

From serial number 0814XXXX



Instructions for Use and Maintenance

Excavator broom PH100, PH150, PH180, PH220, PH270, PH270R



Note!
Read instructions before use



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INTRODUCTION

Congratulations on your new TREJON EXCAVATOR BROOM! The product is designed and manufactured by Trejon AB and made of first-rate materials. It features components supplied by well-known manufacturers. Strict quality requirements and quality control criteria have been observed in all phases of design and production. This manual contains the instructions needed to use and maintain the broom in an efficient manner. By following the instructions in this manual carefully, you will ensure a long and trouble-free service life for your broom.

Please make sure that every driver and person in charge of maintenance reads this manual thoroughly before using the broom or starting maintenance work. Attention must be paid to safety factors in all situations. This manual is part of the broom and must be transferred to the new owner upon sale or handover.

Should this manual be lost or become illegible, obtain a new manual immediately from Trejon AB or via the company website at www.trejon.se

Due to the continuous nature of its product development, Trejon AB reserves the right to make structural and technical changes without advance notification. Therefore, it is possible that some information in this manual may have changed after printing.

Please contact Trejon AB or the retailer of the broom if you need more information on the use or maintenance of the broom.

The content of this manual is based on information available in March 2015.

Trejon AB cannot be held liable for any errors or deficiencies in the manual.

SAFETY COMES FIRST



In this manual, this safety symbol is featured next to all important safety-related information. Pay particularly close attention to these sections and observe all safety instructions carefully.

In addition to the instructions of this manual, all the effective laws, decrees and regulations must be followed when using and maintaining the rotary broom.

The maintenance and adjustment instructions in this manual must be followed. This ensures that the broom can be used safely and without interruptions.

If a fault occurs in the broom, please contact the retailer's maintenance service. Stop working immediately, if there is even the smallest chance of injury.

Do not exceed the manufacturer's recommended operating temperature ranges and pressure levels for the hydraulics.

Never disconnect a hydraulics hose by pulling on the hose, never paint a hose and never tighten the hydraulics connectors excessively, in order to prevent damage.

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1. DECLARATION OF CONFORMITY

EC-Certificate of Conformity

Conforming to EEC Directions 2006/42/EG

We **TREJON FÖRSÄLJNING AB**
(name of supplier)

SE – 911 35 Vännäsby, Företagsvägen 9
.....
(full address of company – where this concerns authorized agents within the Common Market, also state the company name and manufacturer)

Declare in sole responsibility, that the product

OPTIMAL Excavator broom

PH100, PH150, PH180, PH220, PH270 and PH270R
.....

(make, model)

to which this certificate applies, conforms to the basic safety and health requirements of EEC Directions 2006/42/EG,
(if applicable)
and to the other relevant EEC Directions.

— — —
.....
(title and/or number and date of issue of the other EEC Directions)

(if applicable)

To effect correct application of the safety and health requirements stated in the EEC Directions, the following standards and/or technical specifications were consulted:

EN ISO 12100-1 : 2010 EN ISO 12100-2 : 2010
.....

(title and/or number and date of issue of standards and/or specifications)

Vännäsby, 2016.12.01
.....
(Place and date of issue)

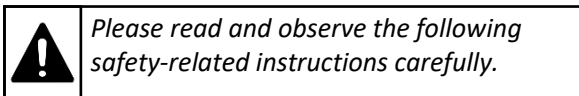
Henrik Johansson
Managing Director
.....
(Name and job function of authorized person)

2. PURPOSE OF USE

Rotary brooms are designed for sweeping sand, litter and snow.

The rotary broom can be equipped with a high-pressure dust suppression system and a pressure washer. High-pressure dust suppression ensures dust-free sweeping, and the pressure washers enables cleaning areas that are difficult to reach, as well as the vehicle. The rotary brooms can also be equipped with a lifting mechanism that allows the broom to be attached to a lorry.

3. SAFETY INSTRUCTIONS



3.1 GENERAL

Ensure that a broom of this type and weight can be attached to the tractor/loader/lorry in question.

Only persons who have familiarised themselves with the device and its functions may operate it.

Familiarise yourself with the broom and its operation before you start using it in a safe area in which hazardous situations are not likely.

Observe all warning and instruction labels on the broom. Do not operate the broom under the influence of alcohol, medication or narcotic substances. Fatigue may also lead to hazardous situations.

Never get close to the broom when the hydraulics system is connected, because a system failure may cause a crushing hazard.

Before use, ensure that all broom maintenance has been conducted correctly and on time.

Check the wear and adjustment of mechanical parts, and immediately replace any worn and damaged parts. Check the tightness of the bolts and nuts at regular intervals.

Never position yourself under the broom, unless the broom has been supported or lifted with an appropriate and locked mechanical lifting or support device. A failure of the vehicle's hydraulics system or some other unanticipated occurrence may result in a crushing hazard.

Do not modify the structure of the broom, as this may lead to unanticipated safety risks.

Do not let an inexperienced person handle the broom. Any party lending the device is responsible for any damage and accidents.

3.2 WARNING LABELS

The warning symbols attached to the product are described below. Ensure that you understand what they mean before you start using the product.

Clean/replace any unreadable or missing warning labels. More information on ordering the labels is available from Trejon AB.

Crushing hazard**Warning**

Do not enter this area when the machine is running. Beware of placing your hands in this area when the machine is in operation.

Remain at a sufficient distance from the machine when it is running or in motion. Neglecting this regulation may lead to severe injury or death.

Always read the instructions and safety regulations before use



Do not operate the device before you have carefully studied all the instructions and safety regulations and ensured that you understand their content. If you do not understand something, please contact Trejon AB. Misinterpretations may lead to severe injury or even death.

Beware of rotating rollers**Beware of rotating rollers**

Beware of placing your hands and feet in this area when the machine is in operation. Your clothes may also become caught between the rotating rollers.

4. IDENTIFYING INFORMATION AND SPARE PARTS

4.1 TYPE PLATE

The type plate of excavator broom is located on the middle section of the horizontal boom (Figure 1).



Figure 1

The type plate contains the following information:

- Model
- Serial number
- Weight

4.2 SPARE PARTS

Only use original spare parts relating to maintenance and repair, and ensure that the broom stays in its original condition.

Always provide the type and production number of the broom when ordering spare parts. Record the type and serial number of the broom in the space below.

Type _____

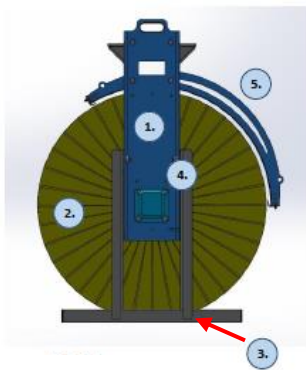
Serial number _____



Ensure the structural safety and functionality of the broom, and only use original spare parts.

5 MAIN COMPONENTS OF THE BROOM

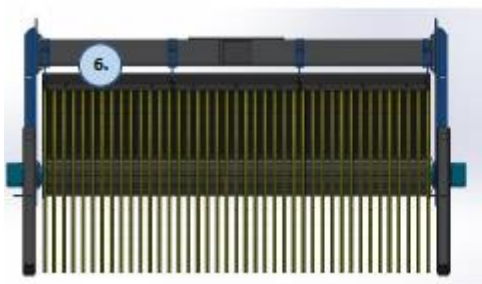
5.1 BROOM FROM THE SIDE



- 1) Arm
- 2) Brush disc
- 3) Support leg
- 4) Motor
- 5) Mudguard frame

Figure 2

5.2 BROOM FROM THE FRONT



- 6) Horizontal boom

Figure 3

6 CONNECTING THE BROOM TO THE VEHICLE

This section covers the safe attachment and detachment methods for the excavator broom. By observing these instructions, you can safely connect and disconnect the broom.

6.1 ATTACHING THE BROOM

It is recommended that you attach the broom on a level surface, as a slanted surface makes the process more difficult, and may result in the device being damaged.

Engage the handbrake for the duration of the connection process, to ensure that it is safe to position yourself between the broom and vehicle.

	<p><i>Never position yourself under the broom or the arms unless they have been separately supported.</i></p>
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When connecting the device for the first time, ensure that the quick fastening hooks fit their intended slots and that the locking pins can be properly locked into place. Adjust also the height limiters at a suitable level. It is advisable to check the connection and the height limiter adjustments before each use.

Begin connecting the hydraulics by ensuring that the hydraulic system is depressurised.

Next, clean the quick connectors of the broom and vehicle. Connect the hoses and electrical cables, as shown in section 8 (Technical data). It is recommended to mark the hoses with colours to facilitate reconnection.

6.2 DETACHING THE BROOM

Remember to engage the handbrake for the duration of the connection process. Never position yourself under the broom or the arms unless they have been separately supported. Lower the broom to rest on the support legs to prevent brush disc compression.

First, disconnect the electrical cables and then the hydraulics hoses. Remember to protect the quick connectors and the electrical connector against weather and dirt.

If the broom will be in storage for an extended period, remember to lubricate it, according to the weekly maintenance instructions (section 7.3), before disconnection. Use all the device's movements to ensure a thorough lubrication.

6.3 ADJUSTING THE BROOM

Adjusting the main brush

Maintain the brush roller at a height where the discs connect with the ground at a length of 1–2 cm. If the discs are in heavier contact with the ground, they will wear down. The correct disc height is shown in Figure 4.

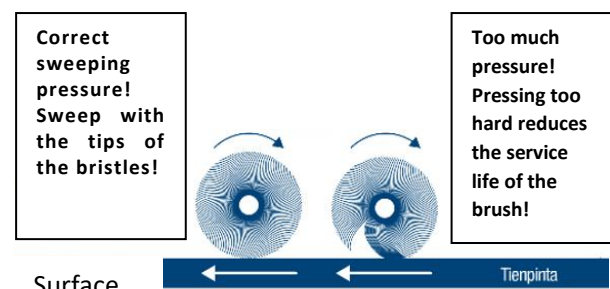


Figure 2

6.4 SWEEPING

	<p><i>Before sweeping, always ensure that the mechanical fastening is locked and that the electrical and hydraulics connections have been appropriately carried out.</i></p>
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Before beginning sweeping, raise the support legs to the working position. Raise the broom enough to lift the support legs off the ground. Next, disconnect the support leg's locking pin and lift the leg up. The support leg and locking pin are shown in Figure 5.



Figure 3


6.5 DRIVING THE VEHICLE TO ANOTHER LOCATION

	<p><i>Exercise great caution when driving the broom to another location. Read the text below and prevent the broom from touching the ground during the transfer</i></p>
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IMPORTANT: Raise the broom high and check its condition before setting off. Reduce the speed, if the road is uneven. Excessive speed will damage the broom.

7 MAINTENANCE

7.1 GENERAL

	<p>Observe the following instructions!</p> <ul style="list-style-type: none"> • When performing maintenance or repair measures, observe all safety-related laws, decrees and regulations, as well as the safety instructions in this manual. • Park the vehicle on an even and firm surface. • Lower the broom to rest on the wheel and lip plate. • Prevent the vehicle from moving. • Stop the motor of the vehicle and remove the ignition key. • Only use appropriate and suitable tools that are in good condition. • Observe a safe working procedure under all circumstances and dress appropriately for the work tasks. • Wear eye protection and a respirator, if necessary. • Remember to reinstall all covers and safety equipment that may have been removed. • Ensure that all labels of the machine are in good condition after the maintenance work. Replace damaged labels with new ones. • Collect waste oil, liquids and used filters, and deliver them to a processing plant for hazardous waste. • Do not allow oil or other fluids to spill on the ground, and take care of your environment.
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7.2 DAILY MAINTENANCE

It is recommended to check the broom daily to prevent problems.

The daily maintenance measures encompass the following inspections:

- Check the wear of the brush discs.
- Check that there are no leaks in the hydraulics and that the hoses are in good condition.
- Check the overall mechanical condition of the broom.

7.3 WEEKLY MAINTENANCE

In addition to daily maintenance, conduct the following measures.

- Check the tension of the fastening bolts of the joints and tighten them if necessary.
- Lubricate the brush roller bearing (single motor models). The recommended lubricant is Neste OH GREASE or similar.

7.4 MAINTENANCE AFTER THE SWEEPING SEASON

We recommend that you perform at least the measures that are listed in sections 7.2 and 7.3. In addition, it is advisable to paint and varnish the broom if the paint coating is badly worn. It is recommended to perform maintenance at the end of the season, so that parts with possible wear can be repaired before they rust.

The code for the grey colour used on the brooms is RAL7043 and the code for the blue colour is RAL5015. For a more thorough painting in the autumn, we recommend a two-component anti-corrosion paint, such as Tikkurila Temadur SC80 or Teknos Teknodur Combi 3430. Please ensure that you clean the surface to be painted with a silicone removal agent before painting.

7.5 REPLACING THE BRUSH DISCS

Disconnecting the brush roller is straightforward, if you observe the following instructions.

Disconnecting the brush roller (single-motor model):

1. Lower the brush roller onto the ground.
2. Turn off the vehicle and engage the handbrake.
3. Detach the four fastening bolts on the motor (Figure 6).
4. Detach the two bearing fastening bolts.
5. Pull the motor outward to release the roller. (You do not need to detach the hoses).

Disconnecting the brush roller (two-motor model):

1. Lower the brush roller onto the ground.
2. Turn off the vehicle and engage the handbrake.
3. Detach (four bolts/motor) (Figure 6).
4. Pull the motor outwards to release the roller. (You do not need to detach the hoses).

Replacing the brush discs in single-motor models:

It is not necessary to remove the flange bearing when replacing the discs. Only remove the four M10 bolts behind the bearing (Figure 7). The discs can be removed after removing the flange shaft from the roller.

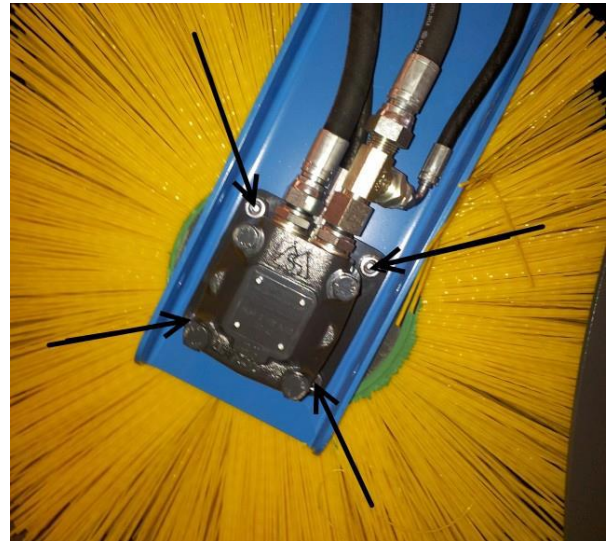


Figure 6



Figure 7

Installing new brush discs:

The brush discs feature a small holding nub on the inside rim. Place this in the opposite position in every other disc as the position of the nub is slightly elevated. If you position all brush discs in the same way, the discs will be slightly slanted. It is advisable to position the brush roller vertically during the attachment of new brush discs. It is a good idea to place one or two extra brush discs at the roller end (the brush discs protrude 1–2 cm past the brush roller), so that the brush roller is sufficiently compressed when the brush flange is reinstalled on the brush end. This will prevent the holding nubs of the discs from breaking.

8 TECHNICAL DATA

8.1 HYDRAULICS DIAGRAMS

Excavator broom PH100–PH270 (two hoses)

The vehicle must feature at least single-action hydraulics.

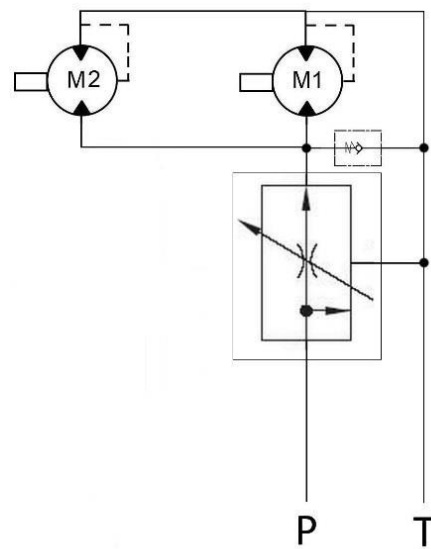


Figure 8

- M1 = Main brush motor, left
- M2 = Main brush motor, right (2x motor)
- P = Pressure line
- T = Return line

9 WARRANTY TERMS



TREJON AB
Företagsvägen 9
SE – 911 35 Vännäsby

Guarantee- /assignment certificate

- | | |
|------------------------------|---|
| Guarantee terms | - Valid between retailer (Trejon AB dealer) and machine purchaser. |
| General about guarantee | - In order to obtain valid guarantee terms set forth below, and the specific guarantee terms set by each provider. These are attached to the user manual for each machine, as appropriate. |
| Validity of guarantee | - The guarantee is 12 months from date of purchase.
In some cases, the guarantee can be limited by running time. |
| The guarantee covers | - Damaged parts, which have broken down because of defective production operations of materials in course of <u>normal use of the machine</u> .
- Only the labor cost for replacement of defective warranted part. |
| The guarantee does not cover | - Transport costs applicable to the machine or the parts.
- Travel costs.
- Any resulting costs incurred as a result of damage to the machine.
- If the machine has been modified by the owner.
- Damage due to normal wear and tear of the machine – Not related to manufacturing defects, poor service, user inexperience or use of spare parts that are not original.
- Excessive or inappropriate use of the machine.
- The guarantee is not applicable to parts which are subject to wear, for example hoses, sealing, oil, belts, batteries, chains, knives etc.
- The guarantee period for replaced parts during the guarantee period expires with the machine's guarantee.
- Normal adjustments, maintenance or supervision |
| Guarantee procedures | - Contact place of purchase as soon as any damage or malfunction is detected. Do not use the machine if the damage can be worse.
- Guarantee repairs must be performed by Trejon AB approved workshop. |

ATTENTION!

The guarantee shall enter into force provided that the machine **GUARANTEE/ ASSIGNMENT CERTIFICATE** has been fully completed and signed by both parties (archived by the seller), and recorded on the Trejon web portal no later than 14 days from date of sale (the seller is responsible for this happening).

Assignment certificate:

Machine Buyer shall confirm with his signature that he had received manual containing operating instructions, and received information about the operating, security and maintenance requirements described in this and made the final inspection of the machine.

PLEASE FILL IN!



Product: _____	Serialno. _____
Salesman: _____	Company: _____
Signature of salesman: _____	Date of purchase: _____
Name of buyer: _____	Telephone: _____
E-mail: _____	
Address: _____	Zipcode: _____
City: _____	Country: _____
Date: _____	Signature of buyer: _____

Product serial number

