

# CLEANFIX®

## CLEANFIX-KIT FOR JOHN DEERE

4066R

### Operating instructions



<https://cleanfix.org/instructions-jd>

- EN: Scan QR-Code to get instructions in other languages.  
DE: QR-Code scannen um Anleitung in weiteren Sprachen zu erhalten.  
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ES: Escanea el Código QR para obtener instrucciones en otros idiomas.  
PT: Digitalize o Código QR para obter instruções noutras línguas.  
TR: Diğer dillerdeki talimatlar için QR kodunu tarayın.



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## 1 General information

### 1.1 Legal notice

#### 1.1.1 Copyright

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#### 1.1.2 Manufacturer and service address



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For additional information, feel free to contact our customer service team and our worldwide representatives at any time.

## 1.2 Introduction

Before installing or operating the Cleanfix® Kit for John Deere, familiarize yourself with the contents of these operating instructions. This will help you achieve optimal results and work safely. The operating instructions are a component of the product and must always be close at hand. By doing so, you will:

- prevent accidents.
- comply with the warranty terms.

### 1.2.1 Target group of these operating instructions

These operating instructions are intended exclusively for mechanics trained on agricultural machinery.

The product may be installed and started up only by persons who are familiar with the operating instructions, the product, as well as the national laws and regulations concerning work, safety, and accident prevention.

### 1.2.2 Liability and damages

Since we are not included in technical service updates from the manufacturer, you may be required to make adjustments when installing this product. Hägele GmbH does not assume responsibility for installation and modification costs.

On account of the information provided in these operating instructions, the manufacturer accepts no liability for direct damages or indirect losses arising from improper operation or maintenance. We disclaim all liability for personal injury or property damage caused by untrained personnel or through failure to comply with regulations concerning work, safety, and accident prevention.

No claims for modification of products that have already been delivered may be made on the basis of the data, illustrations, and descriptions in these operating instructions.

For your safety, use only original spare parts and original accessories.

We assume no liability for the use of other products and any resulting damages.

- ▶ Inspect delivery for damage in transit and for completeness.
- ▶ Immediately document in writing any defects and damages.
- ▶ Photograph damaged components.
- ▶ Send in a written damage report.

### 1.2.3 Validity

These instructions contain information required for installing and starting up the product.

In addition to the description of the equipment, the instructions also contain some abstractions. The product features may therefore partially deviate from the descriptions and depictions.

### 1.2.4 Product identification

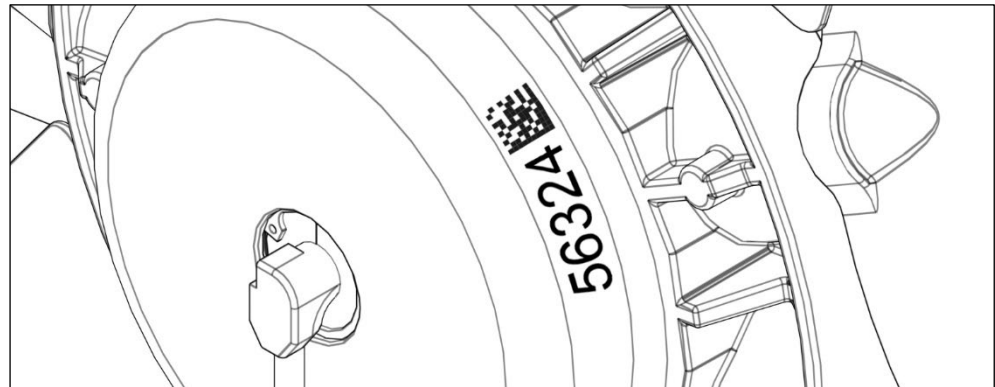
The following information is necessary for inquiries to the manufacturer:

#### (1) Fan serial number:

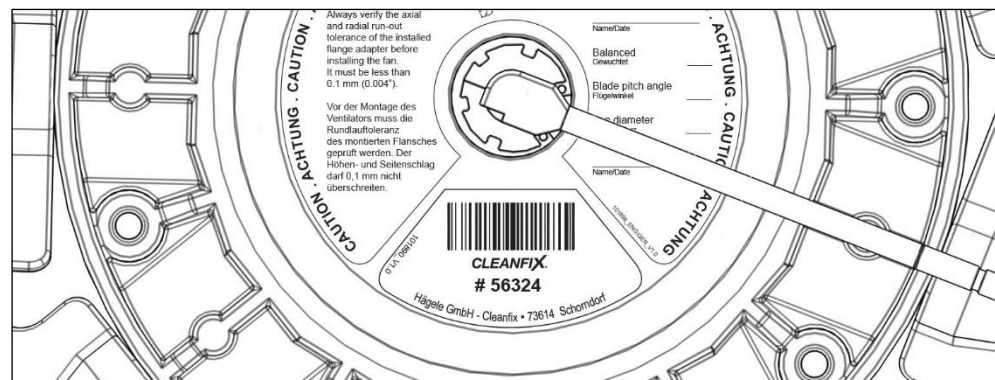
- On the side edge of the front housing

Serial number:

#							
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- Or on the top of the fan.



#### (2) Vehicle:

Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

Operating hours: \_\_\_\_\_

#### (3) Photo of the fan:

## 1.2.5 Typographical conventions

The following symbols and terms are used in these operating instructions:

- A dot is used for bulleted lists.
- ▶ A triangle is used for actions to be performed.
- An arrowhead is used for measures to avoid risks.
- [+] A plus sign indicates an optional feature that is not included in the standard features.
- (1) A number in parentheses is used for labeling of illustrations.




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The "Information" pictograph points out tips and additional information.

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The "Additional information" pictograph points out cross-references to information from other documentation.

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## 1.2.6 Safety information in the text

The safety information warns users about risks and informs them how to avoid the risks.

General safety information is provided at the beginning of these instructions in chapter 2.

Specific warning information appears before a dangerous step.

Safety and warning information that must be followed is highlighted as follows:

### Danger to people




---

Warns of an extremely dangerous situation in which failure to observe the hazard warning will result in death or major irreversible injury.

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Warns of a dangerous situation in which failure to observe the hazard warning may result in death or major irreversible injury.

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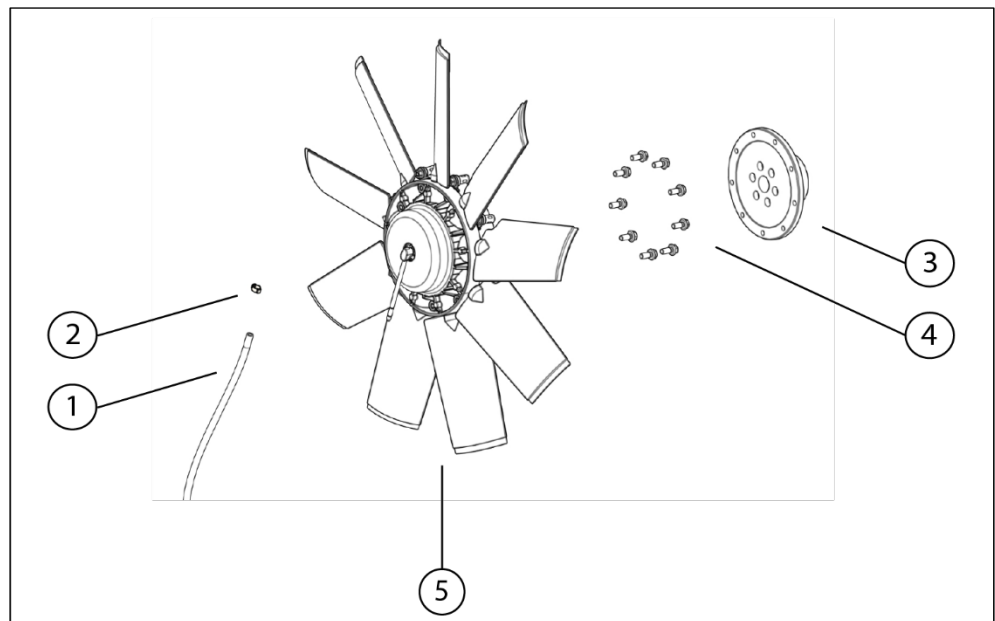
Warns of a dangerous situation in which failure to observe the hazard warning may result in minor reversible injury.

---

**Danger to property****NOTE**

Warns of situations in which failure to observe the information may result in property damage.

In addition, the information and safety rules provided by the manufacturer in the respective vehicle documentation must be observed.

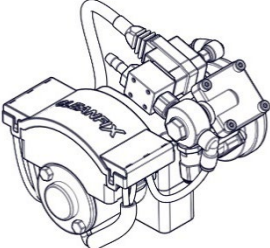
**1.3 Product description****1.3.1 Pneumatic fan components**

- (1) Pressure hose
- (2) Hose clamp
- (3) Flange
- (4) Flange screws
- (5) Fan



## 1.3.2 Cleanfix® electrical components

Cleanfix® offers a number of control solutions. The reversing function is activated pneumatically or hydraulically and controlled electronically.

	For vehicles without compressed air system
Cleanfix® electrical component	<p><b>Control unit 4.0</b></p> 
Reversing function	<p><b>Timer 4.0</b></p> <p>Switching from cooling to cleaning and back is controlled by the set interval, for example, every 30 minutes. This time period can be changed as desired via the Cleanfix control app. Intermediate cleaning can be performed manually at any time by pressing the push button or via the Cleanfix control app.</p>

## 2 Safety

This chapter provides general safety information. The individual chapters of the operating instructions also contain specific safety information that is not provided in the "Safety" chapter. Observe the safety information:

- for your own safety.
- for the safety of others.
- to ensure machine safety.

When commercial vehicles are involved, a number of risks can arise due to improper behavior. For this reason, work very carefully and never under time pressure.

### 2.1 Intended use

The product may be used only for the following purposes:

- For cooling commercial vehicles.
- For cleaning the radiators of commercial vehicles

Only persons authorized by the manufacturer may make modifications, alterations, and repairs.

As a general principle, unauthorized modifications, alterations, or improper use exempt the manufacturer from liability for resulting damages.

### 2.2 Other regulations

In addition to these instructions, the respective national laws and regulations as amended must be observed (e.g., protective clothing, accident prevention regulations, and occupational health and environmental rules).

### 2.3 Warnings

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** WARNING!****Rolling of the vehicle may result in serious injury or death!**

An unsecured vehicle can run over or crush you. This can result in serious injury or death.

- Turn off the vehicle.
  - Remove the ignition key.
  - Secure the vehicle against rolling.
-

---

**Wearing loose-fitting work clothes may result in serious injury or death!**

Do not wear loose-fitting clothes because they can become entangled in rotating parts.

- Wear work and protective clothing stipulated by the employer's liability insurance association.

---

**Working on a machine while it is running may result in serious injury or death!**

No work may be performed on the machine while it is running. Objects or persons may be caught, pulled in, or crushed.

- Work only on machines that have been turned off.

---

**Modifications to the fan may result in serious injury or death!**

Unauthorized modifications may impair the functioning and/or safety and the service life of the fan. Unauthorized modifications to the fan terminate the manufacturer's warranty and liability. This may result in damage to the machine as well as to serious injury or death.

- Absolutely no modifications may be made to the fan.

---

** CAUTION!**

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**Failure to resolve malfunctions may result in accidents or damage!**

Operation of a defective fan or fan component may lead to accidents or damage.

- Immediately stop the machine.
- Shut down the machine.
- Secure the machine.
- Resolve the fault promptly or engage a vehicle shop.

---

**Activation of the reversing function while persons are standing in front of the vehicle may result in accidents!**

The fan generates strong air currents when it is in the cleaning position. Persons standing in front of the vehicle may be struck by flying dirt when the reversing function is activated.

- Make sure that no persons are standing in front of the vehicle.
-

---

**Activation of the reversing function in closed rooms may result in accidents!**

The fan generates strong air currents when it is in the cleaning position. In closed rooms, this may generate dust and result in damage or accidents due to flying parts.

- Use the reversing function only in a safe location and only outside of rooms.

---

**Damage caused by lines or tubes that are too loose or are attached to moving parts!**

During travel, the installed lines and tubes are subjected to vibrations. As a result, lines or nearby parts may be damaged due to friction.

- All lines and tubes must be securely fastened and must not make contact with moving parts.

---

**NOTE**

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**Property damage may result if the fan is installed directly on the crankshaft or when the fan is driven by a spur gear!**

Torsional vibrations from the crankshaft or the spur gear will damage the fan and may cause damage to the vehicle.

- Install Cleanfix® vibration dampers between the fan and the crankshaft or the spur gear.

---

**Reversing the fan while the vehicle is in the red temperature range may result in property damage!**

The cooling effect is interrupted when the reversing function is activated. Reversing the fan while the vehicle is in the red temperature range causes the engine to overheat.

- Avoid reversing the fan while the vehicle is in the red temperature range.
  - Park the vehicle and open the hood so that the vehicle can cool down.
-

### 3 Required tools

#### Flange installation

- Magnetic or clamp type dial gauge
- 12 Nm torque wrench

#### Fan installation

- 12 Nm torque wrench
- Locking pliers
- Standard tools
- Collecting tray for coolant

#### Pressure hose installation and connection

- Lubricant
- Pincers
- Standard tools for pressure hose fitting

#### Electrical component installation and connection

- Standard electrical and hand tools
- Multifunction tool

## 4 Removing the manufacturer's components

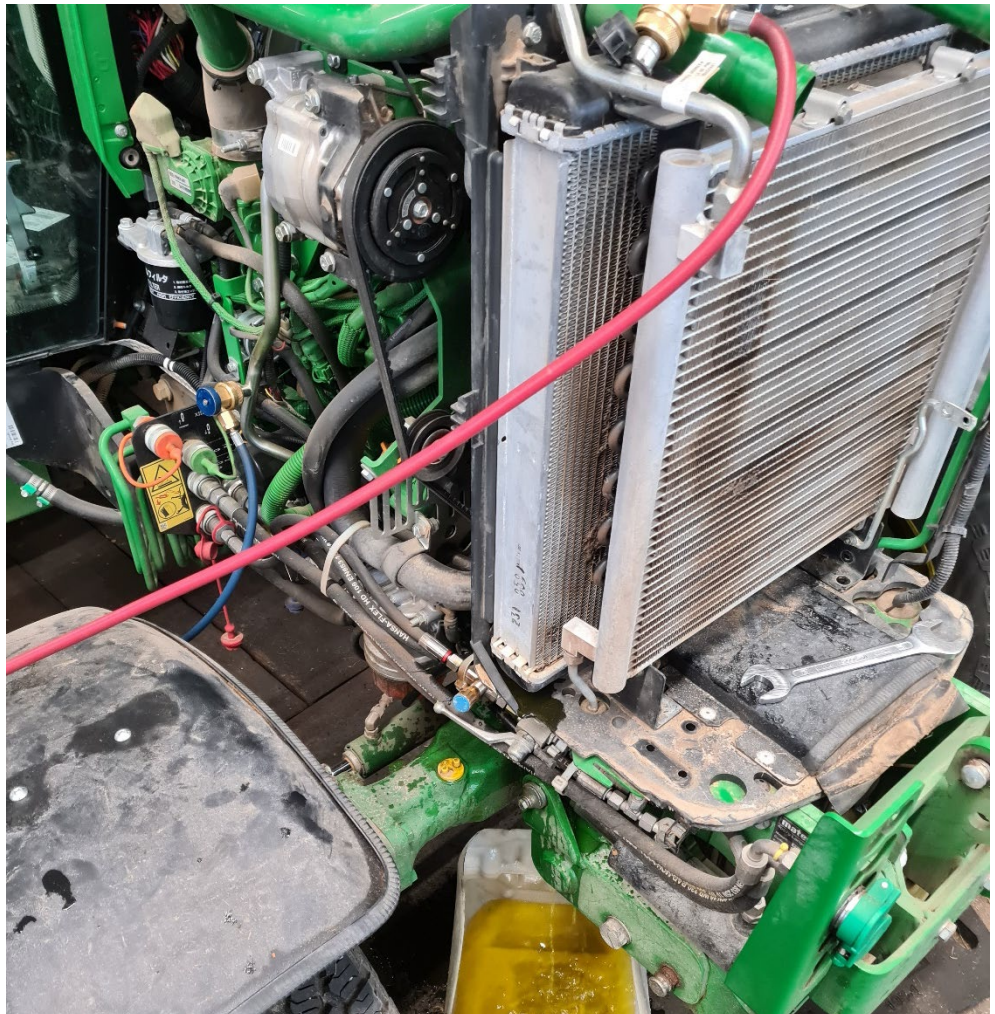
### CAUTION!

Risk of injury due to the hot engine!

A hot engine can burn hands or other body parts

- Turn off the engine.
- Allow the engine to cool down.
- Remove the ignition key.
- Disconnect the battery.

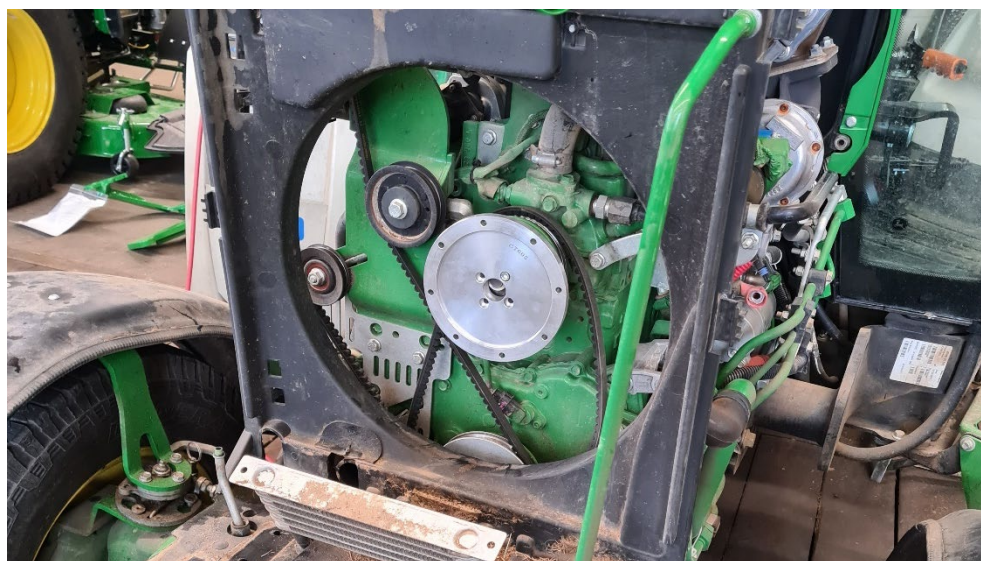
- ▶ Ensure that the engine is turned off.
- ▶ Open the engine hood.
- ▶ Remove the side covers.
- ▶ Remove the front cover incl. lights.
- ▶ Drain the water radiator and the radiator for the air conditioning liquid.



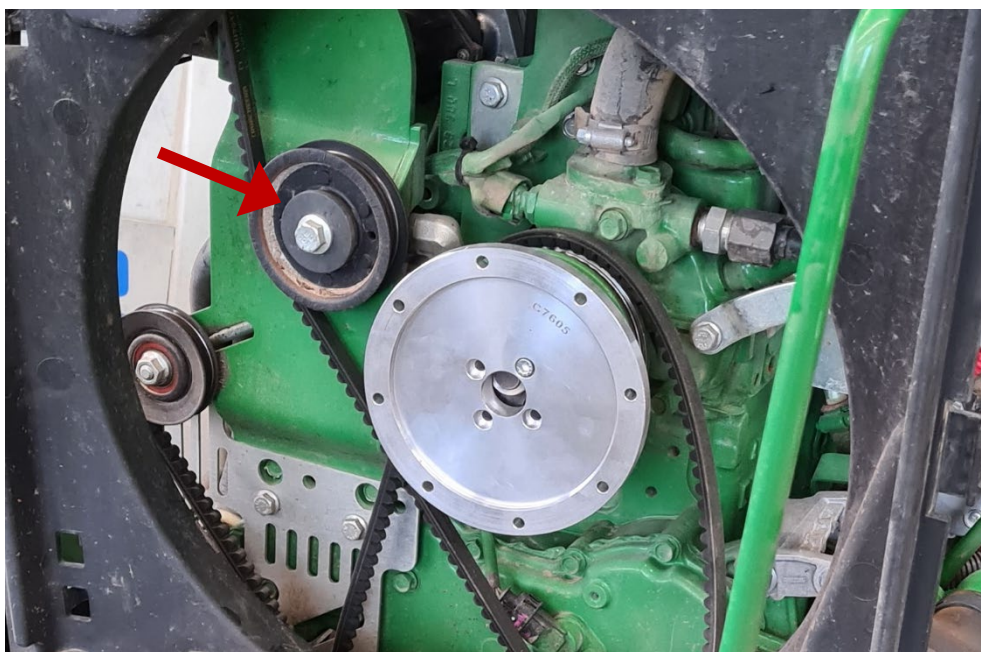
- ▶ Remove the radiators.
- ▶ Remove the fan guard and safety components as needed to gain access to the installed fan.
- ▶ Loosen any belts that drive the fan pulley.
- ▶ Remove the fan.



Read and observe the manufacturer's vehicle manual before removing the manufacturer's fan.



- ▶ Remove the washer to gain space for the cleanfix fan.







## 5 Installing the Cleanfix® fan components

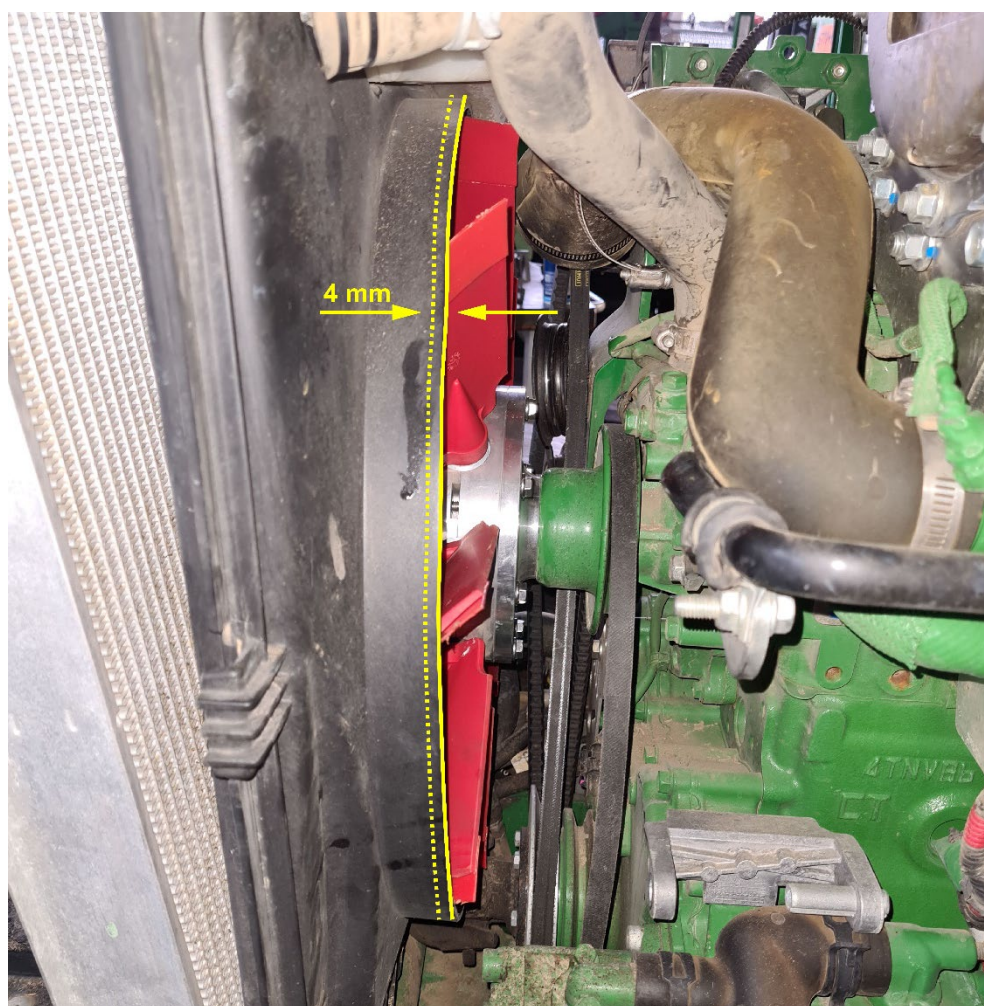
### 5.1 Preparing the shroud

- ▶ Shorten the shroud for about 4 mm.



When shortening the shroud, pay attention to nearby components.

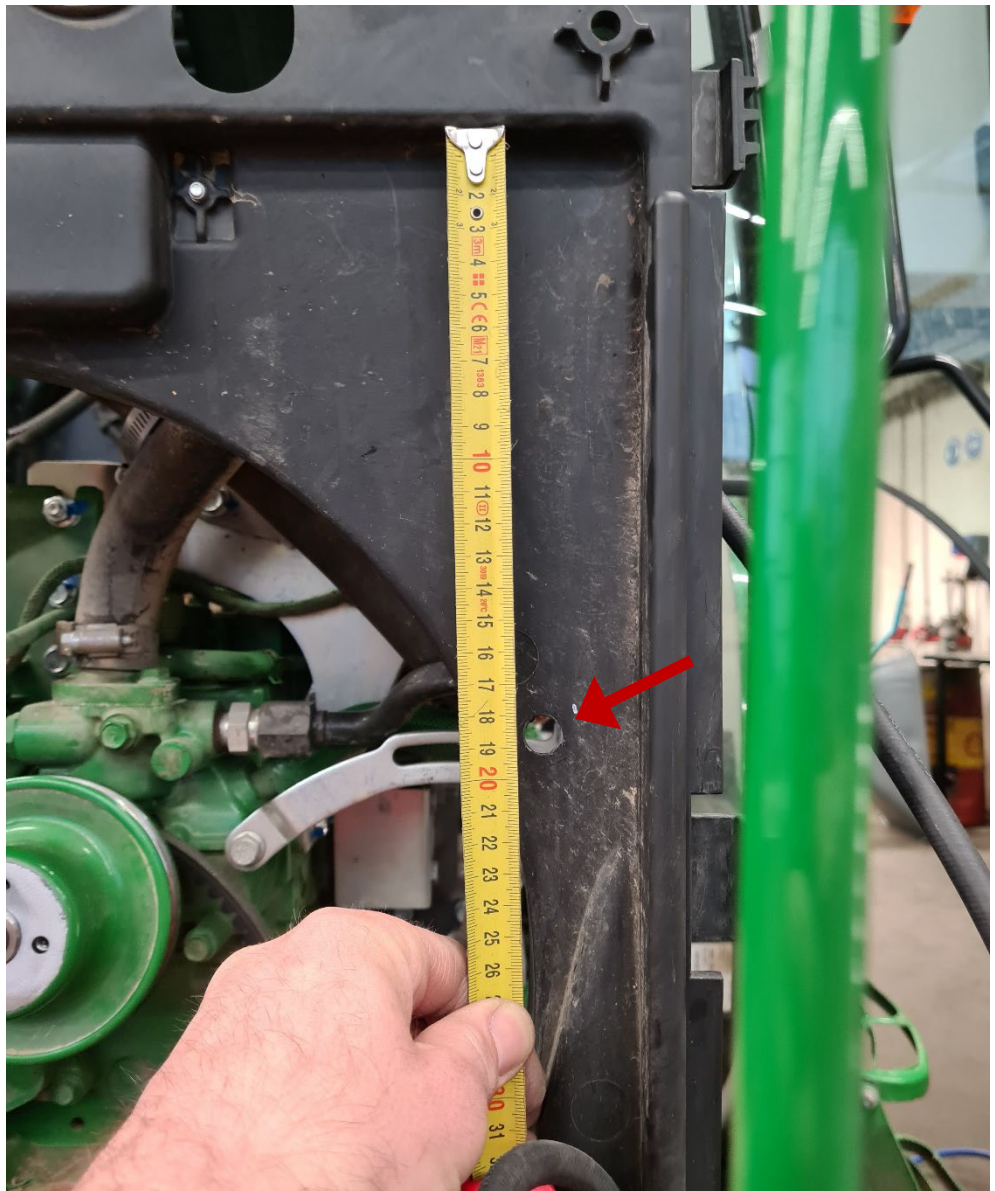
- Use the multi-purpose tool.



**NOTE****Drilling the shroud can cause material damage!**

Drilling the shroud can damage the components located behind it.

- Make sure that no other components are damaged.
- 
- ▶ Drill a 12 mm diameter hole in the shroud. Distance from above: approx. 185 mm / distance from the side: approx. 30 mm.





## 5.2 Installing the Cleanfix® flange

- ▶ Clean the fan drive mounting surface for the flange to remove all dirt and rust.
- ▶ Attach the flange to the fan drive using the four supplied M6x25 socket cap screw.
- ▶ Tighten socket cap screw to 12 Nm



### 5.3 Checking the flange axial and radial circular runout

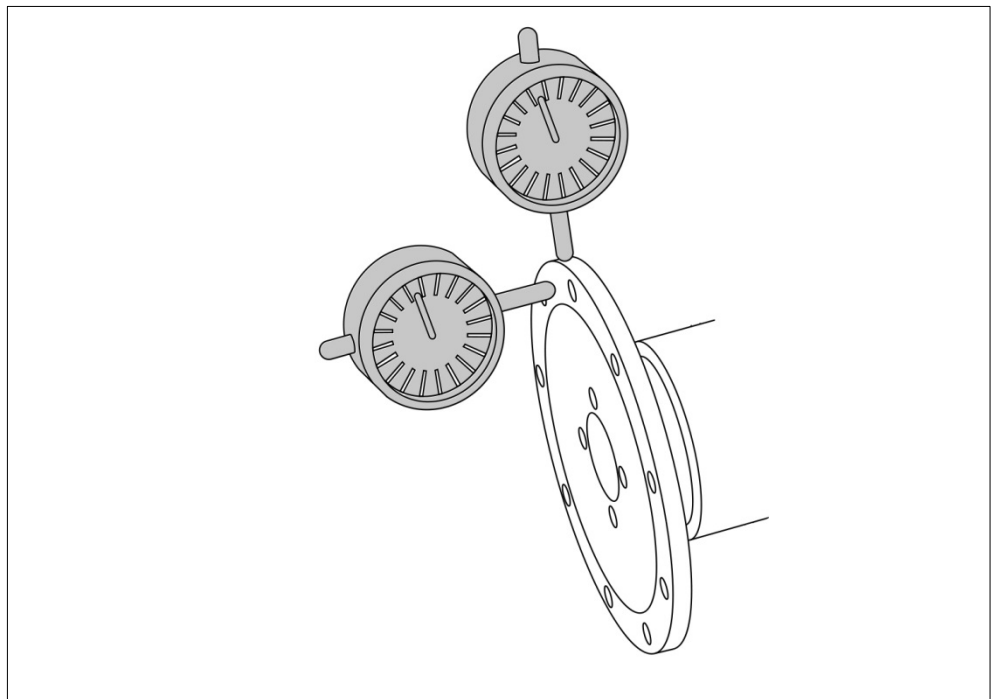
**⚠ WARNING!**

Property damage due to axial and radial circular runout!

Imbalances damage the fan and may result in vehicle damage and serious injury.

- The axial and radial circular runout must be checked using a dial gauge and must not exceed 0.1 mm (0.004").
- Check the fan drive mounting surface and the flange for contamination and clean accordingly.
- If necessary, rotate the flange to the next hole and install and measure again.

- ▶ Loosen any belts that drive the fan pulley. This will allow for a more accurate axial and radial circular runout measurement.
- ▶ Check the axial and radial circular runout using a dial gauge. The axial and radial circular runout must not exceed 0.1 mm (0.004").



## 5.4 Attaching the pressure hose to the fan

### NOTE

#### Property damage due to bending of the air intake tube!

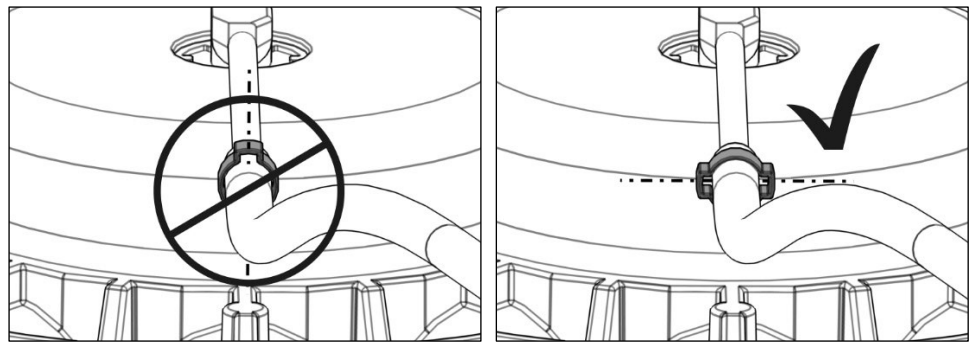
If the air intake tube of the air intake assembly is bent down toward the blades during installation, the fan blades will hit the hose during operation.

- Manually bend the air intake tube of the air intake assembly into the original position.

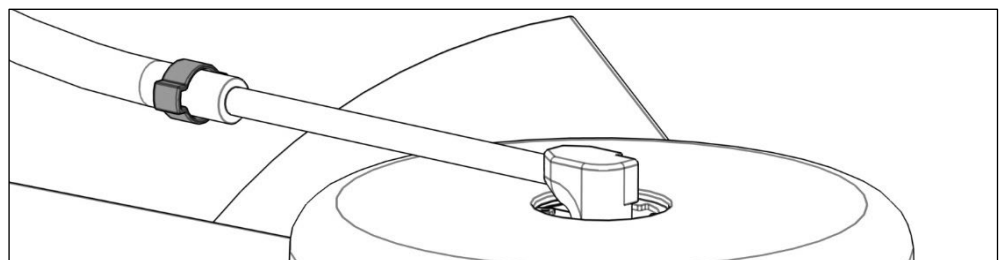
#### Collision due to incorrectly installed hose clamp!

The hose clamp must be parallel to the fan as pictured. If the ears of the hose clamp point up and down, the fan blades can hit the hose clamp during operation.

- Rotate the hose clamp using pliers.



- ▶ Apply a thin layer of lubricant to the end of the air intake tube to make it easier to slide the pressure hose over the air intake tube.
- ▶ Slide the hose clamp over the pressure hose.
- ▶ Slide the pressure hose up to the side marks (25 mm; 1") on the air intake tube of the air intake assembly.
- ▶ Position the hose clamp as shown in the picture.
- ▶ Secure the pressure hose by pinching the ears of the hose clamp with pincers.

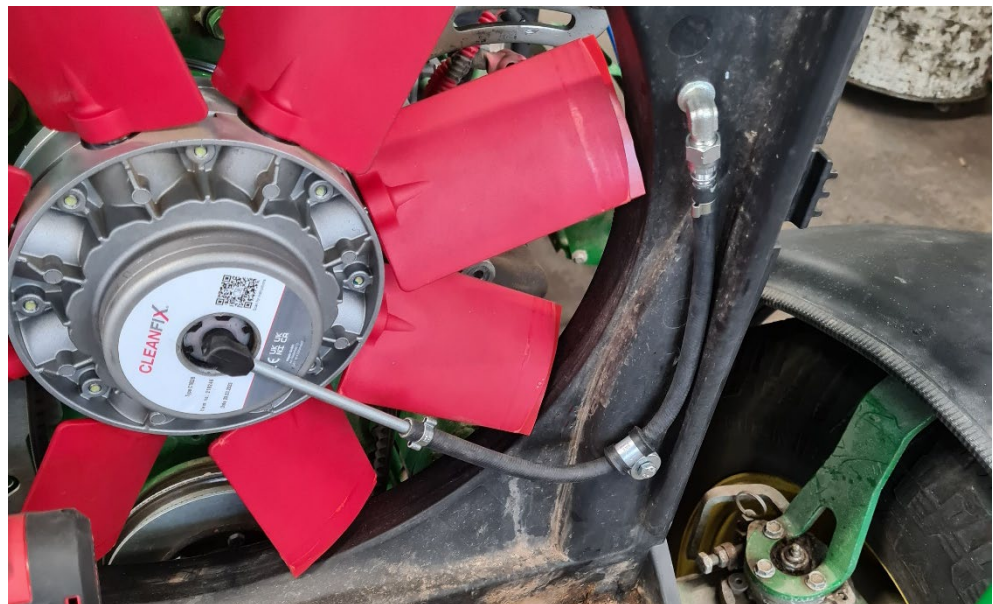


## 5.5 Installing the Cleanfix® reversible fan

- ▶ Attach the Cleanfix® reversible fan to the flange using the supplied locking screws.
- ▶ Tighten the locking screws to 12 Nm.
- ▶ Mount the strain relief and fittings as shown.



- ▶ Route the pressure hose with hose clamp as shown and fasten with hose clamp.
- ▶ Position the hose clamp so that the hose does not collide with the blades when in the transverse position, ensuring that the clamp is not overly tight.



## NOTE

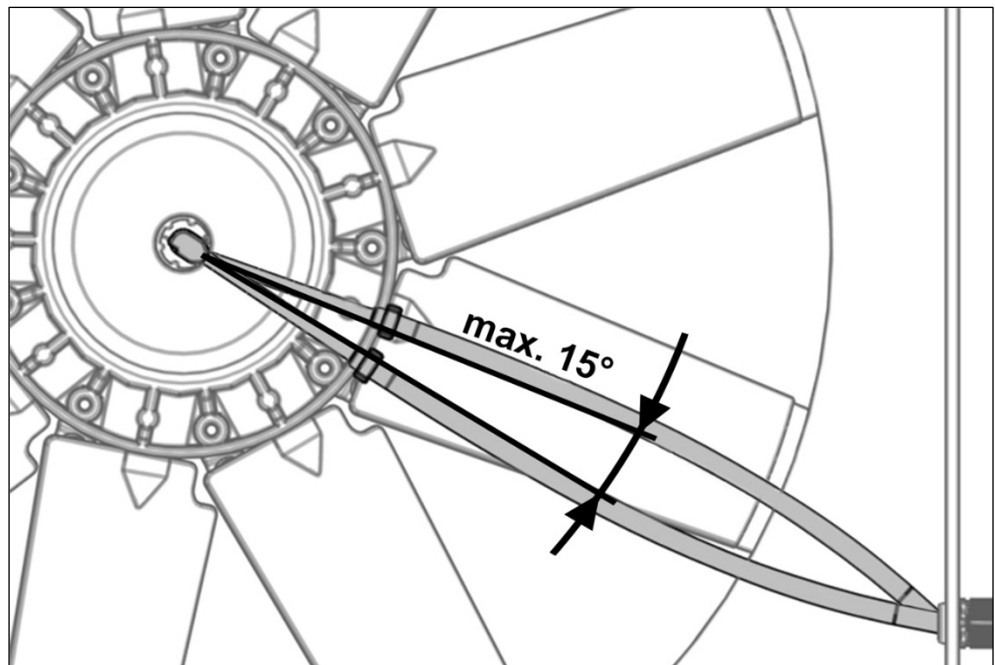
### Incorrect tension of the pressure hose may cause damage!

If the tension is too low, the pressure hose may be caught by the fan blades during operation.

If the tension is too high, the seal at the air intake assembly may wear, causing the fan to leak air.

➤ Check the tension and, if necessary, retension the pressure hose.

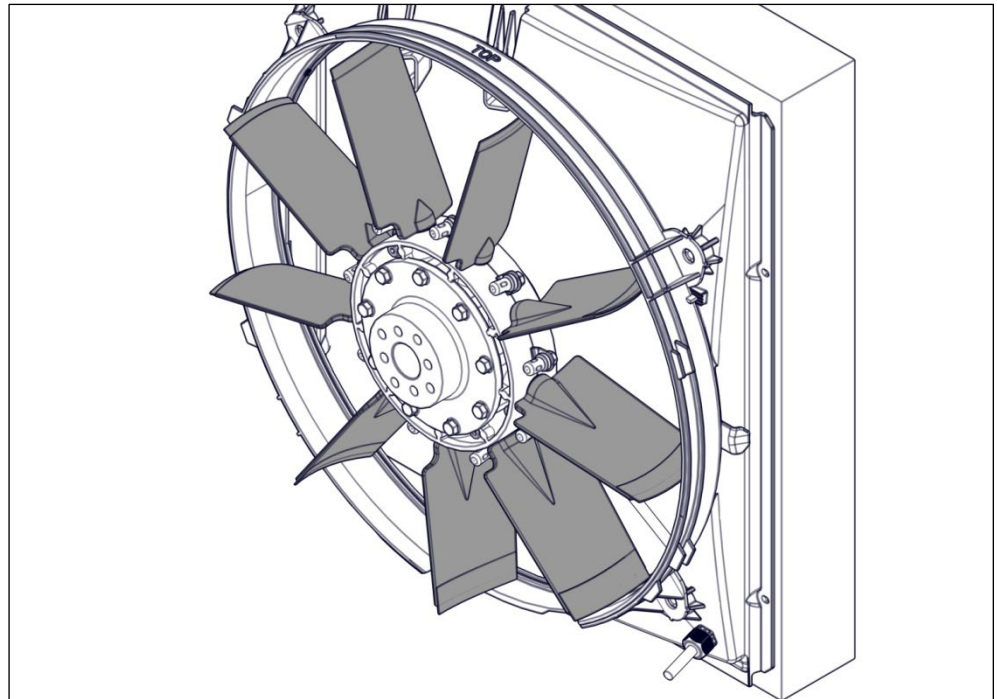
▶ Tension the pressure hose so that the air intake assembly can rotate slightly (max. 15°).



- ▶ Make sure that the pressure hose cannot be caught by the blades.
- ▶ If necessary, adjust the hose tension.

## 5.6 Checking the smooth movement of the Cleanfix® reversible fan

- ▶ Supply compressed air (max. 10 bar or 140 psi) to the fan until the blades turn to their cross position.
- ▶ Use locking pliers to pinch the pressure hose, which will trap the air in the system.
- ▶ Remove the pressure hose from the compressed air supply.

**NOTE****Property damage due to rotation of the fan with tight drive belts!**

Rotation of the fan with tight belts results in excessive force and may result in damage to the fan and drive.

- Loosen the drive belts.
- 
- ▶ Manually rotate the fan.
  - ▶ Make sure that the blades do not come into contact with any objects.
  - ▶ Make adjustments as needed.
  - ▶ Remove the locking pincers to vent the fan.
  - ▶ Re-tension the drive belt.



## 6 Installing manufacturer components

** WARNING!****Pulling in of loose objects!**

Loose objects can be pulled into the fan during operation, which may result in damage to the fan and vehicle and cause serious injury!

➤ Remove loose objects or secure them with plastic ties.

---

- ▶ Install the radiators.
- ▶ Top up with coolant according to the manufacturer's instructions.
- ▶ Install any other necessary components.
- ▶ After the test run, check the coolant level and top up if necessary.

## 7 Installing the Cleanfix® electrical components

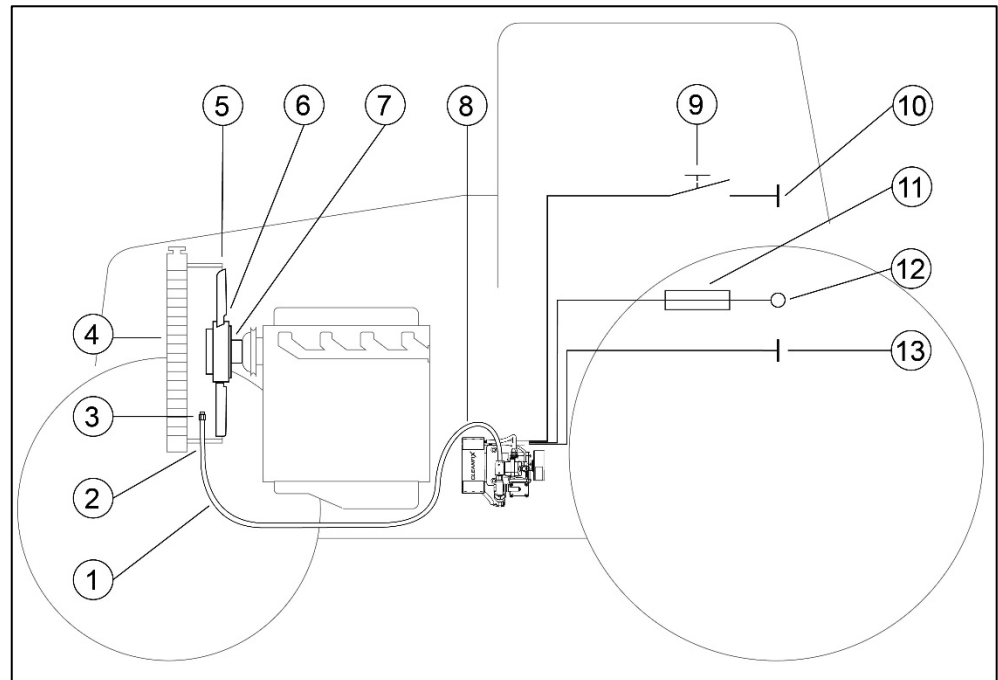
### **⚠ CAUTION!**

Damage caused by lines or tubes that are too loose or are attached to moving parts!

During travel, the installed lines and tubes are subjected to vibrations. As a result, lines or nearby parts may be damaged due to friction.

- All lines and tubes must be securely fastened and must not make contact with moving parts.

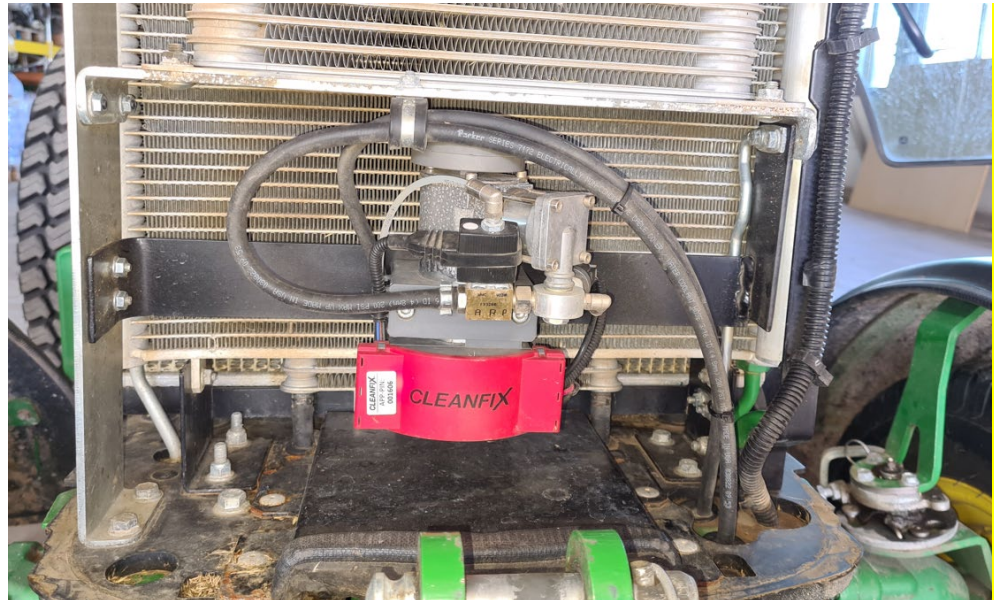
### 7.1 Cleanfix® control unit / for vehicles without a compressed air system



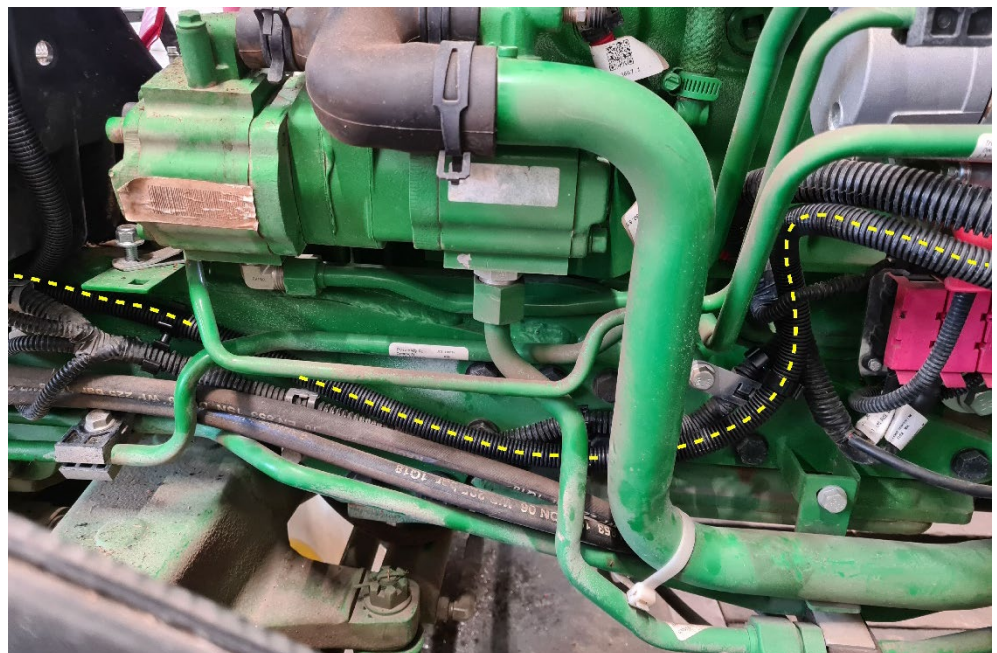
- (1) Pressure hose
- (2) Hose screw connection
- (3) Hose clamp
- (4) Radiator
- (5) Shroud
- (6) Fan
- (7) Flange
- (8) Control unit with timer
- (9) Switch (push button)
- (10) Machine ground (terminal 31) [grey cable]
- (11) Fuse (12 V: 20 A / 24 V: 15 A)
- (12) Keyed power (terminal 15) [red cable]
- (13) Machine ground (terminal 31) [black cable]

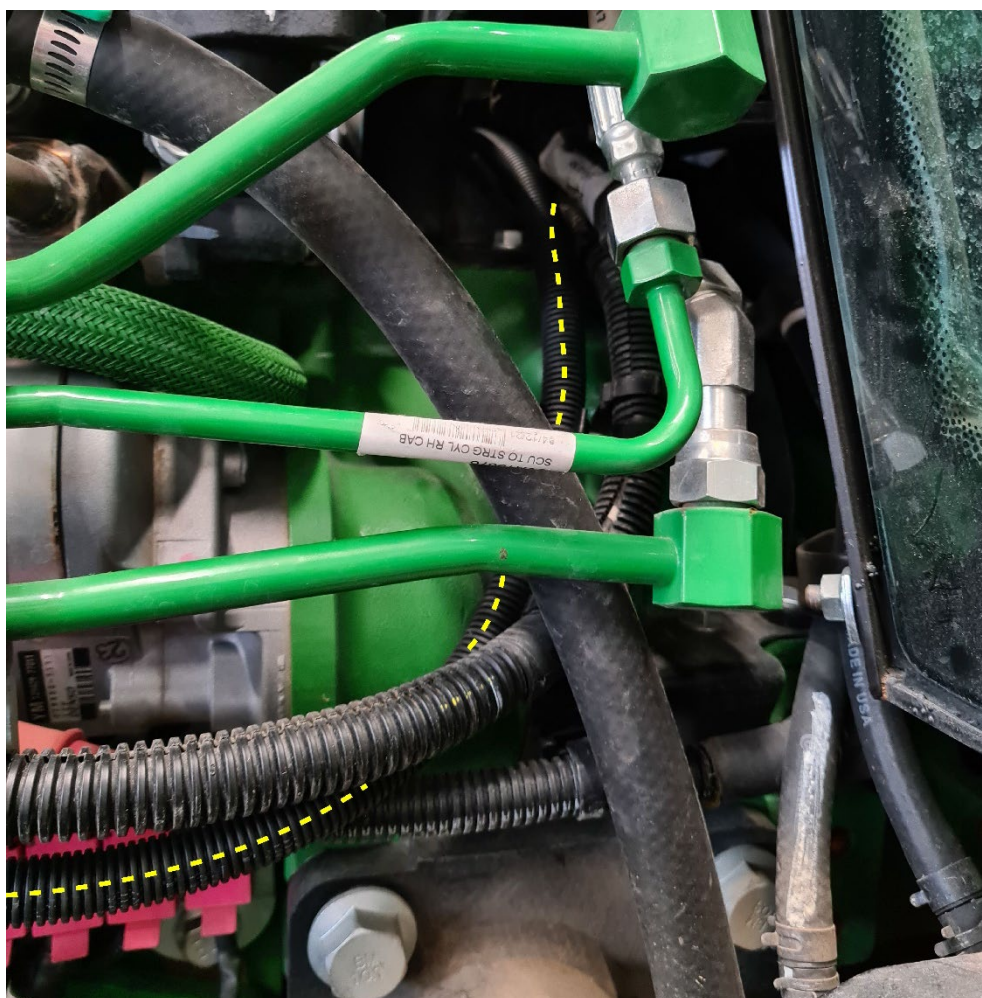
## 7.2 Installing the control unit

- ▶ Make a suitable bracket for the control unit and mount it in front of the radiator
- ▶ Mount the control unit on the bracket as shown.



- ▶ Push the pressure hose with hose clamp over the hose nozzle (connection A) of the control unit.
- ▶ Press the tabs of the hose clamp together using hose clamp pincers.
- ▶ Route the cable harness from the control unit into the cab.
- ▶ Route the cable harness with corrugated tube as shown.



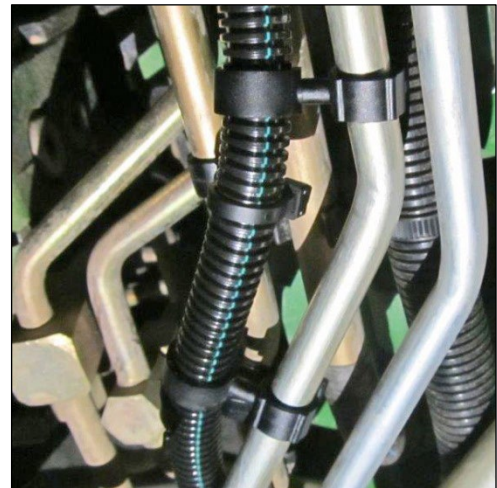




**NOTE**

Property damage due to contact of the corrugated tube with hot pipes!

- The minimum clearance of 10 mm (0.4") to other cables and tubes must be observed.
- ▶ Use the supplied rotatable corrugated tube holders to attach the corrugated tube to adjacent cables or pipes.



### 7.2.1 Installing the push-button

Installation location: side console

- ▶ Remove the console cover.
- ▶ Use the spare space for the push button on the console.
- ▶ Connect the flat terminal (gray) to the push button.
- ▶ Connect the ground (black) to the push button.
- ▶ Install the push button.



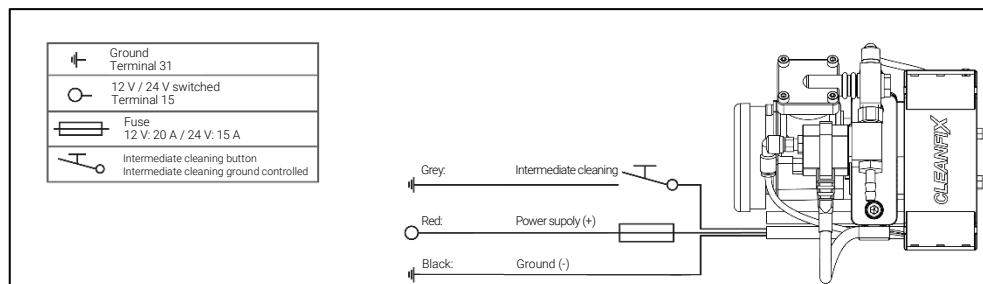
## 7.3 Connecting the electronic component to the power supply



### Power supply

If a switched, fused power supply (terminal 15) with sufficient voltage is available, it can be used.

- ▶ Connect the electronic component to the machine's power supply.



## 8 Operation

### 8.1 Initial start-up

#### **WARNING!**

**Flying parts may result in serious injury or death!**

Loose parts can be drawn in by the fan and may cause serious injury or death as well as machine damage.

- Remove tools and loose objects.
- Reliably secure components near the fan.

- 
- ▶ Start the engine.
  - ▶ Reverse the fan three times in neutral.



If Flex-Tips are used, slight abrasion of material will occur.

- 
- ▶ Reverse the fan once at approx. 1/3 of the max. rotational speed.
  - ▶ Reverse the fan once at approx. 2/3 of the max. rotational speed.
  - ▶ Reverse the fan once at full rotational speed.

### 8.2 Operation (Cleanfix control app)

#### **WARNING!**

**Using the app while driving may cause major injuries or death!**

Using the app in traffic on public roads impairs traffic safety.

- Do not use the app in traffic on public roads.
- Do not reverse the fan in traffic on public roads.

#### **CAUTION!**

**Flying dirt may cause injuries!**

Persons near the radiator may be hit by flying dirt.

- Before activating the reversing function, make sure that nobody is in the vicinity of the radiator.
  - Before activating the reversing function, make sure that the machine is not in a closed space.
-



## NOTE

Reversing the fan while the machine is in the red temperature range may result in damage!

The cooling effect is interrupted when the reversing function is activated. Reversing the fan while the machine is in the red temperature range causes the engine to overheat.

- Do not reverse the fan when the machine is in the red temperature range.
- Park the machine and open the hood so that it can cool down.

Cleanfix offers an app that can be used to operate the electronic components with timer and to make settings.

The Cleanfix control app provides the following functions:

- Switching between automatic and manual operation
- Setting the cycle time
- Pausing cleaning
- Pairing with the device
- Monitoring the air filter status
- Performing manual cleaning
- Performing a system check

### 8.2.1 Downloading the app

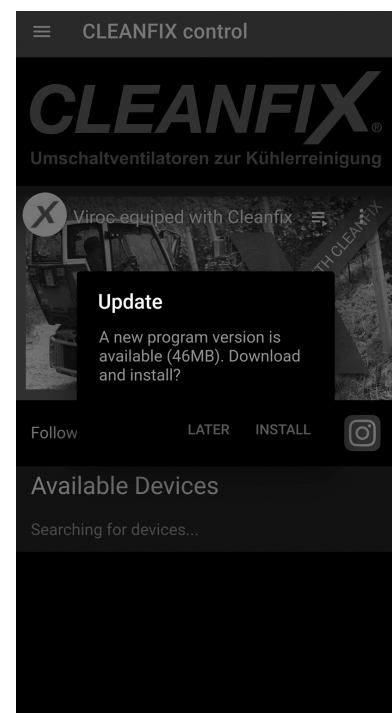
- ▶ Open the app store on your mobile device.
- ▶ Search for Cleanfix control app in the app store.
- ▶ Download the Cleanfix control app.
- ▶ Open the Cleanfix control app.



#### Mobile device access

So that the app can access certain functions on your mobile device, you must accept the permissions.

The app requires Bluetooth access. Access might not be available in every country.



- ▶ Follow the instructions on your mobile device.
- ▶ If necessary, install the update.

---

**i** **Updates**

To ensure that the app will function optimally and is the current version, install all updates.

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### 8.2.2 Pairing the device

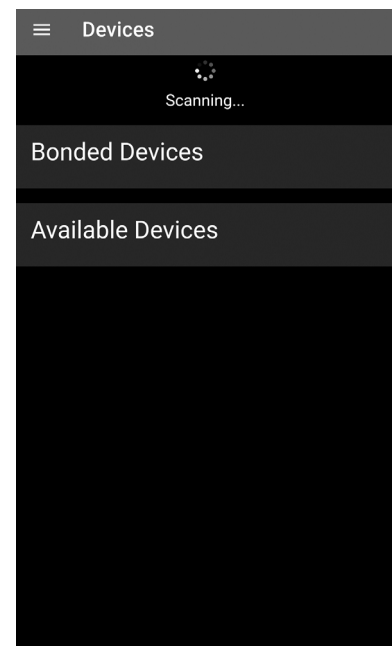
- ▶ Tap the ☰ button to open the menu.
- ▶ Select [Devices].

---

**i** For subsequent steps, the device must be turned on.

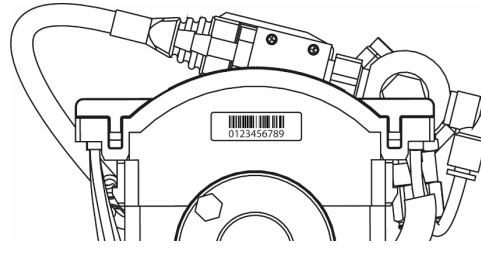
- If necessary, turn on the ignition.
- 

- ▶ Swipe downward to start the search for devices.
- ▶ Select the relevant device.

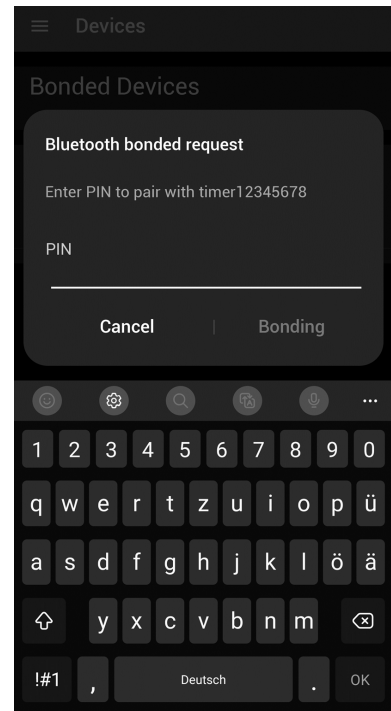


- ▶ Enter the PIN.

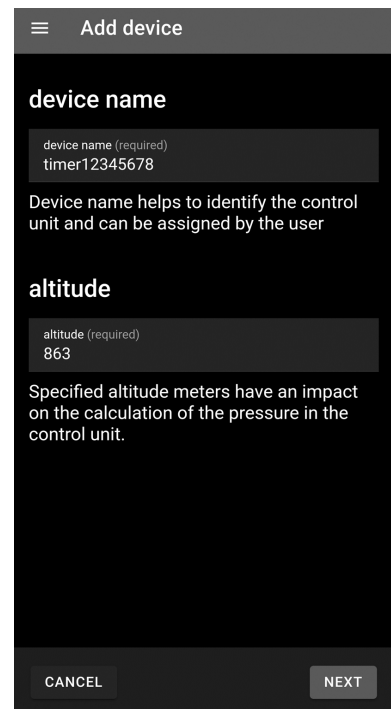
**i** The PIN consists of the last six digits of the device serial number.



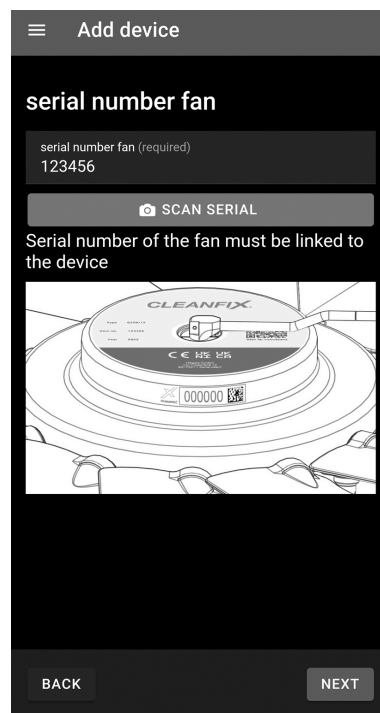
- ▶ Tap [Pairing] to confirm.



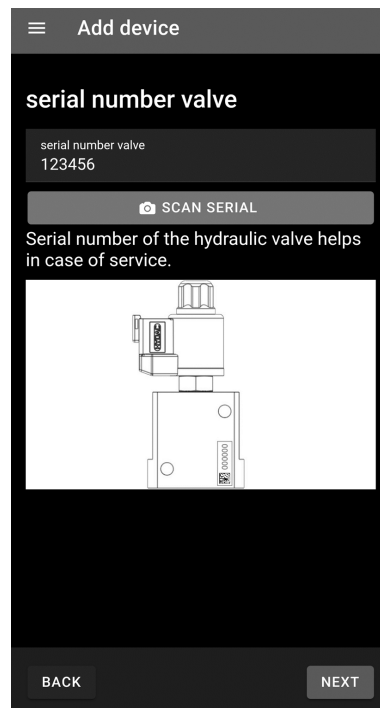
- ▶ Define the [device name].
- ▶ Enter the average [altitude] of the working environment.
- ▶ Tap [next] to confirm.



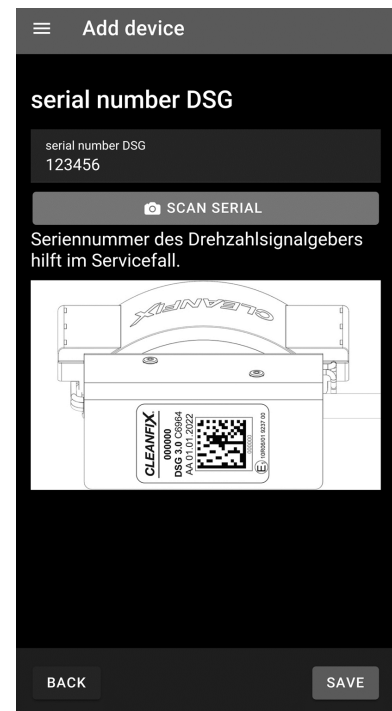
- ▶ Enter or scan the [serial number fan].
- ▶ Tap [next] to confirm.



- ▶ Optionally, enter or scan the [serial number valve].
- ▶ Tap [next] to confirm.

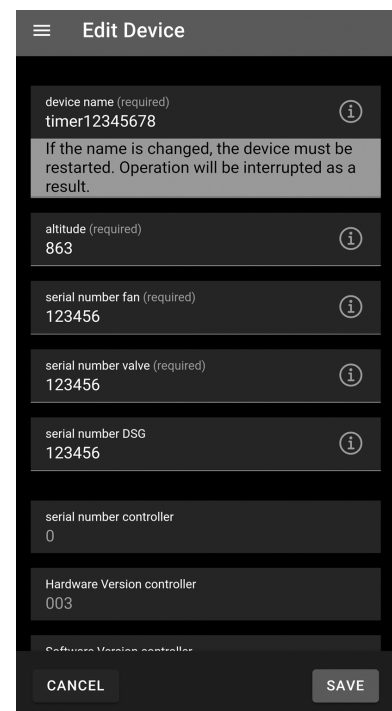


- ▶ Optionally, enter or scan the [serial number DSG].
- ▶ Tap [save] to confirm.



### 8.2.3 Editing the device

- ▶ Select the device from the [Devices] or the main screen.
- ▶ Tap the ⚙️ button to open the [Edit Device] dialog.
- ▶ Adapt the information accordingly.
- ▶ Tap [save] to confirm.



## 8.2.4 Performing a system check

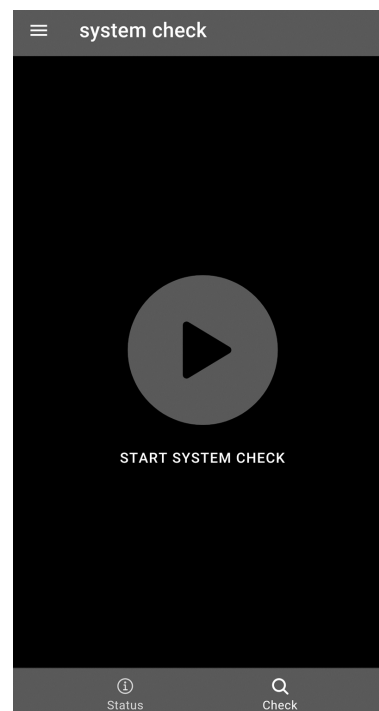
- ▶ Select the device from the [Devices] or the main screen.
- ▶ Tap the 🔍 button to open the [Check] dialog.
- ▶ Tap the ▶ button to start the system check.



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The system check is performed.  
The result is shown when the check is complete.

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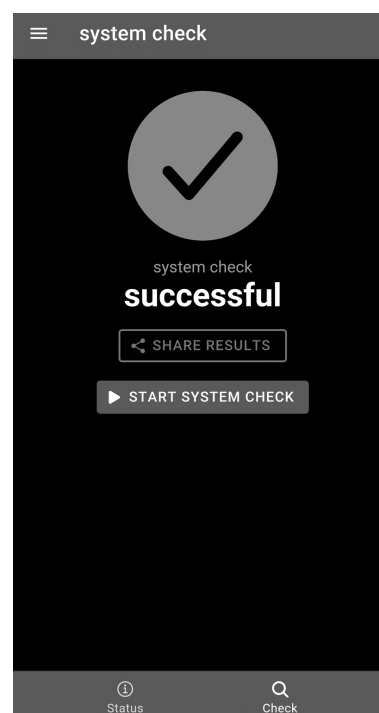
### A) System check successful



#### Sharing the results

The result of the system check can be transmitted or saved as a PDF file via the [🔗 share results] button.

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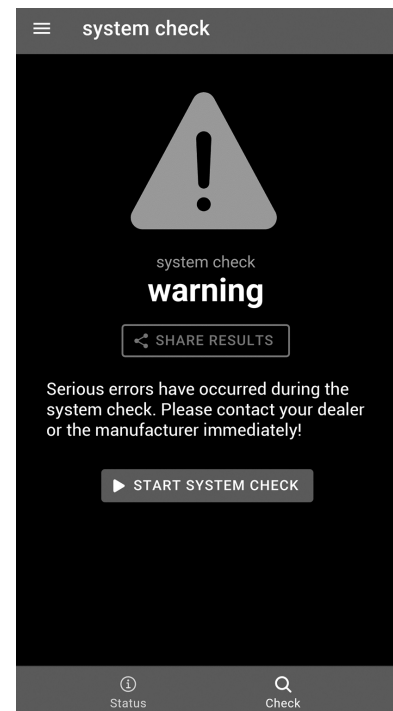


## B) System check failed

- Contact the dealer or manufacturer.

### **i** Sharing the results

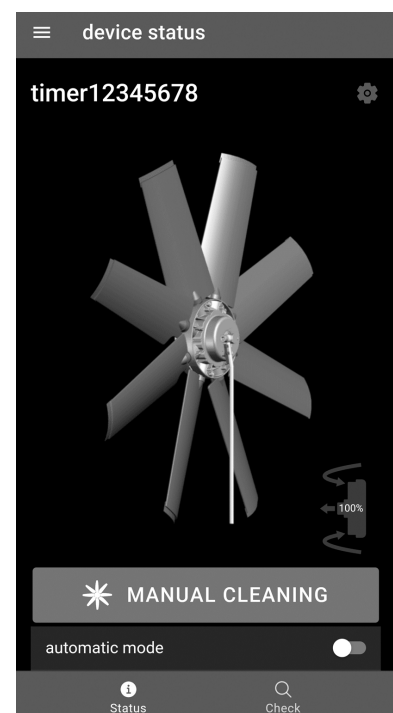
The result of the system check can be transmitted or saved as a PDF file via the [🔗 share results] button.



## 8.2.5 Performing manual cleaning

- ▶ Select the device from the [Devices] or the main screen.
- ▶ Tap the [\* manual cleaning] button to performing manual cleaning.

**i** If [\* manual cleaning] is tapped during automatic operation, intermediate cleaning is performed. The cycle time then starts over.

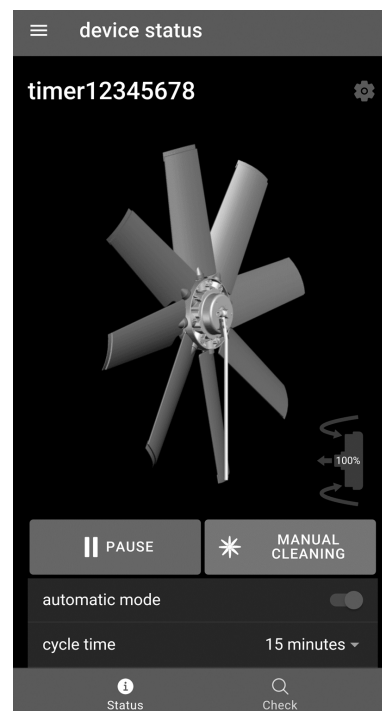


## 8.2.6 Turning automatic operation on/off

- ▶ Select the device from the [Devices] or the main screen.
- ▶ In the [automatic mode] dialog, tap the switch to turn automatic operation on or off.
- ▶ Select the [cycle time] dialog to set the cycle time.
- ▶ Select a cycle time between 5 and 120 minutes.

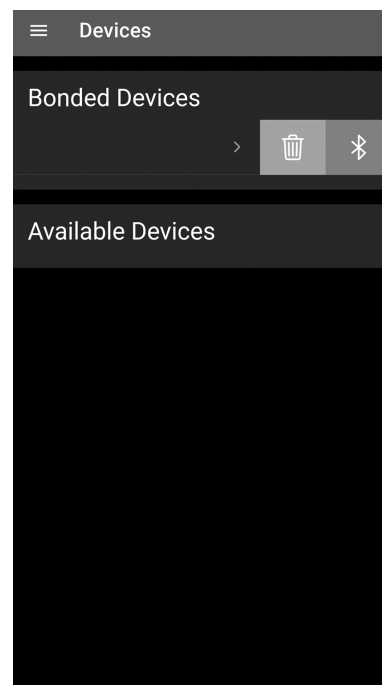


You can pause automatic operation by tapping the [|| pause] button and then resume automatic operation by tapping the [▶ resume] button.



## 8.2.7 Removing a device

- ▶ Tap the ≡ button to open the menu.
- ▶ Select the [Devices] menu screen.
- ▶ Swipe the corresponding device to the left to display options.
- ▶ Tap the 🗑️ button to remove the device.




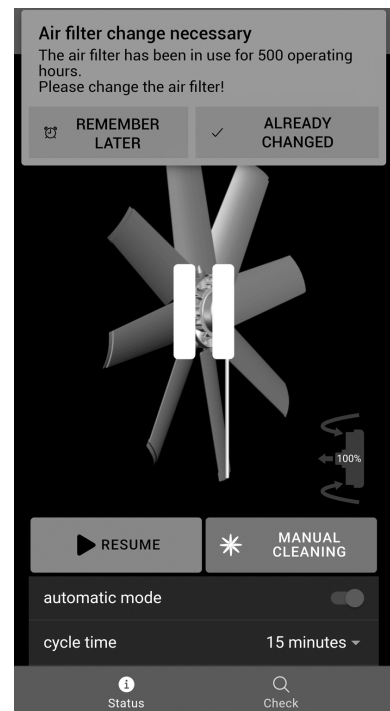


## 8.2.8 Showing the air filter status

**i** The air filter on the device becomes clogged in the course of operation. This occurs depending on the operating time and the number of times the fan is reversed.

The indicator on the filter symbol shows the air filter status. If the value falls below 10%, a corresponding message appears and filter replacement is recommended (see section 12.2).

- ▶ Select the device from the [Devices] or the main screen.
- ▶ Tap the  button to show the air filter status.
- ▶ Tap [OK] to confirm.



## **9 Maintenance**

### **9.1 Servicing the Cleanfix® reversible fan**

Cleanfix® reversible fans are maintenance-free.

### **9.2 Servicing the Cleanfix® electrical components**

For pneumatic electronic components with a compressor, the filter must be replaced at every maintenance interval of the machine, but at the least after 500 operating hours.

## 10 Troubleshooting (Cleanfix® reversible fans)

### 10.1 Blades do not rotate to the cleaning position

No or low pressure supply (for electronic components with compressor)

Check	Comment	Action
Check the compressor function.	When the compressor builds up pressure, the voltage may fall to max. 0.5 V below the rated voltage.	If necessary, install the electronic component in a stabler manner (different cross section, shorter cables, etc.).
Check the compressor pressure build-up.	Check the pressure build-up of the compressor (max. 15 s / min. 6.5 bar / 94.27 psi) with the fan connected.	If insufficient pressure is built up, the compressor must be replaced.
Check the valve function.	The valve must click softly when the power supply is switched on and off.  If necessary, connect an external power supply.  Note: observe voltage of 12 V/ 24 V.	If the valve does not click, it must be replaced.
Check the pressure hose.	If necessary, pull the pressure hose from the valve and connect it to the vehicle shop compressed air supply (max. 8 bar / 116.03 psi) to locate possible leaks faster.	If the hose leaks, it must be replaced.  If the fan leaks, an appropriate seal kit must be ordered.
Mechanical fault	If all the above conditions are met and the blades do not rotate, there is likely a mechanical fault.	Contact the manufacturer.  Service address: See section 1.1.2

## 10.2 Blades do not rotate to the cooling position

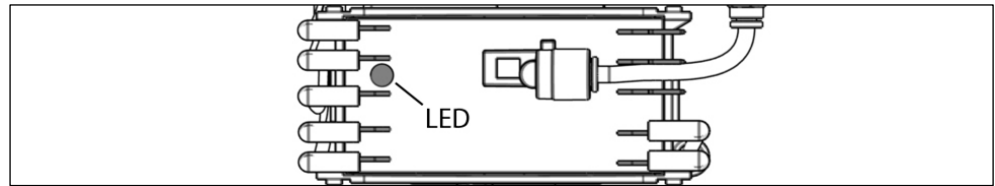
Fan speed is too high


Check	Comment	Action
Check the reversing function at a reduced speed.	Reducing the speed reduces the aerodynamic force acting on the blades.	Reduce the speed while reversing the fan or install additional springs in the fan.  Service address: See section 1.1.2




Fan does not vent / Oil does not flow back




Check	Comment	Action
Check the pressure hose.	The pressure hose must not be bent or pinched.	Eliminate bends and pinch points  If the pressure hose is damaged, it must be replaced.
Check the valve function.	The valve must click softly when the power supply is switched on and off.  If necessary, connect an external power supply.  Note: observe voltage of 12 V/ 24 V.	If the valve does not click, it must be replaced.
Mechanical fault	If the fan with hose disconnected does not switch back in idle, there is likely a mechanical fault.	Contact the manufacturer.  Service address: See section 1.1.2







## 11 Troubleshooting (electronic components)



LED error code	Cause of error
 Does not flash	Check the operating voltage

Green LED error code	Cause of error
 Permanently lit green	Normal status without Bluetooth connection
 Lit green for 3 sec.	Normal status with Bluetooth connection
 Permanently flashing green quickly	[automatic mode] paused <ul style="list-style-type: none"> <li>▶ In the Cleanfix control app, tap the [▶ resume] button to resume [automatic mode] (see section 11.6).</li> </ul>

Red LED error code	Cause of error
 Flashing red 1x	Air filter status is below 10% <ul style="list-style-type: none"> <li>▶ Pair the device with the Cleanfix control app.</li> <li>▶ Follow the instructions in the app (see section 11.8).</li> </ul>
 Flashing red 2x	Increased temperature <ul style="list-style-type: none"> <li>▶ Pair the device with the Cleanfix control app.</li> <li>▶ Acknowledge the error message in the app.</li> </ul> The service life of the device is impaired at a temperature of 65° or higher. <ul style="list-style-type: none"> <li>▶ If necessary, change the installation position of the device.</li> </ul>
 Flashing red 3x	The pressure sensor values are faulty <ul style="list-style-type: none"> <li>▶ Turn the ignition off and on.</li> <li>▶ If the error persists, contact the manufacturer.</li> </ul>

	Service address: See section 1.1.2
 Flashing red 4x	Short circuit, excess temperature, or broken valve cable <ul style="list-style-type: none"> <li>▶ Turn the ignition off and on.</li> <li>▶ If the error persists, contact the manufacturer.</li> </ul> Service address: See section 1.1.2
 Flashing red 5x	Short circuit or broken compressor cable <ul style="list-style-type: none"> <li>▶ Turn the ignition off and on.</li> <li>▶ If the error persists, contact the manufacturer.</li> </ul> Service address: See section 1.1.2
 Permanently flashing red	Critical temperature / temperature shutdown The device switches off at a critical temperature. When the device has cooled off, it switches on again. <ul style="list-style-type: none"> <li>▶ If the error occurs repeatedly, move the device to a cooler location.</li> </ul>
 Permanently flashing red quickly	Short circuit in the push button in the driver's cab or the pressure switch <ul style="list-style-type: none"> <li>▶ Turn the ignition off and on.</li> <li>▶ If the error persists, contact the manufacturer.</li> </ul> Service address: See section 1.1.2
 Permanently lit red	Multiple error messages present <ul style="list-style-type: none"> <li>▶ Pair the device with the Cleanfix control app to call up all error messages.</li> </ul>
<b>Red/green LED error code</b>	<b>Cause of error</b>
 Permanently flashing alternately red and green	Faulty memory readout <ul style="list-style-type: none"> <li>▶ Contact the manufacturer.</li> </ul> Service address: See section 1.1.2