

# IDX 20 D / IDX 31 D / IDX 50 D

EN

ORIGINAL INSTRUCTIONS  
OIL HEATER



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**Information on the use of these instructions**

**Symbols**

-  **Warning**  
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.
-  **Warning of electrical voltage**  
This symbol indicates dangers to the life and health of persons due to electrical voltage.
-  **Warning of flammable substances**  
This symbol indicates dangers to the life and health of persons due to flammable substances.
-  **Warning of hot surface**  
This symbol indicates dangers to the life and health of persons due to hot surface.
- Notice**  
This signal word indicates important information (e.g. material damage), but does not indicate hazards.
-  **Info**  
Information marked with this symbol helps you to carry out your tasks quickly and safely.
-  **Follow the manual**  
Information marked with this symbol indicates that the instructions must be observed.



**Wear hearing protection**

Information marked with this symbol indicates that you should wear hearing protection.

You can download the current version of these instructions via the following link:

IDX 20 D



<https://hub.trotec.com/?id=45250>

IDX 31 D



<https://hub.trotec.com/?id=43845>

IDX 50 D



<https://hub.trotec.com/?id=45251>



## Safety

**Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.**



### Warning

#### **Read all safety warnings and all instructions.**

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

#### **Save all warnings and instructions for future reference.**

This device must not be used by children and persons under 16 years of age.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children under 16 years.



### Warning

Do not use the device in rooms if persons are present who cannot leave the room independently and who are not under constant supervision.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
  - Do not use the device in an aggressive atmosphere.
  - Place the device in an upright and stable position on a horizontal and stable surface.
  - Let the device dry out after a wet clean. Do not operate it when wet.
  - Do not use the device with wet or damp hands.
  - Do not expose the device to directly squirting water.
  - Never insert any objects or limbs into the device.
  - Do not cover the device during operation.
  - Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
  - In Germany, the Federal Emission Protection Directive applies. Do not operate the device for more than 3 months at the same place. Prior to planning the flue gas system, gather information about the national legislation and contact a responsible specialist.
  - Do not sit on the device.
  - This appliance is not a toy. Keep away from children and animals.
  - Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.
  - Ensure that all electric cables outside of the device are protected from damage (e.g. caused by animals). Never use the device if electric cables or the power connection are damaged!
- The mains connection must correspond to the specifications in the Technical annex.
  - Insert the mains plug into a properly fused mains socket.
  - Observe the device's power input, cable length and intended use when selecting extensions to the power cable. Completely unroll extension cables. Avoid electrical overload.
  - Before carrying out maintenance, care or repair work on the device, remove the mains plug from the mains socket. Hold onto the mains plug while doing so.
  - Switch the device off and disconnect the power cable from the mains socket when the device is not in use.
  - Do not under any circumstances use the device if you detect damages on the mains plug or power cable. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.  
Defective power cables pose a serious health risk!
  - When positioning the device, observe the minimum distances from walls and other objects as well as the storage and operating conditions specified in the Technical annex.
  - Keep a safety distance of at least 3 m between the device's air outlet and all combustible materials such as textiles, curtains, beds and sofas.
  - Make sure that the air inlet and outlet are not obstructed.
  - Make sure that the suction side is kept free of dirt and loose objects.
  - Do not place the device on combustible ground.
  - Only transport the device in an upright position.
  - Only use original spare parts, for otherwise safe and functional operation cannot be ensured.
  - Do not use the device together with a programming device, a timer, a separate remote control system or any other device that automatically switches the heating device on, as there is a risk of fire if the heating device is covered or incorrectly positioned.

### Intended use

The device was developed for the purpose of generating hot air and may only be used in roofed over outdoor areas or in well-ventilated interior spaces whilst adhering to the technical data.

The device is suited for heating large rooms such as tents, warehouses, workshops, construction sites, greenhouses or agricultural halls.

It is intended to be used without frequent site changes.

The device may only be used in rooms with sufficient fresh air supply and exhaust discharge.

The device must only be operated with kerosene, EL (ultra-light) fuel oil and diesel, however not with petrol, heavy fuel oil etc.

Any use other than the intended use is regarded as misuse.

**Reasonably foreseeable misuse**

- Do not use the device in areas with a fire hazard or in potentially explosive areas.
- Do not place any objects, e.g. clothing, on the device.
- Do not use the device out of doors, unless under a roof.
- Do not operate the device in rooms without sufficient fresh air supply and exhaust discharge.
- Never immerse the device in water.
- Do not use this device in the vicinity of fuel, solvents, varnishes or other easily inflammable vapours or in rooms where these substances are stored.
- Do not use the heating device in immediate vicinity of swimming pools, bathtubs and showers.
- Do not make any unauthorised modifications, alterations or structural changes to the device.
- Do not mix different fuels.

**Personnel qualification**

People who use this device must:

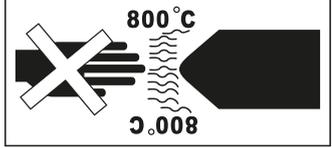
- have basic knowledge of how to safely handle electrical equipment.
- be aware of the dangers resulting from heat, fire hazard and insufficient ventilation when working with oil heaters.
- be aware of the dangers that occur when handling fuels such as EL fuel oil, diesel or kerosene
- have read and understood the instructions, especially the Safety chapter.

**Safety signs and labels on the device**

**Notice**

Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.

The following safety signs and labels are attached to the device:

Symbols	Meaning
	<p>This symbol located on the device indicates dangers to the life and health of persons due to emitted hot air.</p>

**Personal protective equipment**



**Wear hearing protection**

Wear appropriate hearing protection when working with the device.

**Residual risks**



**Warning of electrical voltage**

Work on the electrical components must only be carried out by an authorised specialist company!



**Warning of electrical voltage**

Before any work on the device, remove the mains plug from the mains socket!  
Do not touch the mains plug with wet or damp hands. Hold onto the mains plug while pulling the power cable out of the mains socket.



**Warning of electrical voltage**

Risk of electric shock!  
The device is not protected against water. There is a risk of electric shock! Never use the device in areas where dripping, spraying or running water can enter the device! Never immerse the device in water!



**Warning of flammable substances**

Handling fuels entails a risk of fire. Take sufficient precautions when handling fuels such as EL fuel oil, diesel or kerosene. Do not spill any fuels! Do not inhale the vapours nor swallow any fuel! Avoid skin contact!



**Warning of hot surface**

Parts of the device, especially at the air outlet, become very hot during operation. There is a danger of burning and fire. Do not touch the device during operation! During operation observe a safety distance of at least 2 m to the device front! Observe the minimum distance from walls or other objects according to the technical data!



**Warning of hot surface**

Parts of this appliance can become very hot and cause burns. Particular attention is to be paid when there are children or vulnerable persons present!



**Warning of hot surface**

Improper handling entails a risk of burning. Use this appliance only as described in this operating instructions.



**Warning**

Improper installation entails a risk of fire. Do not place the device on combustible ground. Do not place the device on high-pile carpets.



**Warning**

The device must not be covered, there is an imminent fire hazard!

### Behaviour in the event of an emergency

1. Set the rotary switch for the thermostat (19) to **0**.
2. Switch the device off and disconnect it from the mains.
3. Remove persons from the danger area.
4. Do not reconnect a defective device to the mains.

### Overheating protection

The device is provided with a safety thermostat which is activated by overheating of the device (when exceeding the operating temperature).

Investigate the cause of overheating.

If the safety thermostat does not switch in the event of overheating, the overheating protection will be tripped. In that case the device switches off completely. If so, please contact the customer service to have the overheating protection replaced.

### Information about the device

#### Device description

The direct-fired oil heater serves the purpose of heating the room air so as to quickly heat large, well-ventilated rooms. The oil heater is operated with kerosene, EL fuel oil or diesel.

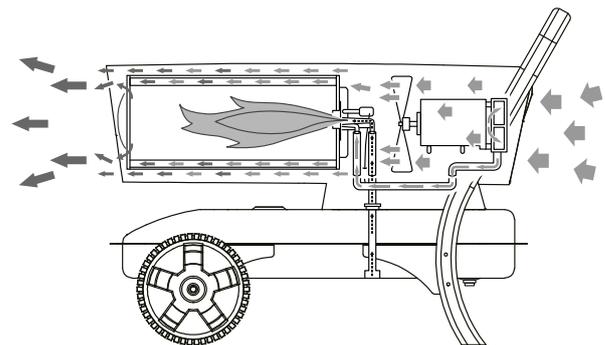
It is an oil heater with direct combustion to be installed in roofed outdoor areas or in rooms with a sufficient fresh air supply.

The device is not protected against water (IPX0).

#### Functional principle

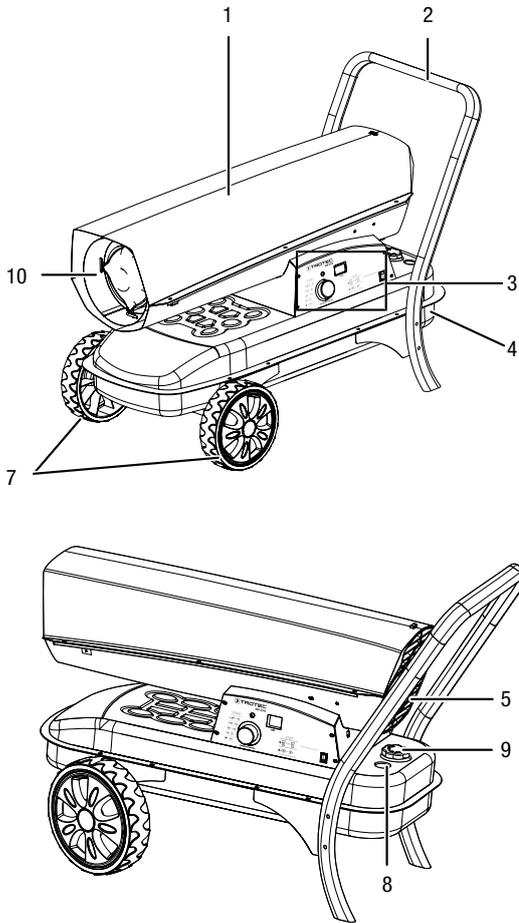
The device generates warmth by conveying the sucked-in, cold air past a combustion chamber. Inside the combustion chamber the fuel is burned. The sucked-in air is heated and fed back to the environment via the air outlet.

A part of the sucked-in air is compressed and conducted to the injection. The fuel is fed from the tank to the injection by the negative pressure thus created. An ignition contact at the injection ignites the fuel, which is then burned in a continuous flame.



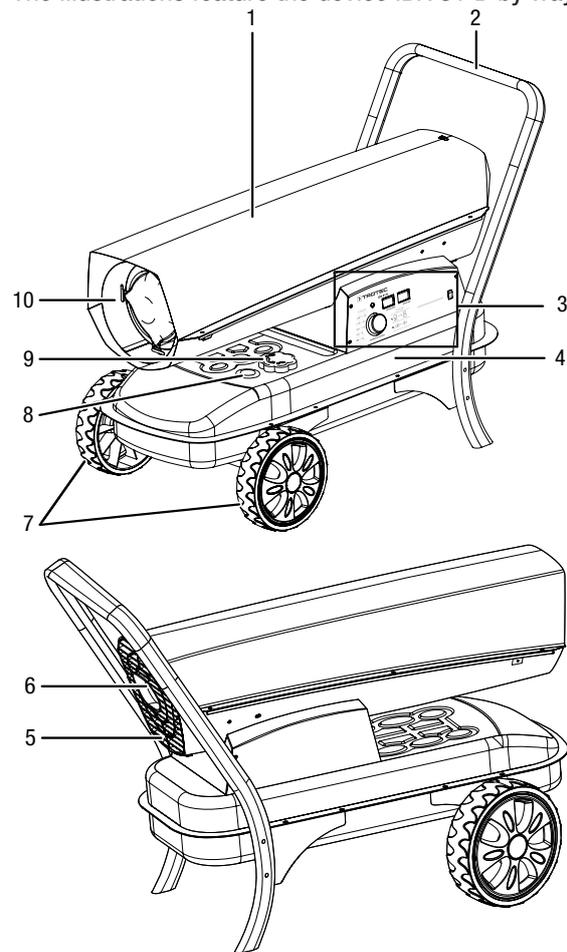
**Device depiction**

**IDX 20 D**



**IDX 31 D / IDX 50 D**

The illustrations feature the device IDX 31 D by way of example.



No.	Designation
1	Upper part of the housing
2	Transport handle
3	Control panel
4	Tank
5	Air inlet with protective grid
6	Pressure gauge
7	Wheel
8	Tank filling level indication
9	Fuel tank cap
10	Air outlet

## Transport and storage

### Notice

If you store or transport the device improperly, the device may be damaged.

Note the information regarding transport and storage of the device.

### Transport

To make the device easier to transport, it is fitted with a transport handle and wheels.

**Before** transporting the device, observe the following:

- Switch the device off.
- Disconnect the device from the mains by removing the mains plug from the socket. When doing so, be sure to hold the plug, not the cable.
- Do not use the power cable to drag the device.
- Allow the device to cool down sufficiently.

**While** transporting the device, observe the following:

- Slightly lift the device by the transport handle (2) until the rear support no longer touches the ground.
- Wheel the device to the desired position.

### Storage

**Before** storing the device, observe the following:

- Switch off the device.
- Disconnect the device from the mains by removing the mains plug from the socket. When doing so, be sure to hold the plug, not the cable.
- Allow the device to cool down sufficiently.

When the device is not being used, observe the following storage conditions:

- Store the device in a dry location and protected from frost and heat.
- Store the device in an upright position where it is protected from dust and direct sunlight.
- If required, use a cover to protect the device from invasive dust.

## Assembly and start-up

### Scope of delivery

IDX 20 D

- 1 x Device
- 1 x Transport handle
- 2 x Wheel
- 1 x Axle
- 2 x Split pin
- 2 x Washer
- 2 x Support frame for wheels
- 2 x Support frame for transport handle
- 8 x Small screw
- 4 x Large screw
- 1 x Manual

IDX 31 D and IDX 50 D

- 1 x Device
- 1 x Transport handle
- 2 x Wheel
- 2 x Wheel cap
- 1 x Axle
- 2 x Split pin
- 2 x Washer
- 2 x Support frame for wheels
- 2 x Support frame for transport handle
- 8 x Small screw
- 4 x Large screw
- 1 x Manual

### Unpacking the device



#### Warning

There is a danger of suffocation for children due to packaging material! Keep packaging films and parts away from children. There is a risk of death due to suffocation.

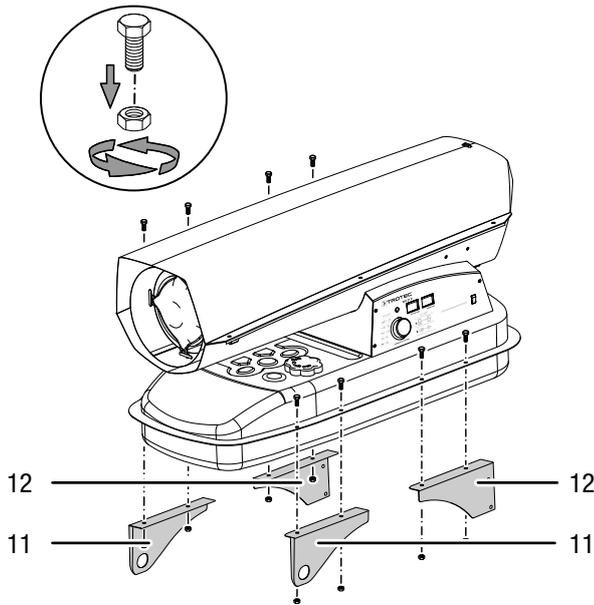
1. Open the cardboard box and take the device out.
2. Completely remove the packaging.
3. Fully unwind the power cable. Make sure that the power cable is not damaged and that you do not damage it during unwinding.

**Assembly**

Upon delivery the device is partially preassembled. The support frames, wheels and transport handle still need to be mounted.

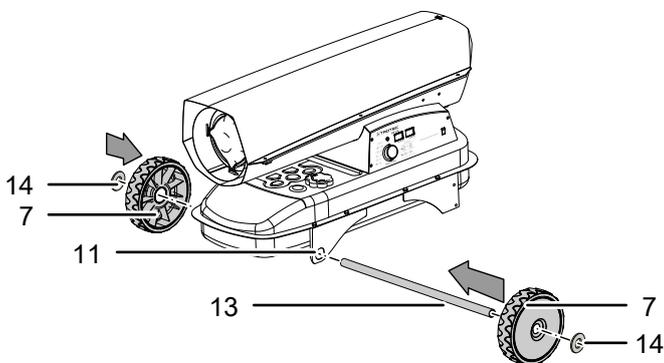
**Assembling the support frames**

1. Use 2 small screws each to affix the two support frames for the wheels (11) at the tank's front flanges.
2. Use 2 small screws each to affix the two support frames for the transport handle (12) at the tank's rear flanges.

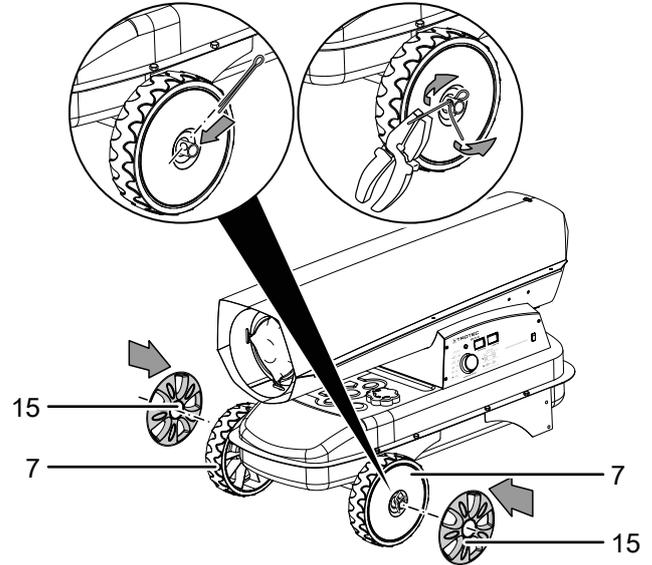


**Assembling the wheels**

1. Push the axle (13) through the openings of the two support frames (11).
2. Attach both wheels (7) to the axle.
3. Slide the washers (14) onto the axle.



4. **The following step only applies to IDX 20 D:** Secure the wheels (7) on the axle by means of the split pins.
5. **The following step only applies to IDX 31 D und IDX 50 D:** Secure the wheels on the axle using the split pins and place the wheel caps (15) on the wheels.

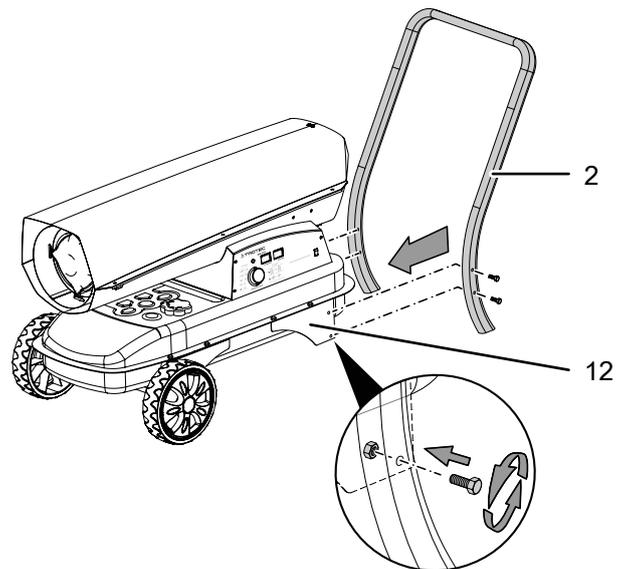


**Info**

If necessary, the device can be disassembled again (e.g. for storage). To remove the wheels from the axle, you can carefully loosen the wheel caps (if available) by means of a slotted screwdriver and then straighten the split pins using pliers.

**Mounting the transport handle**

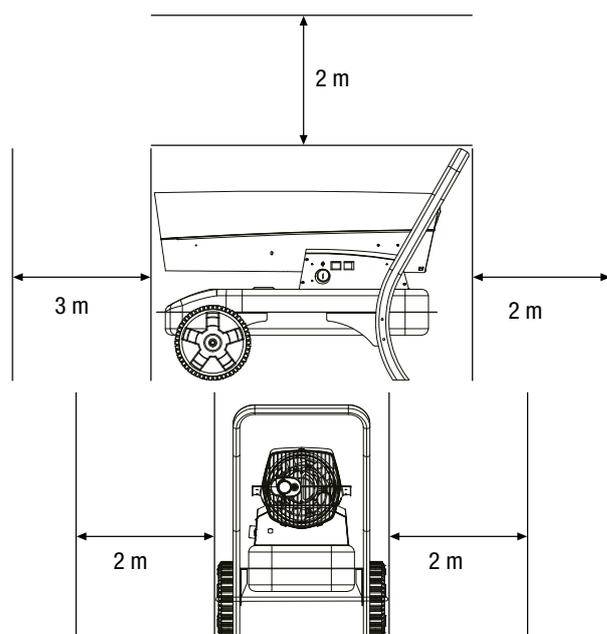
1. Use 2 large screws each to affix the transport handle at the two support frames (12) for the transport handle (2).



## Positioning

Observe the following guidelines when selecting the installation location. Failure to observe the instructions may impair the functionality of the device/accessories and/or result in injury.

- In Germany, the Federal Emission Protection Directive applies. Do not operate the device for more than 3 months at the same place. Prior to planning the flue gas system, gather information about the national legislation and contact a responsible specialist.
- Only use the device in roofed outdoor areas or in well-ventilated indoor spaces in compliance with the technical data.
- Place the device in a stable position and on a non-flammable surface.
- Set up the device near a fireplace, an outside wall or on an open, ventilated surface.
- Connect the device to a properly fused mains socket.
- Ensure a sufficient fresh air supply, especially when there are people or animals in the same room with the device! Provide for sufficient ventilation in the room in which the device is installed.
- The minimum distance between walls or other objects and the air inlet opening of the device must be at least 2 m (see figure).
- Never cover the air inlets and outlets.
- There must be a sufficient number of fire extinguishers available. Observe the applicable local regulations, e.g. the ASR Workplace Regulation.



## Start-up

- Observe the instructions described in the chapter Positioning.
- Check the scope of delivery for completeness. If an accessory is missing, contact the manufacturer or a specialist dealer.
- Check the device and its connection parts for potential damage. Check the device regularly during use to ensure that it is in good condition.
- Fill the tank of the device with kerosene, EL fuel oil or diesel as described under "Filling the tank".
- Ensure that the power supply specifications match the specifications on the nameplate.
- Ensure that the fan can move freely before connecting the mains plug and before switching on the device.
- Connect the power cable to a properly secured socket. On construction sites, there must be a residual current device (RCD) upstream of the socket in accordance with national regulations (in Germany: VDE 0100/0105).

The device is now ready for operation.

### Filling the tank

**IDX 20 D:** The fuel tank cap (9) and the filling level indication (8) are located under the transport handle.

**IDX 31 D and IDX 50 D:** The fuel tank cap (9) and the filling level indication (8) are located to the left of the control panel.

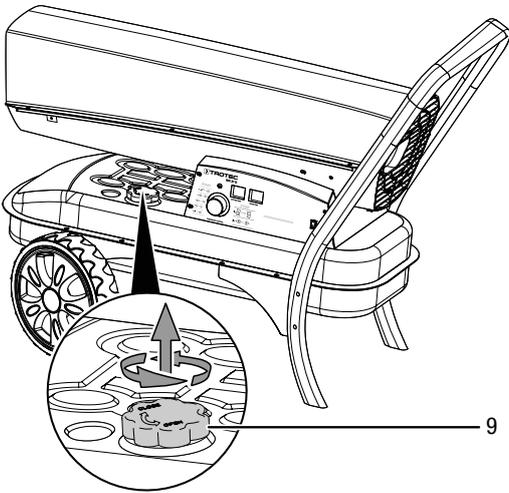


**Info**

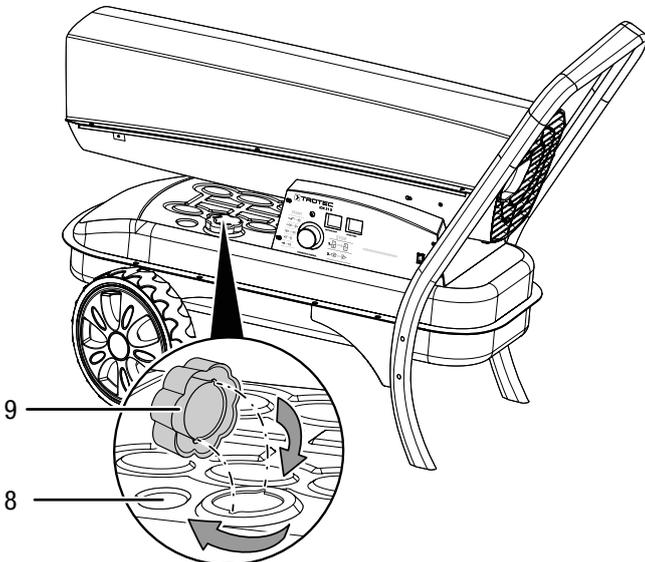
Filling the tank is explained using the device IDX 31 D as an example.

- ✓ The tank has cooled down completely.
- ✓ Suitable fuel is available for the device (see Technical Data).

1. Position the device on firm, level and incombustible ground.
2. Unscrew the fuel tank cap (9).



3. Fill the tank until the red area on the tank filling level indication (8) is almost reached.
4. Screw the fuel tank cap (9) back onto the tank.
  - ⇒ Observe the recesses at the tank opening and the protrusions at the fuel tank cap. They must be aligned when attaching the fuel tank cap. The fuel tank cap is firmly attached to avoid leakage.



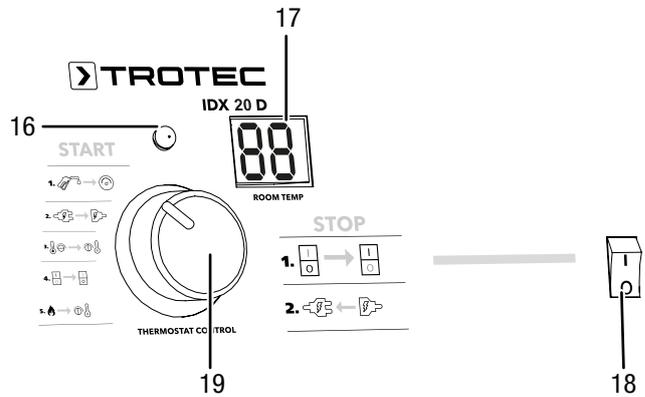
### Operation



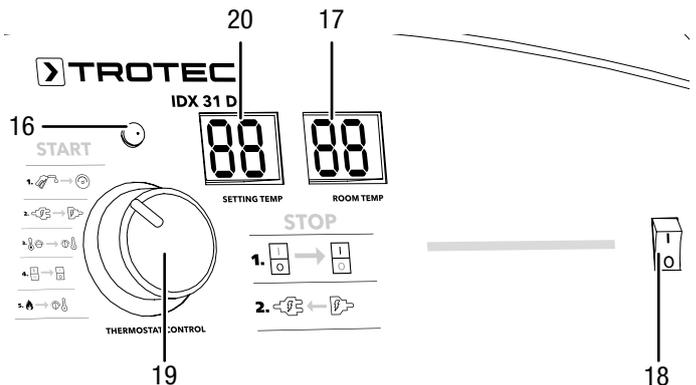
**Info**

The device may only be used by accordingly instructed persons.

#### Operating elements IDX 20 D



#### Operating elements IDX 31 D and IDX 50 D



No.	Designation
16	Operating light
17	Room temperature indication
18	On/off switch
19	Rotary control thermostat
20	Desired room temperature indication

## Switching the device on



### Wear hearing protection.

Excessive noise can lead to hearing loss.

### Notice

The device continues to operate until the desired room temperature is reached.

1. Set the on/off switch (18) to position **I**.  
⇒ The operating light (16) is illuminated.
2. Set the rotary control *thermostat* (19) to the desired room temperature.  
⇒ This set room temperature should be higher than the current room temperature.  
⇒ **IDX 20 D**: The current room temperature is displayed via the *room temperature* indication (17).  
⇒ **IDX 31 D and IDX 50 D**: The set room temperature is displayed via the *desired room temperature* indication (20).

## Switch the device on again for the first time or after a fault.

During initial start-up and after the fuel oil circuit has been drained completely, the fuel oil supply to the nozzle may be insufficient. In this case, the flame monitoring system will respond and the device will be blocked.

Please proceed as follows to make the device ready for operation again:

- ✓ The tank is sufficiently refilled. Otherwise, fill the tank as described under "Filling the tank" in the Assembly and start-up chapter.
1. Wait for approx. 1 minute.
  2. Switch on the device by setting the on/off switch (18) to position **I**.

If the device is still not starting, please proceed as described in the Errors and faults chapter.

## Shutdown



### Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

### Notice

Damage to the device due to overheating!

Never switch off the device by pulling the mains plug. This may lead to overheating!

Switch off the device properly. Only remove the mains plug from the device once the fan motor has stopped completely.

1. Switch off the device by setting the on/off switch (18) to position **0**.  
⇒ The operating light (16) goes out.
2. Wait until the fan motor has come to a complete standstill.
3. Secure the device against inadvertent switch-on by pulling the mains plug.
4. Allow the device to cool down completely.

## Errors and faults



### Warning of electrical voltage

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by the manufacturer.



### Warning

Risk of injury due to improper repair!

Never try to make any modifications or repairs on the device.

Unauthorised modifications can lead to serious injuries or death.

Only have repairs carried out by a certified specialist workshop or by the manufacturer.

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

### The device does not start:

- Check the power connection.
- Check the power cable and mains plug for damage. If you notice damages, do not try to take the device back into operation.  
If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Check the on-site fusing.
- The safety thermostat might have tripped due to overheating. Switch the device off and let it cool down for at least 10 minutes.

### The device starts running, but switches off again after a brief period:

- The pressure on the pump may be set incorrectly. Check the pressure at the pump and adjust it if necessary, see section "Adjusting the air pressure for the pump" in the Maintenance chapter.
- The air filter may be soiled. Check the air filter for dirt and replace and clean the air filter if necessary, see section "Cleaning the air filters and fan" in the Maintenance chapter.

### The fan is running, but the device does not start:

- There is no fuel in the tank. Check the filling level of the tank. Refill fuel if the tank is empty. See section "Filling the tank" in the Assembly and start-up chapter.
- The pressure on the pump may be set incorrectly. Check the pressure at the pump and adjust it if necessary, see section "Adjusting the air pressure for the pump" in the Maintenance chapter.

**The fan does not start, even though the device is connected and switched on:**

- The thermostat may be set too low. Turn up the thermostat setting, see chapter Operation.

**The device is switched on and *OFF* appears in the *room temperature* indication (17):**

- Turn the rotary control *thermostat* (19) to the left until *05* appears in the *room temperature* indication (17) (IDX 20 D) or *desired room temperature* indication (20) (IDX 31 D / IDX 50 D). Wait a few seconds and turn the rotary control *thermostat* (19) to the right until the current room temperature is displayed in the *room temperature* indication (17).

**Unclean combustion:**

- The air filter may be soiled. Check the air filter for dirt and replace and clean the air filter if necessary, see section "Cleaning the air filters and fan" in the Maintenance chapter.
- The fuel may be of poor quality. Drain the fuel completely, see section "Draining the tank" in the Maintenance chapter. Add new fuel, see section "Filling the tank" in the Assembly and start-up chapter.
- The pressure on the pump may be set incorrectly. Check the pressure at the pump and adjust it if necessary, see section "Adjusting the air pressure for the pump" in the Maintenance chapter.

**Smoke and/or sparks are emitted during first use:**

- This is not a fault or a malfunction. These phenomena disappear after a brief runtime.

**Noise emission during ignition or cooling:**

- This is not a fault or a malfunction. The metal parts of the device expand when heated and generate noise.

**Sparks and/or flames are issued from the device's front or rear during ignition:**

- This is not a fault or a malfunction. Air might have accumulated in the lines. Keep a safety distance to the openings of the device!

**The flame in the combustion chamber does not ignite:**

- Check the filling level of the tank. Refill fuel if the tank is empty, see "Filling the tank".
- Check the fuel for contaminations, e.g. dirt or water. If required, drain the fuel completely and fill in new and clean fuel, see "Filling the tank".
- Safety shutdown: if the flame dies during operation, the electronics and the oil pump will be switched off. Investigate the cause on the basis of the following criteria:
  - **For qualified personnel only!**  
Check the ignition: The distance between the two ignition electrodes should be 4 to 5 mm.

**The flame goes out during combustion:**

- Make sure the air supply is unobstructed. If required, clean the air intake opening.
- Check the filling level of the tank. Refill fuel if the tank is empty, see "Filling the tank".
- There is moisture in the tank. Please contact the customer service.
- Check the fuel for contaminations, e.g. dirt or water. If required, drain the fuel completely and fill in new and clean fuel, see "Filling the tank".
- Power failure: In the event of a power failure the ignition is extinguished, the device switches off immediately. The device does not restart automatically after the power failure. Switch the device on again by setting the on/off switch (18) to position I.

**The device emits smoke or dust:**

- Check the fuel for contaminations, e.g. dirt or water. If required, drain the fuel completely and fill in new and clean fuel, see "Filling the tank".

**The flame emerges from the air outlet:**

- Check the fuel for contaminations and replace it if required.
- Check the tank for contaminations and drain it if required, see Maintenance chapter. Refill with clean fuel.

**The device still does not operate correctly after these checks:**

Contact the manufacturer's customer service. If necessary, take the device to an authorised specialist electrical company or to the manufacturer for repair.

## Maintenance

## Maintenance intervals

Maintenance and care interval	before every start-up	every 500 operating hours	as needed	at least every 2 weeks	at least every 4 weeks	at least every 6 months	at least annually
Check air inlets and outlets for dirt and foreign objects and clean if necessary	X						
Check air inlet grid(s) for dirt and foreign objects and clean if necessary	X			X			
Clean the exterior			X				X
Visually inspect the inside of the device for dirt			X		X		
Check for damage	X						
Check the attachment screws			X				X
Clean the fuel filter			X				
Cleaning air filters and fan		X					
Test run							X

## Maintenance and care log

Device type: .....

Device number: .....

Maintenance and care interval	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Check air inlets and outlets for dirt and foreign objects and clean if necessary																
Check air inlet grid(s) for dirt and foreign objects and clean if necessary																
Clean the exterior																
Visually check the inside of the device for dirt																
Check for damage																
Check the attachment screws																
Cleaning air filters and fan																
Clean the fuel filter																
Test run																
Comments																

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: .....

**Activities required before starting maintenance**



**Warning of electrical voltage**

Do not touch the mains plug with wet or damp hands.

- Switch the device off.
- Disconnect the device from the mains by removing the mains plug from the socket. When doing so, be sure to hold the plug, not the cable.
- Allow the device to cool down completely.



**Warning of electrical voltage**

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by the manufacturer.

**Cleaning the housing**

Clean the housing with a soft, slightly damp and lint-free cloth. Ensure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.

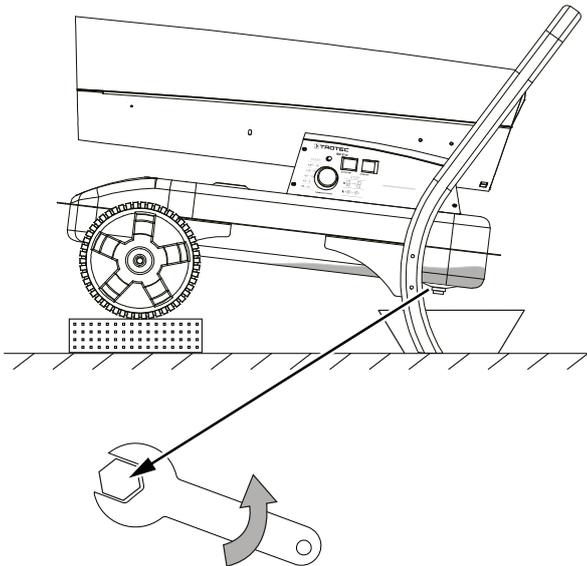
**Draining the tank**



**Info**

Draining the tank is explained using the IDX 31 D as an example.

1. Provide for a suitable collection container.
2. Move the device to an elevated position.
3. Use a wrench to open the screw at the bottom of the tank.



5. When no more fuel is discharged, seal the drain hole again.
  - ⇒ Ensure the tight fit of the screw and, if required, replace the seal, for otherwise fuel might leak out uncontrollably.
6. Dispose of the fuel according to national regulations.

**Cleaning air filters and fan**

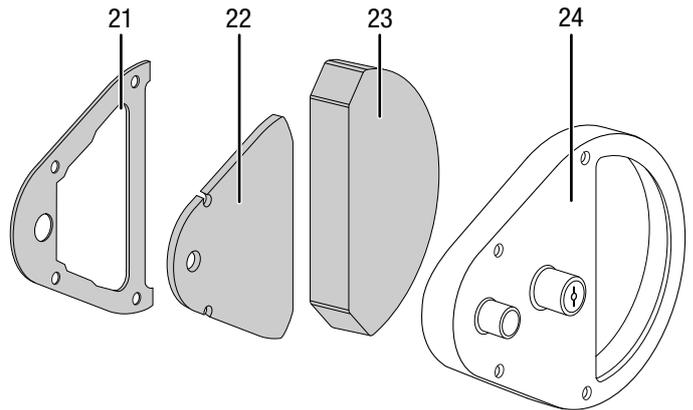
The two air filters should be checked, cleaned and possibly replaced approx. every 500 operating hours.

The fan ought to be checked for dirt at least once per heating season. This activity can be carried out along with the inspection of the air filters.

**Overview of air filters**

The filter housing consists of the following parts:

- filter seal (21)
- prefilter (22)
- foam filter (23)
- filter housing (24)

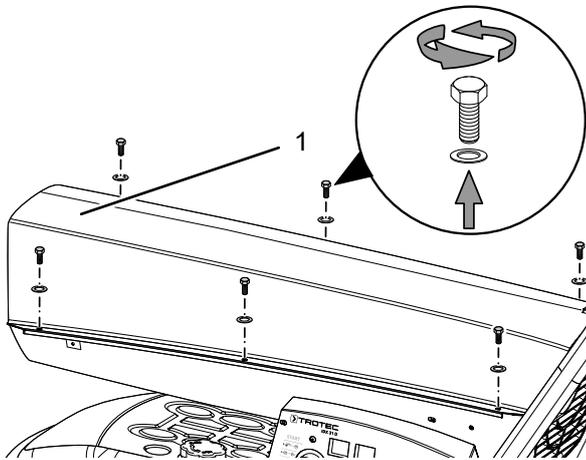


4. Drain the fuel into the collection container.

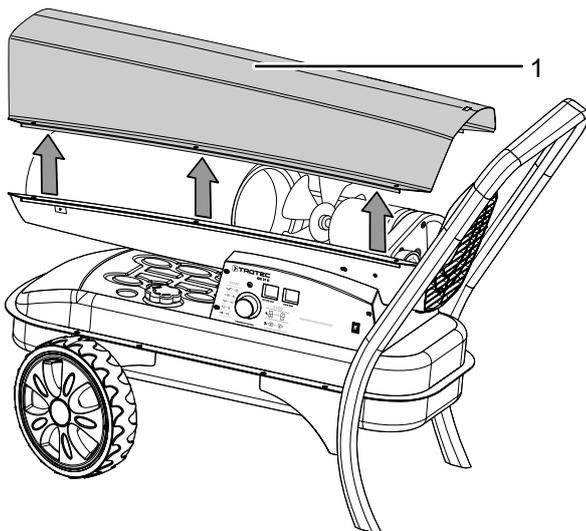
### Opening the housing

To check the fan and the air filters you will first have to remove the upper part of the housing: To do so, please proceed as follows:

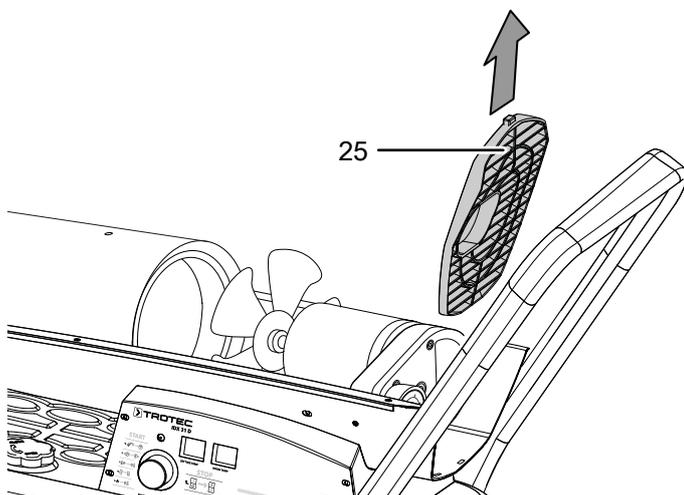
1. Loosen the 6 screws at the upper part of the housing (1).



2. Remove the upper part of the housing (1).

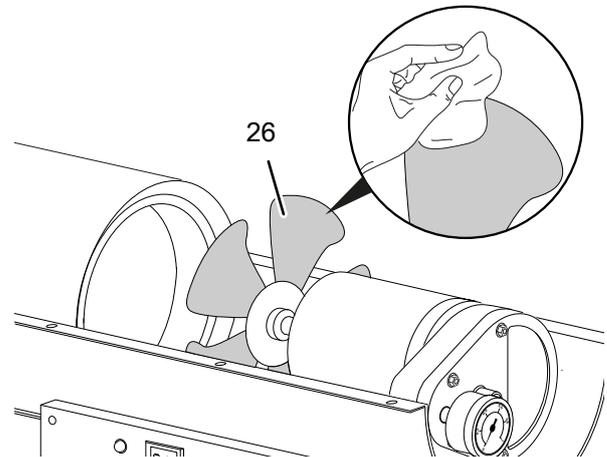


3. Remove the protective grid (25).



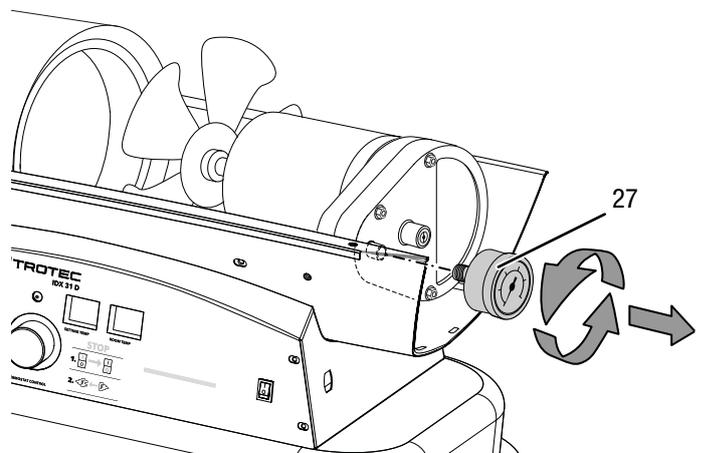
### Cleaning the fan blades

1. Carefully clean the fan blades (26) with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.



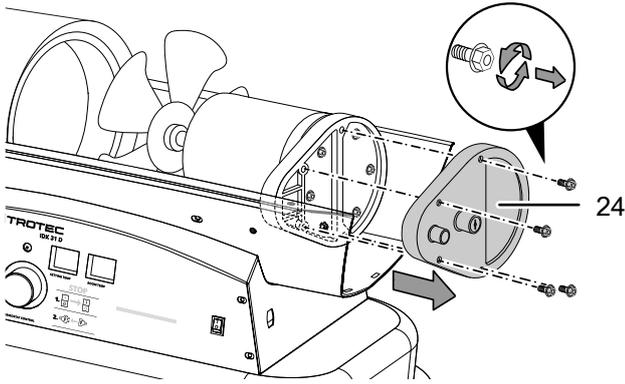
### Opening the filter housing

1. Unscrew the pressure gauge (27).

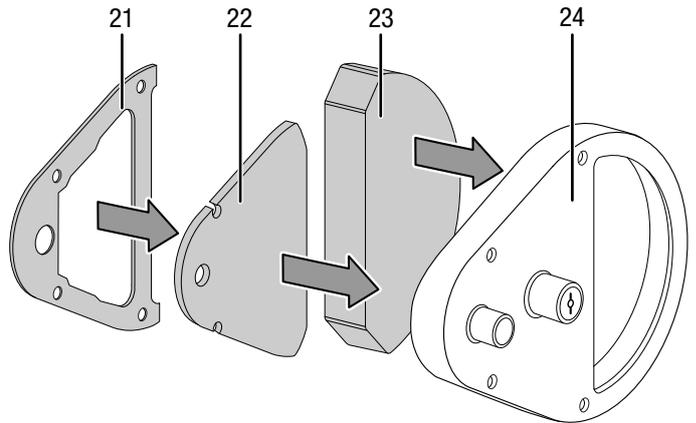


2. Loosen the hexagonal bolts at the filter housing (24).

- Remove the filter housing (24) with filters (22 and 23) and sealing (21).

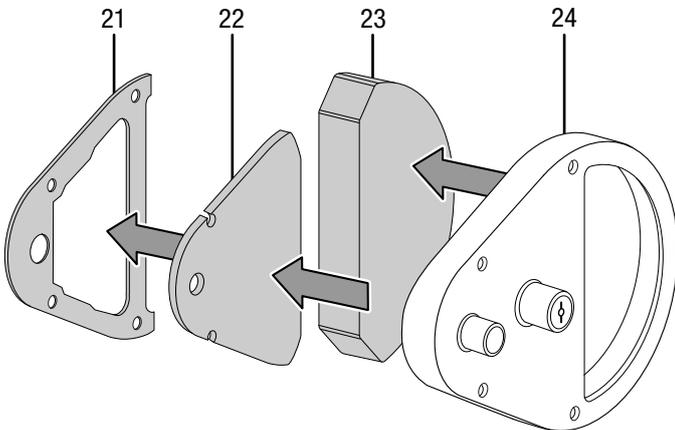


- Insert both filters into the filter housing (24). Ensure the proper seating of the filter seal (21).



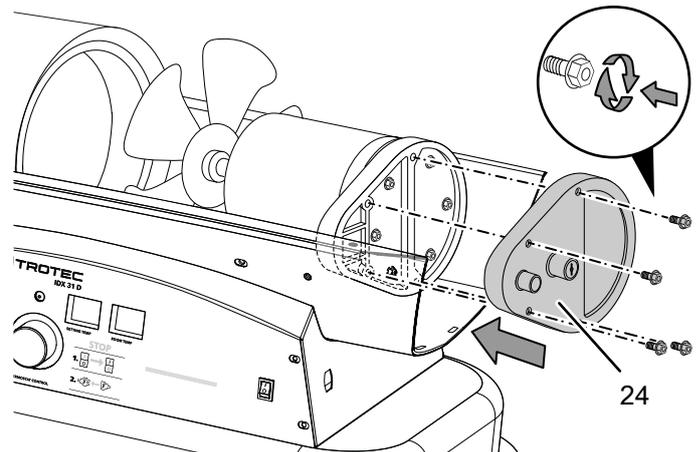
**Removing filters for cleaning or replacement**

- Remove both filters (22 and 23) from the filter housing (24) and the filter seal (21).



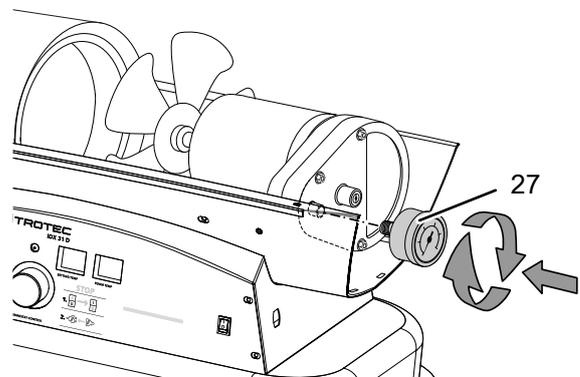
**Assembling the filter housing**

- Attach the filter housing (24) with filters (22 and 23) and filter seal (21).



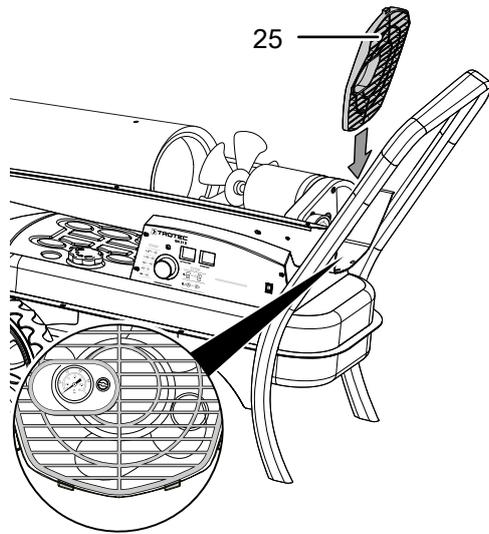
- Check both filters for dirt or damage. Replace the prefilter (22) if needed. If required, clean the foam filter (23) using a slightly damp, soft, lint-free cloth. If the foam filter is heavily contaminated, clean it with warm water mixed with a neutral cleaning agent.
- Allow the foam filter to dry completely. Do not put any wet filters into the device.

- Tighten the hexagonal bolts at the filter housing (24).
- Screw on the pressure gauge (27).

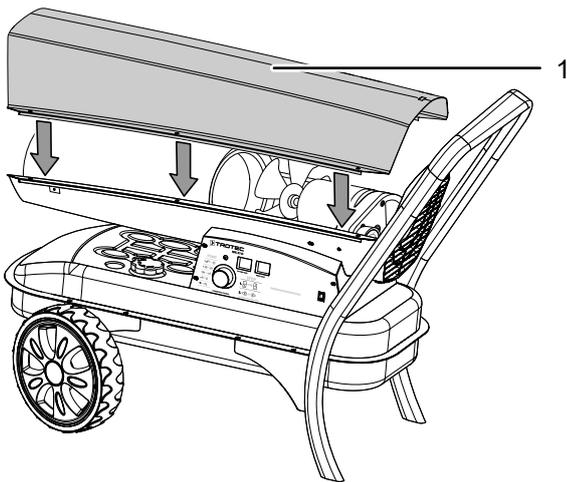


### Assembling the upper part of the housing

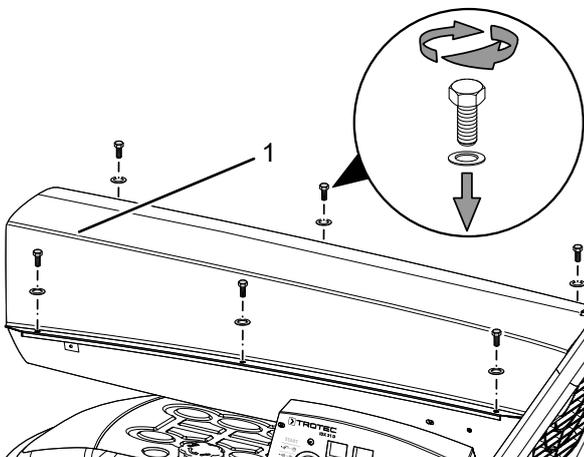
1. Attach the protective grid (25).



2. Place the upper part of the housing (1) on the device.



3. Tighten the 6 screws at the upper part of the housing (1).



### Adjusting the air pressure for the pump

Ideally, the air pressure should range between 0.32 bar and 0.36 bar. During operation, the air pressure can be read from the pressure gauge (27).

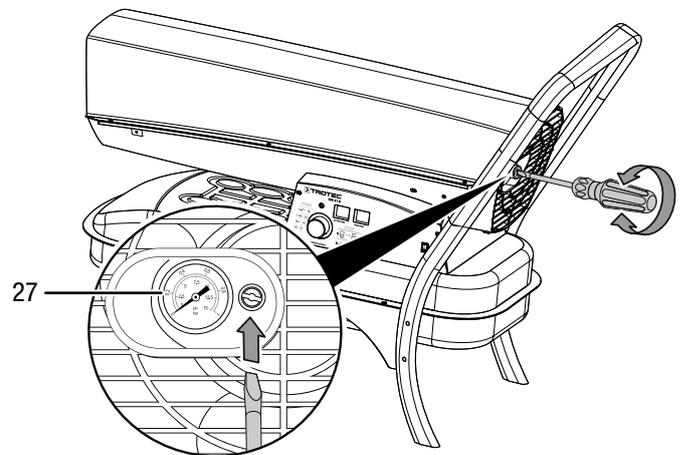


#### Info

If the air pressure exceeds 0.36 bar, a flame emerges from the air outlet of the device. The device then stops running.

If the pressure is lower than 0.32 bar, the device continues to operate, but with a reduced performance.

1. Adjust the air pressure during operation by means of a slotted screwdriver.
  - ⇒ For lowering turn the screw counter-clockwise; for increasing turn it clockwise.



**Technical annex**
**Technical data**

Parameter	Value		
Model	IDX 20 D	IDX 31 D	IDX 50 D
Article number	1.430.000.051	1.430.000.067	1.430.000.071
Method of heating	direct	direct	direct
Air flow rate	450 m <sup>3</sup> /h	750 m <sup>3</sup> /h	1100 m <sup>3</sup> /h
Operating range	-40 °C to 45 °C	-40 °C to 45 °C	-40 °C to 45 °C
Mains connection	220–240 V / 50 Hz	220–240 V / 50 Hz	220–240 V / 50 Hz
Nominal heat output	20 kW (17,200 kcal)	30 kW (25,800 kcal)	55 kW (47,300 kcal)
Nominal current	0.61 A	1.27 A	1.36 A
Max. power consumption	140 W	290 W	310 W
Max. fuel consumption	1.9 l/h	3 l/h	4.8 l/h
Sound level (at a distance of 1m)	84 dB(A)	84 dB(A)	84 dB(A)
Dimensions (length x width x height)	920 x 425 x 618 mm	935 x 514 x 702 mm	1119 x 576 x 711 mm
Type of protection	IPX0	IPX0	IPX0
Minimum distance to walls and other objects			
A: top	2 m	2 m	2 m
B: rear	2 m	2 m	2 m
C: side	2 m	2 m	2 m
D: front	3 m	3 m	3 m
Weight	17 kg	23 kg	26 kg


**Wear hearing protection.**

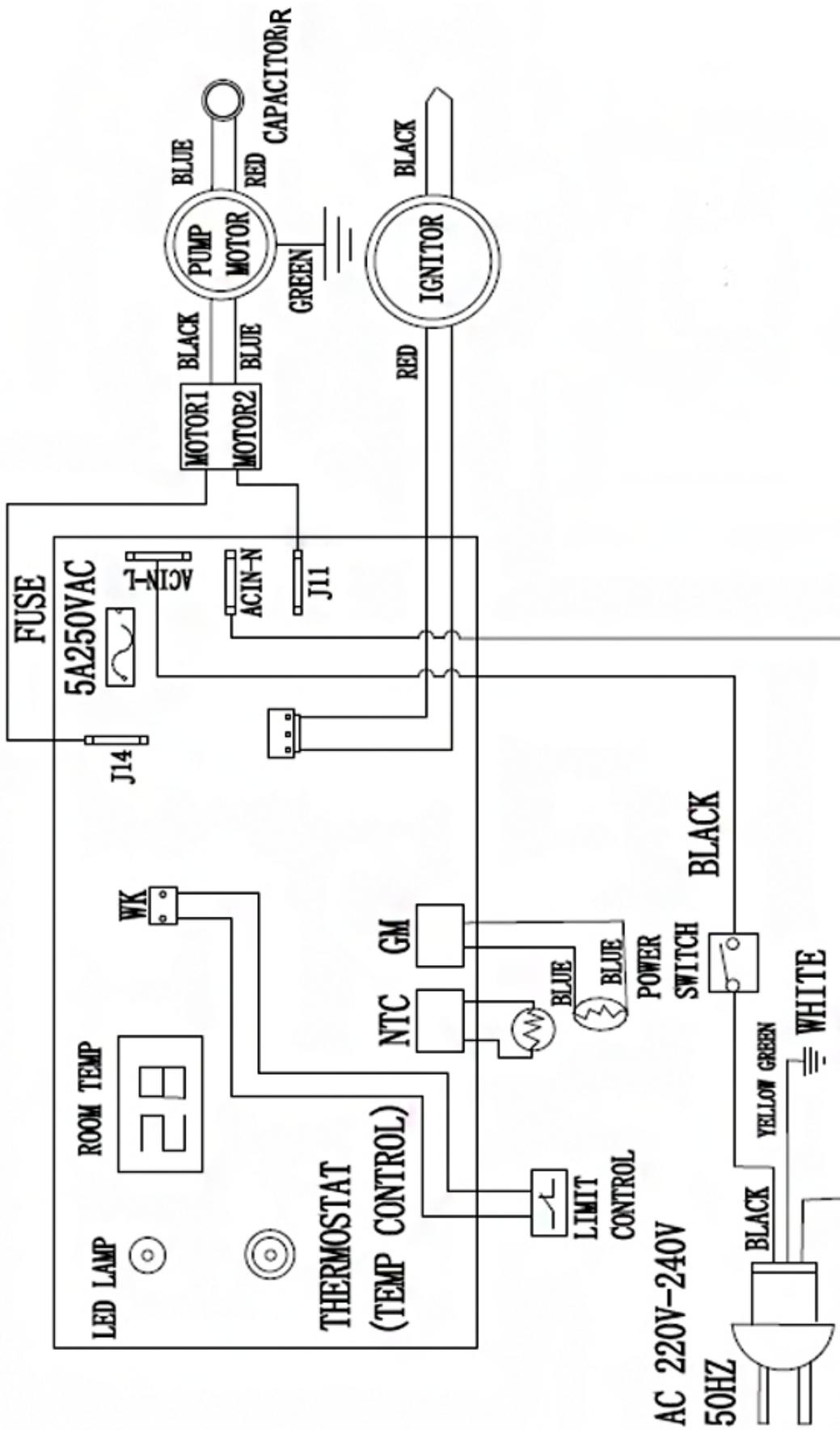
Excessive noise can lead to hearing loss.

**Fuels**

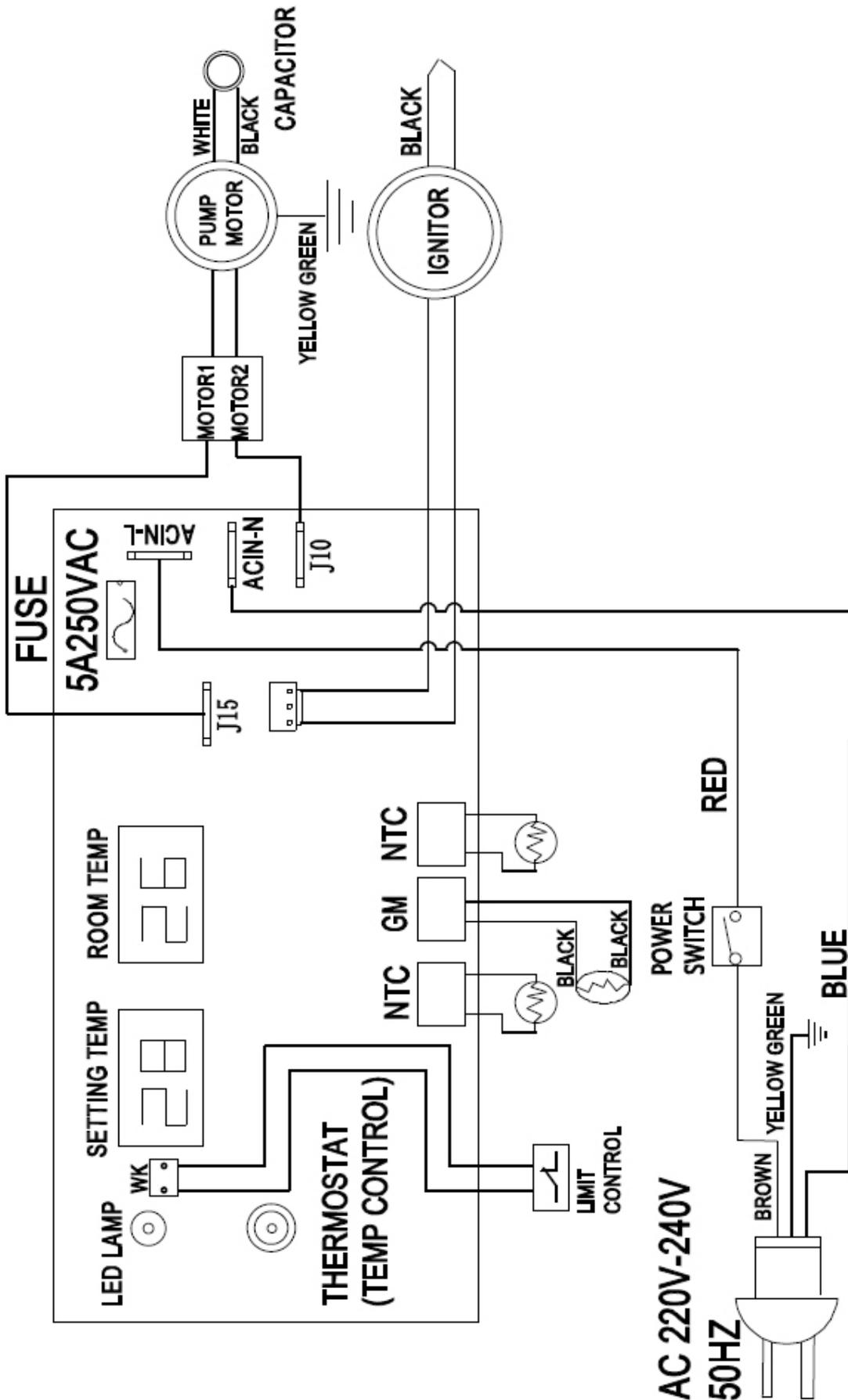
The following fuels are approved for the device:

- EL fuel oil
- Diesel
- Kerosene

Wiring diagram IDX 20 D



Wiring diagram IDX 31 D / IDX 50 D

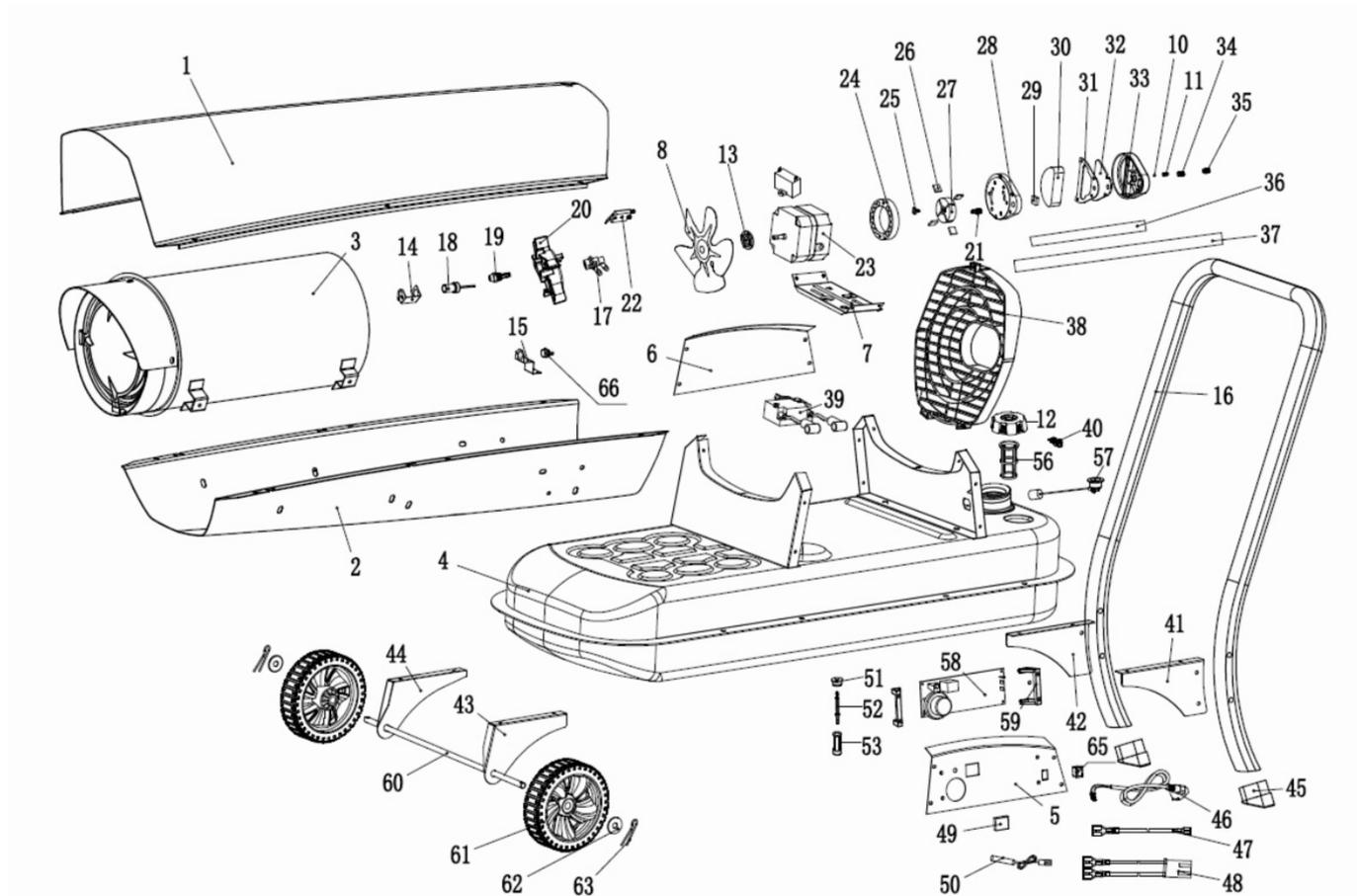


**Overview of spare parts and spare parts list IDX 20 D**



**Info**

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



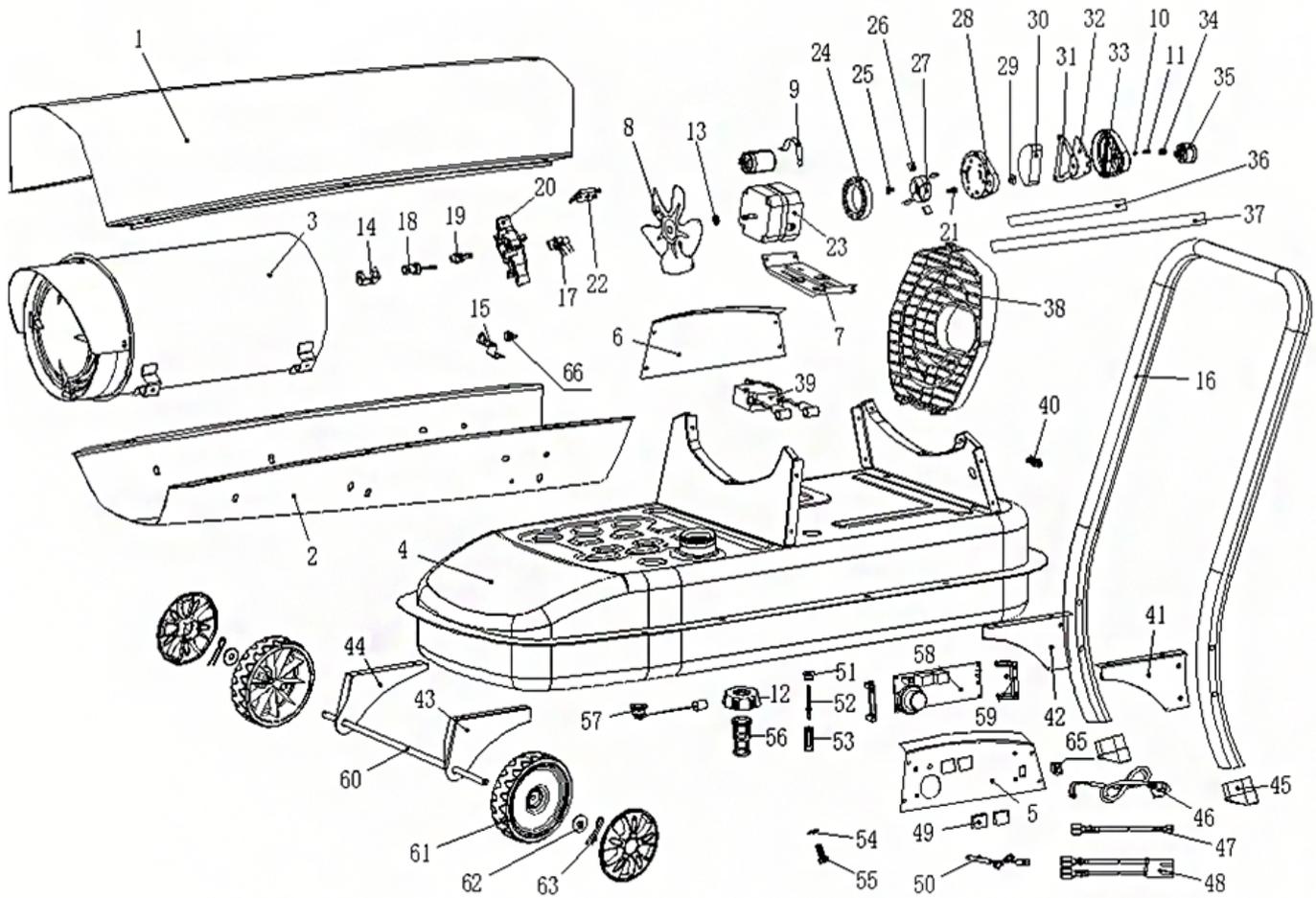
No.	Spare Part	No.	Spare Part	No.	Spare Part
1	Upper Shell	23	Motor	45	Push the frame Cover
2	Lower Shell	24	Pump Body	46	Power Cord
3	Combustion Chamber Assembly	25	Rotor Kit Insert	47	Connecting Line For Power Cord
4	Fuel Tank Assembly	26	Blade	48	Connecting Line For Thermostat
5	Left Side Cover	27	Rotor Kit	49	Windows Display
6	Right Side Cover	28	End Pump Cover	50	Temperature Sensor
7	Motor mounting bracket	29	Lint Filter	51	Seal Sleeve
8	Fan assembly	30	Filter Kit	52	Fuel Filter #2 Connecting Pipe
9	Fixed belt	31	Gasket Outlet Filter	53	Fuel Filter #2
10	Ball	32	Output Filter	54	Drain Spacer
11	Spring	33	End Filter Cover	55	Drain Screw
12	Fuel Cap	34	Adjustment Screw	56	Fuel Filter #1
13	Fan blade Aluminum base	35	Air pressure Guage /Pressure plug (PK80W)	57	Fuel Gauge
14	Photo Cell Bracket	36	Fuel Line	58	PCB
15	Thermostate Bracket	37	Air Line	59	Left PCB Bracket
16	Rear Handle	38	Fan Guard	60	Wheel Axle
17	Nozzle seat	39	Ignitor	61	Wheel
18	Photo Cell	40	Power Cord clip	62	Spacer
19	Nozzle	41	Left push Frame Fixing Plate	63	Split Pin
20	Burner Head	42	Right push Frame Fixing Plate	64	Handle
21	Nipple	43	Left Wheel retaining Plate	65	Power Switch
22	Spark Plug Kit	44	Right Wheel retaining Plate	66	Thermostat

**Overview of spare parts and spare parts list IDX 31 D**



**Info**

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



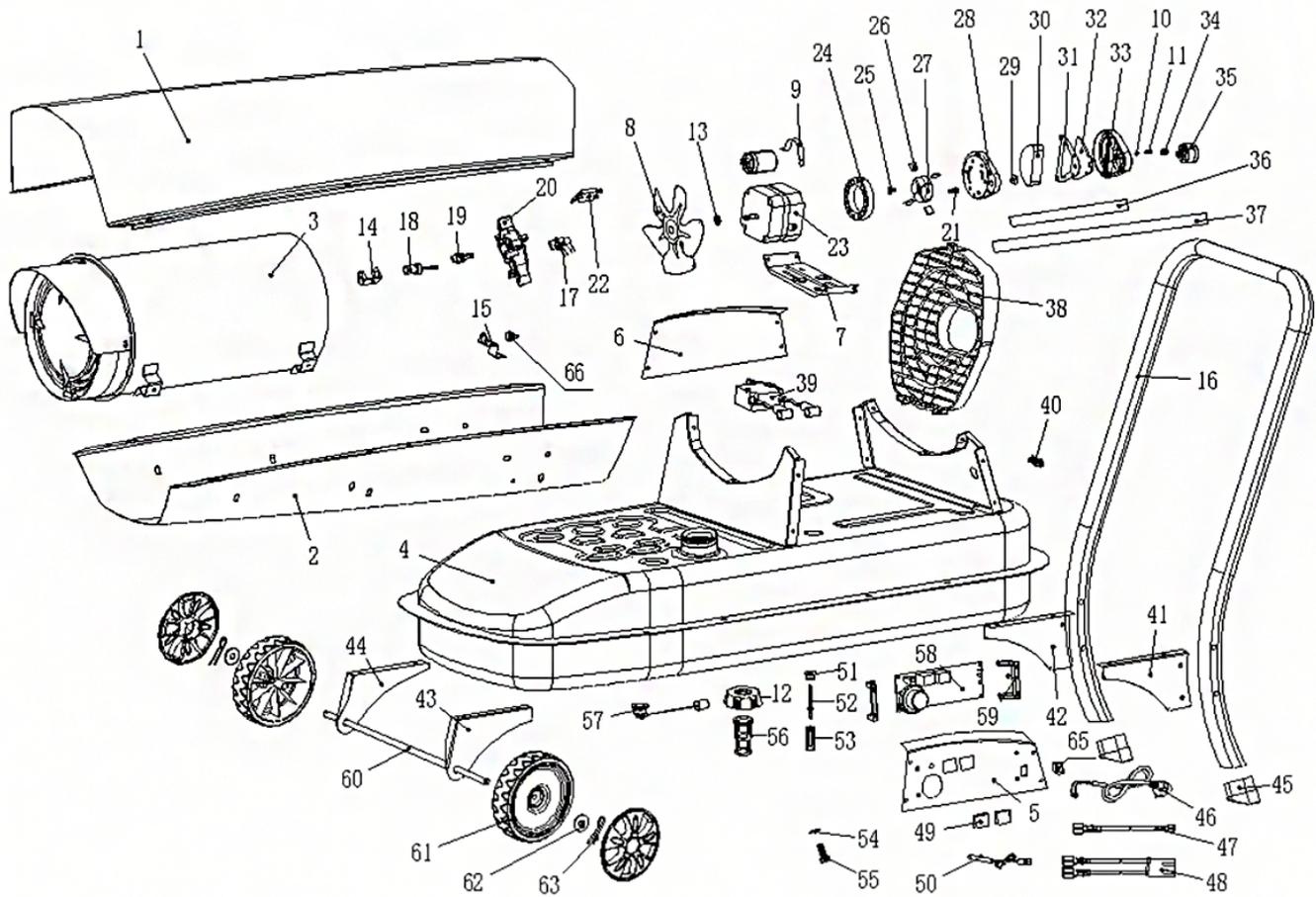
No.	Spare Part	No.	Spare Part	No.	Spare Part
1	Upper Shell	23	Motor	45	Push the frame Cover
2	Lower Shell	24	Pump Body	46	Power Cord
3	Combustion Chamber Assembly	25	Rotor Kit Insert	47	Connecting Line For Power Cord
4	Fuel Tank Assembly	26	Blade	48	Connecting Line For Thermostat
5	Left Side Cover	27	Rotor Kit	49	Windows Display
6	Right Side Cover	28	End Pump Cover	50	Temperature Sensor
7	Motor Mounting Bracket	29	Lint Filter	51	Seal Sleeve
8	Fan Assembly	30	Filter Kit	52	Fuel Filter #2 Connecting Pipe
9	Fixed Belt	31	Gasket Outlet Filter	53	Fuel Filter #2
10	Ball	32	Output Filter	54	Drain Spacer
11	Spring	33	End Filter Cover	55	Drain Screw
12	Fuel Cap	34	Adjustment Screw	56	Fuel Filter #1
13	Fan blade Aluminum base	35	Air Pressure Gauge	57	Fuel Gauge
14	Photo Cell Bracket	36	Fuel Line	58	PCB
15	Thermostate Bracket	37	Air Line	59	Left PCB Bracket
16	Rear Handle	38	Fan Guard	60	Wheel Axle
17	Nozzle seat	39	Ignitor	61	Wheel
18	Photo Cell	40	Power Cord clip	62	Spacer
19	Nozzle	41	Left push Frame Fixing Plate	63	Split Pin
20	Burner Head	42	Right push Frame Fixing Plate	64	Handle
21	Nipple	43	Left Wheel retaining Plate	65	Power Switch
22	Spark Plug Kit	44	Right Wheel retaining Plate	66	Thermostat

**Overview of spare parts and spare parts list IDX 50 D**



**Info**

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



No.	Spare Part	No.	Spare Part	No.	Spare Part
1	Upper Shell	23	Motor	45	Push the frame Cover
2	Lower Shell	24	Pump Body	46	Power Cord
3	Combustion Chamber Assembly	25	Rotor Kit Insert	47	Connecting Line For Power Cord
4	Fuel Tank Assembly	26	Blade	48	Connecting Line For Thermostat
5	Left Side Cover	27	Rotor Kit	49	Windows Display
6	Right Side Cover	28	End Pump Cover	50	Temperature Sensor
7	Motor mounting bracket	29	Lint Filter	51	Seal Sleeve
8	Fan assembly	30	Filter Kit	52	Fuel Filter #2 Connecting Pipe
9	Fixed belt	31	Gasket Outlet Filter	53	Fuel Filter #2
10	Ball	32	Output Filter	54	Drain Spacer
11	Spring	33	End Filter Cover	55	Drain Screw
12	Fuel Cap	34	Adjustment Screw	56	Fuel Filter #1
13	Fan blade Aluminum base	35	Air pressure Guage /Pressure plug	57	Fuel Gauge
14	Photo Cell Bracket	36	Fuel Line	58	PCB
15	Thermostate Bracket	37	Air Line	59	Left PCB Bracket
16	Rear Handle	38	Fan Guard	60	Wheel Axle
17	Nozzle seat	39	Ignitor	61	Wheel
18	Photo Cell	40	Power Cord clip	62	Spacer
19	Nozzle	41	Left push Frame Fixing Plate	63	Split Pin
20	Burner Head	42	Right push Frame Fixing Plate	64	Handle
21	Nipple	43	Left Wheel retaining Plate	65	Power Switch
22	Spark Plug Kit	44	Right Wheel retaining Plate	66	Thermostat

## Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.



The icon with the crossed-out wheeled bin indicates that this device and any associated components must not be disposed of with household waste at the end of their life, in accordance with the Waste Electrical and Electronic Equipment Directive (2012/19/EU) and national laws.

You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website <https://hub.trotec.com/?id=45090>. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

The fuel must be drained from the device and collected.

Fuels are to be disposed of according to the national regulations.

### Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

## EU Declaration of Conformity (original)

Declaration of conformity in accordance with the EC Machinery Directive 2006/42/EC, Annex II, Part 1, Section A

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with all relevant provisions of the EC Machinery Directive in the version 2006/42/EC.

**Product model / product:** IDX 20 D  
IDX 31 D  
IDX 50 D

**Product type:** oil heater

**Year of manufacture as of:** 2023

**The product also complies with all relevant provisions of the following directives/regulations:**

- 2011/65/EU
- 2014/30/EU

**Relevant EU directives:**

- 2012/19/EU

**Applied harmonised standards:**

- EN 60335-1:2012  
EN 60335-1:2012/AC:2014  
EN 60335-1:2012/A11:2014  
EN 60335-1:2012/A13:2017  
EN 60335-1:2012/A15:2021
- EN 60335-2-102:2016

**Applied national standards and technical specifications:**

- EN IEC 55014-1:2021
- EN IEC 55014-2:2021
- EN IEC 61000-3-2:2019/A1:2021
- EN 61000-3-3:2013/A1:2019

**Manufacturer and name of the authorised representative of the technical documentation:**

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Place and date of issue:

Heinsberg, 08.09.2023



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