

# LPHB-M

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## Safety and operating instructions Posthole borer





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# 1 Introduction

Epiroc is a leading productivity partner for the mining, infrastructure and natural resources industries. With cutting-edge technology, Epiroc develops and produces innovative drill rigs, rock excavation and construction equipment, and provides world-class service and consumables.

The company was founded in Stockholm, Sweden, and has passionate people supporting and collaborating with customers in more than 150 countries.

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## 1.1 About the Safety and operating instructions

The aim of the instructions is to provide you with knowledge of how to use the posthole borer in an efficient, safe way. The instructions also give you advice and tell you how to perform regular maintenance on the posthole borer.

Before using the posthole borer for the first time you must read these instructions carefully and understand all of them.

## 2 Safety instructions

To reduce the risk of serious injury or death to yourself or others, read and understand the Safety and operating instruction before installing, operating, repairing, maintaining, or changing accessories on the machine.

Post this Safety and operating instruction at work locations, provide copies to employees, and make sure that everyone reads the Safety and operating instruction before operating or servicing the machine. For professional use only.

In addition, the operator or the operator's employer must assess the specific risks that may be present as a result of each use of the machine.

Save all warnings and instructions for future reference.

### 2.1 Safety signal words

The safety signal words Danger, Warning and Caution have the following meanings:

|                |  |
|----------------|--|
| <b>DANGER</b>  | Indicates a hazardous situation which, if not avoided, will result in death or serious injury.   |
| <b>WARNING</b> | Indicates a hazardous situation which, if not avoided, could result in death or serious injury.  |
| <b>CAUTION</b> | Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. |

## 2.2 Personal precautions and qualifications

Only qualified and trained persons may operate or maintain the machine. They must be physically able to handle the bulk, weight, and power of the tool. Always use your common sense and good judgement.

### 2.2.1 Transport

Transport of the machine may only be undertaken by persons who:

- are authorised to operate a crane or fork-lift truck in conformity with the applicable national directives,
- are aware of all the relevant national safety instructions and accident prevention instructions
- and have read and understood the safety and transport chapters of this manual.

### 2.2.2 Installation, storage, maintenance and disposal

Installation, storage, maintenance and disposal of the machine may only be undertaken by persons who:

- are aware of all the relevant national safety instructions and accident prevention instructions
- and have read and understood the Safety and operating instructions.

### 2.2.3 Operation

Operation of the machine may only be undertaken by qualified carrier operators. Carrier operators are qualified if they:

- are trained to operate a carrier in conformity with national directives,
- are aware of all the relevant national safety instructions and accident prevention instructions
- and have read and understood the Safety and operating instructions.

## 2.2.4 Testing

Testing of the hydraulic installation must only be carried out by professional technicians. The technicians must be authorised to approve a hydraulic installation in accordance with national directives.

## 2.2.5 Personal protective equipment

Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment, including at a minimum:

- Protective helmet
- Hearing protection
- Impact resistant eye protection with side protection
- Respiratory protection when appropriate
- Protective gloves
- Proper protective boots
- Appropriate work overall or similar clothing (not loose-fitting) that covers your arms and legs.

## 2.2.6 Drugs, alcohol or medication

### ▲ **WARNING Drugs, alcohol or medication**

Drugs, alcohol or medication may impair your judgment and powers of concentration. Poor reactions and incorrect assessments can lead to severe accidents or death.

- ▶ Never use the machine when you are tired or under the influence of drugs, alcohol or medication.
- ▶ No person who is under the influence of drugs, alcohol or medication may operate the machine.

## 2.3 Carrier, precautions

Before using or transporting the carrier with the machine attached, carefully read the carrier manufacturer's safety regulations and operating instructions.

Make sure that the carrier is equipped with adequate protective features, including a protective screen in front of the operator.

The machine is to be mounted on the shovel or on the arm of small skid-steer loaders or excavators with sufficient load capacity.

Carriers without sufficient load capacity will not provide the required degree of stability and could even fall over during machine use, causing injury and damage.

## 2.4 Installation, precautions

### ▲ **WARNING Ejected working tool**

If the tool retainer on the machine is not in a locked position, the working tool can be ejected with force, which can cause personal injury.

- ▶ Never start the machine while changing the working tool.
- ▶ Before changing the working tool or accessories, stop the machine and turn off the power source.
- ▶ Never point the working tool at yourself or anyone else.
- ▶ Make sure that the working tool is fully inserted and the tool retainer is in a locked position before the machine is started.
- ▶ Check the locking function by pulling the working tool outwards forcefully.

### ▲ **WARNING Hydraulic oil at high pressure**

Thin jets of hydraulic oil under high pressure can penetrate the skin and cause permanent injury.

- ▶ Immediately consult a doctor if hydraulic oil has penetrated the skin.
- ▶ Never use your fingers to check for hydraulic fluid leaks.
- ▶ Keep your face away from any possible leaks.

### ▲ **WARNING Hydraulic oil**

Spilled hydraulic oil can cause burns, accidents due to slippery conditions and will also harm the environment.

- ▶ Take care of all spilled oil and handle it according to your safety and environmental regulations.
- ▶ Never dismount the hydraulic machine when the hydraulic oil is hot.
- ▶ Never run any hydraulic lines for attachment of the hydraulic machine through the drivers cab.

### ▲ **CAUTION Skin eczema**

Hydraulic oil can cause eczema if it comes in contact with the skin.

- ▶ Avoid getting hydraulic oil on your hands.
- ▶ Always use protective gloves when working with hydraulic oil.
- ▶ Wash hands after contact with hydraulic oil.

### ▲ **WARNING Moving parts can crush and cut**

- ▶ Never check bores or passages with hands or fingers.

## 2.5 Operation, precautions

### ▲ WARNING Operating pressure

If the maximum operating pressure for the hydraulic machine is exceeded, the accumulator can be over charged which can result in material damage and personal injury.

- ▶ Always run the hydraulic machine with the correct operating pressure. See "Technical data".

### ▲ DANGER Explosion hazard

If a working tool comes into contact with explosives or explosive gases, an explosion could occur. When working on certain materials and when using certain materials in machine parts, sparks and ignition can occur. Explosions will lead to severe injuries or death.

- ▶ Never operate the machine in any explosive environment.
- ▶ Never use the machine near flammable materials, fumes or dust.
- ▶ Make sure that there are no undetected sources of gas or explosives.

### ▲ WARNING Trapping hazard

There is risk of neck ware, hair, gloves and clothes getting dragged into or caught by a rotating insertion tool or accessories. This may cause choking, scalping, lacerations or death. To reduce the risk:

- ▶ Never grab or touch a rotating drill steel.
- ▶ Avoid wearing clothing, neck ware or gloves that may get caught.
- ▶ Cover long hair with a hair net.

### ▲ WARNING Projectiles

Failure of the work piece, of accessories, or even of the machine itself may generate high velocity projectiles. During drilling, splinters, or other particles may become projectiles and cause bodily injury by striking the operator or other persons. Also, breakage of the work piece, accessories, or the insertion tool may generate high velocity projectiles that can cause bodily injury. In addition, objects falling from a height can cause bodily injury. To reduce risks:

- ▶ Close off the working area.
- ▶ Before starting, make sure that no persons are in the danger area, 5 meters both horizontally and vertically from the machine.
- ▶ Immediately switch off the machine when persons are present in the danger area.
- ▶ Never operate unless the inserted tool is retained in the machine with a proper tool retainer.

### ▲ WARNING Slipping, tripping and falling hazards

There is a risk of slipping or tripping or falling, for example tripping on the hoses or on other objects. Slipping or tripping or falling can cause injury. To reduce this risk:

- ▶ Always make sure that no hose or other object is in your way or in any other person's way.

### ▲ WARNING Dust and fume hazard

Dusts and/or fumes generated or dispersed when using the machine may cause serious and permanent respiratory disease, illness, or other bodily injury (for example, silicosis or other irreversible lung disease that can be fatal, cancer, birth defects, and/or skin inflammation).

Some dusts and fumes created by drilling, breaking, hammering, sawing, grinding and other construction activities contain substances known to the State of California and other authorities to cause respiratory disease, cancer, birth defects, or other reproductive harm. Some examples of such substances are:

- ▶ Crystalline silica, cement, and other masonry products.
- ▶ Arsenic and chromium from chemically-treated rubber.
- ▶ Lead from lead-based paints.

Dust and fumes in the air can be invisible to the naked eye, so do not rely on eye sight to determine if there is dust or fumes in the air.

To reduce the risk of exposure to dust and fumes, do all of the following:

- ▶ Perform site-specific risk assessment. The risk assessment should include dust and fumes created by the use of the machine and the potential for disturbing existing dust.
- ▶ Use proper engineering controls to minimize the amount of dust and fumes in the air and to minimize build-up on equipment, surfaces, clothing, and body parts. Examples of controls include: exhaust ventilation and dust collection systems, water sprays, and wet drilling. Control dusts and fumes at the source where possible. Make sure that controls are properly installed, maintained and correctly used.
- ▶ Wear, maintain and correctly use respiratory protection as instructed by your employer and as required by occupational health and safety regulations. The respiratory protection must be effective for the type of substance at issue (and if applicable, approved by relevant governmental authority).
- ▶ Work in a well ventilated area.
- ▶ If the machine has an exhaust, direct the exhaust so as to reduce disturbance of dust in a dust filled environment.

- ▶ Operate and maintain the machine as recommended in the operating and safety instructions
- ▶ Select, maintain and replace consumables/ working tools/ other accessories as recommended in the operating and safety instructions. Incorrect selection or lack of maintenance of consumables/ inserted tools/ other accessories may cause an unnecessary increase in dust or fumes.
- ▶ Wear washable or disposable protective clothes at the worksite, and shower and change into clean clothes before leaving the worksite to reduce exposure of dust and fumes to yourself, other persons, cars, homes, and other areas.
- ▶ Avoid eating, drinking, and using tobacco products in areas where there is dust or fumes.
- ▶ Wash your hands and face thoroughly as soon as possible upon leaving the exposure area, and always before eating, drinking, using tobacco products, or making contact with other persons.
- ▶ Comply with all applicable laws and regulations, including occupational health and safety regulations.
- ▶ Participate in air monitoring, medical examination programs, and health and safety training programs provided by your employer or trade organizations and in accordance with occupational health and safety regulations and recommendations. Consult with physicians experienced with relevant occupational medicine.
- ▶ Work with your employer and trade organization to reduce dust and fume exposure at the worksite and to reduce the risks. Effective health and safety programs, policies and procedures for protecting workers and others against harmful exposure to dust and fumes should be established and implemented based on advice from health and safety experts. Consult with experts.
- ▶ Residues of hazardous substances on the machine can be a risk. Before undertaking any maintenance on the machine, clean it thoroughly.

#### ▲ **DANGER Electrical hazard**

The machine is not electrically insulated. If the machine comes into contact with electricity, serious injuries or death may result.

- ▶ Never operate the machine near any electric wire or other source of electricity.
- ▶ Make sure that there are no concealed wires or other sources of electricity in the working area or in the ground where the drilling is performed.

#### ▲ **WARNING Concealed object hazard**

During operating, concealed wires and pipes constitute a danger that can result in serious injury.

- ▶ Check the composition of the material before operating.
- ▶ Watch out for concealed cables and pipes for example electricity, telephone, water, gas and sewage lines etc.
- ▶ If the inserted tool seems to have hit a concealed object, switch off the machine immediately.
- ▶ Make sure that there is no danger before continuing.

#### ▲ **WARNING Involuntary start**

An involuntary start of the machine can lead to severe injuries.

- ▶ Follow the instructions in the carrier manual to prevent involuntary start of the machine.
- ▶ Installation of a start circuit on the hydraulic attachment must be made in a way that avoids any unintentional starts.
- ▶ A foot pedal on the carrier must be equipped with a protection cover.

#### ▲ **WARNING Noise hazard**

High noise levels can cause permanent and disabling hearing loss and other problems such as tinnitus (ringing, buzzing, whistling, or humming in the ears). To reduce risks and prevent an unnecessary increase in noise levels:

- ▶ Risk assessment of these hazards and implementation of appropriate controls is essential.
- ▶ Operate and maintain the machine as recommended in these instructions.
- ▶ Select, maintain and replace the working tool as recommended in these instructions.
- ▶ If the machine has a silencer, check that it is in place and in good working condition.
- ▶ Always use hearing protection.
- ▶ Use damping material to prevent work pieces from 'ringing'.

## 2.6 Maintenance, precautions

#### ▲ **CAUTION Hot machine**

The machine can become hot when used. Touching it can lead to burns.

- ▶ Never touch a hot machine.
- ▶ Wait until the machine has cooled down before carrying out maintenance work.



**▲ WARNING Machine modification**

Any machine modification may result in bodily injuries to yourself or others.

- ▶ Never modify the machine. Modified machines are not covered by warranty or product liability.
- ▶ Always use approved original parts, tools, and accessories.
- ▶ Change damaged parts immediately.
- ▶ Replace worn components in good time.

**▲ CAUTION Hot working tool**

The tip of the working tool can become hot and sharp when used. Touching it can lead to burns and cuts.

- ▶ Never touch a hot or sharp working tool.
- ▶ Wait until the working tool has cooled down before carrying out maintenance work.

**▲ WARNING Working tool hazards**

Accidental engagement of the start and stop device during maintenance or installation can cause serious injuries, when the power source is connected.

- ▶ Never inspect, clean, install, or remove the working tool while the power source is connected.

## 2.7 Storage, precautions

- Keep the machine and tools in a safe place, out of the reach of children and locked up.

### 3 Overview

To reduce the risk of serious injury or death to yourself or others, read the Safety instructions section found on the previous pages of this manual before operating the machine.

#### 3.1 Design and function

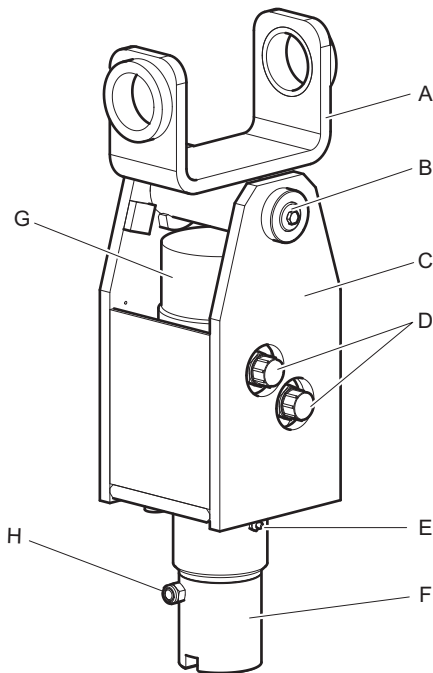
The mounted posthole borer is a robust and flexible hydraulic attachment suitable for all jobs in connection with setting up of poles, piles, fences etc. and where there is a need of drilling holes down to a maximum depth of 1.5 m (59 in.) with standard Epiroc insertion tools in sizes from  $\varnothing$  90 to  $\varnothing$  350 mm (3.54 - 13.78 in.). The post-hole borer is to be mounted on the shovel or on the arm of a small skid-steer, excavator or tractor weighing 800 - 3500 kg (1800 - 7700 lbs). No other use is permitted.

The post hole borer has a clockwise rotation when it is correctly connected to the carrier's hydraulic system. The pressure provided by the carriers hydraulic system must be at maximum 160 bar (2320 psi).

Never use the posthole borer as a rotation movement supplier for other equipments. The mounted posthole borer or the inserted tool must never be used as a lifting device.

To choose the correct insertion tool, see the spare parts list or the accessories catalogue.

#### 3.2 Main parts



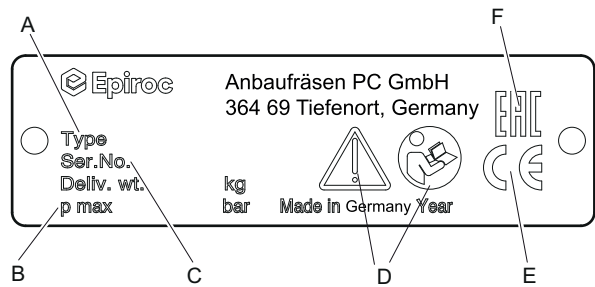
A. Cradle link

- B. Pin
- C. Fixture
- D. Connectors P and T
- E. Grease nipple
- F. Drive shaft
- G. Motor OMR 250
- H. Tool retaining screw

#### 3.3 Labels

The machine is fitted with labels containing important information about personal safety and machine maintenance. The labels must be in such condition that they are easy to read. New labels can be ordered from the spare parts list.

##### 3.3.1 Data plate

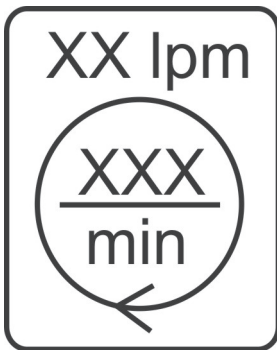


- A. Machine type
- B. Maximum hydraulic pressure
- C. Serial number
- D. The warning symbol together with the book symbol means that the user must read the safety and operating instructions before the machine is used for the first time.
- E. The CE symbol means that the machine is EC-approved. See the EC Declaration of Conformity which is delivered with the machine for more information.
- F. The EAC symbol means that the machine is EAC approved.

##### 3.3.2 Safety label



### 3.3.3 RPM label



## 4 Transport

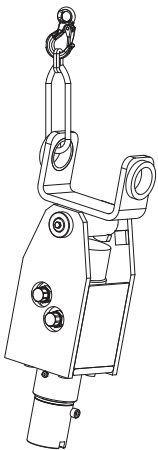
### 4.1 Lifting the machine

#### ▲ WARNING Falling machine can cause injuries

- ▶ Place the machine in a safe position where it cannot fall over and cause damage.

Carefully check that the carrier is stable enough when transporting or doing maintenance or other work on the machine.

The machine is delivered in a box. To lift out the machine in a safe way, fit the lifting strap in the manner shown in the picture below.



## 5 Installation

#### ▲ WARNING Whipping hydraulic hose

Hydraulic hoses under pressure can whip uncontrollably if screws loosen or are loosened. A whipping hydraulic hose can cause severe injuries.

- ▶ Depressurise the hydraulic system before loosening the connection of a hydraulic hose.
- ▶ Tighten the nuts on the connections of the hydraulic hoses to the required torque.
- ▶ Check that the hydraulic hose and the connections are not damaged.

### 5.1 Hoses

For connection on the machine, the hydraulic hose must be approved for a working pressure of at least 172 bar (2500 psi) and have a 12.7 mm (½ in.) inner diameter. To resist exterior wear and tear, we recommend using a 2-layer hydraulic hose. The machine connection marked P (pump) is the oil inlet, and the connection marked T (tank) is the oil outlet. Always connect both hoses and make sure that all hose connections are tight. Never carry the machine by the hose.

### 5.2 Quick-release couplings

The original hydraulic hoses are fitted with Flat-Face quick-release couplings that are strong and easy to clean. The quick-release couplings are fitted so that the male connection supplies oil and the female connection receives oil.

**NOTICE** Wipe all couplings clean before connecting. Ensure that couplings are clean and correctly engaged before operation. Failure to do so may result in damage to the quick couplings and cause overheating and cause foreign matter to enter the hydraulic system.

### 5.3 Hydraulic oil

In order to protect the environment, use of biologically degradable hydraulic oil is recommended. No other fluids must be used.

- Viscosity (preferred) 20-40 cSt.
- Viscosity (permitted) 15-100 cSt.
- Viscosity index minimum 100.

Standard mineral or synthetic oil can be used. Make sure to only use clean oil and filling equipment.

When the machine is used continuously, the oil temperature will stabilise at a level which is called the working temperature. This will, depending on the type of work and the cooling capacity of the hydraulic system, be between 20-40 °C (68-104 °F) above the ambient temperature. At working temperature, the oil viscosity must be within the preferred limits. The viscosity index indicates the connection between viscosity and temperature. A high viscosity is therefore preferred, because the oil can then be used within a wider temperature range. The machine must not be used, if oil viscosity fails to remain within the permitted area, or if the working temperature of the oil does not fall between 20 °C (68 °F) and 70 °C (158 °F).

## 5.4 Pressure adjustment

The maximum pressure of the power source is important. The pressure created in case of an incorrectly or unfitted return line coupling would cause overloading. Which could harm the machine and result in bodily injuries. The maximum pressure of the power source is 172 bar (2500 psi) (limited by safety valve adjustment).

### ▲ **WARNING** Operating pressure

If the maximum operating pressure for the hydraulic machine is exceeded, it can result in material damage and personal injury.

- ▶ Always run the hydraulic machine with the correct operating pressure, see "Technical data".
- ▶ Only readjust the pressure relief valve (torque control) on the machine according to procedure and values described under maintenance. Note that higher settings might lead to a higher torque, which could harm the machine and result in serious injury or death.

## 5.5 Insertion tool

### ▲ **CAUTION** Hot working tool

The tip of the working tool can become hot and sharp when used. Touching it can lead to burns and cuts.

- ▶ Never touch a hot or sharp working tool.
- ▶ Wait until the working tool has cooled down before carrying out maintenance work.

### ▲ **WARNING** Ejected insertion tool

If the tool retainer on the machine is not tightened, the inserted tool can be ejected with force, which can cause personal injury.

- ▶ Never start the carrier while changing the insertion tool.
- ▶ Shut the carrier's engine off and secure the carrier and machine against involuntary start before changing the inserted tool or accessories.
- ▶ Never point the inserted tool at yourself or anyone else.
- ▶ Make sure that the insertion tool is fully inserted and the tool retainer is tightened before the machine is started.
- ▶ Check the locking function by pulling the inserted tool outwards forcefully.

### 5.5.1 Fitting and removing the insertion tool

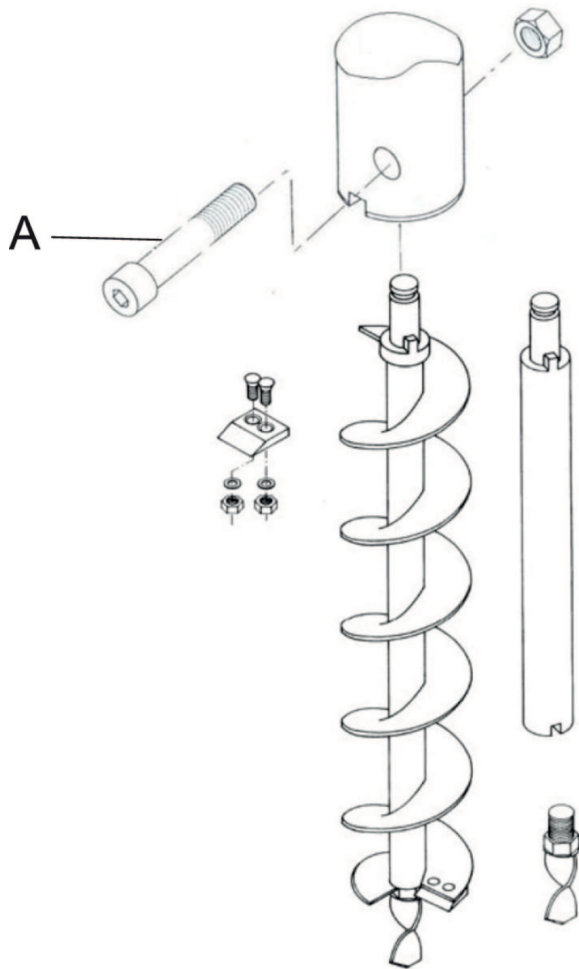
#### ▲ **WARNING** Running engine

Changing the inserted tool or accessories while the carrier's engine is running can cause serious injury.

- ▶ Secure the carrier against involuntary activation.

Whenever fitting or removing the insertion tool the following instructions must be observed:

- Close the tool retainer and check the lock function by pulling the inserted tool outwards forcefully.



1. Shut the carrier's engine off before changing the inserted tool.
2. Unscrew the tool retaining screw (A).
3. Remove the inserted tool.
4. Insert the new insertion tool.
5. Screw in the tool retaining screw (A).

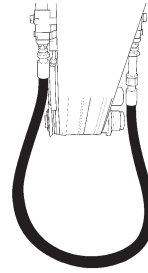
## 5.6 Assembly

### ▲ WARNING Falling machine can cause injuries

- Place the machine in a safe position where it cannot fall over and cause damage.

Circulate the hydraulic oil before connecting the machine. This is to make sure that the hydraulic oil is clean. Use the same routine when changing a hydraulic oil hose.

1. Connect the pressure and return hose.



2. Run the hydraulic oil through the carrier's oil filter for approximately 3 minutes to make sure that the hoses are clean.

### 5.6.1 Connecting the posthole borer to the carrier

1. Switch off the carrier and depressurise the hydraulic system by releasing the carrier's hydraulic tank pressure. If no quick-release couplings are used, close all shut-off valves in the installation at the boom.
2. Remove the protective caps from the nipples and make sure that the connectors and hoses are clean and not damaged. Replace if damaged.
3. Connect the posthole borer to the machine boom. After mounting the posthole borer, carefully extend and retract the bucket cylinder to its full extent in each direction. It is important that the cylinder can be fully extended and retracted without any difficulty.
4. Connect the pressure hose and the tank hose.
5. Start the carrier and allow it to run for a few minutes to warm up the hydraulic oil.
6. Make sure that the posthole borer is supplied with the correct flow according to the technical data.

Never exceed the maximum relief valve setting stated on the tool.

## 5.7 Disassembly

1. Depressurise the hydraulic system by releasing the carrier's hydraulic tank pressure. If no quick-release couplings are used, close all shut-off valves in the installation at the boom.
2. Stop the carrier.
3. Disconnect the hoses and refit the protective caps to the nipples.

4. An assistant must remove the hydraulic attachment. Agree with the assistant on clear hand signals for use during the dismantling procedure.
5. Remove the bolt locks from the stick and linkage bolts.
6. Drive out the linkage bolt with a steel arbour and a hammer.
7. Switch on the carrier and retract the bucket cylinder.
8. Move the carrier stick out of the adaptor plate.
9. Loosen the fastening screws for the adaptor plate. Store the screws and lock washers for future use. Remove the adaptor plate.

## 6 Operating

### 6.1 Operating temperatures

The operating temperatures of the hydraulic attachment are between  $-20\text{ }^{\circ}\text{C}$  ( $-4\text{ }^{\circ}\text{F}$ ) and  $+80\text{ }^{\circ}\text{C}$  ( $+176\text{ }^{\circ}\text{F}$ ).

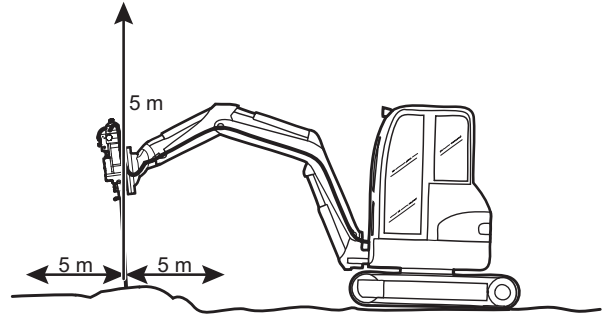
#### ▲ CAUTION Temperature hazard

The hydraulic attachment and the hydraulic oil system of the carrier can be damaged if the hydraulic attachment is used at higher or lower temperatures.

- ▶ Only start the hydraulic attachment when the hydraulic oil has reached the proper operating temperature.
- ▶ If the ambient temperature is below  $-20\text{ }^{\circ}\text{C}$  ( $-4\text{ }^{\circ}\text{F}$ ), you must warm up the insertion tool and the hydraulic attachment before use.
- ▶ If the oil temperature exceeds  $+80\text{ }^{\circ}\text{C}$  ( $+176\text{ }^{\circ}\text{F}$ ), you must not use the hydraulic attachment as the oil quality becomes inadequate which severely shortens the life time of seals and O-rings.

### 6.2 Risk area

Before starting the machine, make sure that no persons are in the risk area, 5 meters (60 ft) both horizontally and vertically from the machine.



## 7 Maintenance

Regular maintenance is a basic requirement for the continued safe and efficient use of the machine. Follow the maintenance instructions carefully.

- Before starting maintenance on the machine, clean it in order to avoid exposure to hazardous substances.
- Use only authorised parts. Any damage or malfunction caused by the use of unauthorised parts is not covered by warranty or product liability.
- When cleaning mechanical parts with solvent, comply with appropriate health and safety regulations and ensure there is satisfactory ventilation.
- For major service of the machine, contact the nearest authorised workshop.

### 7.1 Every day

- Clean and inspect the machine and its functions each day before start working.
- Conduct a general inspection for leaks, damage, and wear.
- Change damaged parts immediately.
- Replace worn components in good time.
- Make sure that all the attached and related equipment, such as hoses and flow dividers are properly maintained.
- Clean the quick-release couplings before use.

## 7.2 Periodic maintenance

After each operating period of approximately 300 working hours or twice a year the machine must be dismantled and all parts be cleaned and checked. This work must be performed by authorised staff, trained for this task.

## 8 Storage

### **▲ WARNING Falling machine can cause injuries**

- ▶ Place the machine in a safe position where it cannot fall over and cause damage.

If the machine is not used for a long time, the following points have to be considered to protect the machine from corrosion:

- Clean the machine carefully.
- Store the machine in a dry place.

## 9 Disposal

A used machine must be treated and scrapped in such a way that the greatest possible portion of the material can be recycled and any negative influence on the environment is kept as low as possible.

Before a used machine is scrapped it must be emptied and cleaned from all hydraulic oil. The remaining hydraulic oil must be deposited and any negative influence on the environment is to be kept as low as possible.

## 10 Technical data

### 10.1 Machine data

|   | <b>LPHB-M</b>                      |
|---|------------------------------------|
| Weight, kg (lb)   | 31 (68)                            |
| Measurement, LxHxW, mm (in.)  | 555 x 175 x 209 (21.9 x 6.9 x 8.2) |
| Oil flow, l.p.m   | 20-60                              |
| Working pressure, bar   | 100-140                            |
| Maximum pressure, bar   | 160                                |
| Maximum back pressure in return line, measured at machine, bar  | 30                                 |
| Maximum torque (Previous models equipped with OMR 250 motor: Maximum pressure setting 80 bar, note that you can still have 160 bar on the pressure line), Nm at bar | 450 at 140                         |
| Motor   | OMR 250                            |
| Revolutions, r.p.m  | 80-200                             |
| Connectors P and T, in.   | ½ BSP                              |

### 10.2 Noise declaration statement

|                                   | <b>LPHB-M</b> |
|-----------------------------------|---------------|
| Sound pressure <sup>1</sup> dB(A) | <70           |

<sup>1</sup> Sound pressure level according to EN ISO 3744 in accordance with directive 2000/14/EC at 10 metres distance.

These declared values were obtained by laboratory type testing in accordance with the stated directive or standards and are suitable for comparison with the declared values of other tools tested in accordance with the same directive or standards. These declared values are not adequate for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, in what material the breaker is used, as well as upon the exposure time and the physical condition of the user, and the condition of the breaker.

We, Construction Tools PC AB, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.



## 11 EC Declaration of Conformity (EC Directive 2006/42/EC)

We, Anbaufräsen PC GmbH, hereby declare that the machines listed below conform to the provisions of EC Directive 2006/42/EC (Machinery Directive) and the harmonised standards mentioned below.

| Hydraulic posthole borer | Pmax (bar) |
|--------------------------|------------|
| LPHB-M                   | 160        |

**Following harmonised standards were applied:**

EN ISO 11148-3

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**Place and date:**

Tiefenort, 2018-05-07





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