

INSTALLATION AND OPERATING INSTRUCTIONS

IBOTECH

Road Marker



With the new
Road Taper
"on the road again"!



IBOTECH
VERKEHRSSICHERUNG & FAHRBAHNMARKIERUNG

January 2020 | VERSION 1.0



Copyright © 2019 IBOTECH

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including by photocopy, recording, or any other electronic or mechanical procedures without the advance written consent of the issuer. Questions of approval must be directed to the issuer in writing under the address below, with the addition "attn. approval coordinator".

IBOTECH GmbH & Co. KG

4. Industriestraße 16
D-68766 Hockenheim
Germany

www.ibotech.eu

Phone: +49 (0)6205 / 28 67 210

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

Email: info@ibotech.eu

DISCLAIMER

IBOTECH makes no representations and gives no guarantees concerning this manual and explicitly limits its liability, as far as this is permitted by law, to the violation of any warranty resulting from replacement of this manual by any other. Beyond this, IBOTECH reserves the right to revise this document at any time and without notice.

The information provided in this document comprises descriptions and/or technical features concerning the performance of the products described. This documentation must not be used as proper evaluation of the suitability or reliability of the products for a specific use by a user and must not be used to replace such an assessment. Every such user or installer shall be responsible for performing an appropriate and complete risk assessment, evaluation, and inspection of the products concerning their respective specific use. Neither IBOTECH nor its partners or subsidiaries can be held responsible or liable for any abuse of the information contained in this document. Please inform us if you have any suggestions for improvement or supplementation, or if you have found any mistakes in this publication.

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.

1.	Preface	7
1.1	User Description	7
1.2	Standards Used in this Manual	8
1.3	Explanation of the Final Notes	8
1.4	Storage Notes	9
1.5	Procurement of Documents and Information	10
2.	Product Description	11
2.1	Intended Use and Reasonably Foreseeable Misuses	11
2.2	Technical Data	12
2.3	Product Compliance	12
2.4	Product Components and Spare Parts	13
3.	Safety Notes	14
3.1	Safe Handling of the Product	14
3.1.1	Product Thresholds and Limitations	14
3.1.2	Safety Information for Use	14
3.1.3	Safety Information for Maintenance	15
3.1.4	Repair	16
3.2	Graphic Symbols	16
3.2.1	Explanation of the Safety Notes on the Packaging and Product	17
4.	Preparation	18
4.1	Transport of the Road Marker	18
4.2	Storage of the Road Marker	18
4.3	Disposal of the Transport and Packaging Elements	18
4.4	Review of the Scope of Delivery	18
4.5	Inserting a Marking Tape	19
4.6	Positioning the Direction Arrow	22

5.	Operation	23
	5.1 Use of the Road Marker	23
6.	Inspection, Maintenance and Cleaning	26
	6.1 Technical Support	26
	6.2 Maintenance and Inspection Plan	26
	6.2.1 Inspection before any Use	27
	6.2.2 Maintenance after any Use	27
	6.3 Cleaning the Road Marker	28
7.	Troubleshooting	29
8.	Warranty	30
9.	Disposal	31
	9.1 Disposal of the Product Components	31
	9.2 Disposal of the Packaging	31
	ANNEX I – SPARE PARTS	32

PRODUCT CHANGES

YEAR	TYPE	CHANGES

DOCUMENT REVISIONS

DATE	TYPE	CHANGES
28 June 2019	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 road marker.

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

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 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:

IBOTECH GmbH & Co. KG

4. Industriestraße 16
D-68766 Hockenheim
Germany

www.ibotech.eu

Phone: +49 (0)6205 / 28 67 210

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

Email: info@ibotech.eu

2. PRODUCT DESCRIPTION

2.1 INTENDED USE AND REASONABLY FORESEEABLE MISUSES

The IBOTECH road marker is a product for application of road markings on horizontal, clean and firm surfaces (asphalt, concrete, or paved roads). The IBOTECH road marker is only intended for the use of 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). Additionally, the placement instructions and manufacturer's notes of the road marking tape must be observed. The IBOTECH road marker must only be used in dry weather.

The IBOTECH road marker must not be used in the following cases:

- In case of rain or on wet surfaces;
- As a device for moving objects or people;
- On gravel or dirt roads.

The IBOTECH road marker 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 Road Marker
Designation	Road Marker
Product service life	5 years
Product weight	approx. 40 kg
Product dimensions	1,000 x 490 x 950
Lubricants	WD-40 spray

2.3 PRODUCT COMPLIANCE

This product corresponds to all relevant European directives and the following relevant product safety standards:

- *ISO 11228-1:2003 Ergonomics of human-system interaction - Part 1: Lifting and carrying*
- *ISO 11228-2:2007 Ergonomics of human-system interaction - Part 2: Pulling and pushing*

2.4 PRODUCT COMPONENTS AND SPARE PARTS

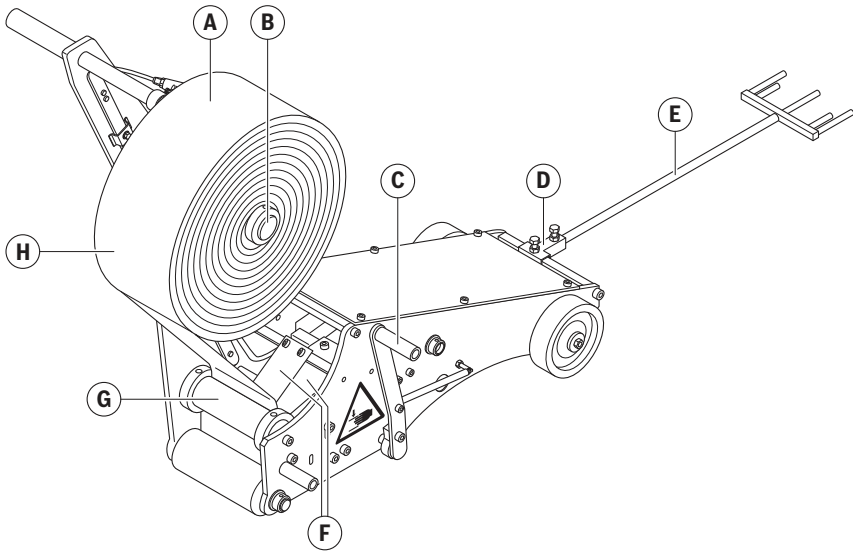


Fig. 1: Main parts of the product

- | | | | |
|----|--------------------------------|----|-----------------------|
| A. | Hand lever | F. | Guide rail |
| B. | Tape holder | | (clamping rail below) |
| C. | Foot lever | G. | Roller |
| D. | Holder for the direction arrow | H. | Marking tape |
| E. | Direction arrow | | |

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

- For this, observe the instructions in section 5 of this manual. Particularly observe the safety symbols that are attached in areas with a high risk of injury. You can find the explanations for these symbols in section 3.2.1.
- 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 road marker should only be used by a single person. When using the product, make sure that other people observe a safety distance.

- Only use suitable and matching road marking tape. Observe the placement instructions and manufacturer's instructions of the road marking tape. Use only road marking tape with sufficient thickness (material thickness above 1.0 mm) and no thin tape.
- 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 road marker 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.
- The road marker contains movable parts! Always keep a safety distance to avoid accidents by becoming trapped.
- The road marker is not intended as a device to move 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. For this, observe the instructions in section 6 and 7 of this manual.
- Maintenance and inspection should be performed at regular intervals.
- Use only genuine accessories and genuine spare parts. See 2.4.

3.1.4 Repair

- Never open or repair the road marker on your own in a way other than described in this operating manual. This will cause the warranty to expire. Other repairs than those described in these operating instructions must only be performed by the manufacturer.
- Use only genuine accessories and genuine spare parts.
- Changes and technical modifications of the Road Marker are not permitted.

3.2 GRAPHIC SYMBOLS

The road marker 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.

3.2.1 Explanation of the Safety Notes on the Packaging and Product

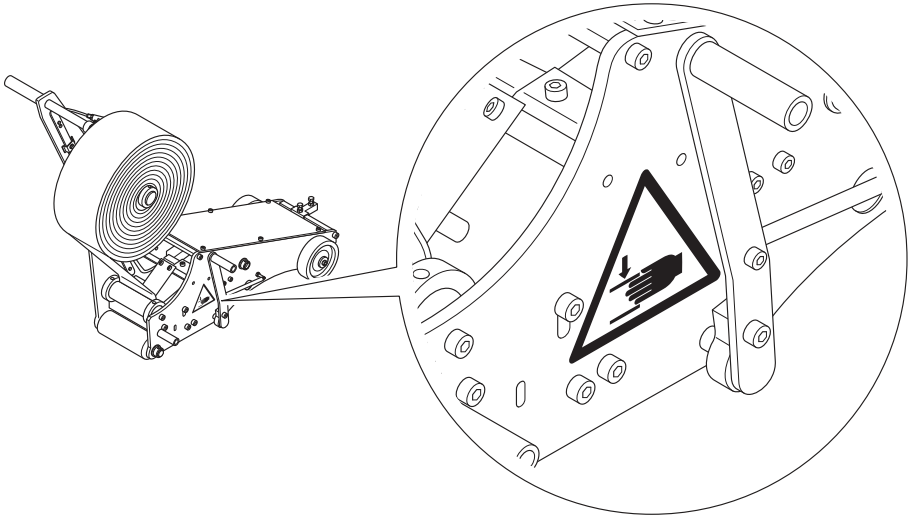



Fig. 2: Position of the graphical symbols

SYMBOL	MEANING
	<p>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.</p>

4. PREPARATION

4.1 TRANSPORT OF THE ROAD MARKER

- 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 road marker 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.
- Remove the marking tape when carrying or transporting the road marker.

4.2 STORAGE OF THE ROAD MARKER

- Store the road marker in a dry, closed room and protected from moisture and rain.
- Keep the road marker in a safe place. Make sure that vehicles cannot hit the road marker 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 road marker
- 1 operating instructions
- 1 packaging slip
- 1 hexagon socket wrench 5
- 1 wrench (size 13)

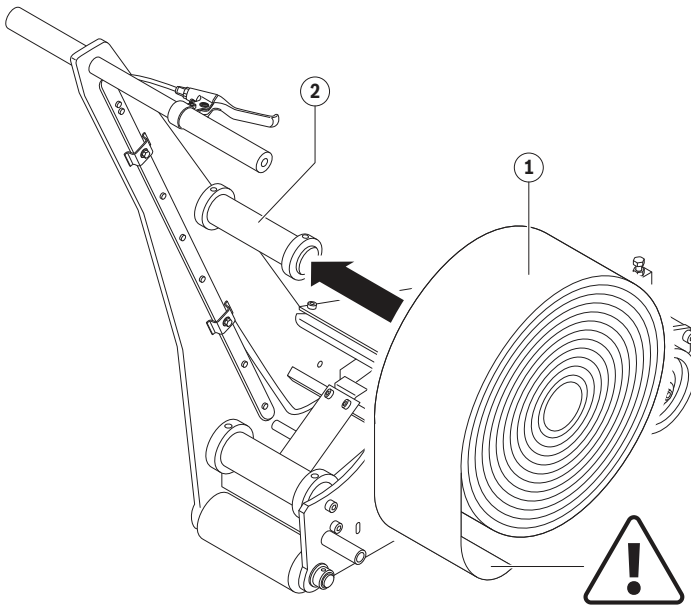
4.5 INSERTING A MARKING TAPE

Tools needed:

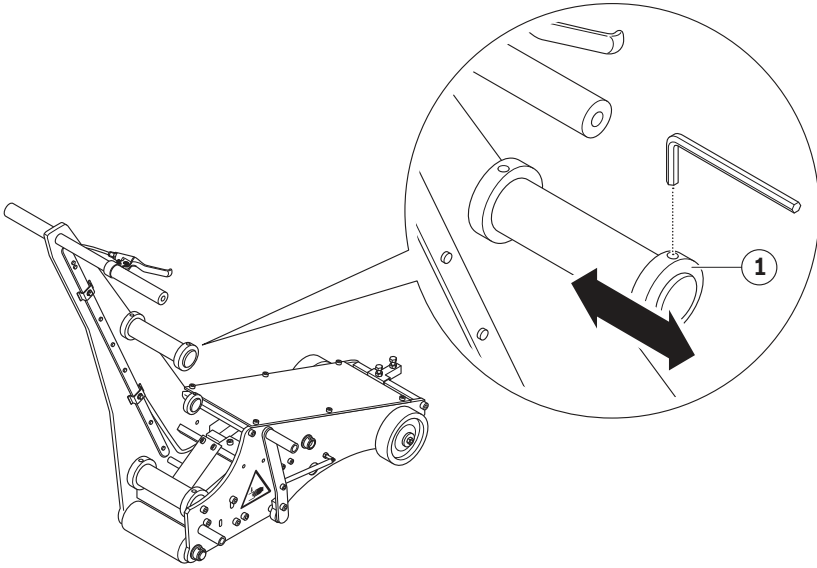
- Hexagon socket wrench 5

Inserting a marking tape:

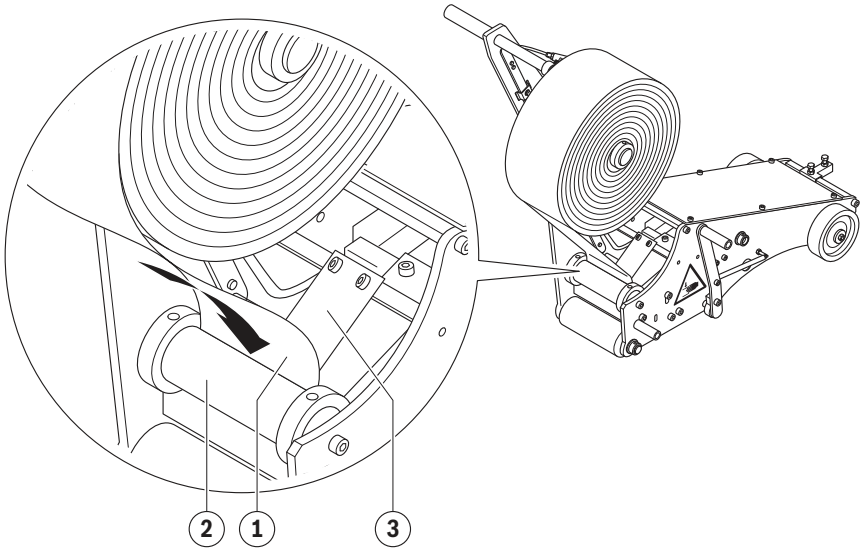
1. Place the **road marker** on a level base.
2. Use only fitting and suitable marking tape with a width of 12 or 15 cm.
Observe the instructions delivered with the marking tape. Do not use any thinner road band.
3. Place the **marking tape** ① on the **tape holder** ②. Ensure that the marking tape is inserted so that the adhesive side points down.



4. If necessary, set the **spacer rings** ① with a **hexagon socket wrench** 5.



5. Pull the front end of the **marking tape** ① through the slit between the **roller** ② and the **guide rail** ③. **WARNING! Danger when catching.**



4.6 POSITIONING THE DIRECTION ARROW

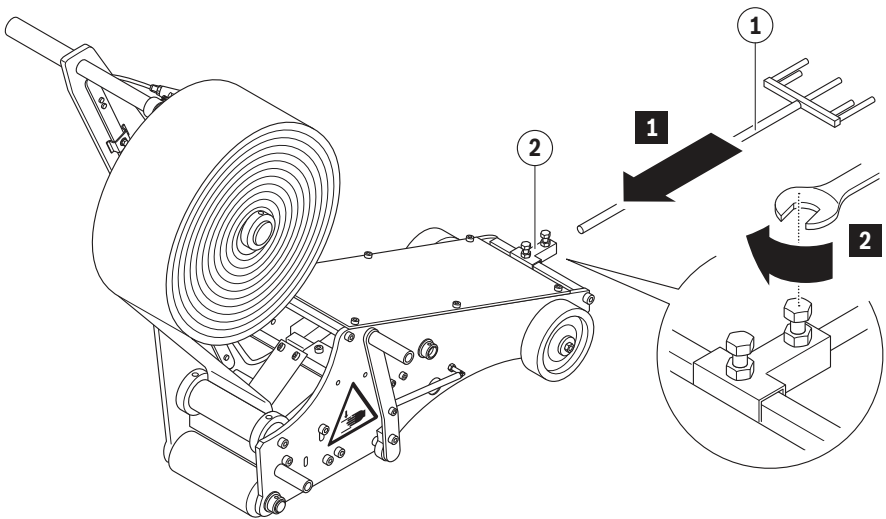
The direction arrow can be attached to the road marker in order to guide traffic. You can use the direction arrow to create a straight road marking by having the direction arrow follow the line to be drawn.

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

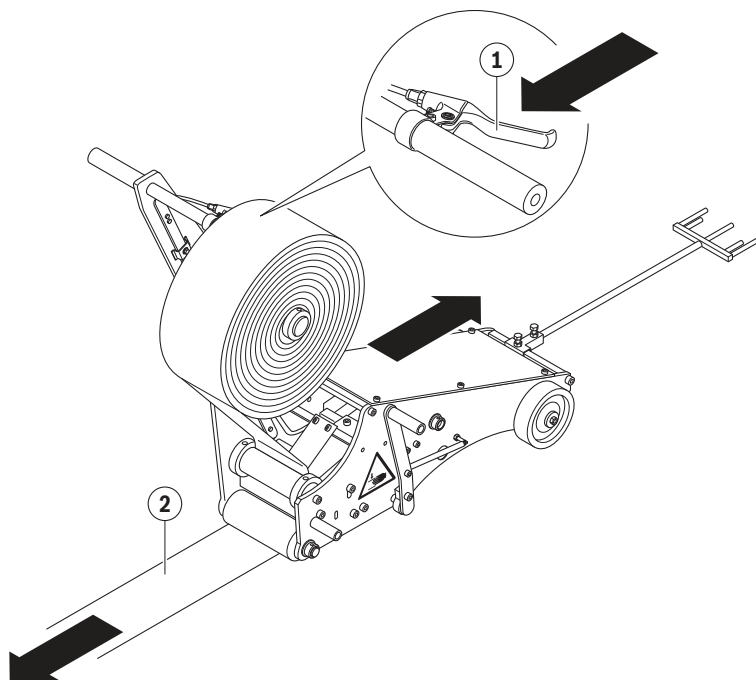
5.1 USE OF THE ROAD MARKER



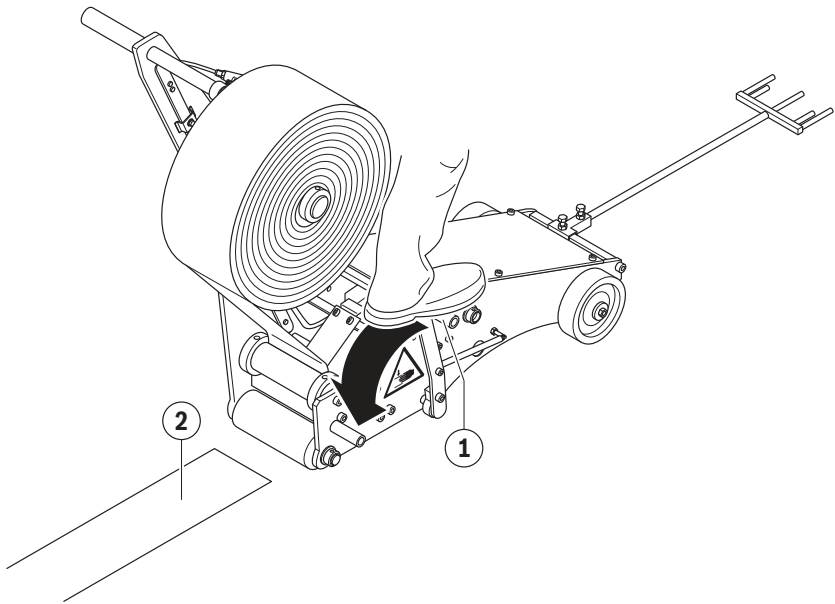
The **road marker** ① must only be used by one person. When using the product, make sure that other people observe a safety distance.

When using the road marker:

1. Ensure that the **road marker** is placed on a horizontal, dry, and clean surface.
2. Put the **road marker** on the street where you want to place the road marking.
3. Push the **road marker** along the desired path.
4. Push and hold the **hand lever** ① to apply the **marking tape** ② to the floor. Release the **hand lever** as soon as the **marking tape** is applied to the floor and push the **road marker** onwards. Stop pushing the **road marker** as soon as there is a sufficiently large road marking on the street. **NOTE** Damage risk of the **road marker**. Do not push the machine too far.



5. Push the **foot lever** ① in order to cut the **marking tape** ② to size. The first **road marking** has now been applied to the road.



6. Repeat steps 4 to 6 in order to continue applying the road marking.

6. INSPECTION, MAINTENANCE AND CLEANING

HINWEIS

- The IBOTECH road marker must only be serviced by qualified and trained staff.
- Do not open the housing of the road marker on your own.
- If the road marker was not used for an extended period, it should be tipped and sprayed with WD-40 spray from below. This will loosen the rust and lubricate the parts.

6.1 TECHNICAL SUPPORT

For technical support or ordering of spare parts, contact:

IBOTECH GmbH & Co. KG

4. Industriestraße 16

D-68766 Hockenheim

Germany

www.ibotech.eu

Phone: +49 (0)6205 / 28 67 210

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

Email: 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 guide rail is not worn and clogged with asphalt.	Replace the guide rail at need.
Ensure that the roller is not worn and clogged with asphalt.	If necessary, replace the roller.
Ensure that the roller is working properly.	If necessary, replace the roller.
Check that the blade is not dull.	Replace or sharpen the blade if necessary.
Check that all parts can move properly.	Tip the machine and spray it with WD-40 spray from below. This will loosen the rust and lubricate the parts.
Check that the road marker is clean.	Clean the road marker if necessary. Observe item 6.3 <i>Cleaning the Road Marker</i>

6.2.2 Maintenance after any Use

MAINTENANCE WORK	REQUIRED MEASURE
Check that the road marker is clean.	<ol style="list-style-type: none">1. Remove dirt and asphalt.2. Clean the road marker if necessary. Observe item 6.3 <i>Cleaning the Road Marker</i>

6.3 CLEANING THE ROAD MARKER

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

Cleaning the road marker:

1. Spray the road marker with cold tap water in order to remove gross dirt.
NOTE: Never point the water jet right at the inside of the road marker. 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 road marker thoroughly with WD-40 and air.

7. TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Road marking not cut properly	Blade broken or dull	Replace or sharpen the blade

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
Blade	1-002-021
Roller	1-002-009
Belt	1-002-076
Hand lever	1-002-015
Pulling rope	1-002-075
Direction arrow	1-002-062
Foot lever	1-002-058
Guide rail	1-002-074
Clamping rail	1-002-072



IBOTECH
VERKEHRSSICHERUNG & FAHRBAHNMARKIERUNG

IBOTECH GmbH & Co. KG | 4. Industriestraße 16 | D-68766 Hockenheim, Germany

Phone: +49 (0)6205 / 28 67 210 | Fax: +49 (0)6205 / 28 67 229 | Email: info@ibotech.eu | www.ibotech.eu