User Manual

CARRIER

Translation of the original User Manual

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3709 JA Zeist, The Netherlands

declare that this "EU - DECLARATION OF CONFORMITY" is issued under our sole responsibility and belongs to the following product:

CARRIER WITH MACHINE NUMBER AS INDICATED ON THE MACHINE AND IN THIS MANUAL,

to which this declaration refers, complies with stipulation of:

2006/42/EC Machinery Directive

and with the standards:

- **ISO 12100-1:2010** Safety of machinery - General principles for design - Risk assessment and risk reduction
- **ISO 13857:2019** Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
- **ISO 26322-1:2008** Tractors for agriculture and forrestry- safety

Zeist, 03-01-2022

C.H.G. de Bree

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S.I. 2008 No. 1597 HEALTH AND SAFETY The Supply of Machinery (Safety) Regulations 2008

and with the standards:

- **ISO 12100-1:2010** Safety of machinery - General principles for design - Risk assessment and risk reduction
- **ISO 13857:2019** Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
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FOREWORD

Congratulations on your Carrier purchase! For safe and long-lasting operation of the Carrier, it is necessary to read and to understand this user manual.
It is impossible to work safely with this machine *without* complete knowledge of its contents.

The Carrier is NOT a machine that cultivates the soil independently. It is the user's responsibility to use the correct combination with this machine. The user must also check the Carrier/Processing Machine combination on safety aspects such as noise level, user instructions and risk analysis. The Carrier can be combined with the Verti-Drain 1513. The manual of this machine is supplied with the Carrier / Verti-Drain combination. It is necessary to read and to understand this manual as well *before* using the Carrier / Verti-Drain combination. For other processing machines combined with the Carrier, it is necessary to read and to understand the manuals as well *before* using the combination. Read the relevant manuals of other machines that will be used.

The following pages deal initially with the general safety instructions. Every user should know these safety instructions and apply them. At the end of this page, a registration card is inserted. This registration card should be returned to enable us to deal with potential future claims.

This user manual lists many instructions that are numbered in sequence. You should follow this sequence.
A ⚠ is an indication of a safety instruction. A ☞ means a tip and/or note.

All information and technical specifications provided at the moment that this document is published are the most recent ones. Design specifications may be changed without prior notice.

This document is a translation of the original operating instructions.
Upon request, the original operating instructions are available in Dutch.

WARRANTY CONDITIONS

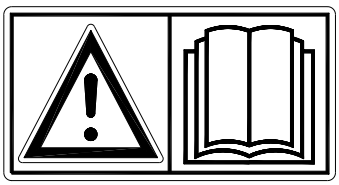
AT THE TIME OF DELIVERY, THE CARRIER IS GUARANTEED AGAINST MATERIAL DEFECTS.
THIS WARRANTY IS VALID FOR A PERIOD OF 12 MONTHS FROM THE PURCHASE DATE.
CARRIER WARRANTIES ARE SUBJECT TO THE 'GENERAL CONDITIONS FOR SUPPLY OF PLANT AND MACHINERY FOR EXPORT, NUMBER 188' THAT ARE PUBLISHED UNDER THE AUSPICES OF THE UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE.

REGISTRATION CARD

For your own information, fill in the table below:

Serial number of the machine	
Dealer name	
Date of purchase	
Remarks	

! SAFETY INSTRUCTIONS !

 Figure 1	The Carrier is designed for safe use. This can only be achieved if you completely follow the safety instructions described in this manual. **Read and understand** (Figure 1) the manual *before* you start using the Carrier. If the machine is not used as described in this manual, this can result in injuries and/or damage to the Carrier.

1. The user must be an expert in using the machine. The machine/combination should be professionally adjusted for cultivating the subsoil.

   The manufacturer will not accept any liability for unprofessional use and its resulting damage. All risks occurring with this are entirely at the expense of the user.
   Following the use, maintenance and repair instructions prescribed by the manufacturer is also considered professional use of this machine.
   Inspect the area to be treated *before* using the Carrier.
   Remove loose obstacles and avoid irregularities.

2. The Carrier is manufactured according to the latest technical understanding and is safe to use.

   When unskilled people use, maintain or repair the machine, this could result in injuries to the user *and* to third parties. **This must be avoided**!

   Always use the Carrier in combination with soil-cultivating machines that are suitable for this work. See the technical data or ask your dealer about the possibilities.

3. All persons assigned to operate, maintain and repair the Carrier by the owner must completely read and understand the operation manual and in particular the chapter of **Safety Instructions**.

   The user is responsible for a **Carrier / Processing Machine combination**. **This entire combination must be tested** for noise, safety, risk and user friendliness. User instructions should also be drafted.

4. The user is **obliged to check** the Carrier for **visible damage and defects** before using the Carrier.
   Modifications to the Carrier (including its operations) that have a negative impact on safety must be rectified immediately.
   For safety reasons it is in principle not permitted to make changes or adjustments to the Carrier (except those approved by the manufacturer).

   If **modifications** to the Carrier have been made, then the current CE marking is cancelled. The person that has made these modifications has to apply for a new **CE marking himself**.
   Check the Carrier for loose bolts, nuts and components *before* every operation.

   If present, check the hydraulic pipelines regularly and replace these when the hydraulic pipelines are damaged or appear old. The pipelines that are replaced should comply with the technical requirements of the manufacturer.

   If a hydraulic installation is present, you should **always** make it pressure-free *before* working on this installation.

   NEVER use the Carrier in the absence of safety stickers.

NEVER crawl under the Carrier!
NEVER check the processing machine while the Carrier's engine is running.

When carrying out maintenance, adjustments and repairs, it is necessary to block the Carrier in order to prevent it from sinking away, driving off and/or sliding off.

Always switch off the motor and take the key out of the ignition in carrying out maintenance, adjustments and repairs (Figure 2).

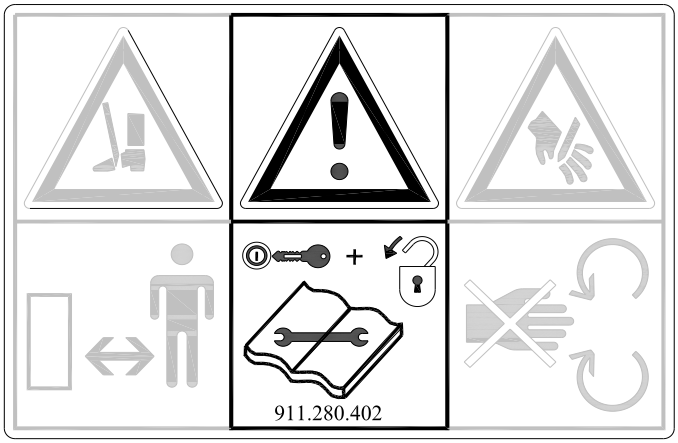


Figure 3

Use only original Carrier parts for maintenance or repairs because of the safety of the machine *and* of the user.

Only authorised technical personnel may carry out repairs to the Carrier.

Keep a record of the repair activities.

5. The general applicable health & safety (Dutch: ARBO) regulations must also be followed in addition to the instructions in this user manual.

   Relevant traffic regulations also apply in case of using public roads.

   Transporting persons is not permitted!

   Do not use the Carrier in the dark, in heavy rain/storm or on slopes with an angle larger than 20 degrees.

6. All persons that are going to operate the Carrier must be familiar with all the functions and control elements of the Carrier *before* starting any work activities.
   Attach the processing machine to the Carrier according to the instructions.
   (Danger of injuries!)
   Check whether you have a clear field of vision – both close by and far away – *before* you depart.

7. **Danger of crushing!**
   Always look in the same direction as the direction of movement of the machine. So if you move forward, then look forward. If you move backwards, then also look backwards.
   Plan your operation route in advance and know where the obstacles are to avoid contact with you and the obstacles. Avoid working too close to fences, railings, buildings, other machines and obstacles in general.

   Safety stickers (Figure 2, 3, 4, 5, 6, 6a) with an identical meaning are attached to both sides (Figure 5) of the Carrier, to the steering bar and near the exhaust.

These safety stickers must always be clearly visible and legible and must be replaced if they have become damaged.

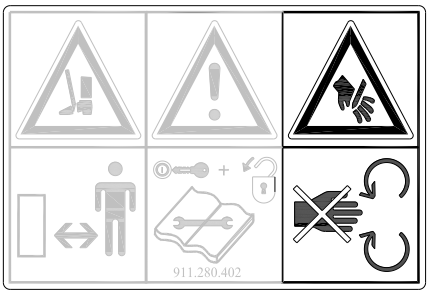


Figure 3

Figure 4

Figure 5

Figure 6

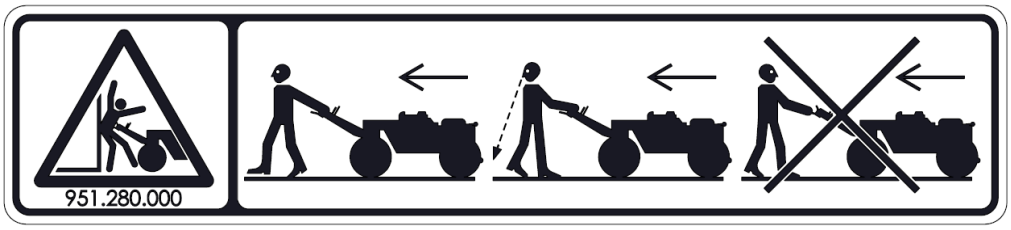


Figure 6a

During operation, **NO persons are allowed within the danger zone** of the Carrier, because there is danger of physical injuries caused by moving components. (Figure 3)

Keep a distance of minimum 4 metres! (Figure 4)

Wear certified noise protection while using the machine! (Figure 5)

Attention, hot surface! (Figure 6)

Attention, danger of crushing! (Figure 6a)

Pay attention to the permitted lifting capacity of the towing vehicle.

Dress appropriately. Wear sturdy shoes with steel toecaps, long trousers and tie up long hair. Do not wear loose clothing.
Use the proper personal protection gear according to the applicable health & safety (Dutch acronym: ARBO) and safety regulations.

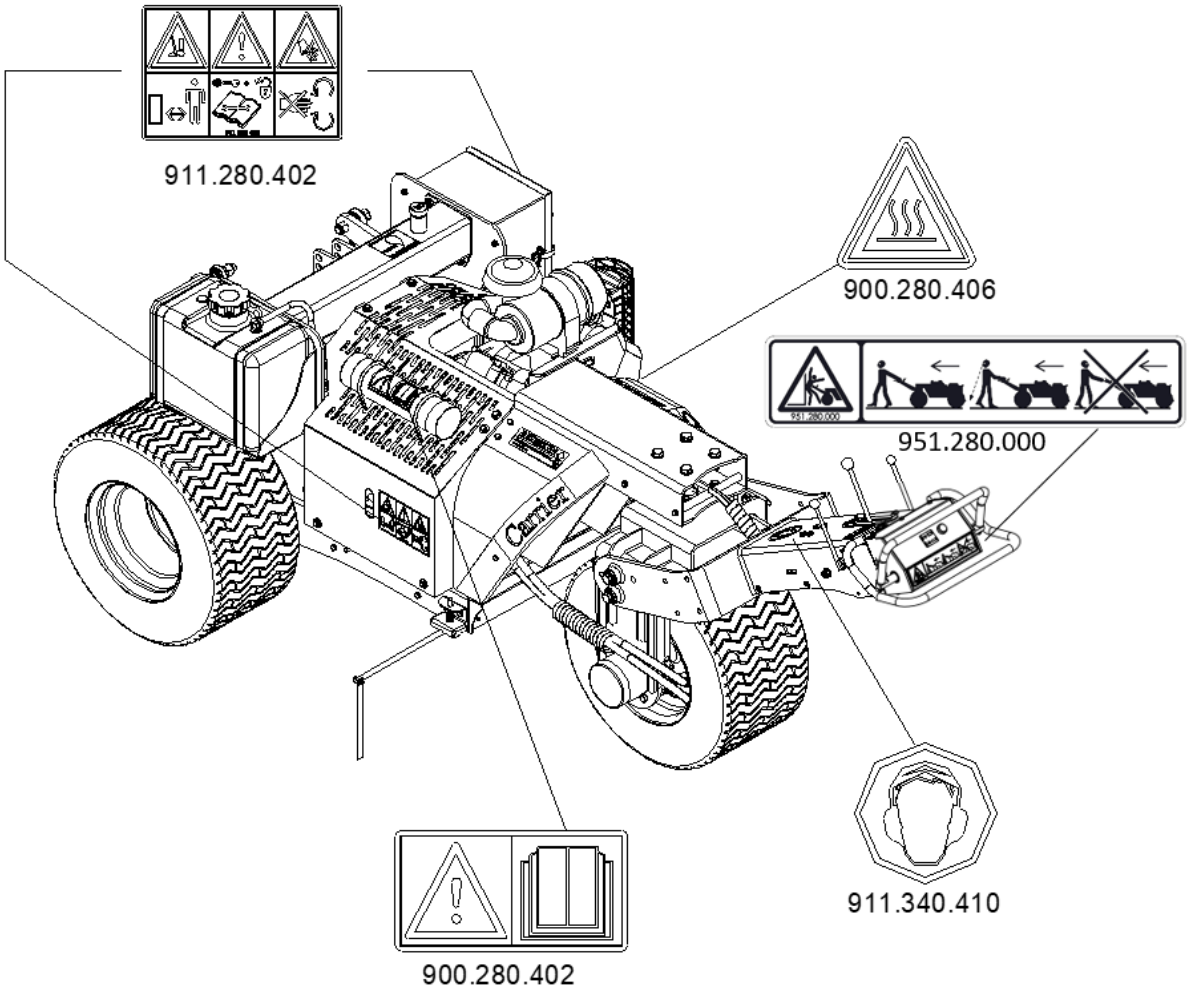


Figure 7

8. Location of the safety stickers (Figure 7).

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1.0 TECHNICAL DATA

Model	Carrier
Speed	Maximum 3.8 km/h (2.4 mph)
Weight	618 kg (1362.5 lbs)
Dimensions (L x W x H)	2615mm x 1380mm x 1135 mm 103” x 54.3” x 44.7”
Motor	Briggs and Stratton B&S 31 HP
Fuel	Petrol
Content of the fuel tank	22.7 litres (6 gallon)
Motor oil	See the manual of the motor
Hydraulic oil	Tellus 46
Content of the hydraulic oil tank	7.5 litres (2 gallon)
Gearbox oil	SAE 90 (0.5 litre / 0.13 gallon)
3-Points	Cat. 1
Lifting capacity	475 kg (1047 lbs)
Noise emissions * (A-weighted measurement in accordance ISO 4781 and EN 13684: 2004 + A3: 2010)	A-weighted emission sound pressure level L_{pAd} measured in working position re. 20 µPa: 91 dB Uncertainty $K_{pA:}$ 2 dB
	A-weighted sound power level measured in working position L_{WAd} re. 1pW: 99 dB Uncertainty $K_{WA:}$ 2 dB
Emission of hand-arm vibration * (Measurement according to EN 12069 and EN 13684: 2004 + A3: 2010)	Hand-arm-Vibration a_{hv}: 1.4 m/s^2 Uncertainty K: 0.2 m/s^2

*Remark: emission values for both sound and vibrations are determined under reference conditions as described in EN 13684. In practice the emission (or better: the partial exposure) maybe different due to specific conditions and circumstances. Emission data are primarily intended for comparison between different machines and may be used as an indication for partial exposure, but with limited validity.

The values measured values are applicable to the Carrier without tools.

2.0 GENERAL DESCRIPTION

The Carrier is a machine/vehicle that can be used for various work activities in combination with certain processing machines e.g., the Verti-Drain 1513 for grass aeration.

3.0 FIRST INSTALLATION – TAKING THE MACHINE OFF THE PALLET

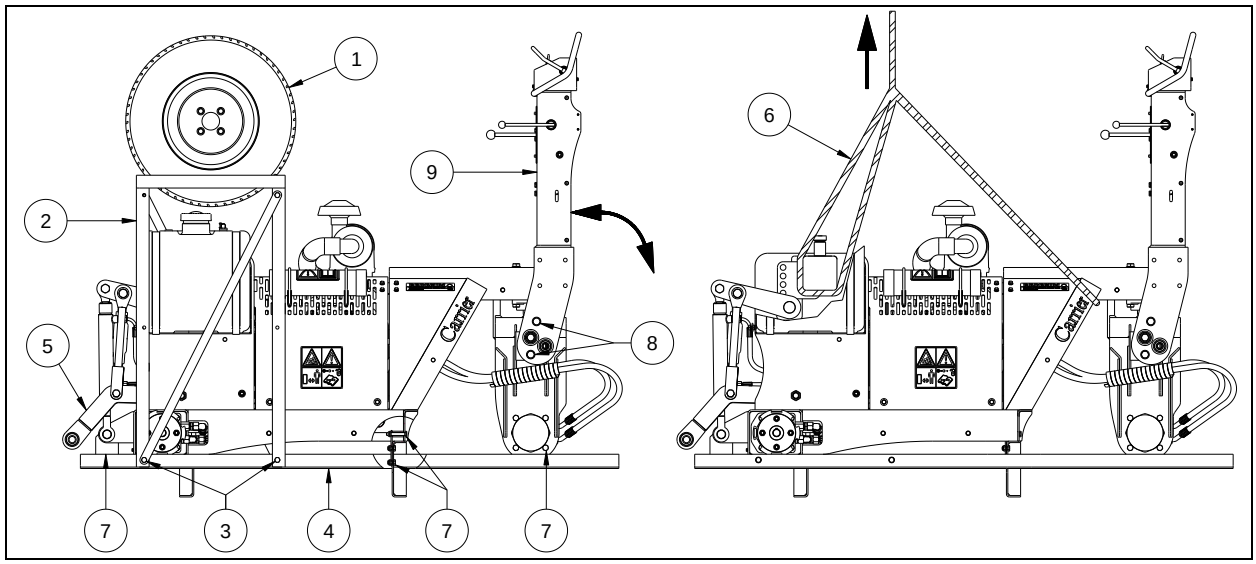

Figure 8

The machine is placed horizontally on the pallet. To remove the pallet and to place the machine horizontally on the ground, you take the following steps (see Figure 8):

⚠ **NEVER crawl under the machine!**

1. Remove the wheels (1) from the wheel pallet (2).
2. Remove the bolts and nuts (3) with which the wheel pallet (2) is bolted to the main pallet (4) and remove the wheel pallet (2).
3. Assemble the lower lifting arms (5). (See the parts manual for the correct assembly.)
4. Attach a cable (6) to the machine.
5. Remove the bolts, nuts and security strips (7) with which the machine is bolted to the pallet (4).

⚠ **Make sure that the cable/crane/lift can hoist minimum 2x the weight of the machine. (machine weight see Chapter 1.0 Technical data)**

6. Lift the machine off the pallet (4).
7. Pull the pallet (4) from under the machine.
8. Assemble the wheels (1). (See the parts manual for the correct assembly.)
9. Lower the machine controlled and calmly until it stands completely on the ground.

⚠ **Careful: Keep your distance; the machine can slide!**

10. Remove the bolts and nuts (8) and assemble the steering bar in the correct position. (See the parts manual for the correct assembly.)
11. Check the level of the motor oil. If needed, top it up.
12. Check the level in the tank of the hydraulic oil. If needed, top it up.
13. Fill the fuel tank.
14. Connect the machine to the vehicle (please refer to Chapter 5.0).

⚠ **Turn the Carrier off and make sure the Carrier/vehicle combination cannot drive off!**

4.0 OPERATING THE CARRIER

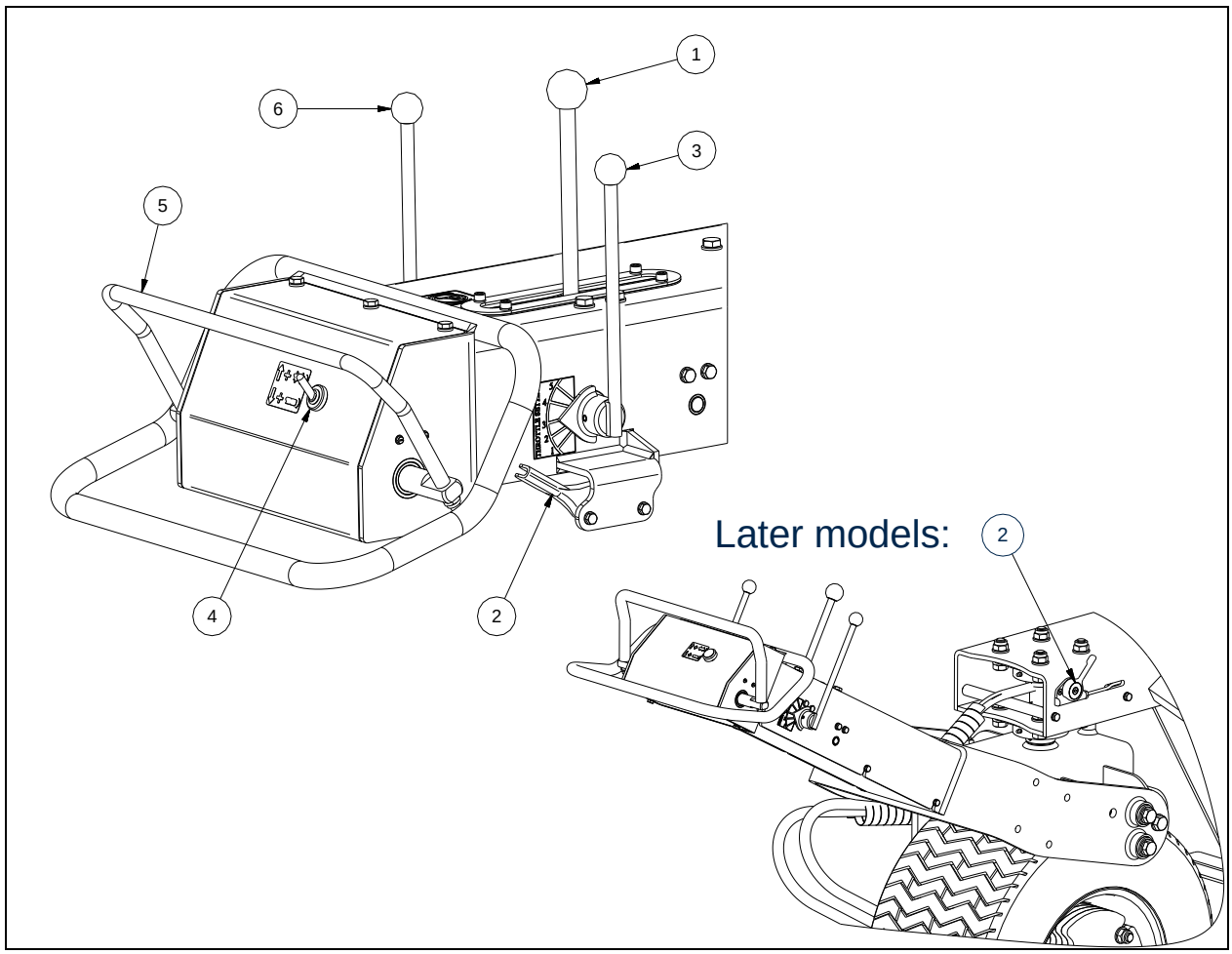

Figure 9

The Carrier is operated by means of a number of handles that are located on the steering bar.

The parking brake (1)
The parking brake is solely intended for blocking the machine. If the Carrier is not used with the steering bar, the machine must always be in the parking position (towards the engine block).

The accelerator handle (2)
The accelerator handle controls the engine power. The engine power should be maximum during cultivation! The accelerator handle can be mounted on both sides of the steering bar (depending on which side of the steering bar the operator walks).

The speed handle (3)
The speed handle is used for adjusting the driving speed of the Carrier. The five adjustments enable setting the driving speed of the Carrier to five different speeds, depending on the required cultivation by the processing machine. The speeds are set in advance, with a maximum of 3.8 km/h (2.4 mph).

Position	Hole distance			Speed	
1	27.5mm	(1.1”)	Half hole	0,9 km/h	(0,6 mph)
2	55 mm	(2.1”)	Square hole	1,8 km/h	(1,1 mph)
3	75mm	(2.9”)		2,5 km/h	(1,6 mph)
4	82.5mm	(3.2”)	1 ½ hole	2,7 km/h	(1,7 mph)
5	115mm	(4.5”)		3,8 km/h	(2,4 mph)

The main switch (4)
The main switch turns ON the electric clutch and the PTO that leads to the processing machine.
Switch the main switch ON *before* processing. The PTO will only engage when the Carrier is in a forward movement and the processing machine is lowered. This is regulated by the switches in the machine.
Switch the main switch **always** OFF when there is no processing.

The driving handle (5)
The driving handle regulates the movement of the Carrier – forward *and* reverse. In order to let the Carrier follow, the handle should be pushed downward. Pushing the handle upward the Carrier will move away from you. Always operate the movement calmly and gradually to its maximum in order to prevent damage to the pump.

The lifting handle (6)
The lifting handle operates the lifting cylinder that lifts the processing machine. It is mounted in the 3-point connection of the Carrier.

The following components are needed to operate the machine properly and safely:

Adjusing lowering speed (7)
Using this valve allows the descent rate of the attachments of the Carrier to be set. (fig. 10)

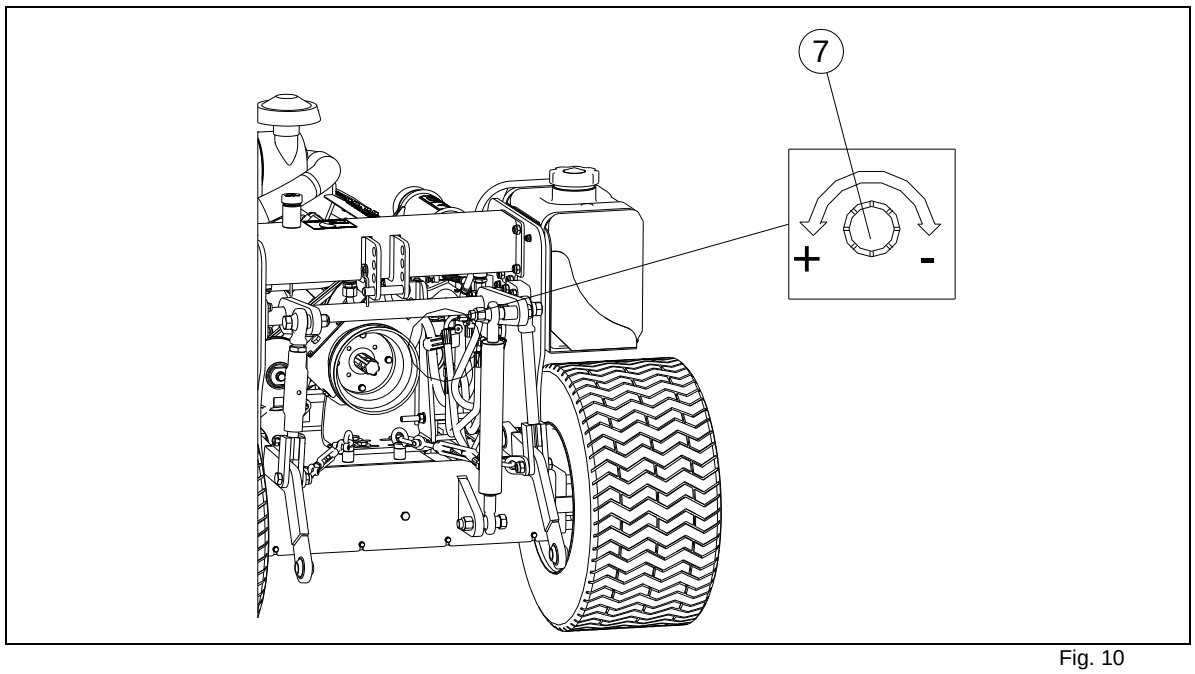

Fig. 10

Line marker (8)
The machine is equipped with a line marker. In combination with the Verti-Drain 1513 as the previous course with holes will be followed, at 55 mm (2.1 ") distance between the new job be pricked. In this way, the user can use the machine in the most efficient way. When the line marker is not necessary. This can be folded against the frame, motor direction

Choke (9)
The choke for assistance in starting the engine. Exact control is described in the engine manual.

Tachometer (10)
The digital Tower counter gives the engine speed. At an engine speed of 3600 rpm the PTO has a speed of ±540 rpm.

Starting the engine (11)
The key for starting and stopping the engine. Exact control is described in the engine manual.

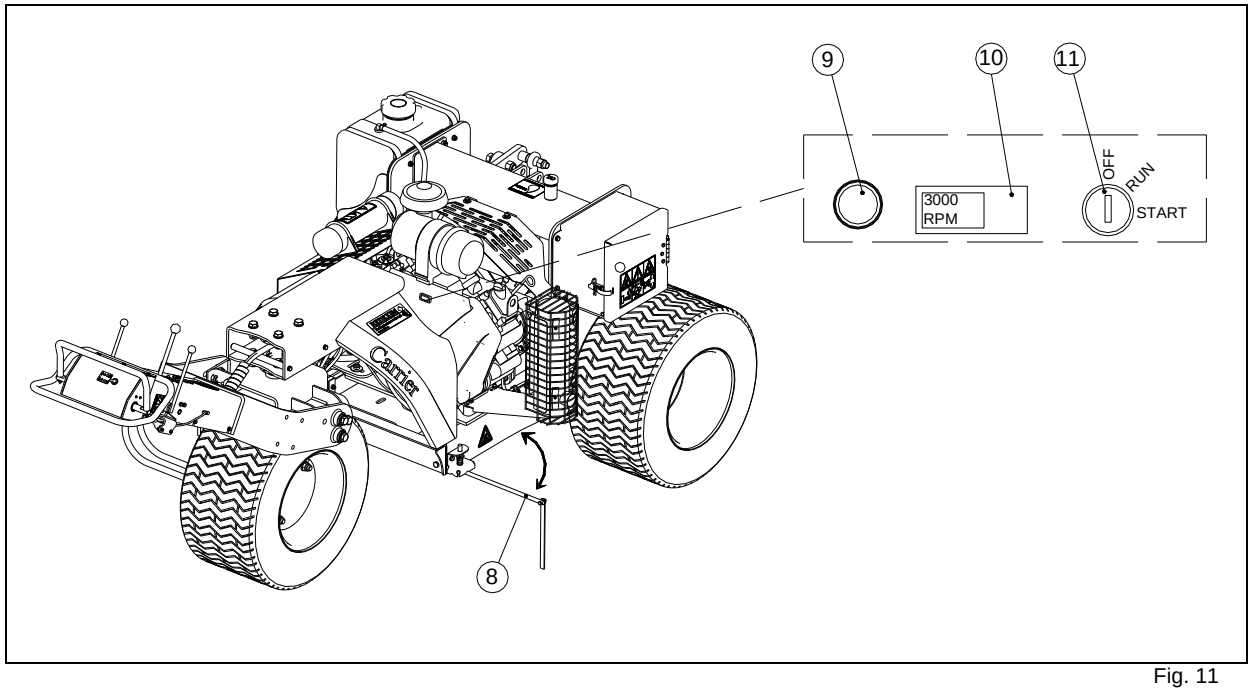

Fig. 11

5.0 ATTACHING A MACHINE TO THE CARRIER

⚠ **The Carrier may only be used with approved Redexim by machines.**

⚠ **When using non-approved machines void the warranty and Redexim is not responsible for any consequential damages or injury.**

Checking procedure before starting to attach the Carrier:

- Check the Carrier for visually discernable damage and repair this if safe operation of the machine is no longer guaranteed.
- Check whether all the nuts and bolts are tight.
- Check whether all safety stickers are present on the machine and are not damaged.
  NEVER use the machine without these items.

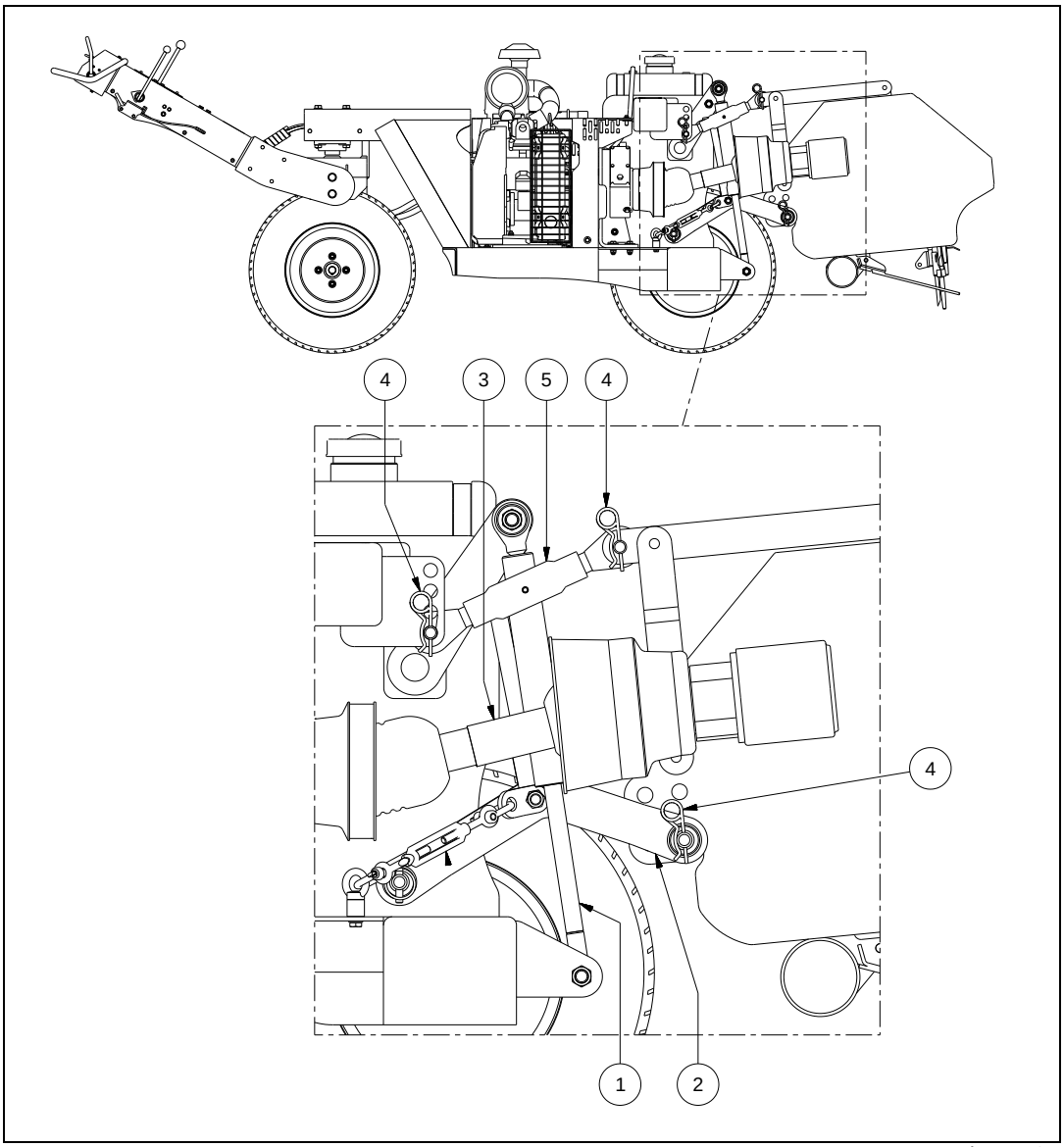

Figure 12

The procedure is as follows (Figure 12):

1. Using the cylinder (1), lower or raise the lower lifting arms (2) of the Carrier up to the height of the lower connection points of the processing machine.

2. Reverse the vehicle carefully so that the lower lifting arms (2) of the Carrier can be attached to the processing machine.
3. Attach the PTO (3) to the Carrier.

⚠ **Make sure that the Carrier is blocked well and cannot move on its own accord!**

⚠ **Turn the Carrier off before starting to attach a machine!**

⚠ **Make sure that the processing machine stands stable and cannot roll away and/or slide off!**

4. Connect the lower lifting arms (2) of the Carrier with the processing machine and secure these with the securing pins (4).
5. Following this, connect the top rod (5) of the Carrier with the processing machine and secure these with the securing pins (4).
6. Attach the PTO (3) to the processing machine.

⚠ **Make sure that all the securing pins are locked!**

☞ **Adjust the top rod in such a way that it is perpendicular to the underground that you will process during cultivation.**

7. Remove all parts of the processing machine that can hinder its usage such as support legs and other parts that are intended for storing the processing machine.
8. Start the vehicle and begin to drive.

5.1 VERTI-DRAIN 1513 ATTACHING

In case the Verti-Drain 1513 is used.
Connect the bottom 3-point support of the Verti-Drain 1513 always in the lowest points, which placed closest to the Verti-Drain. (Fig. 13)

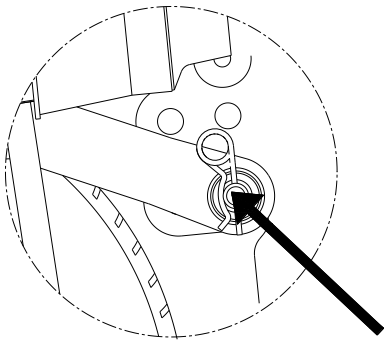

Fig. 13

5.2 BALLASTING WHEELS

For ballast the wheel can be filled with water. Antifreeze can be added to the water.
The wheel is rotated so that the valve is located at the top. Then the valve is removed, in the opening the filling nipple is placed. Than connect the water hose on to the nippel. After the filling, remove the nipple and the replace the valve.

Volume
The maximum permitted water volume is 75% of the total volume of the wheel. 25% of the band remains filled with air. This allows the band to be placed on tension in the normal way. The weight of the tyre ± 30 kg (66 lbs) takes with.

6.0 TRANSPORTING THE CARRIER

It is prohibited to drive the Carrier on public roads. Therefore, the Carrier (with or without the processing machine) should always be transported to the cultivation site and only then it can be used. In view of the Carrier's weight and balance, it is advised to unload the Carrier without an attached machine.

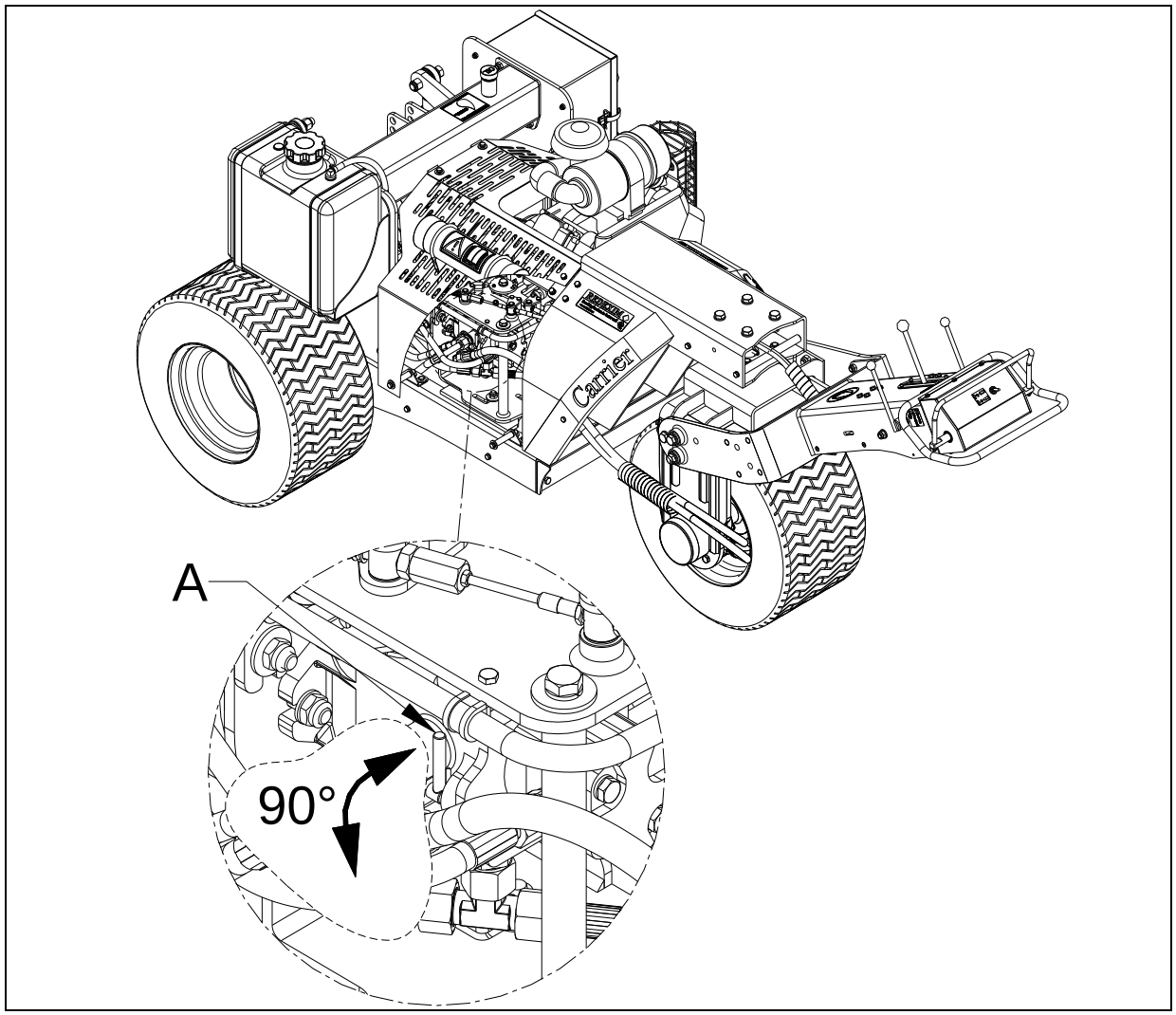

Figure 14

In the event of a defect, for example the engine can be the carrier moved without starting it. To transport the Carrier without engaging its motor, the Carrier can be put into neutral. To do this, remove the main cover and put the pump in the neutral position by turning handle 'A' 90° (See Figure 14).

⚠ **The maximum towing speed is 2.5 km/h (1.5 mph) in order to prevent damage to the hydraulic circuit.**

⚠ **To prevent damage to the carrier is permitted only in case of emergency dragging the carrier and NOT for transport to and from the workplace!**

7.0 THE WORKING SPEED

It is possible to adjust the driving speed of the Carrier to different speeds. However, its maximum working speed is limited to 3.8 km/h (2.4 mph). This corresponds to the average walking speed and therefore, it is recommended **not** to change this (e.g., to increase).

8.0 USING THE CARRIER

Before using the Carrier in a location, you should check the following items:

1. Are there loose objects in the field? First remove these objects.
2. Are there slopes? The maximum slope is 20 degrees for this machine.
3. Always go from top to bottom.
4. Is there danger of flying objects (e.g., balls) that distract the attention of the driver? If so, the Carrier **CANNOT** be used.
5. Is there danger of sinking/sliding away? If so, postpone the processing until conditions improve.
6. If the soil is wet, postpone the work activities until conditions improve.
7. Do not make sharp bends and preferably, drive in straight lines; otherwise you might damage the subsoil.

9.0 START/STOP PROCEDURE

The start procedure is **VERY** important. If this procedure is not executed as described below, serious damage to the machine / subsoil could be the result (See Figure 15).

The start procedure is as follows:

1. Check the Carrier for loose components and look whether all components function properly.

⚠ **If loose components are observed or components do not function properly, the problems must be solved *before* using the Carrier!**

2. Drive to the spot where the processing should take place.
3. Switch OFF the motor.
4. Operate the parking brake (1) so that the Carrier is blocked.
5. Adjust the working depth of the processing machine statically. Please refer to the manual of the relevant machine.

⚠ **Make sure that the vehicle is blocked well using the parking brake and cannot move on its own accord!**

⚠ **Switch the vehicle OFF *before* adjusting the processing machine!**

⚠ **Make sure that the ON/OFF switch for operating the electric clutch is OFF!**

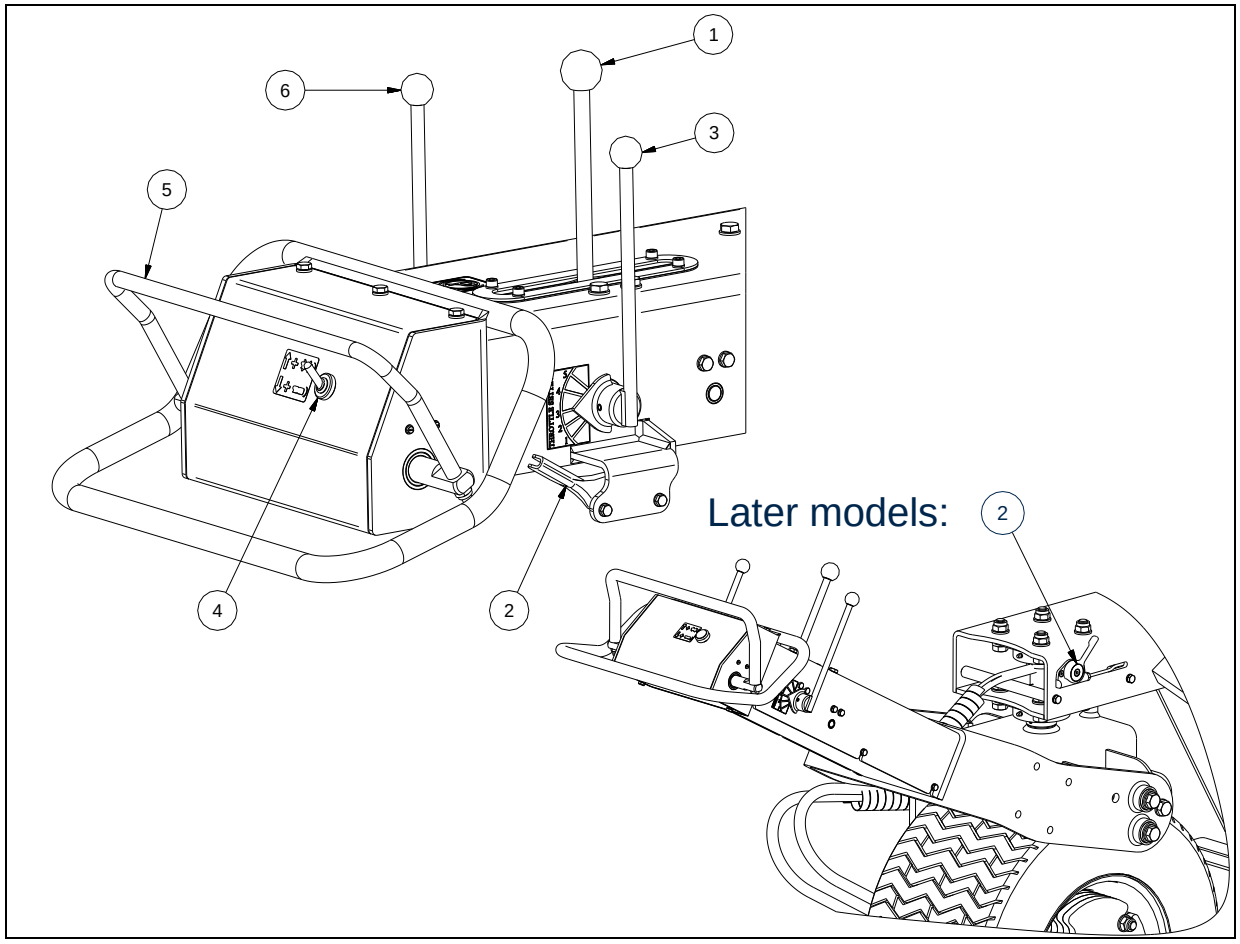

Figure 15

6. Start the motor of the Carrier.
7. Put the accelerator handle (2) in the middle position.
8. Set the required driving speed by operating the speed handle (3).
9. Switch the electric clutch ON by operating the main switch (4).
10. Push the operating handle (5) down, followed by the Carrier.
11. Lower the processing machine by operating the lifting handle (6) that drives the cylinder.
12. Put the accelerator handle (2) in the highest position.
13. If required, adjust the speed by operating the speed handle (3). In order to do this, first lift the machine, stop the combination, switch the processing machine OFF and put the Carrier in the parking position. Afterwards, set the new driving speed. Now follow the procedure as described above.

Stopping occurs as follows:

1. Operate the cylinder while driving so that the processing machine is lifted.
2. Switch OFF the main switch.
3. Drive the Carrier combination to the next spot that should be cultivated.
4. If no further processing is needed, stop the vehicle and use the parking brake to block the Carrier.

⚠ **Make sure that the towing vehicle is blocked well and cannot move on its own accord!**

5. Put the accelerator handle (2) in the OFF position.
6. Switch OFF the motor.

10.0 DETACHING A MACHINE FROM THE CARRIER

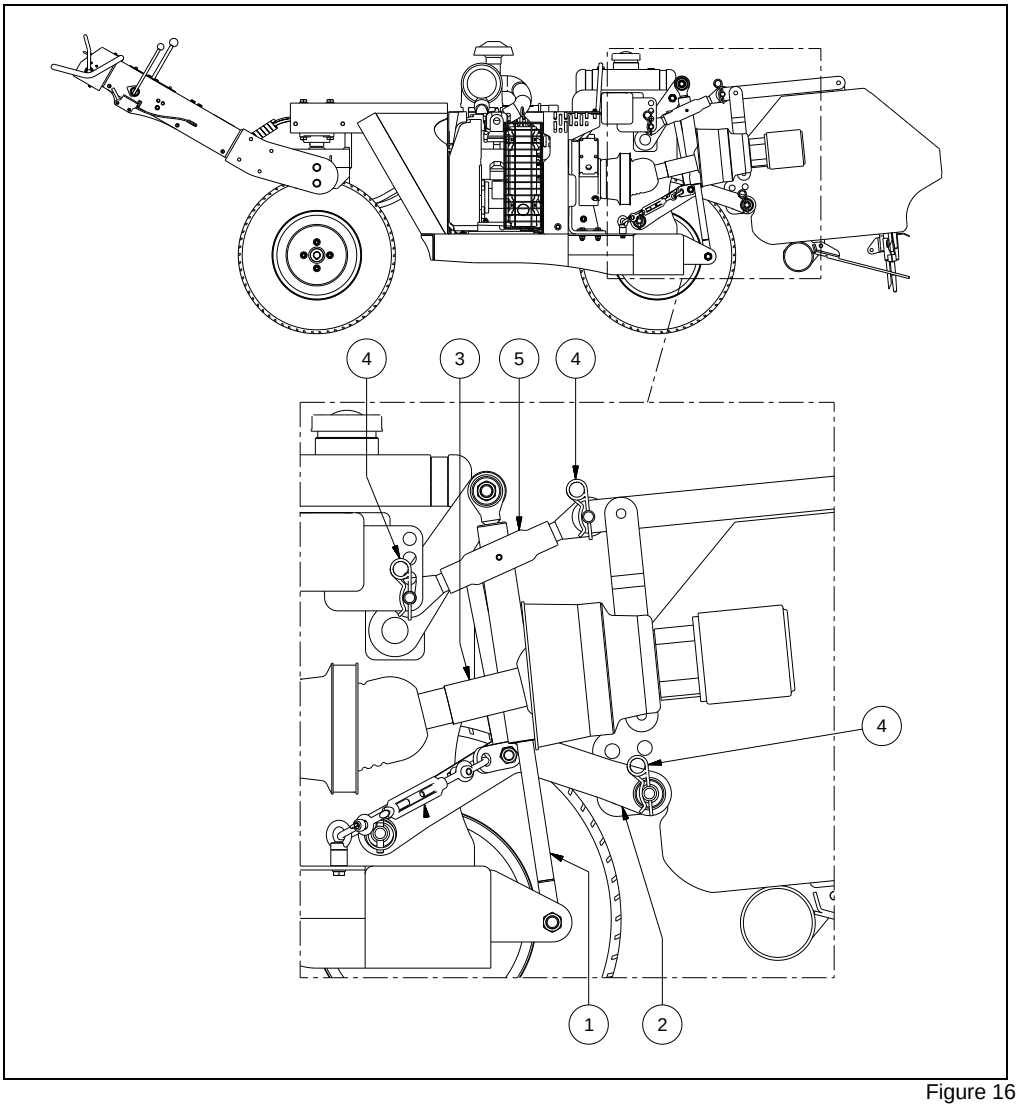

Figure 16

The machine can be detached from the vehicle in the following manner (See Figure 16):

1. Drive the Carrier to a parking area with a firm/flat surface.

   ⚠ **Make sure that the Carrier is blocked well and cannot move on its own accord!**

   ⚠ **Switch the Carrier OFF *before* detaching the processing machine!**

2. Using the cylinder (1), lower the processing machine. Do this in a way that does not damage the processing machine.
3. Remove the securing pins (4) and then the top rod (5).
4. Remove the PTO (3).
5. Remove the lower securing pins (4) and detach the lower lifting arms (2) of the Carrier from the processing machine.

   ⚠ **Make sure that the processing machine stands stable and cannot roll away and/or slide off!**

   ⚠ **Please refer to the manual of your processing machine for detaching the processing machine correctly!**

6. Start the Carrier and drive off.

11.0 ADJUSTING THE TENSION OF THE V-BELTS

The Carrier has two systems that are driven by V-belts.

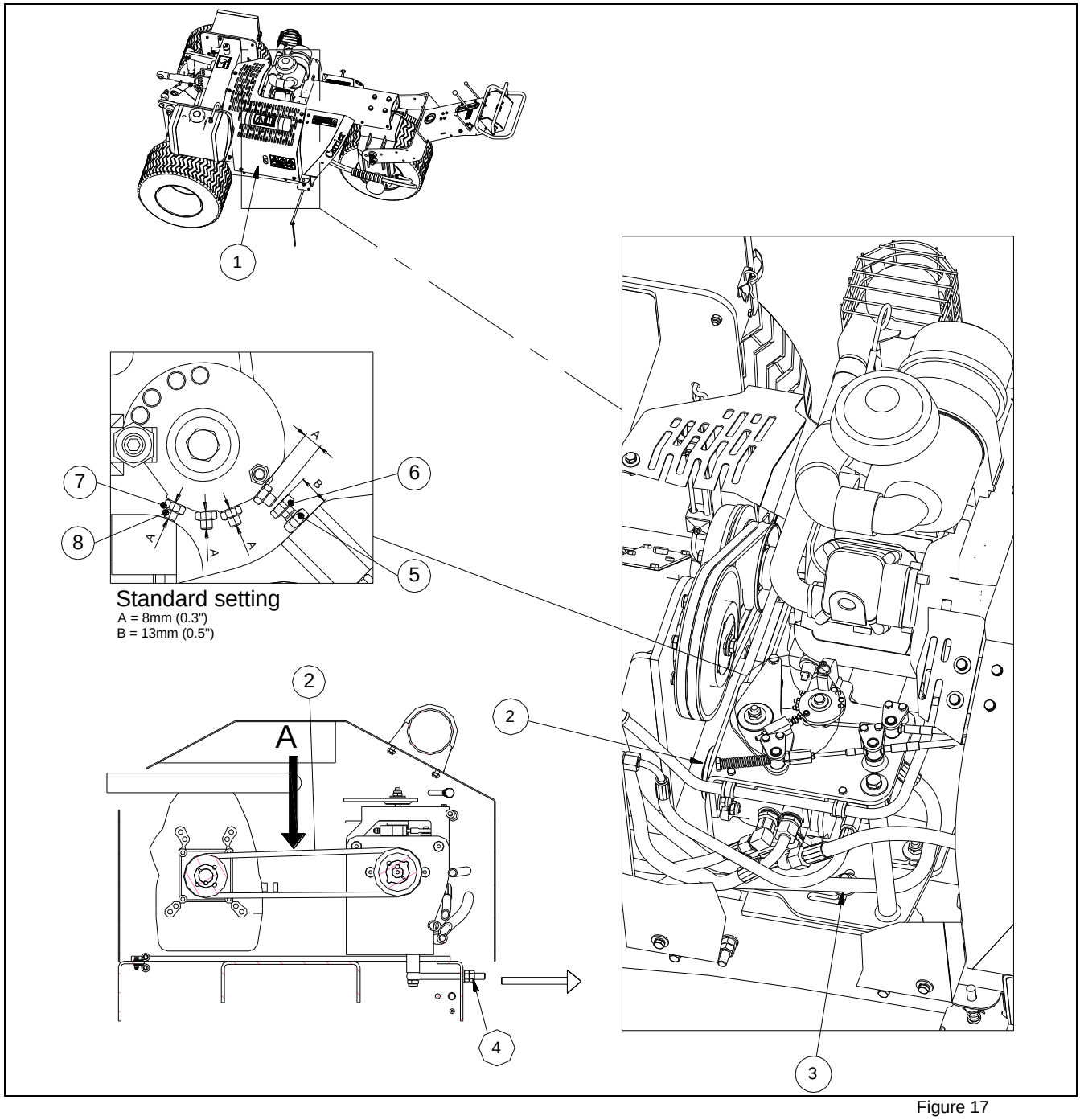

Figure 17

First, the motor drives the pump by means of a single V-belt. To adjust the tension of this V-belt, the entire pump unit should be moved away from the motor until the V-belt is at the correct tension (See Figure 17):

1. Remove the cover (1)
2. First, loosen the nuts of the pump unit (3) one turn.

3. Slide the pump unit outwards (away from the motor) by turning to the nuts (4) in order to put tension on the V-belt (2).
4. Check the tension of the V-belt by hanging a weight of 2.5 kg (5.5 lbs) at point A. The clearance of the V-belt should be 3.7 mm (0.14”).
5. Subsequently, tighten the nuts (1).
6. Then mount the protective cover (1) back on the original place

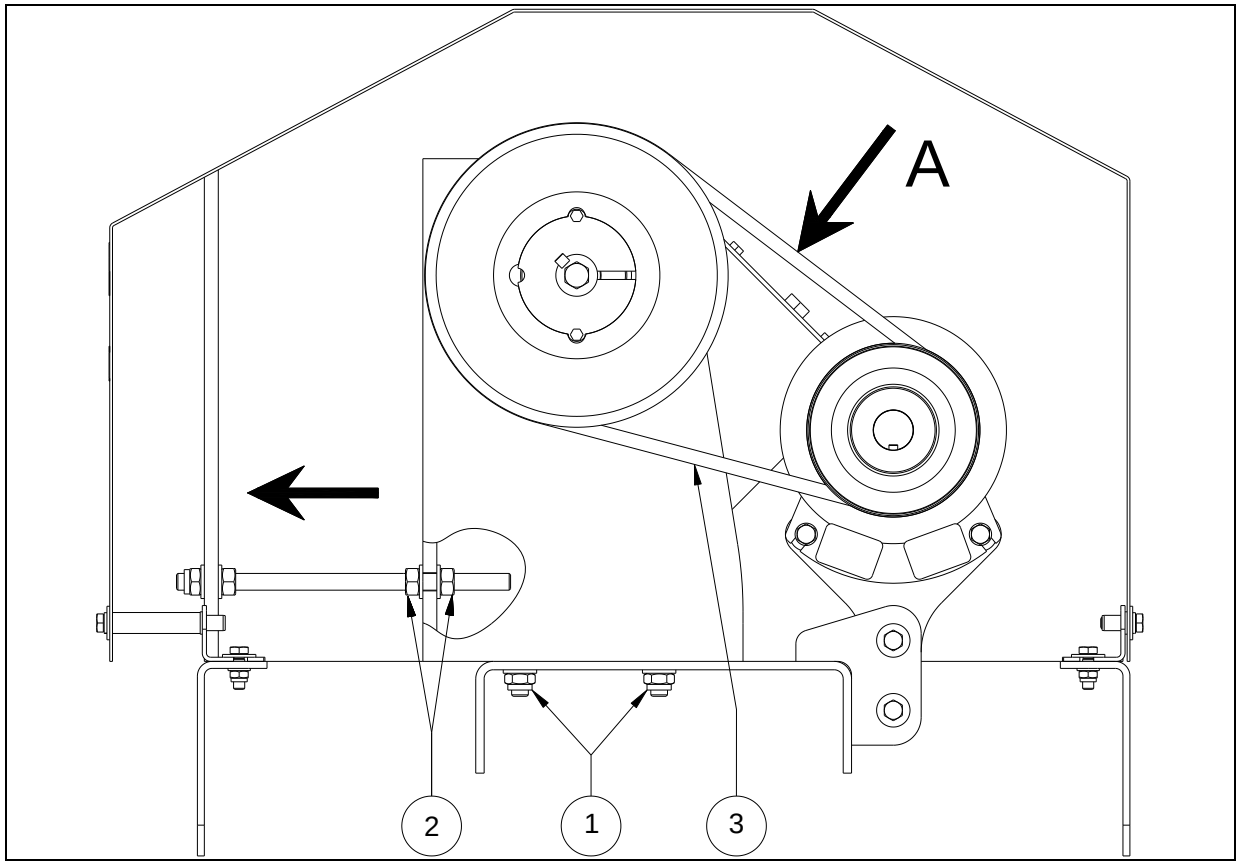

Figure 18

Secondly, two V-belts lead from the electric clutch to the gearbox that drives the PTO. To adjust the tension of the V-belts, the gearbox should be moved away from the clutch (See Figure 18):

1. First, loosen the bolts and nuts (1), with which the bracket is attached to the main frame, one turn.
2. Move the gearbox away from the clutch by turning the nuts (2) in order to put tension on the two V-belts (3).
3. Check the tension of the V-belt by hanging a weight of 2.5 kg (5.5 lbs) at point A. The clearance of the V-belt should be 2.1 mm (0.1”).
4. If the tension of the V-belts is correct, tighten the nuts (2).
5. Subsequently, tighten the bolts and nuts (1) that connect the gearbox with the main frame.

11.1 PRECISION ADJUSTMENT OF THE DRIVING SPEED

If the driving speed of the Carrier needs adjusting, it can be adjusted by altering the stop bolt of the pump (See Figure 17):

1. Remove the protective cover (1).
   - **FULL RANGE ADJUSTMENT**
2. Loosen the nuts (5) and move the stop bolt (6) until the required setting is reached.
3. Tighten the nuts (5)
   - **WORK POSITION ADJUSTMENT: (from later models, check on machine)**
4. Loosen the nut (7) of the preferred work position.
5. Turn adjusting screw (8) in the position corresponding to the desired setting is reached.
6. Tighten the nut (7)
7. Mount the protective cover (1).

11.2 ENGAGING MOMENT OF THE PTO

In the Carrier, the engaging moment of the PTO is regulated automatically when the attached machine is moved downward.
The engaging moment can be changed as follows (See Figure 19):

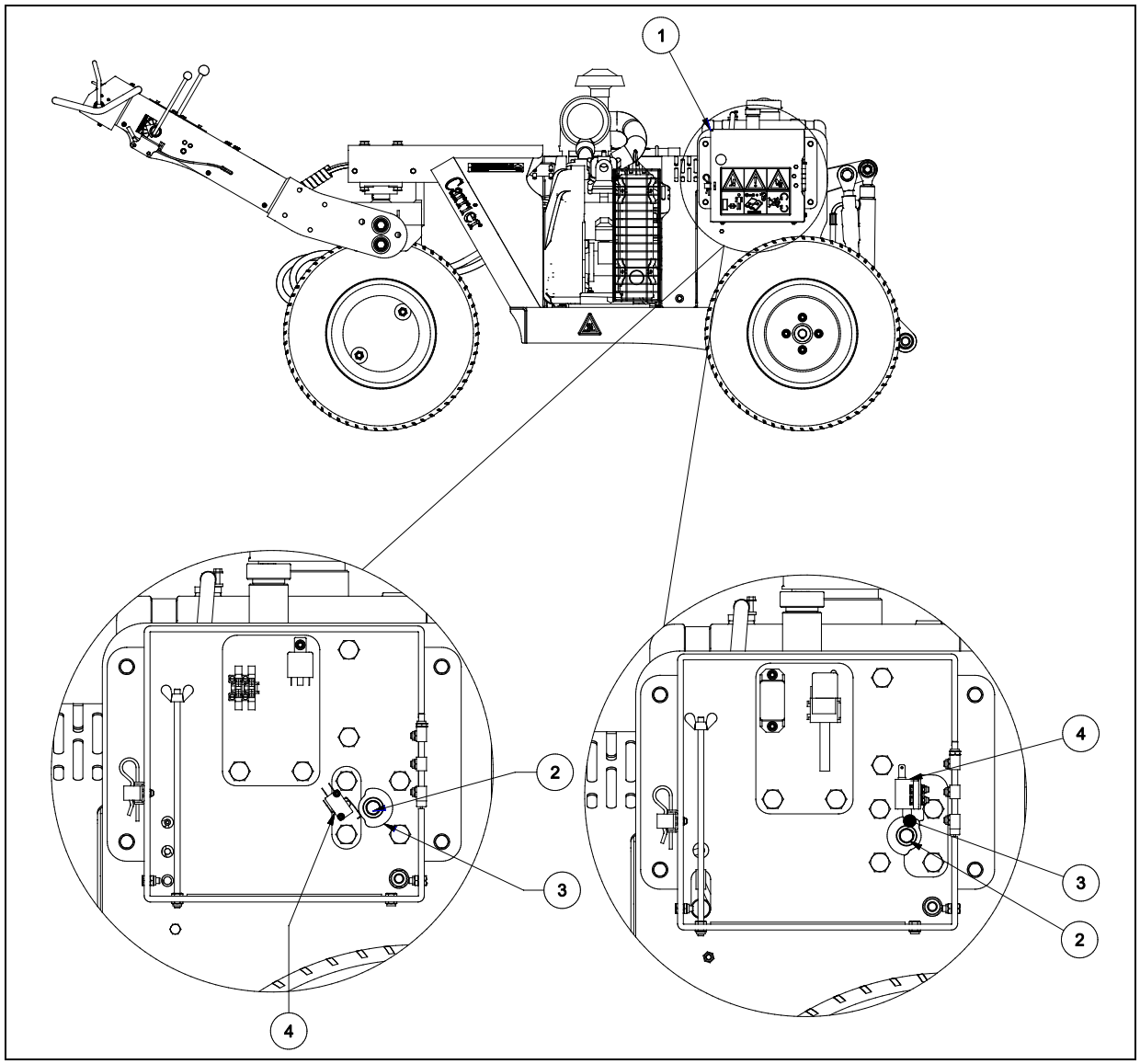

Fig. 19

1. Lower the machine up to the point when the PTO should be engaged.
2. Turn the Carrier OFF and activate the parking brake.
3. Open the battery compartment (1) and remove the battery.
4. Loosen bolt (2) and turn disc (3) clockwise until it just pushes against switch (4).
5. Tighten bolt (2), replace the battery and close the battery compartment (1).

12 TROUBLE SHOOTING (PROBLEM ANALYSIS)

Problem	Possible cause	Solution
Engine does not start/run.	Battery is empty. Wiring is damaged. No petrol No ignition	Check the battery. Charge or replace the battery. Check the wiring for short-circuits. Check the battery terminals. Check the petrol level. Use the choke. Check the fuel filter. Check the switches. Check the wiring. Check the ignition.
Hydraulic faults	Leaks No pressure (lifting capacity)	Check the components. Pump is damaged. No sufficient oil. Overpressure-relief valve is not adjusted correctly. No pump drive. Engine does not run. Check whether all hydraulic components are connected correctly.
The lift is not lowered fast enough.	Regulating valve is adjusted incorrectly.	Adjust the regulating valve to the required speed.
Forward movement	Driving handle does not work optimally. Parking brake does not function.	Check whether the adjustment is adjusted correctly. Check the brake adjustment. Cable is broken; replace the cable.
Wheels are slipping.	No grip	Surface is too wet. Wait for better conditions.
V-belts are slipping.	V-belts are worn out. Tension of the V-belt is not correct. Overload of the drive.	Replace the V-belts. Check the tension of the V-belt. Lower the load on the attached machine.
Machine steers heavily.	Tyre pressure is too low.	Increase the tyre pressure.
Squeaking noises during the machine's operation	Bearings need greasing or are worn out.	Grease the bearings with EP2 grease or replace them.

13 MAINTENANCE

Time schedule	Check/Grease point	Method
Before **every** use	Check for loose bolts/nuts. Check engine oil level + hydraulics Presence and readability of the safety stickers (Please refer to Figure 5)	Tighten loose bolts/nuts with the correct tightening moment. Supplement if necessary Replace these if not present or damaged.
After the **first** 50 working hours (new or repaired)	Grease the bearings at the front wheel. Check for loose bolts/nuts. Check the tension of the V-belts. Replace filters (fuel & hydraulic filter)	Use EP2 grease Tighten loose bolts/nuts with the correct tightening moment. If necessary, adjust the tension of the V-belts (see Ch. 11.0) Use original filters. (Please refer to the Parts Manual.)
After **every** 100 working hours or annually	Grease the bearings at the front wheel. Check for loose bolts/nuts. Check the tyre pressure. Check the tension of the V-belts / wear & tear. Check the wear of the sleeve-bearing of the 3-point suspension.	Use EP2 grease Tighten loose bolts/nuts with the correct tightening moment. Make sure the tyre pressure is 0.5 bar. Adjust the tension of the V-belts (see Ch. 11.0) or – if required – replace the V-belts. If necessary, replace these.
After **every** 500 working hours or annually	Replace the hydraulic filter. Replace the hydraulic oil.	Use original filters. Drain off the old oil in compliance with local regulations.

Please refer to the engine manual, which is supplied with the Carrier, for maintenance of the Briggs & Stratton motor.

See the Parts Manual for part numbers and schematic drawings.

14 OPTIONAL: SAFETY BUTTON KIT

⚠ **Important!**
First of all, the following safety precautions must always be observed:
Always look in the same direction as the direction of movement of the machine. So if you move forward, then look forward. If you move backwards, then look backwards.
Plan your operation route in advance and know where the obstacles are to avoid contact with you and the obstacles. Avoid working too close to fences, railings, buildings, other machines and obstacles in general.

The Carrier can optionally be supplied with an extra safety button (See Figure 20).
It is positioned in such a way that in the event of possible crushing, the body will contact the button first before the rest of the machine. The Carrier will shut off immediately to prevent further entrapment.
To restart the Carrier, turn the safety knob to the left. The system is now free to perform the normal starting procedure.

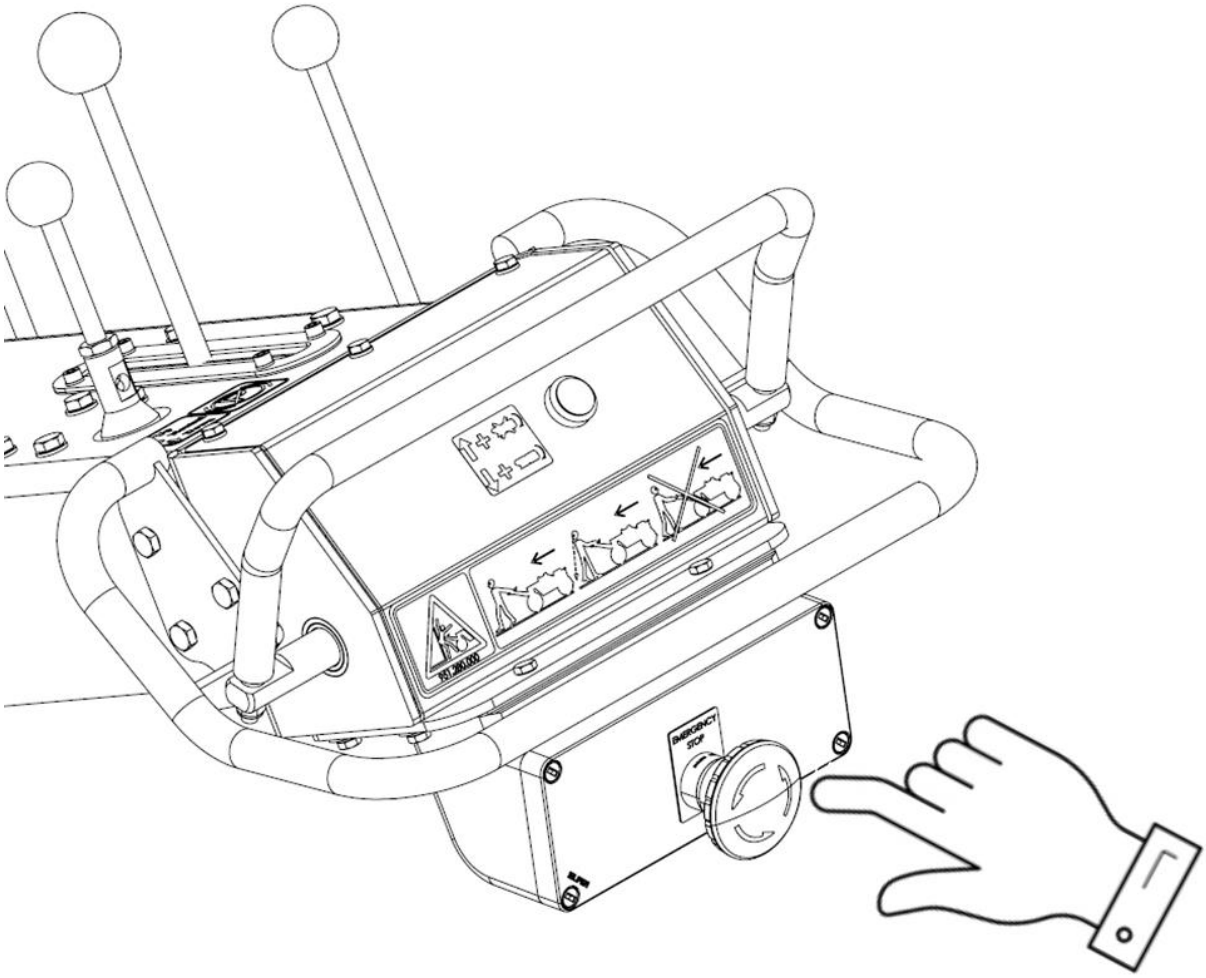

Figure 20