

# BERTA s.r.l.

## Berta Flail Mower Attachment

Manufactured by Berta s.r.l.

to fit

## BCS Power Units



### Operating Instructions

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

**PLEASE ALSO READ ORIGINAL  
BERTA INSTRUCTION MANUAL**

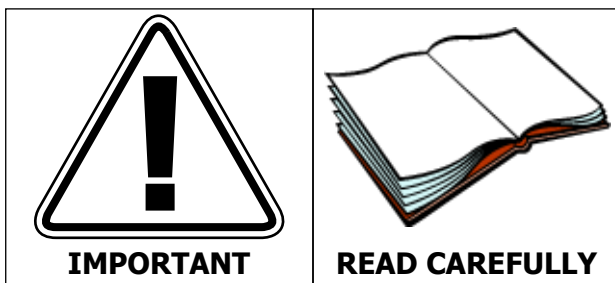


# TRACMASTER

*The landscape machinery specialists*

# Contents

<b>Page 4</b>	<b>Safety</b>
<b>Page 5</b>	<b>Before Work</b>
<b>Page 6</b>	<b>Diagrams</b>
<b>Page 9</b>	<b>Operation</b>
<b>Page 10</b>	<b>Checking &amp; Changing Blades</b>
<b>Page 11</b>	<b>Transmission Belts</b>
<b>Page 12</b>	<b>Positioning the Flail Mower</b>
<b>Page 13</b>	<b>Maintenance</b>
<b>Page 14</b>	<b>Vibration &amp; Sound</b>
<b>Page 15</b>	<b>Manufacturer Information</b>



**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](http://www.tracmaster.co.uk)**

## Safety

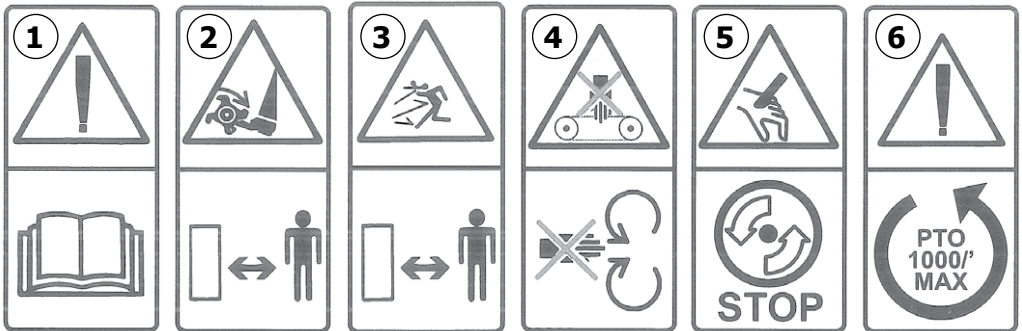
In this manual information relevant to safety is highlighted in special boxes with the word **WARNING** which is intended to highlight hazardous issues.

The original manufacturer's manual must be read and understood by the operator as failure to comply with the instructions could cause injury to people, animals and damage property.

It is absolutely necessary to recognise the significance of the warning stickers which are on the Flail Mower.

It is strictly forbidden to remove the stickers on the Flail Mower. Ensure they are legible and replace them if they are damaged. Replacement stickers can be obtained from Tracmaster's Spare Parts department.

Stickers present on the machine are as follows:



- 1** Carefully read the instruction manual before using the machine.
- 2** Risk of injury leg (foot), remain at a safe distance during operation of the machine.
- 3** Danger of flying objects, keep a safe distance during operation of the machine.
- 4** Danger from rotating parts, do not reach into the machine parts in motion (belts, pulleys).
- 5** Risk of injury upper limbs (hands), do not approach the machine, stop the engine.
- 6** Warning, check the direction of rotation and the rpm. On PTO wheeled tractor, do not attach the Flail Mower to the power unit with the PTO above 1000rpm.

## Before Work

Always wear **HEAVY GLOVES** to protect your hands whilst working on the equipment.

**READ** and observe all warning labels on the machine and implements (figure 1).

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

**DO NOT USE** the machine near children or animals (figure 2).

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** replace the blades or attempt to undertake any maintenance of the flail while the machine is running.

**ONLY** qualified persons should operate the machine.

If any abnormal vibrations occur STOP the engine immediately and visually inspect the machine and implement for any signs of damage.

**IMPORTANT:** Read all machine and implement manuals thoroughly before using the flail mower.

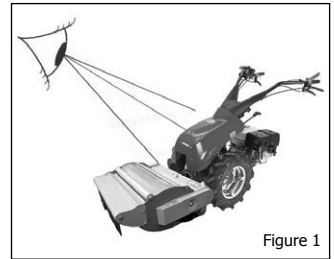


Figure 1

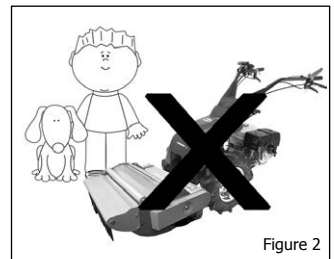
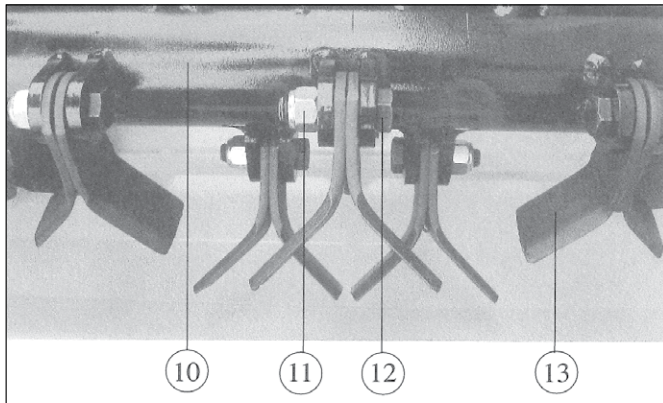
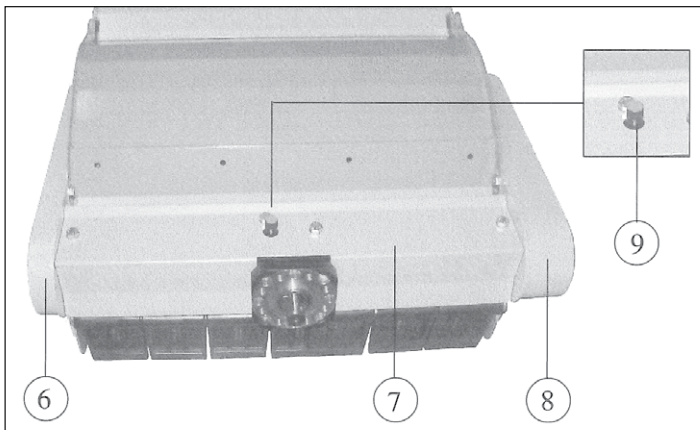
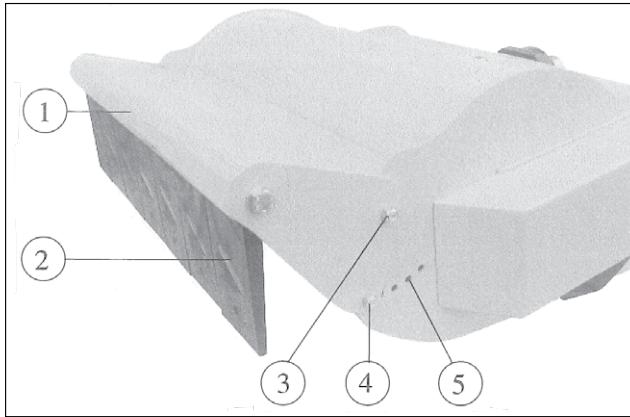
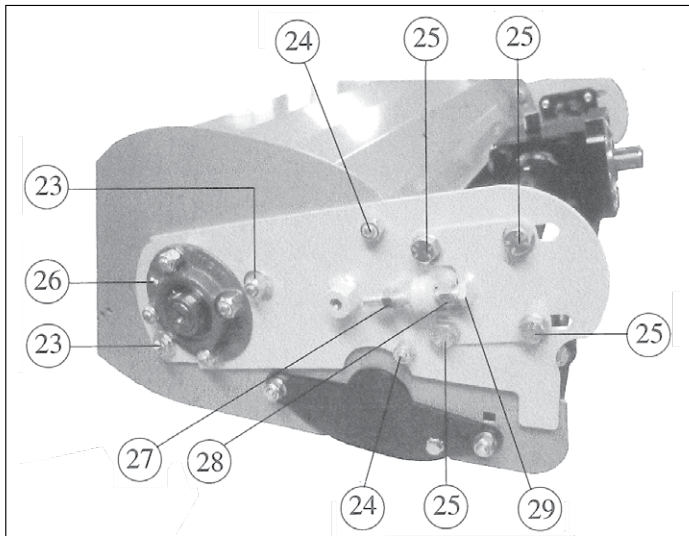
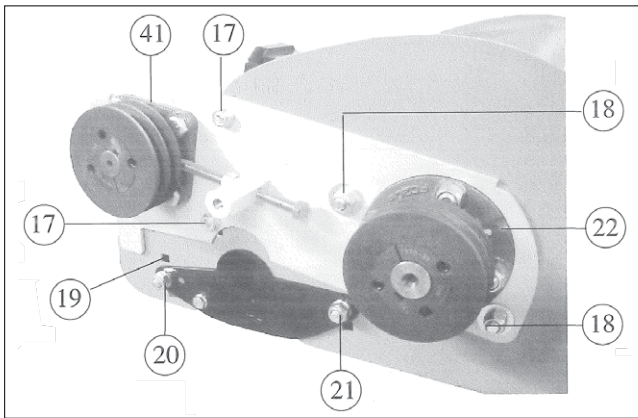
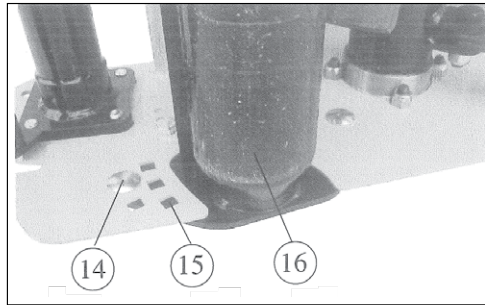


Figure 2

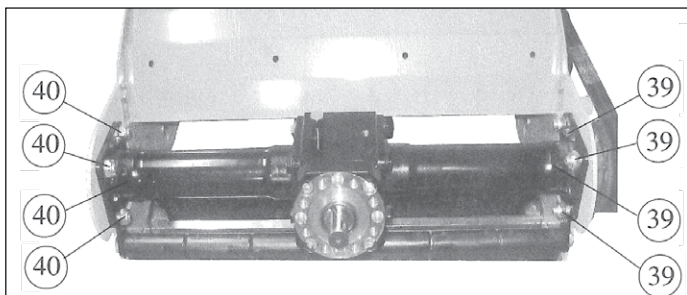
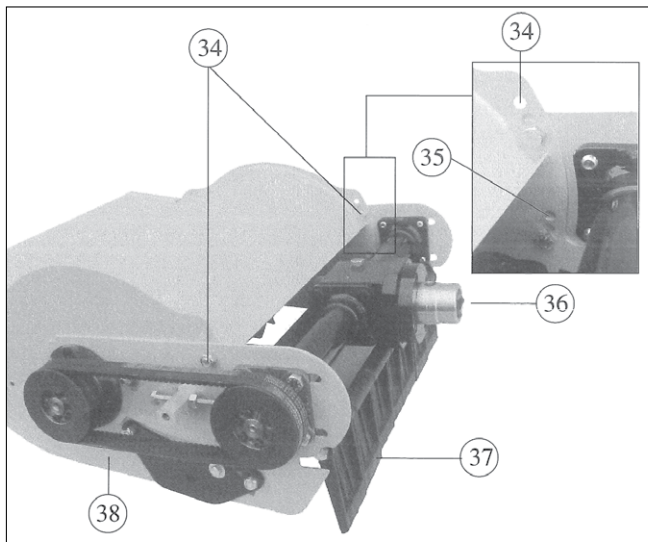
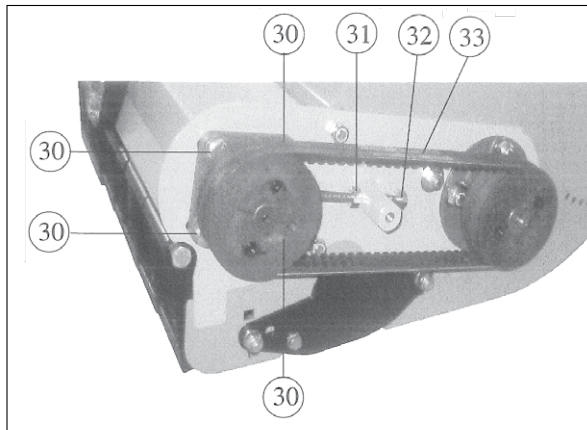
## Diagrams



# Diagrams



# Operation





## Operation

Use handlebar height adjuster to set handlebar height before commencing work.

**NOTE:** Disengage the drive to the mower before selecting reverse gear.

Best results are obtained with the engine at a high throttle setting and first forward motion speed selected. This allows the flails to cut cleanly and to fully mulch the cut material.

If the terrain is very difficult, it is recommended the cutting height is raised.

Using a 17mm spanner, loosen the lock nut (21).

Completely unscrew the other self-locking nut (20).

Remove the button head bolt (14).

Adjust the height of the roller (16) through the five holes on the sides (15) / (19).

With the flail mower attached to the power unit (with the engine off) select the desired cutting height.

Close the two lock nuts (20) and (21).

**IMPORTANT:** If the cutting height is set too low then you may experience the following adverse effects:

- Throwing up foreign objects such as stones etc.
- Accumulation of earth and mud inside the guard and on the rotor which will result in the grass not discharging properly.
- Faster than normal wear of the blades and the possibility that they may break.

## Checking & Changing Blades

Always check the condition of the blades and ensure they are tight before commencing work - **ensure the engine is off.**

During work, if the blades (13) strike stones or other objects, stop immediately and check that they are not damaged. If they are defective they must be replaced.

If the blades are very worn, cracked or bent, fragments may break off and be thrown out with the risk of serious accidents.

Do not attempt to replace blades without the appropriate equipment.

Wear sturdy work gloves to check or replace the blades so as not to risk injuring your hands.

The bolts holding the blades (12) and self-locking nuts (11) are also subject to wear. Always replace them at the same time as the blades, using only original parts.

If any of the blades are broken or bent this can cause excessive vibration due to their rotating at high speed during operation.

The blades are reversible, so when the cutting edges are worn on one side the blade assembly can be reversed.

If you need to replace more than one or two blades then we recommend that all the blades should be replaced simultaneously to ensure consistent performance.

The rotor blades holder (10) can be a source of vibration. In this case it must be replaced or balanced. This procedure should only be undertaken by Tracmaster or one of their Authorised Dealers.

The blades will wear out more quickly working on soil that is dry and sandy. Therefore in these conditions it may be necessary to replace the blades more frequently.

To minimise down-time, you may want to consider keeping a spare set of blades, nuts and bolts.

## Transmission Belts

The angular motion transmission group (equipped with a free wheel) leads to the rotor blades by means of two toothed belts (33). It is recommended that the belt tension is checked periodically.

### Belt Adjustment and Replacement

With machine off, remove the protective guard (6) (7) (8).

Loosen the four nuts (39) (40)

Loosen the four bolts (30) (25).

Check the belt tension, through the tensioning screw (32) and nut (31).

To align the two pulleys, turn the screw and two nuts (29) (27) (28). Use as a gauge (7) and place the guard on the two pulleys making sure they are parallel. Replace all the bolts and nuts previously loosened and re-position the guard.

When replacing the belt, reverse the process. Turn the tensioning screws (32) and (29) making them looser so as to reduce the distance between the two pulleys and enabling enough to replace them. Then undertake tension.

Replace the guard that was previously removed and ensure that all nuts and bolts are tight.

**WARNING:** Use only original manufacturer's belts.

## Positioning the Flail Mower

The flail mower is fitted with protection guards (1) (2) at the front, (7) (37) at the rear, and (6) (8) at the sides.

### Tilt adjustment of the PTO in three positions

The first adjustment to be made is the height of the PTO (36). It is important that the flail mower is connected to the power unit with bolted flange or quick coupling system, and that the engine is off.

Remove the side protection guards (6) and (8) and the rear guard (7).

Loosen the two nuts side support straps (18) and side support rod (23) remove the four bolts (34).

Choose one of the three holes in (34) (35) so that the sides (38) are parallel to the ground.

Tighten all nuts and bolts previously loosened or removed. Replace the guard removed.

This adjustment can vary depending on the power unit, with varying PTO heights and wheel sizes/heights. However, it is only necessary to undertake this procedure once for your particular power unit. For more information contact Tracmaster or your Authorised Dealer.

### Tilt adjustment of the front cover

The flail mower is equipped with an adjustable front guard (1) (2) which has five holes for its regulation (5).

Loosen the lock nut (3) then loosen and move the bolt (4) through the five holes (5) to tilt the front guard so that the collars (2) are moveable and about 10/20mm from the ground.

The front guard consists of a metal casing (7) and sturdy thermoplastic rubber collars (2) or (37), which provide toughness, dimensional stability, low noise, and durability.

You must not use the flail mower without the front and rear protection guards fitted and the PTO adjustment completed.

Neither Tracmaster, nor its Authorised Dealers, shall be deemed liable for any damages caused by failure to comply with any of these measures.

# Maintenance

## Checking and Changing the Transmission Oil and Grease

For engine maintenance please refer to engine manufacturers manual.

After every hour of operation stop the engine and remove the spark plug cap. Check engine oil level (recommended oil SAE 10w/40).

Replace the spark plug cap.

Detach the flail mower from the power unit.

Clean the chassis.

Check the cutting edges of the flails (which are reversible to give double life).

Replace any flails that are blunt on both sides or are damaged in any way.

Check the condition of the flail retaining bolts and renew any that are getting worn.

Lubricate grease points on flail shaft bearings every day.

Using a dipstick check the oil level in the flail mower gearbox by removing the bolt (9) with a 17mm spanner.

If the oil level does not cover the dipstick top up with 75w/90 EP gear oil.

After the first 20 hours of operation, change the oil in the flail attachment.

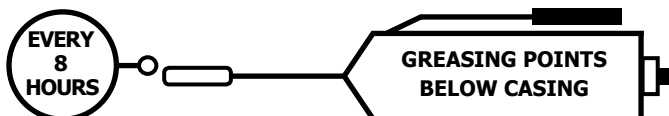
Subsequent oil changes should take place after every 100 hours of operation.

To replace the transmission oil, lift and tilt the flail attachment vertically on one side, remove the bolt holding the dipstick and drain the oil into a suitable container.

Once empty, return the flail to its original position and top up with new oil, controlling the level with the dipstick screw, then carefully close the screw.

Grease holder support bearings with lithium grease EP2 every 8 hours. The grease nipples are located below the two side casings (41) (22) (26).

Do not turn the machine on its side for cleaning.



## Vibration & Sound Levels

<b>MACHINE</b>	<b>RPM</b>	<b>VIBRATION M/SEC<sup>2</sup> (3 AXIS)</b>	<b>SOUND LEVEL dB(A)</b>
BCS 740P c/w 65cm (25") Flail Mower	3600	3.7	102.0
BCS 740P c/w 85cm (32") Flail Mower	3600	3.3	102.0
BCS 630 c/w 65cm (25") Flail Mower	3600	3.7	102.0
BCS 630WS c/w 85cm (32") Flail Mower	3600	2.0	103.0

## Manufacturer Information

This machine is manufactured in Italy by Berta s.r.l.

Tracmaster Ltd is the UK distributor for these models, the TR65 and TR85 Flails.

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

# BERTA s.r.l.

**Berta s.r.l.**

Frazione Quartino 66

14042 Calamandrana (AT)

Italy

Tel: +39 0141 75149

Fax: +39 0141 75170

Email: [info@bertafranco.com](mailto:info@bertafranco.com)

Website: [www.bertafranco.com](http://www.bertafranco.com)

© Tracmaster Ltd 2017.  
Specifications are subject to change without prior notice.



Tracmaster Ltd, Sovereign Centre, Victoria Road, Burgess Hill RH15 9LR  
T: +44 (0) 1444 247689 F: +44 (0) 1444 871612  
W: [www.tracmaster.co.uk](http://www.tracmaster.co.uk) E: [info@tracmaster.co.uk](mailto:info@tracmaster.co.uk)