

# Supplement to the operating manual

## **AMAZONE**

**MGS-P Micropellet Spreader  
for ED and EDX Single Grain  
Seed Drills**



MG4055  
BAH0051-2 01.15

This document is a  
supplement to the applicable  
operating manual

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## Foreword

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### Manufacturer's address

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### Spare part orders

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Spare parts lists are freely accessible in the spare parts portal at [www.amazone.de](http://www.amazone.de).

Please send orders to your AMAZONE dealer.

### Formalities of the operating manual

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## 2 General Safety Instructions

This section contains supplementary information on the safety advice in the operating manual to ensure safe operation of the implement.

### 2.1 Warning symbols and other signs on the implement

#### Order No. and explanation

#### Warning symbols

##### MD 076

##### **Risk of drawing-in/entrapment for hand or arm due to moving force-transmission parts!**

This hazard can cause extremely serious injuries resulting in the loss of limbs.

Never open or remove protective equipment,

- while the tractor engine is running with the PTO shaft or hydraulic/electronic system connected.
- if the ground wheel drive is moving.



## 2.1.1 Positions of warning symbols and other labels

### Warning symbols

The following diagrams show the arrangement of the warning symbols on the implement.



Fig. 1

## 2.2 Safety information for users

### 2.2.1 Crop protection equipment for agricultural use

Pay attention to the recommendations made by the crop protection agent manufacturers regarding

- protective clothing
- warning notices
- instructions for dosing, applications and cleaning.

Pay attention to crop protection laws.



#### **Danger!**

**When handling crop protection agents, wear a protective suit, breathing protection, gloves and safety goggles.**

**Fill and empty the tank in a well ventilated area.**

**Do not breathe in the product dust.**

**In the event of skin contact, wash the area of skin thoroughly.**

## 4 Product description

### Main assembly groups

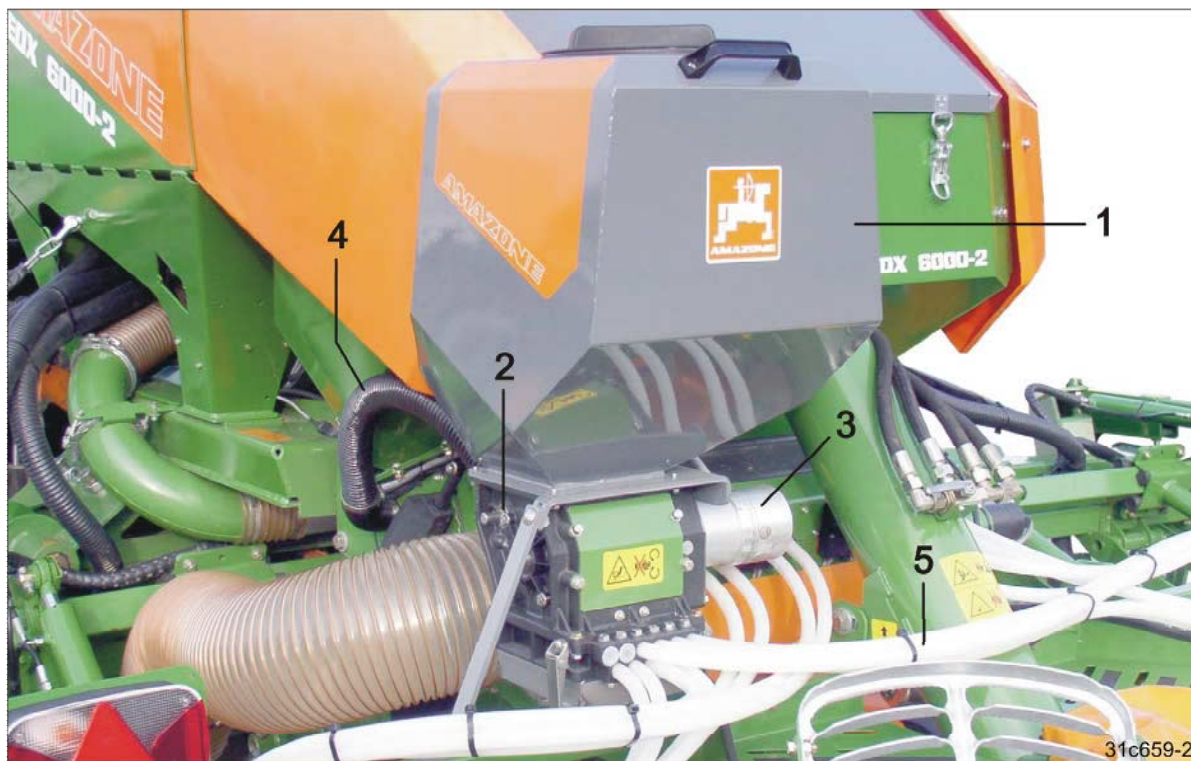


Fig. 2

- (1) Hopper for micropellets with filling level sensor
- (2) Metering unit with metering roller
- (3) Electric motor to drive the metering roller
- (4) Air hose (blower fan connection)
- (5) Feed hose (coultter connection)



## 4.1 Intended use

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The pneumatic micropellet spreader

- is available as an optional component on AMAZONE single grain seed drills and is intended exclusively for conventional agricultural use.
- is suitable for spreading crop protection agents, such as insecticides, molluscicides (slug pellets) and micro fertiliser.

The micropellet spreader is designed such that when properly used for spreading crop protection agents, there is no damaging effect on the health of people, animals and the ecosystem, and in particular groundwater.

Although great care is taken with the manufacture of the implement, even with intended use deviations in the spreading or even total failure cannot be excluded. This may be caused, for example, by

- varying composition of the crop protection agent (e.g. specific density, moisture).
- blockage or bridging
- ground undulations
- wearing of wear parts
- damage through external effects
- incorrect drive speed and tractor speed
- incorrect implement setting.

Therefore check before and during each use of the implement that it is functioning correctly and that the application is sufficiently accurate.

Claims for damages not occurred on the micropellet spreader itself are excluded. In addition, no liability will be accepted for consequential damage caused by spreading errors. Arbitrary changes on the micropellet spreader may result in consequential damage, and no liability will be accepted by the supplier for such damage.

"Intended use" also covers:

- Compliance with all the instructions in this operating manual.
- Exclusive use of genuine AMAZONE spare parts.

Other uses to those specified above are forbidden and shall be considered as improper.

For any damage resulting from improper use

- the operator bears the sole responsibility.
- AMAZONEN-WERKE accepts no liability.

## 4.2 Rating plate

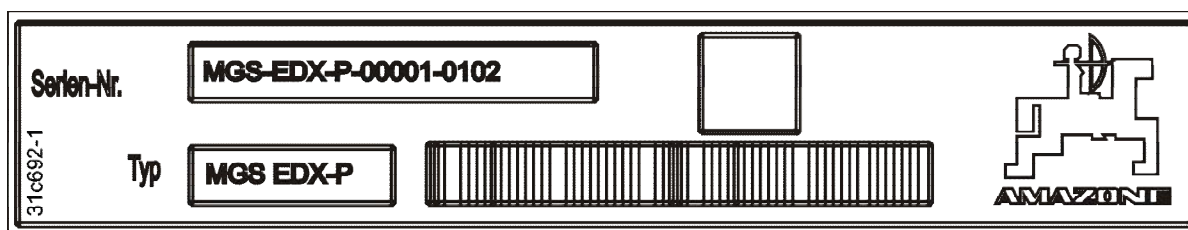


Fig. 3

The rating plate shows:

- Serial number
- Type

Arrangement of the rating plate (1) on the implement.



Fig. 4



### 4.3 Technical data

#### Micro plus micropellet spreader for EDX

Nominal volume [litres]	2x 80	2x 95	2x 95
Machine type	EDX 6000-2C	EDX 6000-2 /-2FC	EDX 6000-TC
	attached, folded	attached, folded	towed
Working width [m]	5.4 - 6.4	5.4 - 6.4	5.4 - 6.4
No. of rows	4 / 6 / 8 / 10 / 12	4 / 6 / 8 / 10 / 12	4 / 6 / 8 / 10 / 12
Tare weight [kg] per unit	60	60	60

#### Micro plus micropellet spreader for ED

Nominal volume [litres]	2x 110	2x 110	110
Machine type	ED 302 ED 452	ED 452-K	ED 602-K
	ED 3000 /-C /-2FC ED 4500 /-C /-2FC	ED 4500-2 /-2C /-2FC	ED 6000-2 /-2C /-2FC
	attached, rigid	attached, folded	attached, folded
Working width [m]	2.8 - 4.8	4.2 - 4.8	5.4 - 6.4
No. of rows	4 / 6 / 8 / 10 / 12	4 / 6 / 8 / 10 / 12	4 / 6 / 8 / 10 / 12
Tare weight [kg] per unit	60	60	60

### 4.4 Legal requirements

In Germany and in some other countries, it is legally prohibited for pellets to be emitted after the coulters have been lifted out of the ground so that they then remain uncovered on the soil surface.

Metering must be switched off in due time, at the latest 5 m before reaching the headlands or before lifting the coulters out of the ground.

## 5 Layout and function



**Fig. 5**

The micropellet spreader meters crop protection agents, e.g. insecticides, molluscicides (slug pellets) and micro fertiliser.

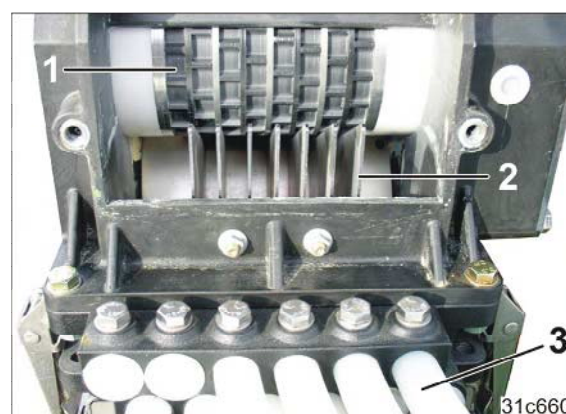
The metering unit consists of a pressurised closed system.

The micropellets are carried in the hopper (1).

Metering is performed by a roller in the metering unit housing (3) driven by an electric motor (2).

The crop protection agent metered by the metering roller (1) falls into the distributor (2) and is evenly distributed to all connected feed lines (3).

The crop protection agent is transported through the feed lines to the coulters.



**Fig. 6**

## 5.1 Spreading with EDX

The coulters have

- a seed hose connection (1)
- as an option, a hose connection (2) to deposit the micropellets with the seed
- as an option, a hose connection (3) to deposit the micropellets with the diffuser.

Depending on the spreading material, the feed lines on the micropellet spreader can be connected to hose connections (2) and (3).

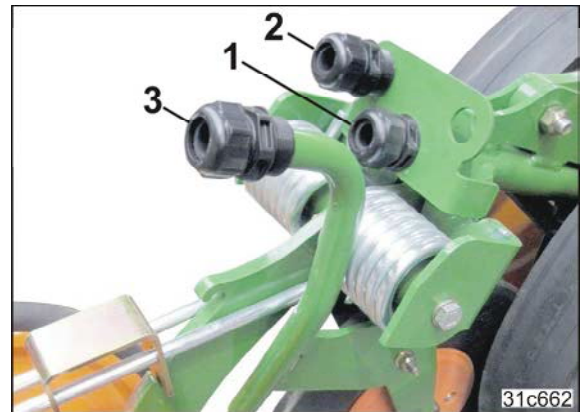


Fig. 7

The outlets are shown on a coulters that is folded up.

Connection option 1:

The seed emerges from the feed chute (1) with the micropellets. For this purpose, the micropellets are fed through the pipe (2) into the feed chute (1).

Connection option 2:

The micropellets are deposited with the diffuser (3).



Fig. 8

## 5.2 Spreading with ED

The crop protection agent travels to the outlets (2) through the feed hoses (1).



Fig. 9

### 5.3 Digital fill level monitoring (optional)

A filling level sensor (1) monitors the supply level in the hopper.

If the supply level reaches the level sensor, the AMADRILL+ displays a warning message. An alarm signal is sounded at the same time. This alarm is intended to remind the tractor driver to refill the hopper in due time.



**Fig. 10**

## 5.4 Metering

The micropellet metering roller is used to meter the crop protection agent in the metering unit.



Fig. 11

An electric motor (1) drives the metering roller in the metering unit (2).



Fig. 12



The calibration test replaces setting recommendations.

The speed of the metering roller is determined by the application rate set in the AMADRILL+ and the working speed. The higher the speed of the metering roller, the greater the application rate. The speed of the metering roller automatically adjusts to changing working speeds.

The desired spread rate is entered in the AMADRILL+. The AMADRILL+ uses this value and the set implement working width to calculate the theoretical number of rotations of the electric motor or the metering roller.

Run the first calibration test and enter the weight of the collected application quantity in the AMADRILL+. Using this value, the AMADRILL+ calculates the required number of rotations of the electric motor for later field work.

A second calibration test is essential. The required application quantity is usually spread during the second calibration test. Otherwise, repeat the calibration test until the required seed quantity is reached.

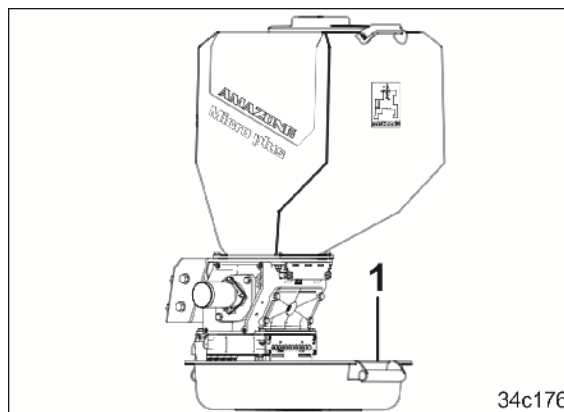


## Layout and function

Always carry out a calibration test

- during the initial operation
- when changing the sort
- if the same sort is used, but of a different quality and specific weight
- after changing the metering roller
- if the tank is emptied faster/slower than expected. In this case, the actual application rate does not match the application quantity determined in the calibration test.

For the calibration test and when emptying the hopper, the micropellets fall into the trough.



**Fig. 13**

While working, the cover (1) closes the metering unit.



**Fig. 14**



### 5.4.1 Switching off the metering unit

The micropellet spreader is switched on and off using the AMADRILL+ (see AMADRILL+ instruction manual).

If the stop button (1) is pressed, the AMADRILL+ switches the electric motor on the metering unit on and off.

If the electric motor is switched off, then no crop protection agent gets into the air flow and to the coulter.



Fig. 15

### 5.4.2 Reactions to authorized crop protection agents

There are no known reactions to authorized crop protection agents.

## 8 Settings



### WARNING

Before performing work on the implement

- position the implement on a horizontal and stable surface.
- fold out the booms on the implement
- secure the tractor with the attached implement against unintentional start-up and rolling.

### 8.1 Installing/removing the metering roller



The metering roller can be replaced more easily if the hopper is empty.

1. Unscrew two bolts (1).



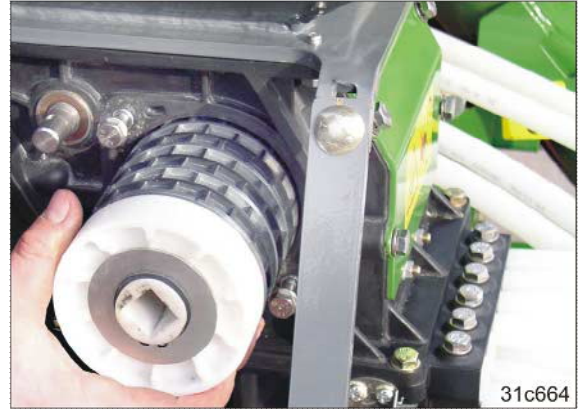
Fig. 16

2. Turn the bearing cover and pull it off.



Fig. 17

3. Pull the m roller out of the dosing unit.
4. Replace the metering roller and insert it in metering unit.
5. Close the metering unit with the cover.

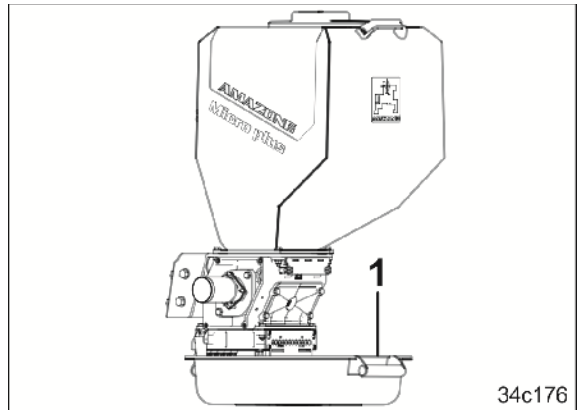

**Fig. 18**

## 8.2 Setting the spread rate with a calibration test

1. Secure the tractor and implement against unintentional start-up and rolling.
2. Fill the hopper to at least  $\frac{1}{4}$  with micropellets.
3. Unscrew the cover (1) and remove it.


**Fig. 19**

4. Place the trough (1) under the metering unit.
5. Perform the calibration as described in the AMADRILL+ instruction manual (see the chapter "Calibration test for implements with full metering").


**Fig. 20**

## Settings

6. Use the quick release fasteners (1) on the cover on the metering unit housing to seal it airtight after the calibration test.



Fig. 21

## 8.3 Repositioning the feed line connections

Depending on the spreading material, the feed lines on the micropellet spreader can be connected at different positions.

### 8.3.1 ED

Micropellet spreading through hose connection (1) or (2).

1. Unscrew the sleeve nuts.
2. Plug in the feed hose until the end stop.
3. Tighten the sleeve nuts hand-tight.

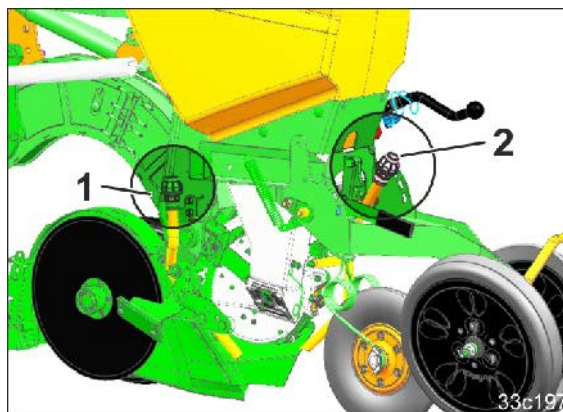


Fig. 22

### 8.3.2 EDX

Micropellet spreading through hose connection (2) or (3).

1. Unscrew the sleeve nuts.
2. Plug in the feed hose until the end stop.
3. Tighten the sleeve nuts hand-tight.

The hose connection (1) is used to connect the seed feed line.

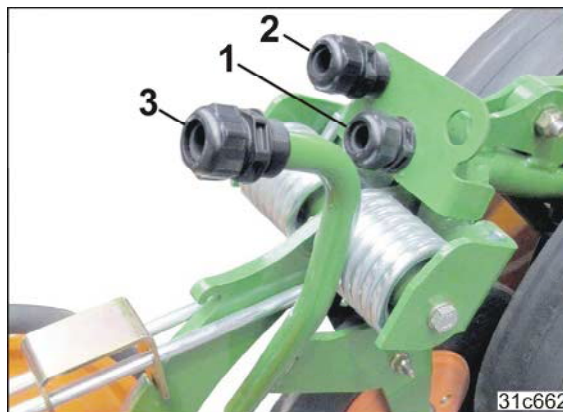


Fig. 23

## 8.4 ED: Speed of cardan shaft

Run the blower fan (1) at the nominal speed

- 540 rpm or
- 710 rpm or
- 1000 rpm.



Fig. 24

The blower fan will create a vacuum. Adjust the vacuum so that the indicator (1) is in the green range.

If the vacuum is too high, reduce it by removing the yellow caps accordingly (Fig. 24/2).



Fig. 25

## 9 Transportation



When driving on public roads and ways the tractor and implement must comply with the national road traffic regulations (in Germany the StVZO and the StVO) and the accident prevention regulations (in Germany those of the industrial injury mutual insurance organisation).

Apply for a special permit from your local authorities to transport your implement on public roads when the transport width exceeds 3.0 m.

If the precision airplanter is transported in combination with a front tank on the public roads, the front tank must also comply with the national road transport regulations (in Germany the StVZO and the StVO). Further information can be found in the front tank operating manual.

The vehicle keeper and driver are responsible for compliance with the statutory stipulations.

Furthermore, the instructions in this section have to be complied with prior to starting and during travel.



- During transportation, observe the operating manual of the base machine.
- Before moving off, check:
  - that the supply lines are connected correctly.
  - the lighting system for damage, function and cleanliness.
  - whether the on-board computer is switched off.
  - whether the work lights are switched off.
  - the brake and hydraulic system for visible damage.
  - that the tractor parking brake is released completely.
  - the function of the brake system.



## 10 Use of the implement



### WARNING

Observe the safety instructions in Chapter 4 when using the implement

- in this supplemental sheet
- in the implement instruction manual.

Observing this information is important for your safety.



### DANGER

Before filling the hopper, couple the single grain seed drill to the tractor and fold it out. Set down the mounted implement on a solid, level surface.

Apply the tractor parking brake, switch off the tractor engine and remove the ignition key.



### Danger!

When handling crop protection agents, wear a protective suit, breathing protection, gloves and safety goggles.

Fill and empty the tank in a well ventilated area.

Do not breathe in the product dust.

In the event of skin contact, wash the area of skin thoroughly.



### CAUTION

The hopper and dosing unit form a pressurised sealed system.

Never open the hopper cover or metering unit cover with the blower fan running. Micropellets will escape uncontrollably.



Leaks in the sealed system may affect the spread rate.



Do not expose the micropellets to any moisture.

A few drops of rain can

- cause material to stick to the metering roller
- change the spread rate
- block up the transport hoses.

## 10.1 Filling / emptying the hopper

Before opening the hopper cover or the cover on the metering unit

- Switch off the blower fan.
- Switch off the tractor universal joint shaft, apply the tractor parking brake, switch off the tractor engine, and remove the ignition key.
- Secure the tractor and the implement against unintentional start-up and unintentional moving.

### 10.1.1 Filling the hopper

The hopper cover has a threaded seal.

Open the hopper cover and slowly fill the hopper. The micropellets may not raise dust during filling.

Screw on the hopper cover so that the hopper is air-tight.



**WARNING**

**When filling the hopper, do not exceed the nominal volume.**



Fig. 26

### 10.1.2 Emptying the hopper

4. Unscrew the cover (1) and remove it.



Fig. 27

5. Place the trough (1) under the metering unit.
6. Use the electric motor to run the metering roller the same as for the calibration test until the trough is full. Empty the trough and repeat the process until the hopper is empty again.
7. Attach the cover under the metering unit.

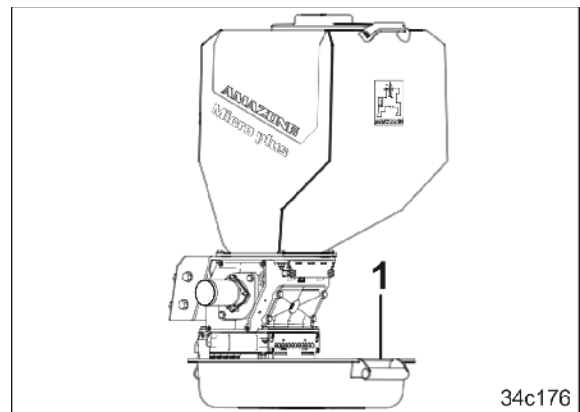


Fig. 28

### 10.1.3 Working on the headlands

In Germany and in some other countries, it is legally prohibited for pellets to be emitted after the coulters have been lifted out of the ground so that they then remain uncovered on the soil surface.

Metering needs to be stopped in due time, at the latest 5 m before reaching the headlands or before lifting the coulters out of the ground (see AMADRILL+ instruction manual, Chapter "Interrupting spreading by switching off the metering roller drive").

Switching metering on and off:

1. 5 m before reaching the headlands, press the stop button (1).
- The electric motor on the metering roller drive switches off.
2. Press the stop button (1) as soon as the coulters are working in the soil again after turning.
- The electric motor of the metering roller drive switches on.



31c508-14

Fig. 29



#### CAUTION

**Do not perform any maintenance work on the metering unit after switching off the metering roller drive using the stop button.**

**The metering roller can move suddenly and cause an injury.**

**Before starting maintenance work on the metering unit, switch off the on-board computer and apply the tractor parking brake, switch off the tractor engine and remove the ignition key.**

## 11 Faults



### WARNING

Before performing work on the implement

- position the implement on a horizontal and stable surface.
- fold out the booms on the implement
- Secure the tractor with the attached implement against unintentional start-up and rolling.

### 11.1 Cleaning the feed pipe



### DANGER

Never switch on the blower

- if a feed line has detached from the housing
- if the press rollers are raised.

Pellets may emerge uncontrollably at high speeds and cause injuries to unprotected body parts, particularly the eyes.



Use the hexagon wrench provided if required.



Fig. 30

1. Switch off the blower fan.
2. Unscrew the locking bolt (1).
3. Remove the feed hose (2)
4. Mechanically remove the blockage in the feed hose (do not use any water or other liquids).
5. Insert the feed hose to the end stop and screw it on hand-tight.



Fig. 31

## Faults

6. To clean the feed hose, remove it from the connection to the coulter.
7. Unscrew the sleeve nuts and pull out the feed hose.
8. Mechanically remove the blockage in the feed hose (do not use any water or other liquids).
9. After cleaning the feed hose, insert it to the end stop. Tighten the sleeve nuts hand-tight.



Fig. 32

If a feed tube should get blocked in the seed deposit area (1), solve the problem as described in the EDX instruction manual.

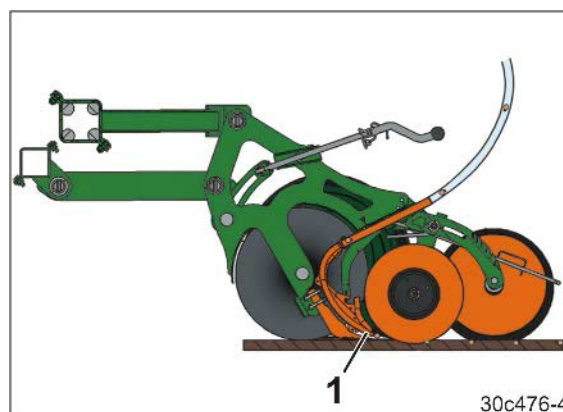


Fig. 33

## 11.2 Fault display A13

At a blower speed of less than 200 rpm, the electric motor that drives the metering roller in the metering unit stops.

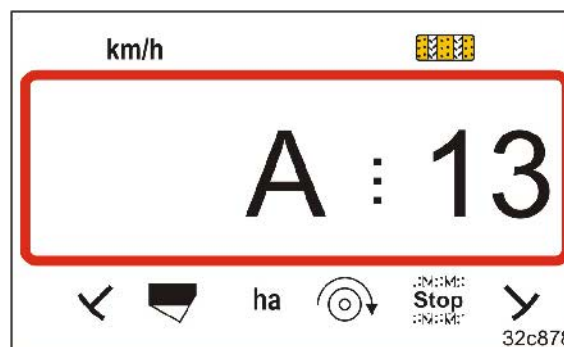


Fig. 34



## 12 Cleaning, maintenance and repairs



### WARNING

Before performing work on the implement

- position the implement on a horizontal and stable surface.
- fold out the booms on the implement
- Secure the tractor with the attached implement against unintentional start-up and rolling.

### 12.1 Cleaning



### Danger!

When handling crop protection agents, wear a protective suit, breathing protection, gloves and safety goggles.

Fill and empty the tank in a well ventilated area.

Do not breathe in the product dust.

In the event of skin contact, wash the area of skin thoroughly.

1. Set the implement down on solid ground.
2. Empty the hopper and the metering unit.
3. Remove the metering roller to enable intensive cleaning of the metering unit.
4. Clean the hopper and the metering unit with a small brush.



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