

User manual

HOAF WeedAir® 50/75i



HOAF Infrared Technology
Münsterstraat 14
7575 ED Oldenzaal
The Netherlands
Tel.: +31 541 530 400
support@hoaf.nl
www.hoaf.nl

Note! At the back of this user manual, there is a warranty certificate.
In order to obtain a one-year warranty for the *HOAF WeedAir® 50/75i* you have to return the certificate within 2 weeks of the purchasing date.

Edition	Date	Version	Comment
1 st	2 July 2020	1.0	Translation EN from NL version 1.0 20200609

"Translation of the original manual"

Preface

These operating instructions contain information about the safe use and maintenance of the *HOAF WeedAir® 50/75i*.



Read these operating instructions carefully before using the *HOAF WeedAir® 50/75i*. This is the only way to ensure optimum safety. The *HOAF WeedAir® 50/75i* may only be used by sufficiently qualified personnel.

Keep these operating instructions with the *HOAF WeedAir® 50/75i*!



User manual

HOAF WeedAir® 50/75i

Preface



Table of contents

Preface	3
1 Introduction	9
1.1 Related documents	9
1.2 Manufacturer	9
1.3 Machine identification / CE mark	10
1.4 Warranty	11
1.5 Copyright	11
1.6 Liability	11
2 Safety	13
2.1 Safety symbols used in these User Instructions	13
2.2 Symbols on the <i>HOAF WeedAir® 50/75i</i>	14
2.3 Operation	14
2.4 Maintenance	14
2.5 Safety regulations	15
2.5.1 Influence of the wind	15
2.5.2 Safety, general	16
2.5.3 Safety in case of a burner with propane bottle	17
2.6 Safety devices	17
3 Installation	19
3.1 Unpacking and inspection	19
3.2 Making the unit ready for use	20
4 Machine description	23
4.1 Function	23
4.2 Use of the <i>HOAF WeedAir® 50/75i</i>	23
4.3 Overview of the <i>HOAF WeedAir® 50/75i</i>	24
4.4 Operating components	26
4.4.1 Operating cabinet	26



5	Operation	27
5.1	Important	27
5.2	General	27
5.2.1	Types of weeds	27
5.2.2	Determining the moment of the treatment	28
5.2.3	Finger pressure test	28
5.2.4	Influence of the wind	29
5.3	Starting	29
5.3.1	Starting the <i>HOAF WeedAir® 50/75i</i>	29
5.4	Driving	32
5.5	Stopping	32
5.6	Replacing the battery	34
6	Gas tanks or bottles	35
6.1	Gas bottles to be used	35
7	Troubleshooting	37
7.1	Safety	37
7.2	Overview of problems <i>HOAF WeedAir® 50/75i</i>	38
7.3	Malfunction <i>HOAF WeedAir® 50/75i</i>	39
8	Settings	41
8.1	Spark plug	41
8.2	Thermocouple	41
8.3	Tyre pressure	42
9	Maintenance	43
9.1	Safety during maintenance	43
9.2	Maintenance schedule	44
9.2.1	Daily maintenance	44
9.2.2	Annual maintenance	45
9.3	Maintenance instructions	46
9.3.1	Replacing the fuse	46
9.3.2	Checking the electronics	47
10	Transport and storage	49
10.1	Transport	49
10.2	Storage	50
11	Disposing of the machine	51
11.1	Environmental aspects	51



Bijlage 1 Specifications

Bijlage 2 Drawings

B2.1	Electrical Diagram	57
B2.2	Spare parts list	58
B2.3	Technical drawings	60

Bijlage 3 Quality control

Bijlage 4 CE declaration



User manual

HOAF WeedAir® 50/75i

Table of contents



1 Introduction

This chapter contains general information on the HOAF WeedAir® 50/75i and these User Manual.



Optimum safety can only be guaranteed after you have carefully read this user manual before using the HOAF WeedAir® 50/75i. The HOAF WeedAir® 50/75i may only be used by sufficiently qualified personnel.

1.1 Related documents

In addition to these user instructions, the following documents accompany the HOAF WeedAir® 50/75i:

- CE declaration.

This is included in the Appendix 4 of this user manual.

1.2 Manufacturer

The HOAF WeedAir® 50/75i was manufactured by:

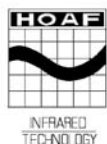
HOAF Infrared Technology
Münsterstraat 14
7575 ED Oldenzaal
The Netherlands

Tel.: +31 541 530 400
E-mail: sales@hoaf.nl

Should you have any questions or problems, please contact your dealer or HOAF Infrared Technology.

1.3 Machine identification / CE mark

An example of the machine identification plate of the *HOAF WeedAir® 50/75i* is shown below.



HOAF Infrared Technology B.V.
Münsterstraat 14
7575 ED Oldenzaal
The Netherlands
Tel. +31 (0)541-530400
Internet: www.hoaf.nl

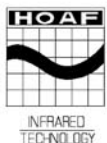
HOAF WeedAIR® 50i WEEDCONTROLLER

Capacity	:15 kW (average)	Gasconsumption	:1.1 kg/h (average)
Gas type	:Propane	Power Supply	:12 VDC
Gas pressure	:2.0 bar	Serial number	:
Gas category	:I ₃ P	Building year	:2020
Gas supply	:Vapor gas		

NOT FOR INDOOR USE



Afb. 1-1: Machine identification plate 50i



HOAF Infrared Technology B.V.
Münsterstraat 14
7575 ED Oldenzaal
The Netherlands
Tel. +31 (0)541-530400
Internet: www.hoaf.nl

HOAF WeedAIR® 75i WEEDCONTROLLER

Capacity	:30 kW (average)	Gasconsumption	:2.2 kg/h (average)
Gas type	:Propane	Power Supply	:12 VDC
Gas pressure	:2.0 bar	Serial number	:
Gas category	:I ₃ P	Building year	:2020
Gas supply	:Vapor gas		

NOT FOR INDOOR USE



Afb. 1-2: Machine identification plate 75i

The *HOAF WeedAir® 50/75i* has CE marking. This means that the *HOAF WeedAir® 50/75i* satisfies the fundamental health and safety requirements of the European Community.

1.4 Warranty

The manufacturer's warranty for the *HOAF WeedAir® 50/75i* is 12 months on parts and repair costs*. This warranty is only valid if the *HOAF WeedAir® 50/75i* is used according to the specifications and if the use and maintenance instructions are observed.

The guarantee for the *HOAF WeedAir® 50/75i* is void in the following cases:

- The installation is not used properly
- Insufficient maintenance
- The installation is not maintained properly
- Changes are made without the manufacturer's prior approval

The guarantee does not apply to parts that require periodic replacement.

* Subject to evaluation by *HOAF Infrared Technology*.

1.5 Copyright

Copyright © B.H. Nieuwe Weme Beheer B.V.

All rights reserved. No part of this publication may be used, reproduced, photocopied, transmitted, or stored in any retrieval system of any nature, without the written permission of the copyright owner.

1.6 Liability

The manufacturer of the *HOAF WeedAir® 50/75i* is not liable for unsafe situations, accidents and damage resulting from:

- Ignoring warnings or instructions stated on the *HOAF WeedAir® 50/75i* or in these operating instructions.
- Using the *HOAF WeedAir® 50/75i* for other applications or under other conditions than stated in this user manual.
- Changes of any nature whatsoever made to the *HOAF WeedAir® 50/75i*. This includes the use of other replacement parts.
- Insufficient maintenance.

The manufacturer cannot be held liable for consequential damage in case of malfunctions to the *HOAF WeedAir® 50/75i* such as damage to products, interrupted operations, loss of production, etc.

2 Safety

This chapter describes the safety rules regarding the HOAF WeedAir® 50/75i. Please carefully read this chapter before using the HOAF WeedAir® 50/75i or carrying out maintenance to it.

2.1 Safety symbols used in these User Instructions

The following symbols are used in this user manual:



A tip on how a task can be carried out more efficiently.



Draws attention to possible problems.



Risk of damaging the HOAF WeedAir® 50/75i if the instructions are not followed carefully.



Risk of serious injury to the user if the instructions are not followed carefully.

2.2 Symbols on the **HOAF WeedAir® 50/75i**

The following symbols are found on the **HOAF WeedAir® 50/75i**:

‘High temperature’ on parts that may be hot.



2.3 Operation

The **HOAF WeedAir® 50/75i** may only be used by qualified personnel.



The safety instructions in these User Instructions must be observed. Failing to observe these instructions may lead to unacceptable risks!

The user must be aware of the full contents of these User Instructions.

2.4 Maintenance

The **HOAF WeedAir® 50/75i** may only be maintained by qualified personnel.



The safety instructions in these User Instructions must be observed. Failing to observe these instructions may lead to unacceptable risks.

The maintenance engineer must be aware of the full contents of these User Instructions.

2.5 Safety regulations

The *HOAF WeedAir® 50/75i* meets the basic safety and health requirements stated in the relevant directives of the European Community. However, improper or careless use can create dangerous situations.



Beware of dangerous situations.



Only connect the HOAF WeedAir® 50/75i to gas bottles for vapour intake.



Never use the HOAF WeedAir® 50/75i with 100% butane gas.



The HOAF WeedAir® 50/75i should only be used on a paved surface.



Never use matches or a lighter to ignite the HOAF WeedAir® 50/75i.

2.5.1 Influence of the wind

Be careful if there is a strong wind blowing. Wind may seriously affect the flames. In that case:

- Flames may be stifled underneath the burner housing. Sometimes, the burner must be turned up in order to avoid the flames from being stifled.
- The flames underneath the burner housing may be blown out. In that case, the work must be stopped immediately because this will endanger the tool carrier and the surroundings.



If there is too much wind, stop working with the HOAF WeedAir® 50/75i.

2.5.2 Safety, general

Observe the following general safety instructions:

- Pay attention to loose clothing and hair.
- Always wear fire-retardant clothes when using the *HOAF WeedAir® 50/75i*.
- Always wear safety shoes when using the *HOAF WeedAir® 50/75i*.
- Keep your hands away from dangerous or hot parts of *HOAF WeedAir® 50/75i*.
- Only use the *HOAF WeedAir® 50/75i* in the open air.
- Do not use the *HOAF WeedAir® 50/75i* in extremely rainy and windy circumstances; the results will be substantially worse than under dry and calm weather conditions.
- Do not use the *HOAF WeedAir® 50/75i* on flammable, dry crops.
- The *HOAF WeedAir® 50/75i* may not be used in the vicinity of explosive gases, vapours or other hazardous substances.
- Do not burn for more than 5 seconds in the same spot, to avoid damage to the soil and overheating of the burner.
- Make sure that there is no one within 1 metre of the side of the *HOAF WeedAir® 50/75i* during and immediately after use.
- During ignition, make sure that non-operating personnel keeps a distance of at least 3 metres from the *HOAF WeedAir® 50/75i*.
- If you leave the vicinity of the *HOAF WeedAir® 50/75i*, switch it off.
- Immediately disconnect the gas supply when you stop using the *HOAF WeedAir® 50/75i*.
- The burner box is extremely hot during and immediately after use. Wait until the burner box has sufficiently cooled down before lifting or transporting the *HOAF WeedAir® 50/75i* or carrying out maintenance to it.
- Replace any defective safety provisions before restarting the *HOAF WeedAir® 50/75i*.
- Fire extinguisher:
 - A filled fire extinguisher must at all times be present near the *HOAF WeedAir® 50/75i*.
 - The fire extinguisher near the *HOAF WeedAir® 50/75i* should always be in good condition. Read the instructions on the fire extinguisher.
 - A fire extinguisher that has been used, must be replaced immediately.
- Replace the damaged parts before the *HOAF WeedAir® 50/75i* is used again.
- Maintenance on the *HOAF WeedAir® 50/75i* must be carried out by trained fitters.
- You are not allowed to make any modifications to the *HOAF WeedAir® 50/75i* without the manufacturer's prior written permission.

2.5.3 Safety in case of a burner with propane bottle

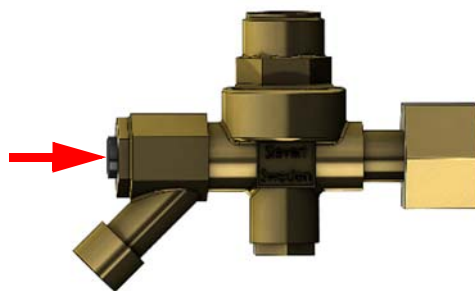
Propane is a pure and environmentally friendly fuel. The *HOAF WeedAir® 50/75i* will almost completely burn it up into carbon dioxide and water. If the *HOAF WeedAir® 50/75i* is operated correctly, use of the *HOAF WeedAir® 50/75i* is completely safe. However, always take the following precautions:

- Propane becomes explosive when mixed with air. Therefore, *HOAF WeedAir® 50/75i* must be treated with great care. Should you observe any damage to the gas supply, immediately switch off the *HOAF WeedAir® 50/75i*. Do not start using the *HOAF WeedAir® 50/75i* until all damage has been repaired by professionals.
- Propane is heavier than air and will therefore accumulate in lower situated cavities or basements. Therefore, do not store *HOAF WeedAir® 50/75i* over channel shafts, etc.
- Always store the *HOAF WeedAir® 50/75i* in a well-ventilated room and never in a basement.
- Carefully observe the instructions of your gas supplier concerning storage, transport and the filling of propane tanks.
- Only fill the propane tanks in the open air, using equipment provided by your gas supplier. It is absolutely forbidden to smoke or have open fire nearby during filling.
- Always keep the fire extinguisher at hand.

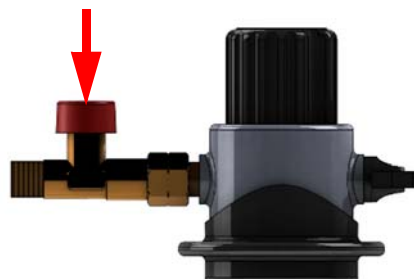
2.6 Safety devices

Hose rupture valve:

The *HOAF WeedAir® 50/75i* features a hose rupture valve in order to prevent any risk of gas leaks, e.g. if the gas hose is damaged. If there are any leaks, this valve will immediately block the gas supply to the burner. The configuration depends on the actual pressure controller.



Afb. 2-1: DIN Kombi pressure controller



Afb. 2-2: Clip-on pressure controller

3 Installation

*Read this chapter carefully before making the
HOAF WeedAir® 50/75i ready for use.*

3.1 Unpacking and inspection



***Strictly observe the following instructions while
unpacking and installing the HOAF WeedAir®
50/75i!***



***Make sure none of the packaging material
remains in the HOAF WeedAir® 50/75i.
They may cause a fire hazard!***

At the delivery, the packaging of the HOAF WeedAir® 50/75i consists of one box.

1. **Check** the packaging for damage.
Contact your supplier if the packaging is damaged.
2. **Check** the delivery against your order.

3.2 Making the unit ready for use



Charge the battery of HOAF WeedAir® 50/75i to full capacity before igniting the machine for the first time.



A standard gas bottle filled with propane for VAPOUR INTAKE is required.

Placing the gas bottle:

1. **Place** the gas bottle on the frame and use the enclosed strap to secure it.
If the gas bottle holder option has been chosen, place the gas bottle in the gas bottle holder.



Afb. 3-1: Gas bottle

2. **Check** to make sure the hose connection is present and undamaged before connecting the gas bottle.



Afb. 3-2: Hose connection

3. **Check** to make sure the sealing ring is present in the connection and that it is undamaged; replace the sealing ring if necessary.



Afb. 3-3: Sealing ring

4. **Connect** the hose to the gas bottle, using the quick coupling with a gas pressure regulator.



Afb. 3-4: Connecting the gas hose



Note! The gas connection has a counter-clockwise thread!



Do not over tighten! This may damage the connection.



Do not connect a gas bottle if the necessary sealing ring is missing.

5. Check the coupling for leakage Method:

- **Turn** the gas valve to open it and put the hose under pressure.
- **Press** the hose rupture valve once.
- **Close** the gas valve of the gas bottle.
- **Spray** leak-detection spray onto the connection.
- **Observe** to see whether any gas bubbles are forming.
- **Repeat** this procedure each time you connect a gas bottle to the *HOAF WeedAir® 50/75i*.
- If no gas bubbles form, the connection is correctly installed.

6. The *HOAF WeedAir® 50/75i* is now ready for use.



The WeedAir® 50/75i is solely intended for use with propane for 'normal' gas supply (vapour intake). Do not use butane!



Keep gas bottles away from the hot gases that are spread by the burners.



Let your gas supplier advise you about the use and storage of gas bottles.

4 Machine description

This chapter describes the parts and the functioning of the HOAF WeedAir® 50/75i.

4.1 Function

The *HOAF WeedAir® 50/75i* is used for heating unwanted vegetation on virtually all kinds of paved and unpaved surfaces, using air.

At a speed of 1.5 km/h, you can:

- Treat approx. 750 m² per hour with the HOAF WeedAir® 50i.
- Treat approx. 1125 m² per hour with the HOAF WeedAir® 75i.



Afb. 4-1: *HOAF WeedAir® 50/75i*

The burner system in the burner box ensures a direct transfer of hot air to plants and the soil. The heat-resistant wire mesh provided under the burner will glow so that infrared radiation is emitted.



Afb. 4-2: *HOAF WeedAir® 50i burner*

4.2 Use of the *HOAF WeedAir® 50/75i*

Pressing the ignition button triggers a spark plug which ignites the gas flow at the burner.

This heats the thermocouple and the current temperature is shown on the display. You can see the spark plug in the picture.



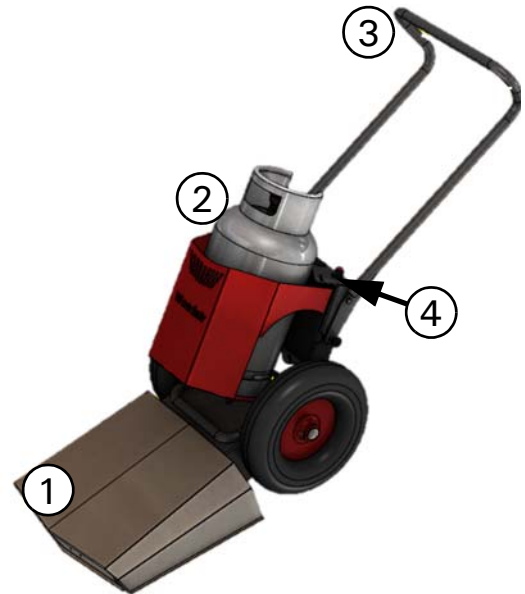
Afb. 4-3: Spark plug



Take care not to bend the spark plug when cleaning the HOAF WeedAir® 50/75i.

4.3 Overview of the *HOAF WeedAir® 50/75i*

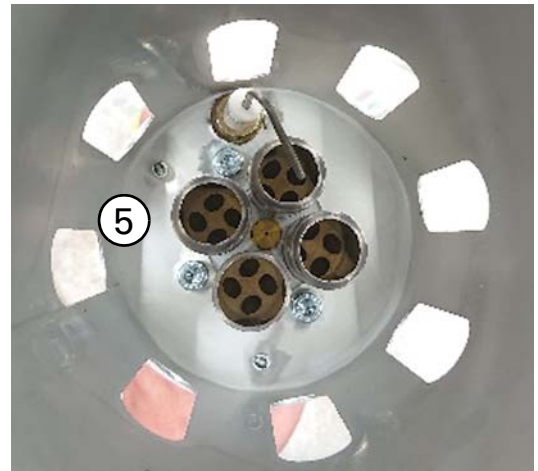
1. The burner hood with burners on the underside
2. Gas bottle
3. Adjustable push bar
4. Control panel



Afb. 4-4: Overview *HOAF WeedAir® 50/75i*
(1)

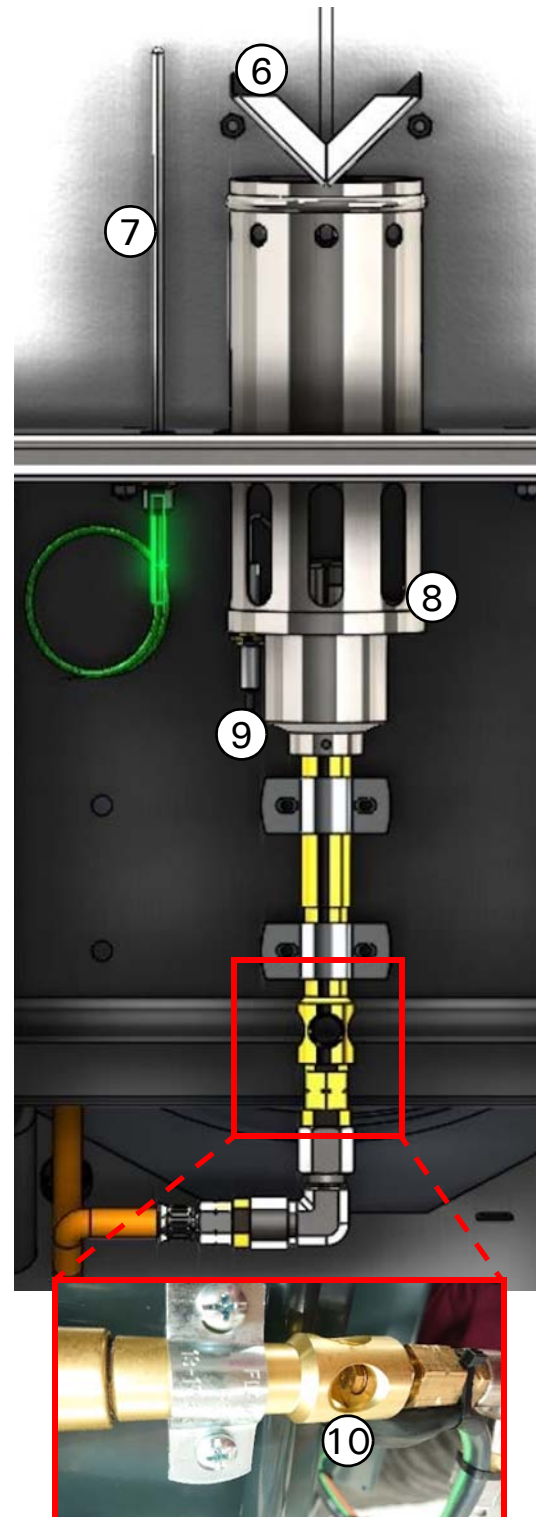
Overview burner:

5. Burner tube



Afb. 4-5: Overview *HOAF WeedAir® 50/75i*
(2)

- 6. Burner distributor plate
- 7. Thermocouple
- 8. Hot air burner
- 9. Spark plug / ionisation pin
- 10. Nozzle

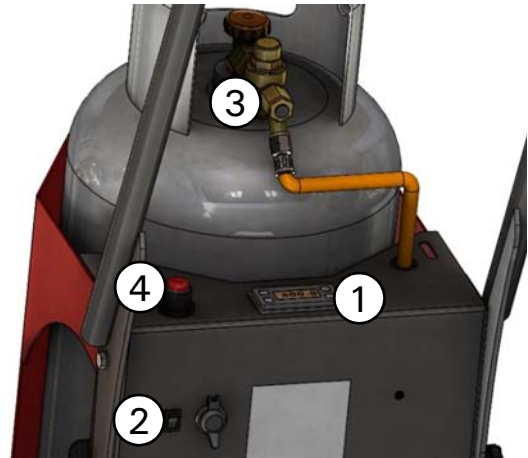


Afb. 4-6: Overview HOAF WeedAir® 50/75i
(3)

4.4 Operating components

4.4.1 Operating cabinet

1. Operating temperature readout
Indicates the current operating temperature.
2. Display switch
The switch is used to start the display.
3. Hose rupture valve
This valve must be pressed to enable the gas to flow to the burner when the gas bottle has been opened.



Afb. 4-7: Operating components (1)

4. Ignition button
Pressing this button briefly will ignite the gas flow.
The battery is located under the ignition button.



Afb. 4-8: Operating components (2)

5 Operation

This chapter describes how the HOAF WeedAir® 50/75i is operated.

5.1 Important

- Only use the *HOAF WeedAir® 50/75i* in the open air.
- Since the *HOAF WeedAir® 50/75i* is (IP33) splash proof, the *HOAF WeedAir® 50/75i* should not be exposed to extreme rain and wind and it should not be parked outside in the open air, without a cover.
- Do not use the *HOAF WeedAir® 50/75i* on flammable, dry crops.
- In order to avoid damage to the soil, you have to start driving the *HOAF WeedAir® 50/75i* immediately upon firing it up.
- Do not burn for more than 5 seconds in the same spot, to avoid damage to the soil and overheating of the burner.
- It is not the objective to burn the weeds. It is only necessary to heat up the weeds to a temperature of approximately 70°C, causing the plant to dry out. You can use a finger pressure test to determine whether the treatment was sufficient (see section 5.2.3).
- First heat the *HOAF WeedAir® 50/75i* to at least 300 °C before starting the application

5.2 General

5.2.1 Types of weeds

Most grasses, annual or bi-annual plants and young plants of perennial weeds can be destroyed in two to three treatments. A few grasses and permanent plants such as plantain, redshank and clover may require up to six treatments.

Deep-rooting plants such as dandelions, thistle, sorrel and couch grass may be able to use nutrient reserves in their root stocks or peg roots to resurface again after six treatments, and must therefore be treated intensively during two to three growth periods.

About 65% of the seed above ground is damaged to such an extent that it will no longer germinate. The preventative effect of every Infraplus® treatment is the partial cause for a sustained reduction of the weeds.

5.2.2 Determining the moment of the treatment

In order to determine the most appropriate moment for treatment, the surface that is to be treated must be carefully considered, in addition to the weather conditions and the growth power of the plants.

Particularly during the first year of treatment, the time intervals between repeats must be as short as necessary to hardly give the weeds a chance to recover. The quicker you can "starve" a plant, the sooner you get (nearly) clean surfaces.

Newly laid or refurbished terrains must be treated as soon as weeds become visible (1- 3 cm high), as the young new plants are extremely vulnerable and therefore easy to destroy. A final treatment towards the end of autumn also has a very positive effect. This means the plants weakened further, at a time of limited growth.



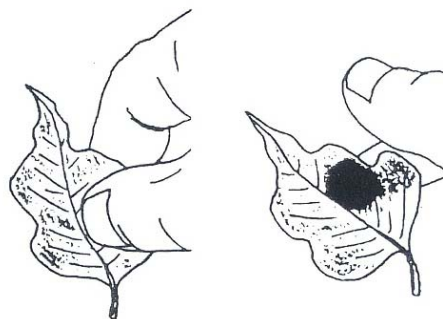
Note! Never carry out a treatment in places with leaves!

5.2.3 Finger pressure test

The working speed is strongly determined by the nature and density of the weeds and the weather conditions. It is useful to carry out a finger pressure test from time to time during treatment, and to determine the results.

You take the leaf from a weed between your thumb and index finger, and apply a light pressure.

- If a dark green stain becomes visible, and the area you applied pressure on feels wet, the plant has been reached effectively, and the working speed has been chosen correctly. In addition to this, the plant is visibly weaker.
- If there is no dark green discolouration, the machine was driven too fast.
- If the weeds are blackened or charred, the machine was driven too slowly.



Afb. 5-1: Finger pressure test

5.2.4 Influence of the wind

Be careful if there is a strong wind blowing. Wind may seriously affect the flames. In that case:

- Flames may be stifled underneath the burner box.
Sometimes, the burner must be turned up in order to avoid the flames from being stifled.
- The flames underneath the burner deck may be blown out.
In that case, the work must be stopped immediately because this will endanger the tool carrier and the surroundings.



If there is too much wind, stop working with the HOAF WeedAir® 50/75i.

5.3 Starting

This chapter describes how to start the *HOAF WeedAir® 50/75i* after installing it. Installation is described in chapter 3.



Everyone who works with the HOAF WeedAir® 50/75i must read and understand these instructions!

5.3.1 Starting the *HOAF WeedAir® 50/75i*

Proceed as follows in order to start the *HOAF WeedAir® 50/75i*:

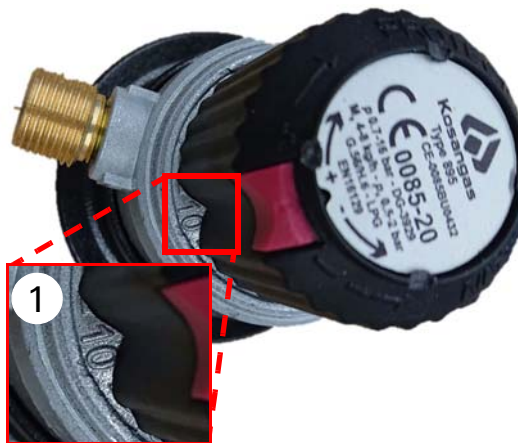


Carry out step 1 if the HOAF WeedAir® 50/75i features a Clip-on pressure controller.

1. Set the Clip-on pressure controller to position 10. This matches 2 bar.

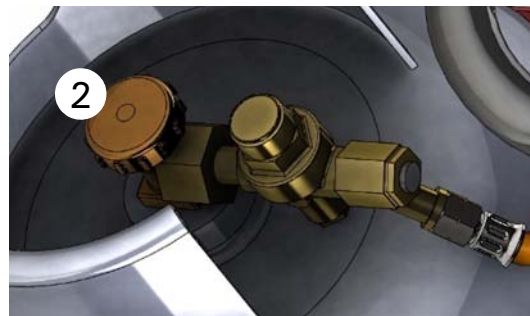


A pressure lower or higher than 2 bar may damage the machine.



Afb. 5-2: Clip-on pressure controller

2. **Open** the valve of the gas bottle.
No gas should flow now because the hose rupture valve has not been pressed.



Afb. 5-3: Gas bottle valve

3. **Check** the gas connection for leakages. Use the gas detection spray for this. Procedure:
- **Spray** some gas detection spray onto the hose and the connection nuts.
If any gas bubbles show up, there is a leak:
 - If that is the case, **close** the gas valve.
 - **Remove** the hose.
 - **Check** the inside of the hose for dirt.
 - **Check** the sealing ring. Repeat the check by means of the leak-detection spray.



Check that there is/are no dirt or leaves in the burners or underneath the HOAF WeedAir® 50/75i.

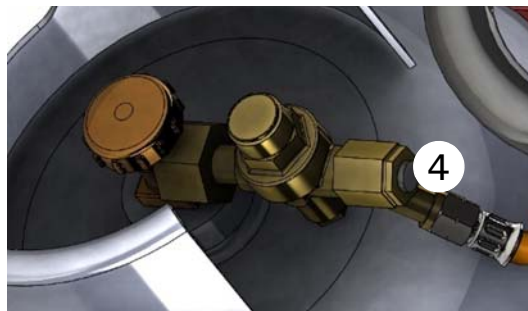


Make sure there are no people within 3 metres of the HOAF WeedAir® 50/75i when starting up.



Make sure that there is no one within 1 metre of the HOAF WeedAir® 50/75i during and immediately after use.

4. **Press** the hose rupture valve.
The gas will flow to the burner.
Continue directly with step 5

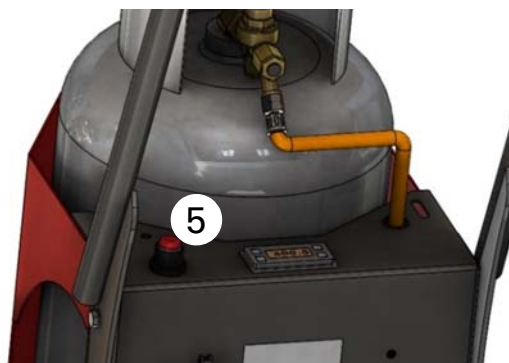


Afb. 5-4: Hose rupture valve

5. **Press** the ignition button briefly.
The burners are ignited.



The ignited burner burns clearly audible. If this is not the case, no ignition will have taken place.



Afb. 5-5: Ignition button

6. **Preheat** the machine to at least 300 °C.



To prevent any damage to the ground, the machine must be moving whilst preheating.

You can start the application when the machine has reached its operating temperature of at least 300 °C.



Afb. 5-6: Temperature display



While driving, observe the instructions in section 5.1.

There may be a delay when starting the HOAF WeedAir® 50/75i again for the first time after a long standstill.



Warning! If, after two attempts, no ignition has taken place, you have to wait at least 1 minute before making another attempt. See chapter 7 for more information.

5.4 Driving



After ignition, start driving immediately, in order to avoid fire and damage to the soil.

The burner hood of the *HOAF WeedAir® 50/75i* must be moved along the ground during use. There shall be approx. 2 cm between the ground and sliding carriages of the *HOAF WeedAir® 50/75i* in order to protect the burner hood against minor unevenness of the ground.

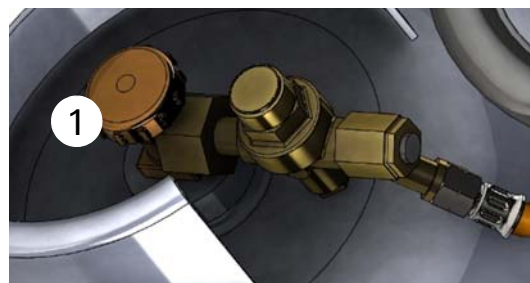
In order to prevent heat loss, the *HOAF WeedAir® 50/75i* must be moved along close to the ground. Drive slowly. The final result depends on:

- Distance of the burners to the vegetation
- Speed
- Type of vegetation
- Density of the vegetation
- Weather conditions during and after the treatment
- Humidity
- Etc.

5.5 Stopping

This section describes how to stop the *HOAF WeedAir® 50/75i*.

1. **Close** the valve of the gas bottle.



Afb. 5-7: Gas valve

2. **Switch** off the display.



Afb. 5-8: Switching off the display

If the *HOAF WeedAir® 50/75i* needs to be charged:

3. **Check** that the charger is set to 12V.



Afb. 5-9: Charger

4. **Connect** the charger to the connector in order to charge the *HOAF WeedAir® 50/75i*.



Charge the machine after every 40-hour working week, for approx. 12 hours.



Afb. 5-10: Connector charger

5.6 Replacing the battery

The *HOAF WeedAir® 50/75i* features a battery (type AA, 1.5V) that provides the electricity needed to ignite the burners.

This battery is sufficient for the long-term operation of the ignition mechanism.



If the battery is empty, the burners will not ignite.

However, failure to ignite the burners can have several causes:

- The gas bottle is empty.
- The gas valves are not open.
- The burners are clogged with dirt.
- The spark plug is damaged or bent.



First check the above points before replacing the battery.

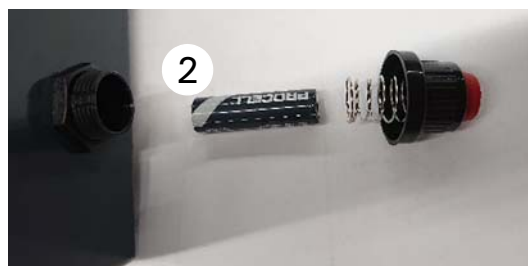
Replace the battery as follows:

1. **Open** the ignition button by turning it anti-clockwise in order to access the battery holder.



Afb. 5-11: Ignition button

2. **Remove** the button with the spring.
3. **Replace** the battery.
4. **Install** the button with the spring again and tighten it by turning it clockwise.



Afb. 5-12: Battery



Although the HOAF WeedAir® 50/75i is delivered with a new battery, this battery may drain relatively quickly due to the time that the machine has been in storage.

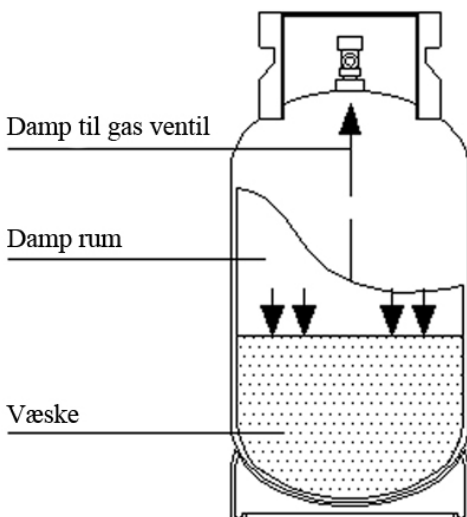
6 Gas tanks or bottles

This chapter describes how to connect the HOAF WeedAir® 50/75i to gas bottles or gas tanks.

6.1 Gas bottles to be used

The image below shows the type of gas bottle that is allowed within the EC for the HOAF WeedAir® 50/75i.

This is an upright gas bottle with PROPANE in the VAPOUR phase (vapour intake) which may only be used in its UPRIGHT position.



Afb. 6-1: Gas bottle



The HOAF WeedAir® 50/75i is solely intended for use with propane for 'normal' gas supply (vapour intake).



Use only propane, NEVER use 100% butane.



Keep gas bottles away from the hot burner gases.



Let your gas supplier advise and inform you about the use and storage of gas bottles.

7 Troubleshooting

This chapter provides information about solving possible problems.

7.1 Safety



Users are only allowed to carry out the actions described in sections 7.2 and 7.3.



Maintenance and service activities must only be carried out by properly qualified personnel.



Always observe the safety instructions mentioned elsewhere in these User Instructions!



Always close the gas valve before checking the underside of the HOAF WeedAir® 50/75i or carrying out any work on it.

7.2 Overview of problems **HOAF WeedAir® 50/75i**

Search the overview below for the problem that may apply in your situation.

Next, use the problem's number to **search** the table following it to find a way to solve the problem.



If any term in section 7.3 is unclear, refer to sections 4.3 and 4.4 for its meaning.

1. The spark plug is sparking, but no gas is flowing.
2. The gas is flowing, but the spark plug is not sparking.
3. You can hear the spark plug sparking, and the gas is flowing, but the **HOAF WeedAir® 50/75i** fails to ignite
4. The **HOAF WeedAir® 50/75i** is not burning evenly.
5. The display does not show any temperature at all or it shows the wrong temperature.

7.3 Malfunction **HOAF WeedAir® 50/75i**

Problem	Action
1. The spark plug is sparking, but no gas is flowing.	<ol style="list-style-type: none"> 1. Check that the gas valve on the gas bottle is open. 2. Check that the hose rupture valve works by pressing the button. 3. Close the gas valve and check that the nozzle of the HOAF WeedAir® 50/75i is not clogged up. 4. Check that the gas bottle is not empty or nearly empty. The hose rupture valve will not open if the gas pressure is very low. This protects the burner against overheating if the gas pressure is very low. 5. Please contact your dealer if you cannot find what has caused the functioning failure.
2. The gas is flowing, but the spark plug is not sparking.	<p>Note! Close the gas valve before carrying out any of these actions.</p> <ol style="list-style-type: none"> 1. Check that the ignition battery is present and is not empty. Try a new battery. 2. Check the spark of the spark plug, the distance between the tip of the spark plug and the burner tube should be approx. 3 mm. Method: <ul style="list-style-type: none"> • Lift the burner so that you can see under the burner box. • Press the ignition button; this should give a spark in the burner tube. 3. Check the spark plug cable. Method: <ul style="list-style-type: none"> • Check that the spark plug cable is connected to the ionisation pin correctly. • Check the connection between the spark plug cable and the ignition. (Appendix B 2.1 for the electrical diagram.) • Check that the cable is not broken. 4. Check the spark plug. Method: <ul style="list-style-type: none"> • Check the porcelain to see if it is broken. • Replace the spark plug with a new one. 5. Check that there is no dirt on or near the burners on the underside of the HOAF WeedAir® 50/75i and check that the burners are properly open. 6. Consult your dealer if these suggestions do not solve the problem.

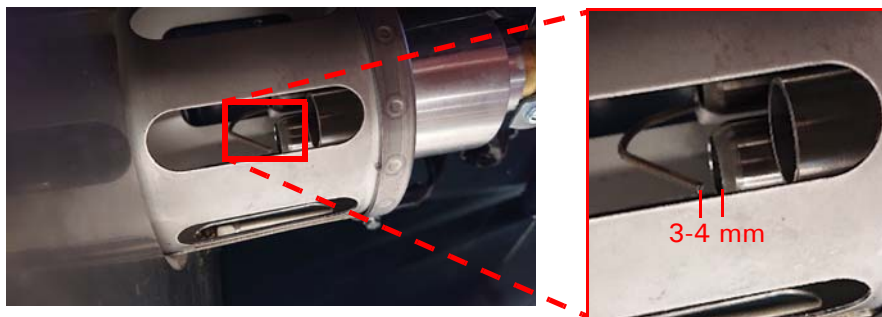
Problem	Action
3. You can hear the spark plug sparking, and the gas is flowing, but the <i>HOAF WeedAir® 50/75i</i> fails to ignite.	<p>Note! Close the gas valve before carrying out any of these actions.</p> <ol style="list-style-type: none"> 1. Check the quality of the spark. Method: <ul style="list-style-type: none"> • Lift the burner so that you can see under the burner box. • Press the ignition button; this should give a spark in the burner tube. 2. Check that the spark plug pin is straight in front of a burner tube. 3. Check that the spark plug cable does not give sparks elsewhere on the frame. 4. Check that the gas bottle is not empty or nearly empty. The burner will not ignite if the pressure is below 0.5. 5. Consult your dealer if these suggestions do not solve the problem.
4. The <i>HOAF WeedAir® 50/75i</i> is not burning evenly.	<p>Tip! The wind may affect the ignition of the burner. This influence can be reduced by moving the burner along with the wind direction.</p> <ol style="list-style-type: none"> 1. Check that there is enough gas in the bottle. 2. Check to make sure the correct gas is used. For example, do not use 100% butane instead of propane. 3. Check that the gas bottle is suitable for vapour intake. 4. Check that the nozzle is not clogged up. 5. Check that there is no dirt on or near the burners on the underside of the <i>HOAF WeedAir® 50/75i</i>. Check that the burner tubes are properly open. 6. Please contact your dealer if you do not find a solution.
5. The display does not show any temperature at all or it shows the wrong temperature.	<ol style="list-style-type: none"> 1. Check that the display is switched on. 2. Check that the battery still has a charge. 3. Check that the thermocouple supply cable is not broken. 4. Check the position of the thermocouple. This will protrude approx. 15 cm into the burner box. 5. Check that the fuse is intact. (see 9.4.1 for instructions). 6. Check that all cables are still connected correctly. (See appendix B 2.1 for the electrical diagram.)

8 Settings

This chapter describes the different settings of the HOAF WeedAir® 50/75i.

8.1 Spark plug

The distance between the tip of the spark plug and the side of the burner head should be approximately 3 to 4 mm.
The correct setting is shown in the figure below.



Afb. 8-1: Spark plug distance



Take care not to bend the spark plug when cleaning the HOAF WeedAir® 50/75i.

8.2 Thermocouple

The distance by which the thermocouple protrudes into the burner box is approx. 150 mm.



Afb. 8-2: Thermocouple

8.3 Tyre pressure

The tyre pressure of the *HOAF WeedAir® 50/75i* is max. 2 bar.



Afb. 8-3: Tyre pressure

9 Maintenance

This chapter provides information about the maintenance of the HOAF WeedAir® 50/75i.

9.1 Safety during maintenance

Observe the following safety aspects:



The HOAF WeedAir® 50/75i may only be maintained by sufficiently qualified personnel.



Always let the HOAF WeedAir® 50/75i cool down sufficiently before starting to carry out any maintenance on it.



Make sure the gas bottle is closed.



Always observe the safety instructions mentioned elsewhere in these User Instructions!



Always keep a distance of at least 2 metres from the burner box when checking the flames underneath the burner box.



Before the season starts, have the entire machine inspected by the dealer.

9.2 Maintenance schedule

In order to guarantee the proper functioning of the *HOAF WeedAir® 50/75i*, the following maintenance must be carried out:

9.2.1 Daily maintenance

1. Check the condition of the gas system; especially for signs of damage.



Any damage to the gas system must be repaired immediately.

2. Check the gas pipes and couplings visually for damage, and use leak-detection spray to check for leaks.



Do not connect a gas bottle if the rubber sealing ring is missing.



It is not permitted to smoke anywhere in the vicinity of the HOAF WeedAir® 50/75i.



Keep the HOAF WeedAir® 50/75i and the gas bottles or tanks away from (open) fire.

3. Check the condition of the fire extinguisher.



Always immediately replace a fire extinguisher after it has been used.

4. Remove any plant remains from in and around the burner box.



Make sure the HOAF WeedAir® 50/75i has cooled down sufficiently before removing these.

5. Visually inspect the condition of the spark plug cables.

9.2.2 Annual maintenance



Observe the safety instructions specified in 9.1 & 9.2.1.

1. **Clean** all burners. Remove soot and dirt.
2. **Check** the gas hose and connection for any leaks.
3. **Check** the spark plug connection.
4. **Check** the condition and the position of the spark plug.
5. **Check** all electrical connections.
6. **Check** the correct functioning of all burners.
7. **Check** the wheel bearings, lubricate if required.

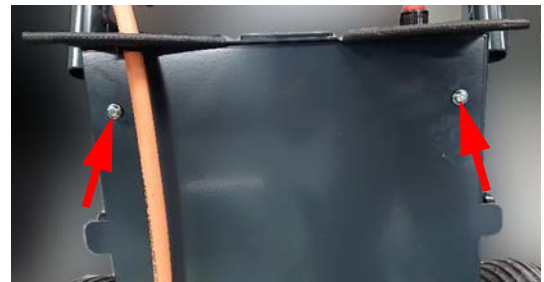
9.3 Maintenance instructions

The maintenance activities described below shall be carried out by properly qualified personnel.

9.3.1 Replacing the fuse

Proceed as follows to replace the fuse:

1. **Unscrew** the two Allen screws.



Afb. 9-1: Allen screws

2. **Remove** the upper two rubber bumpers.



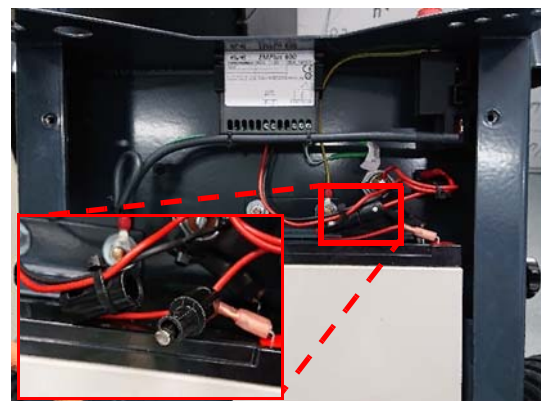
Afb. 9-2: Rubber bumpers

3. **Remove** the upper impact ring in order to be able to release the gas hose.
4. Then **feed** the gas hose through the upper hole.



Afb. 9-3: Gas hose impact ring

5. **Remove** the cover.
6. **Replace** the 1A 5x20mm glass fuse by a new one.



Afb. 9-4: Glass fuse

9.3.2 Checking the electronics

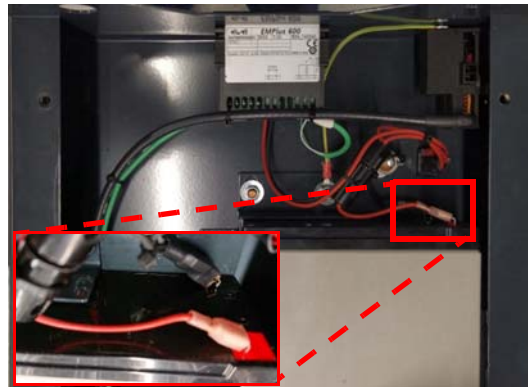
Proceed as follows to check the electronics:

1. **Carry out steps 1 to 4 in 9.3.1**
Replacing the fuse.



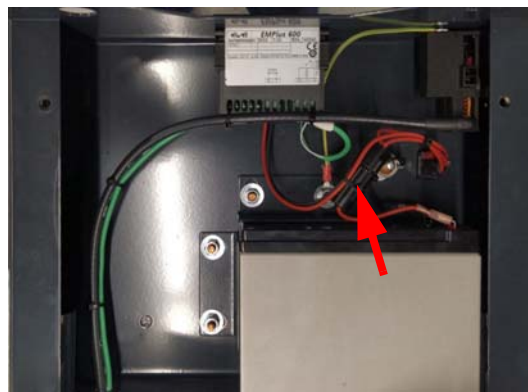
See appendix B2.1 for the electrical diagram and the cable names.

2. **Make** the system dead by disconnecting the AMP connectors from the battery.



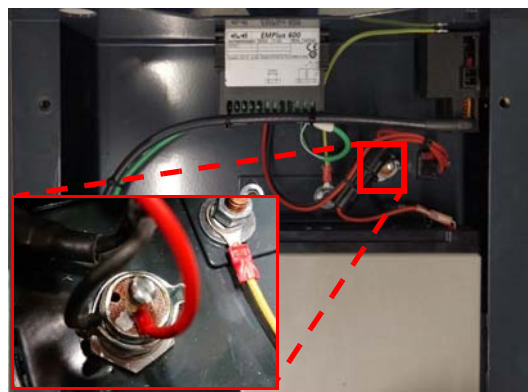
Afb. 9-5: AMP connectors

3. **Check** the system for any broken cables.
4. **Check** that everything has been connected properly (steps 6 to 9).
5. **Check** the connection and the actual fuse.
The fuse should be between cables 3A and 3B.



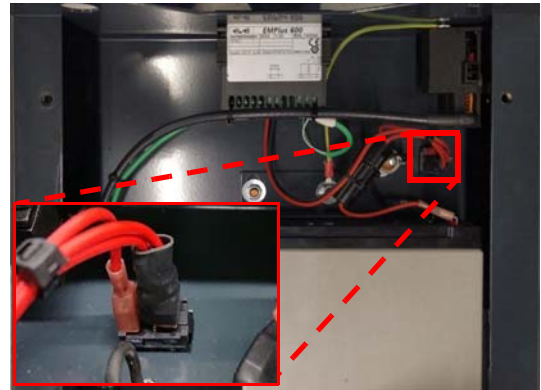
Afb. 9-6: Connection and fuse

6. **Check** the charger connection. Cables 1A and 3C should be connected here. Check that the wire end sleeve does not cause a short circuit with the edge of the connector and that the frame ground ring of cable 1A is tight.



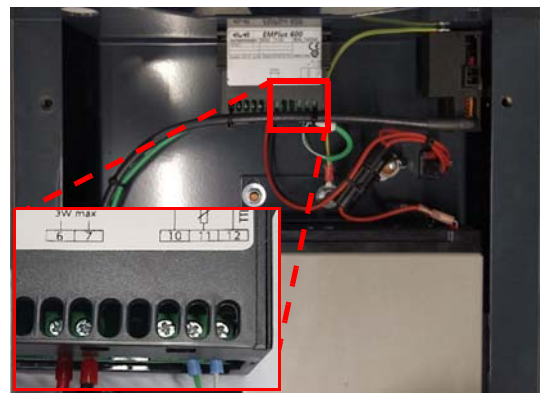
Afb. 9-7: Charger connection

7. **Check** the switch connection.
Cables 1A/B and 2A should be connected here.



Afb. 9-8: Switch connection

8. **Check** the display connection.
Cables 1B, 2A and the thermocouple should be connected here.
9. **Restore** the voltage to the system after doing these checks and then assemble everything.



Afb. 9-9: Display connection

10 Transport and storage

This chapter provides information on the transport of the HOAF WeedAir® 50/75i.

10.1 Transport



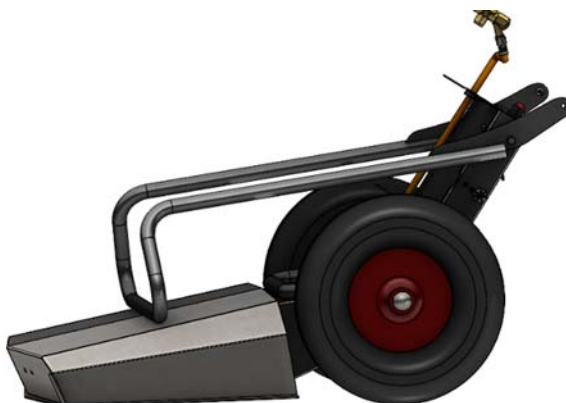
Note! Allow the burner to cool first, before hoisting and/or transporting.

The empty weight of the HOAF WeedAir® 50i is 35 kg.

The empty weight of a HOAF WeedAir® 75i is 40 kg.



You can manoeuvre the HOAF WeedAir® 50/75i in a "small" room or store it by tilting the push bar forwards.



Afb. 10-1: Transport condition

10.2 Storage

1. Always **remove** the gas bottle from the *HOAF WeedAir® 50/75i* when not in use for extended periods. Store the gas bottle in the designated location.



Observe the statutory instructions.

2. Always **store** the *HOAF WeedAir® 50/75i* in a dry and well ventilated place.
3. **Remove** the battery from the ignition.
4. **Switch** off the display.



Never park the HOAF WeedAir® 50/75i outdoors. This machine is (IP33) splash-proof and will be damaged by heavy rain.

11 Disposing of the machine

This chapter contains instructions concerning the disposing of the HOAF WeedAir® 50/75i.

11.1 Environmental aspects

Disposing of the *HOAF WeedAir® 50/75i* is to be done according to the laws and regulations of the country where the *HOAF WeedAir® 50/75i* is used.

Think, for example, about the environmentally friendly way to recycle or dispose of:

- Batteries
- Electronics
- Insulation material (contains fiberglass)

Appendix 1 Specifications

This Appendix describes the technical information regarding the HOAF WeedAir® 50/75i.

Technical data of the HOAF WeedAir® 50i

Gas	Type	: Propane
	Gas supply	: Gas bottle (vapour intake)
	Gas pressure	: 2 bar
	Gas consumption per hour	: 1.1 kg
	Power (max)	: 15 kW
	Temperature average	: approx. 400-500 °C
Electrical supply	Electrical supply	: 12 VDC 10A
	Ignition	: Spark plug spark ignition
Inspection	Safety	: CE
Weight	Empty weight <i>HOAF WeedAir® 50/75i</i>	: 35 kg
	Weight with full gas bottle	: 56 kg
Dimensions	Working width	: 500 mm
	Capacity	: 750 m ² at 1.5 km/h
	Length	: 1,075 mm 1560 mm (max.)
	Width	: 560 mm
	Height	: 590 mm (min.) 1070 mm (max.)
Miscellaneous	Sound pressure	: less than 70 dB(A)

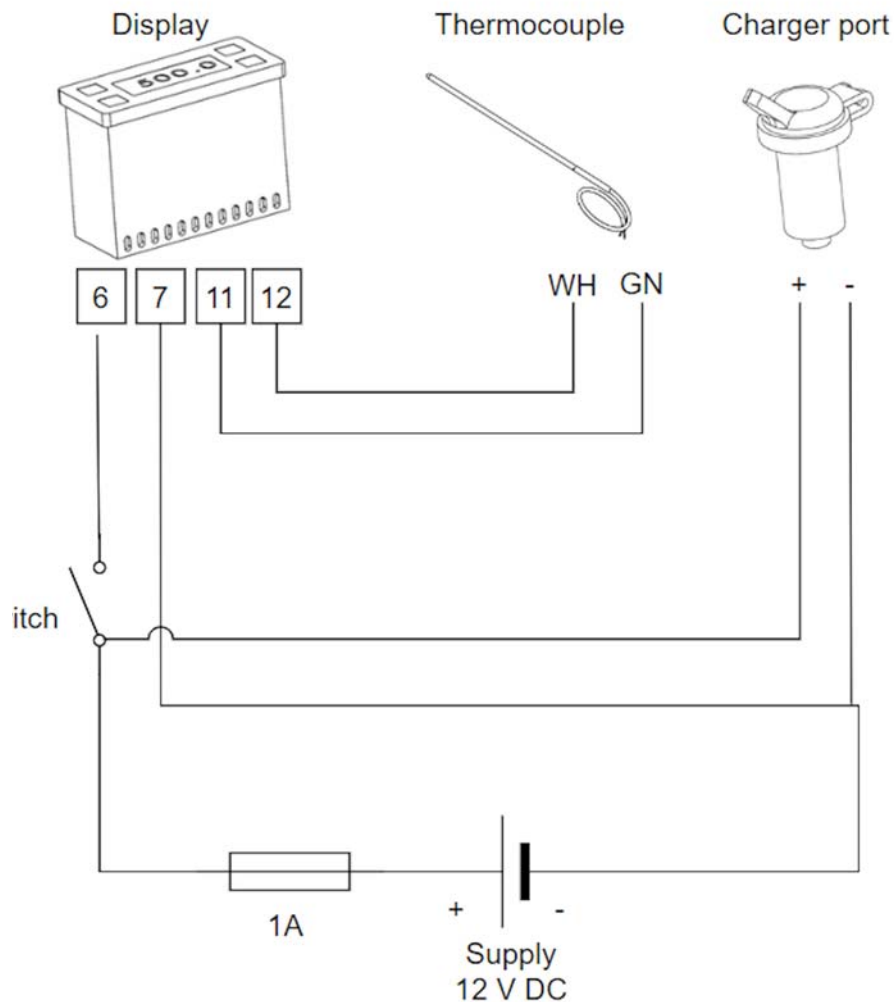
Technical data HOAF WeedAir® 75i

Gas	Type	: Propane
	Gas supply	: Gas bottle (vapour intake)
	Gas pressure	: 2 bar
	Gas consumption per hour	: 2.2 kg
	Power (max)	: 30 kW
	Temperature average	: approx. 400-500 °C
Electrical supply	Electrical supply	: 12 VDC 10A
	Ignition	: Spark plug spark ignition
Inspection	Safety	: CE
Weight	Empty weight <i>HOAF WeedAir® 50/75i</i>	: 40 kg
	Weight with full gas bottle	: 61 kg
Dimensions	Working width	: 750 mm
	Capacity	: 1125 m ² at 1.5 km/h
	Length	: 1,075 mm 1560 mm (max.)
	Width	: 810 mm
	Height	: 590 mm (min.) 1070 mm (max.)
Miscellaneous	Sound pressure	: less than 70 dB(A)

Appendix 2 Drawings

This appendix contains drawings and parts lists of the HOAF WeedAir® 50/75i.

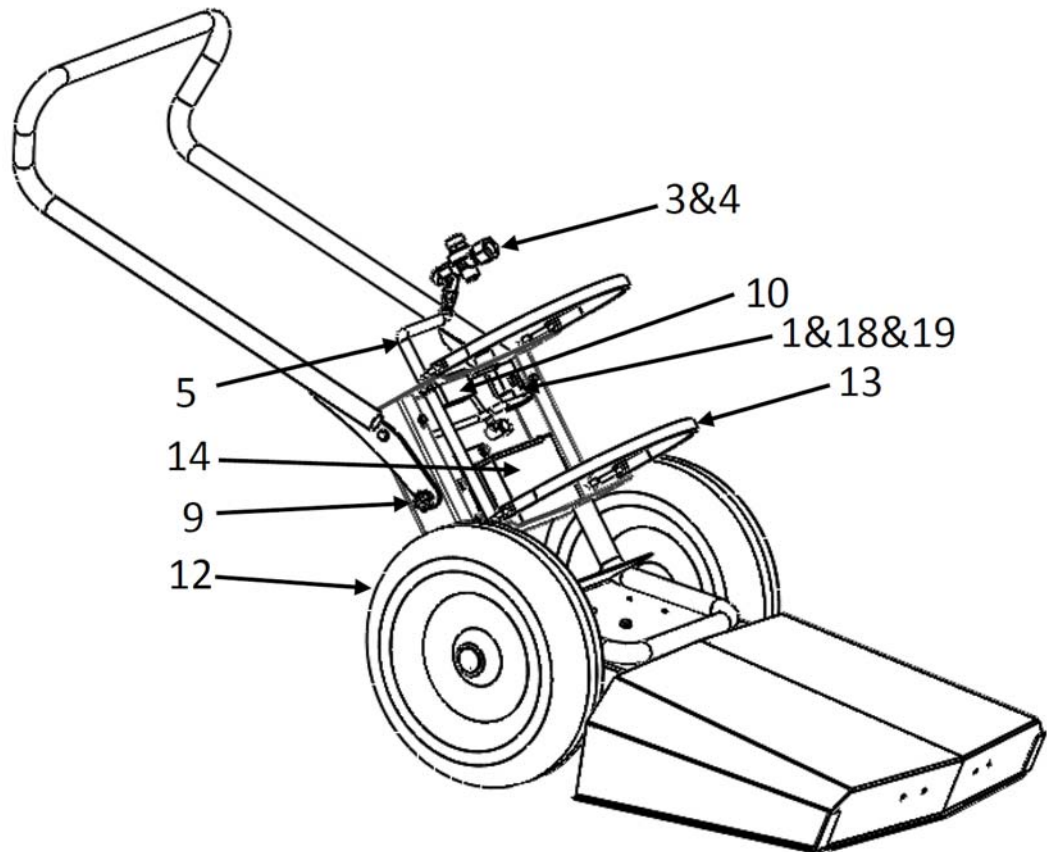
B2.1 Electrical Diagram



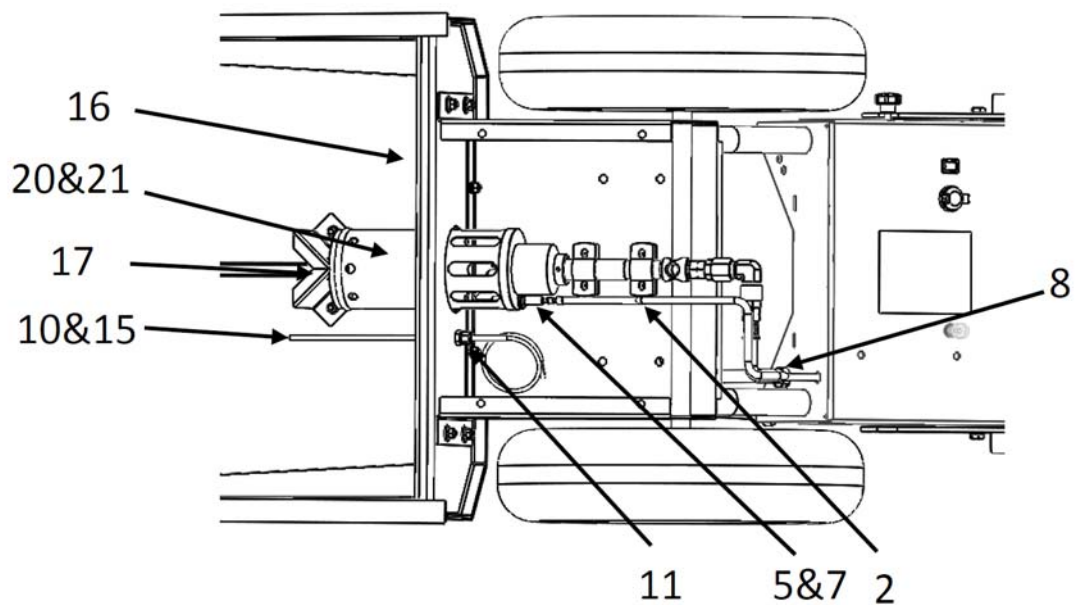
Afb. 2-1: Electrical Diagram

B2.2 Spare parts list

Overview drawing spare parts



Afb. 2-1: Isometric view of HOAF WeedAir® 50/75i

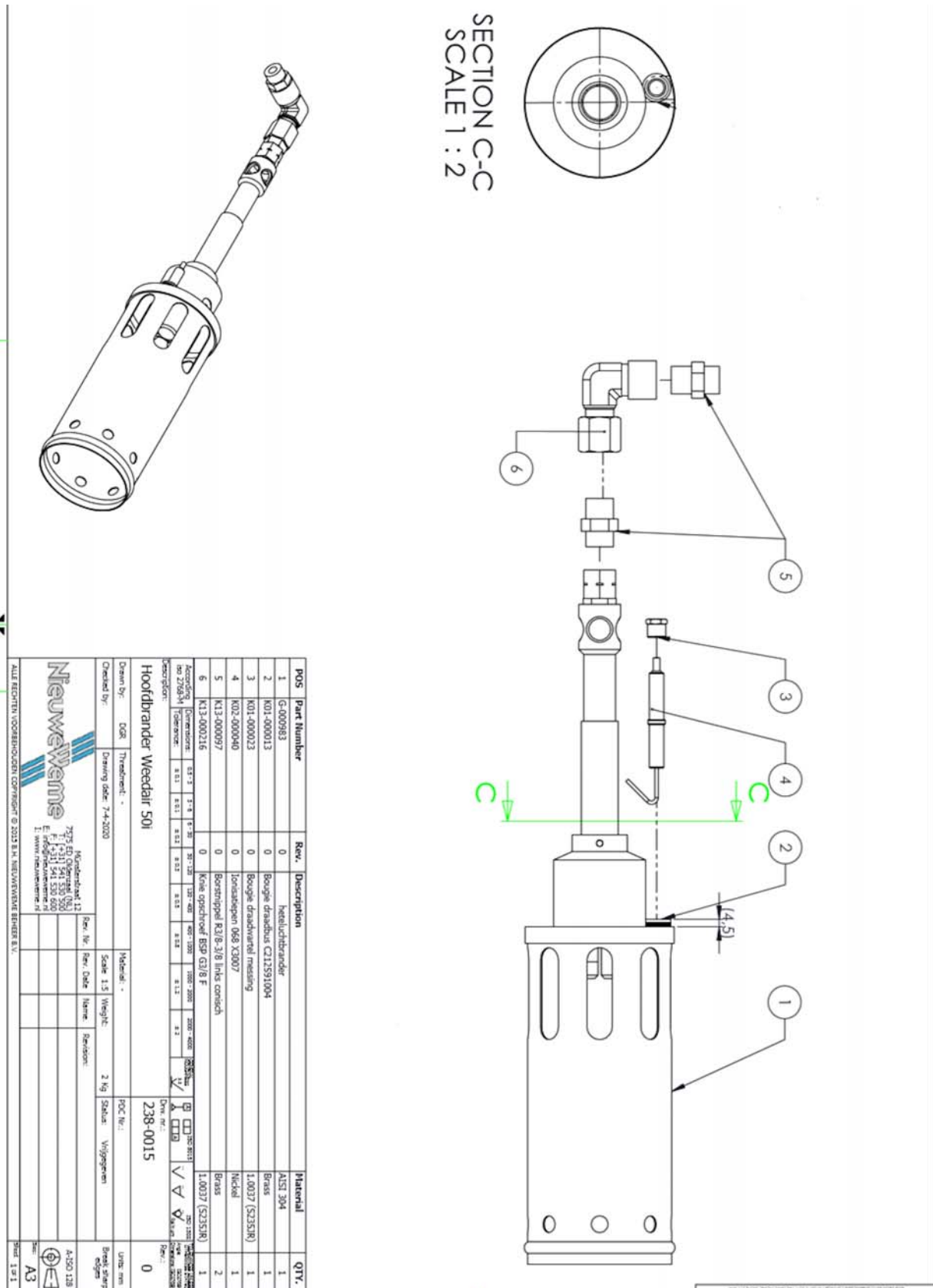


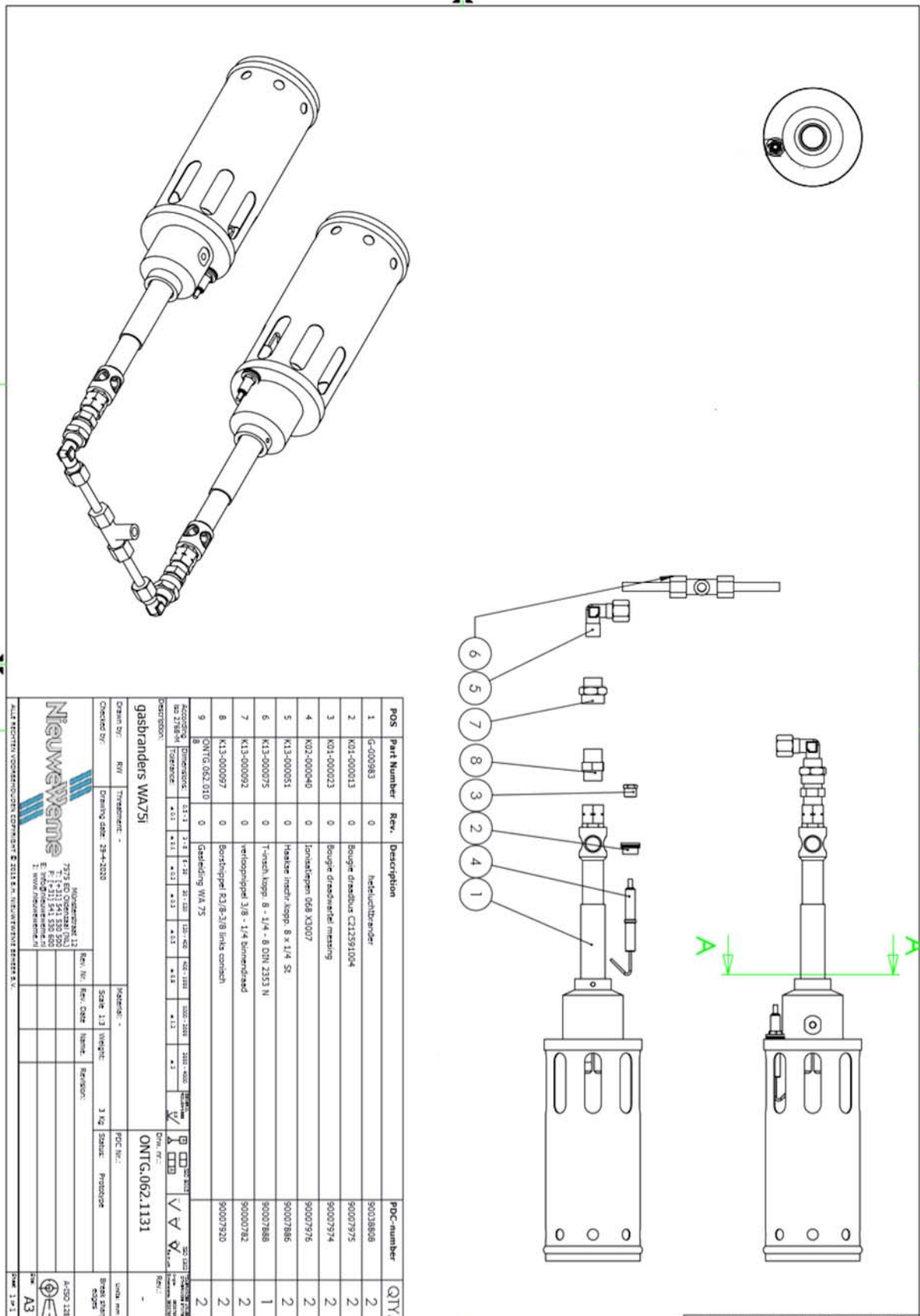
Afb. 2-2: View of underside of HOAF WeedAir® 50/75i

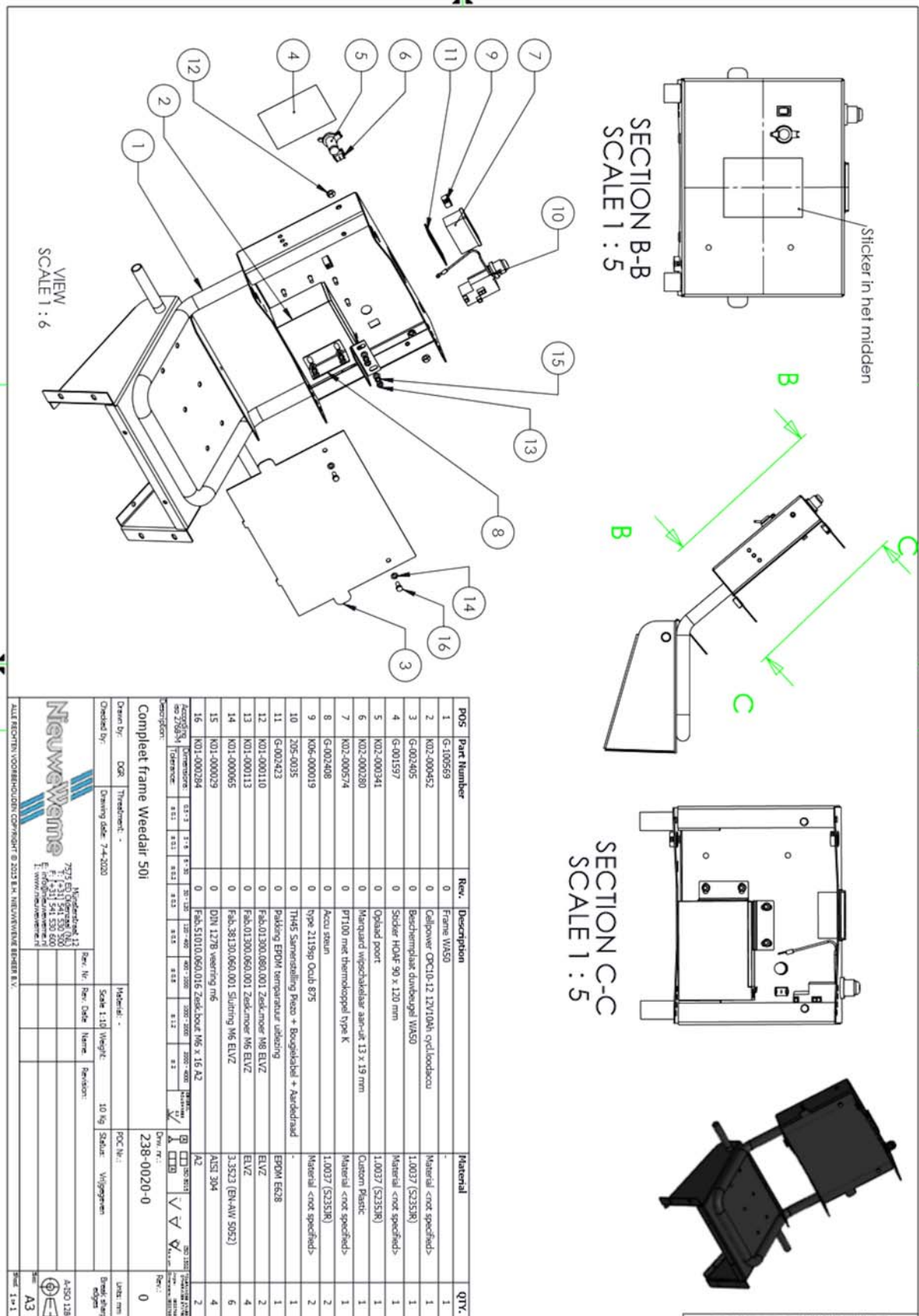
List spare parts

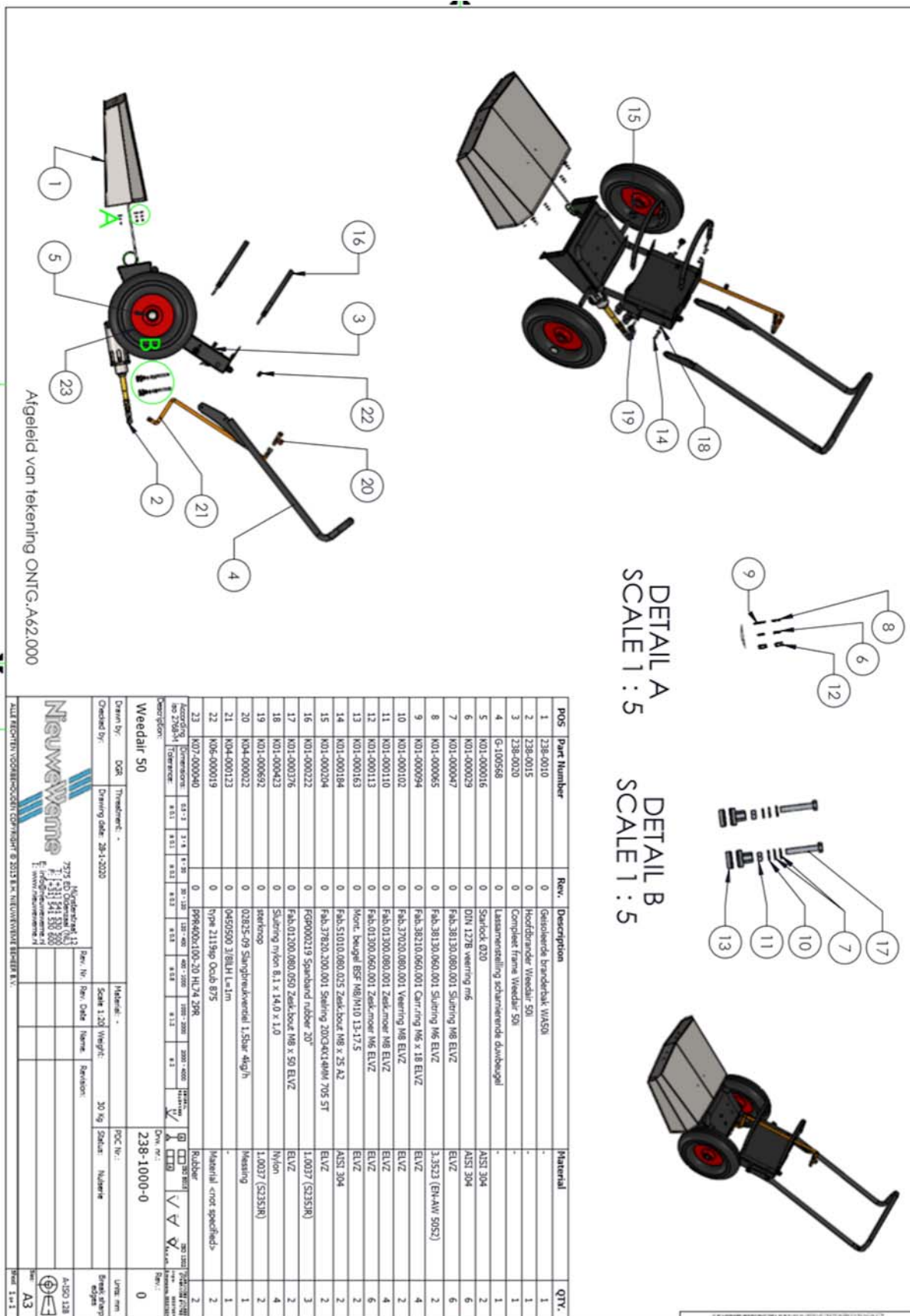
Number	Description	Article code
1	WEEDAIR 50I BATTERY IGNITION	90008130
2	SPARK PLUG CABLE	20000085
3	DIN-KOMBI 2 BAR PRESSURE CONTROLLER	92001490
4	CLIP-ON 2 BAR PRESSURE CONTROLLER WITH A HOSE RUPTURE VALVE	92001477 + 90007876
5	GAS HOSE	92001476
6	SPARK PLUG	90007976
7	SPARK PLUG CABLE GLAND BRASS	90007974
8	GAS HOSE PROTECTION RING	92001478
9	STAR-SHAPED HEIGHT ADJUSTMENT NUT	90017522
10	THERMOCOUPLE WITH READOUT	92001475
11	THERMOCOUPLE CLAMP SCREW	92001480
12	WHEEL WITH CAP.	92001479 + 90000396
13	RUBBER STRAP	90019209
14	BATTERY	90035295
15	THERMOCOUPLE K-2/1200 GRA	90021865
16	PRESS-ON CLIP FOR WIRE MESH ASSY	90008132
17	BURNER DISTRIBUTOR PLATE	92001468
18	WEEDAIR 50/75I BATTERY IGNITION PUSHBUTTON	90022217
19	WEEDAIR 75I BATTERY IGNITION	-
20	MAIN BURNER WEEDAIR 50I	-
21	MAIN BURNER WEEDAIR 75I	-
22	FIRE EXTINGUISHER	90007823
23	GAS DETECTION SPRAY	90007819
24	BATTERY CHARGER	20000481

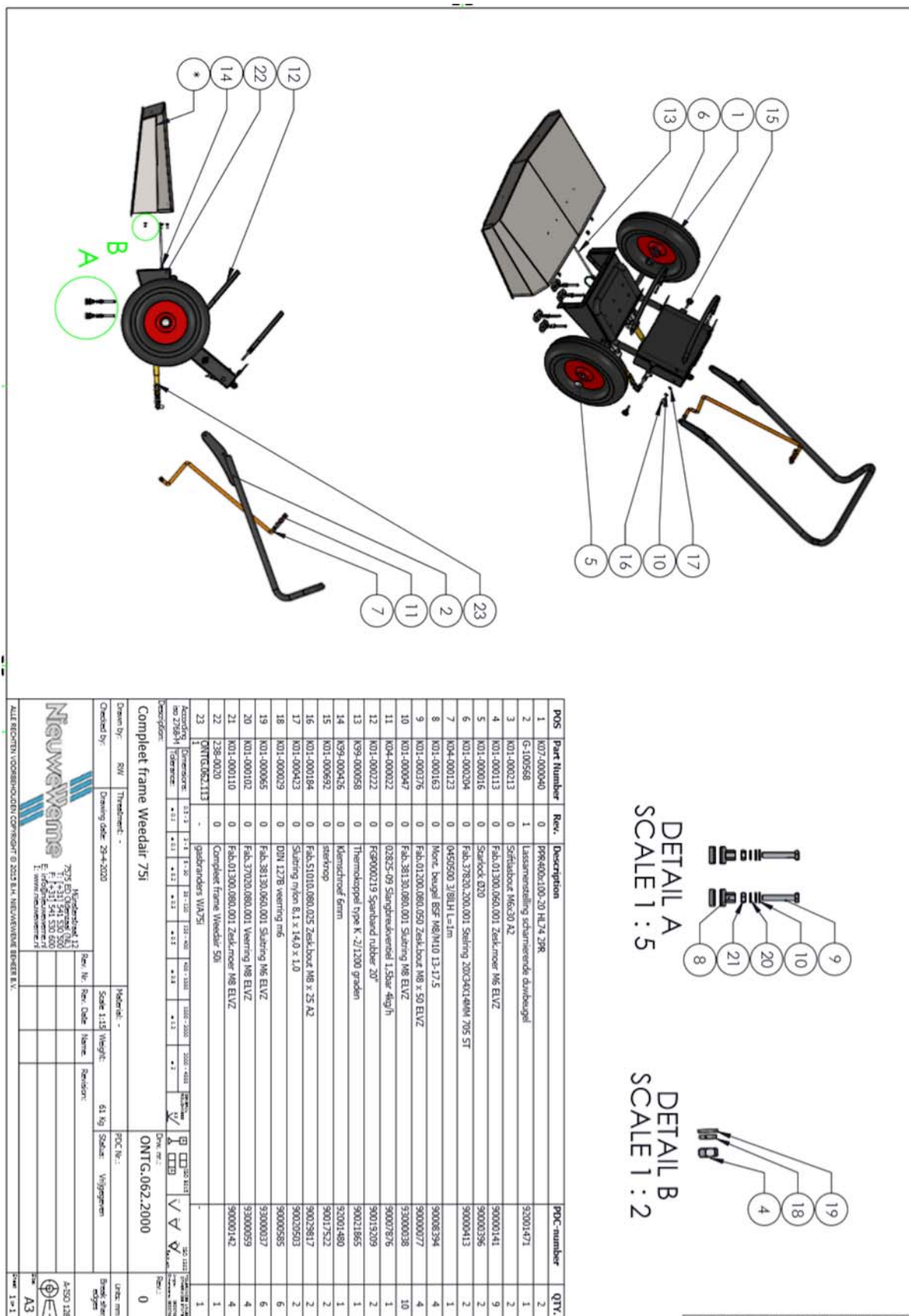
B2.3 Technical drawings











Appendix 3 Quality control

Quality is very important at *HOAF Infrared Technology*. This is why *HOAF Infrared Technology* has its products checked extensively, by qualified personnel.



HOAF Infrared Technology declares that your *HOAF WeedAir® 50/75i* has been checked for its quality and has been approved.

HOAF Infrared Technology advises you to send the warranty form fully completed. You can find it in Appendix A5 *HOAF WeedAir® 50/75i* gives a 12 month guarantee on your *HOAF Infrared Technology*. See section 1.4 for more information.

CONTROL FORM *HOAF WeedAir® 50/75i*

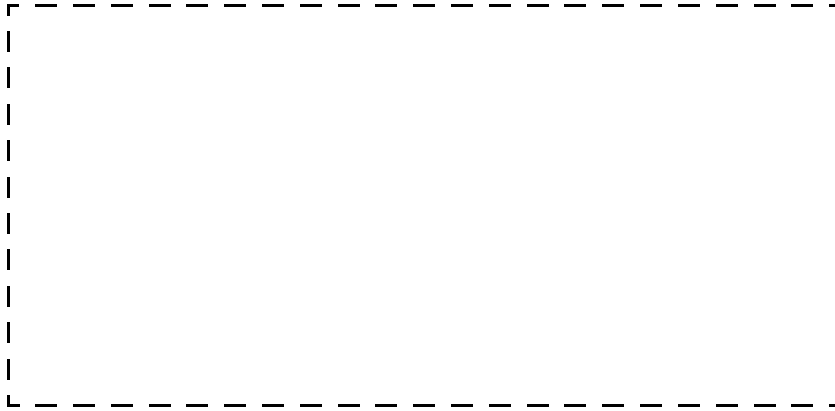
Date:

Inspector:



Signature Inspector

Machine identification plate

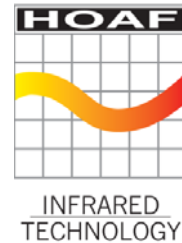


Appendix 4CE declaration

This Appendix contains the CE declaration of conformity of the HOAF WeedAir® 50/75i.

EC Declaration of Conformity relating to Machinery
according to Directive 2006/42/EC, Annex II, sub 1.A
Original Declaration

HOAF Infrared Technology
Münsterstraat 14
7575 ED Oldenzaal
The Netherlands



hereby declares that the machine:

Name: HOAF Weedair® 50/75i
Job title: Burning weeds using hot air.
Model/Type: 50 / 75i
Year of manufacture: 2020

fulfils all relevant applicable provisions of the following Directive(s):

DIRECTIVE 2006/42/EG (Machine directive)
DIRECTIVE 2004/108/EG (EMC directive)

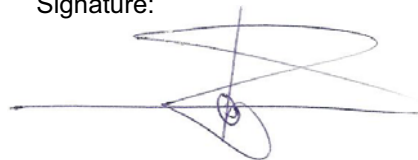
Where applicable, the following (harmonised) norms have been applied:

NEN-EN-IEC 60204-1 (Electrical safety of machines)
NEN-EN-IEC 61000-6-4 (EMC emission)
NEN-EN-IEC 61000-6-2 (EMC emission)

Place: Oldenzaal
Date: 2 July 2020

Name: B.H. Nieuwe Weme
Job title: Managing director

Signature:





Warranty Certificate HOAF WeedAir®

Purchase date :

Supplier
Name :
Place :
Country :

Customer
Name :
Street address :
Postcode :
Place :
Country :

Signature supplier

Signature customer



Fill in the certificate, cut it out of the operating instructions, fold it in two and staple the ends together. The address is already printed on the back of this form; all you need to do is put on a stamp.



Place stamp
here

HOAF Infrared Technology

Münsterstraat 14

7575 ED Oldenzaal

The Netherlands