

## **Operating Manual**

### **Material Collection System CLS-SE**

**CLS-G 650 SE**

**CLS-H 650 SE**

**CLS-G 850 SE**

**CLS-H 850 SE**



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### 1 About this Operating manual

Dear customer!

Congratulations on your purchase of this grass collector and thank you for choosing matev.

Please take time to read through this Operating manual completely before you attempt to use your grass collector.

Always keep this Operating manual close at hand when operating the equipment. You will then be able to consult the manual should you be unsure about any steps to take.

Listings are marked as so-called bulleted text:

- Text
- Text
- Text . . .

Instructions are always listed in the order they are to be performed:

1. Text
2. Text
3. Text . . .



**The grass collector is subject to technical advances. All information, illustrations, and technical specifications were current at the time this manual was printed. The grass collector specifications are subject to change in keeping with technological advances.**

## 2 Safety

This chapter contains all the regulations and instructions to be observed.

Persons who assemble, operate, and service the grass collector must have read and understood this Operating manual.

### 2.1 Proper use

The grass collector is to be coupled to tractors with sufficient performance and a rear power take-off shaft only. The rotary speed of the rear power take-off shaft must be identical to that of the grass collector (see the sticker on the grass collector).

All other forms of use are prohibited.

Non compliance can result in:

- Danger for the health of the operator or others
- Damage to the tractor and/or attachments
- Harm to the environment

### 2.2 Qualifications of the personal

- The grass collector may only be coupled, used, and repaired by persons 18 years or older or by properly trained persons. The operator must have read and understood the instructions in this manual.

### 2.3 General safety precautions

General safety precautions are explained in this section. These safety precautions are used in the following chapters. In addition to the safety aspect, you will save time and money by observing these safety precautions.



#### **Danger!**

**Immediate danger of injury to operator or surrounding persons. Observe the safety precautions.**



#### **Caution!**

**Operator or surrounding persons may suffer minor injuries. The tractor, grass collector may be damaged, or the environment may be harmed.**

**Observe the safety precaution.**



#### **Note!**

**Important, helpful tips or information for the operator.**

**Read these instructions. They will simplify operation and maintenance work.**



#### **Caution!**

**Danger of bodily injury. Always wear appropriate safety apparel.**

## 2.4 Special safety precautions

The safety precautions listed in this section are stickers that have been placed on the attachments



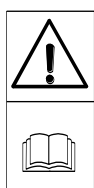
**Danger!**  
**Immediate danger of injury to operator or surrounding persons.**  
**Machine can tumble down backwards!**  
**Use and maintain the machine only when it is mounted on a tractor**

**Caution!**



**Danger of injury due to moving parts.**

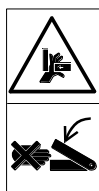
**Remove the ignition key before carrying out any maintenance work on the equipment.**



**Caution!**  
**Danger of bodily injury through improper use. The equipment may be damaged.**  
**Please read the Operating manual completely.**  
**Observe the safety precautions.**



**Caution!**  
**Danger of injury through escaping liquids under high pressure.**  
**Please observe the instructions in the Operating manual.**



**Caution!**  
**Danger of injury due to moving parts.**  
**Never reach into the danger area while parts are moving or could suddenly move.**  
**Please observe the instructions in the Operating manual.**



**Caution!**  
**Danger of bodily injury through the hydraulic system.**  
**Standing in the danger zone is only permitted if the lift cylinder lock is engaged.**



**Caution!**  
**Increased risk of accidents due to rotating power take-off shaft.**  
**Do not near the work area of the power take-off shaft while it is rotating.**  
**For your own safety, do not wear loose clothing, belts or other loose garments.**

### 3 Purpose and use

Grass collectors are designed to collect grass, leaves or similar cut material when used in conjunction with a tractor and a rotary mower or leaf suction device (accessory for grass collectors). It can be used at any weather that permits the collecting of cut material. Depending on the tractor type, the applications range is from cultivated grass to matted grass and wasteland.

The machines for grass collection with bottom discharge and grass collectors with top discharge are compact units for vacuuming and collecting cut material.

The turbine is driven by the rear power take-off shaft located at the rear of the tractor. Its task is to collect the cut material from the rotary mower over a suction line and to deliver the material over a pressure line to the bin.

To discharge the cut material, the bin of the machines can be opened and closed by means of the tractor's hydraulic system.

To discharge the collected material, the bin of top discharge machines can be lifted by means of the tractor's hydraulic system. The bin can be opened, emptied, and closed at any height, from down to up position, using the same hydraulic system.

In all machines, the grass collector can be operated from the driver's seat

## 4 Delivery and transport

The CLS-G/H 650/850 is lashed onto a pallet for delivery (see Fig. 1).

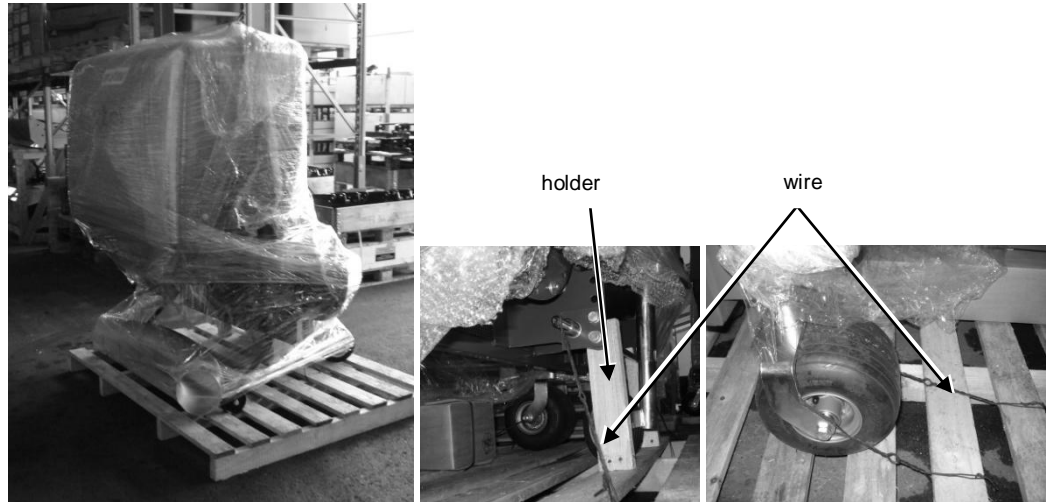


Fig. 1: Delivery of the CLS

### 4.1 Lifting the CLS off of the pallet

1. Remove the protective packaging and the transport safeguard.
2. Lift the CLS off of the pallet with a suitable device (crane or forklift) and set it down.

### 4.2 Long-distance transport

If you want to transport the CLS over longer distances (e.g. shipping via freight forwarder), you must lash the CLS onto a pallet, as it was when it was originally delivered.

### 5 First installation

Before commissioning the CLS you must execute the following four measures:

- If a hitch (basic hitch or quick-attachment hitch) is not yet mounted on your tractor, proceed as described in section 5.1.  
The CLS can also be mounted on a rear three-point linkage as described in section 6.2. Mounting instructions for a rear three-point linkage are specified in the documentation provided with your tractor or with the rear three-point linkage.
- If you have selected the CLS version with chassis, then you must mount the supplied pivot wheels and the support wheel. To do this proceed as described in the attachment instructions that were provided with the chassis.
- Check whether the PTO shaft is the correct length for use on your tractor. If necessary adjust the length of the PTO shaft, as described in section 5.2.
- Mount the suction connector and the suction hose as described in section 5.3.

#### 5.1 Mounting the hitch



**Note!**

**CLS-G/H 650/850 series implements are compact implements that can be attached to a variety of tractors. See the attachment recommendations in the current price list and note the restrictions cited in this manual.**



**Note!**

**The CLS depends on the universal joint shaft speed of the tractor. Maintain the work speed prescribed by the tractor manufacturer, as this is only way to achieve optimal turbine speed.**



**Note!**

**Enter the vehicle ID number of the tractor in (page ) of this operating manual.**

##### 5.1.1 Mounting the quick-hitch on John Deere X Series tractors



**Danger!**

**The operator or persons near the tractor/implement can be severely injured. Switch off the tractor engine and remove the ignition key before mounting the towing gear.**



**Attention!**

**The tractor and the CLS can be damaged. Only use the supplied material.**



**Note!**

**The quick-hitch is not included in the CLS scope of delivery; it must be ordered separately.**

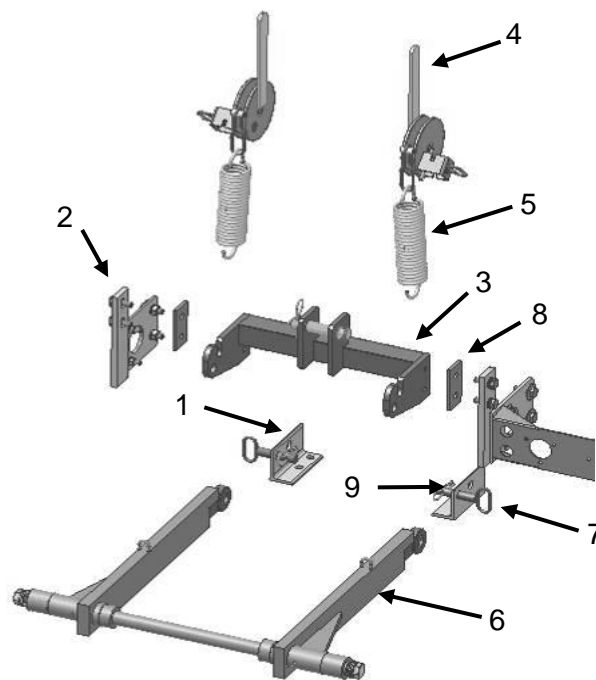


**Note!**

**In the attachment instructions below the numbers specified refer to the components as they are shown and marked in**

**Fig. 2.**





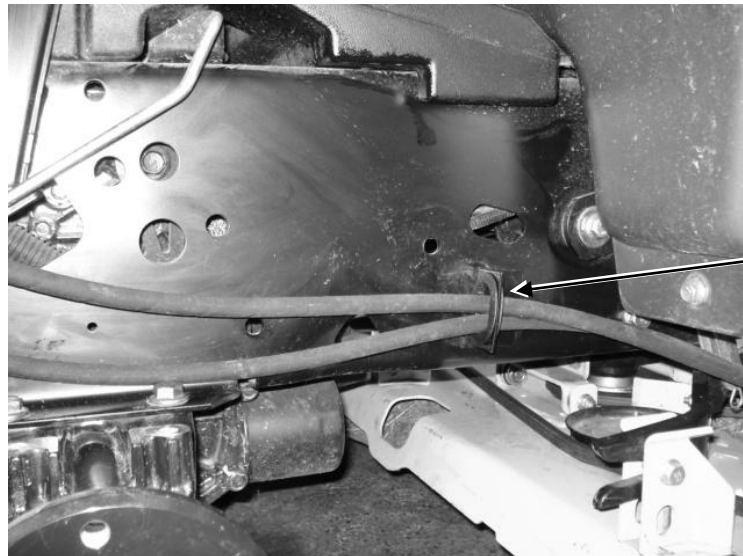
Legend:

- 1 Support bracket
- 2 Support plates
- 3 Transverse element
- 4 Lever
- 5 Spring
- 6 Tow arm
- 7 Bolt
- 8 Spacer plate
- 9 Spring cotter

If a driver's cab is present then you must install the supplied spacer plate 8 between (2) and (3) (see point 5 of the attachment instructions).

Fig. 2: Quick-hitch

1. Remove the rear three-point linkage, if it is mounted on the tractor.
2. Mount the support bracket (1) and the support plates (2) on the frame of the tractor.
3. Fasten the hose guide on the tractor frame.



Hose guide

Fig. 3: Hose guide attachment

4. On both sides of the tractor frame drill the two mounting bores ( $\varnothing$  17 mm) for the tow arms (6) (see Fig. 4 and Fig. 5).

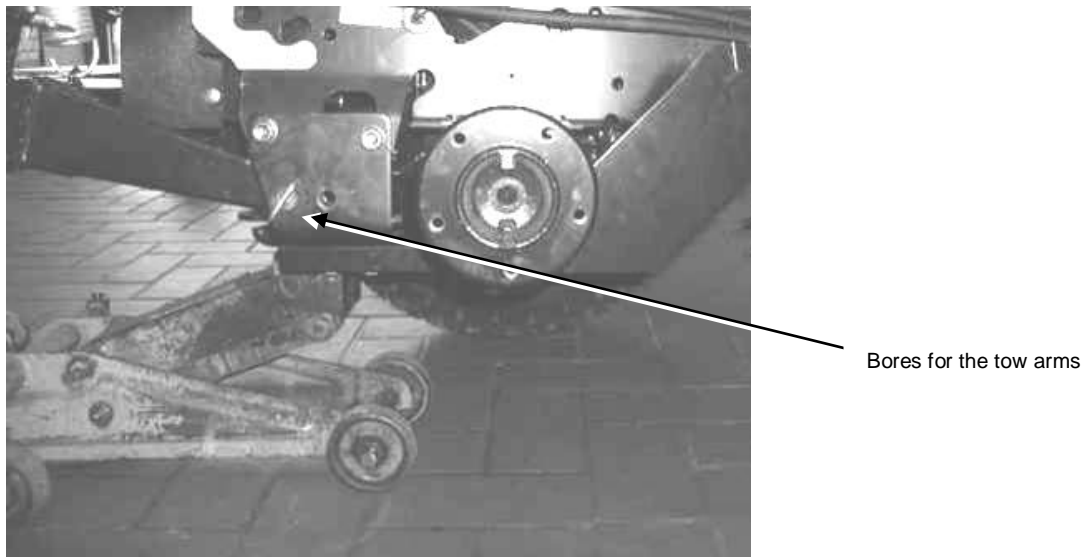


Fig. 4: Bore for tow arm

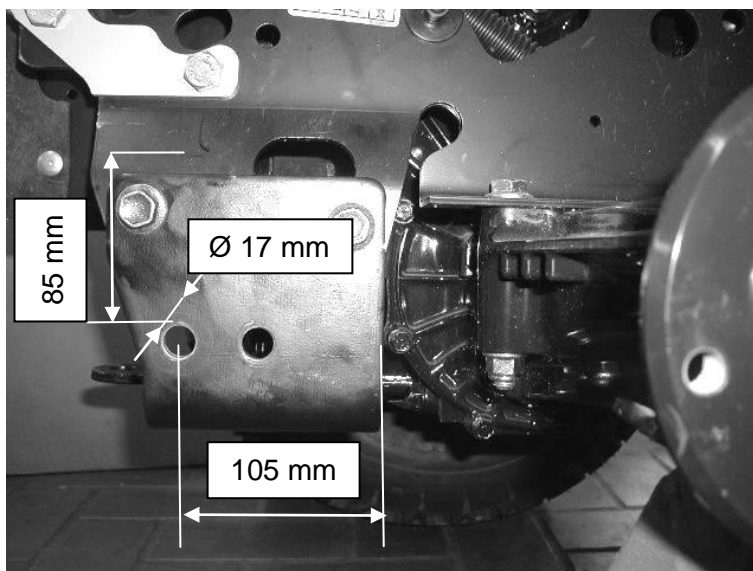


Fig. 5: Bores for the tow arms (dimensions shown)

5. Fasten the transverse element (3) between the support plates (2).  
If a driver's cab is attached you must insert the supplied spacer plates (8) on both sides between (2) and (3).

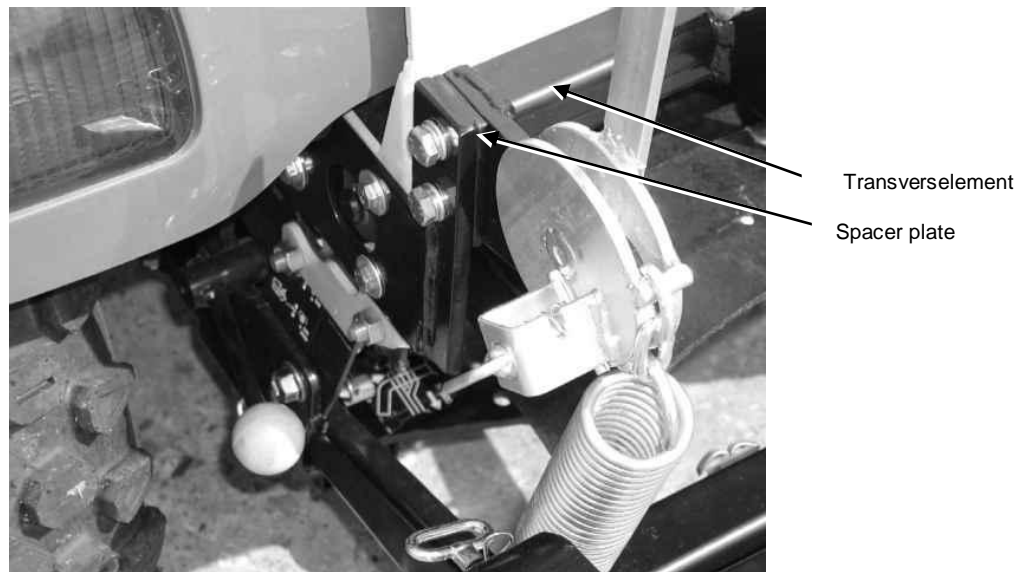


Fig. 6: Transverse element attachment

6. Hook the levers (4) into the hook plates of the transverse element.
7. Fasten the hydraulic extensions with the quick-lock couplings to the support plate provided for this purpose (see Fig. 7).

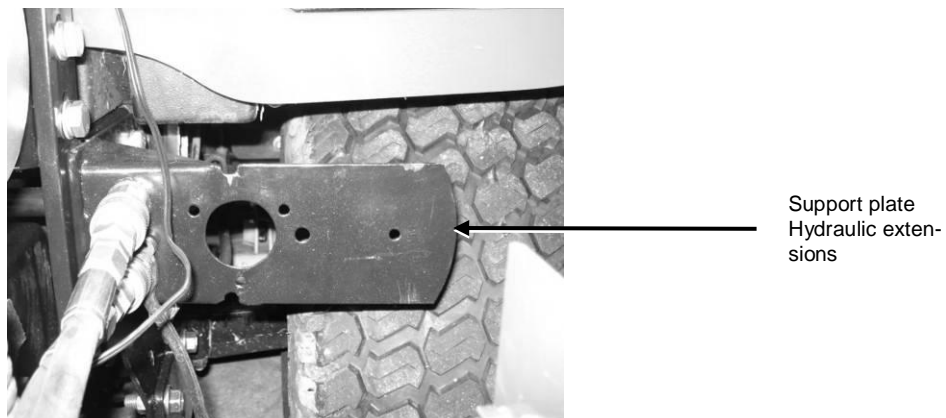


Fig. 7: Attach the hydraulic extension to the support plate

8. Route the hydraulic lines through the hose guide (see Fig. 8).

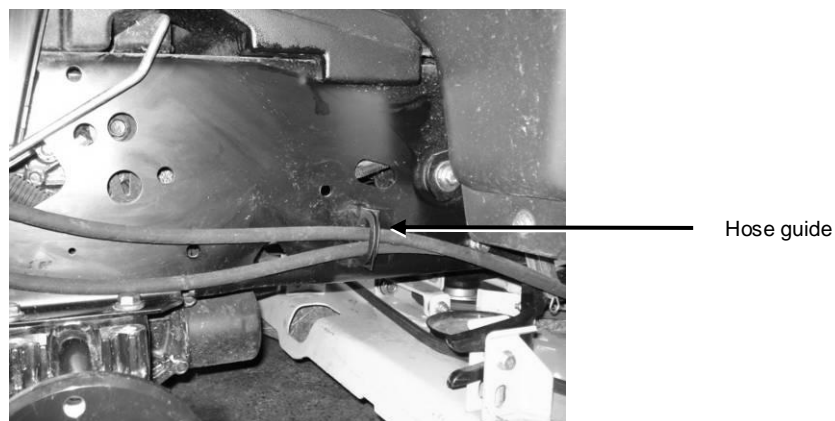


Fig. 8: Routing the hydraulic lines

9. Rivet the hose holders to the tractor body and connect the hydraulic lines (see Fig. 9). These hose holders are used as a parking possibility for the hoses when the hoses are uncoupled from the control valve and the valve is used for other purposes.



Fig. 9: Attaching the hose holders

### 5.1.2 Mounting the basic hitch on John Deere X Series tractors



#### **Danger!**

**The operator or persons near the tractor/implement can be severely injured. Switch off the tractor engine and remove the ignition key before mounting the basic hitch.**



#### **Attention!**

**The tractor and the CLS can be damaged. Only use the supplied material.**



#### **Note!**

**The basic hitch is not included in the CLS scope of delivery and must be ordered separately.**

1. Connect the transverse element to the tractor frame (see Fig. 10).

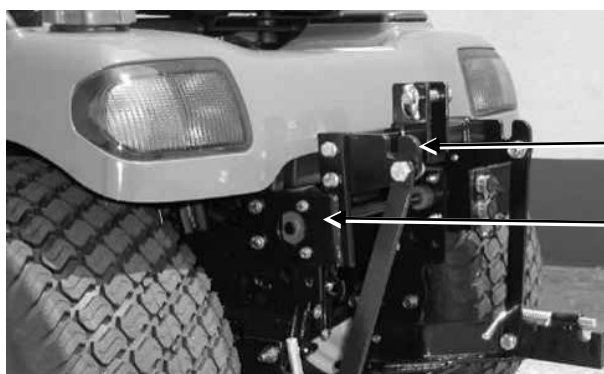


Fig. 10: Mounting the transverse element

2. If a driver's cab is mounted, place the supplied spacer plate between transverse element and the mounting (see Fig. 10).
3. Mount the lower attachment rest to the tractor frame (see Fig. 11).

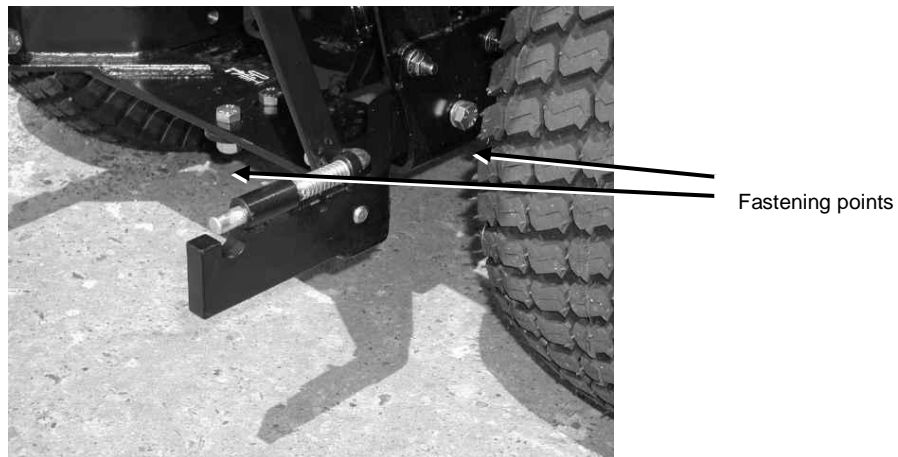


Fig. 11: Mounting the attachment rest

4. Connect the transverse element and attachment frame to the strut rods on both sides (see Fig. 12).  
Fig. 13 shows the attached basic hitch.

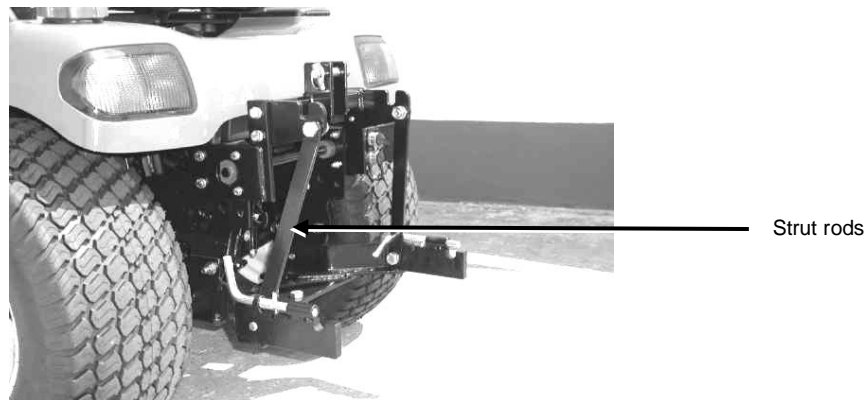


Fig. 12: Mounting the strut rods



Fig. 13: Mounted basic hitch

5. Fasten the hydraulic extensions with the quick-lock couplings to the support plate provided for this purpose (see Fig. 14).

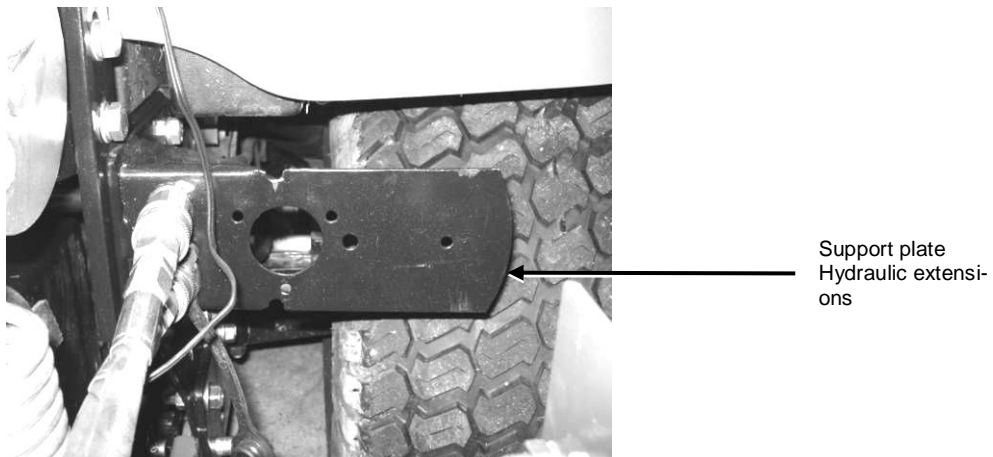


Fig. 14: Attach the hydraulic extension to the support plate

6. Route the hydraulic lines through the hose guide (see Fig. 15).

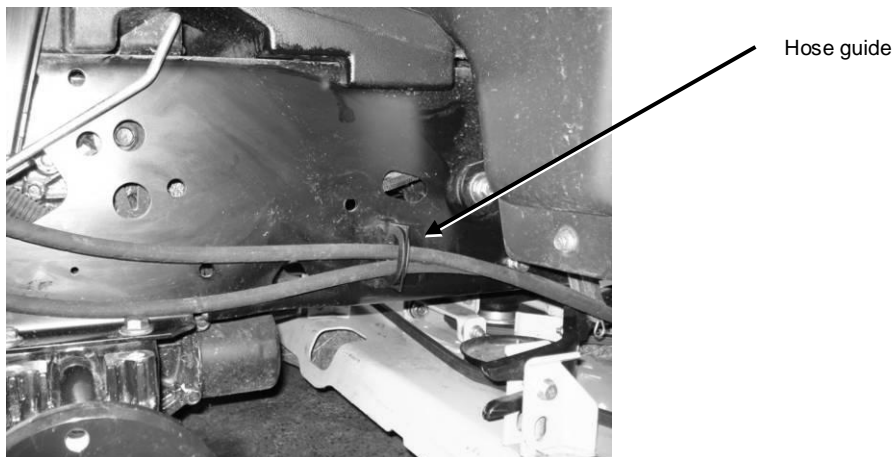


Fig. 15: Route the hydraulic extension through the hose guide

7. Rivet the hose holders to the tractor body and connect the hydraulic lines (see Fig. 16). These hose holders are used as a parking possibility for the hoses when the hoses are uncoupled from the control valve and the valve is used for other purposes.

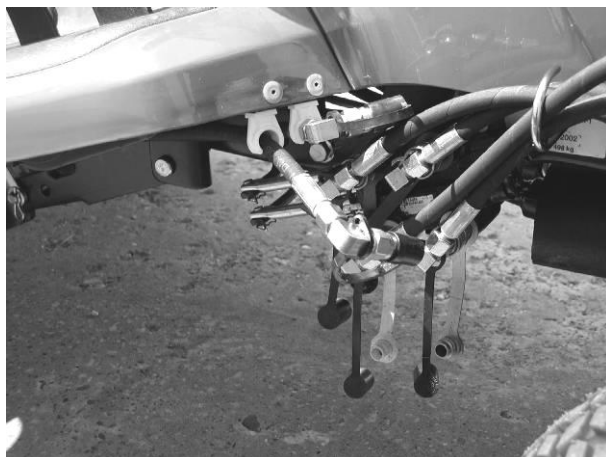


Fig. 16: Attaching the hose holders

## 5.2 Mounting and adjusting the length of the PTO shaft



### **Note!**

**Depending on tractor type the supplied PTO shaft may be too long. Execute the steps described below to shorten the PTO shaft.**

To check whether the PTO shaft is the correct length for your tractor you must attach the CS to the hitch. To do this proceed as described in sections 6.2 to 6.7 for your hitch type.

Proceed as described in the following section 5.2.1 to adjust the PTO shaft.



### **Danger!**

**The operator or persons near the tractor/implement can be severely injured. When attaching and detaching the CLS comply with the safety instructions in sections 6.2 to 6.7.**

**When attaching and detaching, pay particular attention to the following points: The CLS must be empty, closed, and lowered. If this is not the case the CLS can tip over.**

### 5.2.1 Adjusting the length of the PTO shaft



#### **Attention!**

**The CLS or the tractor can be damaged.**

**Only use the supplied material.**

**Comply with the instructions specified in the operating manual provided by the manufacturer of the PTO shaft.**



#### **Note!**

**Mount the PTO shaft as described in the original manual supplied by the manufacturer of the PTO shaft.**

1. Pull the two halves of the PTO shaft apart.
2. Mount one half of the PTO shaft on the tractor and mount the other half on the CLS. To do this proceed as described in section 5.2.2.
3. In the shortest operational position mark the piece that will be sawn off on one half of the PTO shaft (see Fig. 17).

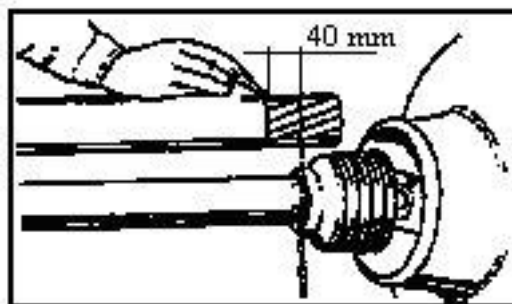


Fig. 17: Mark the piece that will be sawn off

4. Dismount the marked half of the PTO shaft. To do this proceed as described in section 5.2.3.
5. Cut off the PTO shaft guard to the marking (see Fig. 18).

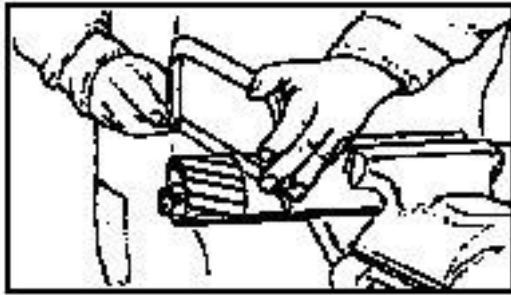


Fig. 18: Cut off the PTO shaft guard

6. Saw off the profile tube (see Fig. 19).

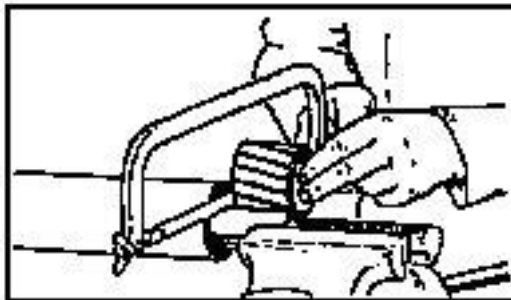


Fig. 19: Saw off the profile tube

7. Debur the sawn edges (see Fig. 20).

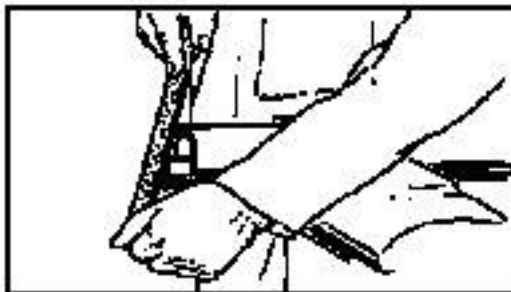


Fig. 20: Debur the sawn edges

8. Repeat steps 4 to 7 on the other half of the PTO shaft.
9. Grease the profile tube (see Fig. 21).

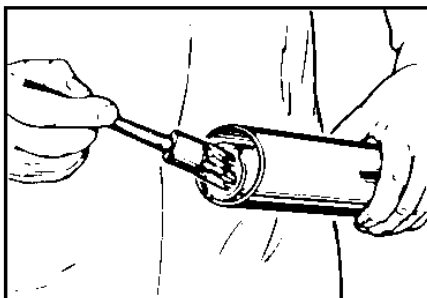


Fig. 21: Grease the profile tube

10. Slide the profile tubes together.



### 5.2.2 Mounting the PTO shaft

1. Press the locking pin on the outer fork and keep it depressed.
2. Slide the outer fork onto the profile stub of the rear universal joint shaft on the tractor.
3. Release the locking pin.
4. Slightly move the PTO shaft back and forth until the locking pin audibly locks in place.
5. Repeat steps 1 to 4 to attach the PTO shaft to the CLS.
6. Hook the PTO shaft safety chains to a stationary part on the tractor and on the CLS (see Fig. 22).

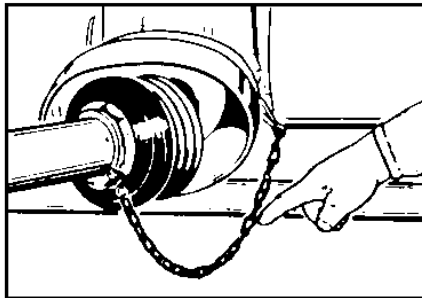


Fig. 22: Safety chain on the PTO shaft

### 5.2.3 Dismounting the PTO shaft

1. Detach the safety chain on both sides.
2. Press the locking pin on the outer fork and keep it depressed.
3. Pull the outer fork down from the profile stub of the PTO shaft on the tractor.
4. Release the locking pin.
5. Repeat steps 2 to 4 to dismount the PTO shaft on the CLS.

## 5.3 Mounting the suction connector and the suction hose on the tractor



#### **Danger!**

**The operator or persons near the tractor/implement can be severely injured. Switch off the tractor engine and remove the ignition key before mounting the basic hitch.**



#### **Attention!**

**If you dismount the suction connector, mount the original discharge guard. Never operate the mower without either the discharge guard or the suction connector installed.**



#### **Note!**

**In addition to this manual also read the safety and operating instructions specified in the associated mower manual.**

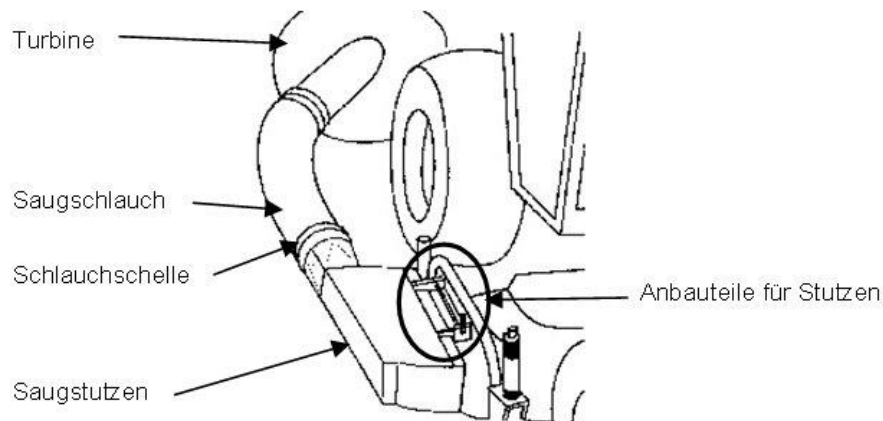


Fig. 23: Schematic overview diagram for mounting suction connector and suction hose

1. Switch off the tractor engine and remove the ignition key.
2. Lower the mower.
3. Remove the original rock guard.
4. Mount the supplied suction connector with the attachment parts on the mower. This mounting process will vary depending on the mower type.
5. Secure the connections.
6. Slide the suction hose onto the opening of the suction connector and secure it with the hose clamp.

### 5.4 Mounting the electrical components



**Note!**

The electrical components are at CLS-H 650 sowie CLS-H 850 premounted.

Connect the components conform the following electrical plan.

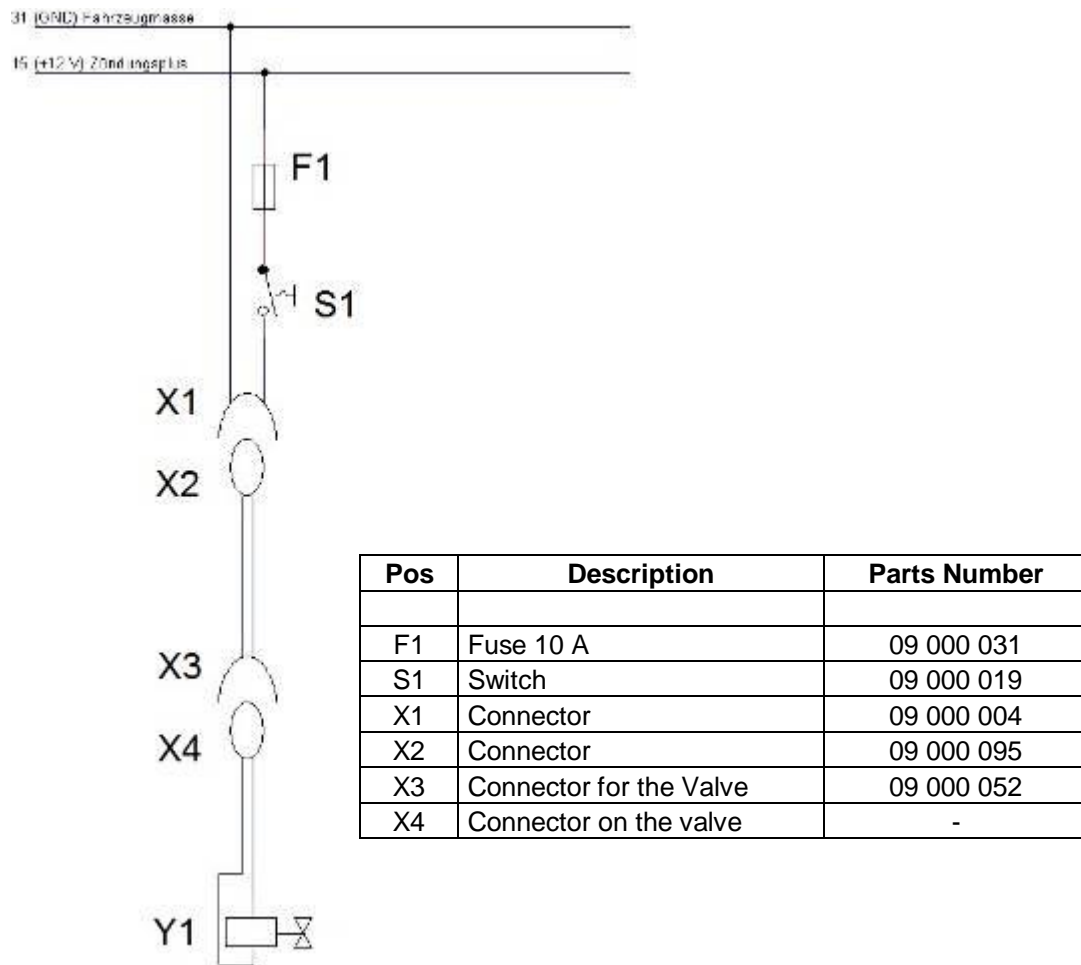


Bild 24 : Electrical plan at the high dumping version



**Attention!**

Connect the cable only with the ignition positive and not with the permanent plus. This is necessary to ensure that the solenoid coil of the switch valve is de-energized when the tractor is turned off.

## 6 Attaching and detaching the CLS 650/850

### 6.1 Preliminary comments

#### **Danger!**

If you do not comply with the following instructions the implement can tip over when it is being attached or detached:



- Ensure that the CLS is standing or parked on a level and solid substrate.
- For the version with high-dump always lower the collection bin before detaching the CLS from the tractor.
- Always empty and close the collection bin before detaching the CLS from the tractor.



#### **Comment!**

The manner in which you attach and detach the CLS depends on the hitch (rear three-point linkage, quick-hitch, basic hitch) that is mounted on your tractor, and whether you have selected the version of the CLS with or without chassis.

### 6.2 Attachment with rear three-point linkage

#### **Danger!**

The implement can tip over when it is being attached if the following instructions are not complied with:



- Ensure that the CLS is on a level and solid substrate.
- Only mount the CLS if the collection bin is empty, closed and lowered.

#### 6.2.1 CLS 650/850 with support wheels

Proceed as follows to attach the CS 650/850 with support wheels to a three-point linkage:

1. With the tractor in reverse approach the CS and ensure that the rear three-point linkage is the same height as the CS.
2. Remove the linch pin on the lower link bolt (see Fig. 25).

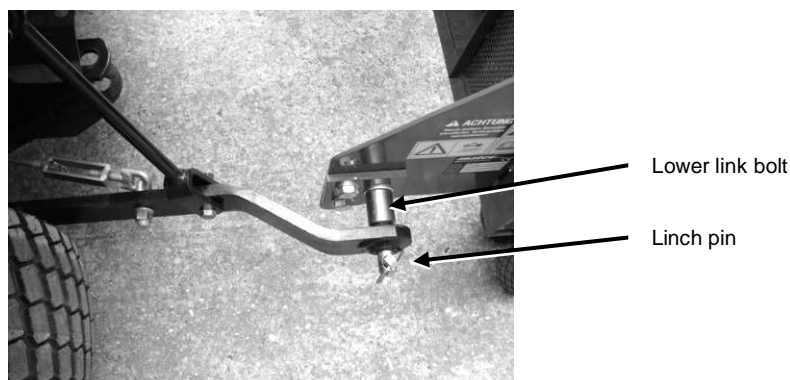


Fig. 25: Lower link bolt

3. Place the lower link of the rear three-point linkage on the lower link bolt on the CLS.
4. Secure the connection with the linch pins.
5. Adjust the desired length of the upper link.  
To adjust the length of the upper link, turn the threaded sleeve while holding the threaded spindle.
6. Fasten the upper link to the CLS with the upper link bolt (see Fig. 26).



Fig. 26: Upper link on the CS

7. Secure the connection with the linch pin.
8. Couple the PTO shaft to the tractor. To do this proceed as described in section 5.2.2.
9. Slide the suction hose onto the opening on the turbine cover and secure the connection with the hose clamp (see Fig. 27).  
If you have removed the suction hose from the suction connector on the mower since last using the CLS, then slide the suction hose over the suction connector again and secure the connection with the hose clamp.

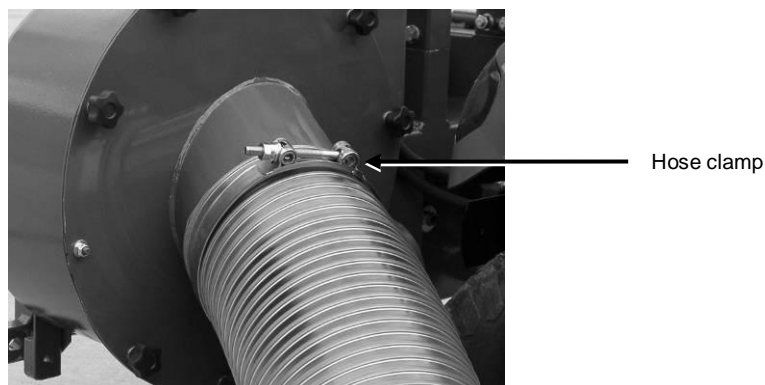
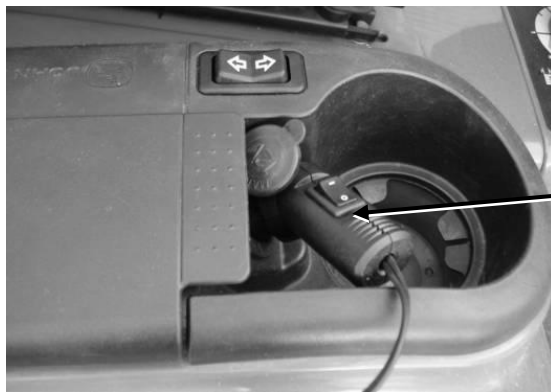


Fig. 27: Suction hose on the turbine cover

10. Connect the hydraulic connections of the CLS to the connections on the tractor.
11. Connect the plug-type connector to the tractor's 12 V power connection.

## Attaching and detaching the CLS 650/850

---



Plug-type connector

Fig. 28: 12 V power connection

12. Lift the CLS with the aid of the rear three-point linkage.
13. Loosen the clamp connection of the front support wheel, pull the support wheel upward, and then clamp the front support wheel.



Clamp lock

Fig. 29: Front support wheel

14. Pull out the safety bolts on the support wheels (see Fig. 30).



Safety bolts

Fig. 30: Safety bolts on the support wheels

15. Take the support wheels off of the CLS-G/H 650/850 and keep them in a safe place.

### 6.2.2 CLS –G/H 650/850 with chassis

Proceed as follows to attach the CLS –G/H 650/850 with chassis to a rear three-point linkage:

1. Turn the pivot wheels to the rear and secure them with the appropriate tube linch pins (see Fig. 31).

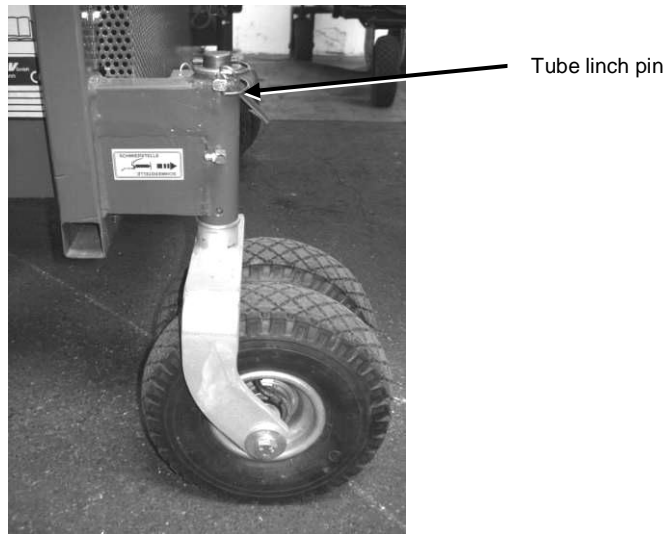


Fig. 31: Pivot wheel

2. With the tractor in reverse approach the CLS and ensure that the rear three-point linkage is at the same height as the CLS.
3. Remove the linch pin on the lower link bolt (see Fig. 32).

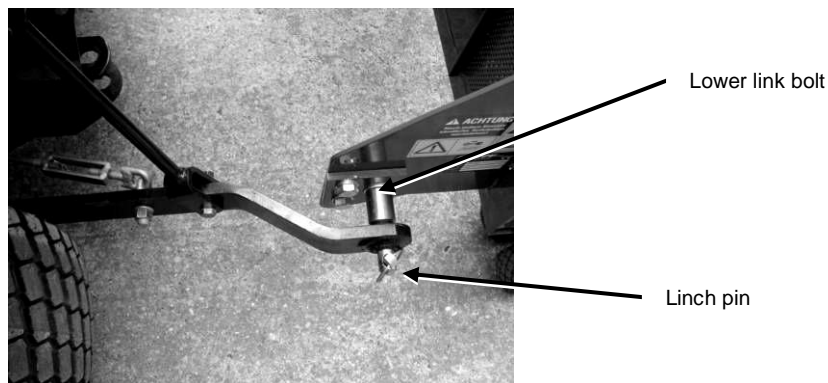


Fig. 32: Lower link bolt on the CLS

4. Place the lower link of the rear three-point linkage on the lower link bolt on the CLS.
5. Secure the connection with the linch pins.
6. Adjust the desired length of the upper link.  
To adjust the length of the upper link, turn the threaded sleeve while holding the threaded spindle.
7. Fasten the upper link to the CLS with the upper link bolt (see Fig. 33).

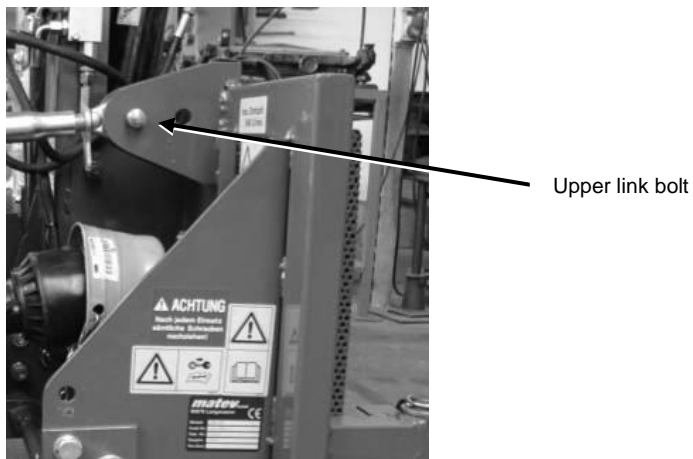


Fig. 33: Upper link on the CLS

8. Secure the connection with the linch pin.
9. Couple the PTO shaft to the tractor.  
To do this proceed as described in section 5.2.2.
10. Slide the suction hose onto the opening on the turbine cover and secure the connection with the hose clamp (see Fig. 34).  
If you have removed the suction hose from the suction connector on the mower since last using the CLS, then slide the suction hose over the suction connector again and secure the connection with the hose clamp.

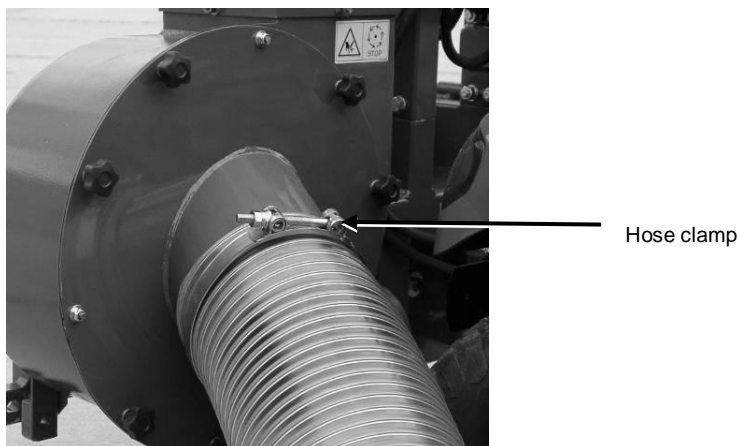


Fig. 34: Suction hose on the turbine cover

11. Connect the hydraulic connections of the CLS to the connections on the tractor.
12. Connect the plug-type connector to the tractor's 12 V power connection.

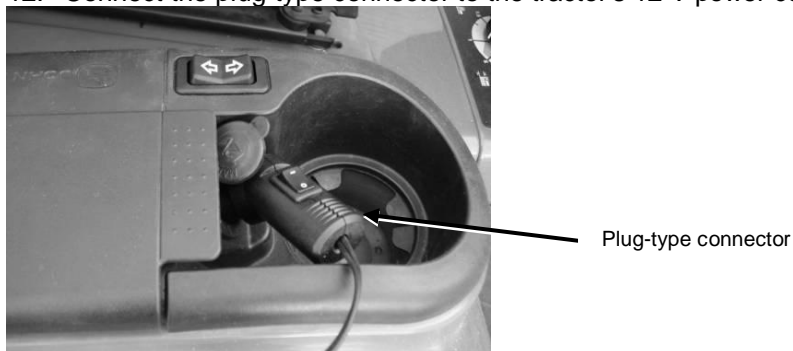


Fig. 35: 12 V power connection



13. Loosen the clamp lock of the front support wheel on the CLS, slide the support wheel upward and arrest the clamp lock (see).



Fig. 36 Front support wheel

### 6.3 Detaching with the three-point linkage



#### **Danger!**

**If you do not comply with the following instructions the implement can tip over when it is being detached:**

- Place the CLS on a level and solid substrate.
- Only detach the CS if the collection bin is empty, closed and lowered.

#### 6.3.1 CLS 650/850 with support wheels

Proceed as follows to detach the CLS 650/850 three-point linkage with support wheels:

1. Use the rear three-point linkage to lift the CLS high enough that you can insert the support wheels on both sides.
2. Arrest the support wheels with the tube pinch pin (see Fig. 37).

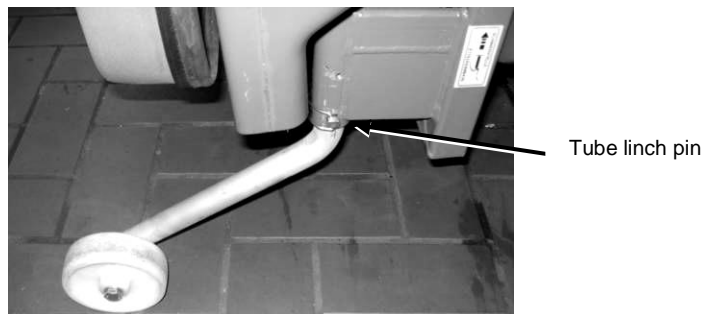


Fig. 37: Support wheels

3. Lower the CLS until it is on the ground.
4. Disconnect the hydraulic hose connections.
5. Remove the plug-type connector from the tractor's power supply.
6. Uncouple the PTO shaft on the tractor.  
To do this proceed as described in section 5.2.3.
7. Disconnect the suction hose from the connector on the CS by loosening the hose clamp (see Fig. 38).

## Attaching and detaching the CLS 650/850

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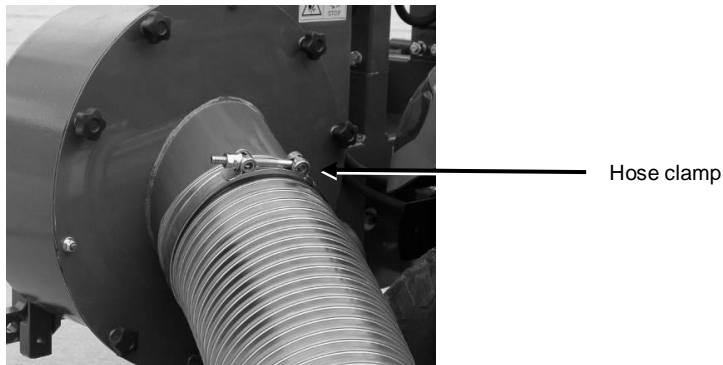


Fig. 38: Suction hose on the turbine cover

8. Disconnect the connection of the upper link on the CLS.
9. Uncouple the lower link arms of the rear three-point linkage from the CS, and push the CLS back a short distance.
10. Drive the tractor forward, away from the CLS.

### 6.3.2 CLS 650/850 with chassis

Proceed as follows to detach the CLS 650/850 with chassis from a three-point linkage:

1. Turn the pivot wheels to the rear and secure them with the tube lynch pins (see Fig. 39).

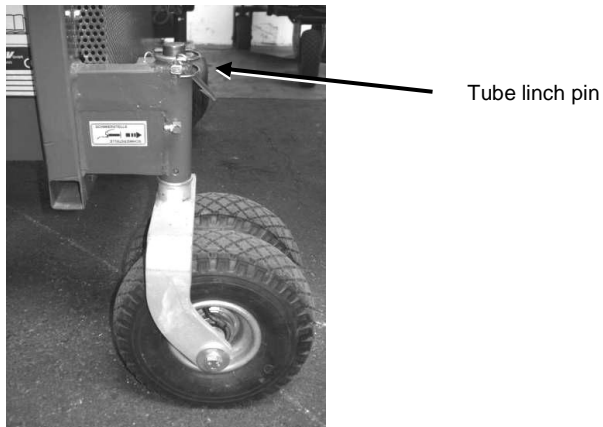


Fig. 39: Pivot wheel

2. Loosen the clamp lock of the front support wheel on the CLS, slide the support wheel upward and arrest the clamp lock.

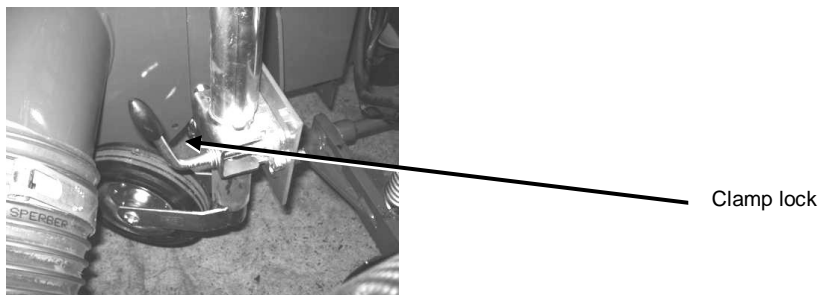


Fig. 40: Front support wheel

3. Disconnect the hydraulic hose connections.

4. Unplug the plug-type connector from the tractor's power connection.
5. Uncouple the PTO shaft on the tractor.  
To do this proceed as described in section 5.2.3.
6. Disconnect the suction hose from the connector on the CS by loosening the hose clamp (see Fig. 41).

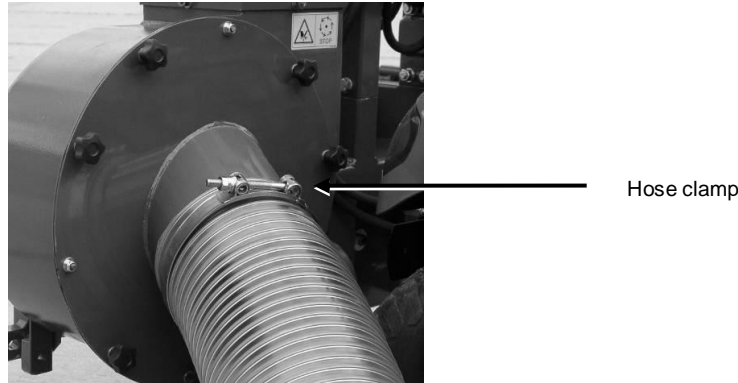


Fig. 41: Suction hose on the turbine cover

7. Disconnect the connection of the upper link on the CLS.
8. Take the lower link arms of the rear three-point linkage off of the CLS, and push the CLS back a short distance.
9. Drive the tractor forward, away from the CLS.

### 6.4 Attachment with quick-hitch



#### **Danger!**

If you do not comply with the following instructions the implement can tip over when it is being attached:

- Ensure that the CLS is on a level and solid substrate.
- Only mount the CLS if the collection bin is empty, closed and lowered.



#### **Note!**

You can only attach the CLS to a tractor with quick-hitch if you have selected the CLS with chassis.

The position numbers used in the attachment instructions below refer to the number of the components in

Fig. 2 in section 5.1.1.

Proceed as follows to attach the CLS to a quick-hitch:

1. Turn the pivot wheels to the rear and secure them with the tube linch pins (see Fig. 42).

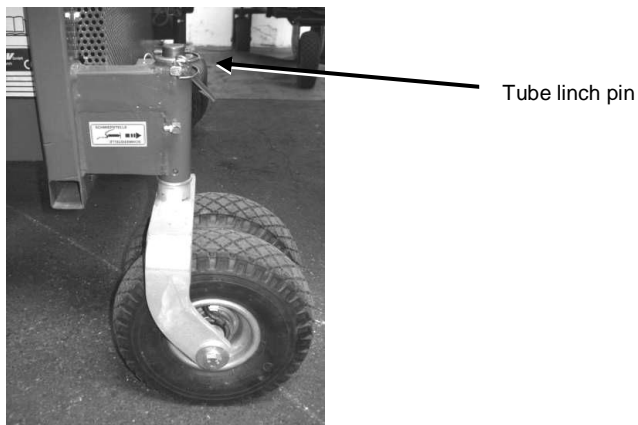


Fig. 42: Pivot wheel

2. First mount the tow arms of the quick-hitch to the CLS. To do this the tow arms must be inserted left and right on the cross strut and the cross strut must be bolted onto the CLS.

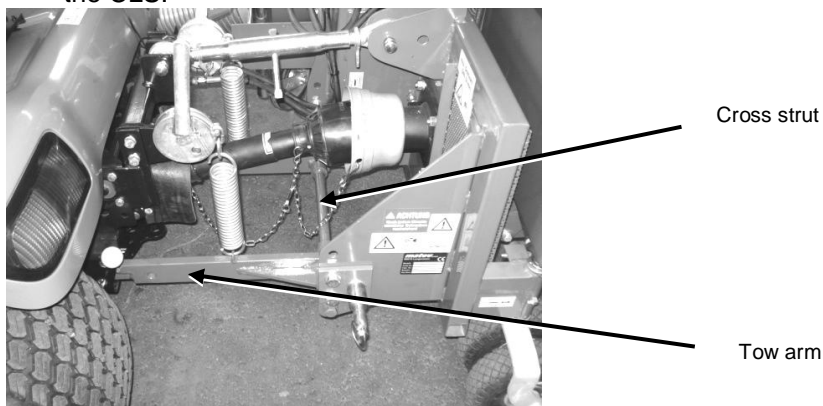


Fig. 43: Connecting axle, quick-hitch

3. Move the tractor in reverse, toward the CLS-G/H 650/850.
4. Push the implement as close to the tractor as possible.
5. Couple the PTO shaft to the tractor. To do this proceed as described in section 5.2.2.
6. Place the two arms of the quick-hitch into the spaces provided for this purpose between the mounting brackets (1) and the tractor frame.



Fig. 44: Tow arm mounting on the tractor

7. Insert the mounting bolts (7) and secure them with the spring cotter pins (9).
8. Adjust the desired length of the upper link.  
To adjust the length of the upper link, turn the threaded sleeve while holding the threaded spindle.
9. Fasten the upper link to the upper link bolt on the tractor.
10. Secure the connection with the linch pin.
11. Connect the hydraulic connections of the CLS to the connections on the tractor.
12. Connect the plug-type connector to the tractor's 12 V power outlet.
13. Slide the suction hoses onto the opening on the turbine cover and secure the connection with the hose clamp  
If you have removed the suction hose from the suction connector on the mower, since the last use of the CLS, then slide the suction hose over the suction connector again and secure the connection with the hose clamp.

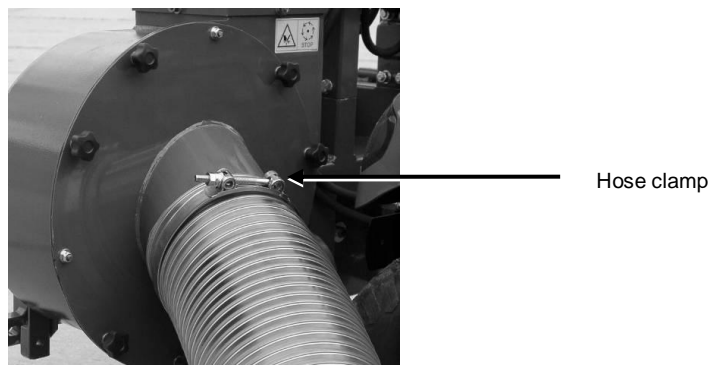


Fig. 45: Suction hose on the turbine cover

14. Unlock the levers (4) and turn them downward.
15. Hook in the springs (5).
16. Tension the springs by lifting up the levers (4) until they audibly lock in place.
17. Loosen the clamp lock of the front support wheel on the CLS, lift the support wheel and arrest the clamp lock.

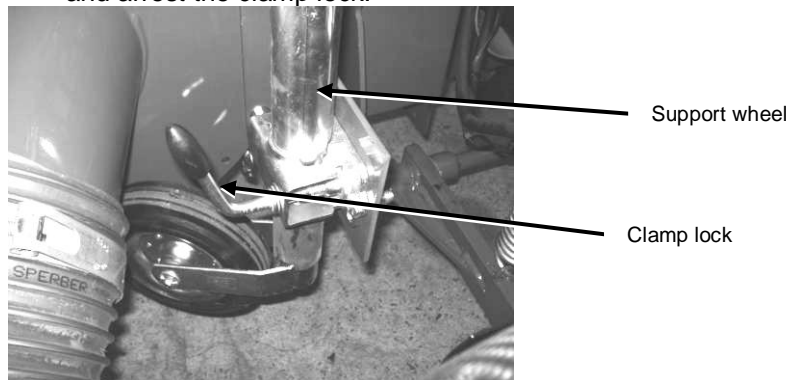


Fig. 46: Front support wheel

### 6.5 Detaching with the quick-hitch

Proceed as follows to detach the CLS-G/H 650/850 from a quick-hitch:

1. Loosen the clamp lock of the front support wheel on the CLS, lower the support wheel, then arrest the clamp lock (see Fig. 46)
2. Turn the two pivot wheels to the rear and secure them with the tube linch pins.

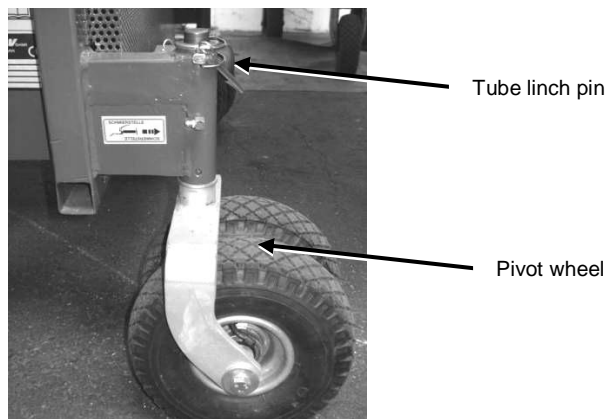


Fig. 47: Pivot wheel

3. Disconnect the hydraulic hose connections.
4. Unplug the plug-type connector from the tractor's power outlet.
5. Uncouple the PTO shaft from the tractor.
6. Disconnect the suction hose from the connector on the CS by loosening the appropriate hose clamp (see Fig. 48).

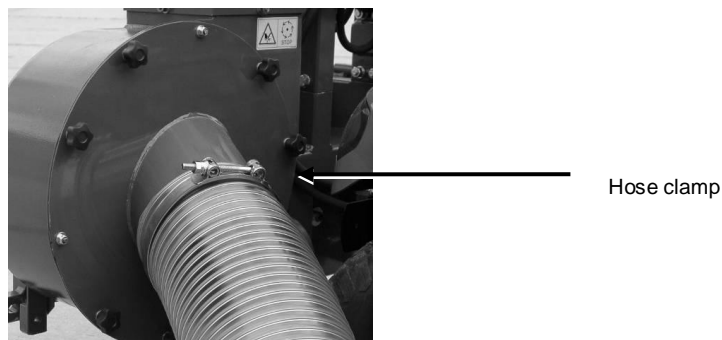


Fig. 48: Suction hose on the turbine cover

7. Disconnect upper link connection.
8. Relax the springs and remove them.
9. Remove the bolt connection between arms and tractor (see Fig. 44) and push the implement back a short distance.
10. Drive the tractor forward, away from the CLS.

### 6.6 Attachment with the basic hitch



#### **Danger!**

**If you do not comply with the following instructions the implement can tip over when it is being attached:**

- **Ensure that the CLS is on a level and solid substrate.**
- **Only mount the CLS if the collection bin is empty, closed and lowered.**



#### **Note!**

**You can only attach the CLS to a tractor with basic hitch if you have selected the CLS with chassis.**

Proceed as follows to attach the CLS-G/H 650/850 to a basic hitch:

1. The CLS-G/H 650/850 rests on the support wheels.

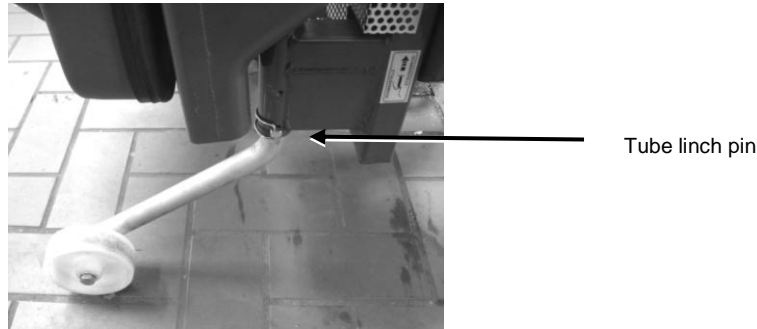


Fig. 49: Moveable support wheels

2. With the tractor in reverse, approach the CLS.  
In this process align the lower link of the hitch so that the linch pins are in front of the cross strut of the CLS.
3. Push the CLS as close as possible to the tractor.
4. Unlock the locking pins on the lower links of the hitch.
5. Couple the PTO shaft to the tractor and to the CLS. To do this proceed as described in section 5.2.2.
6. Crank the front support wheel of the CLS and push the implement toward the tractor until the cross strut is positioned above the catch hooks of the basic hitch (see Fig. 50).



Fig. 50: Locking pin (unlocked) on the lower link

7. Crank the front support wheel of the CLS until the connecting tube rests in the notch of the basic hitch.
8. Lock the locking pins (see Fig. 51).

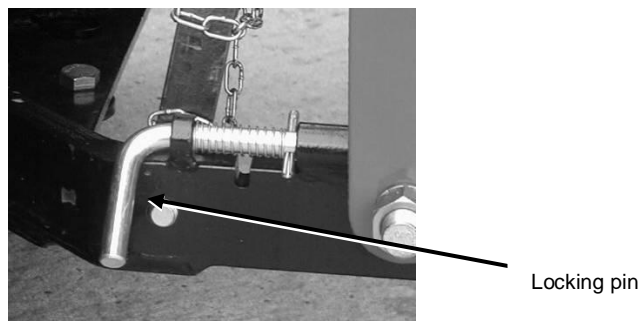


Fig. 51: Locking pin (locked)

9. Adjust the length of the upper link to match the distance between the upper link lugs on the CS and the lugs on the tractor.

## Attaching and detaching the CLS 650/850

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To adjust the length of the upper link, turn the threaded sleeve while holding the threaded spindle.

10. Fasten the upper link to the upper link bolt on the tractor (see Fig. 52).

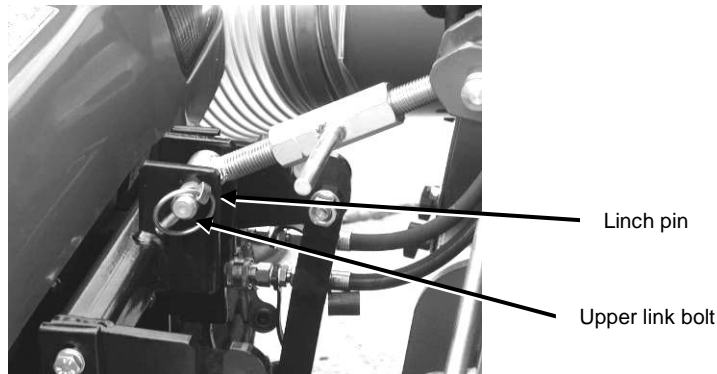


Fig. 52: Upper link

11. Secure the connection with the linch pin.
12. Crank up the front support wheel.
13. Loosen the clamp lock of the front support wheel on the CLS-G/H 650/850, lift the support wheel and arrest the clamp lock.

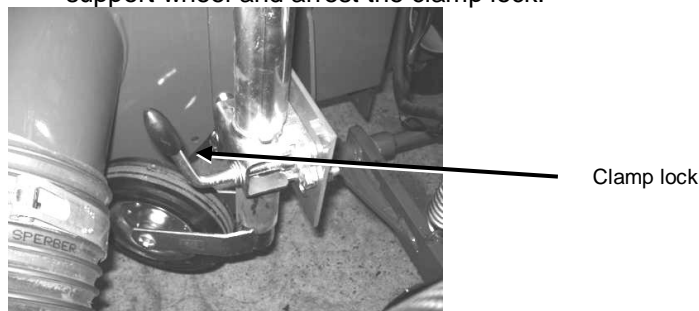


Fig. 53: Support wheel

14. Rotate the threaded sleeve of the upper link to adjust it to the minimum length, remove the support wheels of the CLS-G/H and keep them in a safe place.
15. Turn the threaded sleeve of the upper link to adjust it to an optimal length (implement in vertical position) and secure the adjustment with the lock nut.
16. Slide the suction hose onto the opening on the turbine cover and secure the connection with the hose clamp (see Fig. 54).

If you have removed the suction hose from the suction connector on the mower since last using the CLS-G/H, then slide the suction hose over the suction connector again and secure the connection with the hose clamp.

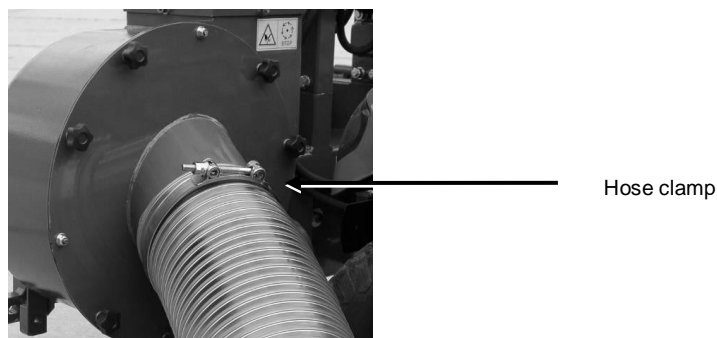


Fig. 54: Suction hose on the turbine cover



17. Connect the hydraulic connections of the CS to the connections on the tractor.
18. Connect the plug-type connector to the tractor's 12 V power connection.

### 6.7 Detaching the CLS from the basic hitch

Proceed as follows to detach the CLS-G/H 650/850 from a basic hitch:

1. Turn the threaded sleeve of the upper link to adjust it to a minimum length.
2. Insert the support wheels and arrest the support wheels with the tube linch pins.

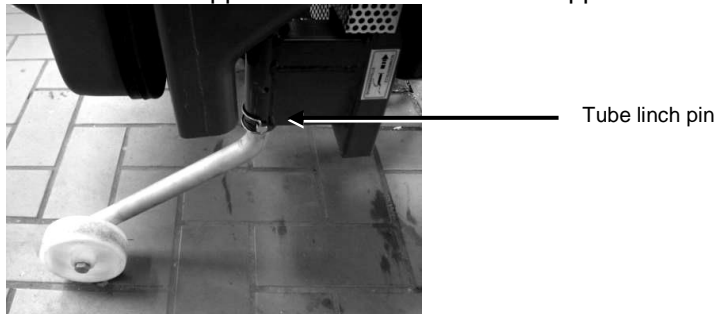


Fig. 55: Support wheel

3. Disconnect the hydraulic hose connections.
4. Unplug the plug-type connector from the power connection.
5. Disconnect the suction hose from the connector on the CLS by loosening the appropriate hose clamp.

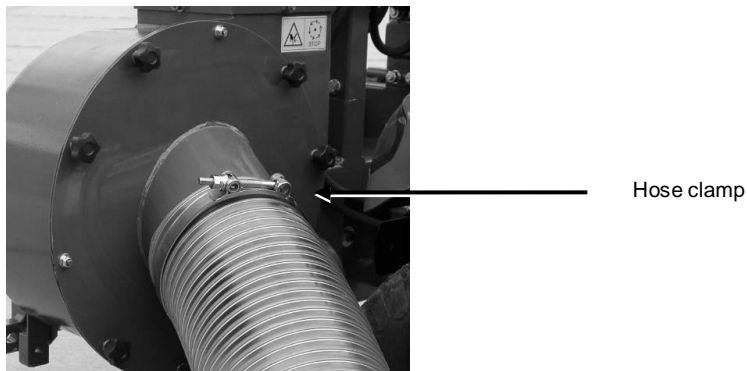


Fig. 56: Suction hose on the turbine cover

6. Unlock the lock bolts on the lower link of the hitch, see Fig. 50.
7. Turn the upper link to tilt the CLS to the rear.
8. When the upper link is offloaded remove the upper link bolt on the tractor to disconnect the upper link connection.
9. Loosen the clamp lock of the front support wheel on the CLS, lower the support wheel, then arrest the clamp lock (see Fig. 53)
10. Crank the front support wheel until the connecting tube is lifted out of the hooks on the basic hitch.
11. Push the CLS back a short distance.
12. Uncouple the PTO shaft on the tractor.  
To do this proceed as described in section 5.2.3.
13. Drive the tractor forward, away from the CLS.

## 7 Operation

### 7.1 Starting and switching off the turbine



**Danger!**

**A rotating turbine can cause severe injuries.**

**The turbine continues to rotate for a short time after it is switched off.**

**Wait until the turbine has come to a standstill before executing maintenance or conversion tasks. The afterrun times vary based on the tractor/implement combination.**

The turbine is driven by the rear universal joint shaft on the tractor. Its task is to take up the cuttings from the rotary motor via a suction line and transport the cuttings into the bin via the pressure line.

The process of switching the rear PTO shaft on and off varies depending on tractor type (see the tractor operating manual in this regard).

- Switching on the rear PTO shaft means: The turbine is running.
- Switching off the rear PTO shaft means: The turbine will come to a standstill.

### 7.2 Lifting, lowering, and emptying the collection bin



**Danger!**

**The operator or persons near the tractor/implement can be severely injured. Comply with the following instructions when lifting and lowering the collection bin:**

- **Ensure that no one is in the danger zone.**
- **The material collection system can tilt. The tractor must be on a firm and level substrate when you empty the collection bin.**

The procedures for emptying the CLS-G/H 650/850 differ depending on the version:

- High-dump version or low-dump version

#### 7.2.1 Low-dump

The CLS-G/H 650/850 is emptied from the driver seat via activation of the tractor's hydraulic system.

1. Approach the dump point with the tractor in reverse.
2. Activate the tractor's hydraulic system to open the cover.  
The cuttings will fall out.



Fig. 57: Low-dump

3. Ensure that no material (grass or similar material) is between the cover and the bin.



## **Danger!**

**The operator or persons near the tractor/implement can be severely injured. Safeguard the bin cover against lowering unintentionally.**



## **Attention!**

**The implement can be damaged if material remains between the cover and the bin.**

4. Activate the tractor's hydraulic system to close the cover.
5. Ensure that the cover is tightly sealed, i.e. ensure that the cover rests flush on the bin.

### 7.2.2

#### High-dump



## **Attention!**

**Danger of injury due to the hydraulic system.**

**If the bin is lifted, do not enter the danger zone unless the lift cylinder safeguard is in place.**

The CLS-G/H 650/850 is emptied from the driver seat via activation of the tractor's hydraulic system.

1. Proceed as follows to empty the high-dump collection bin:
2. Approach the dump point with the tractor in reverse to 2 m in front of the dump point.
3. Move the switch of the electromagnetic changeover valve to *Lift/Lower Bin*.



Switch

Fig. 58: 12 V connection with switch

4. Activate the tractor's hydraulic system until the desired bin height is reached.



Fig. 59: High-dump cover is closed

5. Approach the dump point with the tractor in reverse.
6. Move the electromagnetic changeover valve to *Close/Open Cover*.
7. Activate the tractor's hydraulic system to close the cover.  
The cuttings will drop out.



Fig. 60: High-dump, cover is open

8. Drive at least 2 m forward.
9. Activate the tractor's hydraulic system until the cover is closed.
10. Move the electromagnetic changeover valve to *Lift/Lower Bin*.
11. Activate the tractor's hydraulic system until the bin is lowered.
12. Ensure that the cover is tightly sealed, i.e. ensure that the cover rests flush on the bin.

## 8 Maintenance

### 8.1 Service



**Danger!**

The implement can tip over.

Only perform service and maintenance tasks if,

- the CLS is on level ground,
- the CLS is mounted on the tractor and
- the collection bin is empty.



**Danger!**

The operator and other persons can be severely injured.

Only perform service and maintenance tasks with lifted bin if the bin has been safeguarded against falling unintentionally by appropriately positioning the lowering safeguard. Do not forget to unhook the lowering safeguard before lowering the bin.

#### 8.1.1 General



**Attention!**

Properly re-attach all protective devices that have been dismantled after executing the service tasks.

**Note!**



- After the first 20 hours of operation check all screw and bolt connections.
- Regularly service the CLS as described in section 8.1.3.
- Only use lubricating grease, do not use oil to lubricate moving parts.

#### 8.1.2 Daily service

- Check the safety elements and moving parts for wear.  
Replace worn or defective parts.
- Check the hydraulic connections and lines for leaks.  
Replace leaking connections and lines.
- Lubricate the bearing block of the turbine drive.  
Proceed as described in section 8.1.6.
- Execute a trial run.
- For the chassis version, check the air pressure of the pivot wheels and adjust the air pressure if necessary.
- Clean the entire implement after each use.  
Particularly clean the bin the turbine, the suction hose and the suction connector from the inside.

#### 8.1.3 Service schedule (overview)

Time interval	Activity
After the first 20 operating hours	<ul style="list-style-type: none"><li>• Check all screw and bolt connections. Tighten any loose screws, and secure any loose bolt connections with linch pins.</li></ul>
Daily or before each use	<ul style="list-style-type: none"><li>• Check the safety elements and moving parts for wear. Replace worn or defective parts.</li><li>• Check the hydraulic connections and lines for leaks. Replace leaking connections and lines.</li><li>• Lubricate the bearing block of the turbine drive. Proceed as described in section 8.1.6.</li><li>• Execute a trial run.</li><li>• For the chassis version, check the air pressure of the pivot wheels and adjust the air pressure if necessary.</li><li>• Clean the entire implement after each use. Particularly clean the bin the turbine, the suction hose and the suction connector from the inside.</li></ul>
After each use	<ul style="list-style-type: none"><li>• Clean the entire implement.</li><li>• Particularly clean the collecting tank, the turbine, the suction hose and the suction connector from the inside.</li></ul>
After 8 operating hours	<ul style="list-style-type: none"><li>• Lubricate the PTO shaft as described in section 8.1.5.</li></ul>
After 50 operating hours or after a longer standstill period	<ul style="list-style-type: none"><li>• At regular intervals, and at the beginning and end of the season, lubricate the moving parts of the implement as described in section 8.1.4.</li><li>• Check the belt tension on the turbine drive. To adjust the belt tension, proceed as described in 8.1.6.</li></ul>

### 8.1.4 Lifting and opening mechanisms



#### **Danger!**

**The implement can tip over.**

**Only perform service and maintenance tasks if,**

- the CLS is on level ground,
- the CLS is mounted on the tractor and
- the collection bin is empty.



#### **Danger!**

**The operator and other persons can be severely injured.**

**Only perform service and maintenance tasks with lifted bin if the bin has been safeguarded against falling unintentionally by appropriately positioning the lowering safeguard. Do not forget to unhook the lowering safeguard before lowering the bin.**

Proceed as follows to lubricate the lifting and opening mechanisms:

1. Lift the bin.

2. Hook the lowering safeguard onto the appropriate bolt to safeguard the bin against unintended lowering (see Fig. 61).

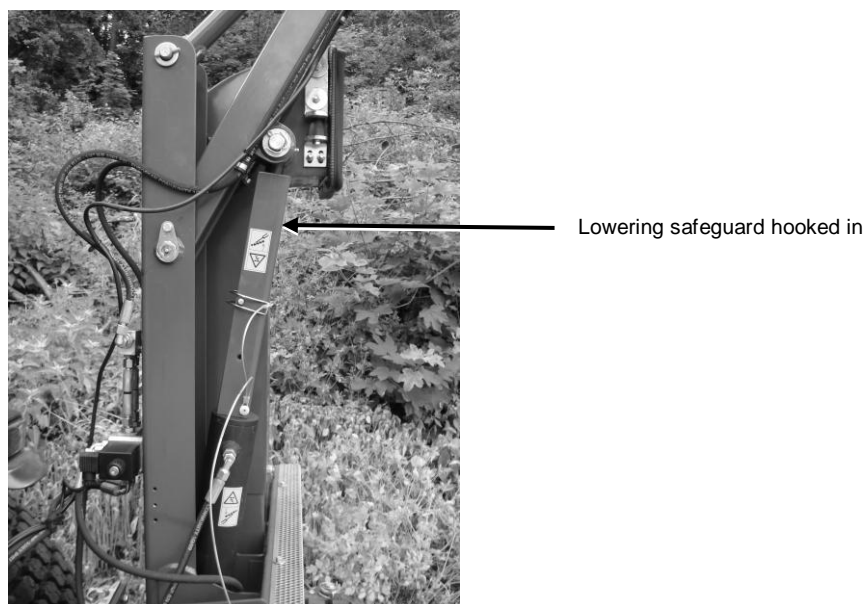


Fig. 61: Lowering safeguard in *secured position*

3. Lubricate the lifting and opening mechanisms at the points that are marked in Fig. 62.



Fig. 62: Lubricating points on the lifting and opening mechanisms

### 8.1.5 PTO shaft

Lubricate the PTO shaft as shown in section Fig. 63.

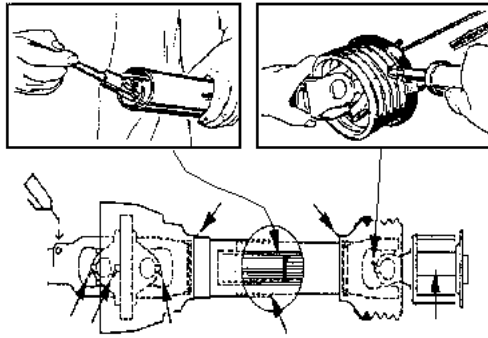


Fig. 63: Lubricate the PTO shaft

### 8.1.6 Turbine drive



#### **Danger!**

**A rotating turbine can cause severe injuries.**

**The turbine continues to rotate for a short time after it is switched off.**

**Wait until the turbine has come to a standstill before executing maintenance or conversion tasks. The afterrun times vary based on the tractor/implement combination.**

To lubricate the bearing block of the turbine bearing, proceed as follows:

1. Remove the rubber cap (see Fig. 64).

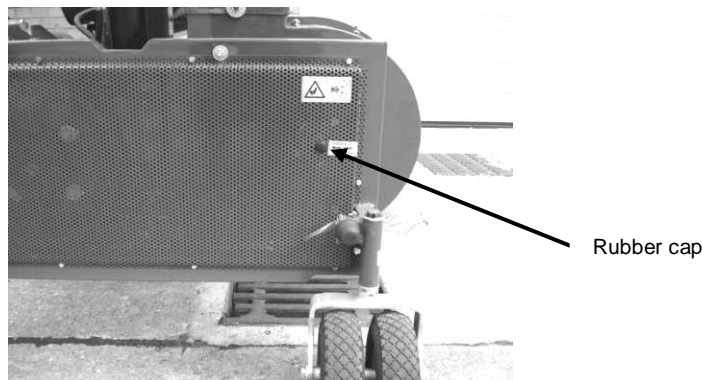


Fig. 64: Bearing bracket lubricating point

2. Use a grease gun to lubricate the bearing bracket.
3. Insert the rubber cap.

Proceed as follows to adjust the V-belt tension the turbine drive:

4. Lift the collection bin.
5. Hook in the lowering safeguard to secure the bin against unintended lowering (see Fig. 65).

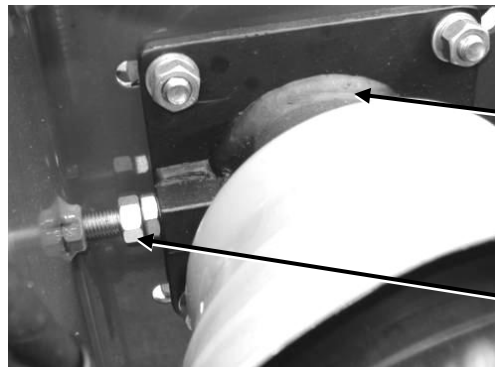




Lowering safeguard hooked in

Fig. 65: Lowering safeguard in *secured position*

6. Remove the belt guard.
7. Remove the mounting screws on the bearing bracket.
8. Loosen the lock nut of the set screw.
9. Adjust the tension of the belt by turning the set screw (see Fig. 66).



Bearing bracket

Set screw

Fig. 66: Tension the V-belt

10. Tighten the lock nut.
11. Tighten the mounting screws on the bearing bracket.
12. Mount the belt guard.
13. Unhook the lowering safeguard.
14. Lower the collection bin.

### 8.1.7 Adjusting the seal of the collection bin cover



#### **Danger!**

**The implement can tip over.**

**Only perform service and maintenance tasks if,**

- the CLS is on level ground,
- the CLS is mounted on the tractor and
- the collection bin is empty.



**Danger!**

**The operator and other persons can be severely injured.**

**Only perform service and maintenance tasks with lifted bin if the bin has been safeguarded against falling unintentionally by appropriately positioning the lowering safeguard.**

To adjust how tightly the cover the of the collecting tank seals, you can

- adjust the longitudinal and transverse alignment of the hinges and
- adjust the length of the cylinder rod.

Proceed as follows to adjust the hinges:

1. Ensure that the collection bin is empty.
2. With ignition switched off, activate the tractor's hydraulic system to offload the cover cylinder.
3. Loosen the mounting screws of the hinges (see Fig. 67):
  - Loosen the rear screws to adjust the alignment of the cover in the longitudinal direction.
  - Loosen the front screws to adjust the alignment of the cover in the transverse direction.

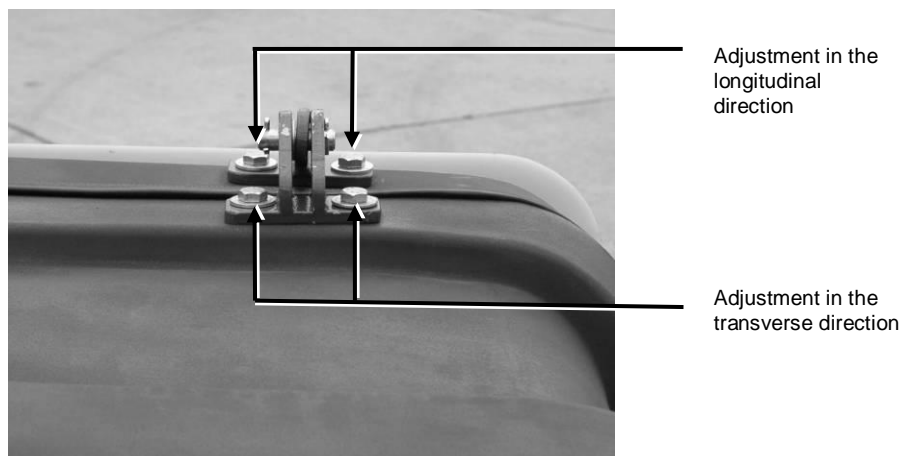


Fig. 67: Cover hinges

4. Re-align the cover accordingly.
5. Re-tighten the mounting screws of the hinges.
6. Check whether the cover seals tightly.  
If necessary repeat steps 1 to 5.

Proceed as follows to adjust the length of the cylinder rod:

7. Open the bin cover
8. Secure the cover against unintended closing with suitable props.  
If you have a high-dump CLS-G/H 650/8500 you can lift the bin for the adjustment work.  
Comply with the following instructions in this regard:
  - Hook in the lowering safeguard after you have lifted the bin and do not forget to unhook the lowering safeguard before lowering the bin.
  - Before lifting or lowering the bin you must close the cover.

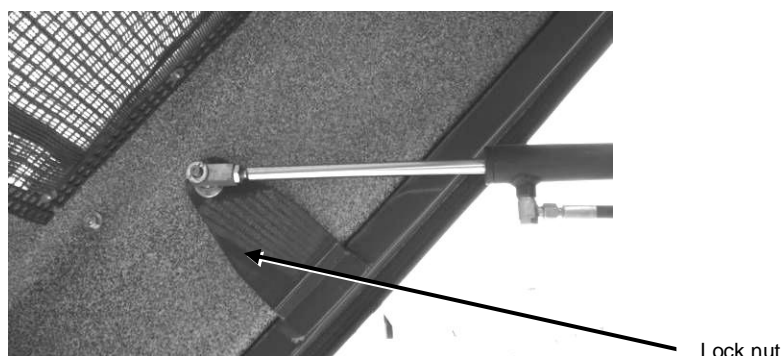


Fig. 68: Adjust the cylinder length

9. Remove both cylinders on the rod-side end.
10. Loosen the lock nuts on the cylinder rods.
11. Readjust the lengths as required.
12. Tighten the lock nuts on the cylinder rods.
13. Mount the cylinders.
14. Close the cover.
15. Check whether the cover seals tightly.  
If necessary repeat steps 1 to 7.

### 8.1.8 Adjust the seal between the turbine channel and the bin



#### **Danger!**

**The implement can tip over.**

**Only perform service and maintenance tasks if,**

- the CLS is on level ground,
- the CLS is mounted on the tractor and
- the collection bin is empty.



#### **Danger!**

**The operator and third-parties can be severely injured.**

**Only perform service and maintenance tasks with lifted bin if the lowering safeguard is hooked in, or if the bin is safeguarded against unintentional lowering through suitable supports. Do not forget to unhook the lowering safeguard before lowering the bin.**

For the high-dump version, to adjust how tightly the collecting tanks rests on the turbine channel; you can change two settings:

- The length of the upper link
- The length of the bin support (rubber buffer)

Proceed as follows to adjust the length of the upper link:

1. Lower the bin half-way and secure it with suitable supports.
2. Tighten the upper bolts of the upper link.
3. Loosen the lock nuts on the upper link (see Fig. 69) and adjust the length of the upper link.

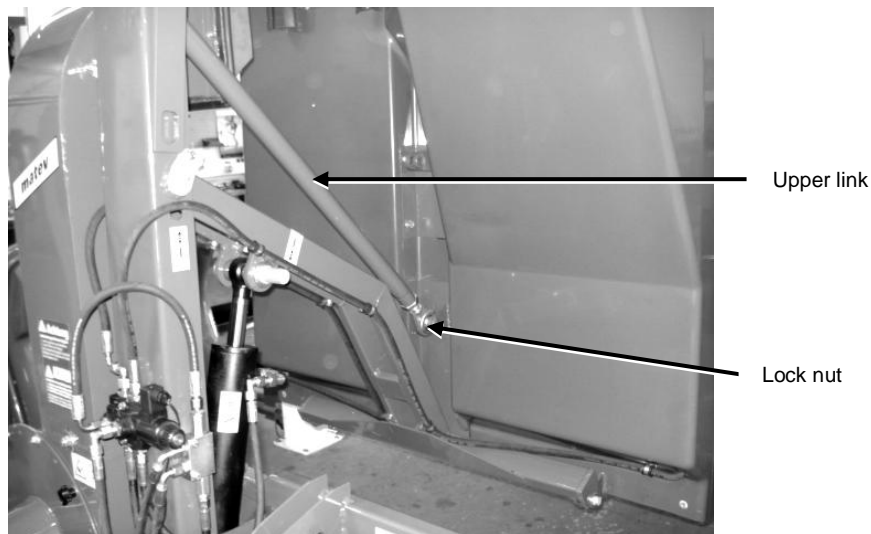


Fig. 69: Upper link (shown with lifted bin)

4. Tighten the lock nuts and remount the upper bolt of the upper link.
5. Lift and lower the bin again to ensure that it rests tightly on the turbine channel. If necessary repeat steps 2 and 3.

Proceed as follows to adjust the length of the bin support:

6. Lift the bin.
7. Hook in the lowering safeguard to secure the bin against unintended lowering.
8. Loosen the lock nuts.
9. Adjust the rubber buffer (see Fig. 70).

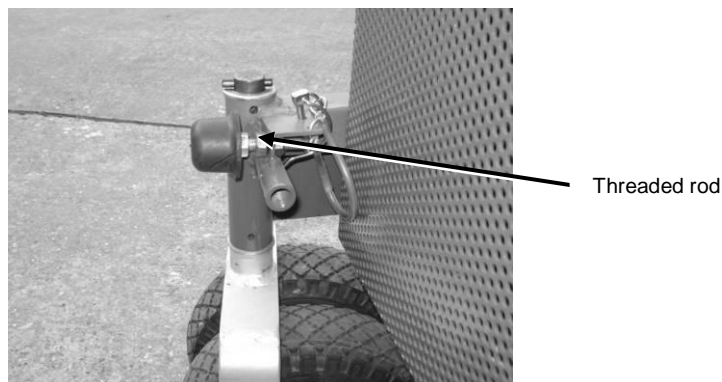


Fig. 70: Bin support

10. Fasten the lock nuts.
11. Unhook the lowering safeguard.
12. Lower the collection bin.
13. Check whether the cover seals tightly on the turbine channel. If necessary repeat steps 1 to 7.

### 8.1.9 Dismantling the exhaust spoiler

Loosen the four mounting screws of the exhaust spoiler, to clean it and the exhaust air grille.

## 8.2 Troubleshooting

**Danger!**

The operator and other persons can be severely injured.

Comply with the following instructions when executing the troubleshooting tasks cited below:

- You must switch off the tractor engine and remove the ignition key.
- You must safeguard the collection bin or the cover of the collection bin against lowering unintentionally.

Fault	Possible cause / correction
Suction connection obstructed	<b>Possible cause</b> <ul style="list-style-type: none"> <li>• Driving too fast for the given conditions.</li> </ul> <b>Remedy</b> <ul style="list-style-type: none"> <li>• Drive more slowly.</li> </ul>
Suction tube or turbine channel is blocked	<b>Possible cause</b> <p>Grass has accumulated due to a branch lodged in a transverse position or due to a larger object.</p> <b>Remedy</b> <ul style="list-style-type: none"> <li>• Turn off the implement and engine.</li> <li>• Use a tool to remove the hose.</li> <li>• Clean the hose.</li> <li>• Fasten the hose.</li> </ul>
Poor suction performance	<b>Possible causes:</b> <ul style="list-style-type: none"> <li>• The exhaust grille or the filter is blocked.</li> <li>• Mower is adjusted too low.</li> </ul> <b>Remedy</b> <ul style="list-style-type: none"> <li>• Clean the exhaust grille or the filter.</li> <li>• Adjust the mower so that it is higher.</li> </ul>
Strong vibration when the blower is running	<b>Possible cause</b> <ul style="list-style-type: none"> <li>• Fan blades are out of balance.</li> </ul> <b>Remedy</b> <ul style="list-style-type: none"> <li>• Turn off the implement and engine.</li> <li>• Take off the blower cover and check the blades.</li> <li>• Clean the blades if there is heavy fouling.</li> <li>• Mount the cover and hose properly.</li> <li>• Perform a trial run.</li> </ul> <b>ATTENTION!</b> <p>Never run the mower without cover and hose!</p> <p>If this measure does not solve the problem or if the blade is damaged, the implement must be repaired in a specialized workshop.</p>
The hydraulic system for the bin does not function.	<b>Possible causes:</b> <ul style="list-style-type: none"> <li>• Hydraulic connection leaks.</li> </ul>

Fault	Possible cause / correction
	<ul style="list-style-type: none"><li>• Non-return valve is not adjusted correctly.</li><li>• No power on the electromagnetic changeover valve</li></ul> <b>Remedy</b> <ul style="list-style-type: none"><li>• Check all hydraulic connections.</li><li>• Check the position of the control valve on the implement.</li><li>• Check the electrical lines, plug-type connector and the fuse</li></ul>

### 8.3 Repairs

In the event of a malfunction or for general assistance, please contact your sales representative or contact matev directly at:

matev GmbH

Nürnberger Str. 50  
90579 Langenzenn  
Tel.: +49 (0) 9101 9087-0

[www.matev.eu](http://www.matev.eu)

[info@matev.eu](mailto:info@matev.eu)

## 9 Disposal

The attachments must be disposed of according to local and state regulations.

Depending on the material, the parts must be disposed of as residual or special waste or must be recycled.

matev is not responsible for disposal of the materials.

## 10 Warranty

The general business conditions of matev GmbH are applicable.

### 11 Technical specifications and accessories

#### 11.1 Technical specifications

Attachment	CLS-G/H 650/850 low dump
Dimensions	
Width (overall)	1243 mm
Height (overall)	1470 mm
Length (overall w/o accessories)	843 mm
max. height of stroke at high dump	1,85 m
Bin capacity	650/850 litre
net weight w/o accessories	235 kg
Turbine und drive	
rpm of the Turbine (Standard when 540 rpm on tractor pto)	2430 U/min

Enter the item and chassis number here.

This information is located on the type plate of the attachment.

Item number: \_\_\_\_\_

Serial number: \_\_\_\_\_

#### 11.2 Accessories

Bestellnummer	Zubehör
131 7002	mounting Support incl. wheels
131 7003	Duo wheel set Ø260x85
131 7004	Wheel set 11x7-4
131 7005	Mounting parts JD X700 series
131 7006	Spoiler
131 7007	Rear bumper
131 7033	mounting kit 3 point linkage
131 7034	mounting kit 3 point linkage JD X700 series
131 5680	Mounting bracket JD X700 series
131 5686	Rear hydraulic kit JD X700 series
06 000 822	Fixing plate (needed when no mounting brackets or mounting parts used)
131 5752	Free running pto shaft
131 5075	Lighting installation



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