

INSTRUCTION MANUAL



Presentation

We

thank you for your preference and we congratulate you for the excellent choice you have just made, because you purchased a product manufactured by

BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

This manual will guide you through the procedures that are necessary from its acquisition to the operational procedures of use, safety and maintenance.



BALDAN ensures that it delivered this tool complete and in perfect condition to the reseller.

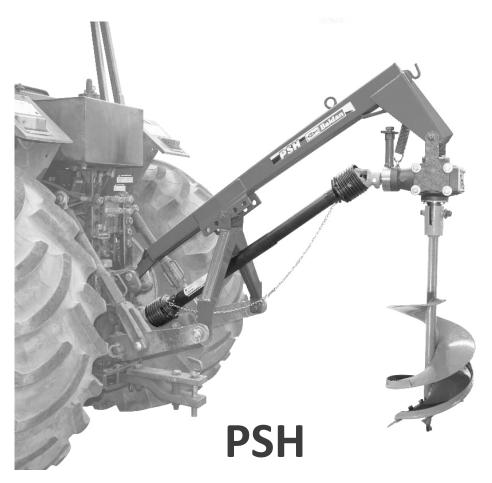
The reseller is responsible for the custody and maintenance during the period in which it possesses it, and also for the assembly, retightening, lubrication and maintenance.

Upon technical delivery, the dealer should guide the user customer on maintenance, security, their obligation during possible technical assistance, the strict observance of the warranty and reading of the instruction manual.

Any service warranty claims shall be made to the retailer where it was purchased from.

We reiterate the need for careful reading of the guarantee certificate and the observance of all items in this manual, because doing so will increase the life of your tool.

INSTRUCTION MANUAL



Post Hole Digger







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Baldan Warranty

BALDAN IMPLEMENTOS AGRÍCOLAS S/A ensures normal operation of the tool to the dealer for a period of six (6) months from the delivery date on the resale invoice to the first end consumer.

During this period **BALDAN** undertakes to remedy defects in materials and/or workmanship of their responsibility, and the labour, freight and other expenses of the responsibility of the dealer.

During the warranty period, the order and replacement of any defective parts must be made to the dealer in the region, who will send the defective part for analysis at **BALDAN**.

When such a procedure is not possible and exhausted the resolution capacity of the dealer, the dealer will request support from the Technical Assistance of **BALDAN** through the specific form distributed to resellers.

After analysing the items replaced by the Technical Assistance of **BALDAN**, and concluded that it is not a warranty issue, so it will be of responsibility of the reseller any costs related to replacement; as well as the cost of materials, travel including accommodation and meals, accessories, lubricant and other expenses resulting from the call to the service, with the **BALDAN** company being authorised to make its billing on behalf of the reseller.

Any repairs made to the product that is within the warranty period of the dealer will only be authorised by with **BALDAN** prior presentation of the budget describing the work of parts and labour to be performed.

It is excluded from this term the product that is repaired or modified in shops that do not belong to the dealer network of **BALDAN**, as well as the use of non-genuine parts or components in the product of the customer.

This guarantee will be void when it is determined that the defect or damage is the result of improper product use, failure to follow instructions or the inexperience of the operator.

It is agreed that this warranty does not cover tires, polyethylene tanks, drive shafts, hydraulic components, etc., which is equipment guaranteed by their manufacturers.

Manufacturing and or material defects, object of this warranty term, will not constitute, under any circumstances, a reason for termination of the purchase and sale contract or compensation of any nature.

BALDAN reserves the right to modify and or improve the technical characteristics of its products without notice and without obligation so to proceed with the products previously manufactured.



General Information

To the owner

BALDAN IMPLEMENTOS AGRÍCOLAS S/A is not liable for any damage caused by accidents arising from the use, transportation or improper or incorrect storage of your tool, whether due to negligence and/or inexperience of any person.

Only persons with full knowledge of the tractor and the tool may carry out the transportation and operation of the same.

BALDAN shall not be liable for any damage caused in unforeseeable or unrelated situations to the normal use of the tool.

The mishandling of this equipment can result in serious or fatal accidents. Before putting the equipment into operation, please read the instructions in this manual. Ensure that the person responsible for the operation is instructed in the correct and safe handling of it. Also make sure that the operator has read and understood the instruction manual of the product.



NR-31 - SAFETY AND HEALTH AT WORK IN AGRICULTURE, FORESTRY, FOREST EXPLORATION AND AQUACULTURE.

The purpose of this Regulatory Standard is to establish the precepts to be observed in the organisation and in the work environment, in a manner compatible with the planning and development of agriculture, livestock, forestry, forestry exploration and aquaculture activities with safety and health and work environment.

OWNER OR OPERATOR OF THE EQUIPMENT.
Please read and follow the NR-31 standard carefully.

For more information, check the website and read the full NR-31. http://portal.mte.gov.br/legislacao/normas-regulamentadoras-1.htm



Safety Standards

To the operator



SYMBOL INDICATES AN IMPORTANT **SAFETY** WARNING. IN THIS MANUAL, WHENEVER YOU FIND IT, PLEASE READ THE MESSAGE BELOW CAREFULLY AND BE ATTENTIVE TO THE POSSIBILITY OF PERSONAL ACCIDENTS.

ATTENTION



Read the instruction manual carefully for recommended safety practices.



ATTENTION



Only start the tractor when you are properly seated and the seat belt is locked.



ATTENTION



Do not carry personnel on the tractor and neither inside nor on the equipment.



ATTENTION



There are risks of serious injury by tipping when working in sloping terrain. Do not use

excessive speed.



ATTENTION



Do not work with the tractor if the front has insufficient ballast for rear equipment. If there is a tendency to lift, add weights to the front or front wheels.



ATTENTION



Before carrying out any maintenance on your equipment, make sure that it is properly stationary. Avoid getting run over.



Safety rules



ATTENTION



Do not approach the PSH drill bit while in operation. Ignoring this warning can cause serious accidents or even death.

ATTENTION



When transporting the scraper, do not exceed the speed of 16Km/h or 10 MPH, avoiding damage and accidents.

ATTENTION



There is a risk of injury or death to the brushcutter operator and bystanders during operations for the following reasons:

- Body contact with rotary blades.
- Involvement of the body in transmission and rotary shafts.



ATTENTION



Do not make adjustments when the scraper is running. When performing any service on the scraper, turn off the tractor first. Use appropriate tools.



Warnings

When operating the auger, do not allow people to stay too close.

No not carry the auger coupled to the tractor with the power switched on.

If, during drilling, you feel excessive resistance, do not continue the operation without first relieving the drill bit or eliminating the potential cause.

!\Do not drill deeper than recommended.

Do not wear loose clothing as they may get caught in the auger.

(1) When operating the tractor engine, be properly seated in the operator's seat and be aware of the complete knowledge of the correct and safe handling of both the tractor and the auger. Always place the gearshift lever in neutral, turn off the power supply command gear and place the hydraulic controls in neutral.

①Do not switch on the tractor motor indoors without adequate ventilation, as the exhaust gases are harmful to health.

• When maneuvering the tractor to engage the auger, make sure you have the necessary space and that there is no one close, always maneuver at idle and be prepared to brake in an emergency.

①Do not make adjustments when the auger is in operation.

(New working on sloping terrains, proceed with caution when trying to maintain the necessary stability. In the event of an imbalance start, reduce the acceleration, turn the wheels to the slope side of the terrain and never raise the auger.

Always drive the tractor at speeds compatible with safety, especially when working in rough terrain or slopes, always keep the tractor engaged.

(1) When driving the tractor on roads, keep the brake pedals interlocked.

① Do not operate the tractor when the front is light. If the front has a tendency to lift, add more weight at the front or on the front wheels.

• When leaving the tractor put the gear lever in neutral and apply the parking brake. Never leave the auger coupled to the tractor in the upright position of the hydraulic system.

Any and all maintenance on the scraper should be done with it still and with the tractor off.

Alcoholic drinks or some types of medication can generate a loss of reflexes and change the physical conditions of the operator. Therefore, never operate the auger while using these substances.

Read or explain all of the above to the user who can not read.

In case of doubt, consult the After Sales Service.
Telephone: 0800-152577 / Email: posvenda@baldan.com.br



Components

• PSH - Post Hole Digger

Auger Frame

Coupling head

Gearbox

Drill Leveling Regulator

Screw spring

Drill bit - 9", 12", 18"

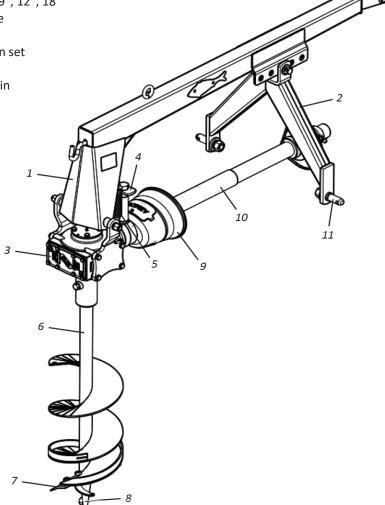
Drill blade

Drill bit

Protection set

Cardan

Couplin pin





Specifications

• PSH - Post Hole Digger

Model	Diameter of the Drills (ø)	Drilling Diameter (ø)	Drilling Depth (mm)	RPM of the drill bit	Approx. Weight (kg)
PSH	Without	-	-	128	144
PSH	9"	230 mm	1000	128	164
PSH	12"	310 mm	1000	128	172
PSH	18"	460 mm	1000	128	187

Baldan reserves the right to modify and or improve the technical characteristics of its products without notice and without obligation so to proceed with the products previously manufactured. The technical specifications are approximate and informed in normal working conditions.

Assembly

The **PSH** Leaves the factory disassembled. To assemble it, follow the instructions below:

⚠ Before you begin assembling the **PSH**, look for an ideal place, where it facilitates the assembly of the same.

Mhen carrying out any drill assembly and disassembly service, wear gloves on your hands.

no not wear loose clothing, as they may be tangled on the earth auger.



When starting the PSH assembly, if you have questions regarding the pins, screws, washers and nuts to be used in the assembly, refer to the parts catalogue for identification.

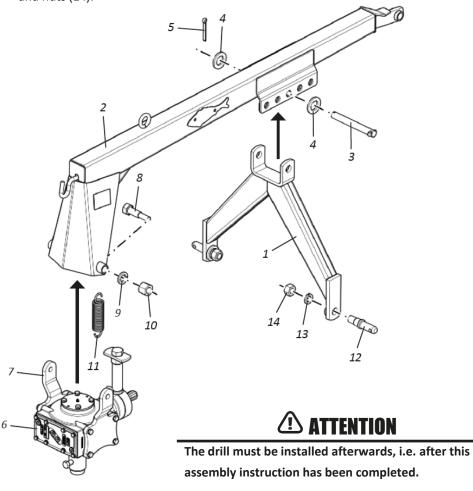


Assembly

Assembly of the PSH

To assemble the coupling header(1), proceed as follows:

- O1 Attach the coupling head (1) to the frame (2) by fastening with the pins (3), plain washers (4) and cotter pin (5).
- **02** Then insert the gearbox (6) into the frame (2) through the plates (7) and tighten the bolts (8), lock washers (9) and nuts (10).
- 03 Then, engage the spring (11) in the gearbox (6) and the frame (2).
- **04** Finally, secure the pins (12) to the coupling head (1) through the lock washers (13) and nuts (14).



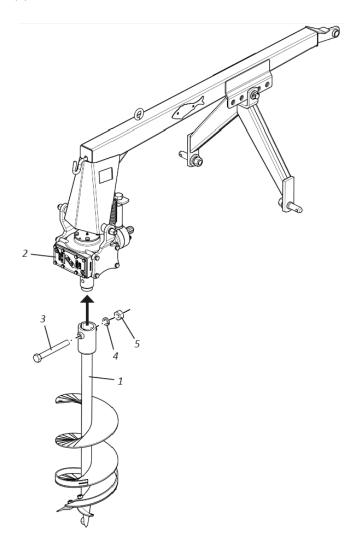


Assembly

• Mounting the drill bit

To mount the drill bit (1) proceed as follows:

01 - Attach the drill bit (1) to the gearbox (2) by securing it through the bolt (3), lock washer (4) and nut (5).



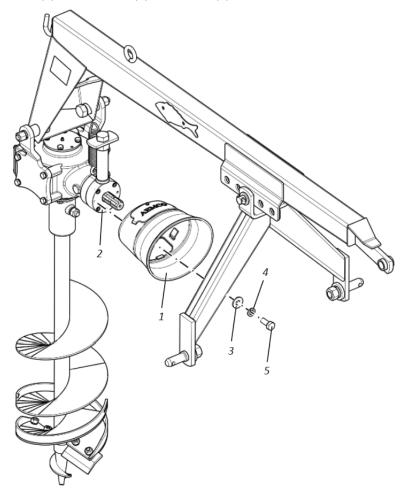


Assembly

· Mounting the cardan guard

To install the cardan guard (1), proceed as follows:

01 - Attach the cardan guard (1) to the gearbox (2) by securing it through the plain washers (3), lock washers (4) and screws (5).





Do not operate the PSH without the cardan protection. Ignoring this warning can result in serious injury or death.

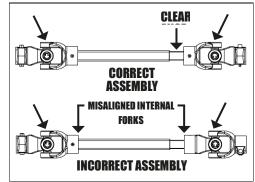


Assembly

Mounting the Candan

First, note that the inner and outer terminals are always in the same plane, aligned as shown in the figure on the side.

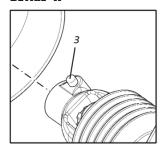
Also check the clearance on the telescopic shaft, which should be 5 to 7 cm.



To mount the cardan (1), proceed as follows:

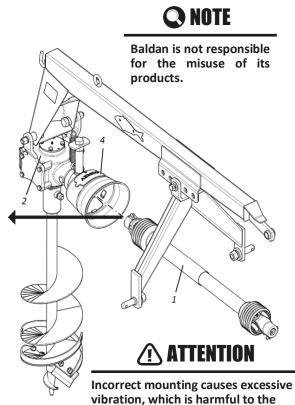
01 - Attach the cardan (1) to the gearbox (2) observing that the coupling will only be completed when the lock (3) jumps, as shown in detail "A".

DETAIL "A"



• IMPORTANT

Do not mount the cardan without the its guard (4). Ignoring this warning can result in serious injury or death.



transmission.



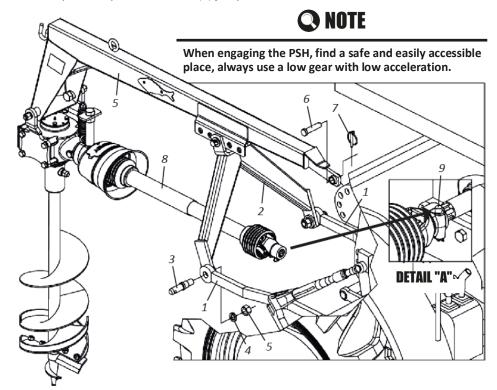
Coupler

Coupling of the earth auger

Before attaching the **PSH** check that the tractor is equipped with a set of weights or ballasts on the front or the front wheels to avoid lifting the tractor. The rear wheels will give the tractor greater stability and traction on the ground.

To attach the **PSH**, proceed as follows:

- 01 Approach the tractor slowly to the PSH in reverse gear, paying attention to the application of the brakes. Use the hydraulic position control lever, leaving the lower tractor arms (1) at the level of the auger coupling head (2).
- **02** Then adjust the lower arms sighting (1) and engage the winch through the pins (3), lock washers (4) and nuts (5).
- **03** Then, end by coupling the lift arm (5) of the auger on the third point of the tractor through the pin (6) and lock with ring (7).
- **04** End by engaging the cardan (8) on the tractor's TDP, noting that the coupling will complete only when the lock (9) jumps, as shown in detail "A".





Adjustments

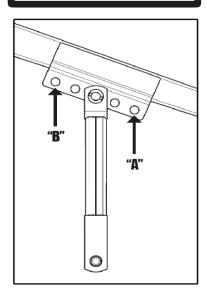
Height adjustments

The **PSH** has adjustment system that allows to increase or decrease the height of the auger according to the model of the tractor. To adjust the cutting height, proceed as follows:

- 01 First remove the cotter pin (1), plain washers (2) and the pin (3).
- 02 Then choose the drill bit that meets the desired height setting.
- 03 Then, finish by replacing the pin (3), flat washers (2) and cotter pin (1).

HEIGHT ADJUSTMENTS:

"A" - For taller tractors. "B" - For shorter tractors.



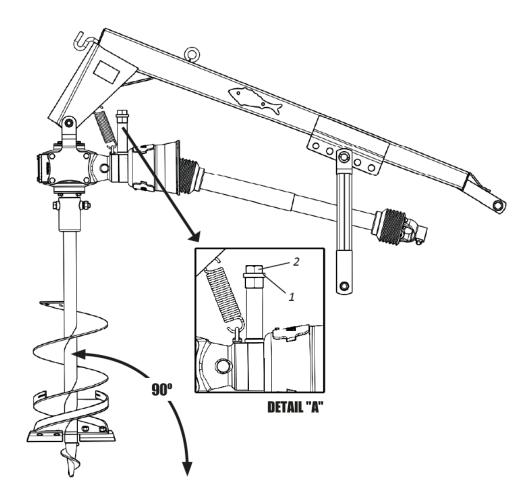


Adjustments

· Vertical adjustment of the bit

To make the vertical adjustment of the bit, proceed as follows:

- 01 Lower the PSH earth auger to the tip of the bit in the soil.
- **02** Then move the tractor forward or backward until the drill stays on a 90° position, as shown in the figure below.
- 03 Then, loosen the lock (1), adjust the screw (2) until it touches the top plate of the frame as shown in detail "A".





Operations

- PSH Operations
- 01 After the first working day with the PSH, tighten all bolts and nuts, check the conditions of the pins and locks. Then, perform a general tightening on all bolts and nuts periodically.
- **02** Adjust the tractor according to the contents of the instruction manual, always using the front and rear weights to stabilize the **PSH**.
- **03** In wet, dry, soft or hard soils with the exception of a lot of stoniness, the auger acts efficiently.
- 04 The drilling of a pit should be completed in 2 or 3 steps and never in one step, to avoid overloading the driller and the tractor and thus achieving greater yield at work.
- 05 By means of the positioning system of the drill bit, an bigger yield is obtained. Depending on the tractor's ability and ground conditions, an average of 90 to 120 pits per hour are achieved with any of the three drill bits.
- **06-** In all types of terrain and especially the terrains where it adheres to the drill, operate in two stages:
 - Drill to the middle of the drill bit and raise it with the same rotation to loosen the soil without letting the drill out of the hole.
 - Lower the drill bit and operate again.
- 07 Start the drilling at low speed so that the bit levels out; then increase the rotation of the bit gradually.
- **08-** In operation, lock the tractor wheels.
- 09 it is important to pay attention that the bit operates straight.
- 10 Never place the gearbox in contact with the ground.
- 11 Always ensure that the depth does not exceed 1 metre.
- 12 When you notice a lot of difficulty in drilling, stop and examine the cause.
- **13** When driving with the auger for long distances and doing any repairs on it, unplug the power from the tractor.
- 14 The breather valve attached to the machine must be placed on top of the gearbox. Before you start using it.
- **15** Do not mount the cardan by "hammering", if necessary clean or sand the parts.
- 16 Make sure all parts are in working order.
- 17 When operating the PSH, do not allow people to stand too close to the drill.

If in doubt, never operate or handle the PSH, see Post Sales. Telephone: 0800-152577 / Email: posvenda@baldan.com.br



Maintenance

The **PSH** was developed to provide you with the maximum yield on the terrain conditions. Experience has shown that the periodic maintenance of certain parts of the auger is the best way to help you avoid problems, so we suggest their verification.

Lubrication

Lubrication is essential for good performance and a longer service life of the **PSH**, contributing to maintenance cost savings.

Before starting the operation, carefully lubricate all grease fittings, always observing the lubrication intervals on the following pages. Make sure about the lubricant quality, regarding its efficiency and purity, avoid using products contaminated by water, earth and other agents.

Grease and equivalents table

Manufacture	r Recommended Grease Types
Petrobrás	Lubrax GMA 2
Atlantic	Litholine MP 2
Ipiranga	Super Graxa Ipiranga Ipíranga Super Graxa 2 Ipiflex 2
Castrol	LM 2
Mobi 1	Mobilgrease MP 77
Texaco	Marfak 2 Agrotex 2
Shell	Retinax A Alvania EP 2
Esso	Multipurpose grease H
Bardahl	Maxlub APG 2 EP



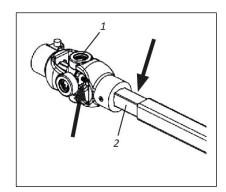
If there are manufacturers and/or equivalent brands that are not listed in the table, consult the manufacturer's technical manual.

• Lubricate every 8 hours of work

Lubricate the crossbars (1) with grease every 8 hours. The telescopic shaft (2) must be lubricated weekly.



When lubricating the crossbars (1) or the telescopic axle (2), do not exceed an adequate amount of new grease. Fill-in a sufficient quantity.



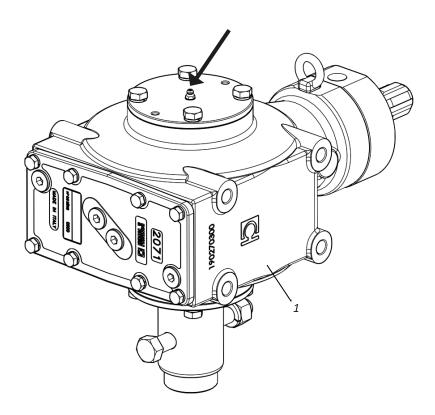


Maintenance

• Lubricate every 500 hours of work



The first gearbox lubrication (1) should be done within the first 50 hours of work, then lubricate every 500 hours of work.



O IMPORTANT

To grease the gearbox (1) requires 0.150 kg of grease.

Use only the specified grease: Grease EP (Specified DIN51825 KP00K Consistency NLGI 2/3).



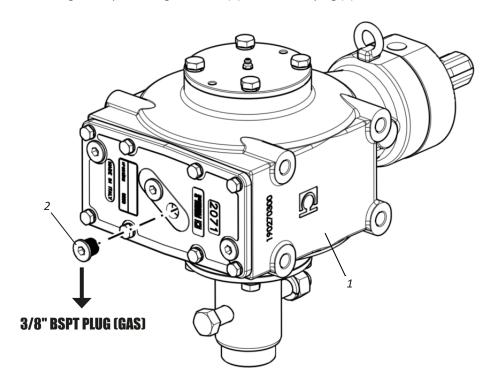
When lubrificating the gearbox (1), do not exceed an adequate amount of new grease. Fill-in a sufficient quantity.



Maintenance

Oil change

To change or deplete the gearbox oil (1), remove the plug (2).





Replace the oil every 500 hours of work using 1.8 litres. Use only the specified oil: SAE 90EP.



When a particular brand of oil is in use, avoid completing with another brand of oil and other specifications.



Maintenance

- Care
- 01 Before each job, check the condition of all pins, bolts, and nuts. When necessary, re-tighten them.
- 02 The speed of movement must be carefully controlled according to the terrain conditions.
- 03 The PSH is used in several applications, requiring knowledge and attention during its handling.
- 04 Only local conditions can determine the best way to operate the PSH.
- 05 When assembling or dismantling any part of the PSH, use appropriate methods and tools.
- 06 Always check the parts for wear. If there is a need for replacement, always request original Baldan parts.



Proper and periodic maintenance is necessary to ensure the long life of the auger.



Maintenance

- General cleaning
- 01- When storing the PSH, carry out general cleaning and wash it thoroughly with water only. Make sure the paint is not worn, if this happened, paint a full coat, use protective oil and fully lubricate the PSH.
- 02 Check all moving parts of the PSH, if they present wear or loosening, make the necessary adjustment or replacement of the parts, leaving the auger ready for the next job.
- 03 Replaces all stickers, especially those that are damaged or missing. Make everyone aware of their importance and the dangers of accidents when instructions are not followed.
- 04 After all maintenance care, store your PSH on a flat, covered, dry surface, away from animals and children.
- 05 -We recommend washing the PSH with only water at the beginning of the work.

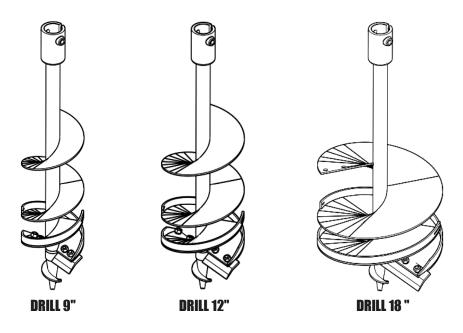
Do not use chemicals to wash the scraper, as this may damage the paint.



Optional

• Drill bits 9" / 12" /18"

The **PSH** has optional drills that can be acquired according to the need of work.





Identification

Identification plate

In order to consult the parts catalogue or to request technical assistance from Baldan, always indicate the model (01), serial number (02) and date of manufacture (03), which is on the *nameplate of* your earth auger.





The drawings contained in this Instruction Manual are illustrative.



If in doubt, never operate or handle your equipment without consulting Post Sales.

Phone: 0800-152577

Email: posvenda@baldan.com.br

PUBLICATIONS

ID: 60550100404 | CPT: PSH16712





Identification

• Product Identification

Make the correct identification of the data below, to always have information about the life of your earth auger.

Owner:	 	
Dealer:		
Farm:		
City:		
State:		
Warranty Cert. No.:		
Tool:		
Serial No.:		
Date of Purchase:		
Invoice:		



<u>Notes</u>			



BALDAN IMPLEMENTOS AGRÍCOLAS S/A ensures normal operation of the implement to the dealer for a period of six (6) months from the delivery date on the resale invoice to the first end consumer. During this period BALDAN undertakes to remedy defects in materials and/or workmanship of their responsibility, and the labour, freight and other expenses of the responsibility of the dealer.

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BALDAN reserves the right to modify and or improve the technical characteristics of its products without notice and without obligation so to proceed with the products previously manufactured.



Inspection and delivery certificate

SERVICE BEFORE DELIVERY: This implement was carefully prepared by the sales organisation, checked in all its parts according to the manufacturer's instructions.

DELIVERY SERVICE: The user is informed about the terms of existing warranty and instructed on the use and maintenance care.

I confirm that I was informed about the current guarantee terms and instructed about the use and proper maintenance of the implement.

Tool:	Serial Number:
Date:	Tax Number:
Dealer:	
Phone:	CEP:
City:	State:
Owner:	
Telephone:	
Address:	Number:
City:	State:
Email:	
Sale Date:	
Signat ure/Reseller Stamp	



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Tool:	Serial Number:	
Date:	Tax Number:	
Dealer:		
Phone:	CEP:	
City:	State:	
Owner:		
Telephone:		
Address:	Number:	
City:	State:	
Email:		
Sale Date:		
Signature/Reseller Stamp		



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Tool:	Serial Number:
Date:	Tax Number:
Dealer:	
Phone:	CEP:
City:	State:
Owner:	
Telephone:	
Address:	Number:
City:	State:
Email:	
Sale Date:	
Signature/Reseller Stamp	

3rd copy - Manufacturer (Please send completed within 15 days)

1.74.05.0059-5

AC MATÃO ECT/DR/SP

ANSWER-CARD

STAMP NOT REQUIRED

POSTAGE WILL BE PAID BY:







BALDAN IMPLEMENTOS AGRÍCOLAS S/A.

Av. Baldan, 1500 | Nova Matão | CEP: 15993-000 Matão-SP. | Brazil Phone: (16) 3221-6500 Fax: (16) 3382-6500

www.baldan.com.br | email: sac@baldan.com.br Export: Phone: +55 (16) 3221-6500 Fax: +55 (16) 3382-4212 | 3382-2480 email: export@baldan.com.br





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