HAAS + SOHN

Mantova AL II with exchanger

Equipment sheet Fireplace stove with exchanger

GB

0433715101400c

Introduction

We thank you very much for purchasing our product!

The description of the heating device will inform you in detail about the design, technical specification and operation of the heating device. We recommend you to acquaint yourselves closely with these data. In this way, you will avoid possible faults during the proper assembly and operation.

You will find detailed conditions of installation and operation in General Manual of Operation (included in the scope of the delivery).

Notes in the text

<u>/</u>!\

GB

Of utmost importance there are the notes entitled **WARNING**. The notes entitled **WARNING** advise you on serious danger of damage to the heating device or of an injury.



The note entitled Notice advises you on possible damage to your heating device.



The note entitled **Important** calls your attention to the information important for the operation of your heating device.



The note itself calls your attention to the information important for the operation of your heating device in general.

Contents

| 1. Technical specification | 1 |
|--|---|
| 2. Technical description | 2 |
| 3. Overview of spare parts | 3 |
| 3. Overview of spare parts 3.1. Whole emplacement 3.2. Detail A1 | 3 |
| 3.2. Detail A1 | 5 |
| 4. Dimensioned diagram | 6 |
| 4.1. Knee-piece of exhaust of combustion products | 6 |
| 4.2. Connection of the exchanger | 7 |
| 5. Change of the smoke neck | 8 |
| 6. Heat exchanger cleaning instructions | 9 |

1. Technical specification

<u>Suitable fuels:</u> As concerns suitable fuel to be employed, see the chapter **2.2 Fuel** in the General Manual of Operation.

<u>Proper operation:</u> As concerns the proper and safe operation of the fireplace stove, see the chapters **2**. **Description of the combustion process** and **5**. **Operating instructions** in the General Manual of Operation.

Instructions for the control of combustion regime

| Fuel | Output of the heating device | Quantity of fuel | Primary air | Secondary air | Tertiary air |
|----------------|------------------------------------|------------------|-------------|---------------|------------------|
| Eco-briquettes | 100% | 2,7 kg/hour | open on 10% | open on 100% | not controllable |
| Eco-briquettes | 33% | 0,9 kg/hour | open on 5% | open on 50% | not controllable |

Technical data

| | Eco-briquettes |
|---|-------------------------|
| Achieved heat output (100%) | 10 kW |
| Reduced heat output (33%) | 3,3 kW |
| Output delivered by the stove body only | 2,6 kW |
| Output available for heating of water | 7,4 kW |
| Maximum stoking amount of the fuel | 2,7 kg/hour |
| Average temperature of combustion products behind the smoke flue neck | 280 °C |
| Maximum mass flow of dry combustion products | 9,5 g/s |
| Energy efficiency | 80,1 % |
| Average concentration of CO ₂ | 8,9 % |
| Concentration of CO in combustion products at 13% O ₂ | 666 mg/Nm ³ |
| Dust at 13% O ₂ | 17 mg/Nm ³ |
| Amount of combustion air at nominal output | 35 m ³ /hour |
| Tested according to EN 13 240 | |

Technical information

| Height | 962 mm |
|---|---------------|
| Width | 506 mm |
| Depth | 456 mm |
| Weight – sheet metal/ceramics | 128 kg/134 kg |
| Diameter of the smoke flue | 150 mm |
| Maximum operating over-pressure of the exchanger | 0,2 MPa |
| Water contents of the exchanger | 14 |
| Recommended heat gradient (t _{output} – t _{input}) | 75 – 60 °C |
| Minimum draft in the smoke flue neck | 12 Pa |
| Heating capacity (middle heat losses) at 10 kW | cca 180 m³ |
| Controllable output | 3,3 – 10 kW |

2. Technical description



2

3. Overview of spare parts

3.1. Whole emplacement





| Item | Name | Piece | Spare part number | | |
|-------------------|---------------------------------------|---------|-------------------|--|--|
| Whole emplacement | | | | | |
| A1 | Fire-box door (complete)/black | 1 piece | 0433715025300 | | |
| A1 | Fire-box door (complete)/silver | 1 piece | 0433715005300 | | |
| B1 | Strip connecting material - set | 1 piece | 0089931140005 | | |
| 1 | Smoke flue neck/anthracite | 1 piece | 0470315006007 | | |
| 2 | Flue gas duct packing cord 10x4 mm | 480 mm | 0040210040005 | | |
| 3 | Flue gas duct blind flange/black | 1 piece | 0470315007002 | | |
| 3 | Flue gas duct blind flange/anthracite | 1 piece | 0470315008002 | | |
| 4 | Body cover/black | 1 piece | 0332315005061 | | |
| 5 | Packing cord of body cover 10x4 mm | 1100 mm | 0040210040005 | | |
| 6 | External intake of air (Ø100) | 1 piece | 0088500050008 | | |
| 7 | Cover | 1 piece | 0433615105087 | | |
| 8 | Rear cover | 1 piece | 0433715006110 | | |
| 9 | Lid/black | 1 piece | 0433715007100 | | |
| 9 | Lid/anthracite | 1 piece | 0433715006100 | | |
| 10 | Upper lining/beige | 1 piece | 0431915456120 | | |
| 11 | Lateral lining/beige | 1 piece | 0061001000605 | | |
| 12 | Sliding valve (primary air) | 1 piece | 0433615005183 | | |
| 13 | Controller of primary air/black | 1 piece | 0433715005186 | | |
| 14 | Lip - loose (30x58x355) | 1 piece | 0431915005701 | | |
| 15 | Brick 30x230x330 | 1 piece | 0332315005501 | | |
| 16 | Brick 30x190x340 | 1 piece | 0332315005504 | | |
| 17 | Brick 30x190x340 | 1 piece | 0332315005505 | | |
| 18 | Refractory concrete grid | 1 piece | 0332315005052 | | |
| 19 | Brick 27x305x30 | 1 piece | 0332315005502 | | |
| 20 | Ash pan | 1 piece | 0332315005030 | | |
| 21 | Protection | 1 piece | 0431915006040 | | |
| 22 | Sheet-metal variant | 1 piece | — | | |

3.2. Detail A1



| ltem | Name | Piece | Spare part number |
|-------|-------------------------------------|---------|----------------------|
| 23 | Fire-box door hand pull/chrome | 1 piece | 0081020120005 |
| A1.1. | Hand pull connecting material - set | 1 piece | 0081010180005 |
| A1.2. | Door closing blade/black - set | 1 piece | 0331415017330 |
| A1.2. | Door closing blade/silver - set | 1 piece | 0331415027330 |
| A1.3. | Glass holder - set | 1 piece | 0416515015304 |
| 24 | Fire-box door (welded part)/black | 1 piece | 0433715006200 |
| 24 | Fire-box door (welded part)/silver | 1 piece | 0433715005200 |
| 25 | Sealing cord of the door 14 mm | 2500 mm | 0040014140005 |
| 26 | Sealing cord of the glas 10x4 mm | 1300 mm | 0040210040005 |
| 27 | Refractory glass (260x400) | 1 piece | 0431915005304 |

4. Dimensioned diagram

4.1. Knee-piece of exhaust of combustion products

Note

The knee-piece of exhaust of combustion products is delivered as optional accessory.



Dimensioned diagram

4.2. Connection of the exchanger



The automatic venting valve (item D) must be always connected!



5. Change of the smoke neck



| ltem | Name | Piece | Spare part number |
|------|------------------------|---------|----------------------|
| 1 | Blind cover/black | 1 piece | 0421817006001 |
| 1 | Blind cover/anthracite | 1 piece | 0421817005001 |

Change of the smoke neck

6. Heat exchanger cleaning instructions



Basic cleaning with wiping bar must be performed approximately 1x per week.

General cleaning of the exchanger should be performed at least 1x per heating season or more often, depending on the way of operation. select a suitable cleaning tool to clean the exchanger surfaces (fig. A). when performing general cleaning, dismount carefully the body cover (pos. 8) to avoid damage to the packing cord (pos. 7).



Note

When exchanging the cleaning sides, **pos. 6** is exchanged for **pos. 2 (fig. B2, A2)**. The cleaning procedure applies also for the opposite side.

| ltem | Name | Piece | Spare part number |
|------|--|---------|----------------------|
| 1 | Cover plug | 1 piece | 0431915005015 |
| 2 | Screw M10x70 | 1 piece | 0030031000705 |
| 3 | Allen wrench 8 mm (forms part of the delivery) | 1 piece | 9001700080005 |
| 4 | Drawbar of cleaning/black | 1 piece | 0433317005063 |
| 4 | Drawbar of cleaning/anthracite | 1 piece | 0433317006063 |
| 5 | Wiping blade | 1 piece | — |
| 6 | Plug | 1 piece | 0431915005018 |
| 7 | Packing cord of body cover 10x4 mm | 1100 mm | 0040210040005 |
| 8 | Body cover/black | 1 piece | 0332315005061 |



Heat exchanger cleaning instructions

GB

WARNING

When terminating the cleaning, always arrest the wiping bar. Do not leave the wiping bar over the flame and the (a, b) holes freely passable.