



BCS Rotary Plough Attachment

Manufactured by BCS S.p.A.

to fit

BCS Power Units



Operating Instructions

Before commissioning the machine, read operating instructions and observe warning and safety instructions.

**PLEASE ALSO READ ORIGINAL
BCS INSTRUCTION MANUAL**

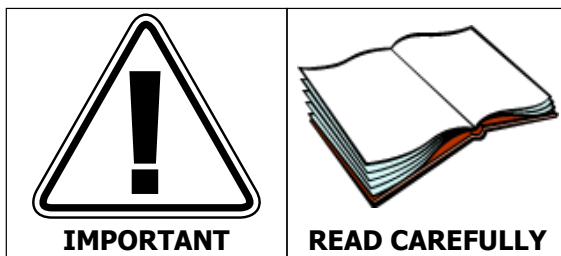


TRACMASTER

The landscape machinery specialists

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No liability will be accepted for any damage caused to persons or property through failure to observe the operating and safety instructions.



IMPORTANT

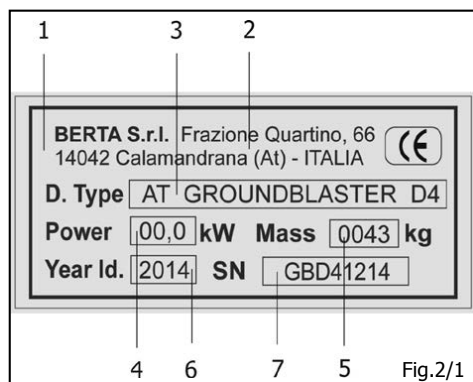
**PLEASE READ THE OWNER'S MANUAL
FOR THE POWER UNIT FIRST.**

**For any further information
or assistance please contact
Tracmaster on 01444 247689 or
visit www.tracmaster.co.uk**

Identification

An ID sticker is applied to every machine as well as product certification in accordance with the EC Machine Directive (fig.2/1).

N.B. the weight indicated on the identification plate refers to the weight of the rotary plough only, before attachment to the power unit.



1. Brand
2. Manufacturer
3. Model
4. Required power
5. Weight
6. Year of production
7. Serial number



IMPORTANT! The labels must be kept clean from dust and mud, must always be clearly visible and legible, and must be replaced if missing or illegible.

Where a machine has components replaced that were originally equipped with safety labels, it is imperative that the labels are replaced so as to return the machine to its original condition.

The part numbers for the labels are available on the parts diagram specific to each machine.

New labels may be obtained from Tracmaster Ltd or through your authorised Tracmaster dealer; in this case you may need the part number, which is normally printed on the label.

Identification

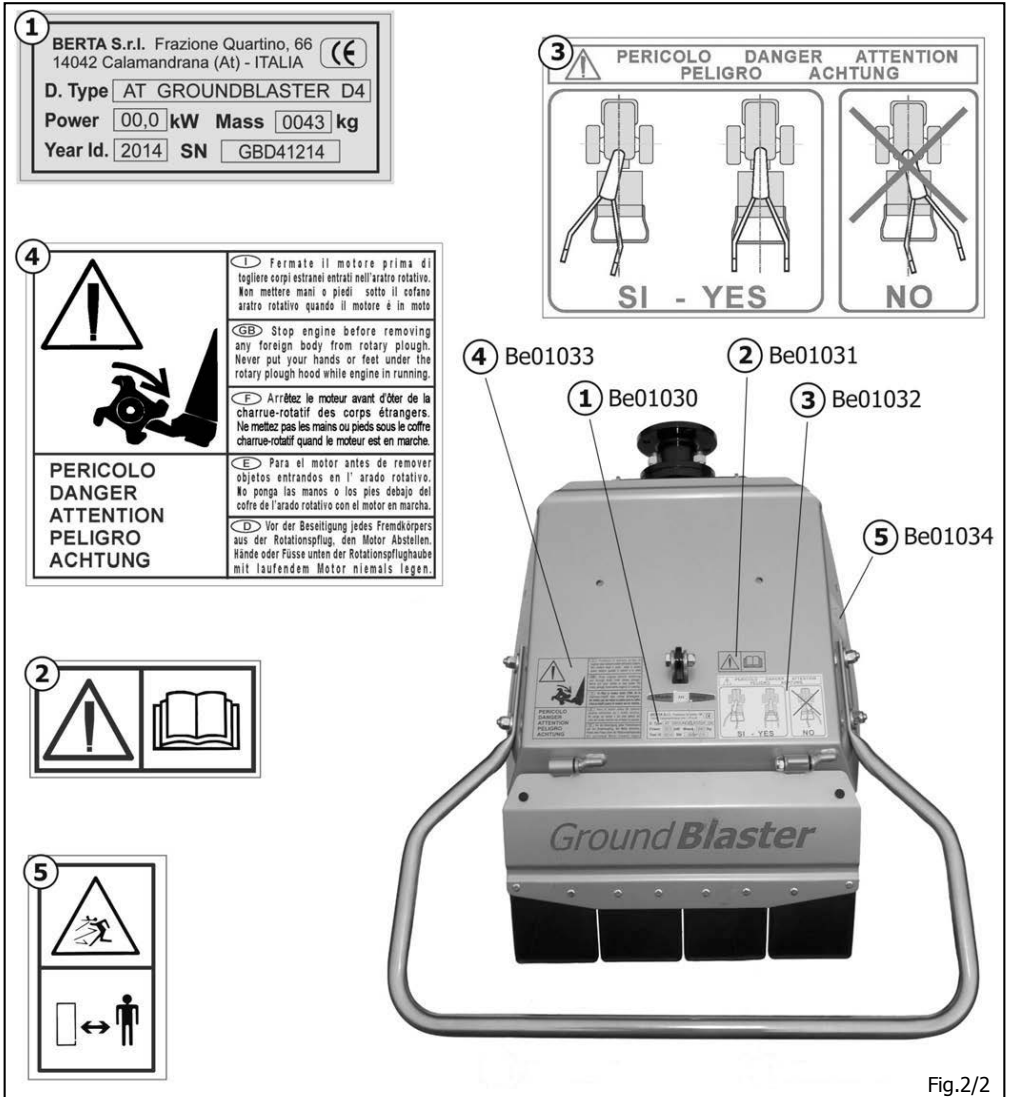


Fig.2/2

1. CE label
2. Read manual
3. How to use
4. Danger to hands and feet
5. Beware of flying objects

Safety Precautions

IMPORTANT: Read all machine and implement manuals thoroughly before using the rotary plough.

Always familiarise yourself with the controls and machine's operation before commencing work. Ensure you know how to stop the machine and turn off the engine safely and quickly.

WARNING: Do not put your hands or feet near the work zones or near moving or rotating parts.

Always wear **HEAVY GLOVES** to protect your hands whilst working on the equipment (fig 4/1).

READ and observe all warning labels on the machine and implements (fig 4/2).

Always wear appropriate work clothes whilst operating the machine, always wear safety footwear.

DO NOT USE the machine near children or animals (fig 4/3).

The machine operator is responsible for any damage to persons or property.

Always walk with the machine - **DO NOT RUN**.

NEVER work on slopes of more than 20° and always work across the face of a slope (side to side), **NEVER** up and down.

NEVER use the machine on a bank where there is a possibility of the machine sliding down the slope.

Always disengage the power take-off (PTO) when changing direction or location of operation.

DO NOT undertake any maintenance of the rotary plough while the engine is running.

ONLY qualified persons should operate the machine.

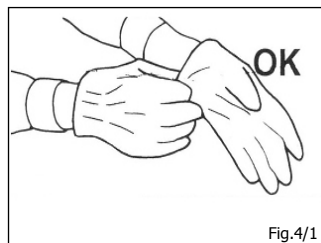


Fig.4/1

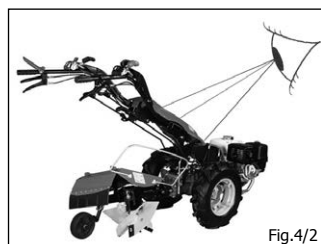


Fig.4/2

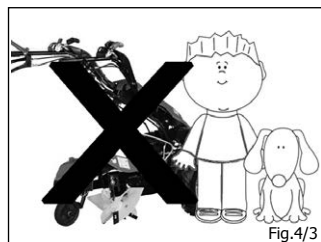
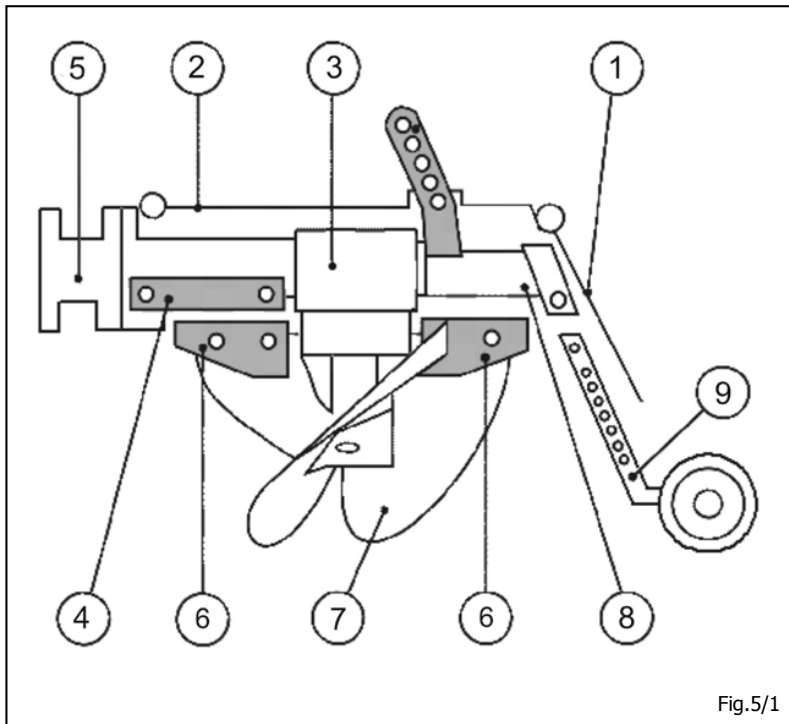


Fig.4/3

Parts of the Rotary Plough



1. Jointed rear guard
2. Main guard
3. Main body of the implement with bevel gear
4. Stationary blade
5. Flanging
6. Rotating blade
7. Ploughshare
8. Rear support for support wheel
9. Support wheel

Setting Up The Rotary Plough

Before operating the rotary plough, carry out the following checks:

Check that the protective casing is intact and make sure that all the bolts and nuts are tight properly;

Make sure that the tubular guard (fig.4/4 no.1) is correctly applied to the casing.

If the latter is supplied disassembled for transport purposes, apply it according to the following instructions:

INSTALLATION INSTRUCTIONS: (fig.4/4)

Secure the two ends of the guard (1) to the sides of the housing, using the 4 bolts supplied (two per side)

The pre-drilled holes on the sides of the housing are indicated in position 2.

The tubular safety guard is essential to ensure the safety of the operator as it acts as a safety barrier if one approaches the rear and lateral area of the tool with his/her feet.

It is mandatory to use the rotary plough with this safety device installed correctly, as shown in fig.4/4.

If the guard is damaged or bent or it is not possible for any reason to apply it correctly to the casing, it must be replaced with a new one (part number: BE10040).



IMPORTANT: READ POWER UNIT OWNER'S MANUAL FIRST.

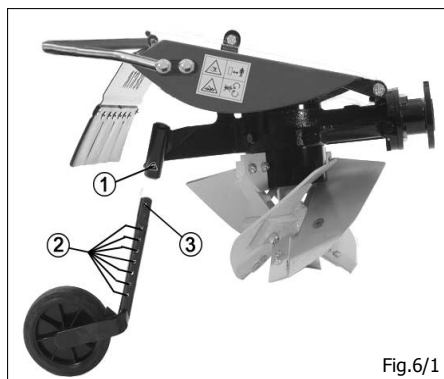
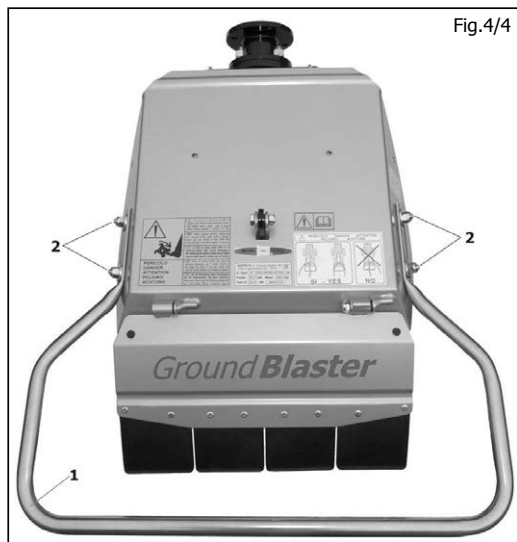
Before commencing work

Check that the oil is at the required level (fig.6/3 no.1).

Check that the gearstick of the power unit is in the neutral position.

Check that the PTO of the power unit is in the neutral position.

Check that the implement is clean and free of impediments.



Setting Up The Rotary Plough

Depth adjustment

Depth adjustment is done via the support wheel attached to the rear support of the rotary plough.

Insert the pin with the stop into the support hole (fig.6/1 no.1) and simultaneously into one of the holes of the support wheel rod (fig.6/1 no.2) to obtain the desired working depth.

For transport use the uppermost hole of the rod (fig.6/1 no.3) as this way the rotor will not touch the ground.

After inserting the pin into the desired hole, attach the retainer to secure it in place (fig.6/2).

When ploughing, the handlebar should only be offset to the left side to avoid walking on the ploughed soil (fig.6/4).



Attention: For all assembly and repair operations, always wear heavy work gloves to protect your hands.

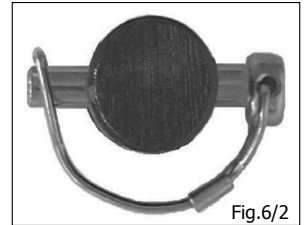


Fig.6/2

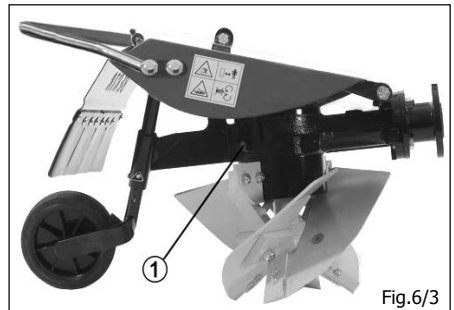


Fig.6/3

Fitting the rotary plough to the power unit

When attaching the rotary plough to the power unit always ensure the machine is on a level surface.

If the power unit has a PTO cover plate fitted, first remove the nuts, washers and PTO cover plate (fig.7/1).

Fit the rotary plough to the power unit using the previously removed nuts and washers. Tighten the bolts strongly.

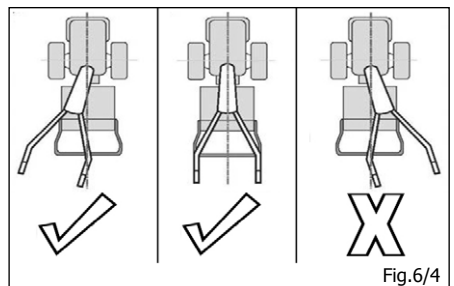


Fig.6/4

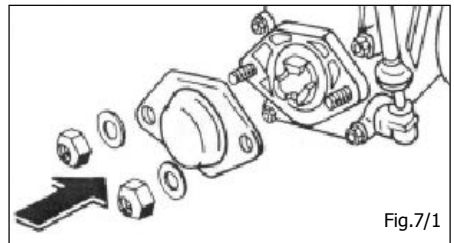


Fig.7/1

Starting Work

To start the power unit

1. Move the red engine ON/OFF lever to position 1 (green).
2. On the engine move the black fuel tap to 'on' position.
3. If the engine is cold move the grey choke lever to 'on' position.
4. Pull the engine recoil firmly to start engine.
5. Return the choke lever to 'off' position.
6. Pull up the clutch lever - **THIS MUST BE DONE BEFORE STEP 7.**
7. Press down the OPC (red stop lever).
8. Select forward speed.
9. Ease the PTO engagement lever forward.
10. Release clutch lever smoothly and completely.

Operational test

Check to ensure that the reverse gear PTO lock-out device operates correctly. This device prevents the simultaneous engagement of PTO and reverse gear. If this device is damaged or not functioning correctly, the operator could be seriously injured.

Start the engine, pull the clutch lever, engage PTO and raise the rotary plough from the ground.

Release the clutch and check that the plough turns freely.

Once the clutch is pulled, engage the PTO, select an appropriate digging speed, release clutch and start working.

To check if the safety device is working correctly, pull the clutch lever and engage reverse gear; it should not be possible to engage the PTO and therefore the rotary plough.

If the PTO does engage and the rotary plough is rotating then stop work immediately and contact Tracmaster Ltd or your Authorised Dealer.

Useful Information

The movement is transmitted to the ploughshares by means of two shafts and a bevel gearing made from high resistance steel with oil bath lubrication.

Ploughing is best performed in 1st gear if the soil is hard, or in 2nd gear if the earth is loose or sandy.

IMPORTANT: Before commencing make sure that there are no stones, sticks, cables, irrigation pipes, or foreign bodies in the earth.

Side plate

To perform work without a furrow or for lateral control of the soil discharge.

This is useful only during the first pass to prevent the soil, which exits from the right side, from ending up on nearby crops or on any greenhouse nylon surfaces.

Apply the side plate (fig.8/1 no.1) from the inside of the right side of the carter. Attach the side plate (fig.8/2 no.1) to the main carter using the two bolts (fig.8/1 no. 2) that are already there and which secure the safety guard into place. Use the third bolt provided as well (fig.8/1 no. 3).

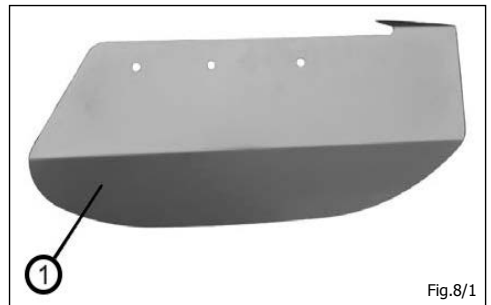


Fig.8/1

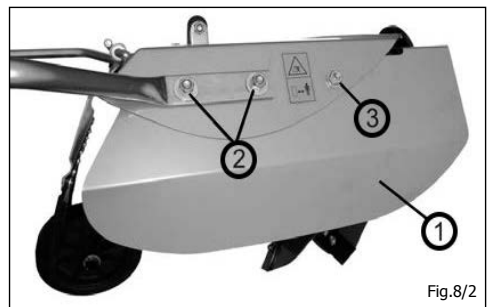


Fig.8/2

Replacing the Blades

The part of the ploughshare that wears most - the tip - consists of an interchangeable steel insert (fig.9/1 no.8) which is much more resistant to the wear than the ploughshare beneath it.

This rectangular insert can be rotated to be used on all four corners before it needs to be replaced with a new part.

Once the first sharp corner (fig.9/1 no.1) is worn, ie, when it is significantly rounded, unscrew the two bolts (fig.9/1 no.6) that secure the insert to the ploughshare beneath, then rotate the insert by 180° and bolt it up again, always with the nuts upwards.

Repeat this process to use the remaining two corners (fig.9/1 no.3 and no.4).

Check after a few replacements of the insert that the side profile of the ploughshare (fig.9/1 no.7) that was chamfered initially, is not excessively rounded.

If it is very rounded then remove the ploughshare by removing the fastening screw (fig.9/1 no.5) and restore the original bevel for the length, as indicated by the line no. 7, using a standard grinding wheel.

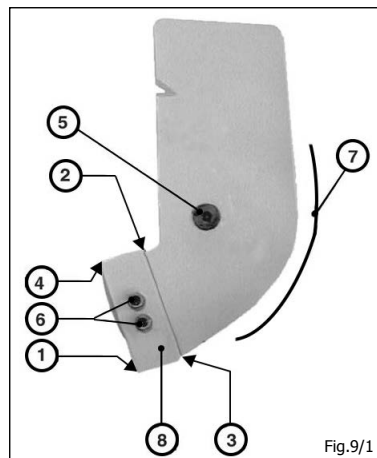


Fig.9/1

Fixed blade wearing check

The fixed blade (fig.9/2 no.1) must never be removed, as it is a structural part of the rotary plough. It also functions as protection for the cast iron body of the gearbox against wear.

Check that the worn area does not exceed 5mm, in relation to the original line of the profile (fig.9/3). If the fixed blade is more worn than 5mm then it can be turned round and the other side used.

To use the other side, unscrew the two screws M10, turn the blade then replace and tighten the two M10 screws.

To order a new fixed blade, quote part number BE10012.

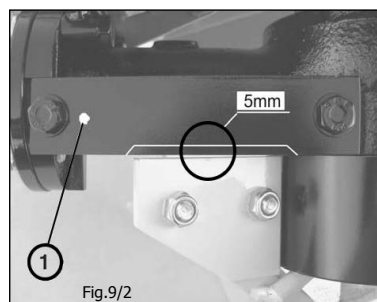


Fig.9/2

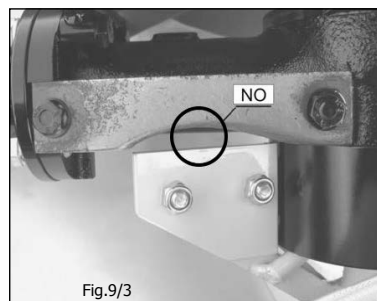


Fig.9/3

Balancing the Rotary Plough

Balancing the rotary plough

To check for proper stability and safe operation of the rotary plough, the operator should hold the handlebars and lift up by applying a force of roughly 10 to 12kg.

If the rotary plough is too light or raises above the ground, balance it by applying the counterweights, which are available as an optional extra.

The counterweight system of consists of flat iron plates (fig.9/4 no.1) which can be fixed to the two holes on the upper side of the guard, using the bolts supplied (fig.9/4 no.2).

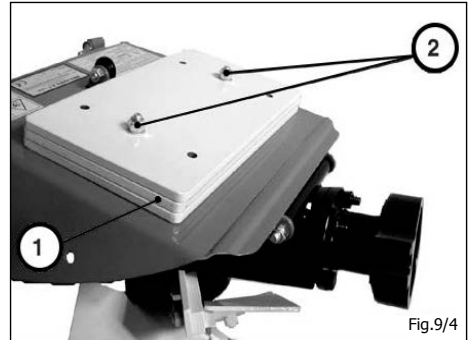


Fig.9/4

Maintenance Programme

CHECK THE OIL LEVEL AFTER EVERY 100 HOURS OF USE OR ONCE A YEAR.

With the implement positioned so that the rotor axis is vertical, unscrew the red cap (fig.10/1 no.1) located in the main body of the rotary plough.

Check that the oil is at same level of the cap hole; otherwise add SAE 80W/90 EP gear oil.

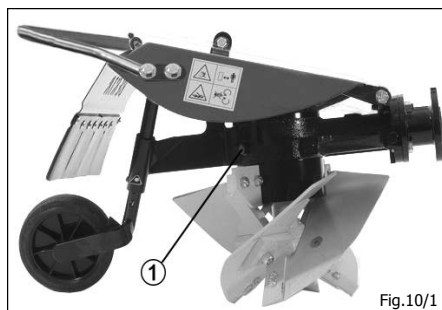


Fig.10/1

OPERATION	EVERY DAY	EVERY WEEK	EVERY YEAR or 100 HOURS
Check condition of ploughshare		X	
Check tightness of nuts & bolts	X	X	
Check rotary plough oil level (EP90)		X	X

Please note that this maintenance programme relates to the attachment only. For maintenance of the gearbox and controls please see the Power Unit Owner's Manual.

NOTES:

* Pressure washing machines removes lubricating grease as well as dirt.

It is imperative all linkages, especially the wheel speed lever detent ball and PTO swivel joint, are kept well greased otherwise they will become difficult to operate and cause damage.

* DO NOT allow maximum engine speed to exceed 3600rpm.

Manufacturer Information

This machine is manufactured in Italy by BCS S.p.A.

Tracmaster Ltd is the UK distributor for this model, the BCS Groundblaster Rotary Plough.

BCS S.p.A. has been at the forefront of developing cutting edge agricultural machinery since its formation in 1943, when their founder developed a self-propelled motor mower. Tracmaster Ltd has been the UK distributor for BCS pedestrian equipment since 1984.

Please ensure you read the original manufacturer's manual before operating this machine.



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