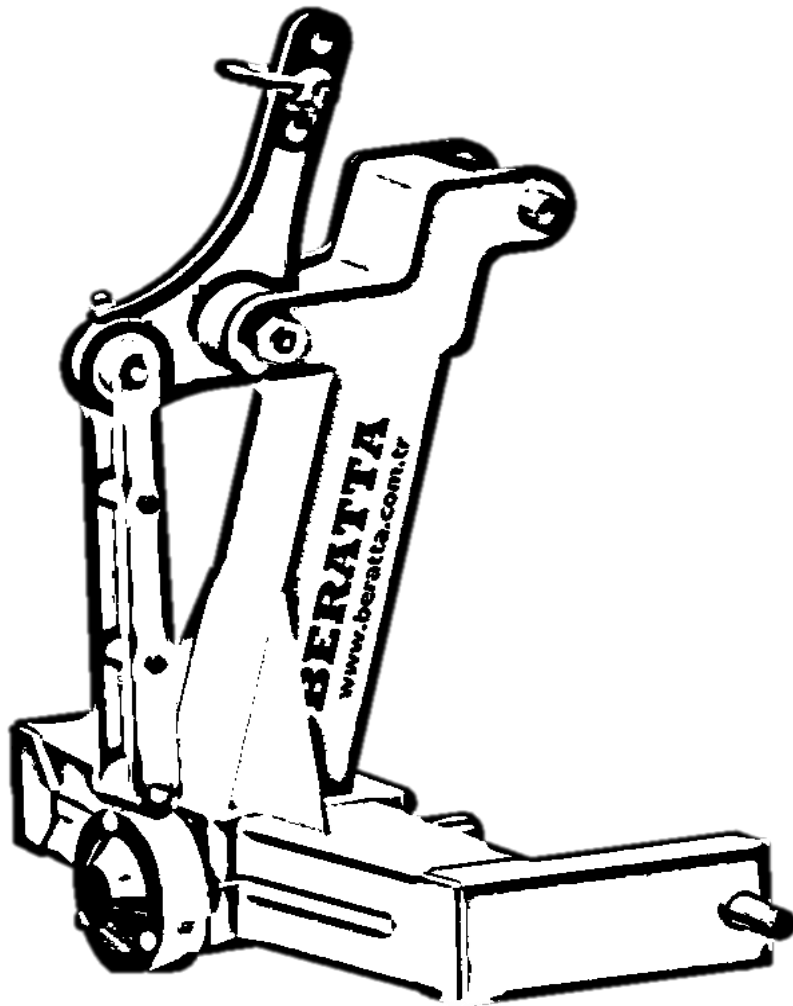


BERATTA®

**BERATTA TREE SHAKER
INSTRUCTION BOOK**





BERATTA TREE SHAKER

Thank you for choosing BERATTA Tree Shaker .

- Please read through this installation guideline and operate the machine correctly.
- Do not use this product until you have a full knowledge of the equipment, safety information and instructions.

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MANDATORY!

Read the instructions carefully to use the equipment safely and correctly. If there are some parts not understood contact the local dealer or manufacturer. Keep this manual for future reference.



BERATTA TREE SHAKER

EC DECLARATION OF CONFIRMITY

Name of Product: BERATTA Tree Shaker Machine

Type: ASI-02PRO



EC DIRECTIVES:

2006/42/EC-Safety of Machinery Directive

STANDARDS:

TS EN ISO 12100:2010

Safety of Machinery-General principles For Design-Risk Assessment and Risk Reduction

TS EN ISO 4254-1:2016

Agricultural Machinery-Safety Part:1: General Requirements

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We hereby declare that our product described above is intended to be incorporated into other machinery and must not be put into service until the relevant machinery into which is to be incorporated has been declared in conformity with the essential requirements of council directive 2006/42/AT safety of machinery.

Signed: Mr. Resul AYTAC

Position: Executive Vice President

Date:2020-02-01

Name and Address of Manufacturer:

Beratta Agricultural Machines Farming Equipment

Yeni Sanayi Sit. 6. Sokak.No:7-9

5200 Merkez Burdur / Turkey

Phone:00902482528321 & 0090532775696 **Mail:** info@beratta.com.tr **Web:** www.beratta.com.tr



BERATTA TREE SHAKER

A. Safety regulations

A.1 General

- The safety and operational instructions must be observed by any person involved with the use or operation of this equipment. Under no circumstances must the equipment be used if it is damaged or if the operation of the equipment is not completely understood.
- Keep this manual where you can easily to reach.
- BERATTA is not legally responsible for damage and indirect damage due to operating errors, lack of correct maintenance and/or any way of use which is not described in this manual.
- BERATTA continuously strives for improvement of our physical products and offerings. BERATTA reserves the right to alter the specification shown without prior notice.
- Note that despite following these safety precautions, caution should be applied in all usage situations to avoid injuries.

A.2 Definitions of Admonishments

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Admonishments are safety related warning messages and provide important information to prevent incorrect or hazardous use of equipment, machinery or software, and support risk assessment. **The following list defines the different types of admonishments used in BERATTA documentation.**

Danger: Refers to imminent and severe risk. Failure to comply with instruction will result in serious injury or death.

Warning: Refers to a potential but severe risk. Failure to comply with instruction could result in injury or death.

Caution: Refers to a limited risk. Failure to comply with instruction could result in minor injury.

Mandatory: Refers an action or behavior which is essential to safe and successful use of the equipment.

Prohibited: Refers to an action or behavior which is incompatible to safe and successful use of the equipment

Note: It is intended to draw attention to specific points of importance and advice to prevent equipment damage.

B. Safety precautions



MANDATORY!

Read the instructions carefully to use the equipment safely and correctly. If there are some parts not understood contact the local dealer or manufacturer. Keep this manual for future reference.



DANGER!

Keep clear of moving parts and keep yourself in a safe distance while the machine is working.



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DANGER!

Do not wear jewelry, loose clothing, gloves, or long hair when operating the machine.



CAUTIONS!

Do not operate the machine unless safety guards or devices are in place and properly adjusted.



DANGER!

To avoid the risk of falling from the tree, wear appropriate shoes, gloves and use appropriate accessories when climbing the tree.



BERATTA TREE SHAKER

C. GENERAL DESCRIPTION

C.1.General

Beratta tree shaking machine is used to harvest fruits trees. It is a tractor operated machine. The machine converts the power to a linear motion with the help of the central eccentric. The steel rope attached to the beak and cloth rope attached the tree transmit linear motion to the tree. The machine is used to harvest walnut, olive, apricot, sour cherry, and most of the other fruit trees.

C.2 Technical Data

BERATTA TREE SHAKER (ASI-02PRO)	Kg - metric	Lbs. - inch
Dimensions of the box (length x width x height)	69cm – 45cm – 79cm	27.16''-17.7''-31.1
Machine alone—accessories—including box	65kg --15kg—85kg	144lbs-33lbs-189lbs ₆
Minimum tractor power	35HP-26KW	----- -
Tractor PTO speed	450rpm—650rpm	----- -

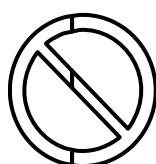
C.3.Packege Including

Standard:

1. Beratta Tree Shaking Machine
2. 10mm Galvanized pressed Stainless-Steel Rope
3. Cloth Rope
4. Cardan

Optional:

1. 6mt-8mt-12mt stainless steel rope

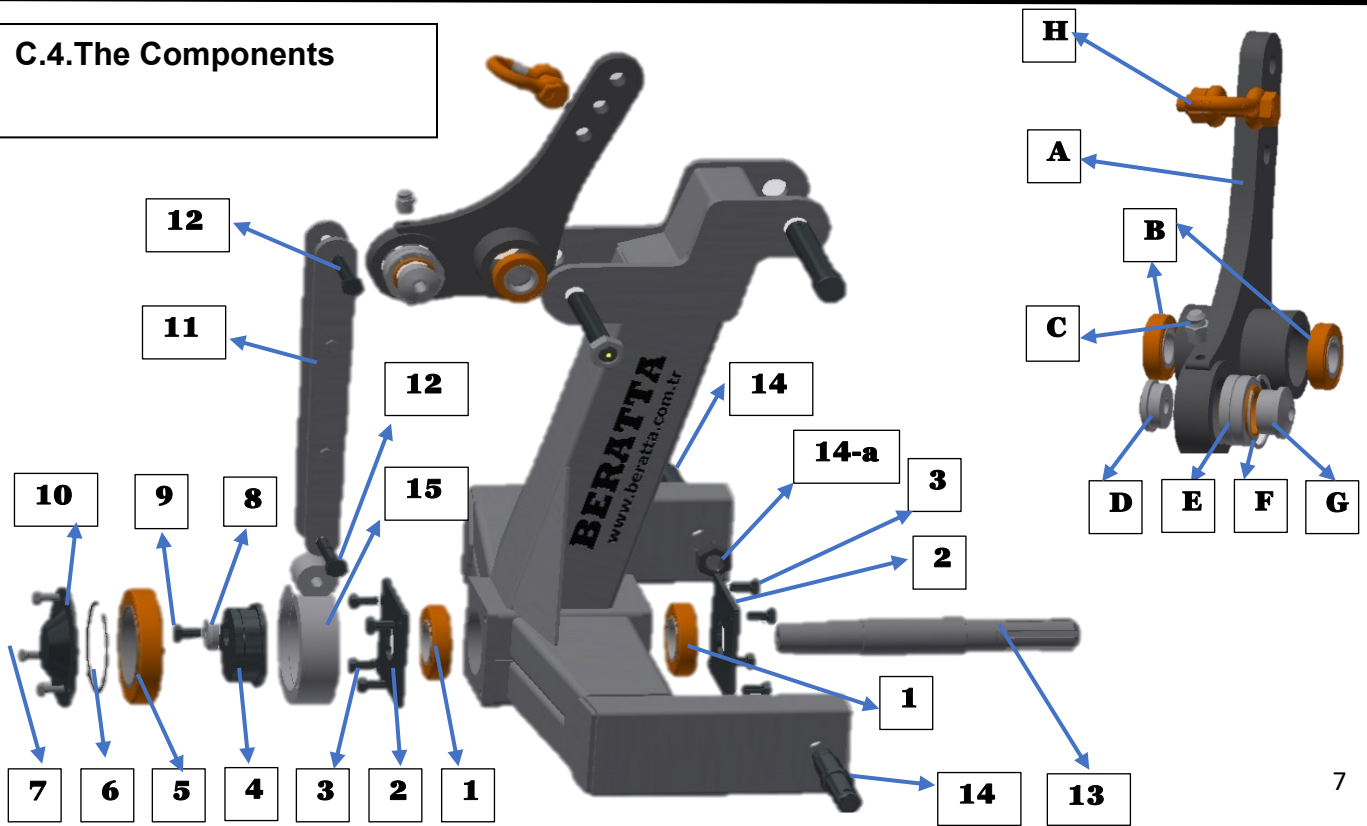


PROHIBITED!

Do not operate, service, inspect or otherwise handle this equipment unless the user has read the Instruction book and have been properly trained in its intended usage. Do not allow children or inexperienced adults to operate this machine.

BERATTA TREE SHAKER

C.4.The Components



CAUTIONS!

Using products which do not meet specified requirements, for example, spare parts or consumables, or not appropriately trained personnel for your BERATTA product may lead to risks or damage. Consequently, it may also void or limit the warranty.

Part no/letter	Part codes	Quantity	Part explanation
1	ASI-C01	2pcc	6208 ZZ Bearing
2	ASI-C02	2pcc	-----
3	ASI-C03	8pcc	DIN931 M10*25mm Hexagon head screw
4	ASI-C04	1pcc	-----
5	ASI-C05	1pcc	6016 ZZ Bearing
6	ASI-C06	1pcc	DIN471 80mm
7	ASI-C07	1pcc	-----
8	ASI-C08	1pcc	-----
9	ASI-C09	1pcc	DIN933(10.9) M10*25mm hexagon head
10	ASI-C10	3Pcc	DIN931 M8*20mm Hexagon head screw
11	ASI-D01	1pcc	-----
12	ASI-D02	2pcc	DIN931 M14*70mm hexagon head screw
13	ASI-C13	1pcc	Main Shaft
14	ASI-B01	2pcc	25mm tractor mounting pin
14-a	ASI-B02	2pcc	DIN985 M30/3.5mm locknut
15	ASI-C15	1pcc	-----
A	ASI-D01	1pcc	-----
B	ASI-D02	2pcc	6205 ZZ Bearing
C	ASI-D03	1pcc	3/8 grease nipple
D	ASI-D04	1pcc	-----
E	ASI-D05	1pcc	GE 35 Spherical bearing
F	ASI-D06	1pcc	DIN472 55mm
G	ASI-D07	1pcc	-----
H	ASI-D08	1pcc	2ton omega shackle

D.MOUNTING

D.1 Mounting the Side Arm Pins

After the machine is taken out from the box the side arm pins are placed to the holes and tightened as shown below.



Notes:

1. Place the pins to the holes with the help of the hammer. Mind that spring pin holes must be vertical position to the ground.
2. Tighten the nuts with appropriate gadgets.

D.2 Mounting the Machine to Tractor

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BERATTA Tree Shaker can be easily mounted to a tractor by one person. Firstly, side arms mounted to the machine one by one. Secondly, cardan is mounted. lastly, middle arm of the tractor is mounted to the machine.

Note:

There should be no gap in the main and middle arm connections. After connecting the machine, check the gaps by shaking the machine if there is a gap, try to minimize the gaps by stretching the side levers of the tractor and as using appropriate connecting pins and bushings. **The gaps reduce the performance of the machine and harms the tractor.**

Note:

It is advised that place two sack of sand on the machine, like on the picture at the right, after mounted to the tractor and tie in the form of saddlebags. This application makes a hummer effect and noticeably increase the shaking efficiency

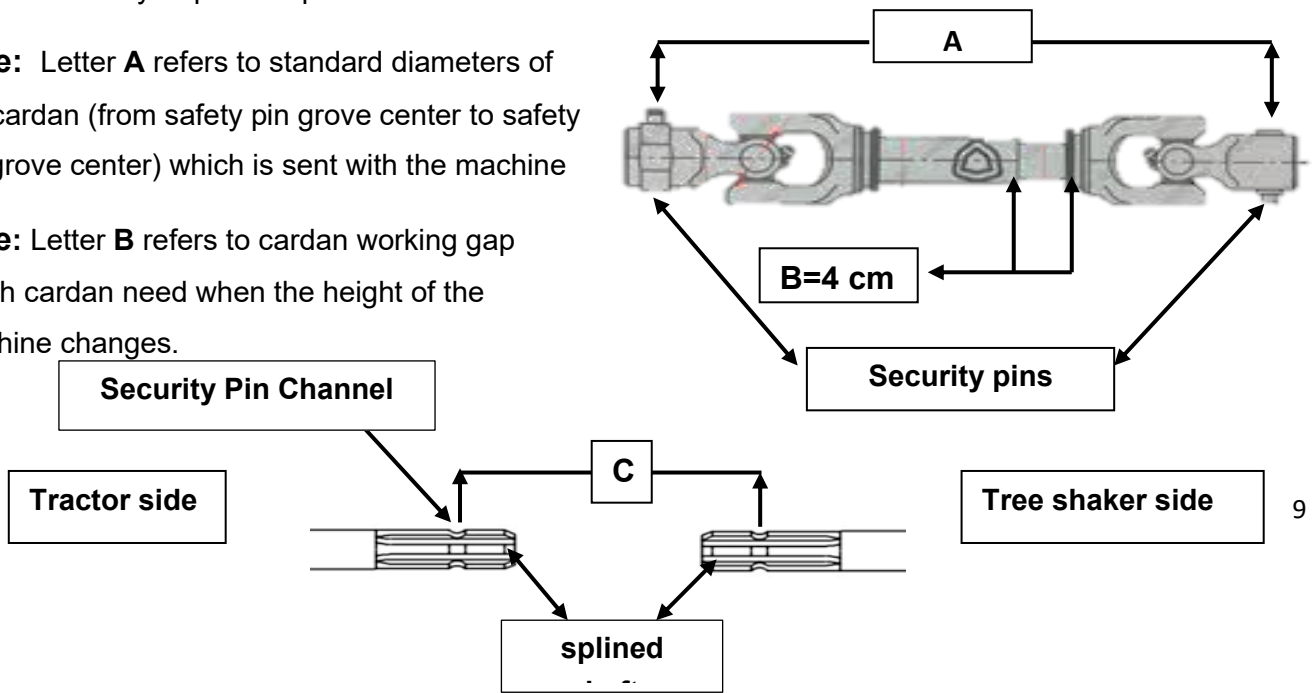


D.3 Mounting the Cardan

Shaft size can difference from tractor to tractor. After installing the machine, take measurements from the safety channels of the splined shaft on the tractor and the machine. if it needs to be shortened, make it to be shortened by a qualified person. Take a reference from the table below.

Note: Letter **A** refers to standard diameters of the cardan (from safety pin grove center to safety pin grove center) which is sent with the machine

Note: Letter **B** refers to cardan working gap which cardan need when the height of the machine changes.



Note: Take the dimension **C** when the splined shaft of the machine and the tractor aligned.

Cardan Length Calculating Formula :

$$A = B + C$$

Note: If the calculated A smaller than 72 cm Cardan must be shortened as cutting equal diameters from inner and outer lemon pipes and protections pipes. **This process should be done by a qualified person.**

Example:

If the A is 67cm; cardan must be shortened 5 cm as cutting inner and outer steel and protection case polyurethane pipes equally.



CAUTIONS!

Cardan should be parallel to the ground to handle the stretching force easily.

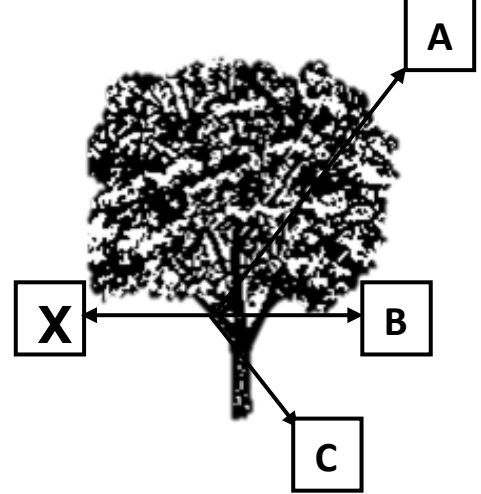


E. OPERATING & MAINTANENCE

E.1 The Machine and Tree Positions

BERATTA Tree Shaker machine connects to the main branches of the tree after the trunk the stretching direction is important for health of the tree. It should not be stretched in the direction that the branch can break.

Note: x determines the direction in which the tree can be broken easily. The other three directions (A, B, C) are suitable for the stretching.



E.2 Tree Stretching Force

The stretching force varies depending on the flexibility of the tree and the distance of the point where the cloth rope is attached to the main body of the tree.

After stretching the steel rope, the tractor should go on to move in its slowest speed along the sufficient tension is provided, the parking brake should be applied, and the tractor tail shaft should be released afterwards.

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Note: Tractor brake system must be working well enough to maintain rope tension.

Note: Using a very long steel rope and the fact that the tree shaking machine is not stable on the tractor, **reduces the shaking efficiency.**



DANGER!

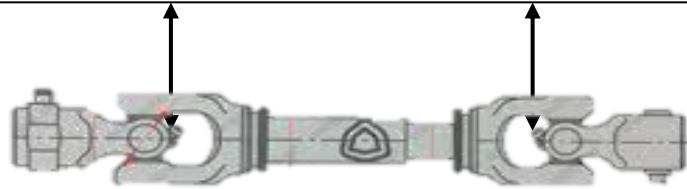
Keep clear of moving parts and keep yourself in a safe distance while the machine is working

E.3 Lubrication

All bearings used in the machine do not require lubrication because they are self-lubricated and sealed. The locations of the machine that require lubrication and lubrication frequency are given below.

E.3a Cardan Lubrication

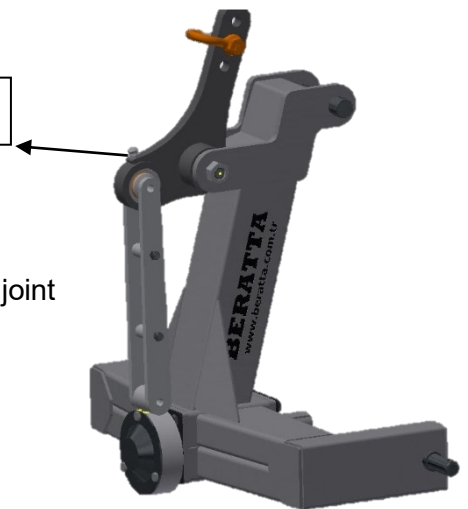
Use Rubber-Free Grease and Repeat It After harvesting 50 Trees



E.3b Spherical Joint Lubrication

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Use Rubber-Free Grease and Repeat It After harvesting 10 Trees



Note: Lubricating the spherical Joint at frequent intervals prevents this joint from wearing and making gaping so the shaking efficiency does not decrease.



MANDATORY!

Read the instructions carefully to use the equipment safely and correctly. If there are some parts not understood contact the local dealer or manufacturer. Keep this manual for future reference.