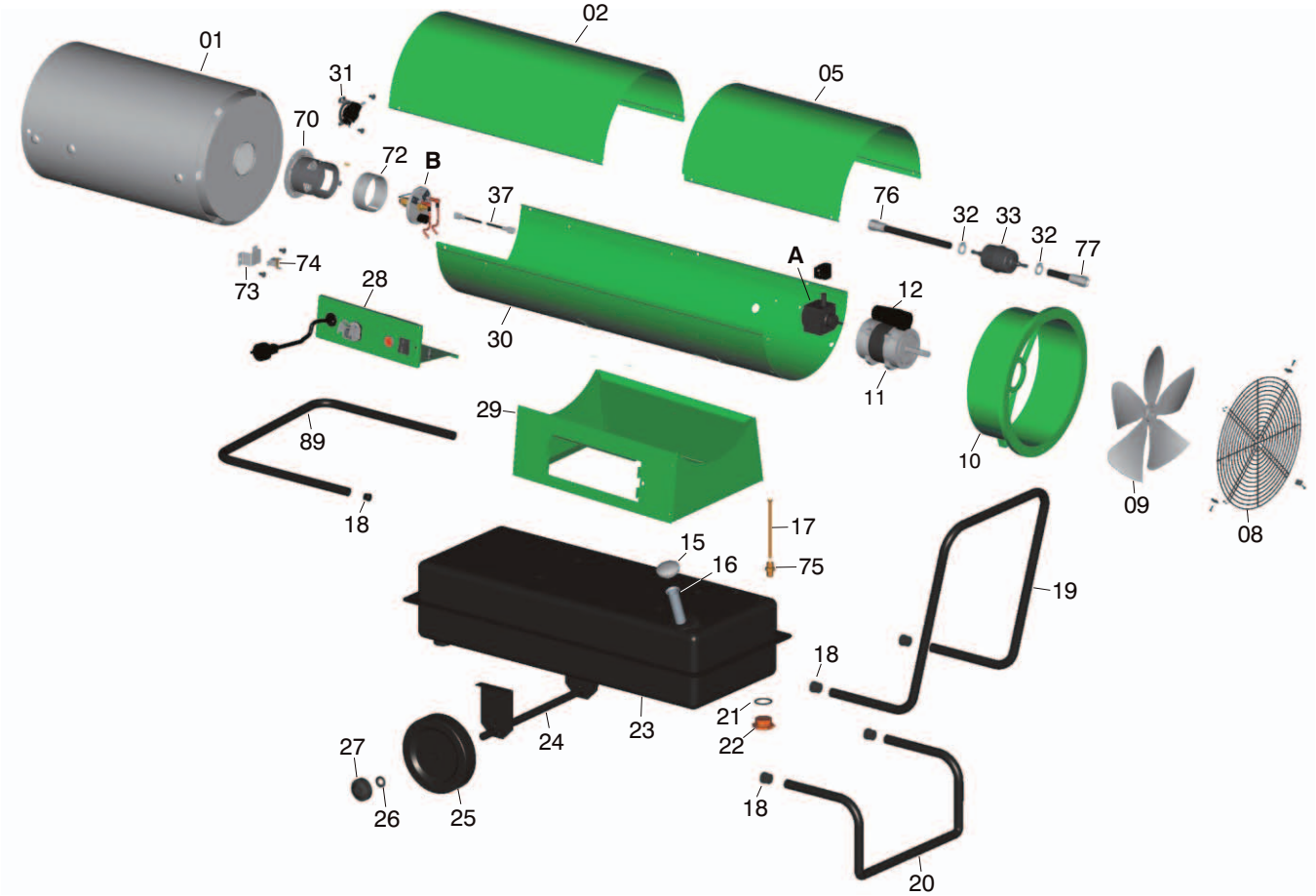
No.	Designation	DZH 30-2 EDP-No.	DZH 50-2 EDP-No.
01	Combustion chamber, cpl.	1111690	1111705
02	Inspection cover	1111691	1111706
05	Intake guard grille	1111692	1111707
06	Fan blade	1111693	1111708
07	Fan housing	1111694	1111709
08	Fan motor, complete	1111695	1111710
09	Motor carrier	1111696	1111711
10	Capacitor	1107160	1107176
12	Tank cap	1102148	1102148
13	Tank filter	1103776	1103776
14	Suction tube	1111697	1111712
15	Connecting nipple	1111667	1111667
17	Protective cap	1107122	1107122
18	Transport stirrup	1107163	1111713
19	Stand stirrup	1107164	1107164
20	Sealing ring/Drain plug	1103777	1103777
21	Drain plug	1103778	1103778
22	Fuel tank	1111699	1111714
23	Axle	1107166	1107166
24	Wheel	1102155	1102155
25	Hub cap	1101623	1101623
26	Circlip	1101622	1101622
27	Electrical module, cpl.	1107367	1107367
28	Support housing	1111700	1111715
29	Bottom of housing	1111701	1111716
30	Cool-down thermostat	1107182	1107182
31	Fuel pump, complete	1107123	1107123
32	Magnet coil	1103766	1103766
33	Magnet coil core	1111671	1111671
34	Connecting nipple pressure line	1111672	1111672
35	Oil pressure line	1111673	1111673
38	GE coupling, complete	1107129	1107129
39	Connecting nipple intake line	1111674	1111674

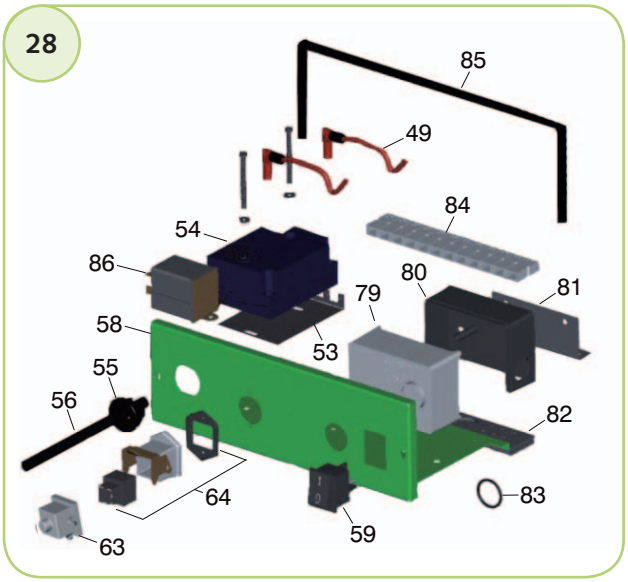
No.	Designation	DZH 30-2 EDP-No.	DZH 50-2 EDP-No.
40	Nozzle	1107126	1111717
41	Nozzle cradle	1107132	1107132
42	Mounting plate	1111675	1111675
43	Nut	1107134	1107134
44	Photoelectric cell mount	1111676	1111676
45	Photoelectric cell	1108209	1108209
46	Ignition cable with plug	1107137	1107137
48	Ignition electrode	1107139	1107139
50	Auxiliary Relay	1107375	1107375
52	Ignition transformer	1107143	1107143
53	Support plate PE	1107188	1107188
55	Switch cabinet housing	1107189	1107189
56	Operating switch	1111677	1111677
58	Seal housing	1107190	1107190
59	Jumper plug	1101019	1101019
60	Thermostat socket, complete	1101018	1101018
62	Mains cable with plug	1107148	1107148
63	Pull relief	1107149	1107149
64	Sealing ring OR 22	1111678	1111678
65	Automatic burner relay	1102239	1102239
66	Relay socket	1102534	1102534
67	Plate PG	1102533	1102533
68	Relay fitting	1107191	1107191
69	Terminal strip	1103781	1103781
70	Burner pipe	1111702	1111702
71	Protective cap	1111680	1111680
72	Air slide	1111681	1111681
73	Support plate (STB)	1111682	1111682
74	Temperature limiter (STB)	1111683	1111683
76	Suction pipe PF	1111703	1111703
77	Suction pipe TF	1111704	1111704
78	Fuel filter (disposable)	1102146	1102146
79	Hose clamp	1103762	1103762

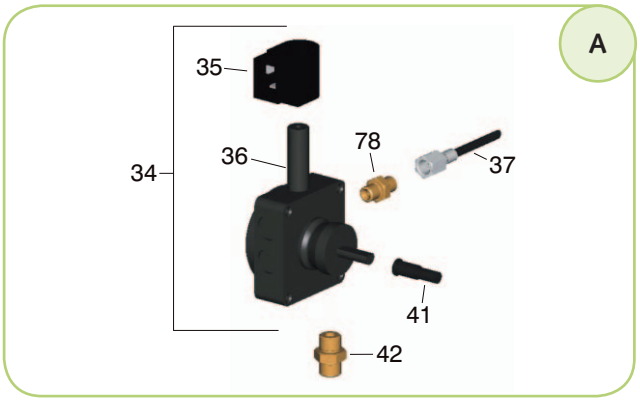
When ordering spare parts, always list the device number and the device type (see the type plate) in addition to the EDP number.

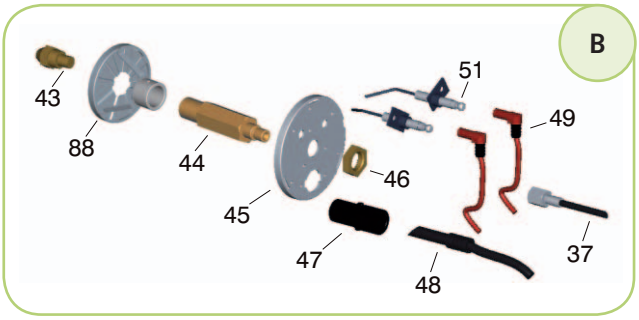
REMKO DZH

Exploded view DZH 90-2









We reserve the right to make changes in dimensions and design in the interest of technical advances.

Spare parts list

No.	Designation	EDP-Nr.o
01	Combustion chamber cpl.	1107376
02	Cover	1107377
05	Inspection cover	1107378
08	Air inlet grille	1107379
09	Fan blade	1107380
10	Fan housing	1107381
11	Fan motor cpl. 450W	1107382
12	Condenser 16 µF	1107383
15	Tank lock	1102148
16	Fuel filter	1103776
17	Suction pipe	1107384
18	Protection cap	1107365
19	Transport clamp	1107363
20	Stand clamp	1107364
21	Seal for drain screw	1103777
22	Drain screw	1103778
23	Fuel container	1107385
24	Axle	1107368
25	Wheel	1101621
26	Retaining ring	1101622
27	Wheel cap	1101623
28	Electrical set cpl.	1107367
29	Carrier housing	1107386
30	Lower cover	1107387
31	Re-cooling thermostat	1107182
32	Hose clamp	1103762
33	Fuel filter (one way)	1102146
34	Fuel pump cpl.	1103765
35	Solenoid coil	1103766
36	Solenoid valve core	1111671
37	Oil pressure pipe	1111673
41	Pump coupling	1107129
42	Connection nipple suction pipe	1111674
43	Nozzle (2,0/80°W)	1107388

No.	Designation	EDP-No.
44	Nozzle mounting	1107389
45	Assembly plate	1107390
46	Nut	1107134
47	Photo cell holder	1111676
48	Photo cell	1108209
49	Ignition cable incl. plug	1107137
51	Ignition electrode	1107139
53	Carrier plate PE	1107188
54	Ignition transformer	1107143
55	Strain relief	1107149
56	Electrical cable incl. plug	1107148
58	Control box housing	1107189
59	Operation switch	1111677
63	Jumper plugs	1101019
64	Thermostat plug socket cpl.	1101018
70	Bourner pipe	1107391
72	Air slide plate	1107392
73	Carrier housing (STB)	1111682
74	Temperature limiter (STB)	1111683
75	Connection nipple M12x1,75	1111667
76	Suction pipe PF	1107393
77	Suction pipe TF	1107394
78	Conn. nipple pressure pipe 1/8“	1111672
79	Automatic burner	1102239
80	Relay socket	1102534
81	Relay fitting	1107191
82	PG-plate	1102533
83	Seal OR 22	1111678
84	Terminal block	1103781
85	Seal housing	1107190
86	Auxiliary relay	1107375
88	Catchment disk	1107395
89	Shock bracket	1107369

When ordering spare parts, always list the device number and the device type (see the type plate) in addition to the EDP number.

Proper Use

Due to their conception and equipping, the devices are designed solely for heating and ventilation purposes in industrial or commercial use (no private living area heating).
The unit may be operated only by accordingly trained personnel.

The manufacturer is not liable for damage that occurs due to nonobservance of manufacturer instructions or the legal requirements or due to unauthorised changes to the device.

NOTE

Another operation other than that described in these operating instructions is not permitted.
Nonobservance leads to the extinguishment of any liability and warranty claims.

Customer Service and Guarantee

The prerequisite for any warranty claims is that the customer or its recipient has returned the completed **„Warranty Document“** included in delivery to REMKO GmbH & Co. KG at the time of the sale and commissioning of the unit.

The unit wastested several times at the factory for perfect function.
If any malfunctions should occur, however, which cannot be eliminated by trouble shooting measures performed by the operator, please consult your dealer or contract partner.

NOTE

Adjustment and maintenance tasks may be performed only by authorised expert personnel.

Environmental Protection and Recycling

Disposal of packaging

When disposing of the packaging material, think of the environment. Our equipment is carefully packed for transport and delivered in a stable cardboard transport package on a wooden pallet, if necessary. The packaging materials are environmentally friendly and can be reused.
With the reuse of packaging material, you make a valuable contribution to the reduction of waste and the preservation of raw materials.
You should thus dispose of the packaging material at the corresponding disposal sites.

Disposal of the old device

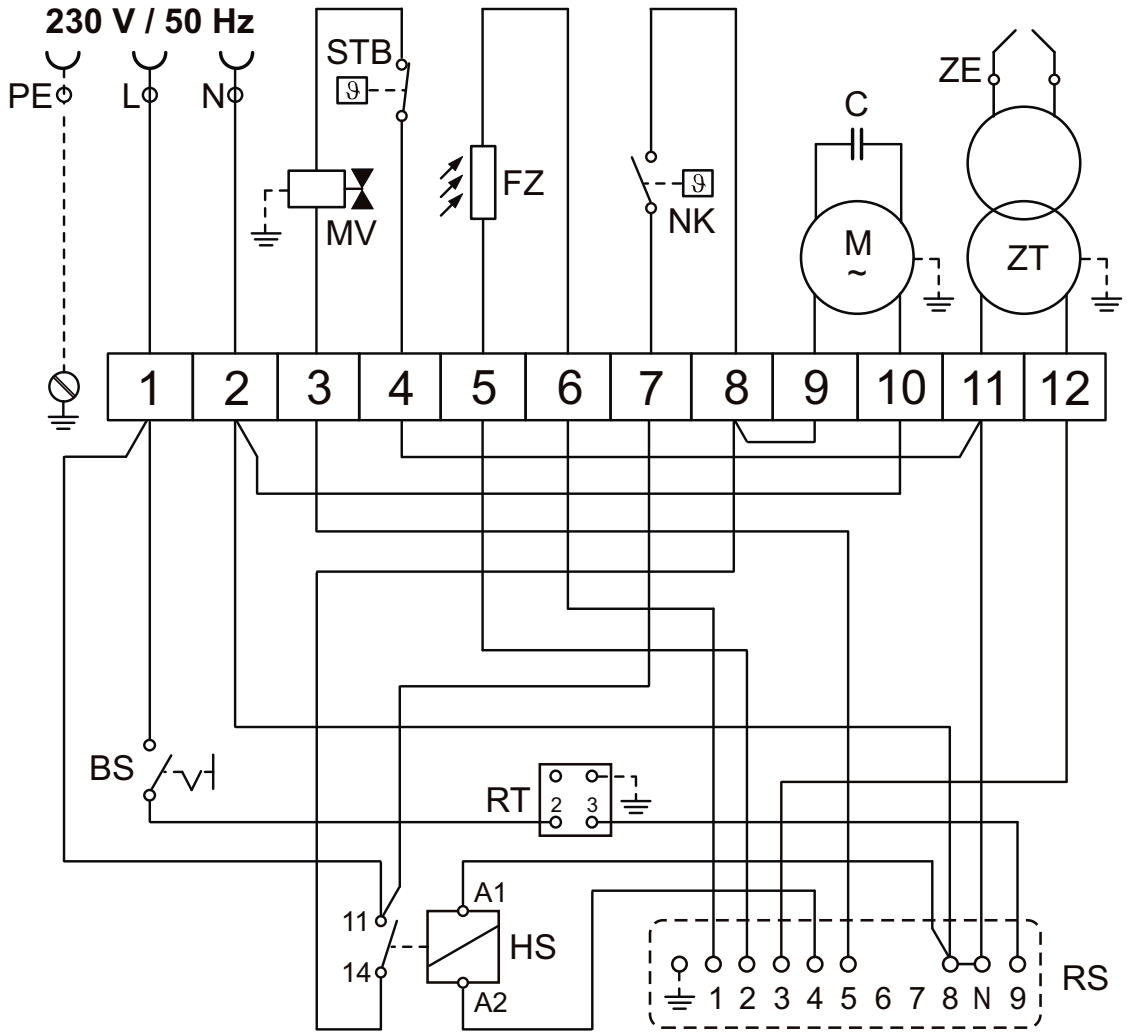
The equipment manufacturing process is subject to constant quality control.

Only high-quality materials that are recyclable to a great extent are used.

You also contribute to environmental protection by guaranteeing that your old unit is disposed of an environmentally friendly manner.

For this reason, bring the old unit only to an authorised recycling company or to a corresponding disposal site.

Electrical wiring diagram



Legend:

BS	=	Operating switch	**NK**	=	Re-cooling thermostat
C	=	Condenser	**RS**	=	Relay socket
FZ	=	Photoelecrtic cell	**RT**	=	Thermostat plug socket
HS	=	Auxiliary relay	**STB**	=	Safety limiter
M	=	Motor	**ZE**	=	Ignition electrode
MV	=	Solenoid valve	**ZT**	=	Ignition transformer

We reserve the right to make changes in dimensions and design in the interest of technical advances.

REMKO DZH

Maintenance log

Model ..... **Model No.** .....

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Clean unit – surface –																				
Clean unit – interior –																				
Clean fan blade																				
Clean fan housing																				
Clean condenser																				
Clean evaporator																				
Fan function checked																				
Intake grille with filter cleaned																				
Check unit for damage																				
Protective devices checked																				
All fixing screws checked																				
Electrical safety test																				
Test run																				

Remarks: .....

.....

.....

1. Date .... Signature	2. Date .... Signature	3. Date .... Signature	4. Date .... Signature	5. Date .... Signature
6. Date .... Signature	7. Date .... Signature	8. Date .... Signature	9. Date .... Signature	10. Date .... Signature
11. Date .... Signature	12. Date .... Signature	13. Date .... Signature	14. Date .... Signature	15. Date .... Signature
16. Date .... Signature	17. Date .... Signature	18. Date .... Signature	19. Date .... Signature	20. Date .... Signature

The unit must only be serviced by authorised specialists in compliance with the statutory requirements.

Technical Data

Device type		DZH 20-2	DZH 30-2	DZH 50-2	DZH 90-2
Nominal heating capacity	kW	20	36	46	95
Air capacity	m^3/h	350	605	1400	2500
Fuel		EL heating oil according to DIN 51603 or diesel fuel			
Max. fuel consumption	l/h	2,01	3,62	4,62	9,52
Nozzle (Danfoss) [1)]	USG	0,40/80°S	0,60/80°S	0,85/80°S	2,0/80°S
Pump pressure, approx. [1)]	bar	11-12	13-14	13-14	10-11
Tank volume	Ltr.	17	40	62	105
Voltage supply	V/Ph	230/1~	230/1~	230/1~	230/1~
Frequency	Hz	50	50	50	50
Max. nominal current	A	1,0	1,3	1,8	2,5
Max. power consumption	W	200	290	430	520
Fuse protection (on site)	A	10	10	10	10
Noise pressure level L_{pA} 1m [2)]	dB(A)	74	77	78	79
Total length	mm	800	1050	1090	1400
Total width	mm	300	500	500	655
Total height	mm	520	615	740	890
Weight	kg	21	37	43	84
EDP no:		116202	116302	116502	116902

[1)] The said pump nozzle sizes and pressures resulting from adjust tests to the test stand.
The oil flow was calibrated.
Due to product-specific nozzle / pressure and tolerances as well as the oil temperature, the detail to be regarded as guidelines only.

[2)] Noise measurement according to DIN 45635 - 01 - Cl. 3

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REMKO INTERNATIONAL

… and somewhere near you!

Take advantage of our experience and consulting services

Consulting
Through intensive training, we make sure the expert knowledge of our consultants is always up-to-date. This has given us the reputation of being more than just a good, reliable supplier: REMKO, a partner
that helps solve problems.

Sales
REMKO not only provides an extensive sales network in Germany and abroad, but also unusually highly qualified sales experts.
REMKO sales representatives are more than just salespeople: they must also be customer consultants in air conditioning and heating technology.

Customer care
Our devices function precisely and reliably. If a malfunction appears, however, REMKO Customer Care is on the job. Our extensive network of experienced dealers guarantees you constant, short-term, and reliable service.

REMKO GmbH & Co. KG
Air conditioning and heating technology

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