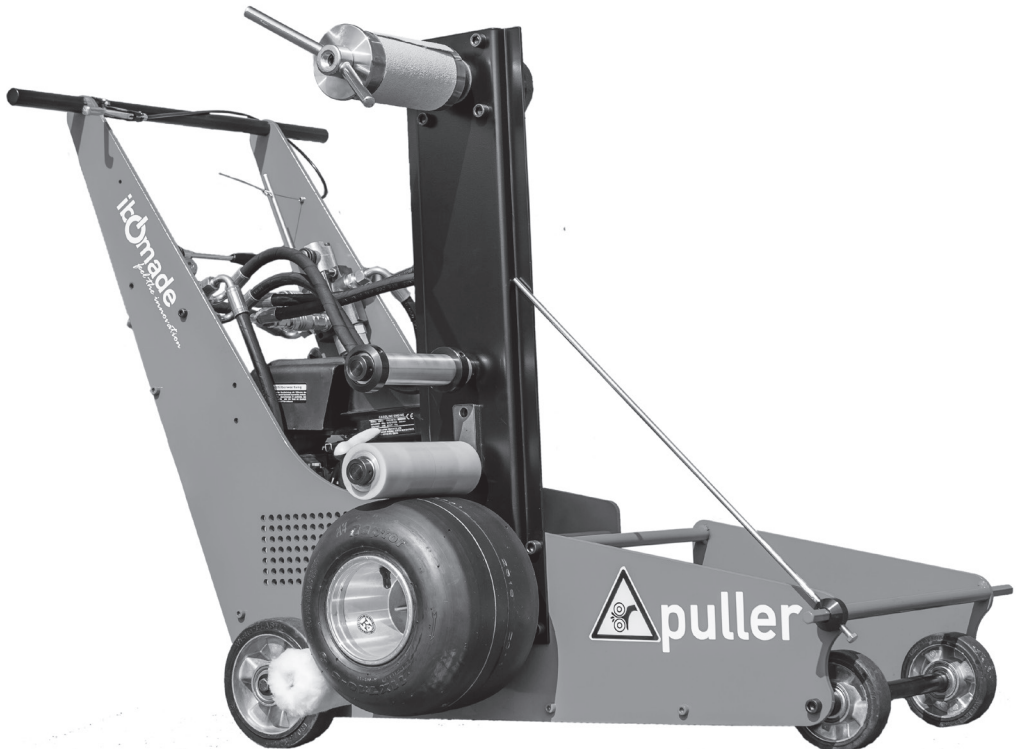


# INSTALLATION AND OPERATING INSTRUCTIONS

## IBOTECH

**Puller hand-operated demarking machine  
for road marking foils**



**IBOTECH**  
VERKEHRSSICHERUNG & FAHRBAHNMARKIERUNG

February 2020 | VERSION 1.0



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Installation and use of this product requires observation of all relevant state, regional, and local safety provisions at all times. For reasons of safety and to ensure compliance with the document system data, only the manufacturer shall have the right to repair any components.

Products for applications subject to safety-technical requirements must be used under observation of the corresponding notes.

Non-observation of such information may cause injury or damage.

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## PRODUCT CHANGES

YEAR	TYPE	CHANGES

## DOCUMENT REVISIONS

DATE	TYPE	CHANGES
13 February 2020	1.0	First draft

## APPROVALS

This document requires the following approvals:

NAME	TITLE

# 1. PREFACE

## 1.1 USER DESCRIPTION

This document is intended for the end users of the IBOTECH Puller hand-operated demarking machine for road marking tapes, hereinafter called Ibotech Puller.

An end user is any person who interacts directly with the product. The term "end user" usually comprises, among other things:

- Operators/road workers
- Maintenance staff or technicians

The product must only be used by authorised and properly qualified, experienced persons aged at least 18 years:

- who have read and understood these operating instructions.
- who are familiar with operation of this or a similar device.
- who know how to control this product.
- who are aware of all possible dangers and who act accordingly.
- who are trained and authorised to work near traffic areas.

## 1.2 STANDARDS USED IN THIS MANUAL

The following writing styles are used in this document:

### **Bold**

Designation of product parts

### *Italics*

Publication titles listed in the text

## 1.3 EXPLANATION OF THE FINAL NOTES



"Caution" indicates a danger that may lead to light to medium injury if not avoided.



Marks information that is important but not connected to potentially dangerous situations.



## **1.4 STORAGE NOTES**

Ensure that you have read and understood the entire instructions and all safety notes before using this product. Non-observation of these notes may cause light to severe injuries.

Observe all instructions. This avoids accidents that may cause property damage or light to medium injuries.

Keep all safety information and instructions for later reference and pass them on to later users of the product.

The manufacturer shall not be liable for any property damage or injury caused by incorrect handling or non-compliance with the safety notes. In such cases, the warranty shall expire.

## 1.5 PROCUREMENT OF DOCUMENTS AND INFORMATION

A current version of the documentation is available on the following website:  
[www.ibotech.eu](http://www.ibotech.eu)

Documentation, user instructions and technical information can be requested by phone from IBOTECH under +49 (0)6205 / 28 67 210.

If you read an IBOTECH product documentation online, you can submit comments via the support website. Comments can also be submitted to [info@ibotech.eu](mailto:info@ibotech.eu) by email. We are happy to receive your feedback.

For information on special tools and materials, as well as for any service-specific questions, please contact:

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## 2. PRODUCT DESCRIPTION

### 2.1 INTENDED USE AND REASONABLY FORESEEABLE MISUSES

The IBOTECH Puller is intended as a product for removing road markings. The IBOTECH Puller is only intended for removing road marking tape with sufficient thickness (material thickness more than 1.0 mm) and not suitable for thin-tape lane marking tape (material thickness approx. 0.7 mm).

The IBOTECH Puller must not be used in the following cases:

- As a device for moving objects or people;
- On gravel or dirt roads.

The IBOTECH Puller is NOT intended for indoor use. Always use the IBOTECH Puller outdoors.

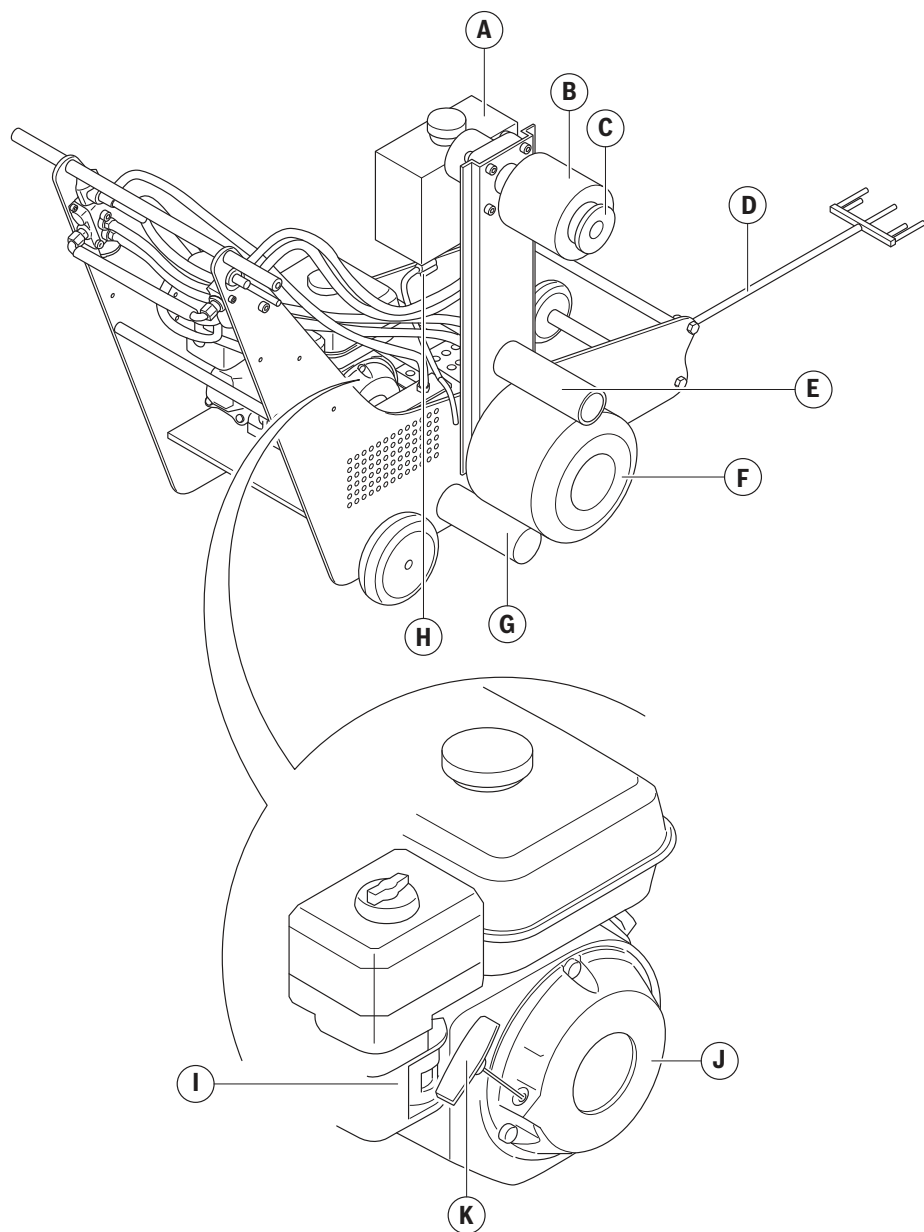
The IBOTECH Puller must only be used with genuine accessories and components.

Any other use than the one described in the operating instructions is deemed non-intended use.

## 2.2 TECHNICAL DATA

PARAMETER	UNIT
Product designation	IBOTECH hand-operated demarking machine for road marking tapes
Designation	IBOTECH Puller
Product service life	5 years
Product weight	approx. 145 kg
Product dimensions	1300 x 750 x 950
Lubricants	WD-40 spray

## 2.3 PRODUCT COMPONENTS AND SPARE PARTS



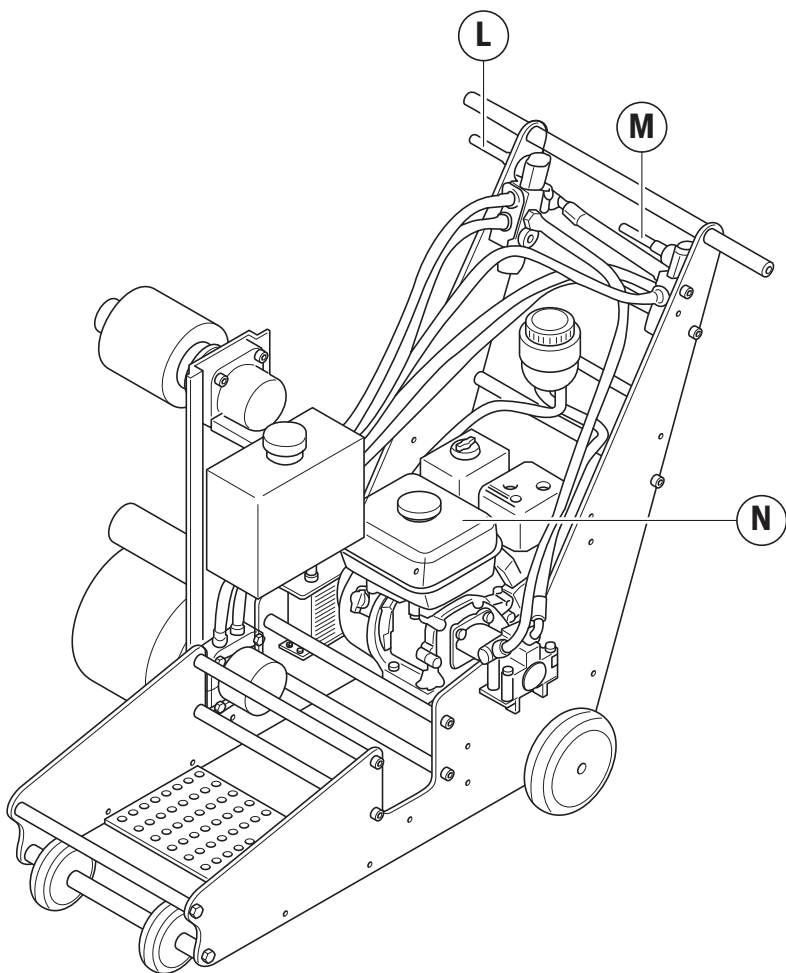


Fig. 1: Main parts of the product

- |    |                         |    |                           |
|----|-------------------------|----|---------------------------|
| A. | Water tank              | H. | Dosing lever water supply |
| B. | Winding roll            | I. | Choke                     |
| C. | Holder for winding roll | J. | Engine                    |
| D. | Direction arrow         | K. | Starter rope              |
| E. | Pressure roller         | L. | Right hand lever          |
| F. | Roller                  | M. | Left hand lever           |
| G. | Water transfer roller   | N. | Fuel tank                 |

## 3. SAFETY NOTES

### **VORSICHT**

This product has been developed for secure operation. The manner of operation means that there may be dangers when using the product. Familiarise yourself with the present operating instructions before you use this product. Non-observation of these notes may cause light to severe injuries.

### 3.1 SAFE HANDLING OF THE PRODUCT

#### 3.1.1 Product Thresholds and Limitations

- Only use this product for road construction work under the conditions listed in this document.

#### 3.1.2 Safety Information for Use

- Follow the instructions in this manual (see *OPERATION*). Pay particular attention to the safety symbols that are displayed in areas with a high risk of injury (see *Graphic Symbols*).
- The product must be used by properly qualified and trained staff, under observation of the applicable rules and provisions. The road construction operation is responsible for the employment of experienced and qualified specialists.
- Ensure that there are no injuries. Wear suitable personal protection equipment, such as gloves, safety shoes (at least category S3), goggles, hearing protection, dust mask, and a protective suit.
- The environmental conditions and the type of footwear can lead risk of slipping, falling and tripping. Wear suitable safety shoes.

- The IBOTECH Puller should only be used by one person. When using the product, make sure that other people observe a safety distance.
- The product should only be used for suitable and appropriate road marking tapes.
- Collect appropriate information about the national and regional laws for work on roads and near traffic areas.
- Always be attentive and careful in what you do. Do not use the IBOTECH Puller if you are lacking focus or attention, or if you are subject to the influence of drugs, alcohol, or medication. Even a brief moment of inattentiveness may lead to severe accidents and injury when using the product.
- **DANGER OF CRUSHING!** The IBOTECH Puller contains moving parts! Always keep a safety distance to avoid accidents by becoming trapped. Never reach blindly into any areas in and around, under, or near the product. Keep your fingers, hands, hair, loose clothing, gloves, and tools away from movable parts.
- Do not touch hot parts during operation. Serious burns may occur, as the surfaces may become hot during operation.
- **DANGER OF CUTTING!** The IBOTECH Puller contains pointed parts! Always keep a safety distance to avoid accidents by cutting.
- The IBOTECH Puller is not intended as a device for moving objects. Do not stand on the machine!
- If there is an accident, cease use of the product immediately and involve a doctor if applicable.



### **3.1.3 Safety Information for Maintenance**

- All cleaning and maintenance work must only be performed by qualified staff. In order to ensure operational safety of the product, it should be serviced at regular intervals by qualified staff in compliance with the manufacturer's instructions. Follow the instructions (see *INSPECTION, MAINTENANCE AND CLEANING*).
- Maintenance and inspection should be performed at regular intervals.
- Use only genuine accessories and genuine spare parts (see *Product Components and Spare Parts*).

### **3.1.4 Repair**

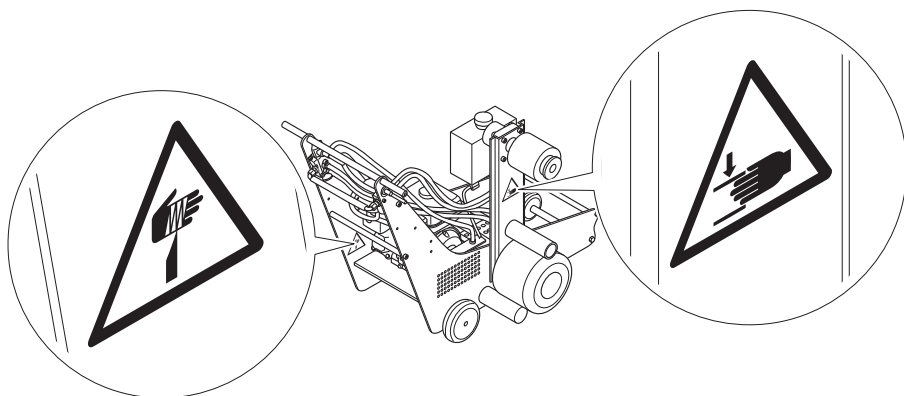
- Never open or repair the IBOTECH Puller on your own in a way other than described in this operating manual. This voids the warranty. Other repairs than those described in these operating instructions must only be performed by the manufacturer.
- Use only genuine accessories and genuine spare parts (see *Product Components and Spare Parts*).
- Changes and technical modifications of the IBOTECH Puller are not permitted.

### **3.1.5 Safety Information on the Engine**

- Familiarise yourself with the function of all controls and memorise how to stop the engine quickly in an emergency. Ensure that the operator receives adequate instructions before using the equipment.
- Children must not be allowed to operate the engine. Keep children and animals away from the operating area.
- The exhaust gases of the engine contain toxic carbon monoxide. Do not run the engine without sufficient ventilation and under no circumstances indoors.
- Engine and exhaust pipe become very hot during operation. Keep the engine at least 1 m away from buildings and other equipment during operation. Keep highly flammable materials away and do not place anything on the engine while it is running.

## 3.2 GRAPHIC SYMBOLS

The IBOTECH Puller contains symbols in areas with a high risk of injury. Replace all missing or damaged safety symbols at once. If you replace any safety symbols with new ones, ensure that you attach the new safety symbols in the same positions.



*Fig. 2: Position of the graphical symbols*

SYMBOL	MEANING
--------	---------



Places with a risk of crushing are places in and around the products where there is a risk of a body part catching between a firmly installed and a movable part of the product. **DANGER FROM CATCHING AND DANGER OF CRUSHING!** Never reach blindly into any areas in, around, under, or near the product. Keep your fingers, hands, hair, loose clothing, gloves, and tools away from movable parts.

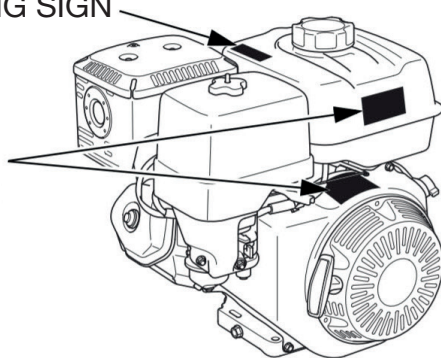


Points with risk of cutting are points in and around the products where there is a risk of cutting body parts. **DANGER FROM POINTED PARTS AND DANGER OF CUTTING!** Never reach blindly into any areas in, around, under, or near the product. Keep your fingers, hands, hair, loose clothing, gloves, and tools away from pointed parts.

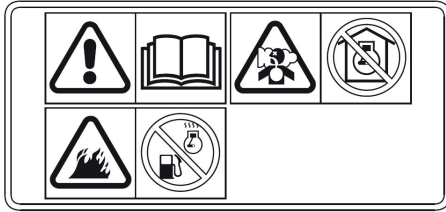
## SILENCER WARNING SIGN

### WARNING STICKER

(The sticker should be located either on the fuel tank or on the fan cover; it can also be packed loose with the engine to be attached later.)



## WARNING STICKER



attached to the product

### **⚠ WARNING**

Gasoline is highly flammable and explosive.  
Turn engine off and let cool before refueling.  
The engine emits toxic carbon monoxide.  
Do not run in an enclosed area.  
Read Owner's Manual before operation.

delivered with product

### **⚠ ATTENTION**

L'essence est très inflammable et explosive.  
Arrêter le moteur et le laisser refroidir avant de faire le plein d'essence.  
Le moteur produit les vapeurs nocives de monoxyde de carbone.  
Ne pas utiliser dans un local clos.  
Lire le manuel de propriétaire avant l'utilisation.

delivered with product

## SILENCER WARNING SIGN

### **⚠ CAUTION**


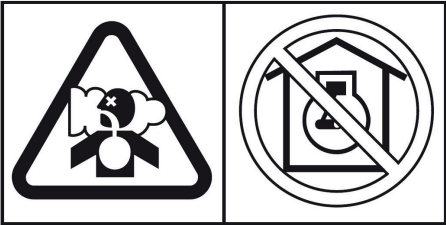
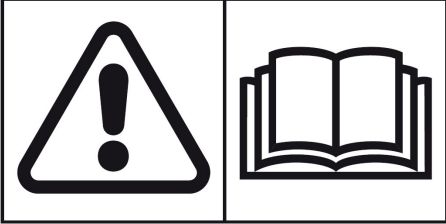
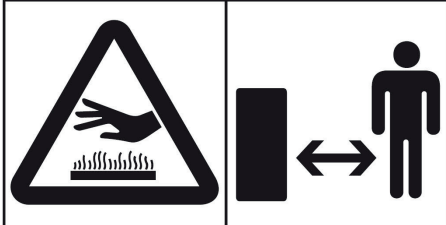
**HOT MUFFLER CAN  
BURN YOU.**  
Stay away if engine  
has been running.

delivered with product

### **⚠ ATTENTION**

**L'ÉCHAPPEMENT CHAUD  
PEUT VOUS BRULER.**  
S'ÉLOIGNER QUAND  
LE MOTEUR FONCTIONNE.

delivered with product

	<p>Petrol is extremely flammable and explosive. Before refuelling, switch off the engine and let it cool down.</p>
	<p>The exhaust gas of the engine contains toxic carbon monoxide. Do not run in an enclosed area.</p>
	<p>Read the operating instructions before commissioning.</p>
	<p>You can burn yourself on a hot exhaust pipe. If the engine has been in operation, avoid touching it.</p>

## 4. PREPARATION

### 4.1 TRANSPORT OF THE IBOTECH PULLER

- Transport the product on a vehicle in the upright position on a Euro pallet and with all the common safety measures.
- Always ensure that the IBOTECH Puller is fastened during transport to avoid sudden movements or instability.
- To move heavy loads, only approved lifting gear must be used. Always perform lifting work with more than one person, even if you use lifting gear. The maximum permissible load per person is 25 kg.

### 4.2 STORAGE OF THE IBOTECH PULLER

- Store the IBOTECH Puller in a dry, closed room and protected from moisture and rain.
- Keep the IBOTECH Puller in a safe place. Make sure that vehicles cannot hit the IBOTECH Puller in order to protect them from damage.

### 4.3 DISPOSAL OF THE TRANSPORT AND PACKAGING ELEMENTS

**For disposal of the transport and packaging elements:**

1. Remove all transport and packaging elements.
2. Dispose of all transport and packaging elements according to the instructions in the section *DISPOSAL*.

### 4.4 REVIEW OF THE SCOPE OF DELIVERY

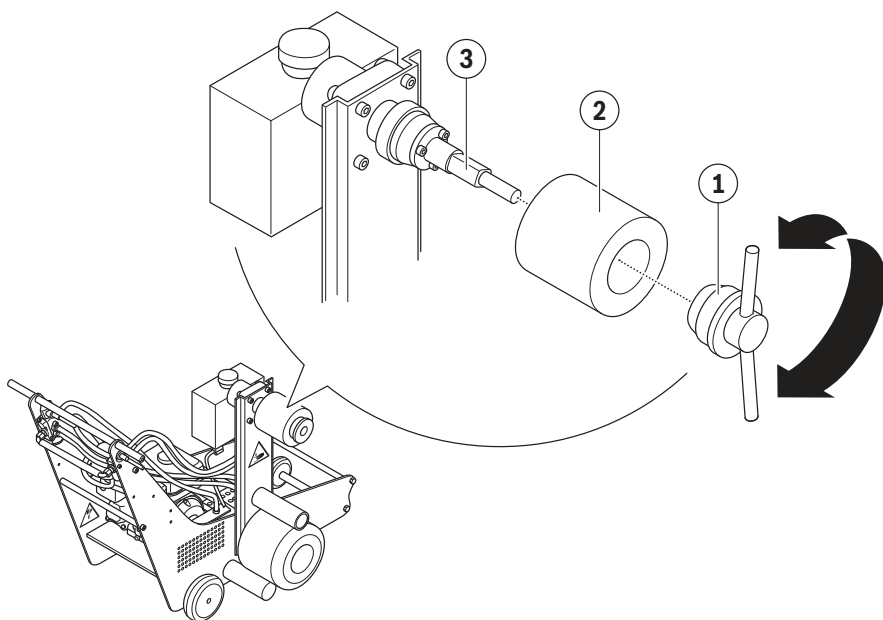
**Check if the package contains the following parts:**

- 1 IBOTECH Puller
- 1 Operating instructions

## 4.5 INSERTING A WINDING ROLL

Inserting a winding roll:

1. Place the **IBOTECH Puller** on a level base.
2. Use only fitting and suitable **winding rolls** with a width of 12 or 15 cm.
3. Open the **holder** ① for the **winding roll** ②.
4. Place the **winding roll** ② on the **roll holder** ③.
5. Close the **holder** ①.



## 4.6 POSITIONING THE DIRECTION ARROW

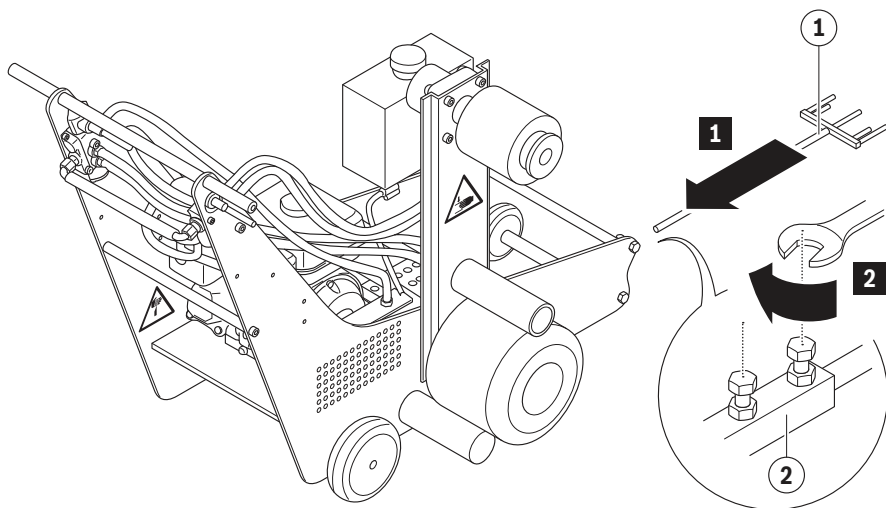
The direction arrow can be attached to the IBOTECH Puller in order to guide traffic. Use the direction arrow to drive along the outer edge of the road marking to roll the road marking tape on evenly.

### Tools needed:

- Size 13 wrench

### Positioning of the direction arrow:

1. Place the **direction arrow** ① in the **holder for the direction arrow** ②.
2. Tighten the **direction arrow** ① by turning the screw with a size 13 wrench.





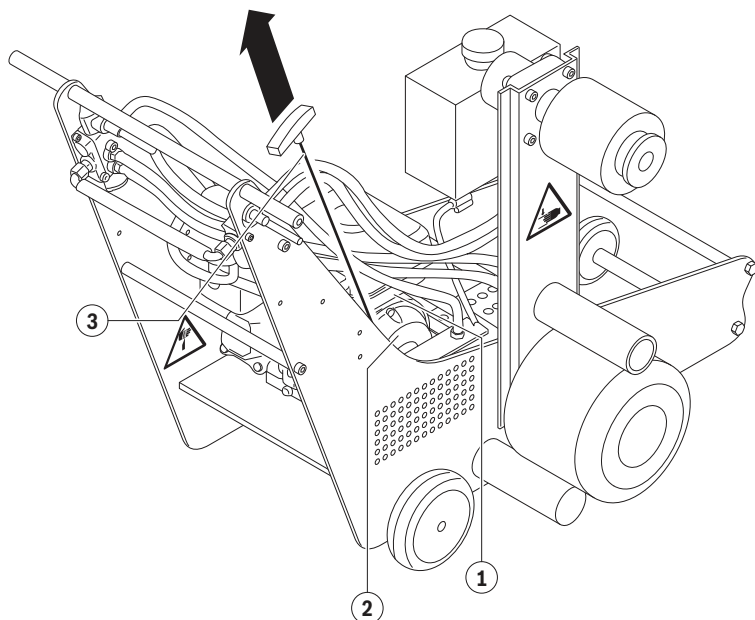
## 5. OPERATION

### **VORSICHT**

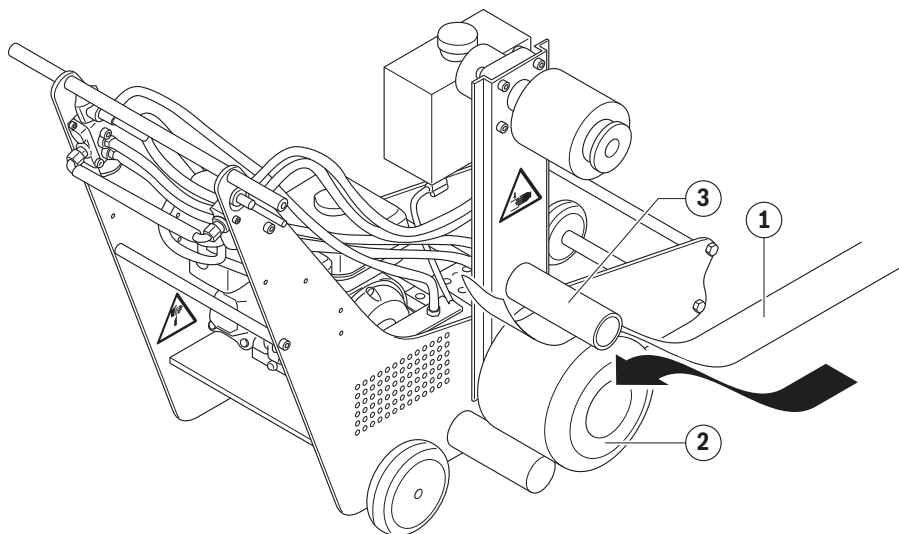
The IBOTECH Puller may only be used by one person. When using the product, make sure that other people observe a safety distance.

#### Using the IBOTECH Puller:

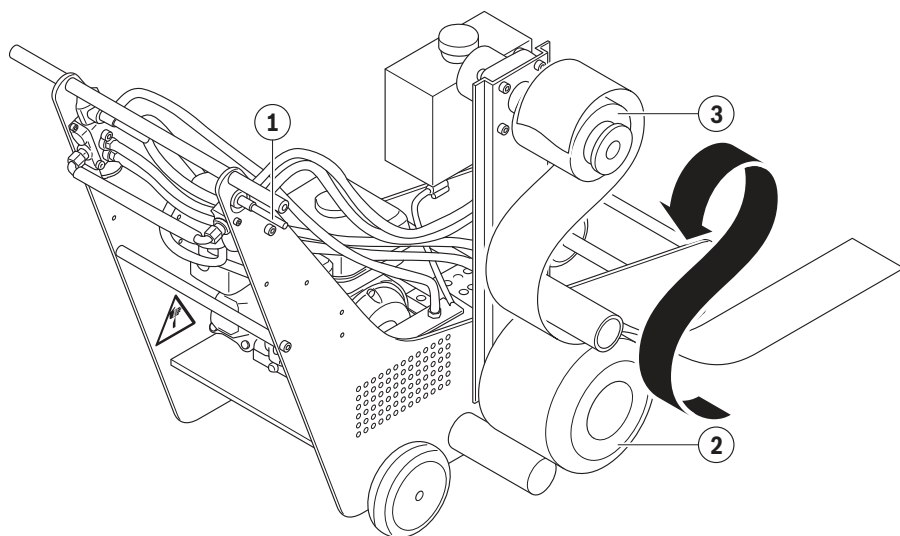
1. Make sure that the **IBOTECH Puller** stands on a horizontal surface.
2. Place the **IBOTECH Puller** on the road on which you want to remove the road marking.
3. Start the **engine** ① of the **IBOTECH Puller** by pulling the **choke** ② towards you and then pull the **starter rope** ③ for the **engine** ① strongly.



4. Let the **engine** warm up for 1 minute.
5. Push the **IBOTECH Puller** to the start of the road marking to be removed.
6. Lift the end of the **marking tape** ① and guide it between the **roller** ② and the **pressure roller** ③ on the **IBOTECH Puller**.



7. Pull the **right hand handle** ①. The **roller** ② rotates and pulls the **IBOTECH Puller** forward. The **water transfer roller** sprays water on the **roller**. Drive forward simultaneously with the **IBOTECH Puller** until the **marking tape** is pulled through enough to be wrapped around the **winding roll** ③.



8. Release the **right hand lever** and stop driving.
9. Place the **marking tape** around the **winding roll**.
10. Pull the **left hand lever** to press the **pressure roller** against the **roller**.
11. Pull the **right hand lever** and driving along the **marking tape**. The **marking tape** will wrap around the **winding roll**.

## 6. INSPECTION, MAINTENANCE AND CLEANING

### **HINWEIS**

- The IBOTECH Puller must only be serviced by qualified and trained staff.
- Do not open the housing of the IBOTECH Puller yourself.
- If the IBOTECH Puller has not been used for an extended period, all moving parts should be sprayed with WD-40 spray. This will loosen the rust and lubricate the parts.

### 6.1 TECHNICAL SUPPORT

For technical support or ordering of spare parts, contact:

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4. Industriestraße 16

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Fax: +49 (0)6205 / 28 67 229

Email: [info@ibotech.eu](mailto:info@ibotech.eu)

## 6.2 MAINTENANCE AND INSPECTION PLAN

Maintenance and inspection should be performed at regular intervals. Too-rare maintenance will shorten the operating time and service life of the product, increase the risks and cause the warranty to expire. Use only genuine accessories and genuine spare parts. A list of the spare parts can be found in the annex. You can order spare parts at any time by contacting the manufacturer.

### 6.2.1 Inspection before any Use

INSPECTION WORK	REQUIRED MEASURE
Ensure that the roller is not worn and clogged with asphalt.	Replace the roller at need.
Ensure that the pressure roller is not worn and clogged with asphalt.	Replace the pressure roller if necessary.
Ensure that the pressure roller is working properly.	Replace the pressure roller if necessary.
Ensure that the water transfer roller is not worn and clogged with asphalt.	Replace the water transfer roller if necessary.
Check that all parts can move properly.	Spray all moving parts with WD-40 spray This will loosen the rust and lubricate the parts.
Make sure that the IBOTECH Puller is clean.	Clean the IBOTECH Puller if necessary (see <i>Cleaning the IBOTECH Puller</i> ).

### 6.2.2 Maintenance after any Use

MAINTENANCE WORK	REQUIRED MEASURE
Make sure that the IBOTECH Puller is clean.	<ol style="list-style-type: none"><li>1. Remove dirt and asphalt.</li><li>2. Clean the IBOTECH Puller if necessary (see <i>Cleaning the IBOTECH Puller</i>).</li></ol>

## 6.3 CLEANING THE IBOTECH PULLER

To extend the service life of the IBOTECH Puller, the product must be thoroughly cleaned with non-aggressive cleaning agent and water after every use.

### **Cleaning the IBOTECH Puller:**

1. Spray the IBOTECH Puller with cold tap water to remove the coarse dirt.

**NOTE:** The IBOTECH Puller must never be put under running water or in contact with water under high pressure. The force of the water may flush oil and grease from rotating or movable parts.

2. Then coat the machine in a neutral, non-aggressive cleaning agent (pH-value between 6 and 8).
3. Give the cleaning agent sufficient time to take effect. Observe the respective product information.
4. Clean the IBOTECH Puller thoroughly with WD-40 and air.

## 7. TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The device does not start.	The amount of petrol is not sufficient.	Top up the petrol.
The device does not start.	The choke is not pulled.	Pull the choke.
No more water runs onto the water transfer roller.	The water tank is empty.	Fill up the water tank.
Not enough water runs onto the water transfer roller.	The dosing lever of the water tank is closed.	Open the dosing lever.

## 8. WARRANTY

This warranty applies for 12 months from the time of delivery. The warranty is limited to the provision of spare parts. All shipping costs shall be at the expense of the product owner.

The defective product must be sent to the manufacturer within two weeks upon request. If there are any defective elements, the manufacturer will inspect the product on site.

The warranty will expire in the following cases:

- Normal wear
- External violence
- Improper maintenance
- Non-observation of these and the user instructions
- Improper and defective use
- Damage by frost
- Changes not performed or approved by the manufacturer



# 9. DISPOSAL

## 9.1 DISPOSAL OF THE PRODUCT COMPONENTS

Old or worn parts must be disposed of in the most environmentally compatible manner possible, e.g. by being taken to an approved recycling centre.

Familiarise yourself with the national and local provisions on environmentally compatible disposal of hazardous substances, such as oils and lubricants, parts and materials.

If certain chemicals are used for cleaning, they must be disposed of in an environmentally compatible way. This also includes rags and similar materials that are contaminated with lubricants or oil. Observe the chemicals instructions in order to get further information.

Correct disposal of the device will help you avoid potential risks to the environment and health that may be caused by improper disposal of old devices. Reuse of materials contributes to preservation of natural resources.

## 9.2 DISPOSAL OF THE PACKAGING

The packaging can be disposed of in our local recycling facilities. Proper disposal of packaging waste helps avoid potential risks for the environment and health.

# ANNEX I – SPARE PARTS

PART	ITEM NUMBER
Roller	1-003-009
Pressure roller	1-003-008
Water transfer roller	1-003-007
Starter rope	28462-ZE2-W11



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