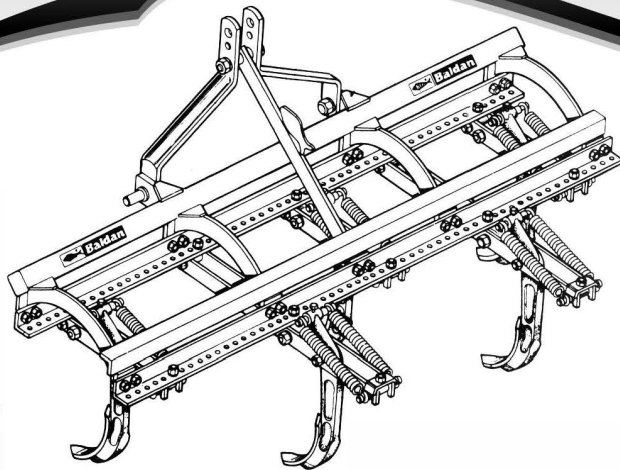


CEH

• **Mounted Fild Cultivator**



www.baldan.com.br

Instruction Manual

INTRODUCTION

A Thank you for your preference and congratulations on the excellent choice you have just made, because you have purchased a product manufactured with the **BALDAN IMPLEMENTOS AGRICOLAS S/A** technology.

This manual will guide you in the necessary procedures from the time of purchase to the operating utilization, safety and maintenance procedures.

BALDAN guarantees the delivery of this implement to the dealer, complete and in perfect conditions.

The dealer is responsible for the safekeeping and conservation during the period it remains in its power, and also for mounting, retightening, lubrication and general revision.



During technical delivery, the dealer must instruct the user regarding maintenance, safety, and its obligations in eventual technical assistance, strict observance of the term of warranty and reading of the instruction manual.

Any request for technical assistance in warranty must be made to the dealer from whom it was purchased.

We reaffirm the need to carefully read the certificate of warranty and observe all the items of this manual in order to increase the life of your implement.

Instruction Manual



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01. SAFETY STANDARDS

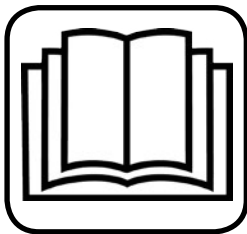


This symbol indicates important safety warning. Every time you see it in this manual, carefully read the message that follows and pay attention to the possibility of personal accidents.



ATTENTION

- *Carefully read the instructions manual to know the recommended safety practices.*



ATTENTION

- *Only start operating the tractor when you are duly accommodated and with the safety belt attached.*



ATTENTION

- *Do not transport people on the tractor and neither inside nor over the equipment.*





ATTENTION

- Do not work with the tractor if the front is not heavy enough for the back equipment.
- Add weights to the front or front wheels in case it may be raised.



ATTENTION

- There are risks of serious injuries due to falling when working on sloped lands.
- Do not over speed.



ATTENTION

- Before executing any maintenance on your equipment, check if it is at a standstill.
- Avoid being hit.











ALCOHOLIC DRINKS OR ANY DRUG MAY GENERATE LOSS OF REFLEXES AND CHANGE THE PHYSICAL CONDITIONS OF THE OPERATOR THEREFORE, NEVER OPERATE THIS EQUIPMENT WHEN UNDER THE INFLUENCE OF THESE SUBSTANCES.



WARNING

Incorrect use of this equipment may result in serious or even fatal accidents. Before placing the implement into operation, carefully read the instructions contained in this manual. Ensure that the person responsible for the operation has been instructed on the correct, safe use of the implement, having read and understood this machine's instruction manual.

- 01-  When operating with the equipment, prevent people from staying too close to or over the equipment.
- 02-  Use safety gloves on your hands when performing mounting and dismounting services on the discs.
- 03-  Before connecting or disconnecting the hydraulic hoses, release the pressure of the system, activating the control with the tractor switched off.
- 04-  Periodically check the state of conservation of the hydraulic hoses. Immediately replace the hose in the case of leaks because the oil operates at high pressure and can cause serious accidents.
- 05-  Do not use loose clothing as it can get caught on the equipment.
- 06-  When activating the tractor engine, be properly seated on the operator seat and conscious of the complete knowledge of the correct and safe handling of the tractor as well as the equipment. Always keep the gear stick in the neutral position, switch off the power take-off control gearing and place the hydraulic controls in the neutral position.
- 07-  Do not start the tractor engine in a closed setting without suitable ventilation because the exhaust gases are dangerous to health.
- 08-  When maneuvering the tractor to the coupler of the equipment, make sure there are enough space and no one too close to it, always maneuver in reduced speed and be prepared to brake in an emergency.

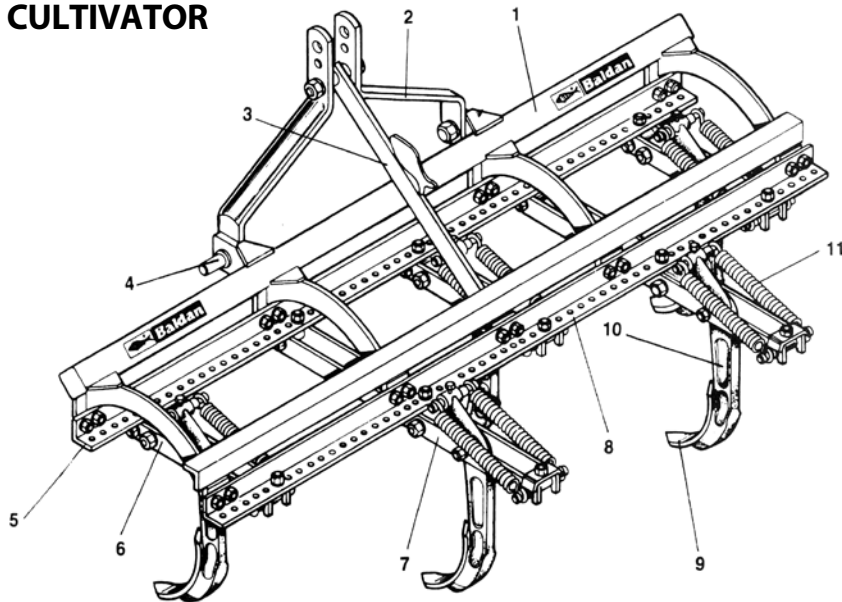
- 09- **⚠ Do not make adjustments with the equipment in operation.**
- 10- **⚠ When working on sloped lands, proceed carefully, always maintaining the necessary stability. In the case of misbalance, reduce the speed, turn the wheels towards the sloped side of the land and never raise the equipment.**
- 11- **⚠ Always drive the tractor at speeds compatible with safety, especially in works on uneven lands or slopes, always keep the tractor coupled.**
- 12- **⚠ When driving the tractors on streets, keep the brake pedals interconnected.**
- 13- **⚠ Do not work with the tractor if the front is light. Add weights to the front or front wheels in case it may be raised.**
- 14- **⚠ When leaving the tractor, put the brake handle in the neutral position and use the parking brake. Do not leave the equipments coupled to the tractor with the hydraulic system in the raised position.**
- 15- **⚠ Alcoholic drinks or some drug may cause loss of reflexes and change the physical conditions of the operator. Therefore, never operate this equipment when under the influence of these substances.**
- 16- **⚠ Read or explain all the procedures above to the user that cannot read.**

HYDRAULIC SCARIFYING CULTIVATOR CEH

Figure 1

02. COMPONENTS

- 01 - Frame
- 02 - Coupling plate
- 03 - Coupling plate support
- 04 - Coupling pin
- 05 - Front "L" plate
- 06 - Front rod assembly (Small)
- 07 - Back rod assembly (Big)
- 08 - Back "L" plate
- 09 - Reversible nozzle
- 10 - Rod
- 11 - Rod spring



03. DIMENSIONS

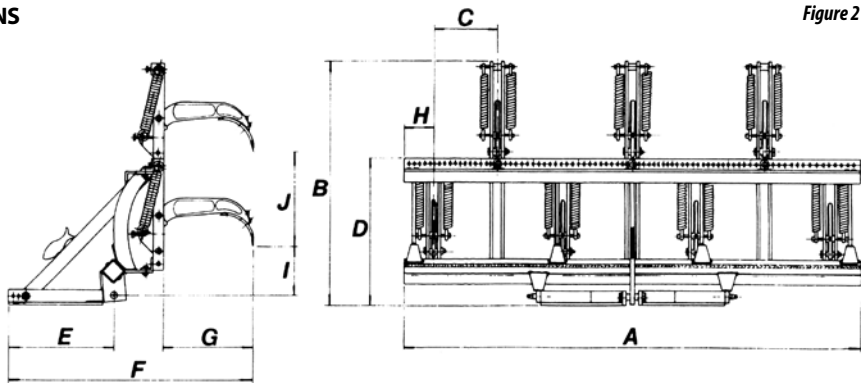


Figure 2



The column C* lists the maximum spacing between hectares, starting from the measurement H of 40 mm on each side and divided by the number of spaces between rods for each model, which should be adjusted with the desired spacings according to the type of farming to be performed. The minimum spacing between rods is 152 mm.

Model	No. of Rods	A	B	C*	D	E	F	G	H	I	J
CEH	5	2200	1180	530	690	535	1180	450	40	220	465
CEH	6	2200	1180	425	690	535	1180	450	40	220	465
CEH	7	2200	1180	353	690	535	1180	450	40	220	465
CEH	9	3000	1180	365	690	535	1180	450	40	220	465
CEH	11	3000	1180	290	690	535	1180	450	40	220	465
CEH	13	3000	1180	243	690	535	1180	450	40	220	465
CEH	21	4600	1180	225	690	600	1280	450	40	220	465

Table 1

04. TECHNICAL SPECIFICATIONS

Table 2

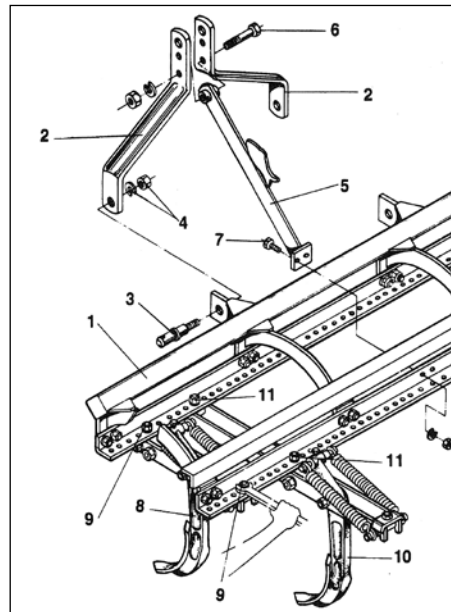
Model	No. of rods	Size of nozzles (mm)	Free height (mm)	Length (mm)	Useful Width (mm)	Working depth (mm)	Approximate weight (Kg)	Tractor power (HP)	
								Scarifying	Farming
CEH	5	50 x 300	450	1180	2200	250	228	5 HP per Rod	3 HP per Rod
CEH	6	50 x 300	450	1180	2200	250	250		
CEH	7	50 x 300	450	1180	2200	250	268		
CEH	9	50 x 300	450	1180	2200	250	318		
CEH	11	50 x 300	450	1180	2200	250	358		
CEH	13	50 x 300	450	1180	2200	250	398		
CEH	21	50 x 300	450	1180	2200	250	633		

*The technical specifications are approximate and informed in the normal working conditions.
Baldan reserves the right to change the technical features of this product without prior warning.*

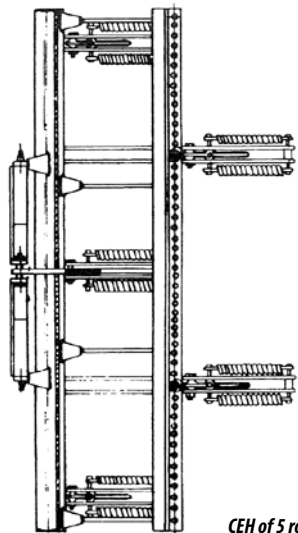


05. MOUNTING

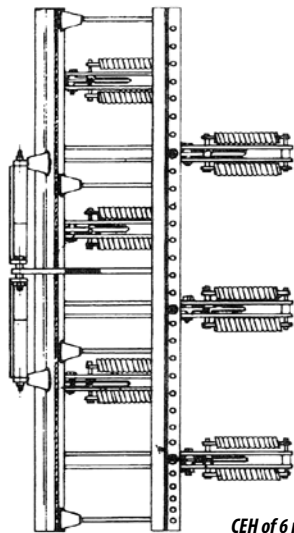
- 01 - Check the parts with the list contained inside the package.
- 02 - The simplest and safest process for mounting the scarifying cultivator is with the use of trestles and similar items.
- 03 - On the frame (1), figure 3; mount the coupling plates of the third point (2) with the pins (3), washers and nuts (4).
- 04 - Attach the support (5) between the coupling plates (2) with the bolt (6) and to the back part on the "L" plate with the bolts (7).
- 05 - Attach to the frame (1) the front rod assembly (8) with the bolts (9) and then attach the back rod assembly (10) with the bolts (11) and so on.
- 06 - Observe in the figures below the mounting of the rods for each model of hydraulic scarifying cultivator.



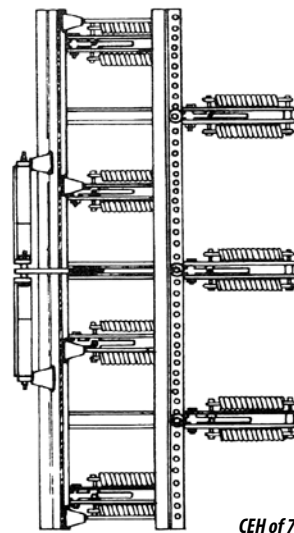
MOUNTING FOR ALL SCARIFYING CULTIVATOR MODELS



CEH of 5 rods

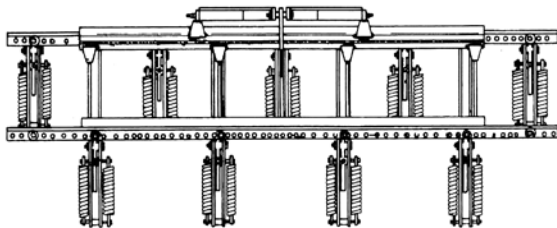


CEH of 6 rods

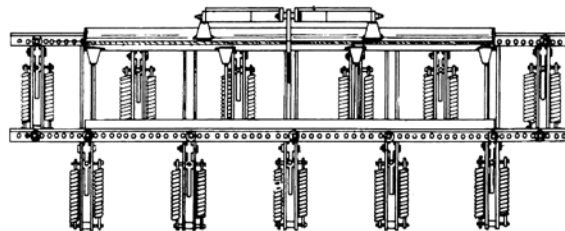


CEH of 7 rods

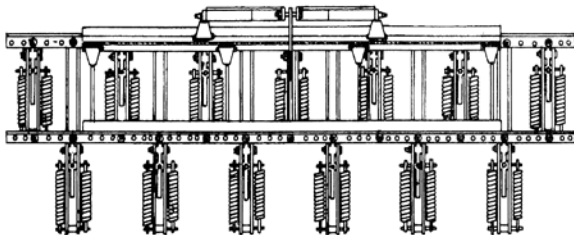
MOUNTING FOR ALL SCARIFYING CULTIVATOR MODELS



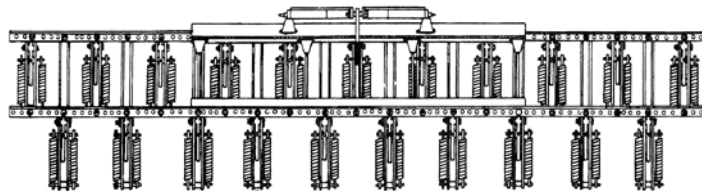
CEH of 9 rods



CEH of 11 rods



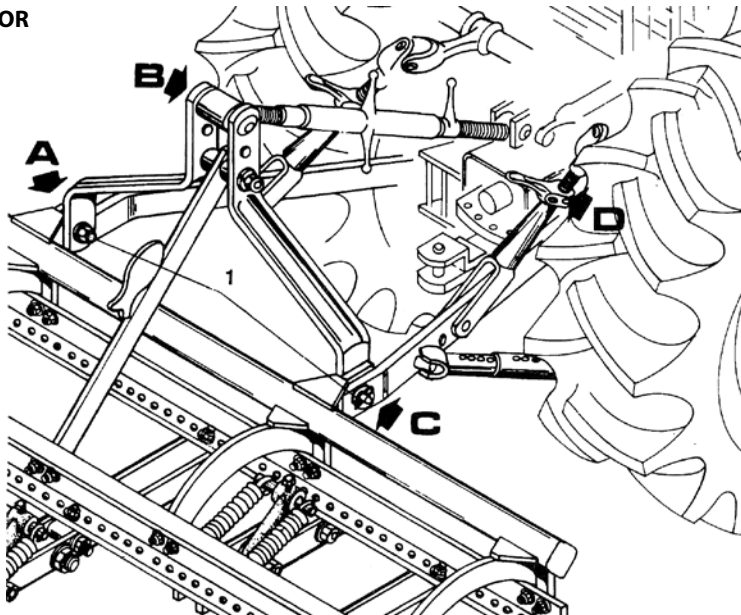
CEH of 13 rods



CEH of 21 rods

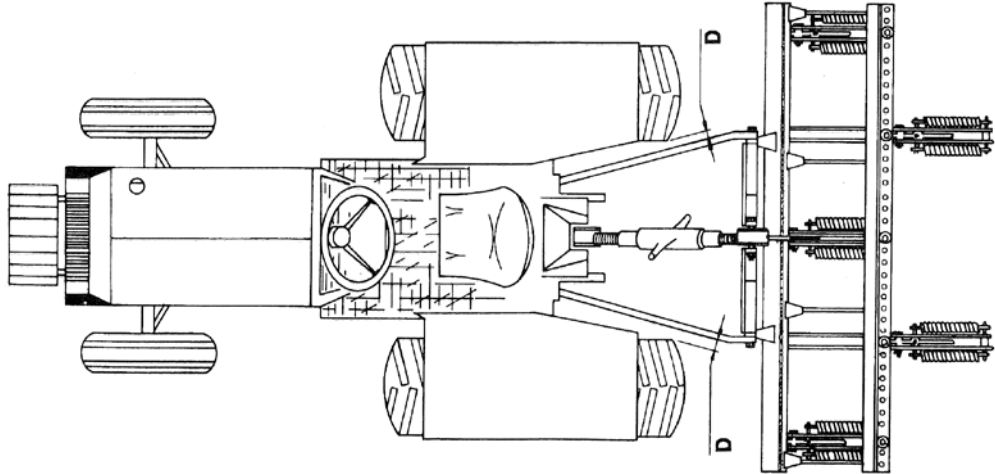
06. COUPLING OF THE HYDRAULIC SCARIFYING CULTIVATOR

- 01 - Couple the lower left arm of the tractor with the coupling pin (1), figure 11, to support "A" of the scarifying cultivator.
- 02 - Couple the 3rd point of the tractor to support "B" of the cultivator.
- 03 - Lastly, with the aid of the "D" height adjustment handle, couple the lower right arm of the tractor to support "C" of the cultivator.



CENTRALIZATION OF THE HYDRAULIC SCARIFYING CULTIVATOR

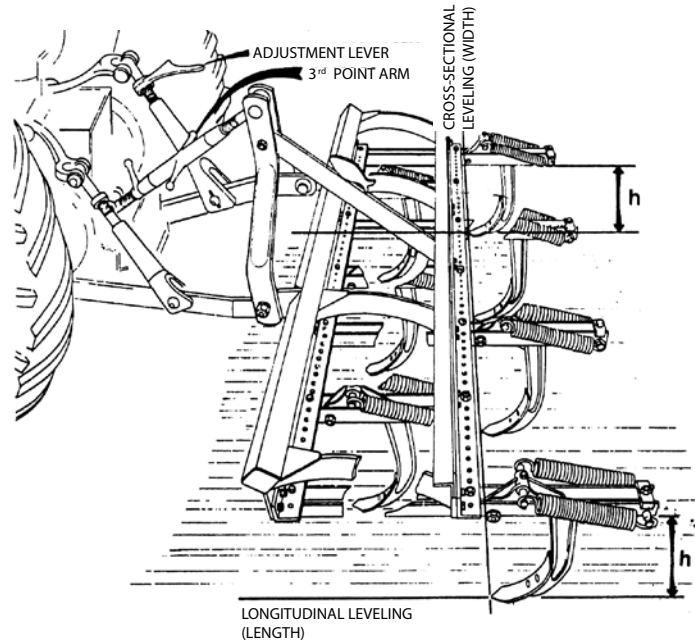
- 04 - To centralize the cultivator in relation to the longitudinal axis of the tractor, proceed as follows:
- Align the upper coupler of the cultivator to the 3rd point of the tractor, checking if the distances "D" of the lower hydraulic arms are the same in relation to the tires of the tractor as shown in figure 12. The lower arms must be leveled with one another.



CULTIVATOR LEVELING

05 - To level the cultivator, proceed as follows:

- The tractor must be on a flat location, and then level the cultivator in the cross-sectional direction (width) through the right lower arm lever of the hydraulic coupler. Ensure that the measurements "h" are the same, as shown in figure 13.
- The longitudinal leveling (length) is performed through the arm of the 3rd point. Ensure that the rods are parallel to the ground, as shown in figure 13.



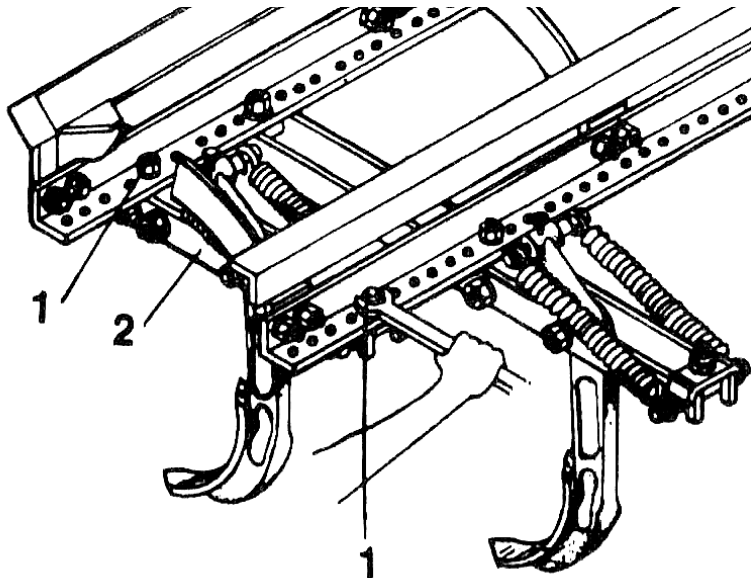
08. ADJUSTMENTS AND OPERATIONS

DEPTH ADJUSTMENT

- 01 - The depth of the cultivator is adjusted using the lever of the hydraulic lifting system of the tractor.

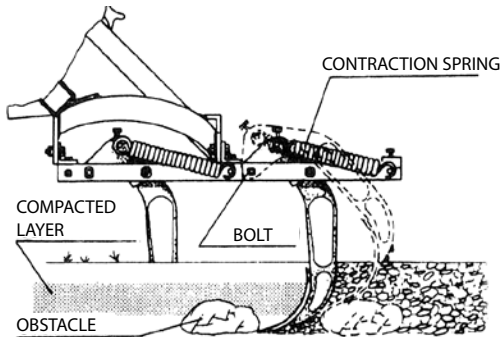
ADJUSTMENT OF SPACING BETWEEN RODS

- 02 - The spacing between the rods should be adjusted when the number of rods changes (from 7 rods to 5 rods, for example) or depending on the type of farming to be executed.
- 03 - To adjust the spacing, release the nuts (1), figure 14, remove the bolts, displace the rods 92) to the desired measurement, replace the bolts and nuts (1).



OPERATIONS

- 04 - Scarification should be performed on lands with superficial compaction in order to break the hard layer of the soil.
- 05 - Check the depth at which the compacted layer of the soil is located (see detail in figure 15) and then adjust the working depth of the rods.
- 06 - The scarifier should be adjusted to operate at a maximum depth of 250 mm and under normal working conditions.



HOW TO CHECK THE REAL WORKING DEPTH

- 07 - In order for the depth to be determined with precision, proceed as follows:
 - Start the work by dipping the equipment in the soil and displacing it 5 to 10 meters.
 - Without removing the equipment from the ground, make a mark at the surface level on one of the rods of the equipment.
 - Remove the equipment from the ground and lean it on a flat surface;
 - The real operating depth corresponds to the distance between the previously made mark and the ground.
- 08 - The rods are attached with one bolt and two contraction springs. When the nozzle encounters an obstacle, the assembly automatically returns to the normal working conditions, as shown in figure 15.
- 09 - The working speed varies according to the land and farming conditions. An average of 4 to 7 km/hour is recommended.

09. MAINTENANCE

- 01 - Perform daily checks of the conditions and tighten the bolts, nuts and pins of the cultivator.
- 02 - The tips are reversible, always check for wear and carry out a revision if necessary in order to not lose the breaking action of the compacted soil layer.

10. CLEANING

- 01 - Use the suitable methods and tools to mount or dismount any part of the cultivator.
- 02 - When the cultivator stays inactive for a long period of time, carry out a general cleaning and check for worn paint. If present, apply a coat of paint, and apply protection oil on the entire equipment.

TABLE OF GREASE AND EQUIVALENT PRODUCTS

<i>Manufacturer</i>	<i>Type of grease recommended</i>
<i>Petrobrás</i>	<i>Lubrax GMA 2</i>
<i>Atlantic</i>	<i>Litholine MP 2</i>
<i>Ipiranga</i>	<i>Super Grasa Ipiranga Ipiranga Super Grasa 2 Ipiflex 2</i>
<i>Castrol</i>	<i>LM 2</i>
<i>Mobil</i>	<i>Mobilgrease MP 77</i>
<i>Texaco</i>	<i>Marfak 2 Agrotex 2</i>
<i>Shell</i>	<i>Retinax A Alvania EP 2</i>
<i>Esso</i>	<i>Multipurpose grease H</i>
<i>Bardahl</i>	<i>Maxlub APG 2 EP</i>

Table 3



In the case of other manufacturers and/or equivalent brands that are not contained in this table, consult the technical manual of the manufacturer.

11. IDENTIFICATION

01 - To consult the parts catalog or request for technical service from Baldan, always indicate the model (1), serial number (2) and date of manufacture (3) informed on the identification label of your equipment.

ALWAYS DEMAND THE ORIGINAL BALDAN PARTS

The image shows a rectangular identification label for Baldan equipment. At the top, there is a logo with a fish and the letters 'BIA' next to the word 'Baldan'. Below the logo, the text reads 'BALDAN IMPLEMENTOS AGRÍCOLAS S/A.' followed by contact information: 'AV. BALDAN, 1500 | CEP 15.993-000 | MATÃO-SP | BRASIL', 'FONE: (0xx16) 3221-6500 | FAX: (0xx16) 3382-6500', and 'e-mail: sac@baldan.com.br | Home Page: www.baldan.com.br'. Below this, the CNPJ and INSCR. EST. numbers are listed. The bottom section of the label contains three fields: 'Modelo' (labeled 1), 'Nº de Série' (labeled 2), and 'Data' (labeled 3).



Marketing

Edition of Catalogs and Manuals

Code: 6055010017-0

CPT: CEH09008



ATTENTION

The drawings contained in this instruction manual are merely illustrative.



CONTACTO

In case of doubts, never operate or handle the equipment and consult After Sales.

Telephone: 0800-152577

e-mail: posvenda@baldan.com.br



PRODUCT IDENTIFICATION

- Identify the data below in order to always have the correct information on the useful life of your equipment.

Owner: _____

Dealer: _____

Farm: _____

City: _____ **State:** _____

Model: _____

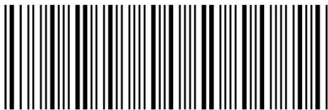
Warranty Certificate No.: _____ **Serial Number:** _____

Date of Purchase: _____ / _____ / _____

Invoice No: _____

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60550103837



Baldan



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