KRONE

Original operating Instructions
150 000 103 03 en

Self-propelled Forage Harvester

BiG X 500 BiG X 650
BiG X 800 BiG X 1000

(Machine No. 791 256 or higher)

EC Declaration of Conformity

We,

Maschinenfabrik Bernard Krone GmbH

Heinrich-Krone-Str. 10, D-48480 Spelle

hereby declare as manufacturer of the product named below, on our sole responsibility, that the

Machine: **Self-Propelled Forage Harvester**

Type / Types: **BiG X 500, BiG X 650, BiG X 800, BiG X 1000**

to which this declaration refers is in compliance with the relevant provisions of

EC Directive 2006/42/EC (Machinery) and EC Directive 2004/108/EC (EMC)

The signing Managing Director is authorised to compile the technical documents.

Spelle, 20.04.10

Dr.-Ing. Josef Horstmann

(Managing Director, Design and Development)

Year of manufacture:	**Machine No.:**

Dear Customer:

This manual provides you with the operating instr uctions for the KRONE product y ou ha ve purchased.

These oper ating instr uctions contain impor tant information on the correct use and saf e operation of the machine .

If for some reason these operating instructions should ha ve become unusable in whole or in par t, you may obtain replacement instr uctions for your machine b y quoting the number mentioned o verleaf.

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1 General Aspects

These operating instructions contain fundamental instructions. These must be observed in operation and maintenance. For this reason, these operating instructions must be read by operating personnel before commissioning and use, and must be available for easy reference.

Follow both the general safety instructions contained in the section on safety and the specific safety instructions contained in the other sections.

1.1 Purpose

The self-propelled forage harvester BiG X is used to harvest and chop blades and leaves, maize and similar crops, when provided with front attachments in the works of the manufacturer.

1.2 Information on the product

1.2.1 General Aspects

These operating instructions are valid for the self-propelled forage harvester BiG X.

1.2.2 Address of the manufacturer:

Maschinenfabrik Bernard Krone GmbH
Heinrich-Krone-Str. 10
D-48480 Spelle (Germany)
Telephone: 0 59 77/935-0
Fax: 0 59 77/935-339
E-mail: info.ldm@krone.de

1.2.3 Declaration

EC declaration of conformity corresponding to the EC directive
See reverse side of title page

1.2.4 Designation

Vehicle identification plate

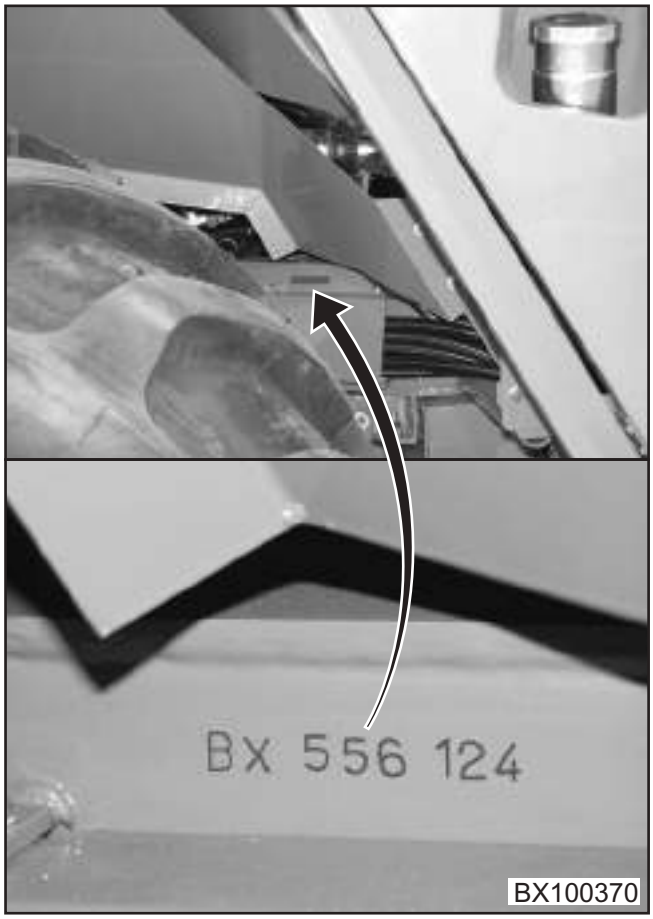
The machine data are rendered on a type plate (1), which is located on right front side of the machine.

Type	
Vehicle ID No.	
Year of construction	
Tank cover key number	

The entire identification plate represents a legal document and should not be altered or rendered illegible!

Vehicle frame number

The vehicle frame number is located in the wheel well of the right rear wheel.



1.2.5 Information for enquiries and orders

When asking questions concerning the machine or ordering spare parts, be sure to provide type designation, vehicle ID number and the year of construction.

Original spare parts and accessories authorised by the manufacturer ensure safe use. Use of other parts may void the liability for any resulting damage.

1.2.6 Intended Use

The self-propelled forage harvester**"BiG X"** is intended exclusively for the conventional use in agricultural or similar work (intended use).

Any use of the machine for other purposes is deemed not to be in accordance with specifications. The manufacturer shall not be liable for any resulting damage; the user alone shall bear the risk.

Use as intended includes compliance with the operating, maintenance and repair conditions specified by the manufacturer.

If unauthorised modifications are made to the machine, the manufacturer is released from liability for any resulting damage.

1.2.7 Technical Data

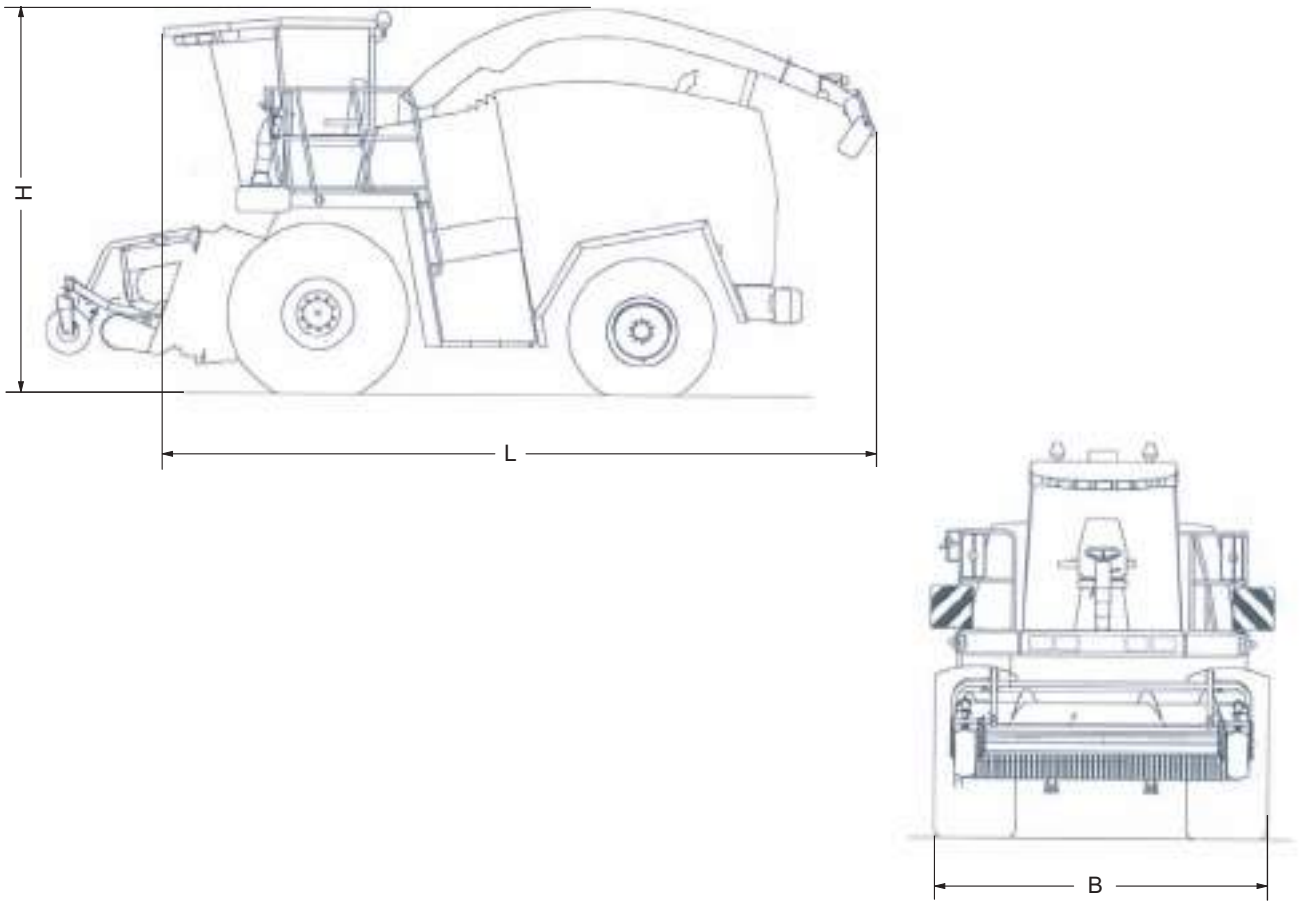
Type		BiG X 500
Motor manufacturer		Daimler-Chrysler
Type of engine		OM 460 LA
Output at rpm	KW/HP	375 / 510
Cylinders		R-6
Stroke capacity	l	12,8
Harvesting attachment drive		Hydraulic, continuous
Feed drive rollers/front baling rollers		6
Feed drive rollers drive		Hydraulic
Cutting length	mm	Continuous 4-21 mm
Gathering drum width	mm	800
Diameter	mm	660
Speed	rpm	1,100
Cutter arrangement/number of cutters		V-shaped 20 / 28
Cuts/min		11.000 / 15.400
Swivel range of discharge		210°
Overload height	mm	approx. 6.000
Travelling gear		Hydrostatic
Vmax at engine speed 1600 rpm	km/h	40 km/h
All-wheel drive		standard
Spring-mounted steering axle		standard
Comfort cab with driver information system		standard
Air conditioning system		standard
Air cushioned seat		standard
Undercarriage		4 wheels Direct drive provided by radial piston engines
Drive axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 650/75 R32 Michelin 710/75 R34 Michelin 800/65 R32 Michelin 900/60 R32
Steering axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 18.4 R30 TL Michelin 600/70 R28 (Michelin 710/55 R30)
Tightening torque for wheel nuts	Nm	485 drive axle/485 steering axle
Hydrostatic travelling gear (speeds)		Level I axle separation:0 to 14 km/h continuous Level II all-wheel drive:0 to 17 km/h continuous Level III field mode:0 to 26 km/h continuous Level IV road travel:0 to 40 km/h continuous Connectable axle separation in stage I
Drive pumps (double pump)		Absorption volume 105/75 ccm pressure 430 bar
Wheel motors, front		Switchable 3494/1774 ccm
Wheel motors, rear		not switchable 1259 ccm (old generation) not switchable 1536 ccm (current)
Feed drive pump		Absorption volume 75 ccm pressure 430 bar
Hydraulic engine feed drive		Absorption volume 75 ccm
Front attachment pump		Absorption volume 55 ccm pressure 430 bar
Hydraulic motor front attachment drive		Absorption volume 55 ccm

Type		BiG X 650
Motor manufacturer		Daimler-Chrysler
Type of engine		OM 502LA
Output at rpm	KW/HP	480/650
Cylinders		V-8
Stroke capacity	l	16
Harvesting attachment drive		Hydraulic, continuous
Feed drive rollers/front baling rollers		6
Feed drive rollers drive		Hydraulic
Cutting length	mm	Continuous 4-22 mm
Gathering drum width	mm	800
Diameter	mm	660
Speed	rpm	1,100
Cutter arrangement/number ofcutters		V-shaped 20/28/40
Cuts/min		11,000/15,400/22,000
Swivel range of discharge		210°
Overload height	mm	approx. 6,000
Travelling gear		Hydrostatic
Vmax at engine speed 1600 rpm	km/h	40 km/h
All-wheel drive		standard
Spring-mounted steering axle		standard
Comfort cab with driver information system		standard
Air conditioning system		standard
Air cushioned seat		standard
Undercarriage		4 wheels Direct drive provided by radial piston engines
Drive axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 650/65 R32 Michelin 800/65 R32TL Michelin 900/60 R32 TL Michelin 710/75 R34 TL
Steering axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 18.4 R30 Michelin 600/70 R28 TL (Michelin 710/55 R30 TL)
Tightening torque for wheel nuts	Nm	485 drive axle/360 steering axle
Level I axle separation: (speeds)		0 to 14 km/h continuous Level II all-wheel drive:0 to 17 km/h continuous Level III field mode:0 to 26 km/h continuous Level IV road travel:0 to 40 km/h continuous Connectable axle separation in stage I
Drive pumps (double pump)		Absorption volume 105/75 ccm pressure 430 bar
Wheel motors, front		Switchable 4250/1500 ccm
Wheel motors, rear		Switchable 2099/1049 ccm
Feed drive pump		Absorption volume 105 ccm pressure 430 bar
Hydraulic engine feed drive		Absorption volume 75 ccm
Front attachment pump		Absorption volume 55 ccm pressure 430 bar
Hydraulic motor front attachment drive		Absorption volume 55 ccm

Type		BiG X 800	
Motor manufacturer		Daimler-Chrysler	
Type of engine		1x OM 926 LA	1x OM 460 LA
Output at rpm	KW/HP	240 / 326	375 / 510
Cylinders		R-6	
Stroke capacity	l	9,6	12,8
Harvesting attachment drive		Hydraulic, continuous	
Feed drive rollers/front baling rollers		6	
Feed drive rollers drive		Hydraulic	
Cutting length	mm	Continuous 4-20 mm	
Gathering drum width	mm	800	
Diameter	mm	660	
Speed	rpm	1.200	1.100
Cutter arrangement/number of cutters		V-shaped 28 / 40	20
Cuts/min		16.800 / 24.000	11.000 / 15.400 / 22.000
Swivel range of discharge		210°	
Overload height	mm	approx. 6.000	
Travelling gear		Hydrostatic	
Vmax at engine speed 1600 rpm	km/h	40 km/h	
All-wheel drive		standard	
Spring-mounted steering axle		standard	
Comfort cab with driver information system		standard	
Air conditioning system		standard	
Air cushioned seat		standard	
Undercarriage		4 wheels Direct drive provided by radial piston engines	
Drive axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 650/75 R32 Michelin 710/75 R34 Michelin 800/65 R32 Michelin 900/60 R32	
Steering axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 18.4 R30 Michelin 600/70 R28 Michelin 710/55-34	
Tightening torque for wheel nuts	Nm	485 drive axle/485 steering axle	
Level I axle separation: (speeds)		0 to 14 km/h continuous Level II all-wheel drive:0 to 17 km/h continuous Level III field mode:0 to 26 km/h continuous Level IV road travel:0 to 40 km/h continuous Connectable axle separation in stage I	
Drive pumps (double pump)		Absorption volume 135/75 ccm pressure 430 bar	
Wheel motors, front		Switchable 5133/3300/1833 ccm	
Wheel motors, rear		Switchable 2808/1404 ccm	
Feed drive pump		Absorption volume 105 ccm pressure 430 bar	
Hydraulic engine feed drive		Absorption volume 75 ccm	
Front attachment pump		Absorption volume 55 ccm pressure 430 bar	
Hydraulic motor front attachment drive		Absorption volume 55 ccm	

Type		BiG X 1000
Motor manufacturer		Daimler-Chrysler
Type of engine		2 x OM 460 LA
Output at rpm	KW/HP	375 / 510
Cylinders		R-6
Stroke capacity	l	12,8
Harvesting attachment drive		Hydraulic, continuous
Feed drive rollers/front baling rollers		6
Feed drive rollers drive		Hydraulic
Cutting length	mm	Continuous 4-20 mm
Gathering drum width	mm	800
Diameter	mm	660
Speed	rpm	1,200
Cutter arrangement/number of cutters		V-shaped 28 / 40
Cuts/min		16.800 / 24.000
Swivel range of discharge		210°
Overload height	mm	approx. 6.000
Travelling gear		Hydrostatic
Vmax at engine speed 1600 rpm	km/h	40 km/h
All-wheel drive		standard
Spring-mounted steering axle		standard
Comfort cab with driver information system		standard
Air conditioning system		standard
Air cushioned seat		standard
Undercarriage		4 wheels Direct drive provided by radial piston engines
Drive axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 650/75 R32 Michelin 710/75 R34 Michelin 800/65 R32 Michelin 900/60 R32
Steering axle tyres air pressure, refer to the section on Maintenance - Tyres	Tread	Michelin 18.4 R30 Michelin 600/70 R28 Michelin 710/55-34
Tightening torque for wheel nuts	Nm	485 drive axle/485 steering axle
Level I axle separation: (speeds)		0 to 14 km/h continuous Level II all-wheel drive:0 to 17 km/h continuous Level III field mode:0 to 26 km/h continuous Level IV road travel:0 to 40 km/h continuous Connectable axle separation in stage I
Drive pumps (double pump)		Absorption volume 135/75 ccm pressure 430 bar
Wheel motors, front		Switchable 5133/3300/1833 ccm
Wheel motors, rear		Switchable 2808/1404 ccm
Feed drive pump		Absorption volume 135 ccm pressure 430 bar
Hydraulic engine feed drive		Absorption volume 75 ccm
Front attachment pump		Absorption volume 55 ccm pressure 430 bar
Hydraulic motor front attachment drive		Absorption volume 55 ccm

1.2.7.1 Dimensions



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Length L (mm)		Width B (mm)		Height H (mm)	
Depending on version					
min	max	min	max	min	max
8335	9440	3200	3455	3990	4000

1.2.8 Weights

1.2.9 Consumables

	Quantities Litres	Filtered oils Brand name	Bio-degradable lubricants Brand name
Diesel tank Big X 500/650 Big X 800/1000	Approx. 960 approx. 960 approx. 1150	Diesel fuel (DIN EN 590) Please observe the operating instructions of the engine manufacturer!	
Engine oil	*	Engine oil 10W40 Please observe the operating instructions of the engine manufacturer!	
Hydraulic oil	Approx. 150	HLP 46	HE 46 (on request)
Coolant	Approx. 60	Anti-freeze (30 litres) /water (30 litres) Mixing ratio 50:50 Please observe the operating instructions of theengine manufacturer!	
Gear of power takeoff BiG X 500 BiG X 650,800,1000 BiG X 800/1000	 13,5 10,0 23.0 initial filling**	 Gear oil PGLP DIN 51502 ISO viscosity Class (220)	
Distributor gearbox	8.0	Gear oil PGLP DIN 51502 ISO viscosity Class (220)	
Fan gear	1.7	Gear oil API-GL5-SAE85W-90	
Lower roller gear	5.0	Gear oil API-GL5-SAE85W-90	
Lower roller gear Upper tower	1.6	Gear oil API-GL5-SAE85W-90	
Upper roller gear	3.6	Gear oil API-GL5-SAE85W-90	
tower gearbox on the upper discharge chute	1,0	Gear oil API-GL5-SAE85W-90	

*** See accompanying documents (DaimlerChrysler)**

**** After a runtime of 5 min., top up the transmission oil up to the middle of the inspection window.**

As a general rule, the oils listed in the chapter on maintenance/hydraulic can be used as well.

Do not mix different types of oil!
Viscosity class ISO VG 46.
Vegetable oil cannot be used.
Ask our after-sales department about the use of other oils.

1.2.10 Accompanying documents

- Engine operating instructions (DaimlerChrysler)
- Engine maintenance manual (DaimlerChrysler)
- Engine parts catalogue (DaimlerChrysler)
- Directives on consumables (DaimlerChrysler)
- List of spares parts BiG X (Krone)
- Operating instructions of the central lubrication system (Vogel)

All information, illustrations and technical data in this operating manual are in keeping with the latest state of technology at the point of publication. Design subject to modifications at any time without any stated reason.

2 Safety

2.1 Identifying important information in the Operating Instructions

Important safety instructions in the present operating instructions are identified with the general hazard symbol. Non-observance of these safety instructions may result in personal injury:

Safety symbol as per DIN 4844 - W9

General functional instructions are indicated as follows:

Instructions affixed directly to the machine must be complied with and kept in a completely legible condition by all means. If illegible, they must be replaced.

2.2 Safety instructions and accident prevention regulations

2.2.1 Personnel qualification and training

The self-propelled forage harvester BiG X may be used, maintained and repaired only by persons who are familiar with it and have been informed of the hazards involved. The operator must define areas of responsibility and arrange the monitoring of the personnel. Should personnel lack the required knowledge, they must receive the required training and instruction. The operator must ensure that the contents of these operating instructions have been fully understood by personnel.

Repair work not described in these operating instructions must only be carried out by authorised service centres.

2.2.2 Dangers in case of non-compliance with the Safety Instructions

Failure to follow the safety instructions could result in personal injury and environmental hazards as well as damage to the machine. Failure to comply with the safety instructions can lead to the forfeiture of any claims for damages.

If the safety instructions are not respected, this may result, **for example**, in the following hazards:

- Danger to persons through improperly safeguarded working areas
- Failure of important functions of the machine
- Failure of compulsory procedures for maintenance and repair
- Danger to persons due to detrimental mechanical and chemical effects
- Danger to the environment due to leaking hydraulic oil

2.2.3 Safety-conscious work practices

Always observe the safety instructions set out in these operating instructions, all existing accident prevention rules and any internal work, operating and safety rules issued by the operator.

The safety and accident prevention regulations issued by the responsible professional associations are binding.

The safety instructions of the vehicle manufacturer must be complied with.

Always observe the applicable traffic laws when using public roads (for example, in Germany, the Road Traffic Type Approval Law and Road Traffic Law).

Be prepared for emergencies. Always store the fire extinguisher and the first-aid kit close at hand. Always keep the numbers for emergency calls to physicians and the fire department ready at the telephone.

2.2.4 Safety and accident prevention regulations

1. In addition to the instructions in these operating instructions, you must comply with the generally applicable safety and accident prevention regulations!

2. The warning and safety signs affixed to the vehicle provide important information for safe operation. For your own safety always pay attention to these!

3. When using public roads, make sure that you observe the applicable traffic regulations!

4. Make sure that you are familiar with all equipment and controls as well as their functions before you begin working with the machine. It is too late to learn this when you are operating the machine!

5. Users must wear close-fitting clothes. Avoid wearing loose or baggy clothing. Wear protective gloves when performing work in the vicinity of the crop conveying mechanisms.

6. Keep the machine clean to prevent the danger of fire!

7. Before starting or moving the machine, make certain that nobody is in the vicinity of the machine! (Watch out for children!) Make sure that you have a clear view!

8. The instructional seat must only be used during the instructional driving. Apart from that, no other person, except from the driver, is allowed to be on the machine or the driver's cab during operation.

9. Attach implements correctly! Only attach and secure implements to the prescribed devices!

10. When attaching or removing implements, place the supporting devices in the correct positions!

11. Always attach ballast weights properly to the fixing points provided!

12. Observe permitted axle loads, gross weight and transport dimensions!

13. Check and attach transport equipment, such as lighting, warning devices and any protective equipment!

14. Actuating mechanisms (ropes, chains, rods, etc.) of remotely operated devices must be run so that they do not trigger unintended movements in any transport and working positions.

15. Ensure that implements are in the prescribed condition for road travel and lock them according to the instructions of the manufacturer!

16. Never leave the driver's seat when the vehicle is moving!

17. Always drive at the correct speed for the prevailing driving conditions! Avoid sudden changes in direction when travelling uphill or downhill or across a gradient!

18. Implements and ballast weights attached to the vehicle affect its driving, steering and braking response. For this reason, make sure that you are able to steer the machine and brake as required!

19. Take into account the extension radius and/or inertia of an implement when turning corners!

20. Start up implements only when all protective devices have been attached and set in the required position!

21. Always keep the safety equipment in good working order. Replace missing or damaged parts.

22. Keep out of the working range of the machine at all times!

23. Do not stay in the swivel and ejecting range of the ejector!

24. Hydraulic hinged frames/lifting equipment may be operated only if no persons are in the swivel range!

25. Parts operated by external power (e.g. hydraulics) can cause crushing and shearing injuries!

26. Before leaving the forage harvester, lower the front attachments onto the ground, apply the holding brake, switch off the engine and remove the ignition key!

27. There must not be anyone between the forage harvester and the front attachment without the vehicle being secured against rolling off through the holding brake and/or wheel chocks!

2.2.5 Self-propelled work machine

1. When driving on public roads, the hazard warning lights or the revolving signal light and the excess width identification equipment must be used in compliance with the applicable national traffic regulations.

2. Switch on the lights so that the vehicle can be easily recognised.

3. Safety equipment.

4. Always check the machine for driving and operational safety before use.

5. Hold on to the hand grip when getting on and off the forage harvester.

6. It is not permitted to transport people on the platform.

7. The road safety switch must be in road position during road travel to ensure that all hydraulic functions - except for the steering and brakes – are deactivated.

8. Only drive the machine at the permitted speed.

9. Implements must be in transport position and locked in accordance with the manufacturer's instructions for road driving.

10. If the engine is running in an enclosed space, divert the exhaust fumes and ensure sufficient ventilation.

11. When using starting fluid, avoid ignition sources and naked flames. Keep starting fluid clear of batteries and electrical cables.

12. When passing through corners, always take into consideration the width of the front attachment and the fact that the rear of the forage harvester will swivel out. The condition of the ground influences the driving properties of the forage harvester.

13. Drive with care if you notice pits, ditches and obstacles; they can cause the forage harvester to overturn. This is particularly important on slopes.

2.2.6 Autopilot

1. The autopilot must only be used for its intended purpose. It must only be used in open fields, off public and semi-public roads, away from open areas frequented by people and far away from any persons that could be endangered. They must only be used for their intended purpose:
   • Automatic forage harvester guiding on a stalk-line row of plants.

2. Before placing autopilot in service, its full functionality must be verified and all its modules checked.
   To do this, the user should proceed as follows:
   - Check switching off of the autopilot when the steering wheel is moved and the door contact switch engages (open the door).
   - Check for proper operating condition - i.e. free of mechanical damages and leaks – row tracers, wheel angle transmitter as well as all visible hoses and wiring.

3. When the autopilot is in operation, there must be on one within 50 m of the forage harvester in any direction.

4. The operator is not permitted to leave the driver's cabin while the autopilot is in operation.

5. While the autopilot is in operation, the driver must regularly check the direction in which the machine is moving and its travel path to be able to take over manual control of the harvest forager immediately if obstructions or interruptions come up in the vehicle's path.

6. After the autopilot has been in operation and before leaving the field, the autopilot must always be switched off on the autopilot release switch on the console.

7. Manipulating safety-related elements of the autopilot is prohibited, as is making changes to the hydraulic, electrical or electronic components.

8. The autopilot should only be installed by an authorised service centre.

2.2.7 Implements

1. **Caution!** Once the drives have been switched off, a hazard remains from the flywheel which continues to turn by inertia! Keep away from the implement during this time. Be sure that the machine has come to a complete stop before starting any maintenance work!

2. Cleaning, lubricating and adjusting the implements must be carried out only when the drive is switched off, the engine switched off and the ignition key removed!

2.2.8 PTO operation

1. Only PTO shafts specified by the manufacturer may be used!

2. The protective tube and protective funnel of the PTO shaft as well as the PTO shield - also on the implement end - must be attached and in proper condition!

3. Make sure that the required tube covers for PTO shafts are in place in transport and working position!

4. Before installing or detaching PTO shafts, switch off the PTO shaft, turn the engine off and remove the ignition key!

5. When using PTO shafts with an overload or free-wheel coupling that is not covered by the protective equipment on the tractor, the overload or free-wheel couplings must be attached to the device!

6. Always make sure that the PTO shafts are mounted correctly and secured properly!

7. Secure the PTO shaft guard against turning by hooking in the chains!

8. Before switching on the PTO shaft, make sure that the selected PTO shaft speed of the tractor agrees with the permissible speed of the device!

9. Before switching on the PTO shaft make sure that no person is in the hazard area of the device!

10. Never switch on the PTO with the engine switched off!

11. While working with the PTO, nobody is permitted to stay in the range of the turning PTO or PTO shaft.

12. Always switch off the PTO in the case of excessive bending and if the PTO is not required!

13. **Caution!** After switching off the PTO, there is danger due to the inertia of the flywheel mass! Keep away from the implement during this time. Be sure that the machine has come to a complete stop before starting any maintenance work.

14. Cleaning, lubricating or adjusting PTO driven implements or the PTO shaft only with PTO disengaged, engine switched off and ignition key withdrawn!

15. Place the uncoupled PTO shaft on the holder provided!

16. After detaching the PTO shaft, fit the protective sleeve on the PTO stump!

17. Immediately repair any damage before working with the implement!

2.2.9 Hydraulic system

1. The hydraulic system is pressurised!

2. When connecting hydraulic cylinders and motors, make sure the hydraulic hoses are connected as specified!

3. When connecting the hydraulic hoses to the forage harvester hydraulics, take care that the hydraulic system is depressurised both on the tractor side and on the device side!

4. When functions are connected hydraulically between the forage harvester and the front attachment, coupling sleeves and plugs should be identified so that faulty operation is excluded! If the connectors are interchanged, the functions will be reversed (e.g. raising/lowering) - **Risk of accident!**

5. Check the hydraulic hose lines at regular intervals and replace them if damaged or worn! The replacement hose lines must meet the technical requirements of the device manufacturer!

6. When searching for leaks, use suitable aids to avoid the risk of injuries!

7. Liquids escaping under high pressure (hydraulic oil) can penetrate the skin and cause serious injury! In the case of injuries, seek medical assistance immediately. Risk of infection!

8. Before working on the hydraulic system, depressurise the system and switch off the engine!

2.2.10 Battery

1. Maintenance work on the batteries requires sufficient knowledge and mounting tools according to the instructions.

2. Keep naked flames, burning matches and spark sources clear of the battery. **Risk of explosion!**

3. Never check the charging level of the battery by connecting the two poles with a metal object. Use an acid tester or voltmeter.

4. Never charge a frozen battery. **Explosion hazard!** Warm the battery to 16 °C beforehand.

5. Battery acid can cause severe injuries by burning your skin and eyes. For this reason, wear suitable protective clothing.

2.2.11 Cooling system

A heated cooling system is pressurised – **Burning hazard**! For this reason, only remove the radiator cap with the engine switched off and after the engine has been able to cool.

2.2.12 Tyres

1. When working on the tyres, make sure that the device is in a safe position and has been secured against rolling (wheel chocks).

2. You must have adequate knowledge and the proper tools to undertake the work of fitting wheels and tyres!

3. Repair work on the tyres and wheels should only be carried out by specially trained personnel and only tools appropriate to the job should be used!

4. Check tyre pressure regularly! Inflate the tyres to the recommended pressures!

5. Check the wheel nuts periodically! Missing wheel nuts can result in a wheel falling off and the machine tipping over.

2.2.13 Emergency exit

There is an emergency hammer in the cab. In emergency situations, you can use it to smash the cabin window.

2.2.14 Working in the vicinity of power transmission lines

1. Always take great care when working under or in the vicinity of power transmission lines.

2. Please remember that during operation of the forage harvester, the overall height of 4 m is exceeded considerably due to the upper discharge chute.

3. If there is any need to travel under overhead lines, the machine operator must request information on the rated voltage and the minimum height of the overhead lines from the overhead line operator.

4. Always keep the safety distances according to the table.

Rated voltage kV	Safe distance from overhead lines m
to 1	1
Above 1 to 110	2
Above 101 to 220	3
Above 220 to 380	4

2.2.15 Fire prevention measures

1. Before starting to work, make sure the fire extinguisher is in a condition according to the regulations and familiarise yourself with how to use it.

2. The associated fire extinguisher must be serviced periodically. If it was used, it must always be refilled, even if you only used it very briefly.

3. To avoid fire hazards, always keep the forage harvester clean! In particular remove any crop wound around rotating parts.

4. The forage harvester is also used to process very dry crop (hay, straw), which constitutes an imminent fire hazard.

5. The fire hazard can be reduced by removing accumulated crop from the machine several times a day (interval depends on the type of crop) and checking the machine components for overheating. Check for oil leaks or exiting oil and take corrective action. Heed the lubricating instructions. Take special care when regrinding the cutting blades – fire hazard due to flying sparks! Before regrinding the blades, clear the vicinity of the machine of any crop/substances that may catch fire!

6. Frequently check the hydraulic oil lines thoroughly for proper condition and position with sufficient clearance to contact edges that may be sharp.

7. Check the vicinity of the hot zones of the engine, the exhaust system and pipes and the turbo charger, and remove crop residues.

8. Take great care when handling fuels. Never fill in fuel in the vicinity of unshielded flames or sparks that may cause ignition. Do not smoke when filling in fuel! Extreme fire hazard.

2.2.16 Maintenance

1. Always perform repair, maintenance and cleaning work as well as troubleshooting only when the drive is switched off and the engine stopped!
   - Remove the ignition key!

2. The audio coastdown alarm, which is sounded after the main drive is switched off, does not relieve the operator of the obligation to make certain the machine is at an absolute standstill before working on it.

3. Regularly check that nuts and bolts are properly seated and tighten them if necessary!

4. When performing maintenance work with the implement raised, always secure it with suitable supporting elements.

5. When replacing working tools with cutting edges, use suitable tools and gloves!

6. **Dispose of oils, greases and filters according to the regulations!**

7. Always disconnect the power supply before working on the electrical system!

8. If protective devices and guards are subject to wear, check them regularly and replace them in good time!

9. When performing repair and electric welding work on the forage harvester, always switch off the engine, disconnect the power supply via the battery power switch and disconnect the plug of the electric system from the PLD controller on the engine!

10. Replacement parts must, as a minimum, comply with the technical requirements set by the manufacturer of the implements!
    This is ensured by using genuine KRONE replacement parts!

11. Use only nitrogen for filling pneumatic accumulators - **Explosion hazard!**

2.2.17 Telephones and radio sets

Telephones and radio equipment not connected to an external antenna may cause malfunctions in the electronic system of the vehicle and thus jeopardising the operating safety of the vehicle.

2.2.18 Unauthorised conversion/ modification and manufacture of spare parts

Modifications to the machine are permitted only with the prior approval of the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safe use. The use of other parts may void the liability for any consequential damage.

2.2.19 Non-permissible modes of operation

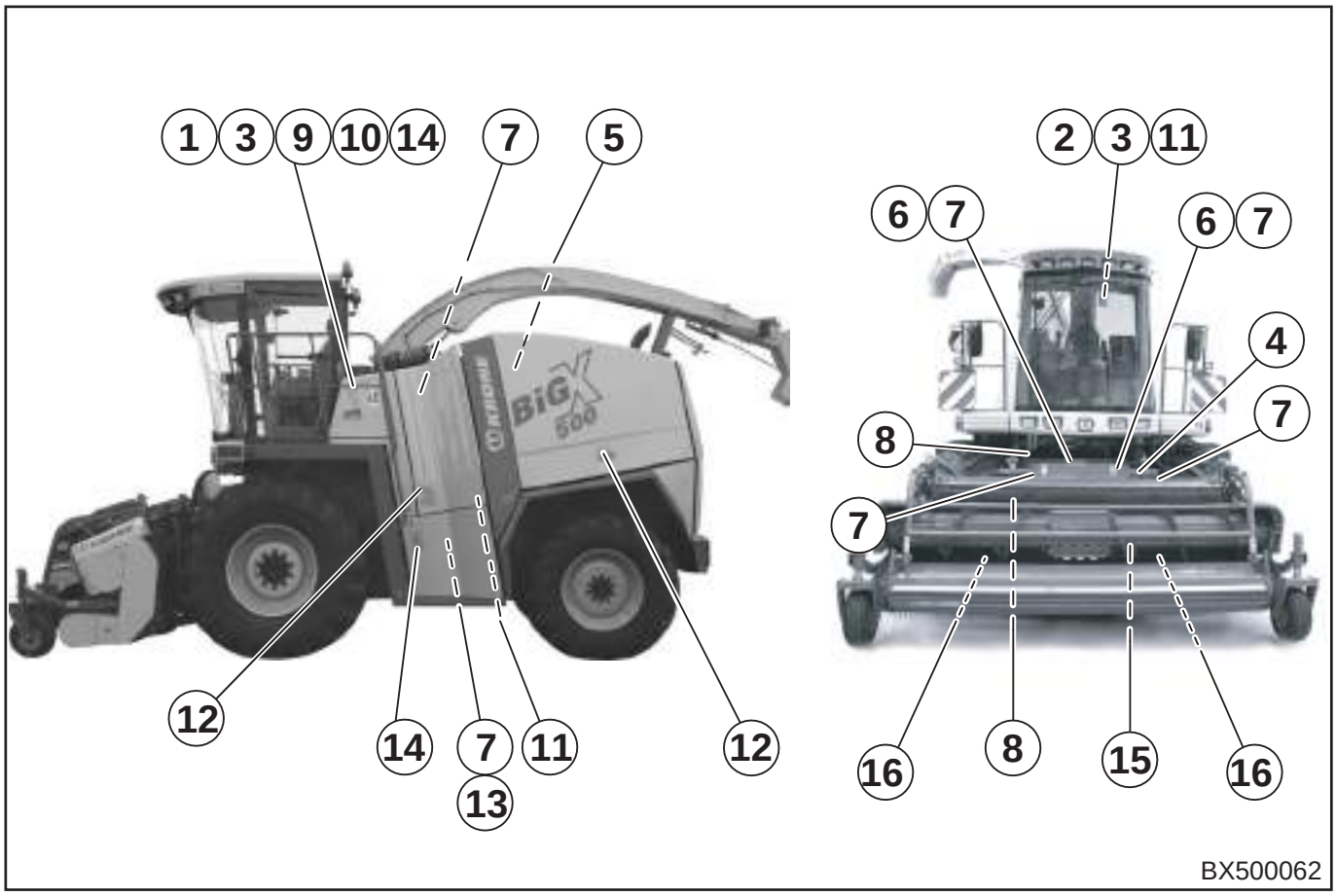
The operational safety of the machine is only guaranteed if it is used for its intended purpose in accordance with the Chapter "General Information" of these operating instructions. The limit values stated in the data sheets must not be exceeded under any circumstances.

2.3 Safety instructions on the machine

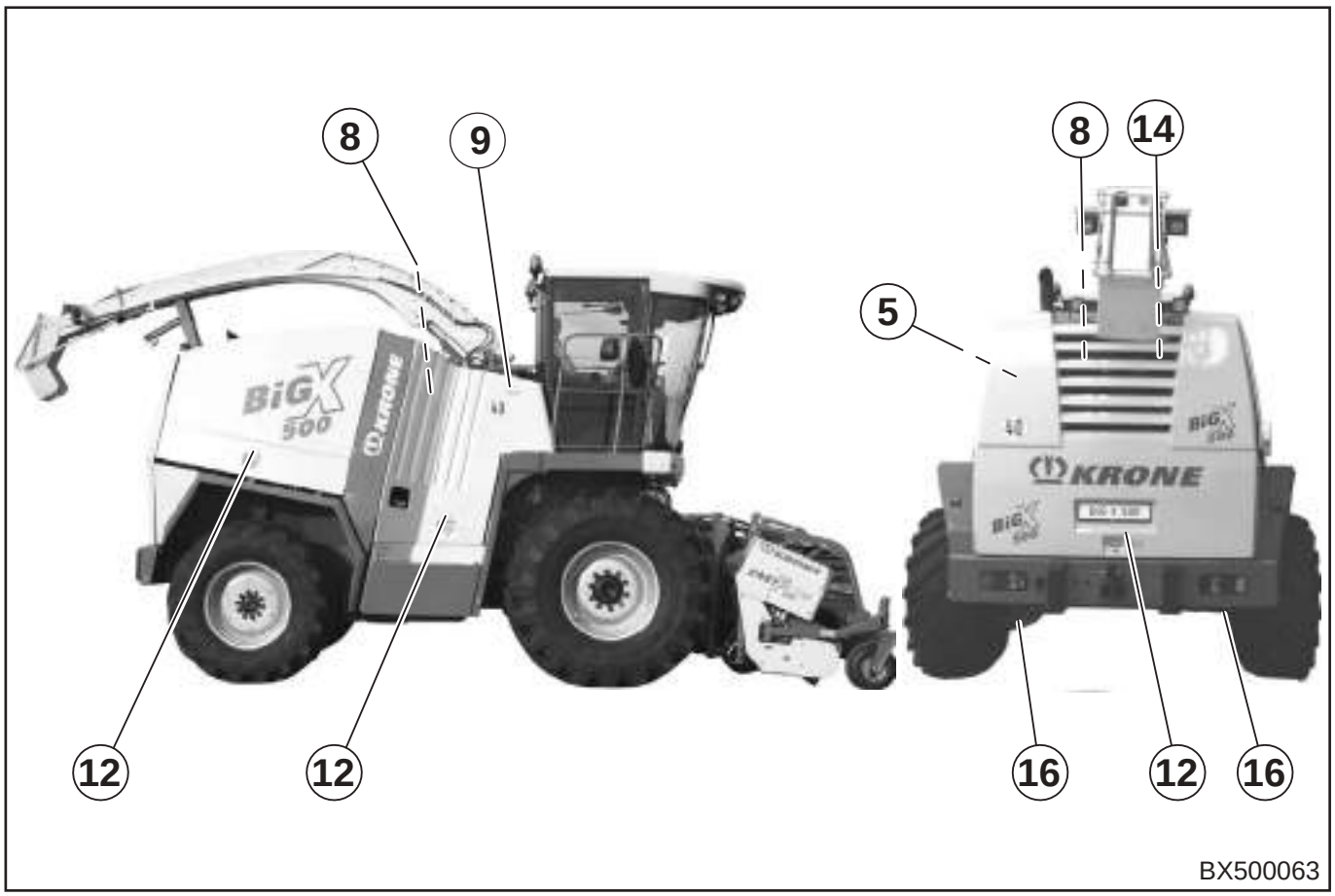
The self-propelled forage harvester BiG X is equipped with all the required safety equipment (protective devices). However, it is not possible to eliminate all potential hazards on this machine since to do so would impair its full functional capability. You will find corresponding hazard warnings on the machine that point out the residual risks.
We have implemented the hazard warnings in the form of warning pictograms.
In the following, you will find important information on the locations of these warning pictograms and an associated description/supplementation!

Familiarise yourself with the statement of the warning pictograms.
The adjacent text and the selected location on the machine provide information on the special danger spots on the machine.

2.3.1 Location of the warning pictograms on the machine



Left-hand side and front of the machine



Right-hand side and rear of the machine

(1)

Before placing the machine into operation, read the operating instructions and safety instructions. Both must be heeded.

Order No. 939 471-1 (1x)

(2)

Before performing maintenance and repair work, switch off the engine and remove the ignition key.

Order No. 942 289-0 (1x)

(3)

Keep the stipulated safe distance to power transmission lines.

Order No. 942 293-0 (2x)

(4)

Keep sufficient distance to rotating machine parts.

Order No. 942 200-1 (1x)

(5)

Burning hazard! Hot surface, keep sufficient distance.

Order No. 942 210-0 (2x)

(6)

While performing grinding work, keep your distance. Close the protective cover once you have completed the grinding work.

Order No. 942 294-0 (1x)

(7)

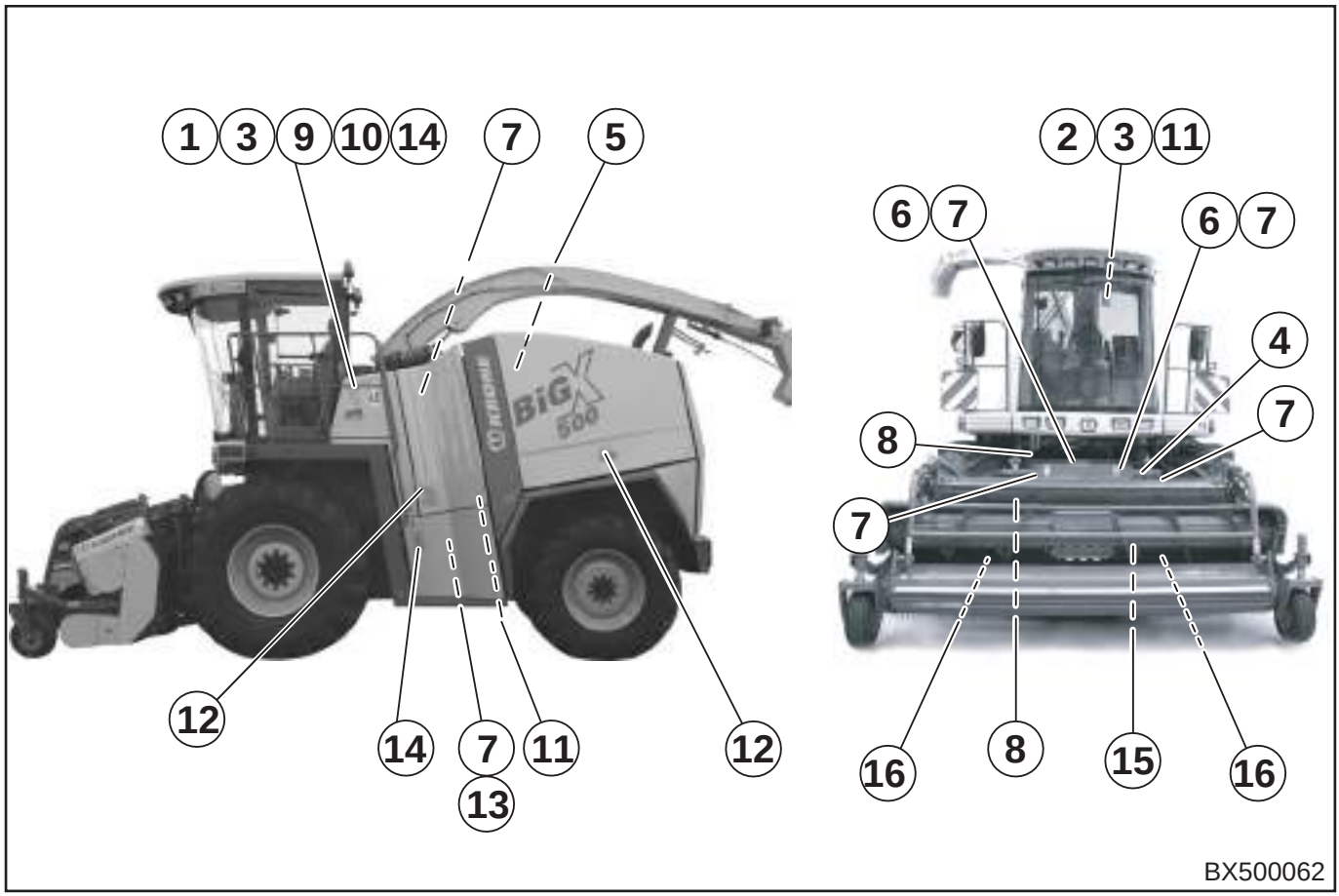
Never touch any moving machine parts.
Wait until they have come to a complete stop.

Order No. 939 410-2 (6x)

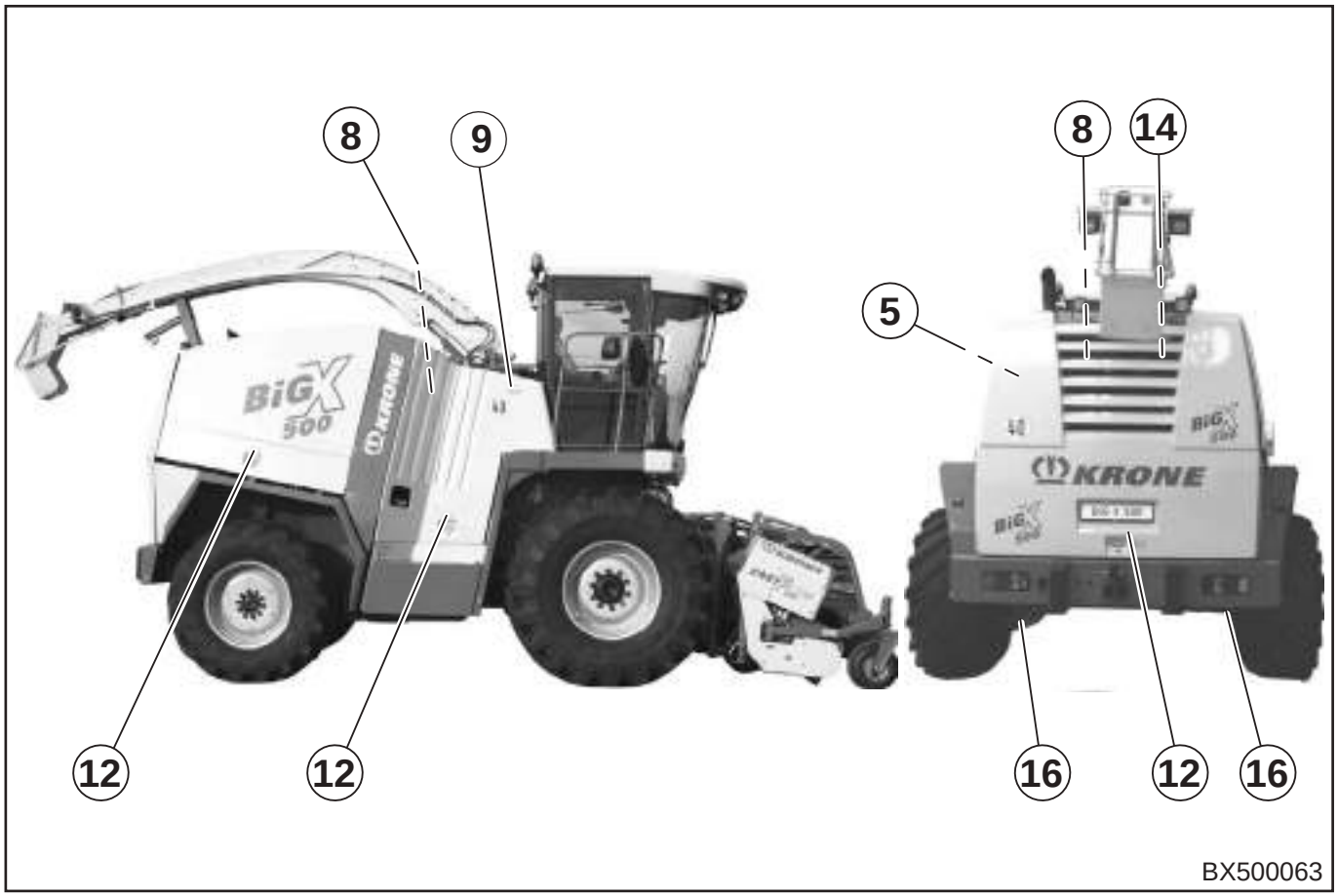
(8)

The pressure accumulator is under gas and oil pressure.
Always perform dismounting and repair work exclusively in compliance with the instructions in the technical manual.

Order No. 939 529-0 (4x)

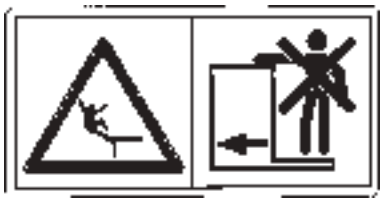


Left-hand side and front of the machine



Right-hand side and rear of the machine

9



It is impermissible to carry passengers on ladder steps or platforms.

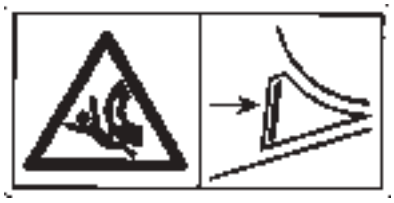
Order No. 942 291-0 (2x)

10

The machine may be taken into operation only when a suitable fire extinguisher is at hand.

Order No. 942 290-0 (1x)

11



Before parking the machine, secure it with wheel chocks against unintended rolling.

Order No. 942 250-0 (1x)

12

Do not open or remove the protective equipment when the engine is running.

Order No. 942 002-4 (5x)

13

When performing welding work, switch off the power switch and disconnect the plug of the PLD engine timer from the engine block!

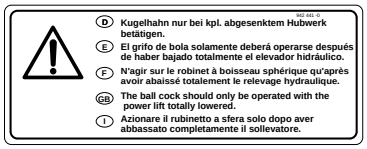
Order No. 942 409-0 (1x)

14

When performing welding work, switch off the power switch and disconnect the plug of the PLD engine timer from the engine block!

Order No. 942 408-0 (1x)

15

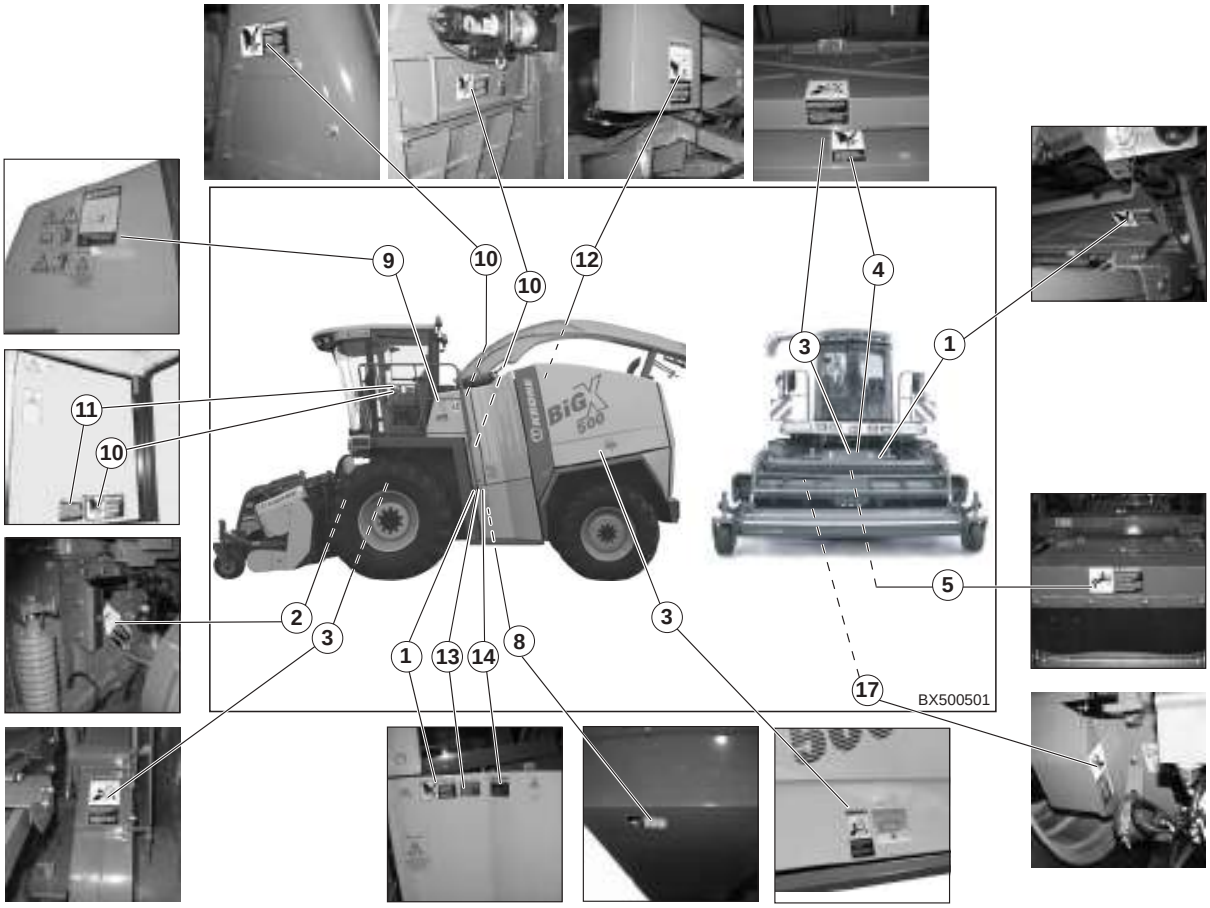


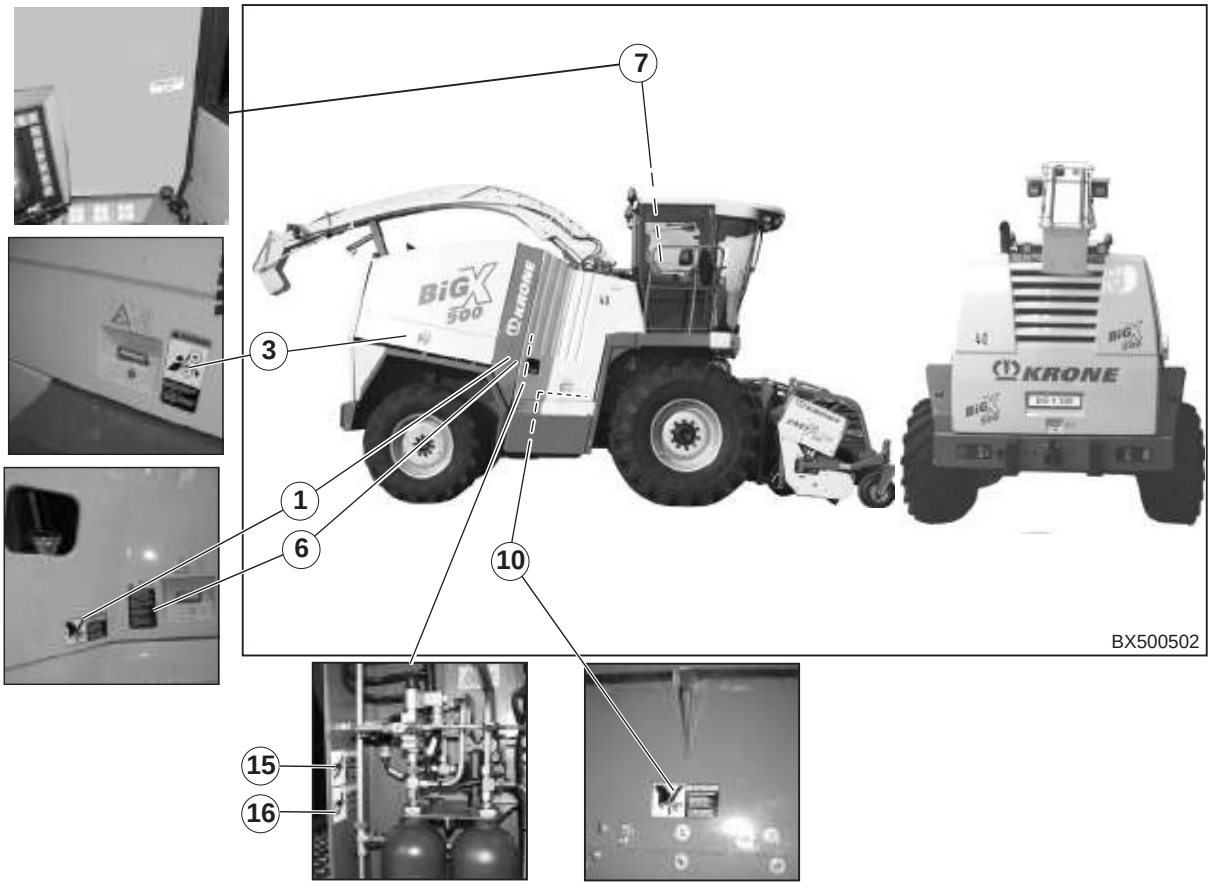
Order No. 942 441-0 (1x)

16

Stop points

Order No. 942 012-1 (4x)

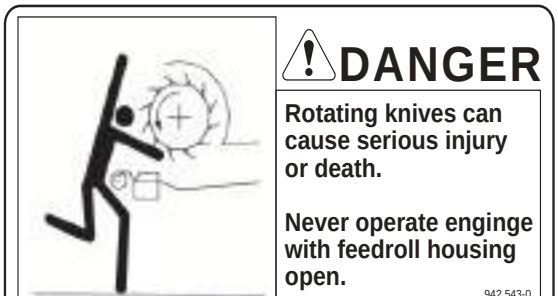




1

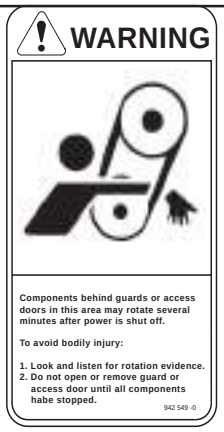
942 540 -0
(3) Required

2



942 543 -0
(1) Required

3

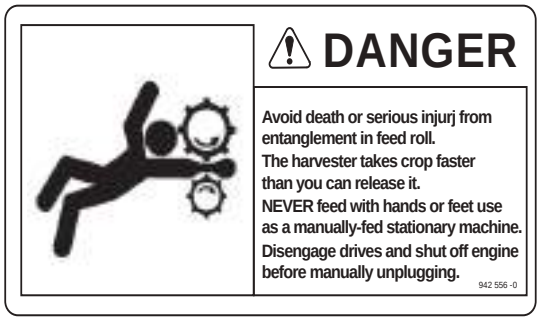


942 549 -0
(3) Required

4

942 536 -0
(1) Required

5



942 556 -0
(1) Required

6

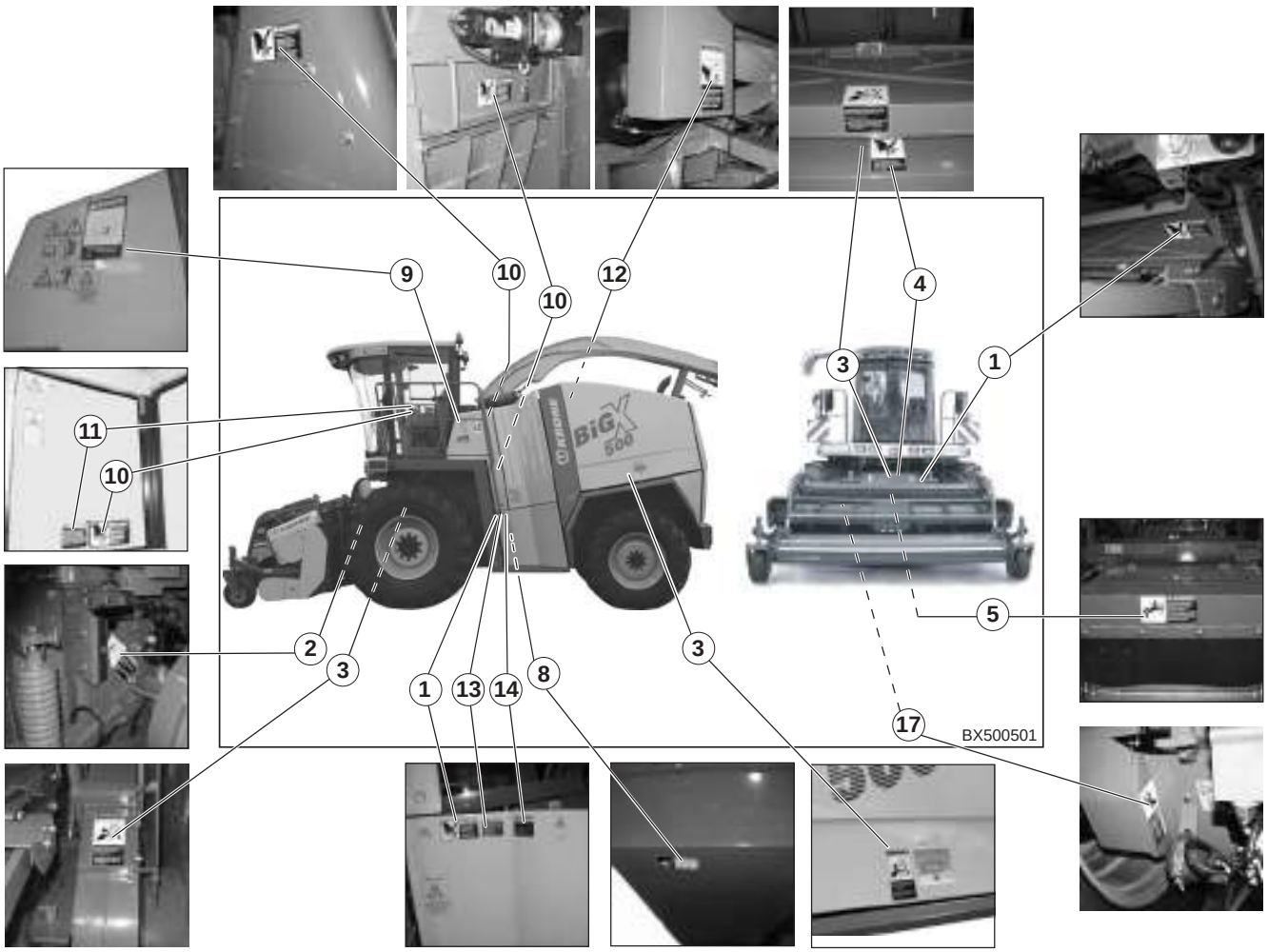
942 550 0
(1) Required

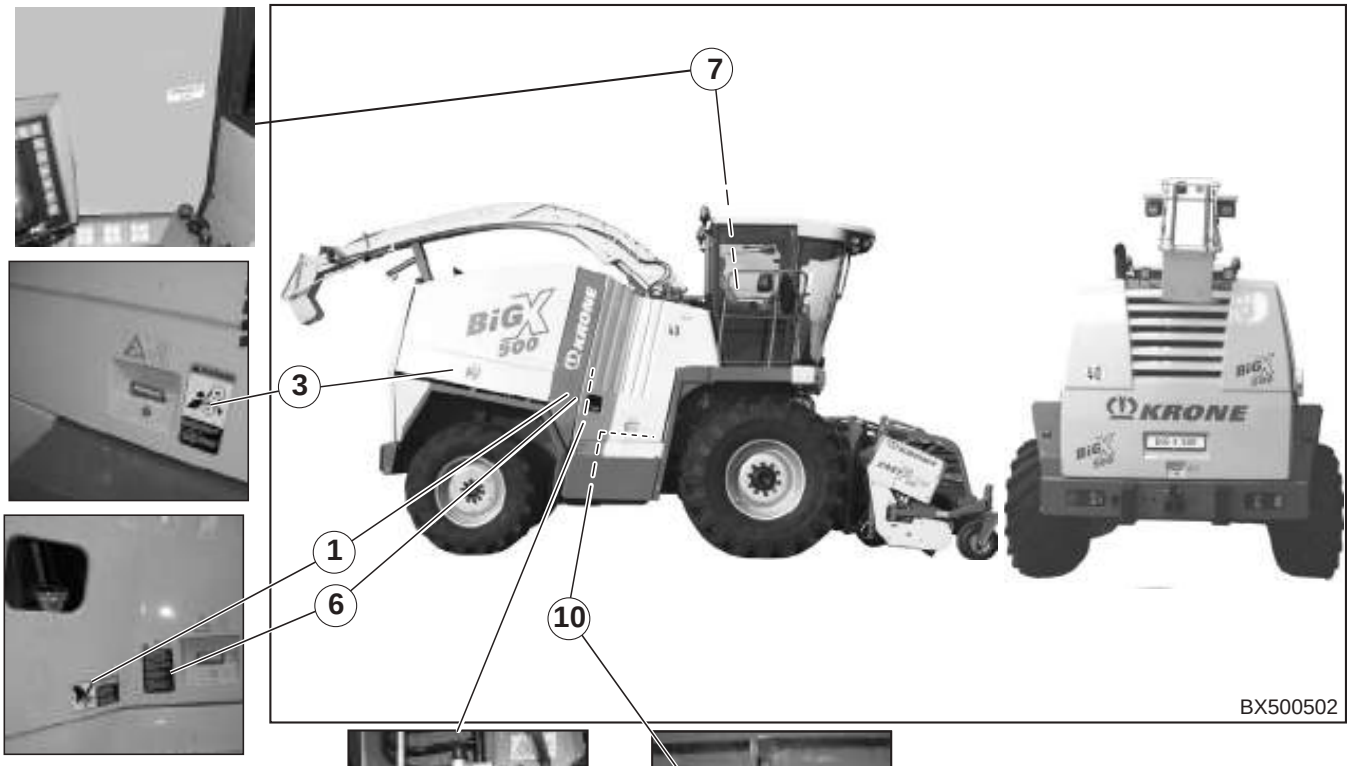
7

942 537 -0
(1) Required

8

942 538 -0
(1) Required

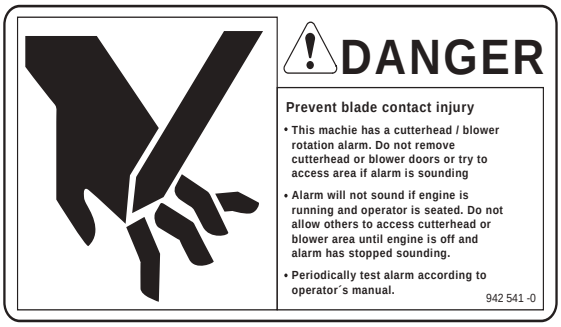




9

942 547 -0
(1) Required

10



942 541 -0
(5) Required

11

942 542 -0
(1) Required

12

942 546 -0
(2) Required

13

942 551 -0
(1) Required

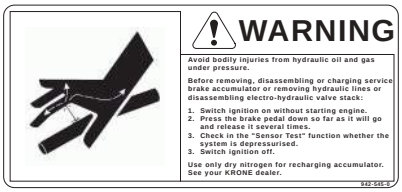
14

942 552 -0
(1) Required

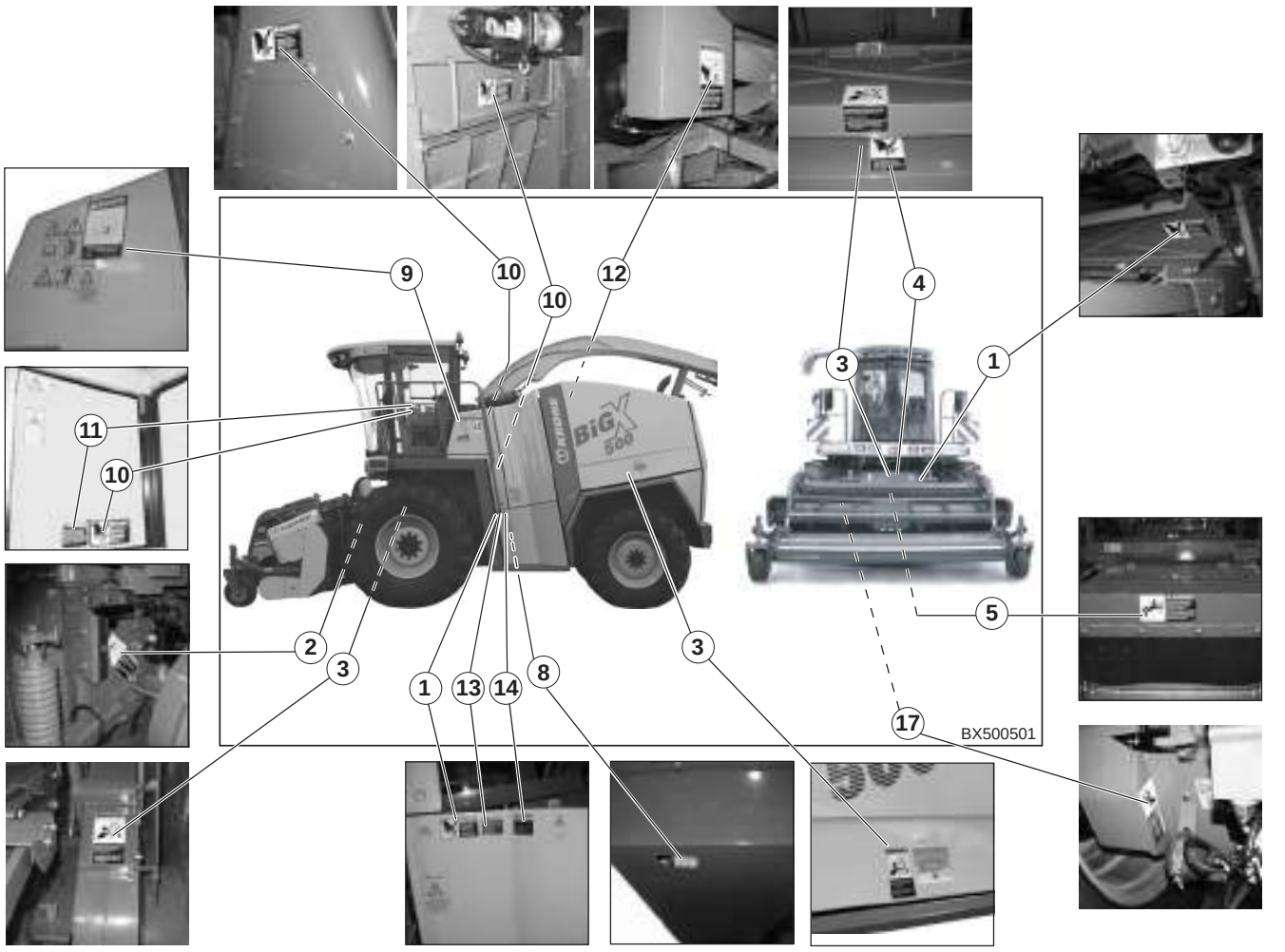
15

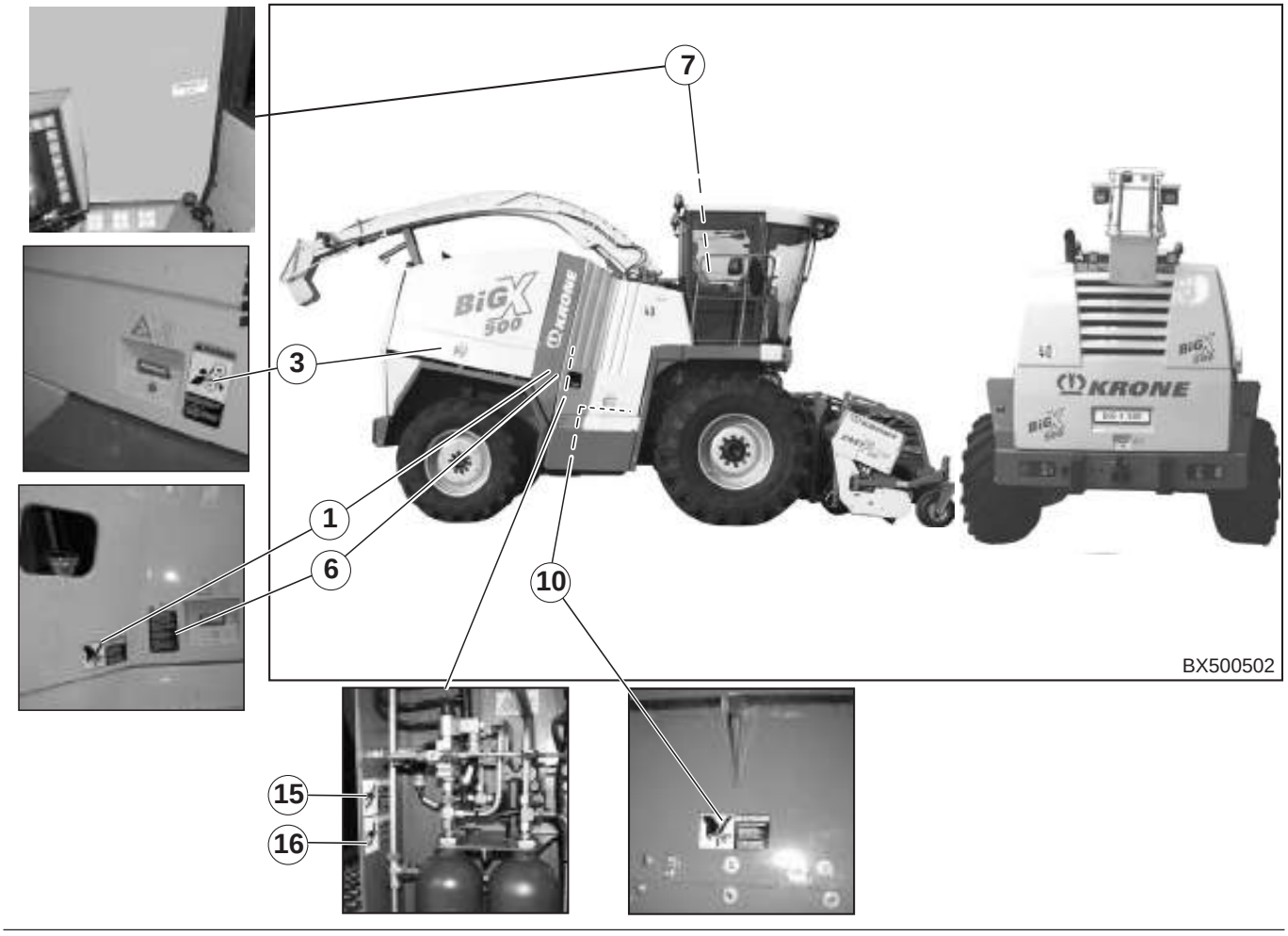
942 539 -0
(1) Required

16

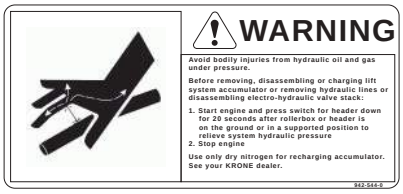


942 545 -0
(1) Required



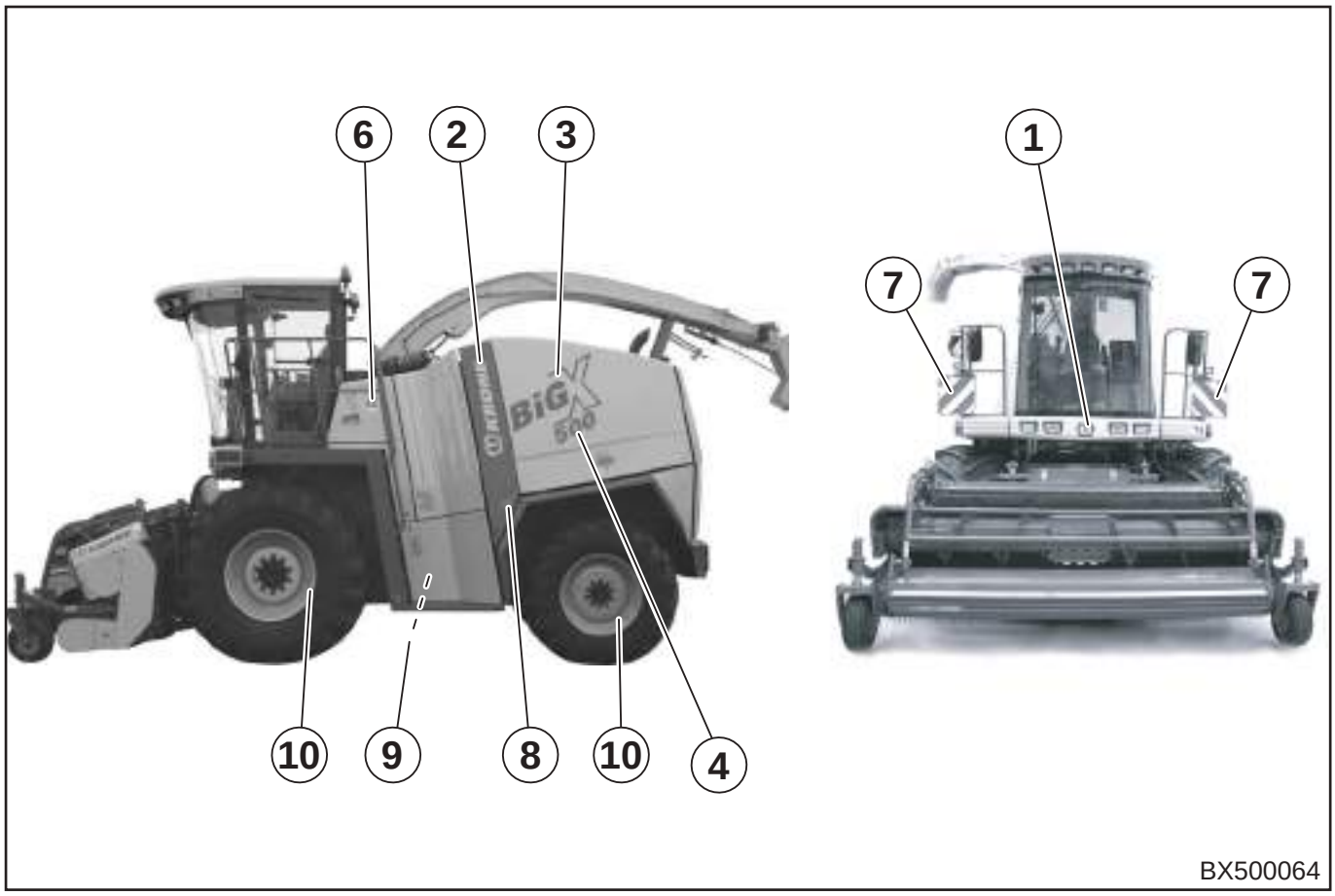


17

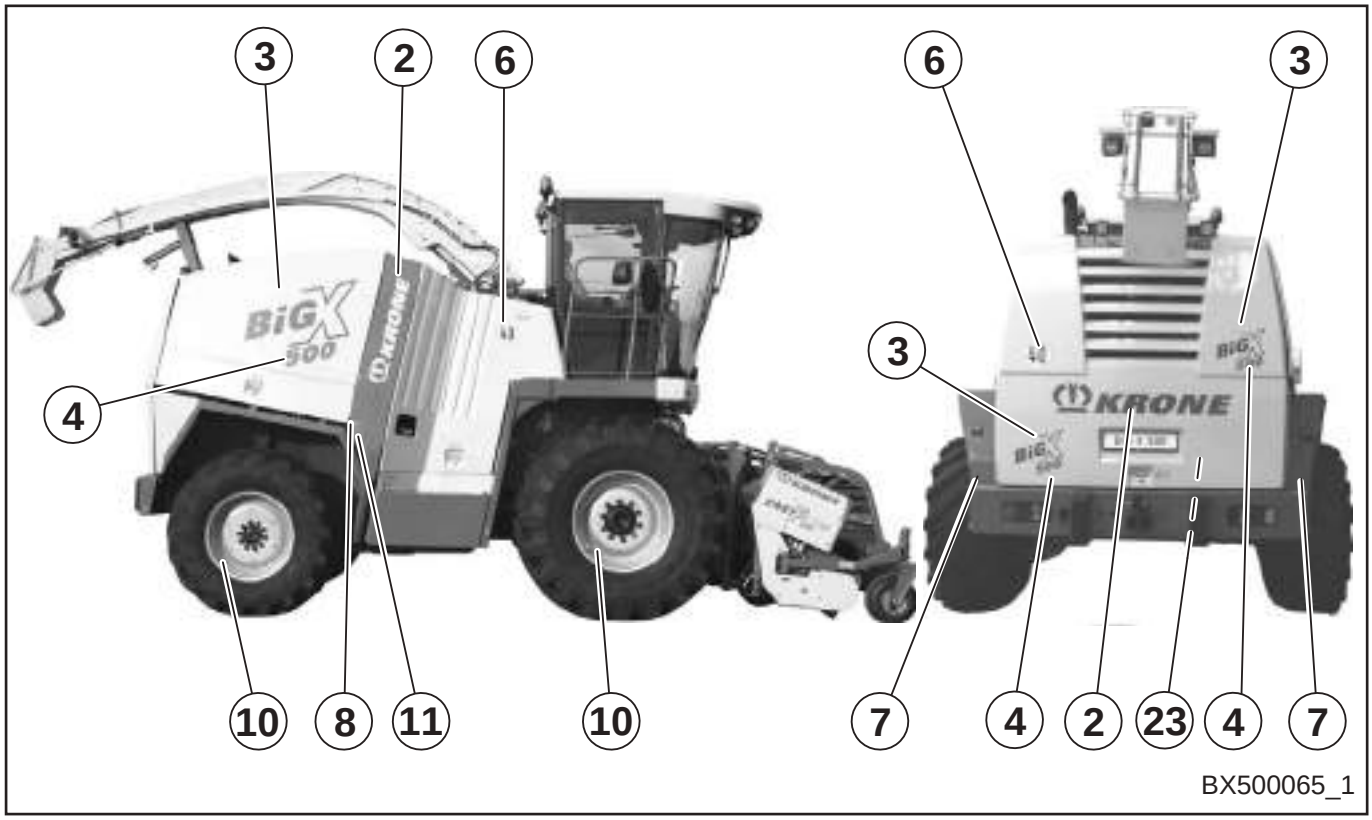


942 544 -0
(1) Required

2.3.2 Location of general labels on the machine



Left-hand side and front of the machine



Right-hand side and rear of the machine

1

942 434 0 (1x)

2

942 393 0 (2x), length of 1400, beige
942 392 0 (2x), length of 1250, green

3

942 395 0 (2x), length of 1098, green
942 394 0 (2x), length of 395, green

4

500
27 000 342 0 (2x) H= 68 anthrazit
27 000 343 0 (2x) H= 190 anthrazit

650
27 000 344 0 (2x) H= 68 anthrazit
27 000 345 0 (2x) H= 190 anthrazit

800
27 001 160 0 (2x) H= 68 anthrazit
27 001 161 0 (2x) H= 190 anthrazit

1000
27 001 162 0 (2x) H= 68 anthrazit
27 001 163 0 (2x) H= 190 anthrazit

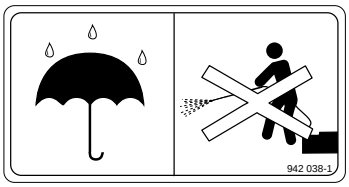
7

924 569 0 (4x)

6

939 145 1 (3x)

9



942 038 1 (3x)

8

D Radmuttern nach erstem Einsatz nachziehen.
E Apretar las tuercas de fijación de ruedas después de la primera puesta en servicio.
F Resserrer les écrous de fixation de roue après la première mise en service.
GB Retighten wheel nuts after the first two hours operation.
I Stringere i dadi di fissaggio delle ruote dopo il primo impiego.
942 134-0

942 134 0 (2x)

11

Reifenluftdruck
tyre pressure

Bereifungstyp wheel type	km/h	mph	Big X 500 mit / with EasyFlow 3000 oder / or Solomaschine solo machine (bar)	Big X V12 mit / with EasyCollect 6000 (bar)	BigX 650 mit / with EasyCollect 7500 (bar)	mit / with EasyCollect 9000 * (bar)	max. (bar)	Achse axle
650/75 R 32 172A8	40	25	2,4	3,2	3,2	2,4	3,2	Vorderachse front axle
	10	6	1,4	1,7	1,9	1,4		
710/75 R 34 178A8	40	25	1,6	2,4	2,4	1,6	2,4	
	10	6	1,0	1,2	1,4	1,0		
800/65 R 32 172A8	40	25	1,6	2,4	2,4	1,6	2,4	
	10	6	1,0	1,2	1,4	1,6		
900/60 R 32 176A8	40	25	1,4	1,8	2,0	1,4	2,0	
	10	6	1,0	1,0	1,2	1,0		
18.4 R 30 155A8	40	25	3,2	3,2 **	3,2 **	3,2	3,2	Hinterachse rear axle
	10	6	1,7	1,9	1,9	1,7		
600/65 R 28 154A8	40	25	2,4	2,4	2,4 **	2,4	2,4	
	10	6	1,4	1,4	1,4	1,4		
680/70 R 28 157A8	40	25	1,6	2,4	2,4	1,6	2,4	
	10	6	1,2	1,4	1,4	1,2		
710/55 R 30 153A8	40	25	1,6	1,6	1,6 **	1,6	1,6	
	10	6	1,0	1,0	1,0	1,0		

* = Strassenfahrt ohne EasyCollect 9000
* = Transport on road without EasyCollect 9000
** = Vmax: 25km/h / 15mp/h

942-529-1

942 529-1 (1x)

11 BIG X 800/100

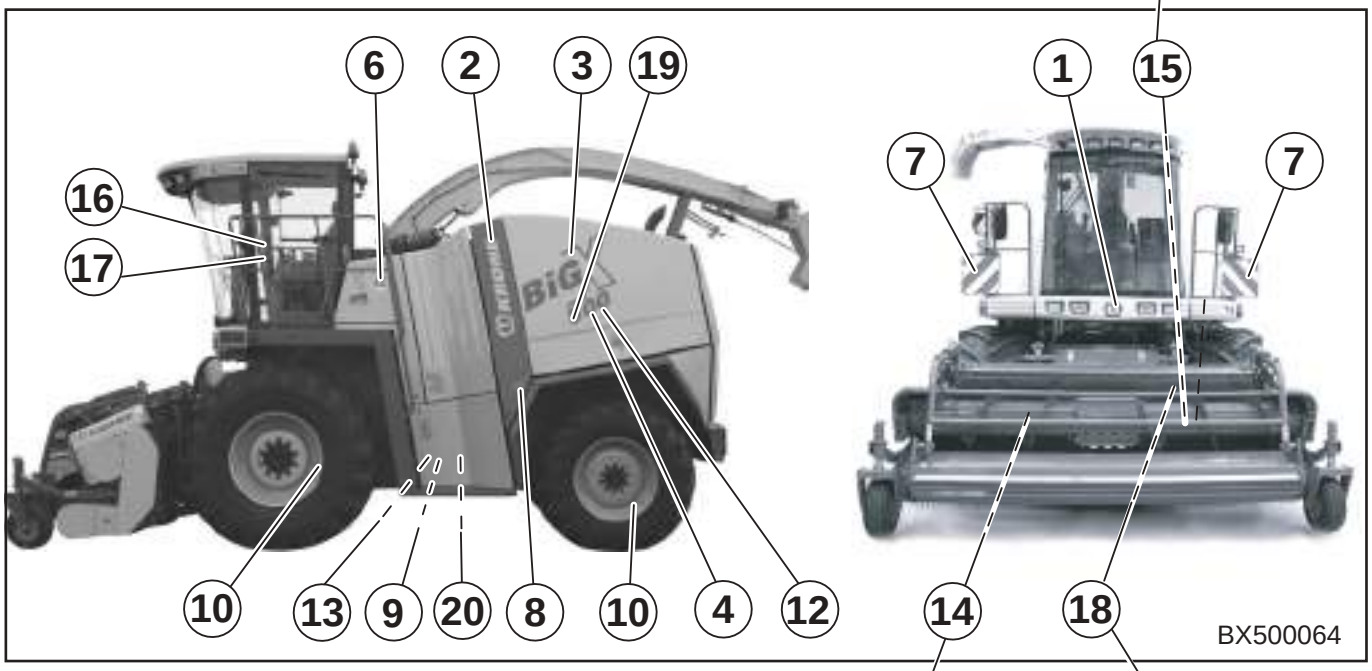
Reifenluftdruck
tyre pressure

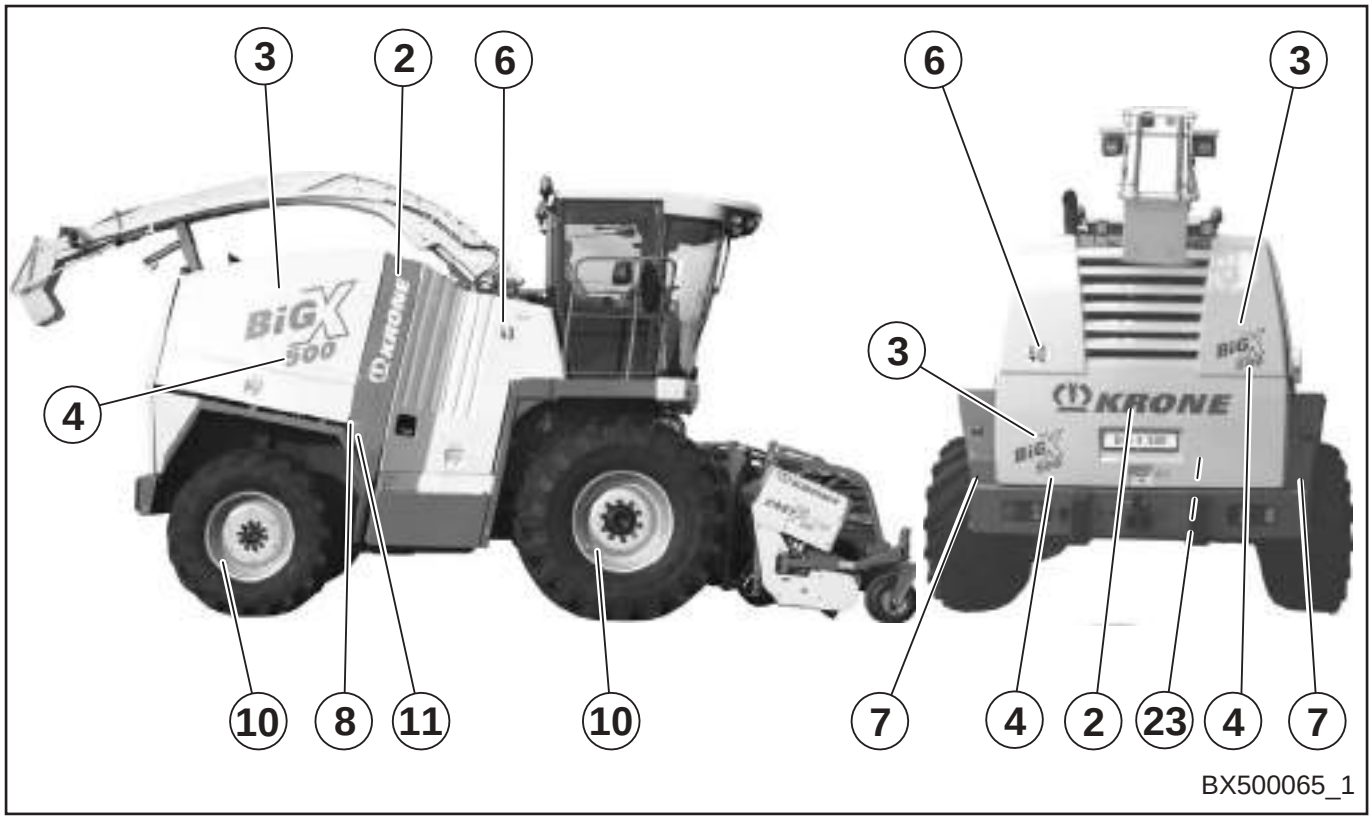
Bereifungstyp wheel type	km/h	mph	Big X 800 / Big X 1000 mit / with Easyflow 3001 oder / or Solomaschine solo machine (bar)	mit / with EasyCollect 6000 / 753 (bar)	mit / with EasyCollect 7500 / 903 (bar)	mit / with EasyCollect 9000 * / 1053 * (bar)	max. (bar)	Achse axle
710/75 R 34 178A8	40	25	1,8	2,4	2,4	1,8	2,4	Vorderachse front axle
	10	6	1,0	1,4	1,4	1,4		
800/65 R 32 172A8	40	25	1,6	2,4	2,4	1,6	2,4	
	10	6	1,0	1,4	1,4	1,4		
900/60 R 32 176A8	40	25	1,4	2,0	2,0	1,4	2,0	
	10	6	1,0	1,2	1,2	1,2		
600/70 R 28 157A8 TM 900 HP (Trelleborg)	40	25	2,9	2,9	2,9	2,9	2,9	Hinterachse rear axle
	10	6	1,7	1,7	1,7	1,7		
710/55-34 155A8 T 414 (Trelleborg)	40	25	2,1	2,1	2,1	2,1	2,1	
	10	6	1,4	1,4	1,4	1,4		

* = Strassenfahrt ohne EasyCollect 9000 / 1053
* = Transport on road without EasyCollect 9000 / 1053

270 022 783

270 022 783 (1x)



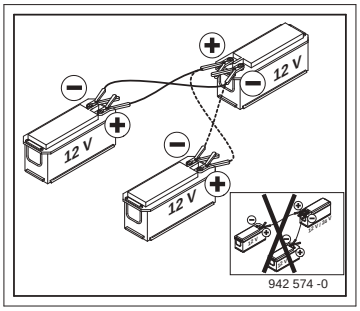


(10)

942 377-0	1.6 bar
942 432-0	1.8 bar
939 170-1	2.0 bar
942 418-0	2.4 bar
942 233-0	2.7 bar
942 433-0	3.2 bar

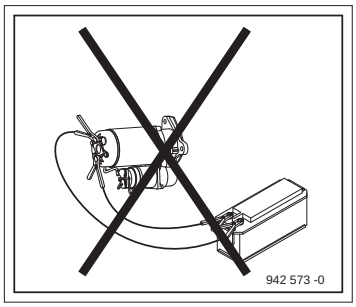
(4x)
Also refer to Technical Data

(13)



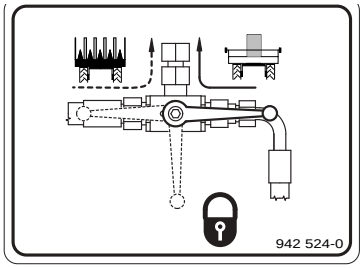
942 574-0 (1x)

(12)



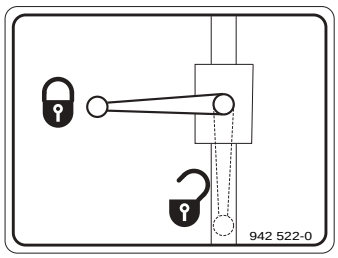
942 573-0 (1x)

(15)



942 524-0 (1x)

(14)



942 522-0 (1x)

(17)

Pat. 6, 638, 153

942 475-0 (1x)

(16)

Pat. 6, 594, 979

942 453-0 (1x)

(19)

942 572-0 (1x)

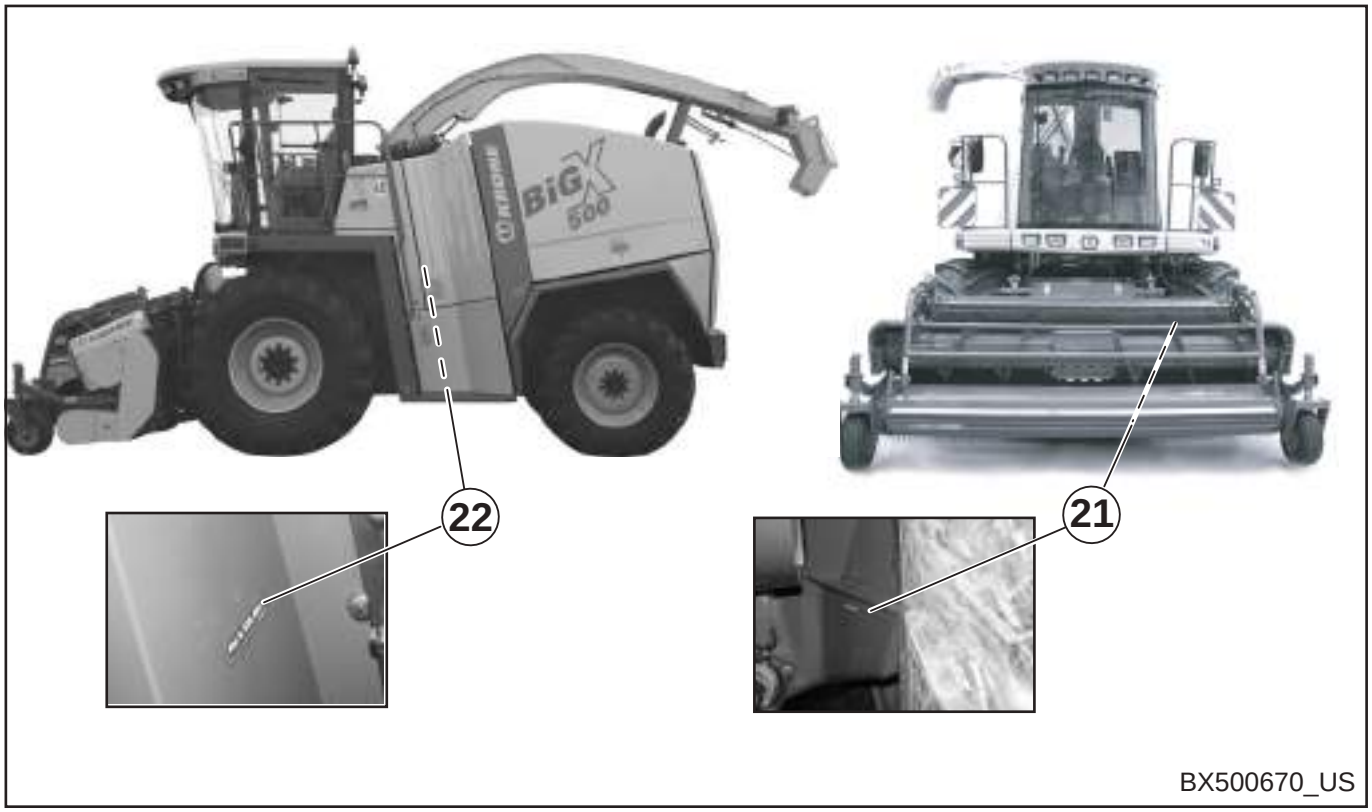
(18)

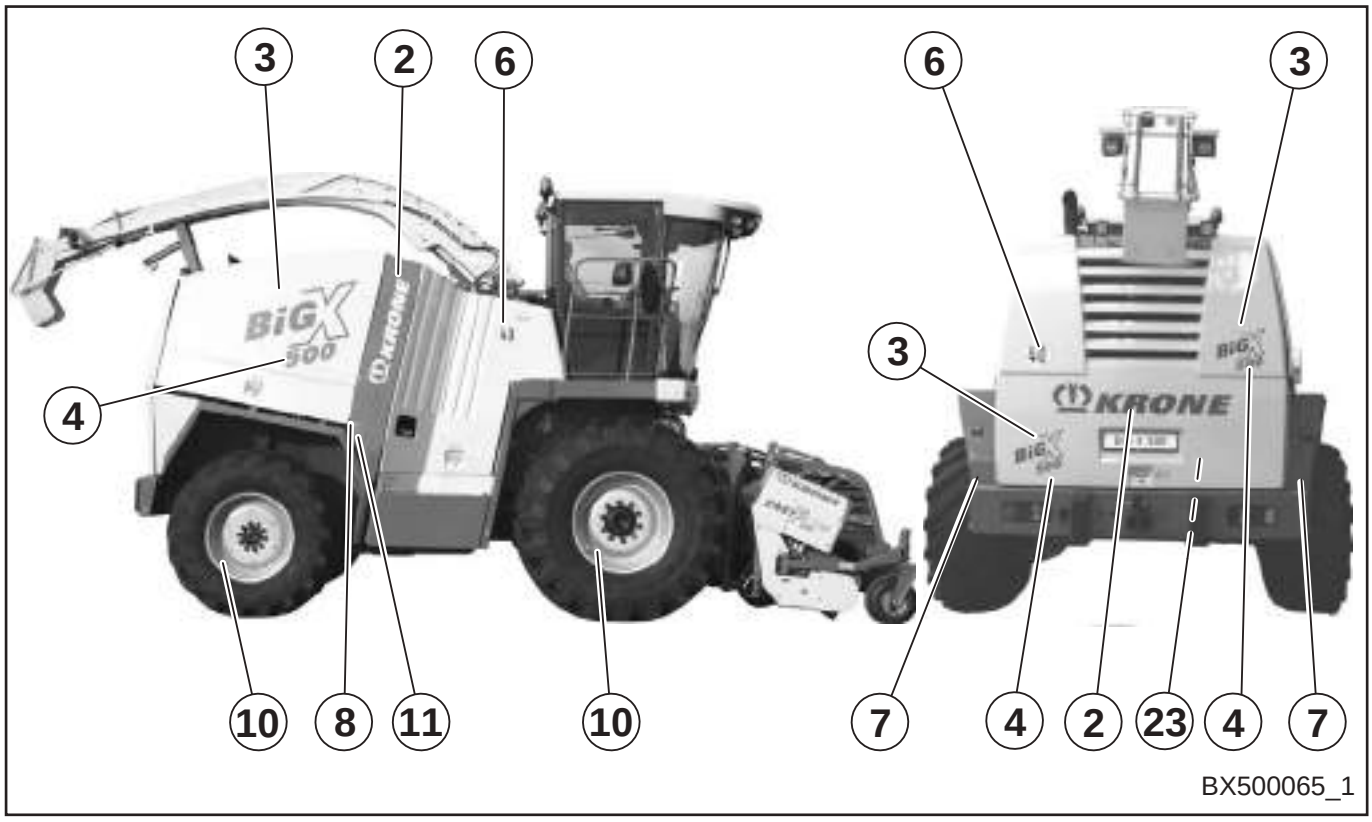
Pat. 6, 510, 679

942 447-0 (1x)

(20)

942 570-0 (1x)





21

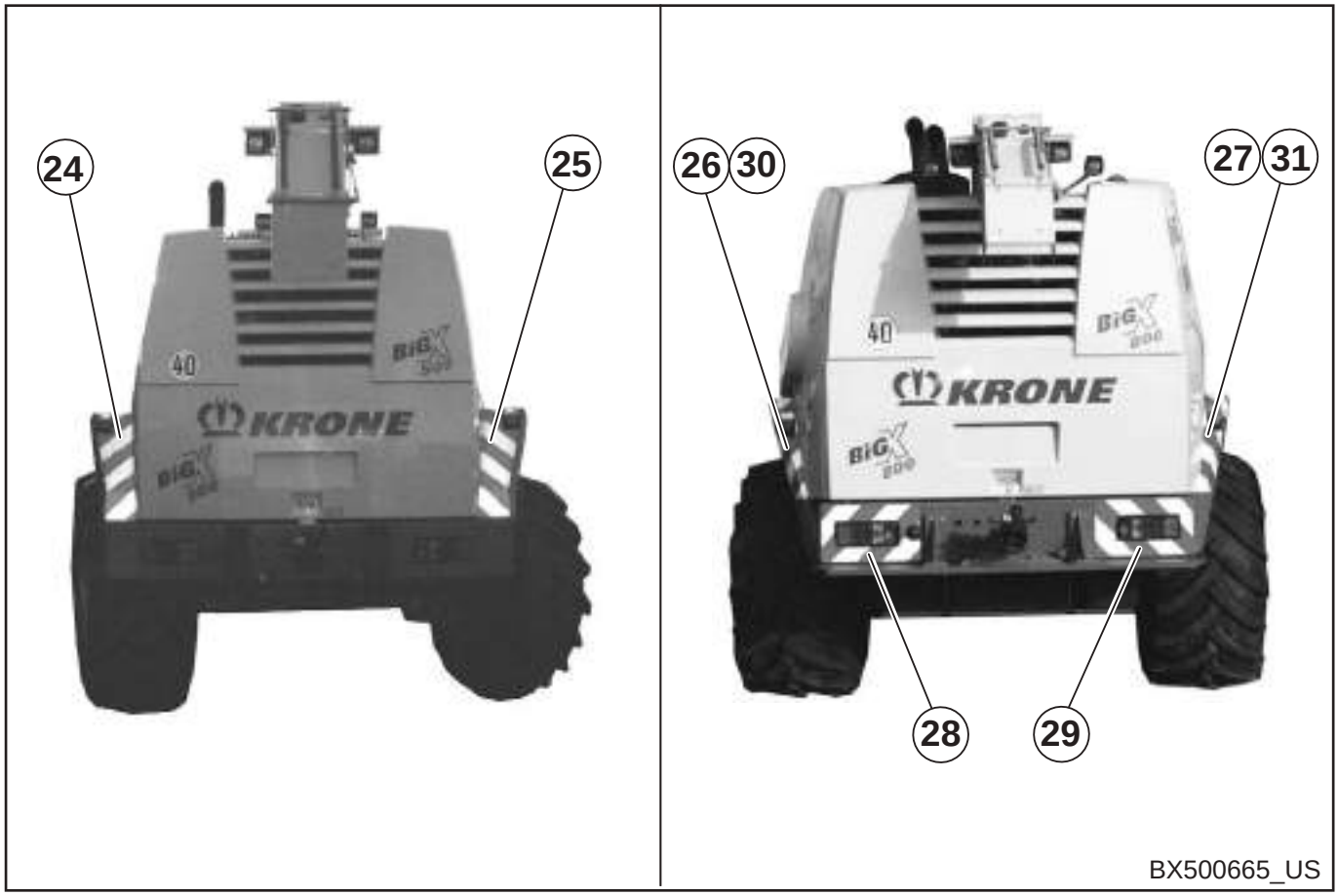
942 452-0 (1x)

22

942 448-0 (1x)

23

942 482-0 (1x)



Rear side of machine

(24) BiG X 500

200 208 240 (1x)

(25) BiG X 500

200 208 250 (1x)

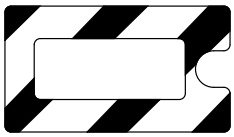
(26) BiG X 650

200 229 680 (1x)

(27) BiG X 650

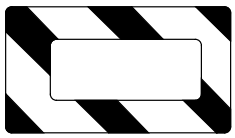
200 229 690 (1x)

(28) BiG X 650
800
1000



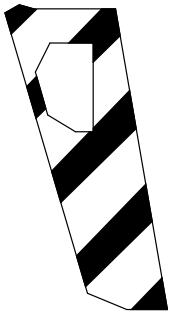
200 227 280 (1x)

(29) BiG X 650
800
1000



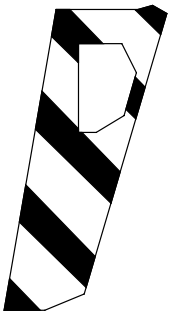
200 227 270 (1x)

(30) BiG X 800
1000



200 227 300 (1x)

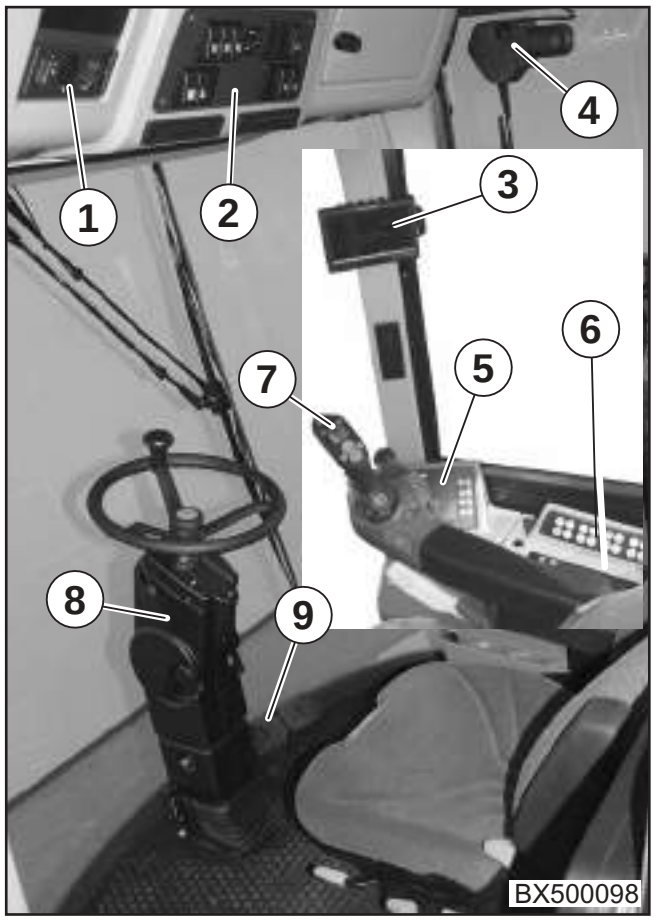
(31) BiG X 800
1000



200 227 290 (1x)

3 Operators controls

3.1 Overview



1 - Switch group – air conditioning/heating

2 - Switch group – roof panel

3 - Camera monitoring system (optional)

4 - Side window wiper (right/left) (optional)

5 - Info Centre

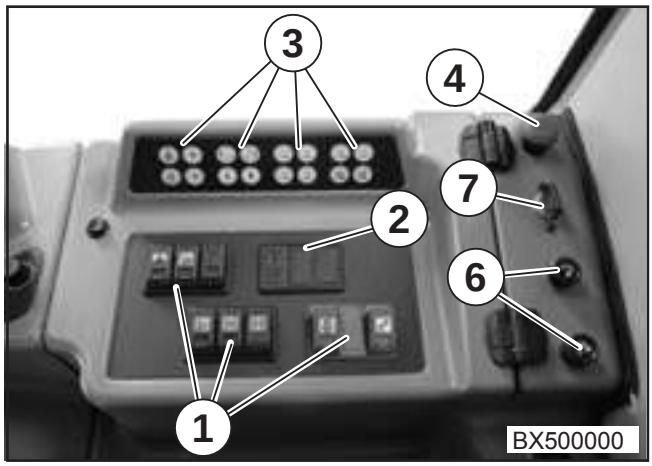
6 - Switch panel

7 - Multi-function lever

8 - Steering column

9 - Operating brake

3.2 Switch panel



1 - Panel switches

2 - Pilot lamps

3 - Keyboards

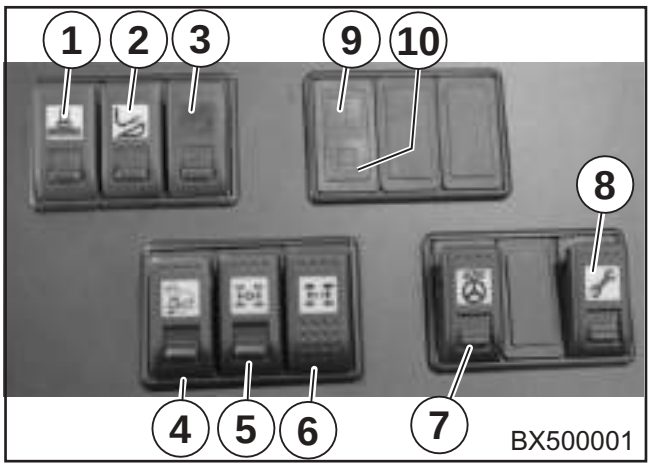
4 - Instantaneous stop switch

5 - 12-Volt socket

6 - Cigarette lighter

7 - Ignition lock

3.2.1 Panel switches and pilot lamps



1 - Release switch – road/field

2 - Release switch – feed drive/front attachment

3 - Release switch – holding brake

4 - Release switch – travelling gear

5 - Release switch – all-wheel drive

6 - Axle separation key

7 - Release switch – autopilot

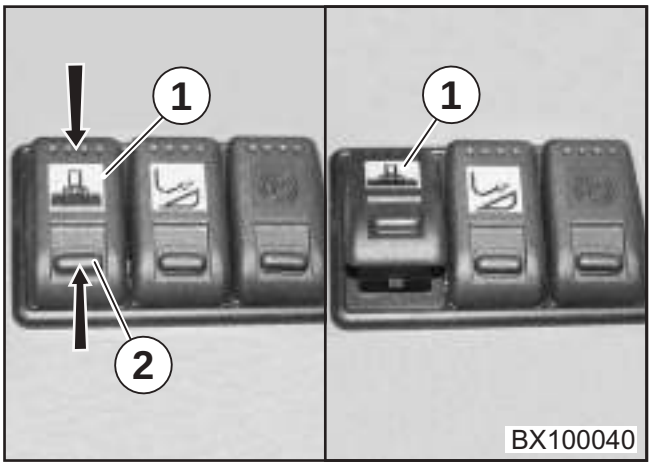
8 - Release switch - maintenance

9 - Engine failure indicator light

10 - Charge indicator light

Actuating release switches

The release switches are locked against unintentional actuation.



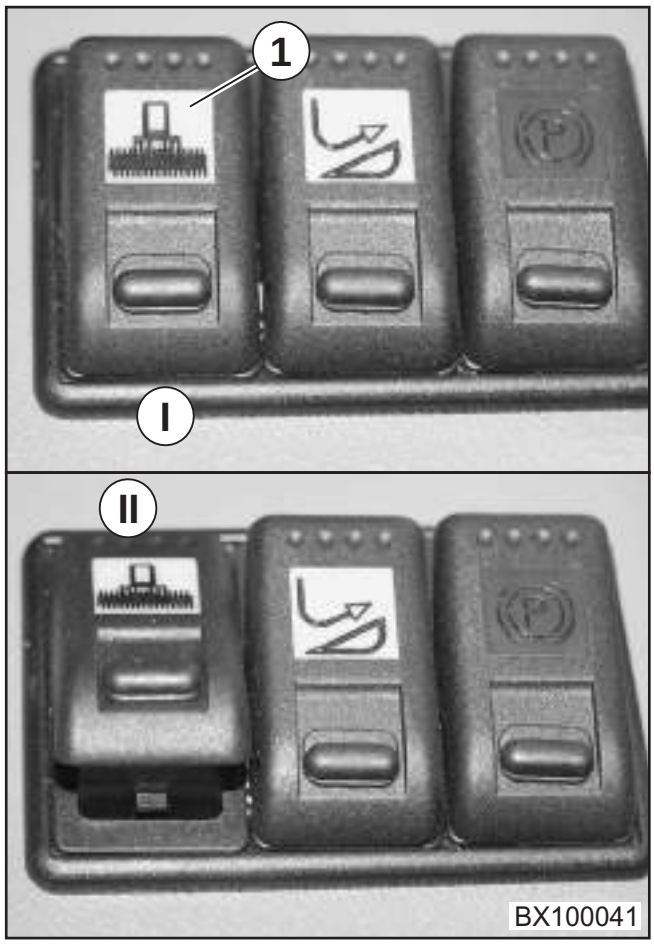
- To actuate the release switches (1), push the lock (2) forward and press the release switch.

3.2.2 Release switch – road/field

When travelling on roads, the road/ field release switch must be set to the position "I".
This ensures that only the travelling gear, the steering mechanism and the brakes are active.

The road/field release switch (1) is used to switch from road travel to field operation and vice versa.

I - Road travel
II - Field operation

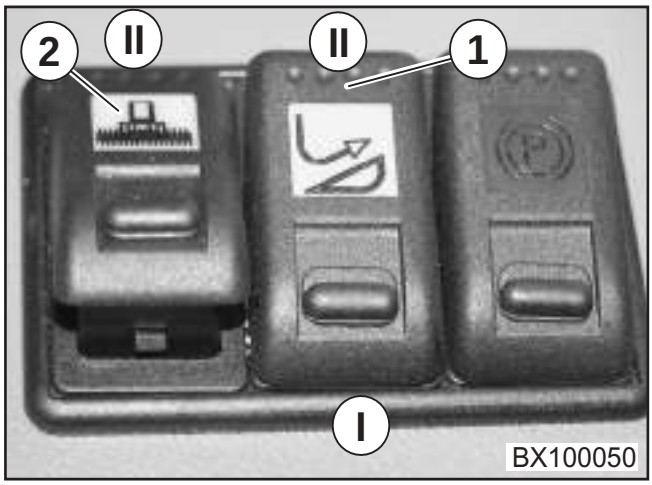


3.2.3 Release switch – feed drive/front attachment

Actuating the feed drive/attachment release switch (1) releases the feed drive rollers and the corresponding attachment.

- The road/field release switch (2) must be set to field operation (**II**).

I - Feed drive/front attachment off
II - Feed drive/front attachment on

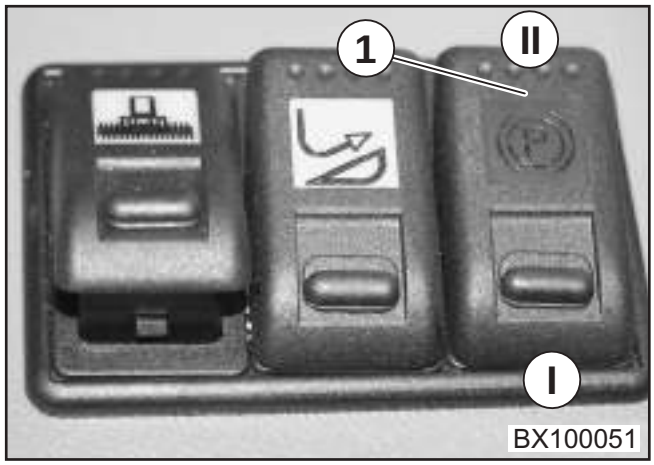


3.2.4 Release switch – holding brake

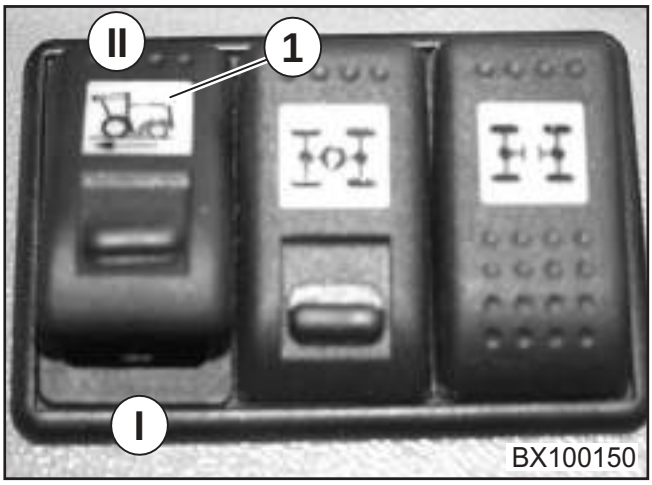
Driving for an extended period of time with the holding brake applied will result in overheating of the brake.

I - Holding brake released
II - Holding brake applied

The holding brake is applied automatically when the ignition is switched off.



3.2.5 Release switch – travelling gear



When the travelling gear release switch (1) is actuated, the travelling gear is released.

⚠ **No persons may be present in the direct hazardous area of the machine when the travelling gear release switch is actuated!**

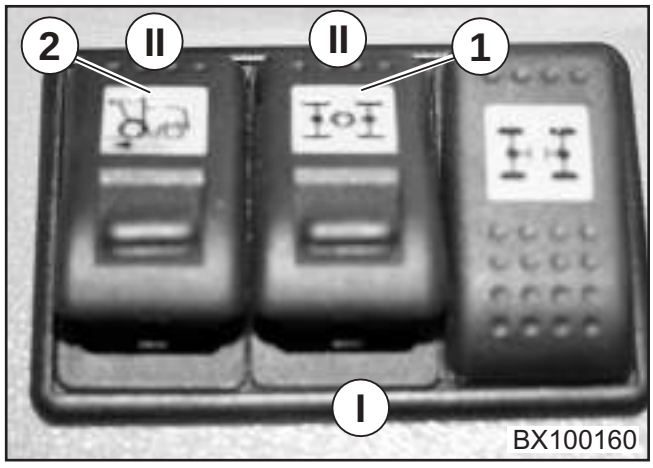
⚠ **Always remove the ignition key when leaving the driver's cab. To switch off the forage harvester, actuate the holding brake switch and set the travelling gear switch (1) to the off position (I).**

I - Travelling gear off

II - Travelling gear on

When the travelling gear is switched on (**II** position), the maintenance functions (manual operation on the left platform) are not released.

3.2.6 Release switch – all-wheel drive



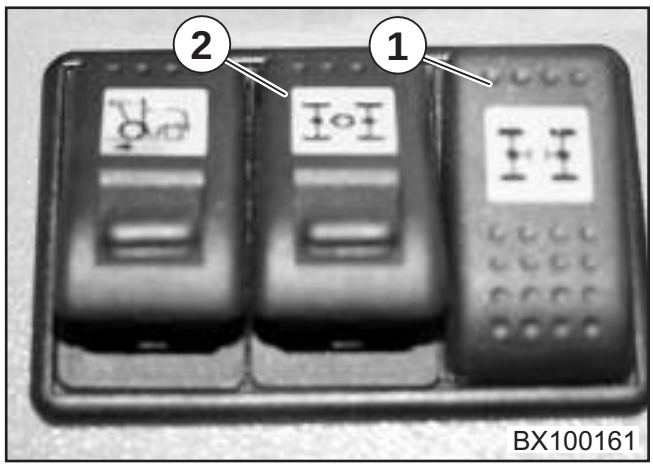
Actuating the all-wheel drive release switch (1) connects all-wheel drive.

- The road/field release switch must be set to field operation.
- The travelling gear release switch (2) must be switched on (**II**) and the forage harvester must be at a standstill.

I - All-wheel drive switched off

II - All-wheel drive switched on

3.2.7 Axle separation key



Actuating the axle separation key switches axle separation on or off.

- The all-wheel drive release switch (2) must be switched on; the drive speed must be below 10 km/h.
- Actuate axle separation key (1) – axle separation switched on.
- Actuate axle separation key (1) again – axle separation switched off.

When all-wheel drive is switched off, axle separation is also switched off.

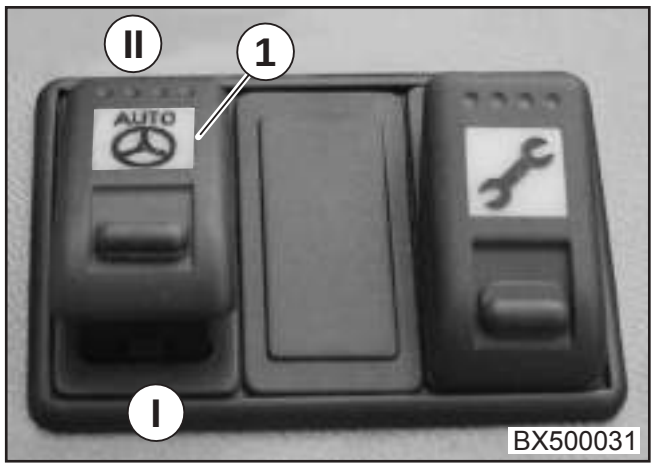
3.2.8 Release switch – autopilot

Actuating the autopilot release switch (1) releases the autopilot function.

The autopilot is available only in maize operation when the EasyCollect maize header has been attached.

- The road/field release switch must be active in field operation and the travelling gear release switch must be switched on.

I - Autopilot off
II - Autopilot on

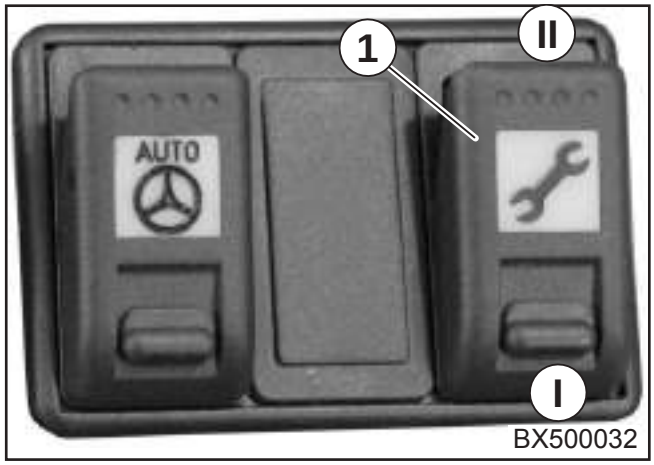


3.2.9 Release switch - maintenance

Actuating the maintenance release switch (1) releases all maintenance functions (manual operation on the left platform).

- The road/field release switch must be active in field operation and the travelling gear release switch must be switched off.

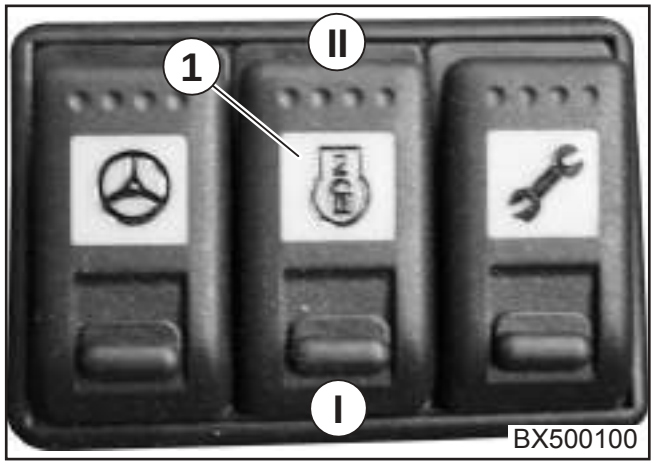
I - Maintenance off
II - Maintenance on



3.2.10 Release Switch for Diesel Engine II (only for BiG X 800 and BiG X 1000)

Activating the release switch for diesel engine II (1) releases the functionality of diesel engine II.

I - Diesel engine II switched off
II - Diesel engine II released



3.2.11 Engine failure indicator light

The engine pilot lamp (I) (1) lights up as soon as a failure in the engine (I) is detected..

Switch the engine off immediately.
Rectify the fault.

The engine pilot lamp (II) (3) lights up as soon as a failure in the second engine is detected.
(Only for BiG X 800 and BiG X 1000)

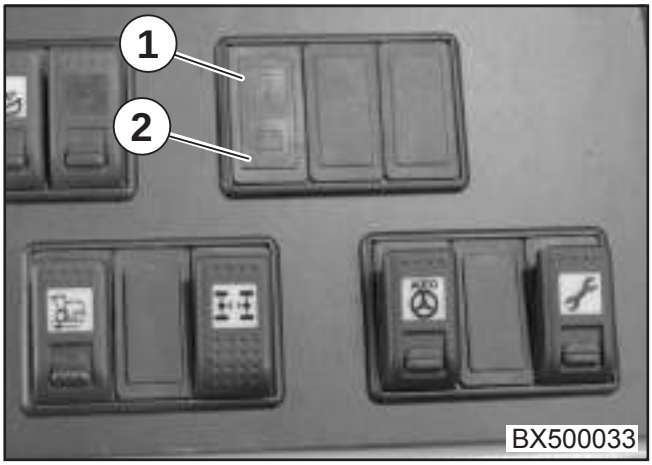
Switch the engine off immediately.
Rectify the fault.

3.2.12 Charge indicator light

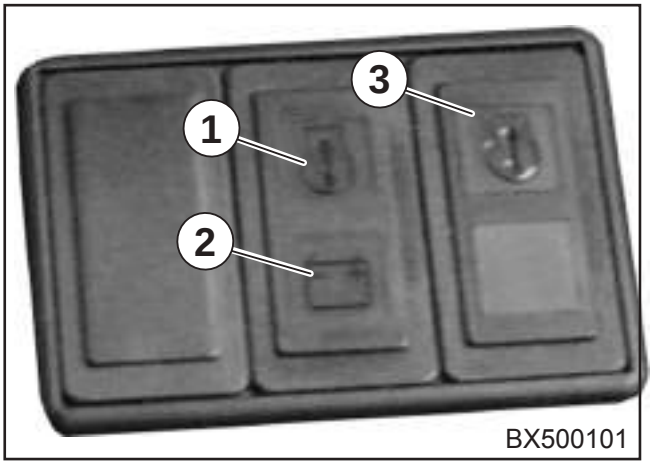
The charge indicator light (2) will light up, if the output voltage of the three-phase generator is not sufficient to charge the batteries.

- Check the cables and connections on the three-phase generator and on the batteries. Check the V- belt on the three-phase generator.

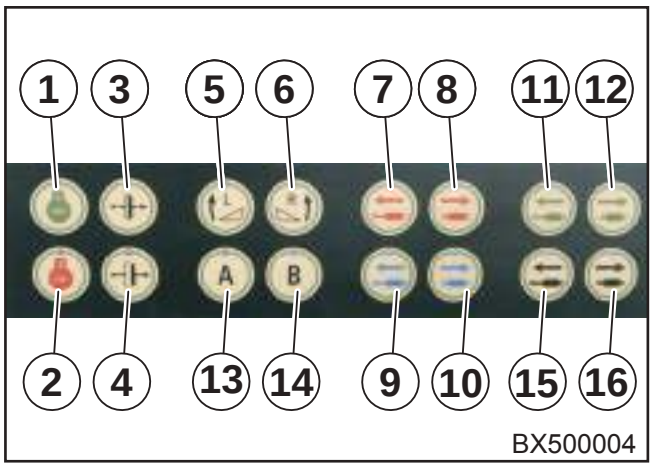
BiG X 500, BiG X 650



BiG X 800, BiG X 1000

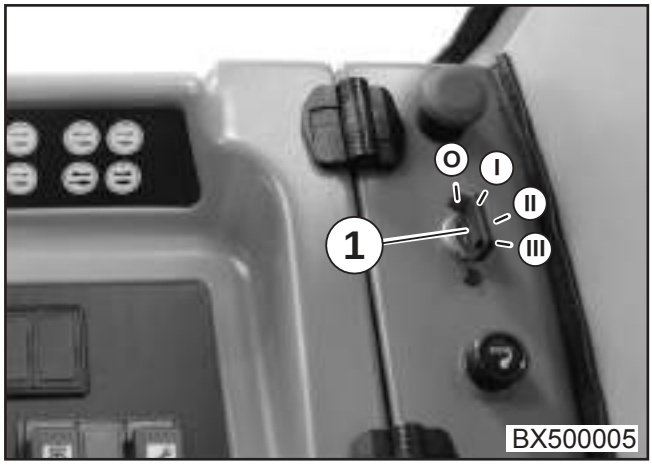


3.2.12 Keyboards



1 - not taken
2 - not taken
1 - Start diesel engine II (BiG X 800, 1000)
2 - Switch off diesel engine II (BiG X 800, 1000)
3 - Main coupling on
4 - Main coupling off
5 - Pendulum frame - swing up to the left
6 - Pendulum frame - swing up to the right
7 - (red) pick-up = lift roller-type crop guard
(red) maize header = retract
8 - (red) pick-up = lower roller-type crop guard
(red) maize header = fold out
By pressing the keys (7) and (8) simultaneously, switch off the pressure in the first hydraulic circuit.
9 - (blue) pick-up = swing in roller feelers
(blue) maize header = lift plant divider
10 - (blue) pick-up = extend roller feelers
(blue) maize header = lower plant divider
By pressing the keys (9) and (10) simultaneously, switch off the pressure in the second hydraulic circuit.
11 - (green) optional for additional control
12 - (green) optional for additional control
13 - not taken
14 - not taken
15 - (black) optional for additional control
16 - (black) optional for additional control

3.2.13 Ignition lock



The ignition lock (1) has four positions:

0 - Off

I - Electric circuit for electronics is switched on

II - The ignition is switched on

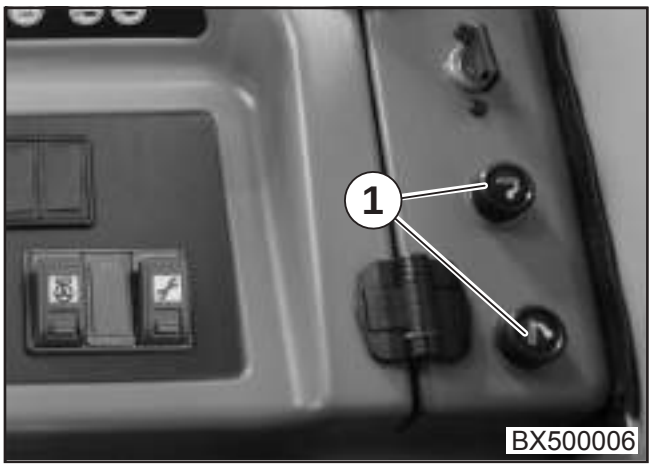
III - Start position

3.2.14 Cigarette lighter

In order to prevent damage and injury, never hold the cigarette lighter (1) in pressed position.

- Press the cigarette lighter (1) in; when the required temperature is reached the insert will come out by itself.

The socket of the cigarette lighter can be used to connect other power consumers with 12 volts and a maximum of 10 amps. When the engine has been switched off, the battery will be discharged. Use the specified plug to connect accessory units.



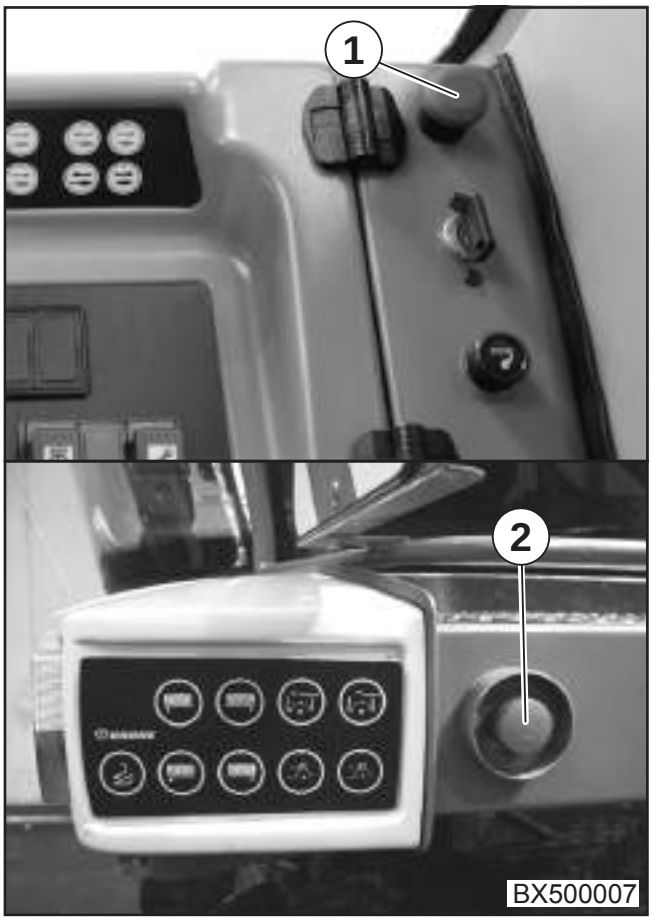
3.2.15 12-V socket

The 12-Volt socket can be used to connect accessory units.
Power consumers with a maximum of 15 amps can be connected.

3.2.16 Instantaneous stop switch

When the instantaneous stop switch (1) is actuated, the travelling gear is deactivated and the machine stops. All work functions are stopped.

- Press the instantaneous stop switch (1 or 2) – the machine stops/work functions are stopped.
- In order to activate the machine, move the actuated instantaneous stop switch (1 or 2) to its initial position by turning it slightly to the right.

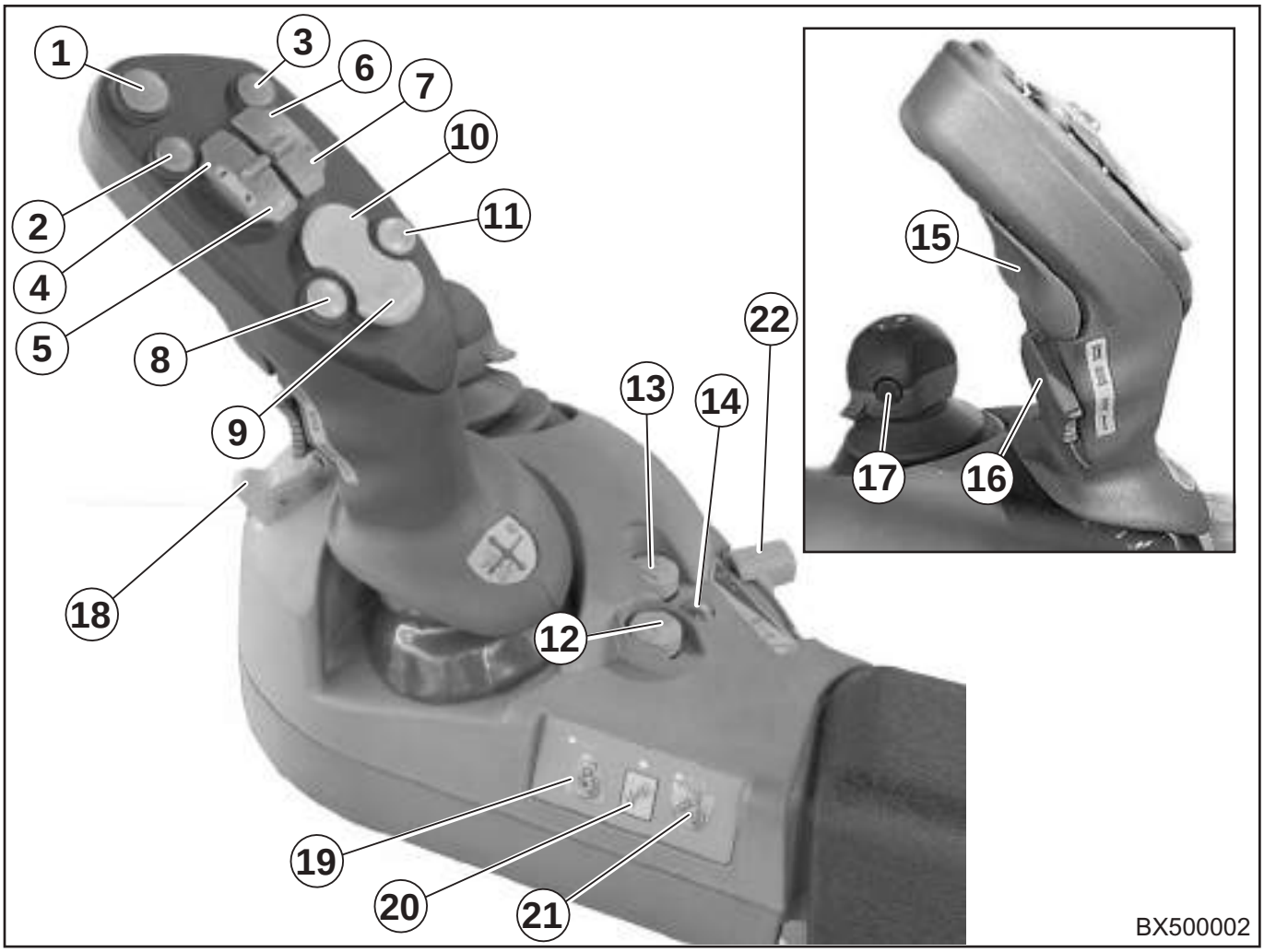


3.2.17 Diagnostics socket

- CAN interface (1)

Only devices that are approved by KRONES may be connected to the CAN interface.

3.3 Multi-function lever



1 - Autopilot (field operation of maize header only)

2 - Feed drive/front attachment on - off

3 - Reverse feed drive/front attachment

4 - Lower the lifting gear (sensing mode)

5 - Raise the lifting gear (sensing mode)

6 - Automatic header contour (step mode)

7 - Raise the lifting gear up to top (step mode)

8 - Rotate discharge chute left

9 - Ejector flap down

10 - Ejector flap up

11 - Rotate discharge chute right

12 - Mirror upper discharge chute (with main coupling switched on)
- Upper discharge chute in transport position (with main coupling switched off)

13 - Memory key for adjustment process – lifting gear

14 - Pilot lamp – travelling gear on

15 - Actuation key for travelling gear

16 - Selector switch – acceleration ramp

17 - Save the cutting length

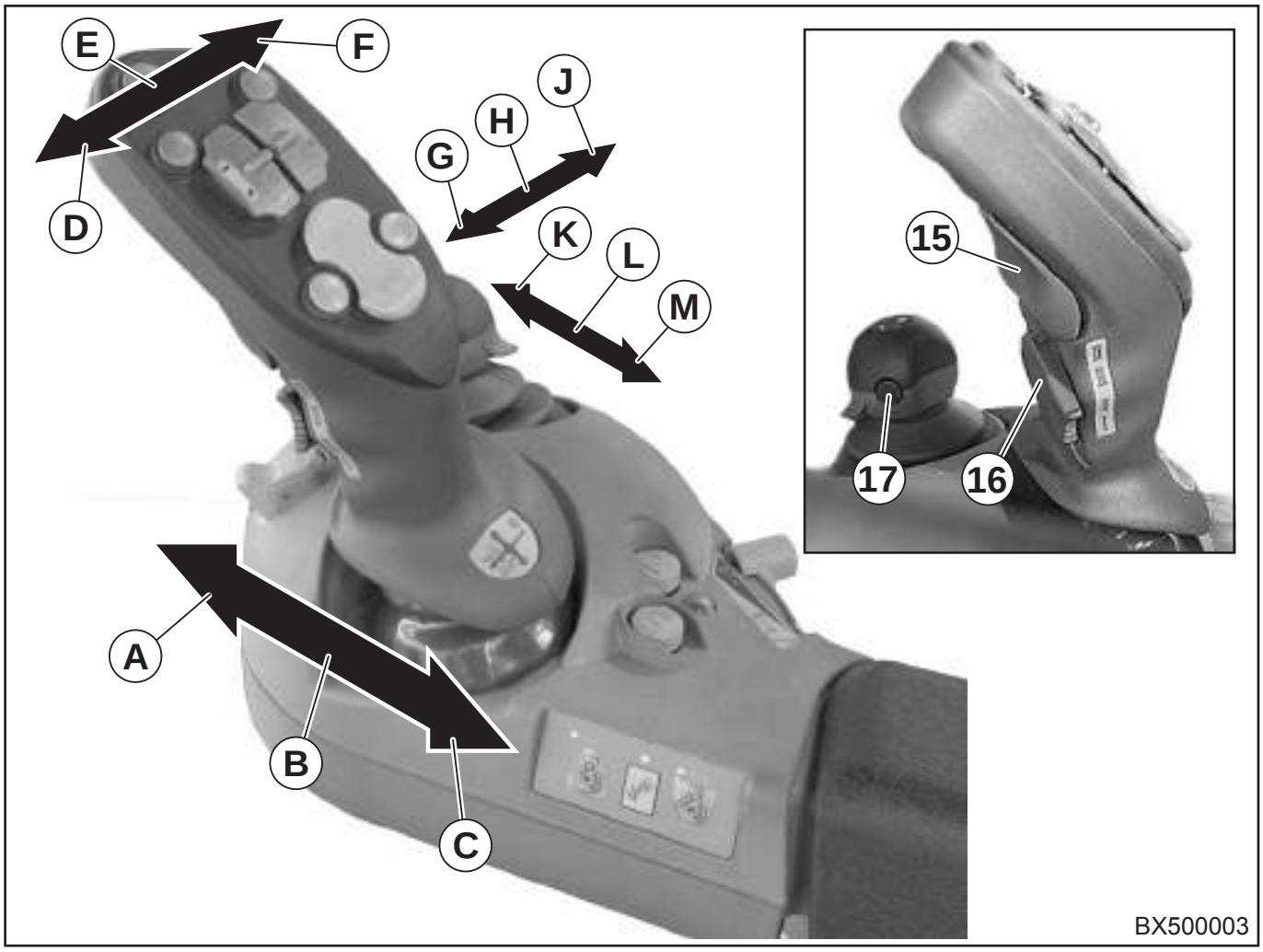
18 - Free

19 - Raise engine speed

20 - Change from nominal speed to idling speed and vice versa

21 - Reduce engine speed

22 - Speed discharge chute



A - Acceleration (in forward travel)
Deceleration (in reverse)
Start travelling gear with actuation key (15) pressed

B - Multi-function lever – centre position

C - Acceleration (in reverse)
Deceleration (in forward travel)
Start travelling gear with actuation key (15) pressed

D - Deceleration to 0 km/h
Fast reversing with actuation key (15) pressed (field operation only)

E - Multi-function lever – centre position

F - Switch on cruise control (in forward travel only)
Save present speed for cruise control – Press actuation key (15) and move multi-function level in direction F
- In field mode, the load limit control "Constant Power" will be activated by briefly pressing the driving lever twice to the right.

G - Bring up cutting length value 1
If the 17 button is pressed and is past the action point, the cutting length is saved in the Info Centre (value 1)

H - Central position

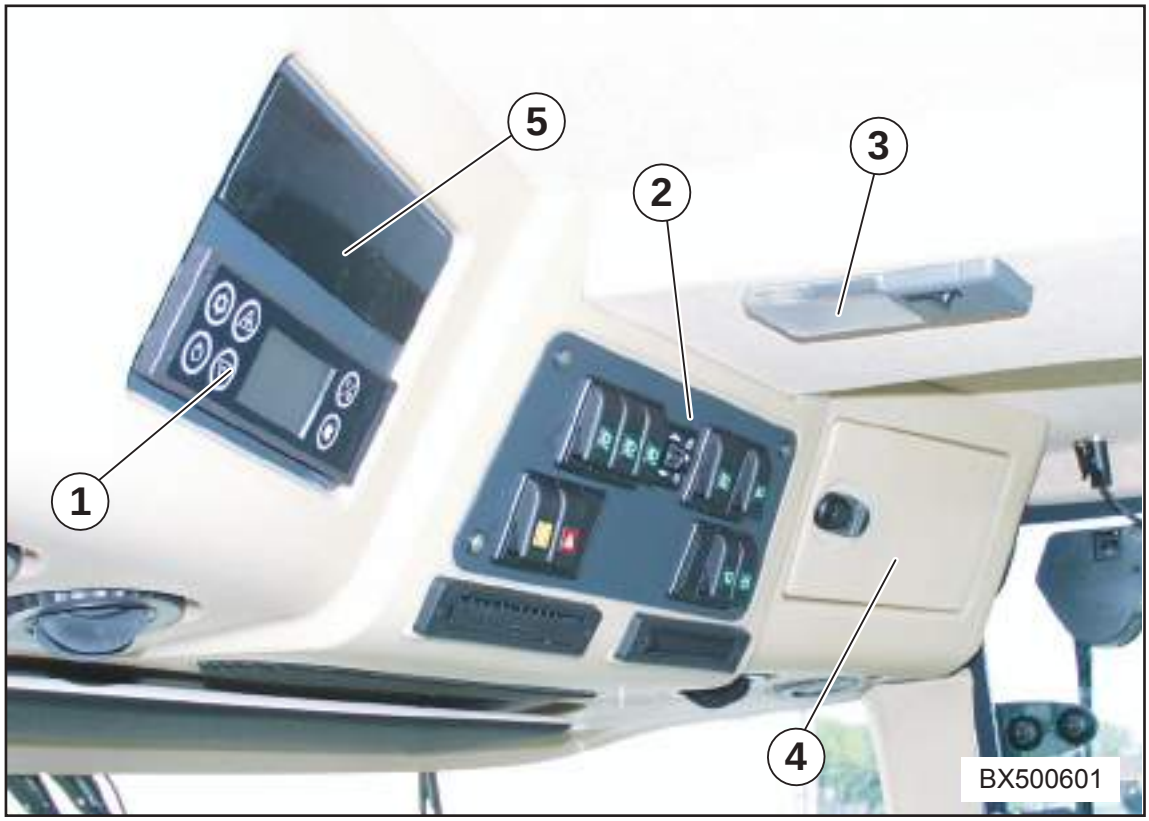
J - Bring up cutting length value 2
If the 17 button is pressed and is past the action point, the cutting length is saved in the Info Centre (value 2)

K - Lower upper discharge chute

L - Central position

M - Lift upper discharge chute

3.4 Roof console



1 - Switch – air conditioning/heating

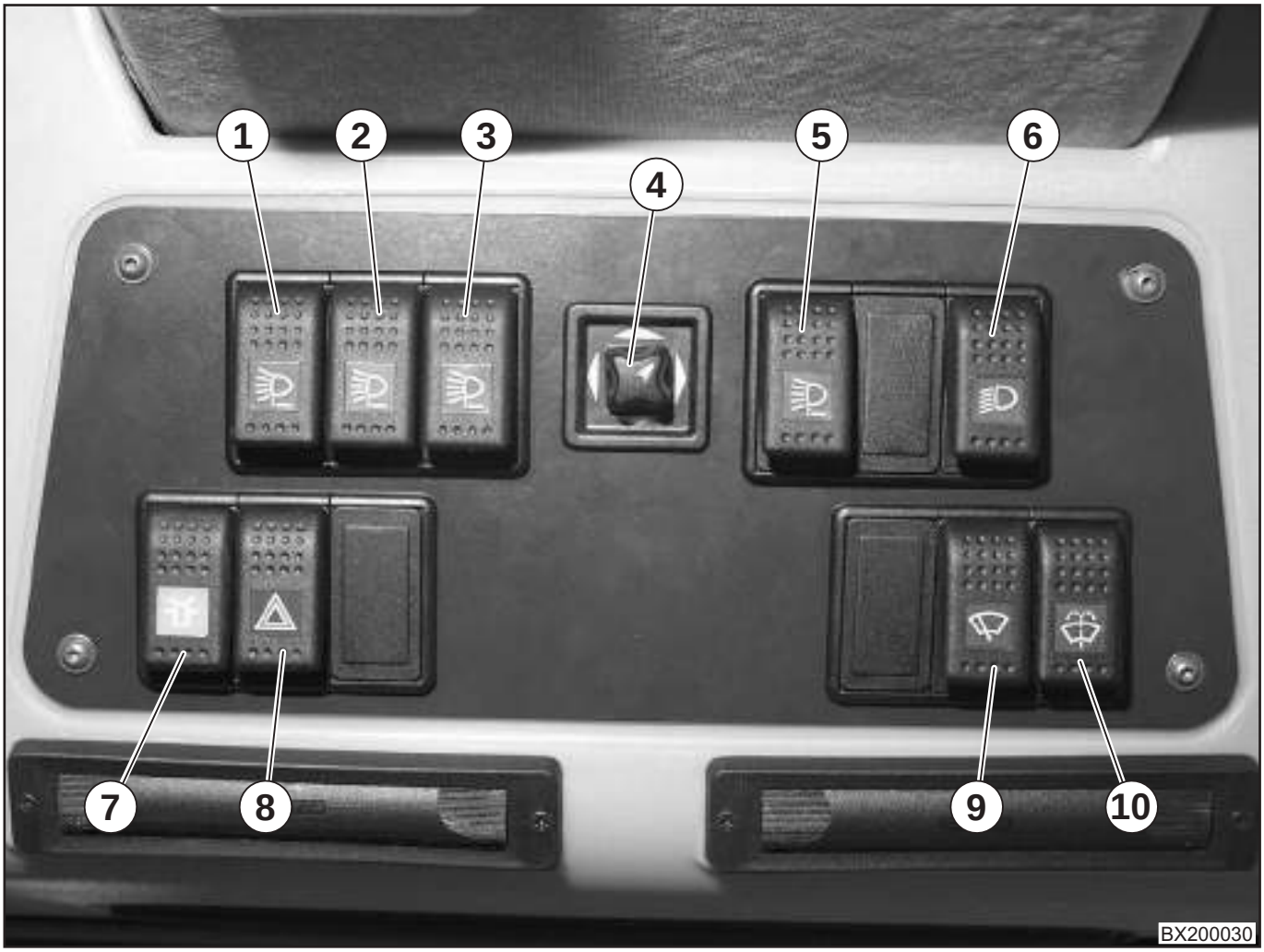
2 - Switch group – roof panel

3 - Interior lighting

4 - Cooling compartment

5 - ISO compartment for radio

3.5 Switch group – roof panel



1 - Working floodlight – side of cab

2 - Working floodlight – cab roof and upper discharge chute

3 - Working floodlight - front

4 - Mirror adjustment (right rear view mirror only)

5 - Rear working floodlights

6 - Side light/dipped beam

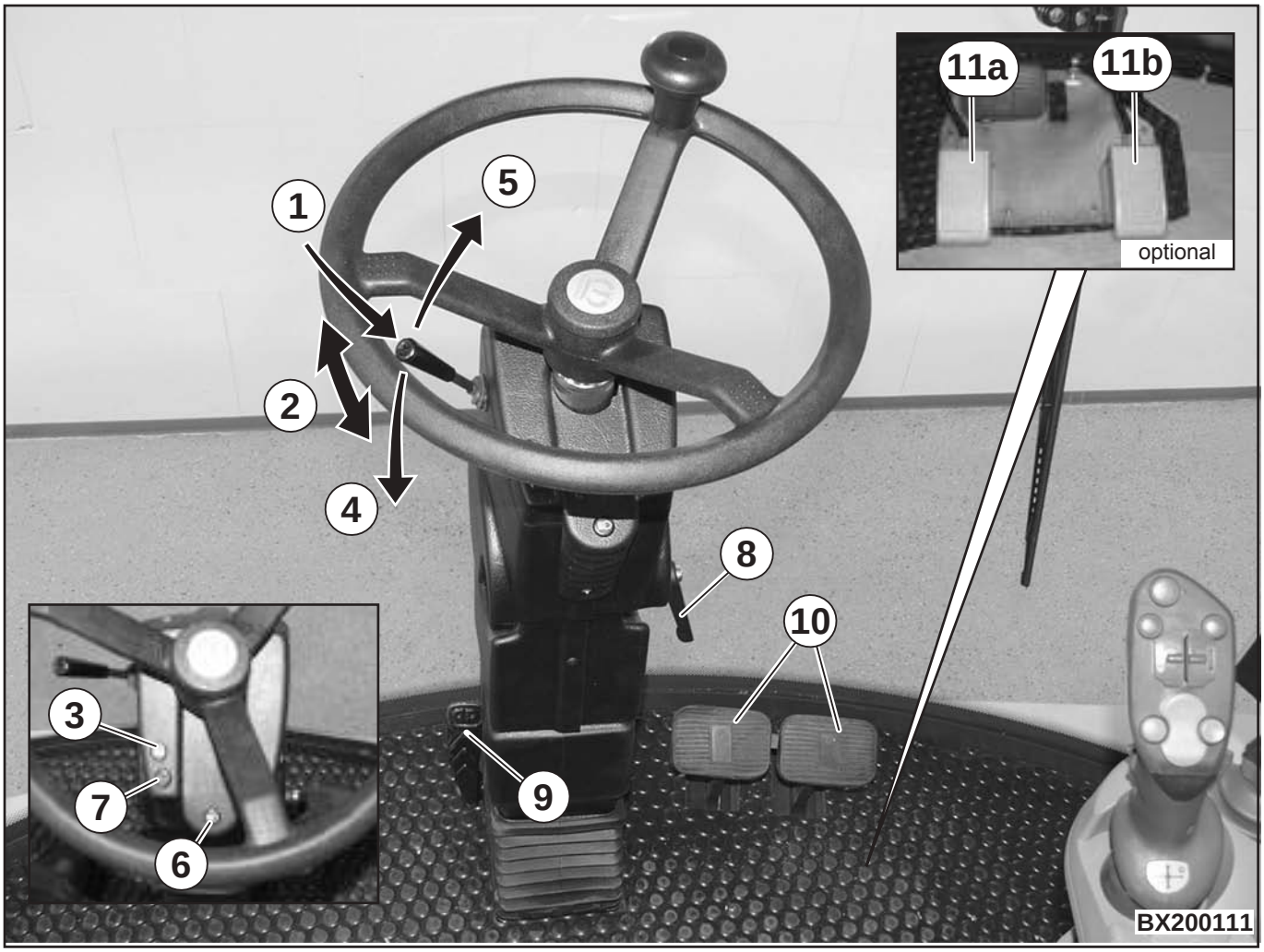
7 - Allround lights

8 - Warning flashers

9 - Windshield wipers

10 - Windshield washer unit

3.6 Steering column and foot pedals



1 - Button for horn

2 - Indicator switch

3 - Pilot lamp indicator

4 - Full beam

5 - Headlamp flasher

6 - Full beam indicator light

7 - Pilot lamp – trailer function

8 - Release lever for horizontal steering column adjustment

9 - Release lever for horizontal and vertical steering column adjustment

10 - Operating brake

11a - Swivel the foot pedal discharge chute to the left (optional)

11b - Swivel the foot pedal discharge chute to the right (optional)

3.6.1 Steering column adjustment

Adjust the steering column only when the machine is at a standstill.

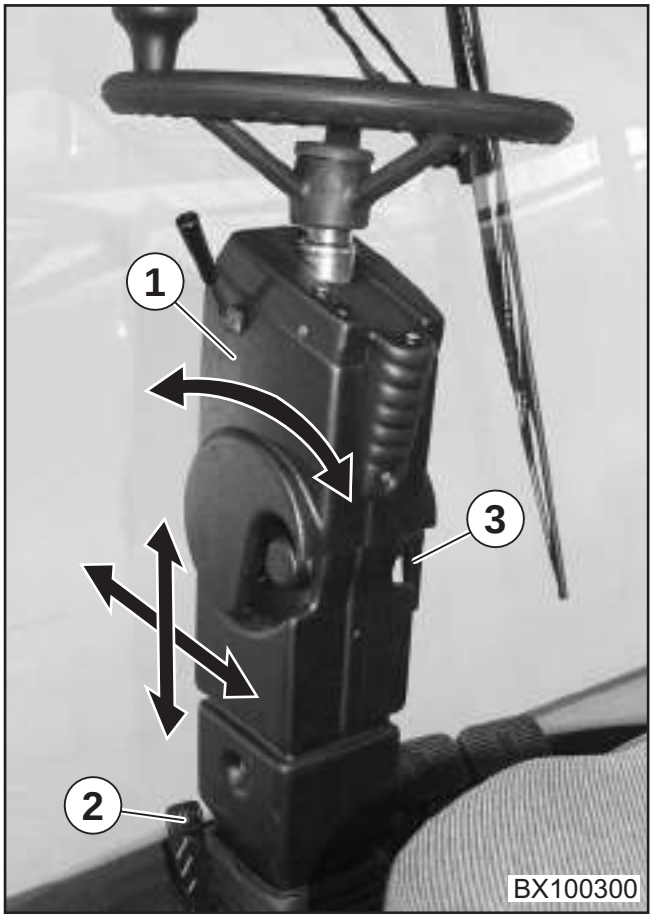
Horizontal and vertical steering column adjustment

The steering column (1) is held in vertical position by spring pressure. Before actuating the pedal (2), hold the steering wheel with both hands.

- Use the pedal (2) to release the steering column (1), and adjust to the desired position. After the pedal (2) has been released, the steering column (1) will be locked.

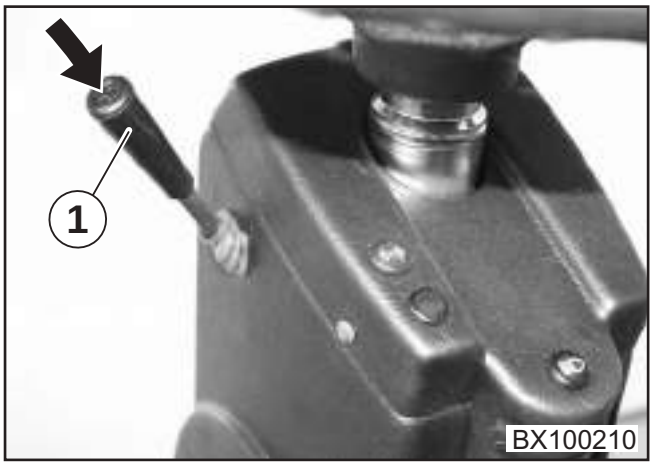
Horizontal steering column adjustment

- Loosen release lever (3). Move the steering column (1) into the requested position. Lock the release lever (3) again.



3.6.2 Horn

- When the push-button (1) is pressed, the horn is sounded.

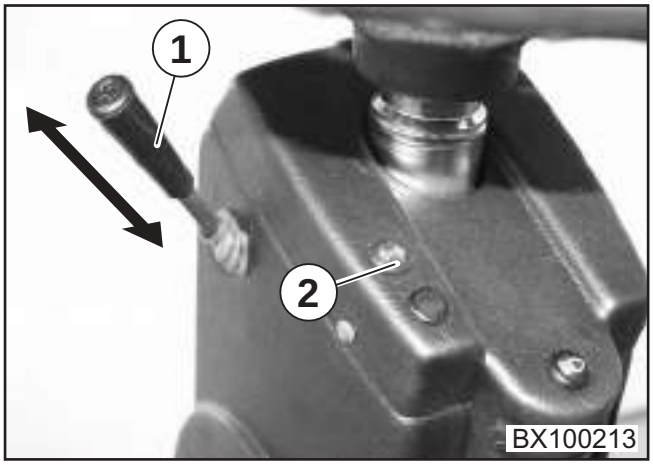


3.6.3 Indicator switch

In road traffic the change of travelling direction is indicated by a flashing light.

- Switch (1) forward – right indicator
- Switch (1) backward – left indicator
- Set the switch to neutral position by hand.

The indicator pilot lamp (2) will light up when the indicator has been switched on.

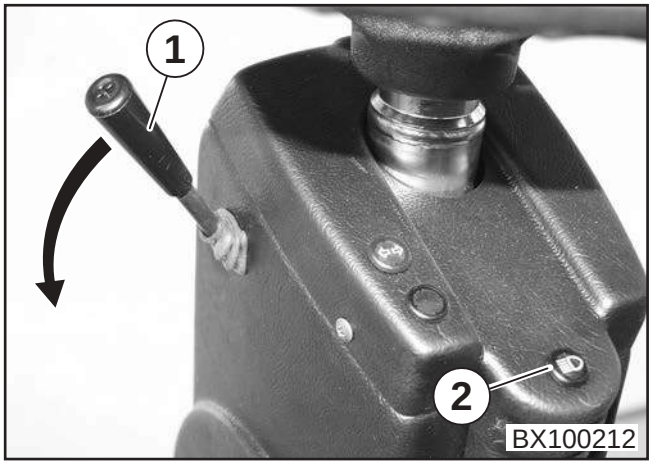


3.6.4 Full beam

High beam is operational only when the dipped beam has been switched on.
Switch off high beam when a vehicle approaches.

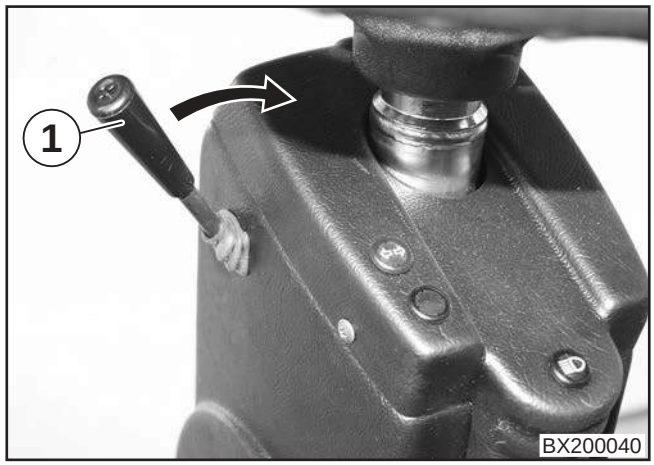
- Switching high beam on – press lever (1) down.
- Switching high beam off – press lever (1) up.

When high beam is switched on, the blue pilot lamp (2) will be lit.



3.6.5 Headlamp flasher

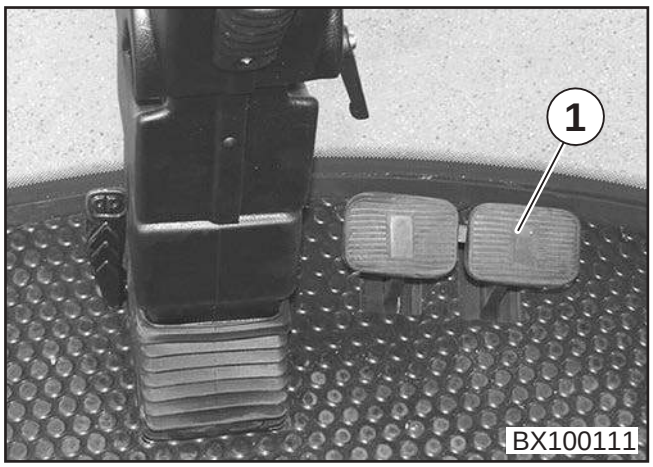
- Pull the headlamp flasher lever (1) up.



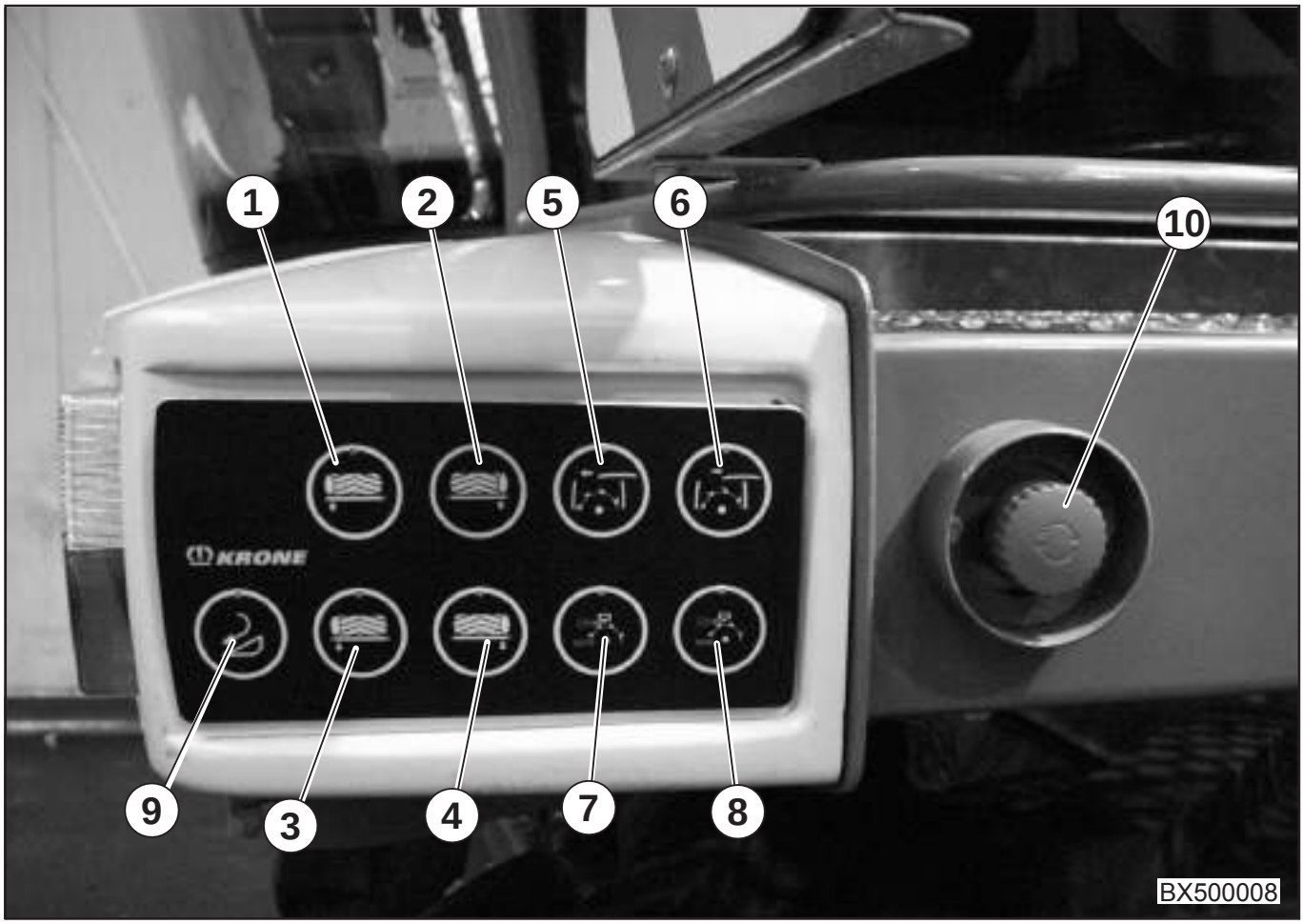
3.6.6 Using the operating brake

In road traffic

For reasons of traffic safety the brake pedals must be connected at all times. Check the brake function prior to travel.



3.7 Manual operation on the platform



Activation of manual operation:

Road/field release switch in field operation position

Travelling gear release switch off

Maintenance release switch on

Main coupling on

1 - Move the right counterblade to blade drum

2 - Move the left counterblade to blade drum

3 - Move the right counterblade away from blade drum

4 - Move the left counterblade away from blade drum

5 - Close grinding flap

6 - Open grinding flap

7 - Automatic grinding operation

8 - Move grindstone by hand

9 - reverse feed drive/front attachment

10 - Instantaneous stop switch

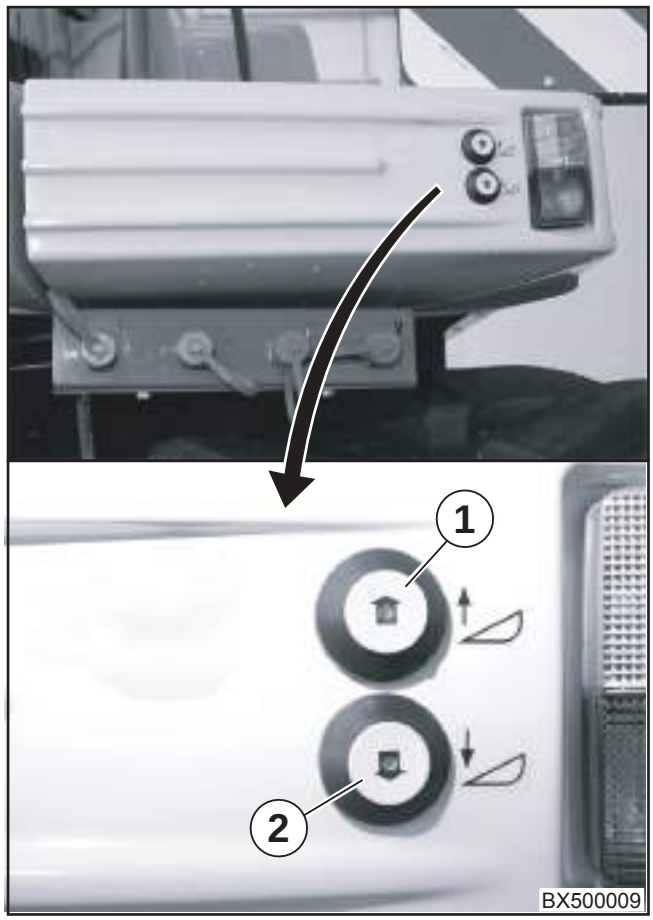
Activation of manual operation:

Road/field release switch in field operation position

Travelling gear release switch off

1 - Raise lifting gear

2 - Lower lifting gear



3.8 Control unit for measuring the humidity of the foraged crops

The humidity-measuring unit is used to display and save the humidity values of the foraged crops.

1 - Display

2 - ON / OFF key /Save

3 - Key for average values

4 - Key for the selection of the foraged crops

5 - Display of the selected foraged crops

6 - Display for average values

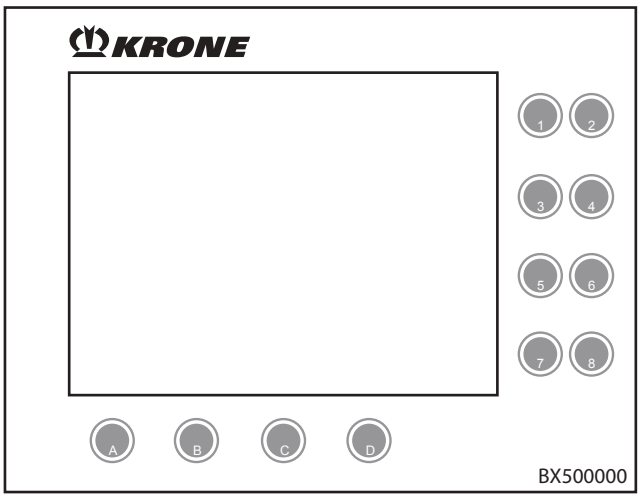
For information on operating the humidity measuring device, see chapter „Measuring the humidity of the crop with the humidity-measuring device“.

4 "EasyTouch" Info Centre

Overview

- I = Display
- II = Keys 1 to 8 (1 - 8)
- III = Keys A to D (A - D)
- IV = Rotary potentiometer
- V = Menu key

The Info Centre renders information on the power actions and the present operating conditions of BiG X. The Info Centre can be used to carry out settings in the machine as well as to start and stop actions.



Its main components are:

Keys 1-8

Keys 1-8 are used to activate the softkeys located in the right column. For the assignment of the keys, see the illustration.
If there is no softkey next to the key, it has no function.

Keys A-D

The keys A-D are used to activate the softkeys located in the line just above them. For the assignment of the keys, see the illustration.
If there is no softkey above the key, the key has no function.

Rotary potentiometer

The rotary potentiometer has two functions:
1. The rotary potentiometer can be turned to change settings and to select the desired menu in the menu level.
2. Pressing the rotary potentiometer activates and saves the settings.

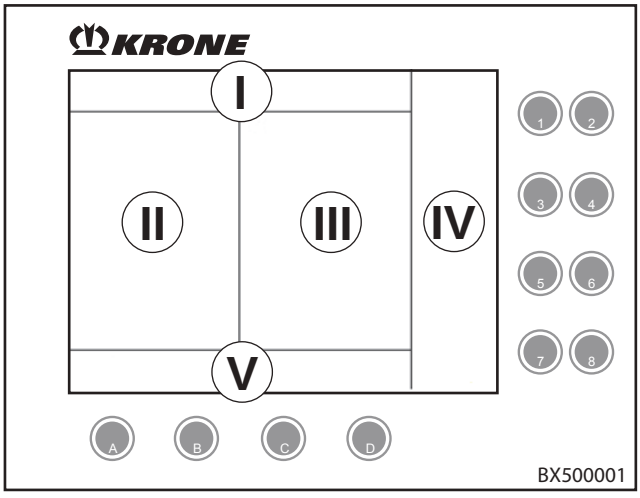
You can use the key with the rotary potentiometer to call or close the menu level or to go to the preceding menu level. Holding the key down slightly longer takes you back to the basic screen.

Display (screen display)

The display is divided up into the following sections:

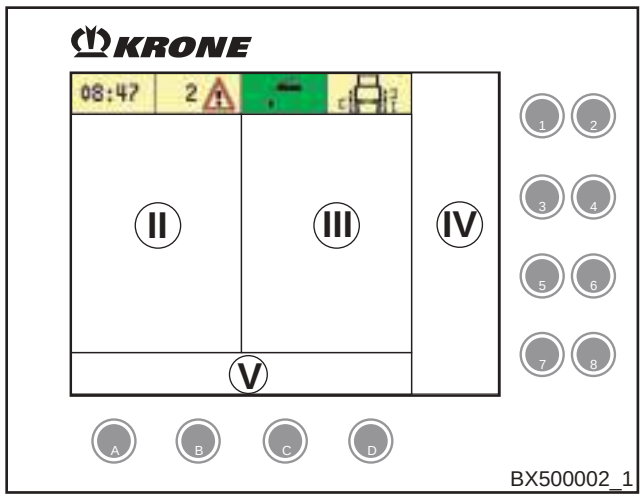
Status line (I): Time, number of errors, central lubrication, pendulum frame.

Information section: Engine data (II)
Drive data (III)
Settings (IV and V)



4.1 Information Section

After the ignition is switched on, the basic screen appears in the display.



BX500002_1

4.1.1 Basic Screen

Status line (I):

- = Error; at at least one error occurred. The number of errors present is in front of the icon.
- Central lubrication

  = Central lubrication active (green)

  = Error in central lubrication (red)

- Pendulum frame

  = Pendulum frame free. Position of pendulum frame is as shown.

  = Pendulum frame free. Position of pendulum frame is as shown.

  = Pendulum frame free. Position of pendulum frame is as shown.

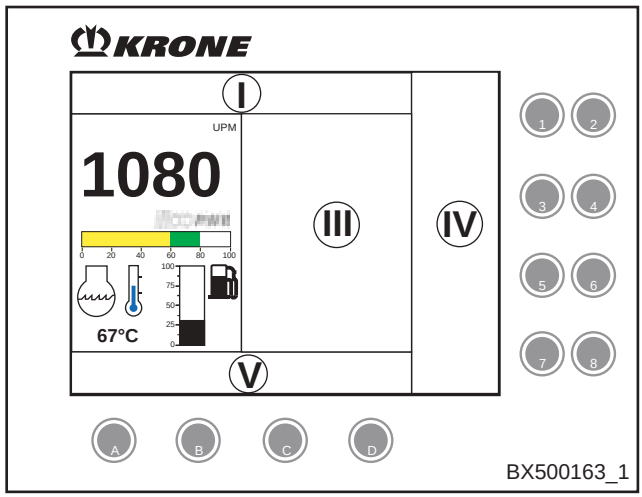
  = Position of pendulum frame unknown because pendulum frame sensor is defective or not calibrated.

  = Pendulum frame locked. Position of pendulum frame is as shown.

  = Pendulum frame locked. Position of pendulum frame is as shown.

  = Pendulum frame locked. Position of pendulum frame is as shown.

  = Position of pendulum frame unknown because pendulum frame sensor is defective or not calibrated.



BX500163_1

Engine data information section (II):

1080

- Engine speed

  Road operation: 1000 - 1700 rpm
  Field mode: 1100 -2100 rpm

Speeds may vary depending on the diesel engine.

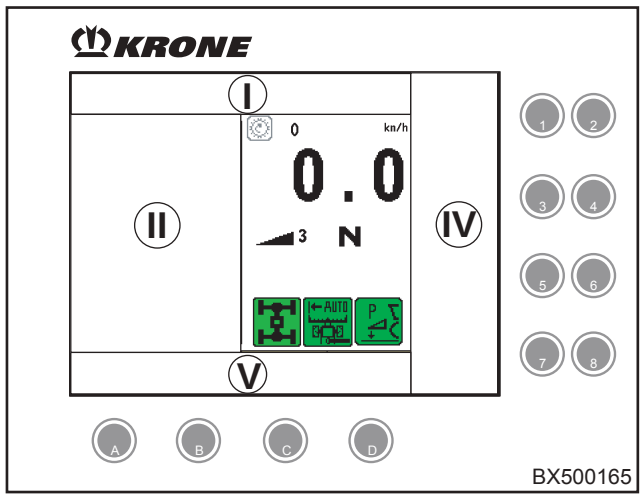
- Engine capacity as %

- Cooling water temperature display

If the cooling water temperature reaches the critical range, the background of the cooling water temperature display changes to red.

- Fuel gauge

Information section of the travelling gear data (III):



- = Cruise control active; the number after the icon is the saved speed for Tempomat operation in km/h.

  = Cruise control inactive

- Travelling speed
  Road operation: 0 - 40 km/h
  Field mode: 0 - 22 km/h (BiG X 500)
  0 - 18 km/h (BiG X 650)
  0 - 25 km/h (BiG X 800 / BiG X 1000)

- Acceleration ramp

  1 = lowest acceleration ramp

  2 = ...

  3 = ...

  4 = highest acceleration ramp

- Direction of travel

  = Forward travel

  N = Neutral (standstill)

  = Reverse travel

- Type of drive

  = Front wheel drive active

  = Front wheel drive inactive

  = All-wheel drive active (only possible in field mode, can only be activated at a standstill, travelling speed 0 - 14 km/h)

  = All-wheel inactive

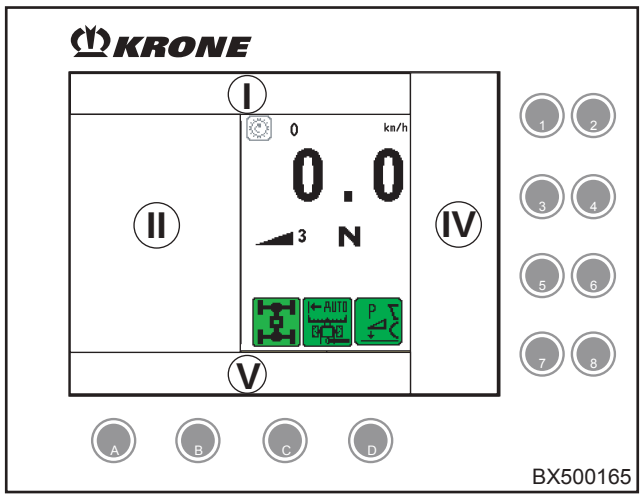
  = Axle separation of active (only possible in field mode with all-wheel drive turned on, activation at travelling speed < 10 km/h)

  = Axle separation inactive

  = Parking brake is applied

If the machine is running with the parking brake engaged, the parking brake indicator flashes and a horn sounds at intervals of about 30 seconds.

= Emergency mode; allows the driver to drive the vehicle out of the danger zone even if there are serious drive problems.



- Others:

  = Quick stop button has been activated on the console.

  = Quick stop button has been activated by manual operation device (platform).

- = Load limit control active - the travelling speed is automatically adjusted to the speed reduction of the engine.
- Autopilot (optional, only in maize field mode):

  = Autopilot active, the row tracer is evaluated on the left

  = Autopilot active, the row tracer is evaluated on the right

  = Autopilot active, both row tracers are evaluated

  = Autopilot active, the row tracer is evaluated on the left (depending on the upper discharge chute)

  = Autopilot active, the row tracer is evaluated on the right (depending on the upper discharge chute)

  = Autopilot active, the mirrored row tracer is evaluated on the left (depending on the upper discharge chute)

  = Autopilot active, the mirrored row tracer is evaluated on the right (depending on the upper discharge chute)

- Lifting gear control (only in field mode)

  = The lifting gear pressure control is active

  = The lifting gear pressure control is inactive

  = The lifting gear distance control is active

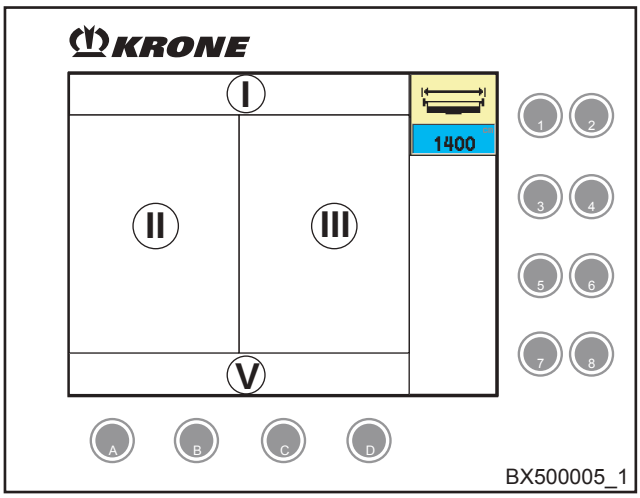
  = The lifting gear distance control is inactive

  = The lifting gear position control is active

  = The lifting gear position control is inactive

Information section of settings (IV and V):
(see Chapter "Settings").

4.2 Settings



4.2.1 Working Width

The working width must be set in order to be able to calculate the surface.

In grass pickup mode, the symbol and the set width (swathed width) is displayed in the information section settings (IV) in cm or inches.

In maize header mode, the settings (IV) information section displays the symbol and the number of rows set with the resulting working width in cm or inches.

In Direct cutting system mode, the symbol and the set width are displayed in the information section settings (IV) in cm or inches.

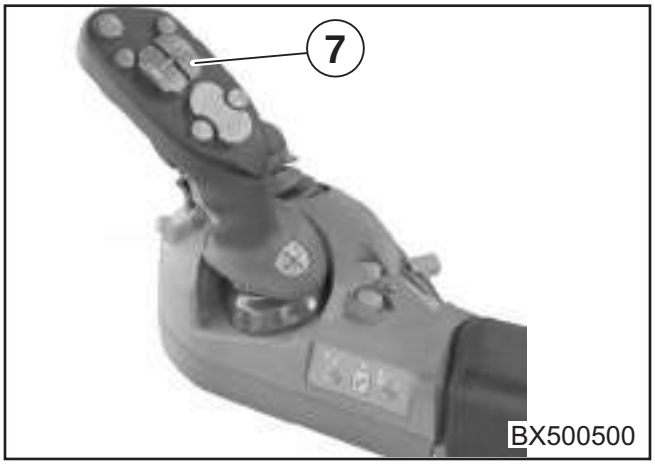
4.2.2 Temporary change in the working width of the grass pickup

Working width = swathed width

- Pressing the 1 key decreases the working width; if the 1 key is held down for a longer time, the working width will decrease faster.
- Pressing the 2 key increases the working width (up to the maximum for the fixed set width). If the 2 key is held down for a longer time, the working width will increase faster.

It is also possible to make a setting with the rotary potentiometer:

- You can use the rotary potentiometer to select the setting for the working width. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can adjust the desired working width with the rotary potentiometer (up to a maximum for the fixed set width).
- To exit the input field again, press the rotary potentiometer.



Activating the key on the multifunction lever ((7) = raise lifting gear up to top) causes the system to switch back to the permanently set working width.

4.2.3 Temporary Change of the Maize Header Working Width

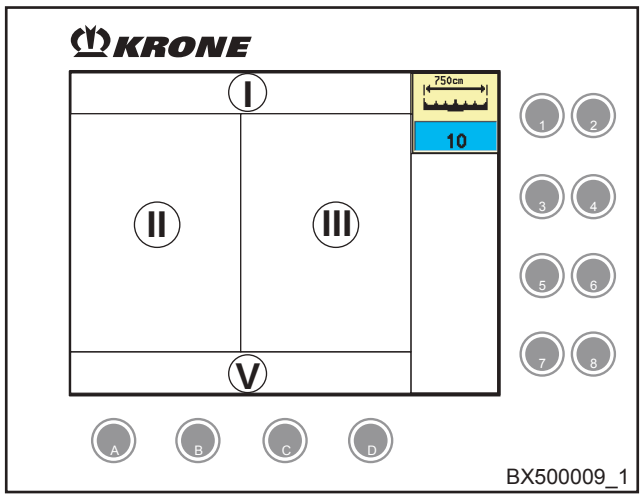
The resulting working width is calculated from the row distance and the number of rows directly and the result is displayed.

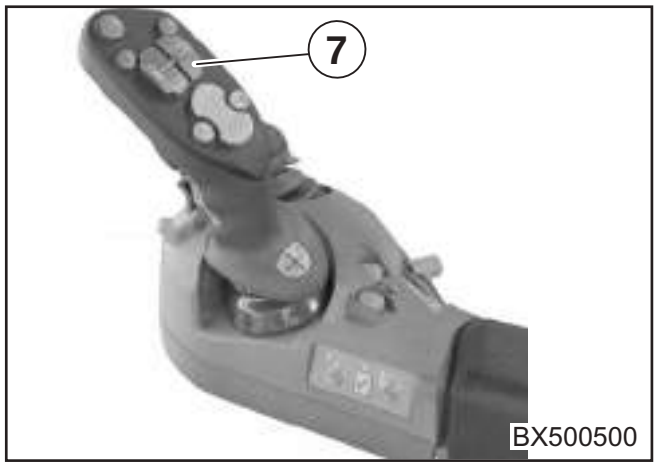
- Pressing the (1) key decreases the number of rows; if the (1) key is held down for a longer time, the number decreases faster.
- Pressing the (2) key increases the number of rows (up to the maximum for the fixed set number). If the (2) key is held down for a longer time, the number will increase faster.

It is also possible to make a setting with the rotary potentiometer:

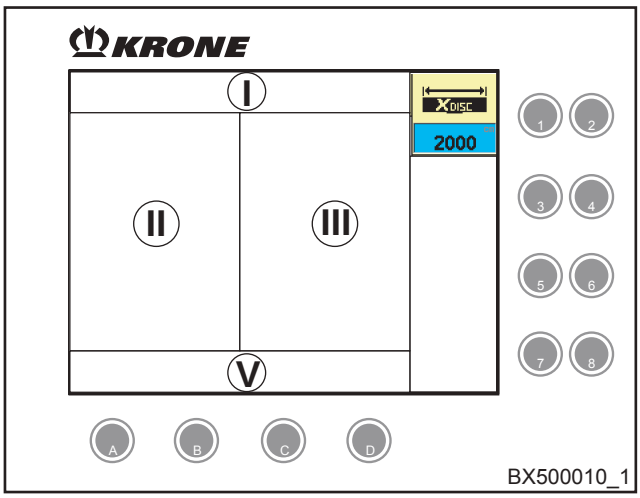
- You can use the rotary potentiometer to select the setting for the working width. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can adjust the desired number of rows with the rotary potentiometer (up to a maximum for the fixed set number).
- To exit the input field again, press the rotary potentiometer.

Activating the key on the multifunction lever ((7) = raise lifting gear up to top) causes the system to switch back to the permanently set working width.





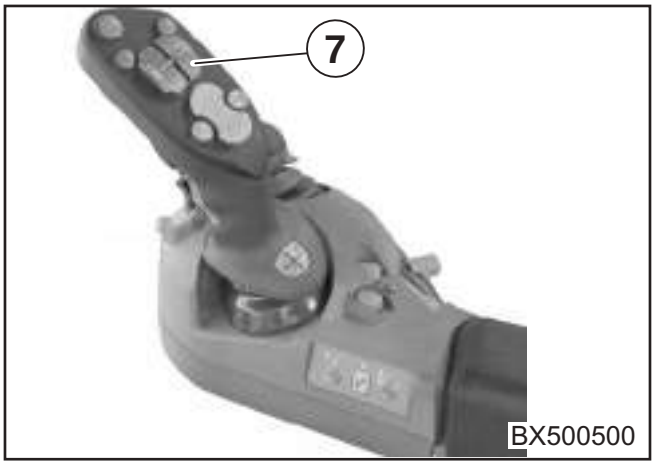
4.2.4 Temporary Change of the Working Width of the Direct Cutting System



- Pressing the (1) key decreases the working width; if the (1) key is held down for a longer time, the working width will decrease faster.
- Pressing the (2) key increases the working width (up to the maximum for the fixed set width). If the (2) key is held down for a longer time, the working width will increase faster.

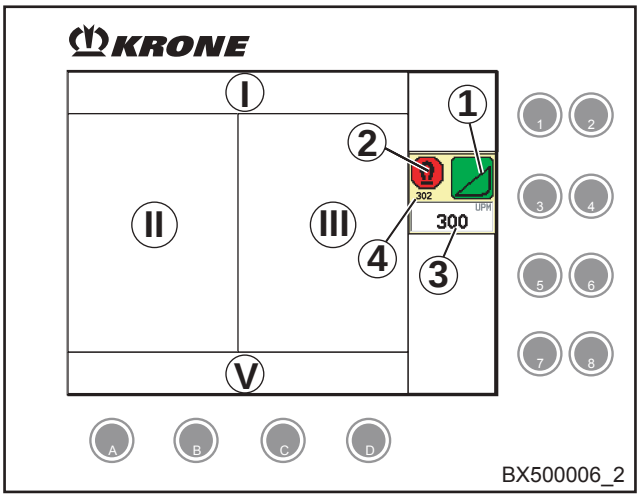
It is also possible to make a setting with the rotary potentiometer:

- You can use the rotary potentiometer to select the setting for the working width. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can adjust the desired working width with the rotary potentiometer (up to a maximum for the fixed set width).
- To exit the input field again, press the rotary potentiometer.



Activating the key on the multifunction lever ((7) = raise lifting gear up to top) causes the system to switch back to the permanently set working width.

4.3 Front Attachment



During field mode, if the feed drive/front attachment release switch is turned on, the current actual speed and the set setpoint speed of the front attachment are shown in the Settings (IV) info area in the Front attachment menu field.

4.3.1 Status (1)

- = Front attachment standstill
- = front attachment not OK
- = front attachment OK
- = Front attachment forward inactive
- = Front attachment forward active
- = Front attachment reverse inactive
- = Front attachment reverse active

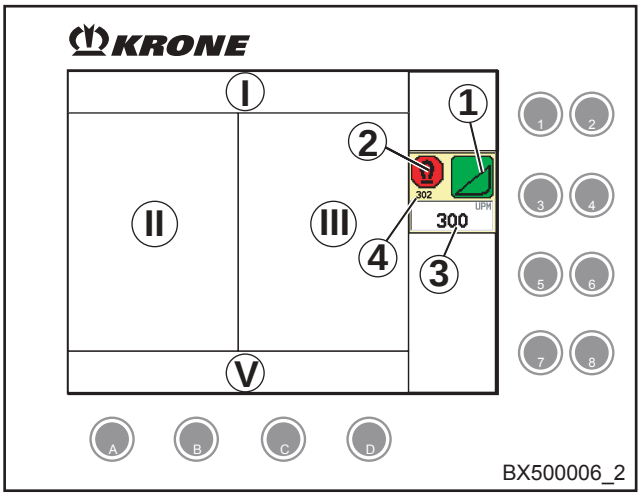
4.3.2 Foreign object detection (2)

- = Metal detection deactivated
- = metal detected in feed drive
- = An error has occurred in metal detection.

RockProtect

- = A rock was detected in the feed drive.
- = An error has occurred in RockProtect.
- = An error has occurred in metal detection and RockProtect.

4.3.3 Setting the Setpoint Speed (3)



- Pressing the 3 key decreases the setpoint speed; if the 3 key is held down for a longer time, the setpoint speed will decrease faster.
- Pressing the 4 key increases the setpoint speed; if the 4 key is held down for a longer time, the setpoint speed will increase faster.

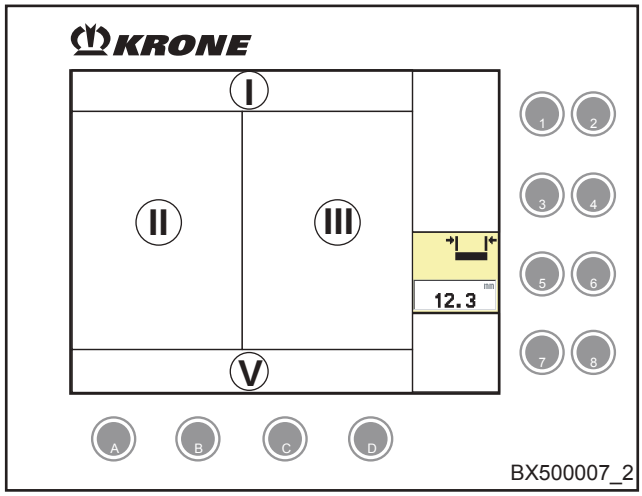
It is also possible to make a setting with the rotary potentiometer:

- You can use the rotary potentiometer to select the setting for the setpoint speed. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to set the desired setpoint speed.
- To exit the input field again, press the rotary potentiometer.

4.3.4 Actual speed (4)

- Display of current actual speed

4.4 Feed Drive



The cutting length is determined by the speed of the feed drive rollers and the number of blades that are used.
In field mode, the current cutting length is displayed in the feed drive menu field in the information section of settings (IV).

- Cutting length display
  and the current cutting length in mm or inches.
  Depending on the number of blades that are used, the cutting length can be set within a range from 3 - 62 mm.

4.4.1 Adjusting the cutting length

- Pressing the 5 key decreases the cutting length;
  if the 5 key is held down for a longer time, the cutting length will decrease faster.
- Pressing the 6 key increases the cutting length;
  if the 6 key is held down for a longer time, the cutting length will increase faster.

It is also possible to make a setting with the rotary potentiometer:

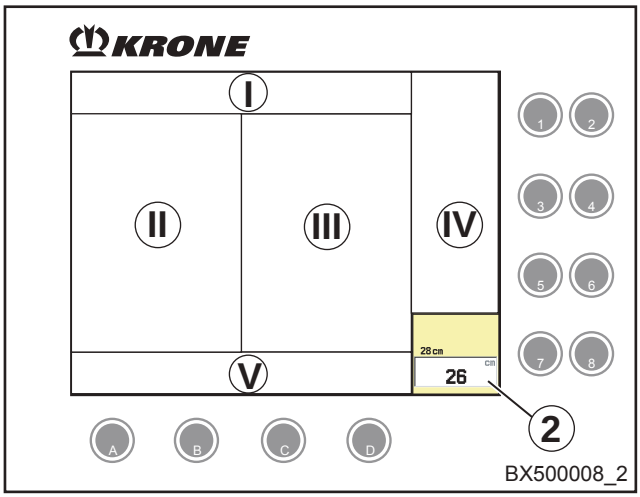
- You can use the rotary potentiometer to select the setting for the cutting length. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired cutting length.
- To exit the input field again, press the rotary potentiometer.

The change is accepted immediately.

Two different cutting lengths (value 1/ value 2) can be saved and retrieved with the multifunction lever (see the chapter on the Multi-Function Lever).

4.5 Lifting Gear

In field mode, the current lifting gear control is displayed in the Drive data info area (II). The actual height of the lifting gear and the corresponding setpoint pressure or the setpoint height is displayed in the Settings info area (IV) in the Lifting gear menu field.



4.5.1 Status

-  = The lifting gear pressure control is active. The controller regulates the pressure against the ground to a constant value. Control is active.
-  = The lifting gear pressure control has been switched on. Control is still inactive.
-  = Lifting gear distance control (optional, only in conjunction with distance sensors); the control sets the height constant relative to the ground. Control is active.
-  = The lifting gear distance control has been switched on. Control is still inactive.
-  = Lifting gear position control; the control sets the height constant relative to the machine. Control is active.
-  = The lifting gear position control has been switched on. Control is still inactive.

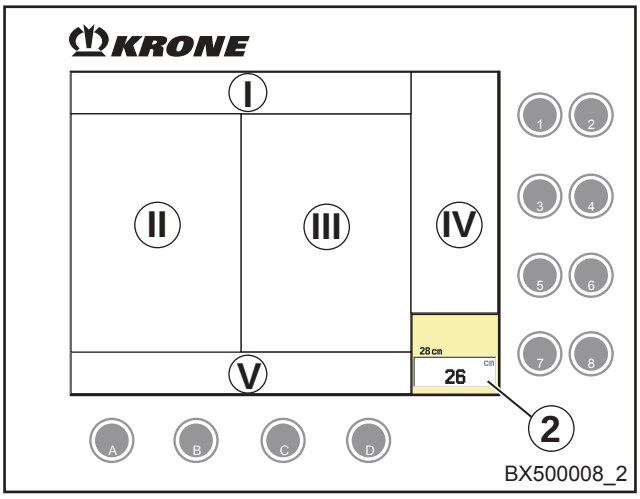
- 1st value (1) = actual height of the lifting gear in cm or inches

- 2nd Value (2) = setpoint pressure as a percentage value for the own weight of the front attachment. It is adjustable between -6% (front attachment sways above the ground) to a maximum of 70% (front attachment presses on to the ground with 70% of its own weight).

  or

  2nd value (2) = nominal height in cm or inches or as a % if the lifting gear distance control is set.

4.5.2 Changing the setpoint pressure or setpoint height



- Pressing the (7) key decreases the setpoint value;

  if the (7) key is held down for a longer time, the setpoint value will decrease faster.
- Pressing the (8) key increases the setpoint value;

  if the (8) key is held down for a longer time, the setpoint value will increase faster.

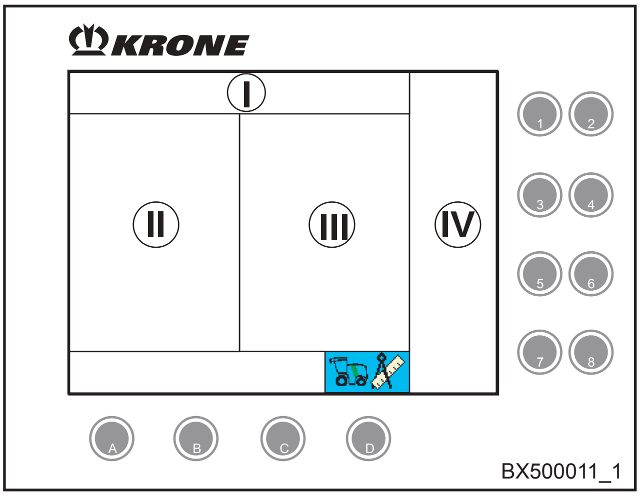
It is also possible to make a setting with the rotary potentiometer:

- You can use the rotary potentiometer to select the setting for the lifting gear. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired setpoint value.
- To exit the input field again, press the rotary potentiometer.

The setpoint pressure or setpoint height can also be saved using the multi-function lever.

4.6 General Machine Settings

- Activating this key (D) brings up general machine settings.



BX500011_1

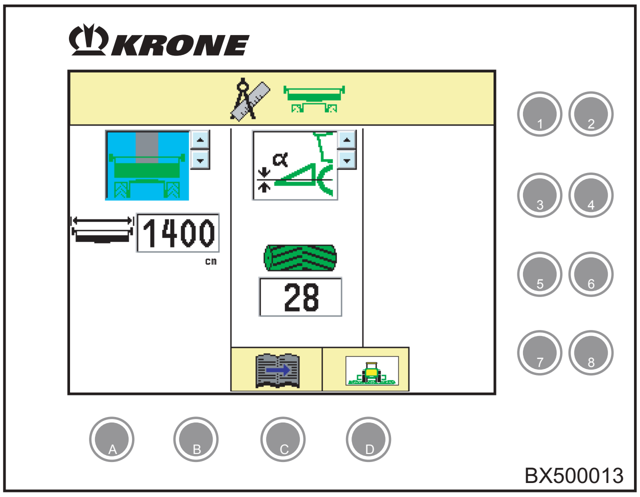
4.6.1 General machine settings - grass pickup

4.6.1.1 Setting the grass pick-up operating mode

-  = Grass pickup

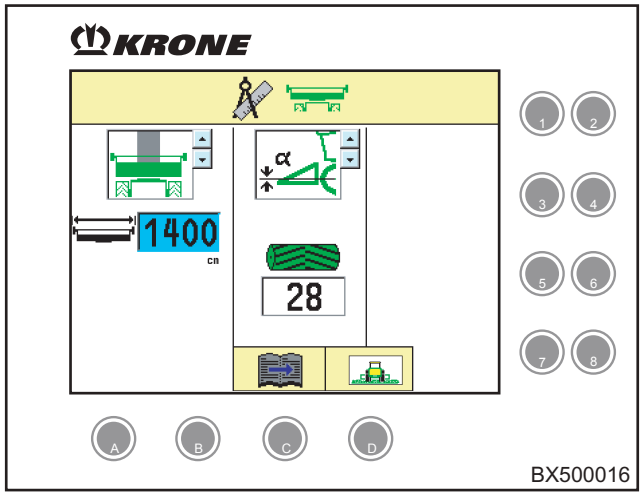
- You can use the rotary potentiometer to select the setting for the operating mode. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the operating mode of the grass pickup.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.

- Activating the (D) key brings up the basic screen.
- To open the settings for load limit control, press the (C) key.
- Pressing the ( ) key on the rotary potentiometer takes you one menu level back.



BX500013

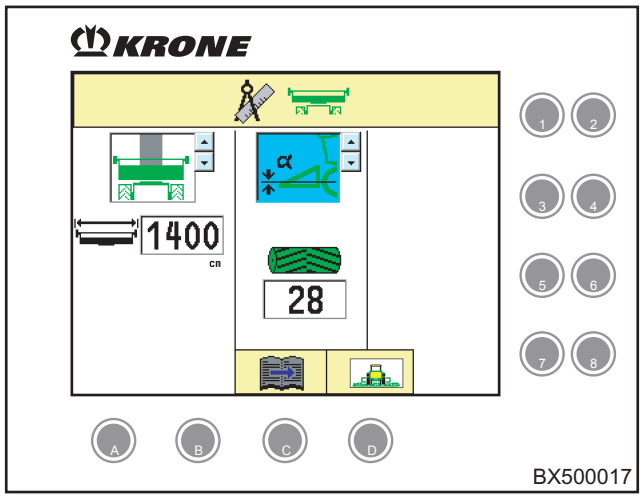
4..6.1.2 Setting the grass pick-up working width



Working width = swathed width

- You can use the rotary potentiometer to select the setting for the working width. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired working width.
- To exit the input field again, press the rotary potentiometer.
- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.1.3 To adjust the lifting gear control

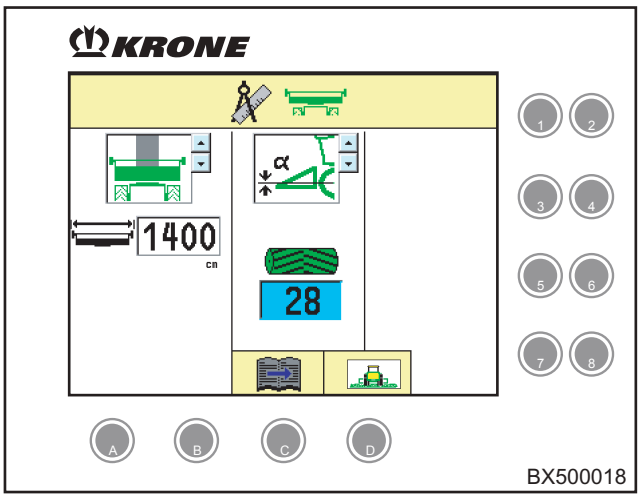


- P↓ = Lifting gear pressure control; the control sets the pressure on the ground to a constant value.
- α = Lifting gear position control; the control sets the height constant relative to the machine.
- d = Lifting gear distance control (optional, only in conjunction with distance sensors); the control sets the height constant relative to the ground.

- You can use the rotary potentiometer to select the setting for the lifting gear control. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired lifting gear control.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.

- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.1.4 Setting the number of blades



After the number of blades has been changed (see chapter Maintenance - Working with Half the Number of Blades), the current number of blades must be set. Setting the number of blades automatically adjusts the speed of the feed drive roller to the set cutting length of the new number of blades.

- You can use the rotary potentiometer to select the setting for the number of blades. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired number of blades.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.
- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

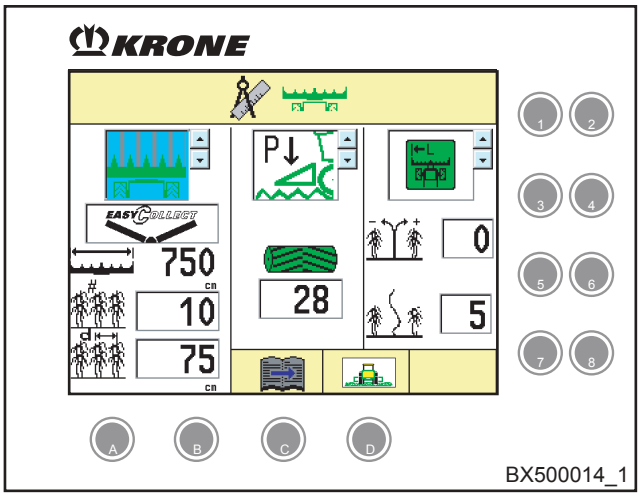
4.6.2 General machine settings - maize header

4.6.2.1 To set the operating mode of the maize header

- = Maize header

Machine type:

- = KRONE-EasyCollect (6000,7500,9000)
- = KRONE-EasyCollect (953,1053)
- = Not a KRONE product

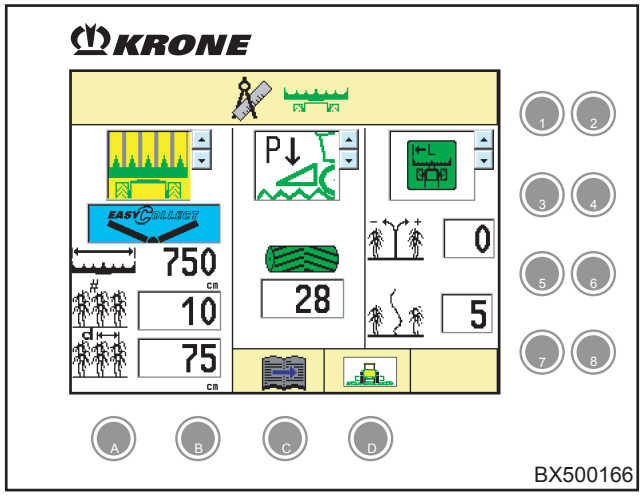


To set the operating mode:

- You can use the rotary potentiometer to select the setting for the operating mode. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the operating mode of the maize header.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.

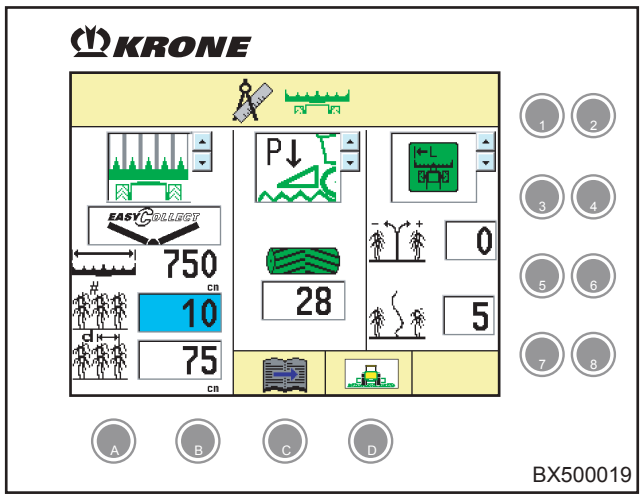
To set the machine type:

- You can use the rotary potentiometer to select the setting for the machine type. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- Use the rotary potentiometer to adjust the machine type.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

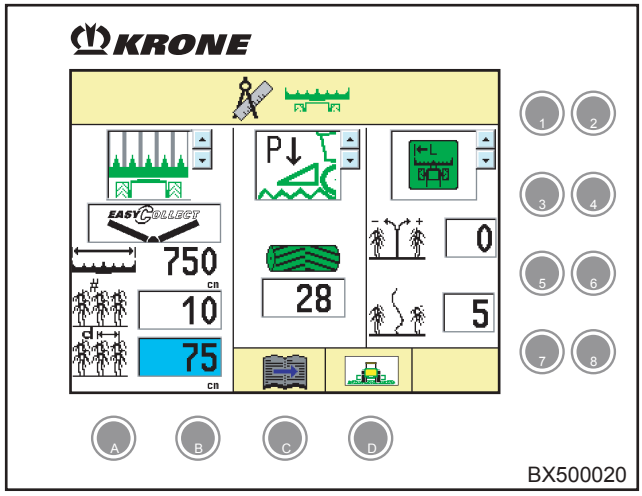


4.6.2.2 Setting the maize header working width

- You can use the rotary potentiometer to select the setting for the number of rows. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- Use the rotary potentiometer to adjust the desired number of rows.
- To exit the input field again, press the rotary potentiometer.



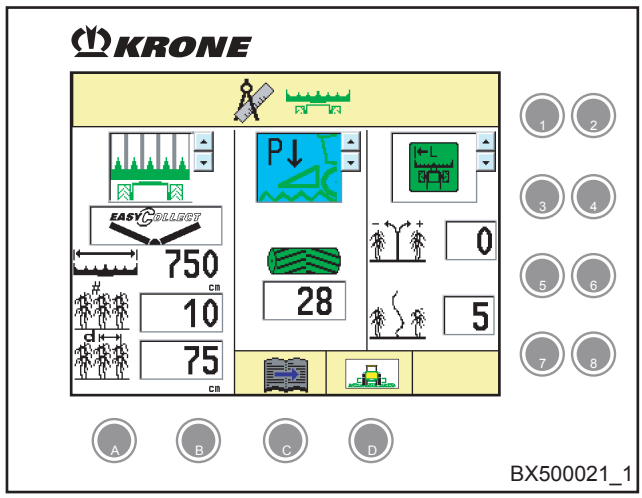
- You can use the rotary potentiometer to select the setting for the spacing between rows. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired spacing between rows.
- To exit the input field again, press the rotary potentiometer.



- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

The resulting working width is calculated directly from the row spacing and the number of rows and the result is displayed.

4.6.2.3 Adjusting the lifting gear control

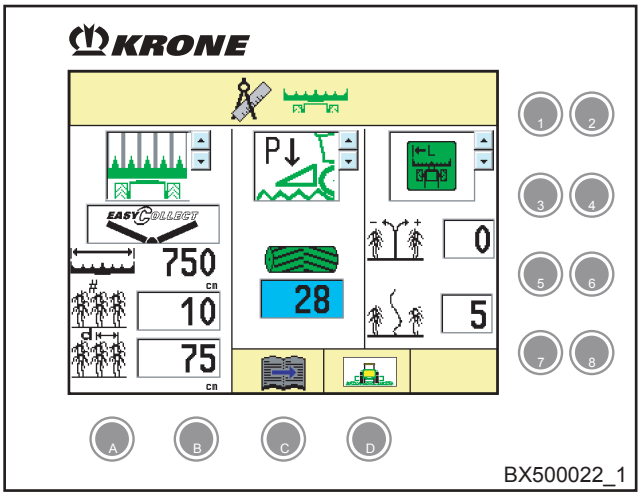


- = Lifting gear pressure control; the control sets the pressure on the ground to a constant value.
- = Lifting gear position control; the control sets the height constant relative to the machine.
- = Lifting gear distance control (optional, only in conjunction with distance sensors); the control sets the height constant relative to the ground.

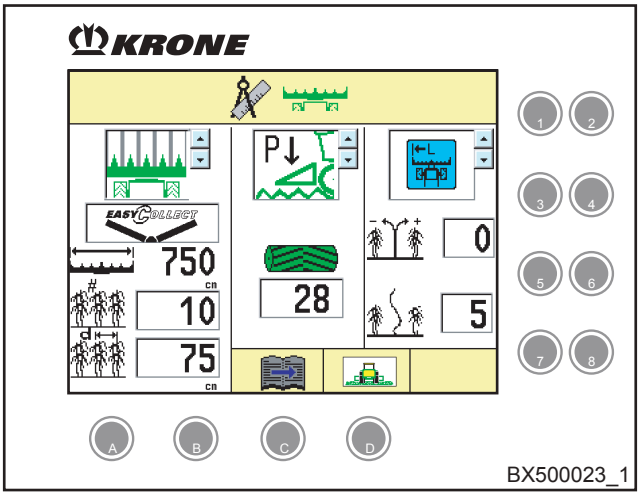
- You can use the rotary potentiometer to select the setting for the lifting gear control. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired lifting gear control.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.2.4 Setting the number of blades

After the number of blades has been changed (see chapter Maintenance - Working with Half the Number of Blades), the current number of blades must be set. Setting the number of blades automatically adjusts the speed of the feed drive roller to the set cutting length of the new number of blades.



- You can use the rotary potentiometer to select the setting for the number of blades. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired number of blades.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.



4.6.2.5 Selecting row tracer for autopilot

This mode determines which row tracer on the maize header will be evaluated for control of the autopilot. Chaffing should preferably be in row tracer mode left or right, with automatic row tracer mode for crops.

- = Row tracer left is evaluated.
- = Row tracer right is evaluated.
- = Both row tracers are evaluated.
- = Row tracer is automatically evaluated.
  The row tracer selection is made automatically based on the position of the upper discharge chute.
  Upper discharge chute left = row tracer left
  Upper discharge chute right = row tracer right
- = Row tracer is automatically evaluated mirrored.
  The row tracer selection is made automatically based on the position of the upper discharge chute.
  Upper discharge chute left = row tracer right
  Upper discharge chute right = row tracer left

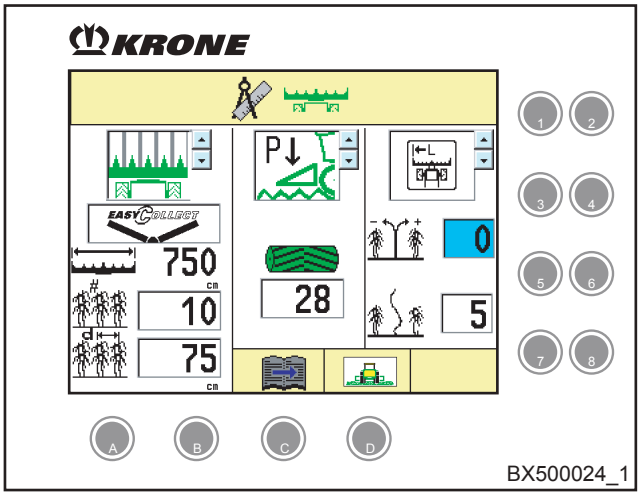
In "Row tracer automatic" and "Row tracer mirrored automatic" mode, if the upper discharge chute is not swivelled out, the "Upper discharge chute left" position is used as the basis.

4.6.2.6 Setting the row tracer

- You can use the rotary potentiometer to select the setting for the row tracer. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to set the desired mode.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.2.7 Setting the autopilot centre adjuster

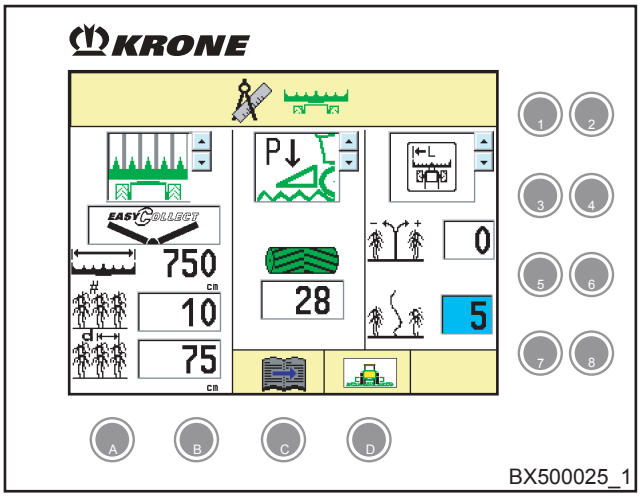
The centre setting can be used to justify the side distance from the forage harvester to the crop edge queried by the row tracer.
If the lateral distance needs to be reduced, a negative number should be set. To increase it, set a positive value.



- You can use the rotary potentiometer to select the setting for the centre adjuster. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired distance.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.2.8 Setting the response sensitivity of the autopilot

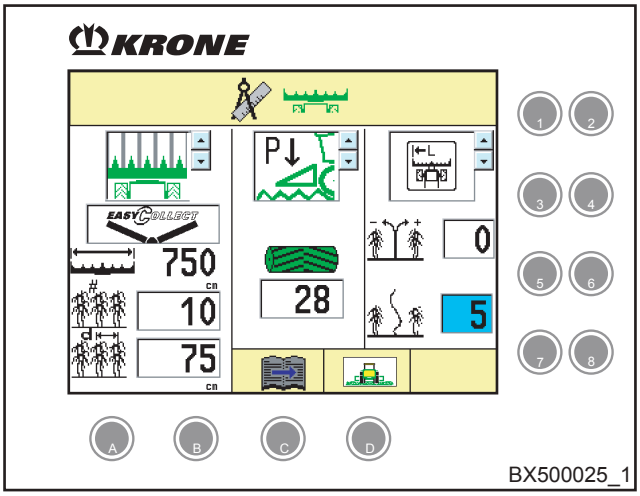
The response sensitivity can be used to adjust the response (delay) of the autopilot control system.
The response sensitivity must be adjusted to the specific combination of crop edge, driving speed and ground conditions.
With an even crop edge, slow driving speed and dry ground conditions, a low (slow) response sensitivity can be set.
With an uneven crop edge, faster driving speed and moist ground conditions, a higher (faster) response sensitivity should be set.
The setting must be made based on specific local factors and depends on the situation in question.
The setting can be changed during operation while driving.



Setting range: 1 (slow) - 10 (fast)

- You can use the rotary potentiometer to select the setting for the response sensitivity. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to set the desired value.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.

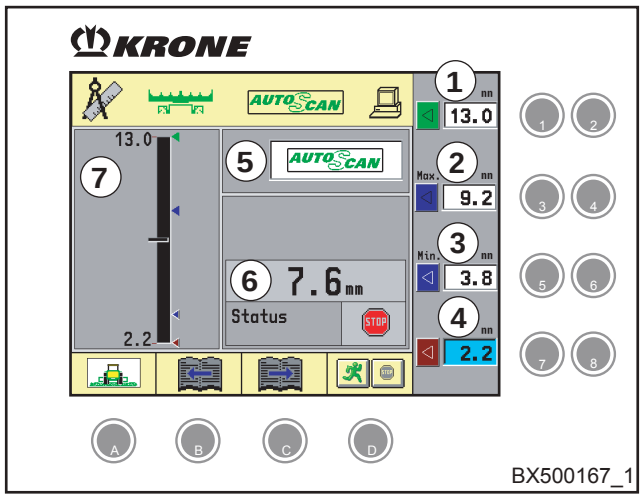
- Activating the D key brings up the basic screen.
- To open the settings for AutoScan, press the C key (only for setting of operating modes grass or XDisc).
- Pressing the key on the rotary potentiometer takes you one menu level back.



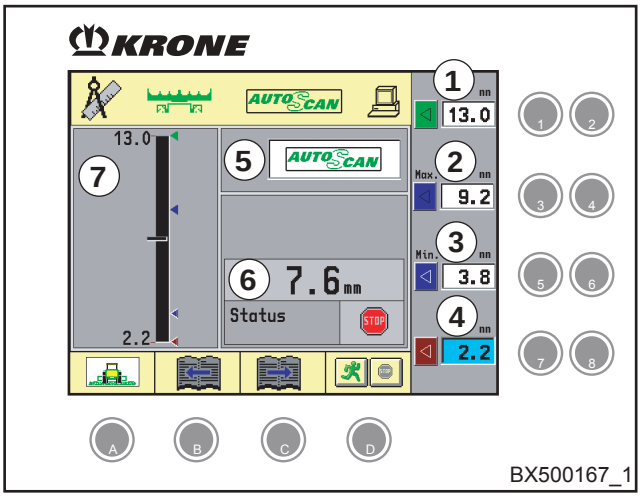
4.6.2.9 Automatic setting of the cutting length by maturity detection on the on the maize plant (AutoScan)

The system uses the AutoScan sensor to detect the degree of maturity of the maize plant.
The AutoScan control electronics calculate the optimum cutting length of the maize plant from the previously entered minimum and maximum cutting length and control the speed of the pre-compression rollers accordingly.

- To open the „AutoScan“ settings menu, press the C key (only for setting of maize header operating mode).



First define a characteristic line with the values in input fields 1 and 4. These values for green or brown maize are never reached in practical situations. They can be greater or less than the physical limits of the machine. The actual cutting length range can be set with input fields 2 and 3. If the cutting length determined by the AutoScan sensor is greater or less than the set cutting length range, the target cutting length is set to the corresponding limit.



(1) Cutting length entry for the set value of green maize. The entry can be made with the (1) key (to reduce the set value) and the (2) key (to increase the set value).

(2) Entry for the max. cutting length. The entry can be made with the (3) key (to reduce the set value) and the (4) key (to increase the set value).

(3) Entry for the min. cutting length. The entry can be made with the (5) key (to reduce the set value) and the (6) key (to increase the set value).

(4) Cutting length entry for the set value of brown maize. The entry can be made with the (7) key (to reduce the set value) and the (8) key (to increase the set value).

(5) Setting for AutoScan sensor (does not take effect until after restart).

AUTOSCAN: Sensor present.

AUTOSCAN: Sensor not present.

(6) Indicates the current status of the AutoScan sensor and the calculated cutting length.

: Automatic cutting length adjustment activated

STOP: Automatic cutting length adjustment deactivated

(7) Graphical overview of the current configuration

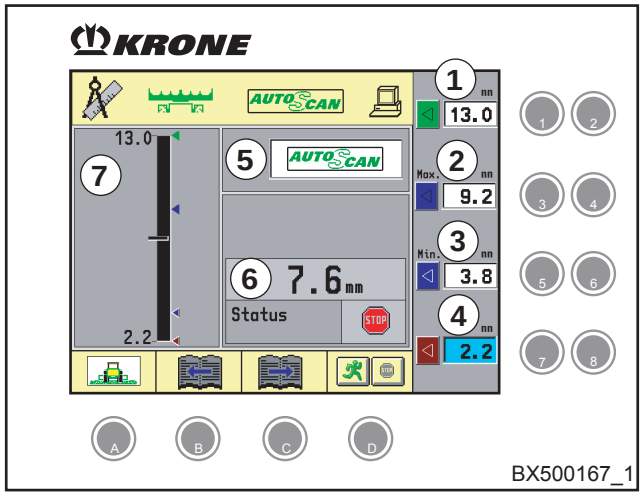
(8) You can use the (D) key to activate or deactivate automatic cutting length adjustment.

: Activate automatic

STOP: Deactivate automatic

STOP: Setting not possible (AutoScan not connected).

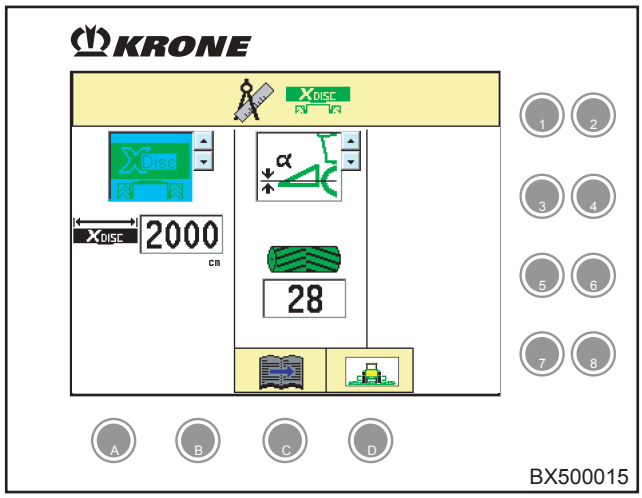
- Activating the D key brings up the basic screen.
- Pressing the key on the rotary potentiometer takes you one menu level back.
- To open the settings for load limit control, press the C key (only if load limit control is available).



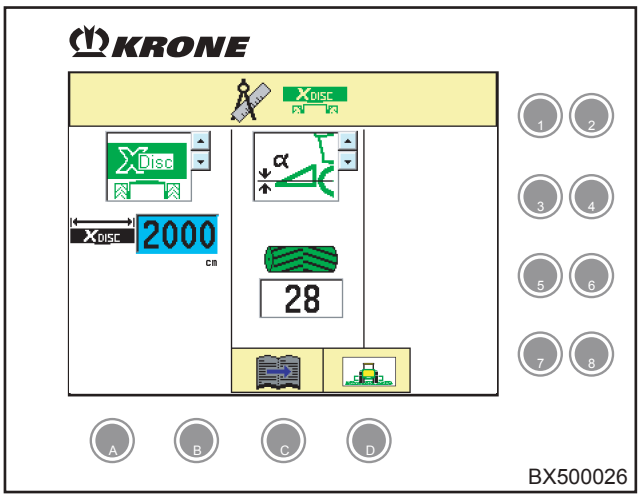
4.6.3 General machine setting - direct cutting system

Set the operating mode to direct cutting system

- XDISC = Direct cutting system
- You can use the rotary potentiometer to select the setting for the operating mode. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the operating mode of the direct cutting system.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.



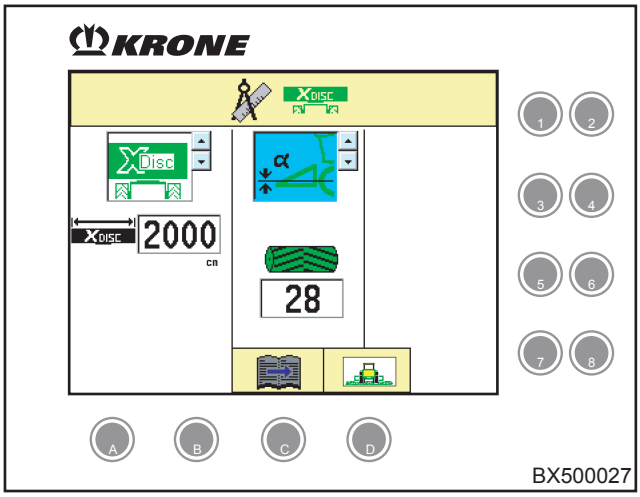
4.6.3.1 To set the working width of the direct cutting system



- You can use the rotary potentiometer to select the setting for the working width. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired working width.
- To exit the input field again, press the rotary potentiometer.

- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.3.2 To adjust the lifting gear control

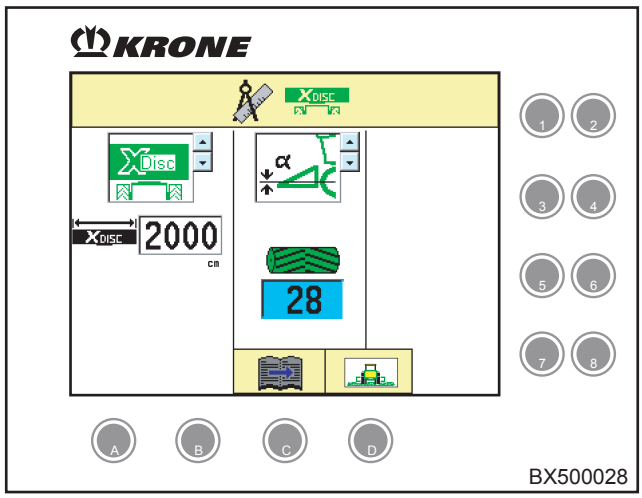


- P↓ = Lifting gear pressure control; the control sets the pressure on the ground to a constant value.
- α = Lifting gear position control; the control sets the height constant relative to the machine.
- d = Lifting gear distance control (optional, only in conjunction with distance sensors); the control sets the height constant relative to the ground.

- You can use the rotary potentiometer to select the setting for the lifting gear control. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired lifting gear control.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.

- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.3.3 Setting the number of blades

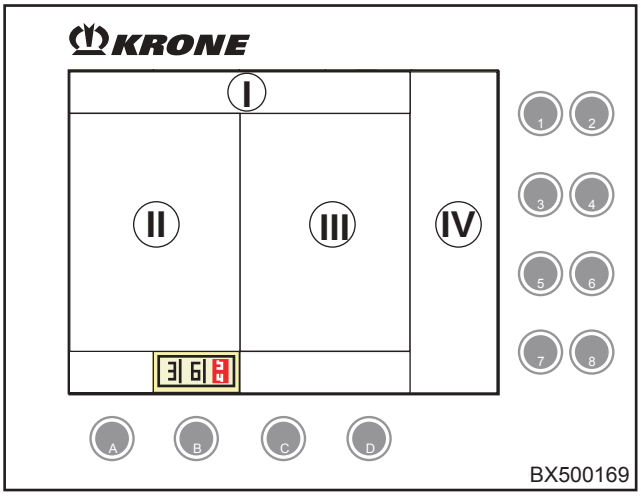


After the number of blades has been changed (see chapter Maintenance - Working with Half the Number of Blades), the current number of blades must be set. Setting the number of blades automatically adjusts the speed of the feed drive roller to the set cutting length of the new number of blades.

- You can use the rotary potentiometer to select the setting for the number of blades. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired number of blades.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.

- Activating the D key brings up the basic screen.
- To open the settings for load limit control, press the C key.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.4 Customer Data Counter



- To bring up the Customer counter, activate the B key under the softkey.
- The softkey is displayed green if a customer counter is active.

When the customer counter is active, a dataset will be selected but not yet incremented.

Customer record (1)

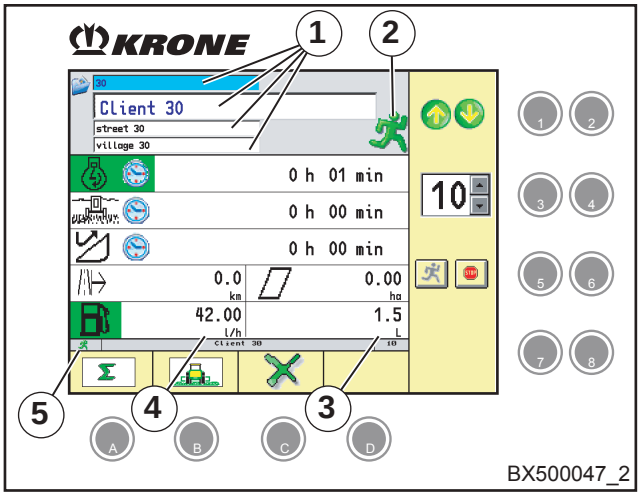
Status display (2)

STOP Counter stopped

A counter is activated

A counter other than the one shown is activated.

10 Freely usable numeric input field (for the example to assign several different cultivated areas to the customer record)



Counter (active counters are highlighted in colour)

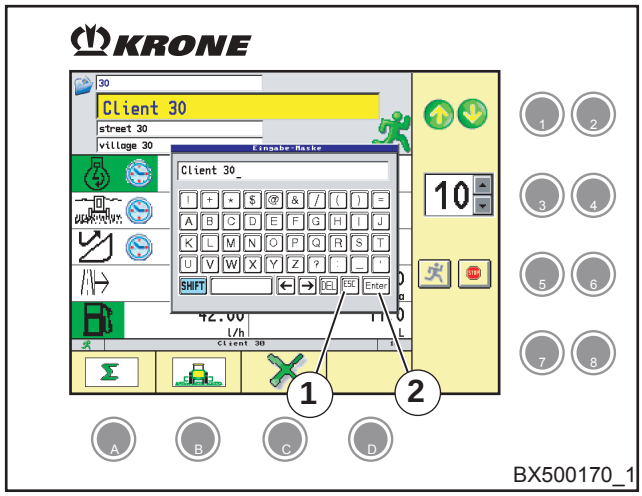
- = operating hour counter (h)
- = drum hours counter (h)
- = working hours counter (h)
- = surface counter (ha)
- = road kilometre counter (km)
- = fuel consumption (l)

(3)= absolute fuel consumption (can be deleted with C key)

(4)= current average consumption (l/h)

(5) = Display of currently activated counters

4.6.4.1 Changing a customer record (1) or creating a new one



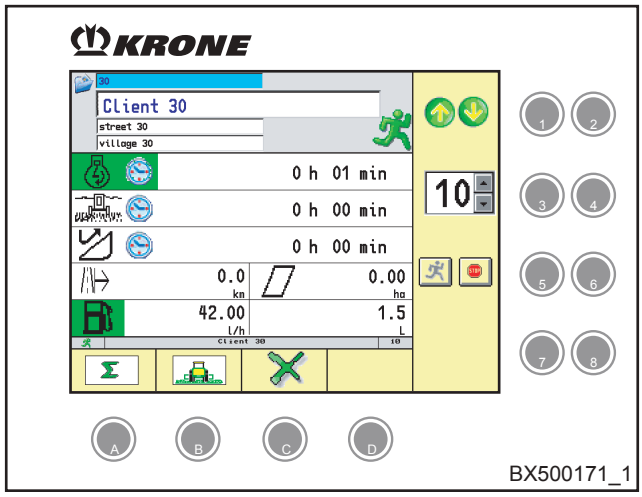
A total of 30 customer records can be created. Select the customer record you want to modify; select a free customer record to create a new entry with the (1) and (2) keys.

- You can use the rotary potentiometer to select the desired setting. The entry box is highlighted in colour.
- Pressing the rotary potentiometer opens an alphanumeric input field.
- You can change the customer record or enter a new one with the rotary potentiometer. (To accept the desired alphanumeric value, press the rotary potentiometer.)

Selecting the "ESC" symbol (1) and confirming causes the program to exit the input field without saving the entries or changes.
Selecting the "Enter" symbol (2) and confirming causes the program to accept and save the entry or change.

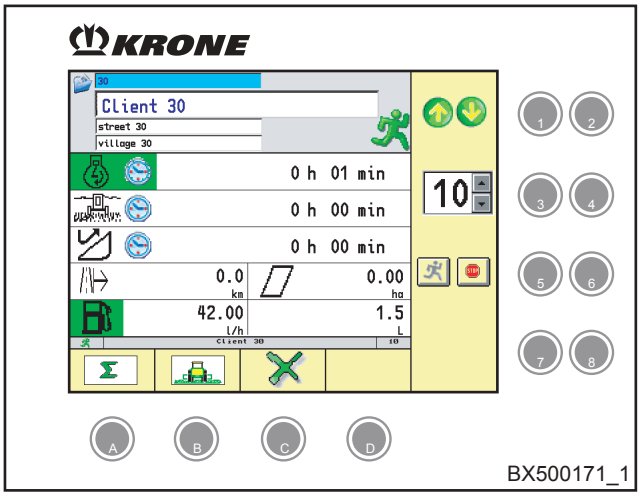
- Pressing the key on the rotary potentiometer also takes you one menu level back.

4.6.4.2 Switching the counter on or off



- Use the (5) and (6) keys to switch the counter on or off STOP.
- Activating the (B) key brings up the basic screen.
- Pressing the key on the rotary potentiometer takes you one menu level back.

4.6.4.3 Deleting the customer counter



- Pressing the C key under the sofkey deletes the counters of the selected cultivated area 10 in the selected customer record (in the example shown here, the tenth cultivated area).

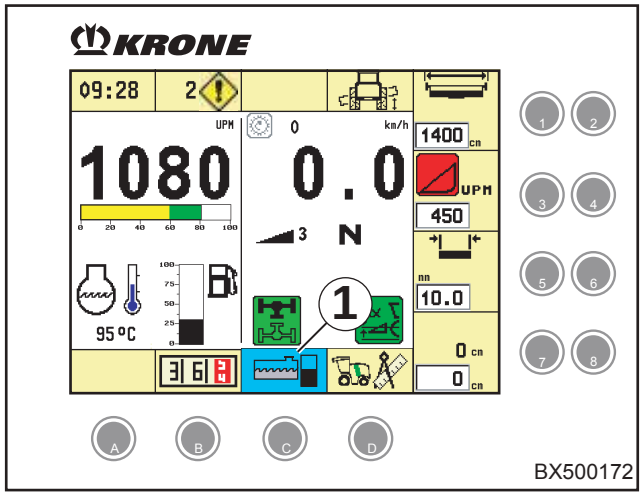
4.6.4.4 Switching to general counters (machine data counters)

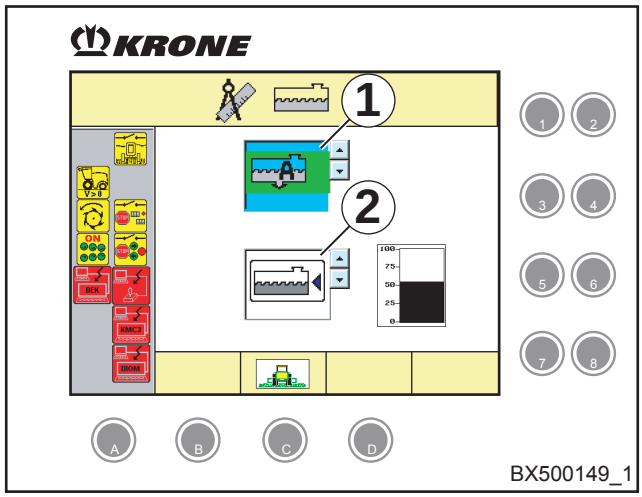
- Pressing the A key under the Σ softkey brings up the "Counters and machine data" menu.

For more information see chapter "Counters and Machine Data"

You can print out all customer records or selected ones with the aid of a printer.
For additional Information, please refer to chapter "Printing Customer Data"

4.6.5 Silage Fodder Addition





In field mode, the silage fodder addition icon is displayed in the information section of settings (V) with the current setting.

Pre-requisite for switching on Automatic mode:

- Feed drive/front attachment switched on
- Main drive switched on
- Front attachment lowered
- Driving forward

Status (1)

- = Automatic mode switched on, silage fodder addition active.
- = Automatic mode switched on, silage fodder addition inactive.
- = silage fodder addition is deactivated.
- = silage fodder addition is always active.
- = filling level indicator for silage agent addition (optional)

- Activating the C key brings up the silage fodder addition screen.

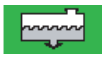
Conditions for release not met

- = lower lifting gear
- = vehicle moving
- = Main coupling on
- = feed drive on
- = Release switch – road/field
- = Maintenance release switch
- = Stop switch for control unit console
- = stop switch for manual operation

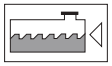
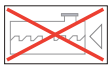
Fault

- = CU
- = Joystick
- = KMC2
- = KMC3
- = Metal detection
- = DIOM

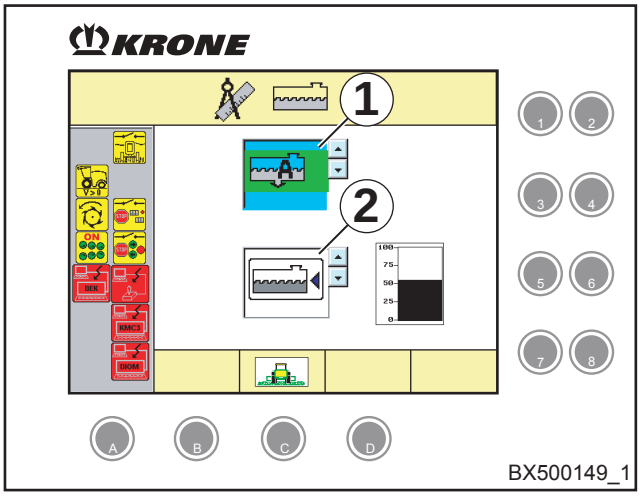
Silage fodder addition (1)

-  **= silage fodder addition not active**
-  **= silage fodder addition always active**
-  **= silage fodder addition Automatic mode**

Activate/deactivate fill level indicator for silage fodder addition (optional) (2)

-  **= fill level indicator for silage fodder addition activated**
-  **= fill level indicator for silage fodder addition deactivated**

- You can use the rotary potentiometer to set the silage fodder addition setting. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired setting.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- Activating the C key brings up the basic screen.
- Press the key on the rotary potentiometer to open the menu.



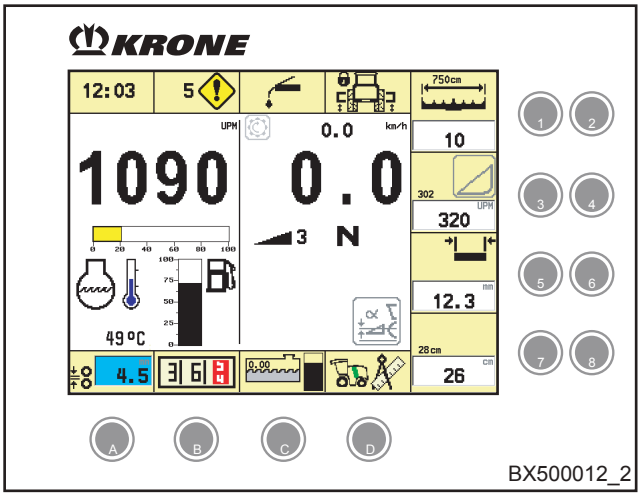
4.6.6 Adjusting the Grain Conditioner Distance

If "Maize header or X-Disc" mode has been set, the symbol and the current actual value of the grain conditioner distance is displayed in the information section of settings (V).

- You can use the rotary potentiometer to select the setting for the grain conditioner. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the distance.
- To exit the input field again, press the rotary potentiometer.

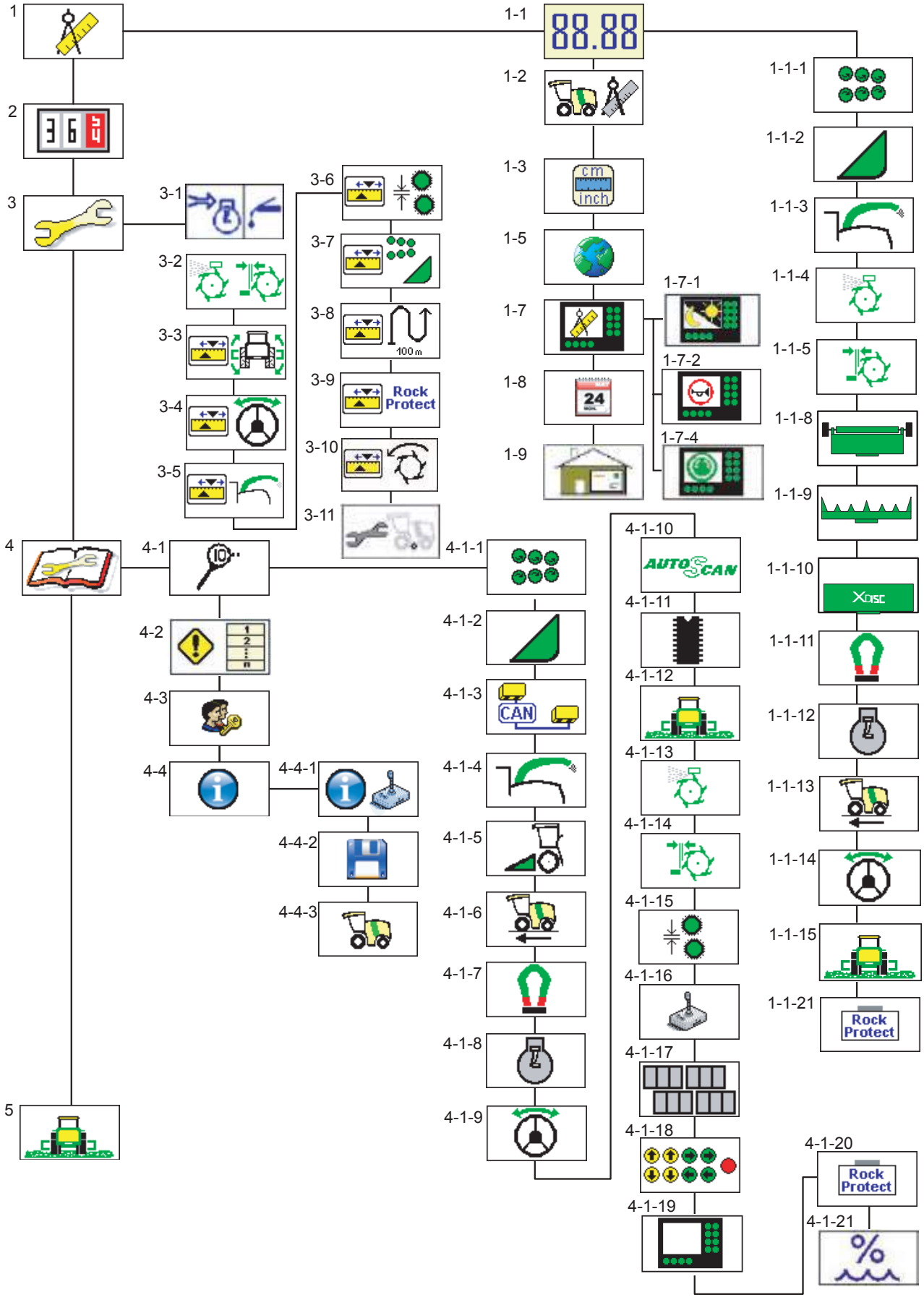
The currently set target distance is approached automatically.

Calibrating the grain conditioner
(See chapter on Grain Conditioner Calibration).



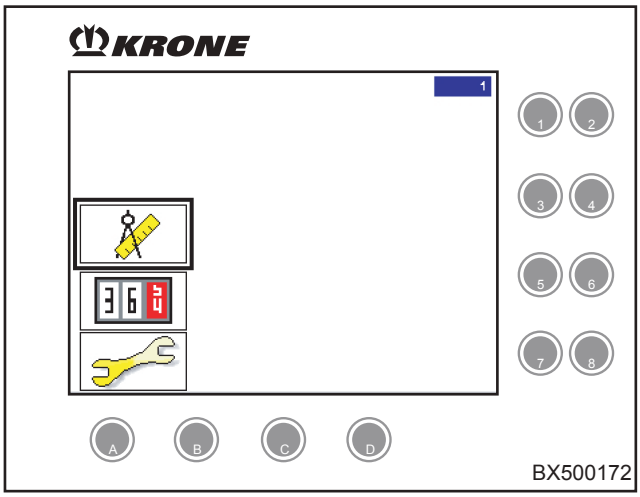
4.7 Menu Level

Short overview



4.7.1 Bringing up a Menu Level

- You can bring up a menu level with the key on the rotary potentiometer.



The display indicates the menu level.

The menu level is divided into 5 main menus:

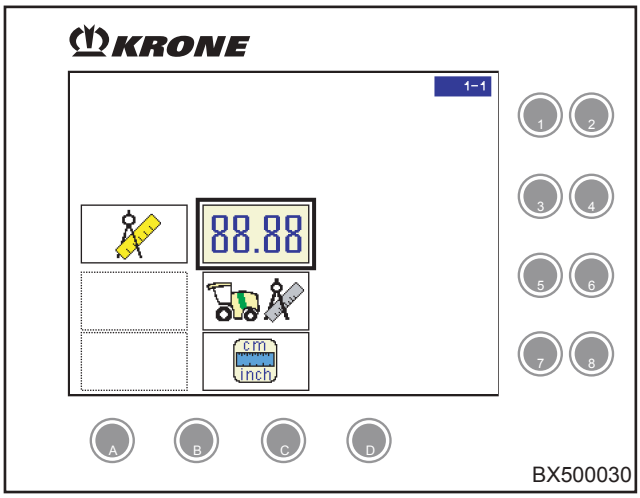
- = main menu 1 „Settings“
- = main menu 2 „Counters“
- = Main menu 3 „Maintenance“
- = main menu 4 „Service“
- = Main menu 5 „Basic screen“

- You can close the menu level that was called with on the rotary potentiometer.

4.7.2 Main menu 1 „Settings“

The main menu level is active.

- Select main menu 1 with the rotary potentiometer.
- Press the rotary potentiometer.



The display shows menu level 1 „Settings“.

The main menu, „Settings“, is divided up into these menus:

- = Menu 1-1 „Parameters“
- = Menu 1-2 „Machine setting“
- = Menu 1-3 „Units“
- = Menu 1-5 „Language“
- = Menu 1-7 „Display“
- = Menu 1-8 „Date/time“
- = Menu 1-9 "Contractor address"

- Pressing the key on the rotary potentiometer takes you one menu level back.

4.7.3 Menu 1-1 „Parameters“

The main menu „Settings“ is active.

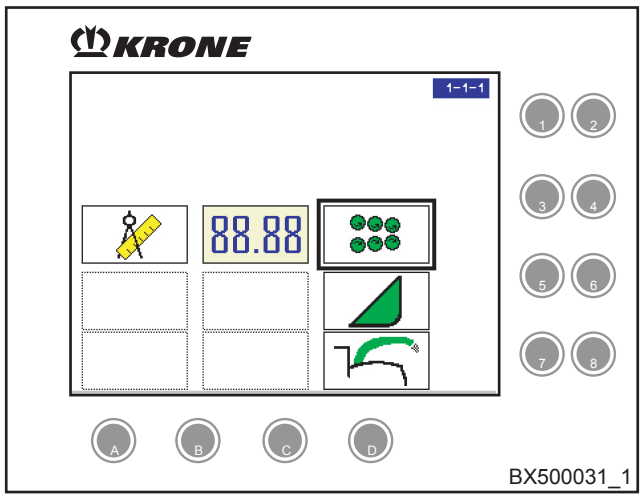
- Select menu 1-1 „Parameters“ with the rotary potentiometer.
- Press the rotary potentiometer.

The display indicates the menu level „Parameters“.

The „Parameters“ menu is divided into these sub-menus:

-  = Menu 1-1-1 „Feed drive“
-  = Menu 1-1-2 „Front attachment“
-  = Menu -1-1-3 „Discharge chute“
-  = Menu1-1-4 „Grinding“
-  = Menu1-1-5 „Counterblade“
-  = Menu 1-1-8 „EasyFlow“
-  = Menu 1-1-9 „EasyCOLLECT“
-  = Menu 1-1-10 „X-DISC“
-  = Menu 1-1-11 „Metal detection“
-  = Menu 1-1-12 „Diesel engine“
-  = Menu 1-1-13 „Drive“
-  = Menu 1-1-14 „Autopilot“
-  = Menu 1-1-15 „Work“
-  = Menü 1-1-21 „RockProtect“

- Pressing the key on the rotary potentiometer takes you one menu level back.
- You can use the rotary potentiometer to select the desired menu.
- Pressing the rotary potentiometer causes the parameters of the selected menu to be displayed.



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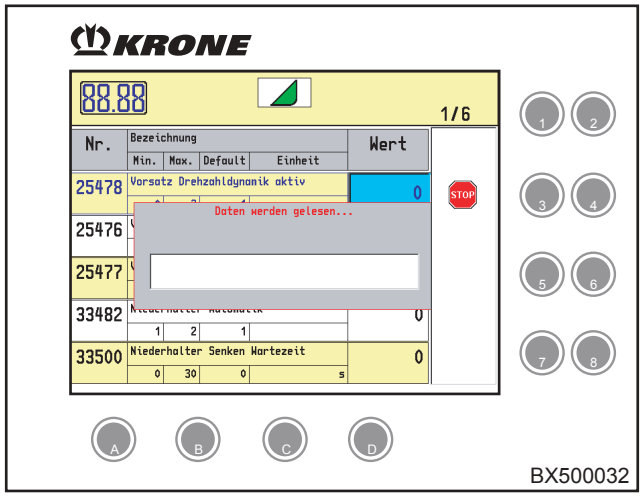


BX500032

Entering parameters

- You can use the rotary potentiometer to select individual parameters. The input field is highlighted in light blue.

Only input fields with a light blue background can be changed.

- Pressing the rotary potentiometer allows you to jump to the input field.
  The mask for parameter entry appears with the following displays:

  (1) Shows the designation of the selected parameter.

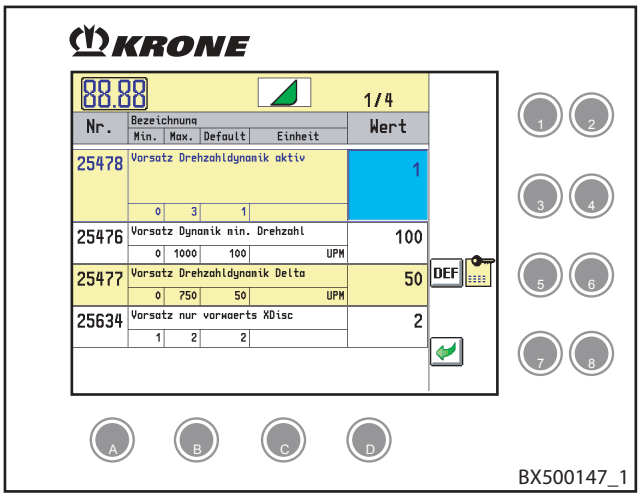
  (2) Visual display of the possible range of the parameter value.

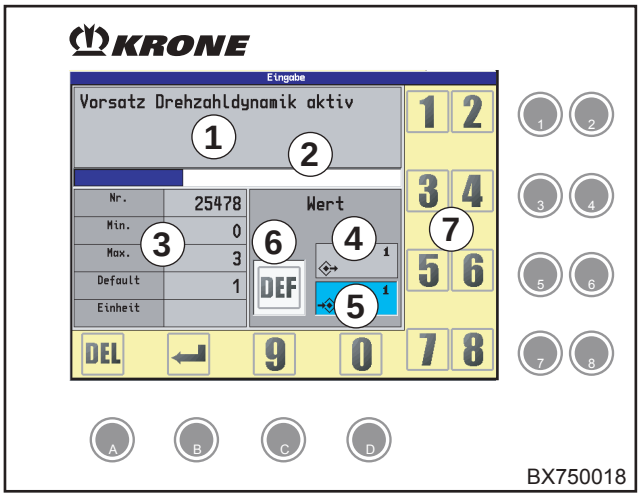
  (3) Parameter data: (from top to bottom) parameter number, min. value, max. value, default setting value, unit.

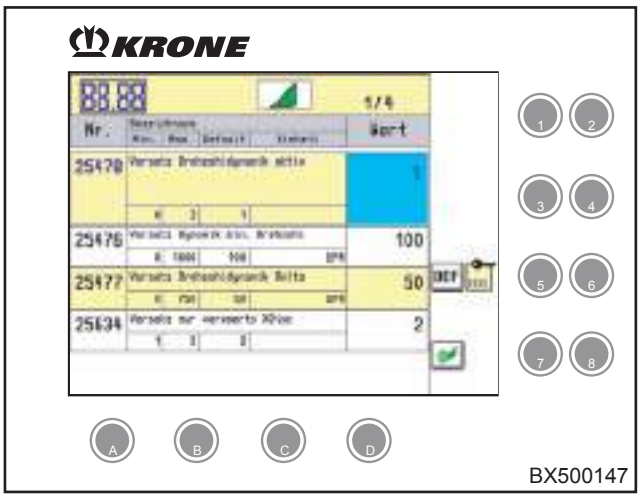
  (4) Actual value of the parameter. 99999 means the corresponding control unit is offline.

- Enter the new setpoint value in the input field (5) with the rotary potentiometer or keyboard (7).
- You can reset to the default setting value in the input field (6) (non-locking function).
- To delete the setpoint value, press the A key.
- To accept the modified value and/or parameter input mask, press the B key.
- To stop the process temporarily, press the 3 key next to the STOP softkey.
- To apply the default setting values, press the 5 key next to the DEF softkey.
- To jump back to the screen that was previously displayed, press the 7 key next to the softkey.
- Pressing the key on the rotary potentiometer takes you one menu level back.

For additional information on the individual parameters, please refer to the parameter list in the appendix entitled „Parameter list“.







4.7.4 Menu 1-3 „Units“

The main menu „Settings“ is active.

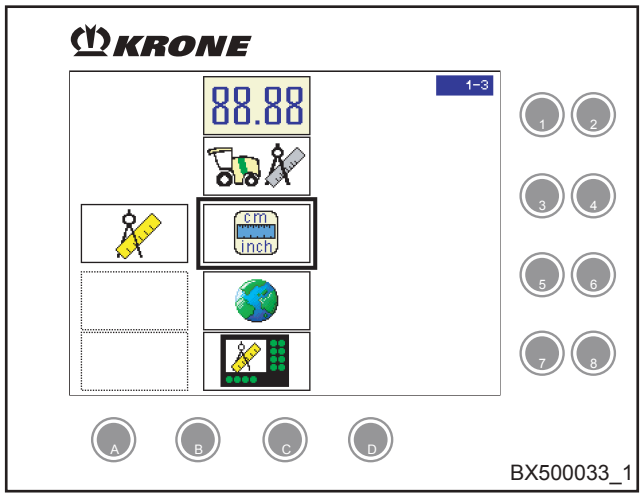
- Select menu 1-3 „Units“ with the rotary potentiometer.
- Press the rotary potentiometer.

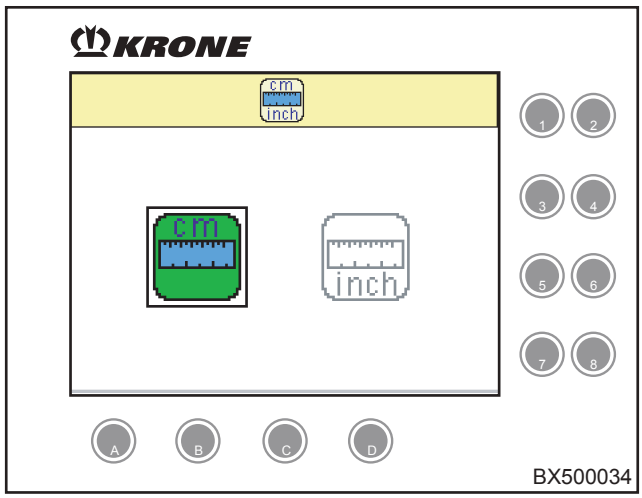
The display indicates the selected measuring units. The currently set measuring unit is highlighted in colour.

- = Anglo-American units active
- = English/American units active
- = Metric (SI) units
- = Metric (SI) units inactive

Setting the measuring units

- You can use the rotary potentiometer to select the desired setting.
- To accept the setting, press the rotary potentiometer.
- Pressing the key on the rotary potentiometer takes you one menu level back.





4.7.5 Menu 1-5 „Language“

The main menu „Settings“ is active.

- Select menu 1- 5„Language“ with the rotary potentiometer.
- Press the rotary potentiometer.

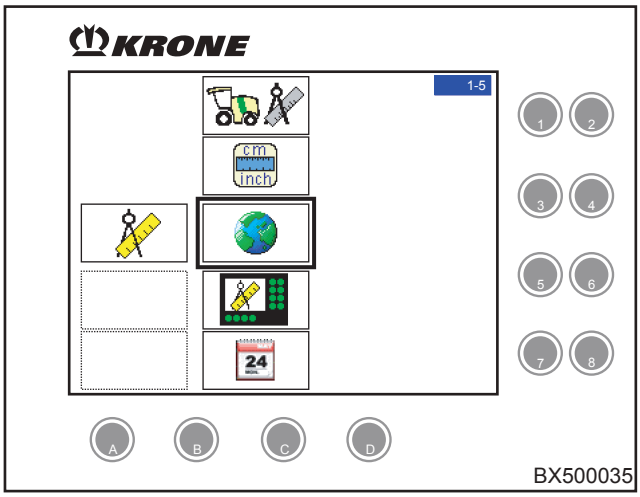
The display shows the language selection.

Set language

(1) = currently set language
(2) = display of the selected language

- You can select the language you want with the rotary potentiometer.
- To confirm the selection, press the rotary potentiometer.
- Pressing the key on the rotary potentiometer takes you one menu level back.

The selected language is applied immediately.



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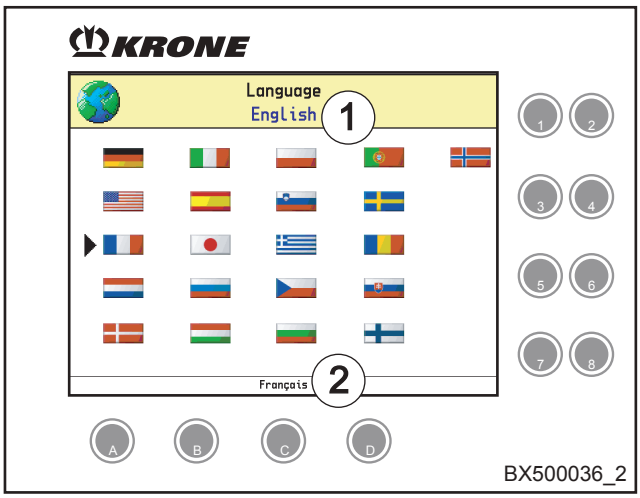


BX500036_2

4.7.6 Menu 1-7 „Display“

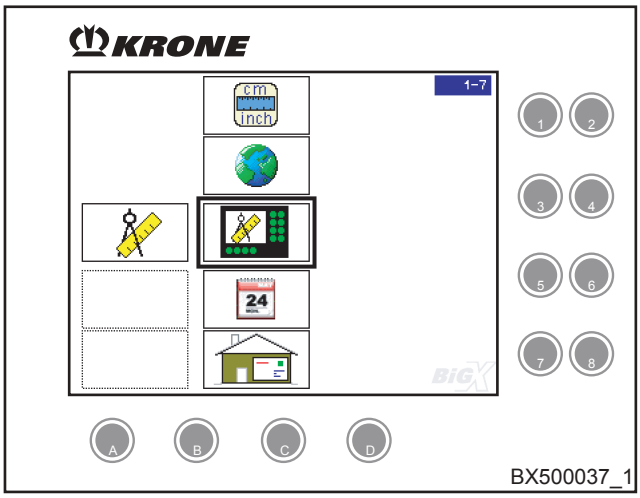
The main menu „Settings“ is active.

- Select menu 1-7 „Display“ with the rotary potentiometer.
- Press the rotary potentiometer.

The display shows menu level 1-7 „Display“.

The "Display" menu is divided into three sub-menus:

-  = Menu 1-7-1 "Contrast/brightness"
-  = Menu 1-7-2 „Beeper“
-  = menu 1-7-4„Direction of Rotation“
- Pressing the key on the rotary potentiometer takes you one menu level back.



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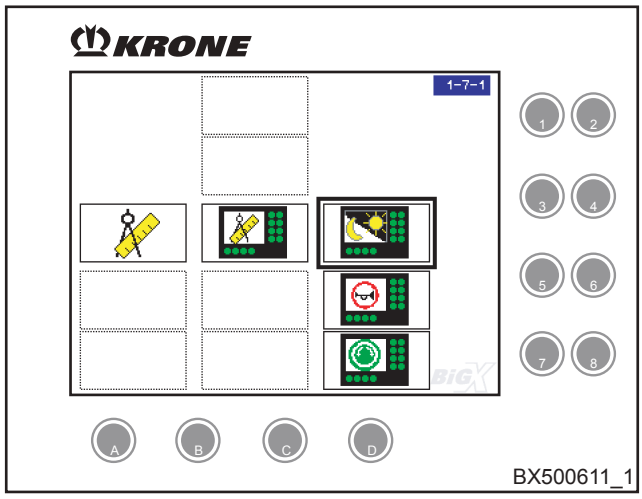
4.7.7 Menu 1-7-1 contrast/brightness

The „Display“ menu is active.

- Select menu 1-7-1 „Contrast/brightness“ with the rotary potentiometer.
- Press the rotary potentiometer.

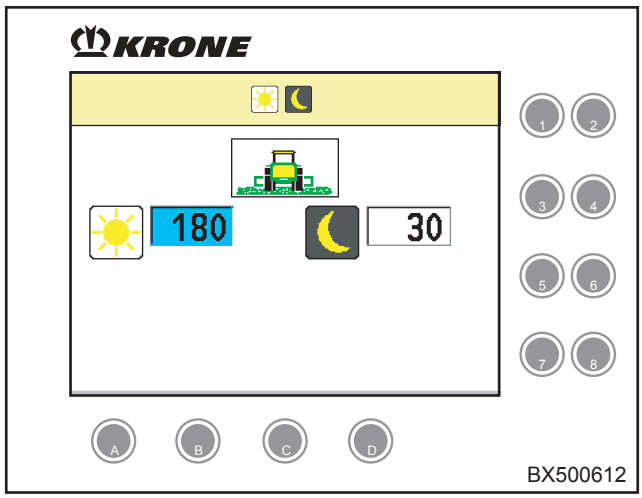
The display shows the settings for contrast and brightness.



- = brightness
- = contrast

Adjusting contrast/brightness

- You can use the rotary potentiometer to select the desired setting. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired function.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.



- Pressing the key on the rotary potentiometer takes you one menu level back.

4.7.8 Menu 1-7-2 Beeper

The „Display“ menu is active.

- Select menu 1-7-2 „Beeper“ with the rotary potentiometer.
- Press the rotary potentiometer.

The display indicates the beeper settings.

-  = Key pressed (Signalling device in terminal)
-  = Alarm (Signalling device in console)
-  = Note (Signalling device in console)

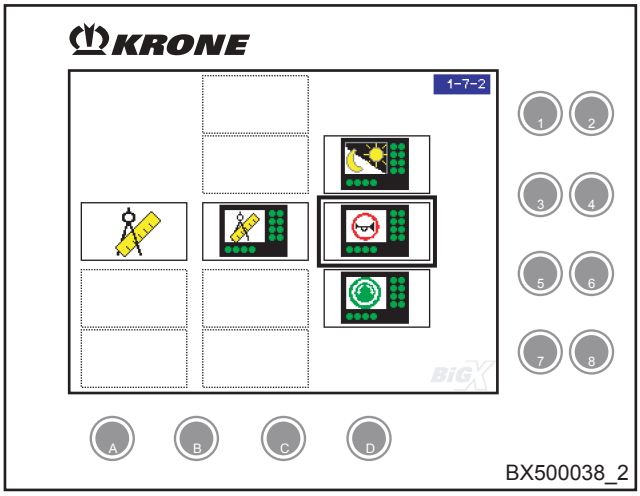
Beeper function

-  = Beeper inactive
-  = Beeper active
-  = Beeper limited by time

The activation time of the beeper can be set optionally to  and  .

To set the beeper

- You can use the rotary potentiometer to select the desired setting. The selection box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired function.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection box.
- To turn on the beeper, press the  key.
- To turn off the beeper, press the  key.
- Pressing the  key on the rotary potentiometer takes you one menu level back.



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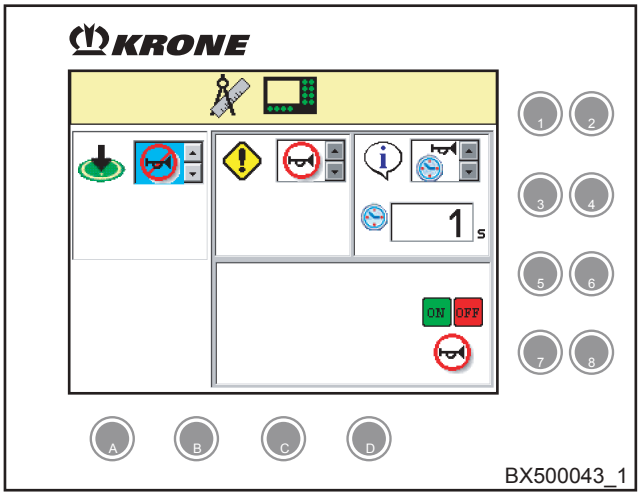


BX500043_1

4.7.9 Menu 1-7-4 Direction of Rotation

The „Display“ menu is active.

- Select menu 1-7-4 „Direction of rotation“ with the rotary potentiometer.
- Press the rotary potentiometer.

The display shows settings for direction of rotation.

-  = Scroll down in the parameter list
-  = Input elements selection down
-  = Scroll down in the menu

Set the direction of rotation
(1) Direction of rotation „Scroll down in the parameter list“:

- Press the 1 key to set „Anti-clockwise“.
- Press the 2 key to set „Clockwise“.

(2) Direction of rotation „Input elements selection down“:

- Press the 3 key to set „Anti-clockwise“.
- Press the 4 key to set „Clockwise“.

(3) Direction of rotation „Scroll down in the menu“:

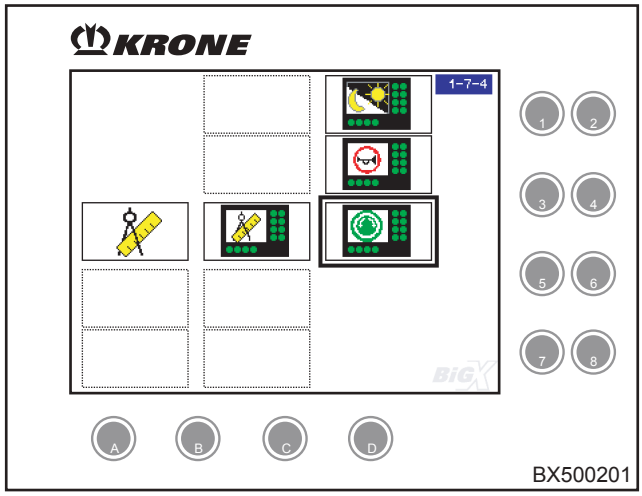
- Press the 5 key to set „Anti-clockwise“.
- Press the 6 key to set „Clockwise“.

(4) Press the softkey DEF to set all direction of rotation settings to default values.

(5) Press the softkey  to return to the basic screen.

The currently set direction of rotation is represented by the blue arrow  .

- Pressing the key on the rotary potentiometer takes you one menu level back.



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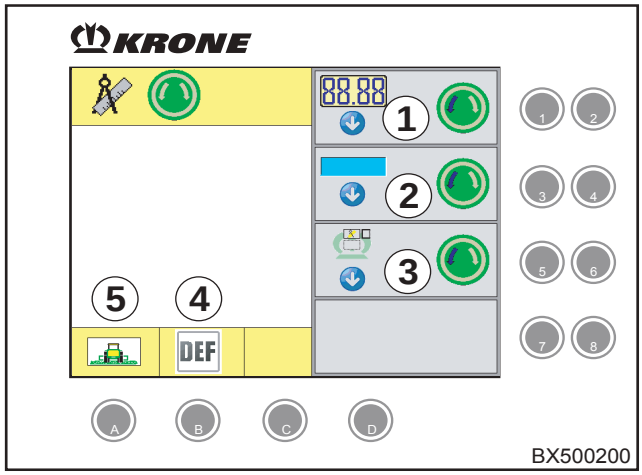


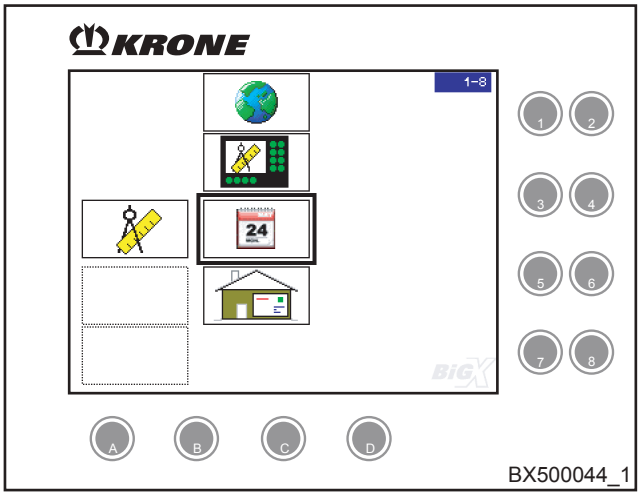
BX500200

4.7.10 Menu 1-6 „Date/time“

The main menu „Settings“ is active.

- Select menu 1-8 „Date/time“ with the rotary potentiometer.
- Press the rotary potentiometer.

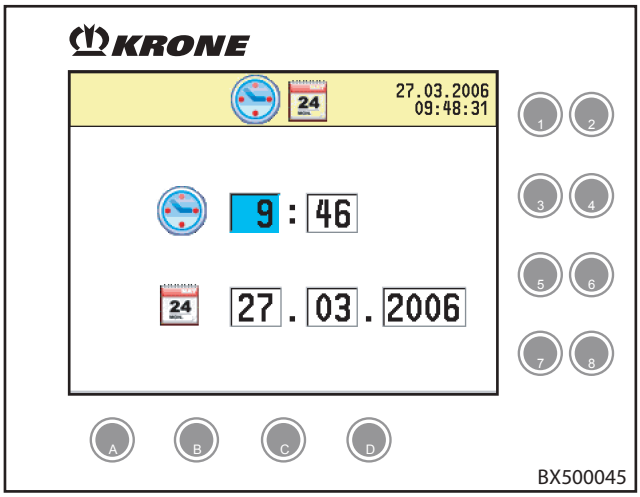
The display shows the date and the time.



4.7.10.1 To set date/time

- You can use the rotary potentiometer to select the desired setting. The entry box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- Set the desired date/time with the rotary potentiometer.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.

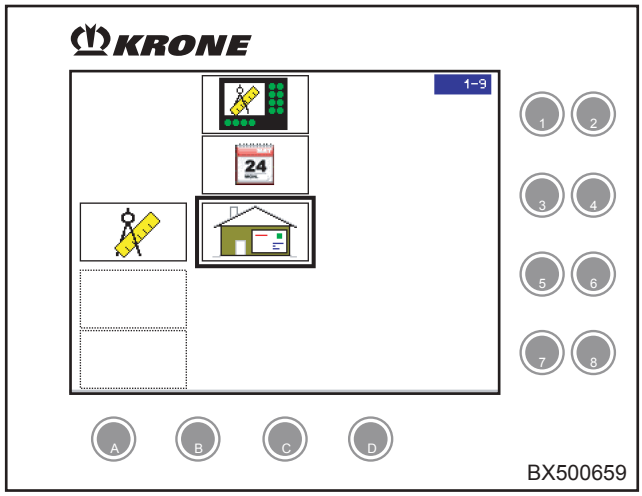
- Pressing the key on the rotary potentiometer takes you one menu level back.



4.7.11 Menu 1-9 „Contractor address“

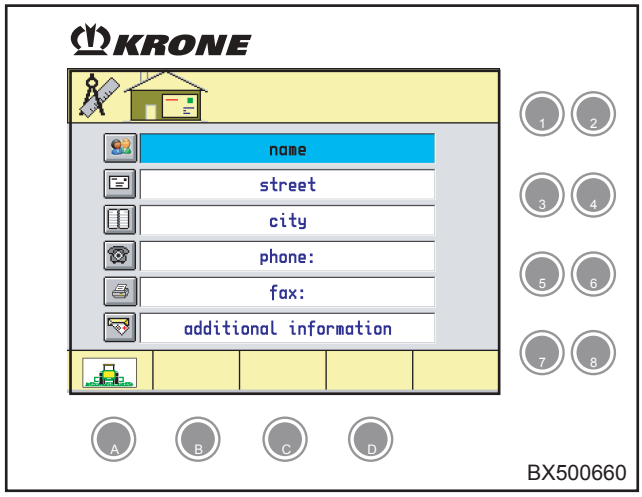
The main menu "Settings" is active.

- Select menu 1-9 "Contractor" with the rotary potentiometer.



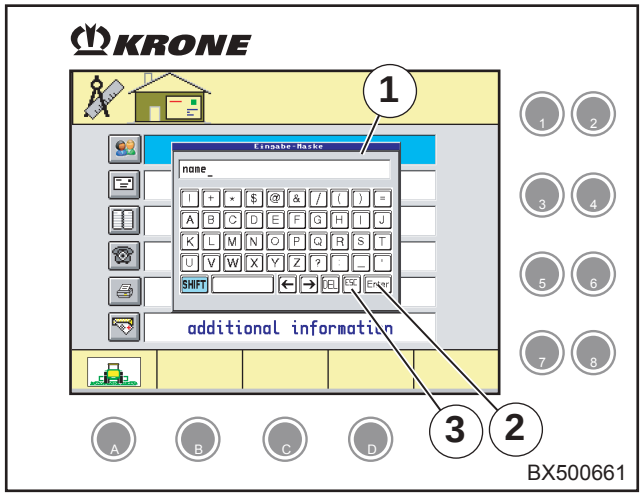
- Press the rotary potentiometer to call the <Contractor Information> mask.

A maximum of 6x30 characters can be entered. The information is used each time a print job is sent to the CAN printer. If a line contains no characters (including no spaces), that line will not be considered for printing.



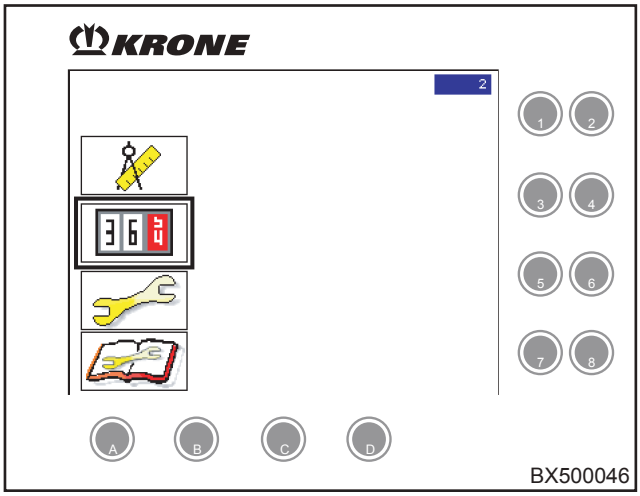
- Pressing the rotary potentiometer opens an alphanumeric input field (1).
- Turn the rotary potentiometer to select a letter (yellow mark).
- Press the rotary potentiometer to select the letter.
- Selecting the "Enter" symbol (2) and confirming causes the program to accept and save the entry or change.

Selecting the "ESC" symbol (3) and confirming causes the program to exit the input field without saving the entries or changes.



- Pressing the key ● on the rotary potentiometer takes you one menu level back.

4.8 Main Menu 2 „Counters“

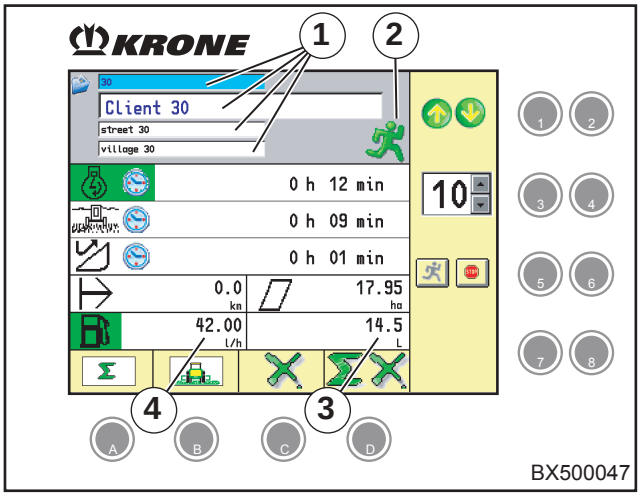


- You can bring up a menu level with the key on the rotary potentiometer.
- Select main menu 2 „Counter“ with the rotary potentiometer.
- Press the rotary potentiometer.

The display shows various counters.

Counter level(sets)

- Σ = total bale counter (cannot be deleted)
- 1 = counter level 1 (can be deleted)
- 2 = counter level 2 (can be deleted)
- 3 = counter level 3 (can be deleted)



4.8.1 Machine Data Counter

(Active counters are highlighted in colour)

- = Operating hours counter
- = Drum hours counter
- = Working hours counter
- = Surface counter
- = Odometer (both street and field mode) (km)
- = Fuel consumption meter

To set the counter level

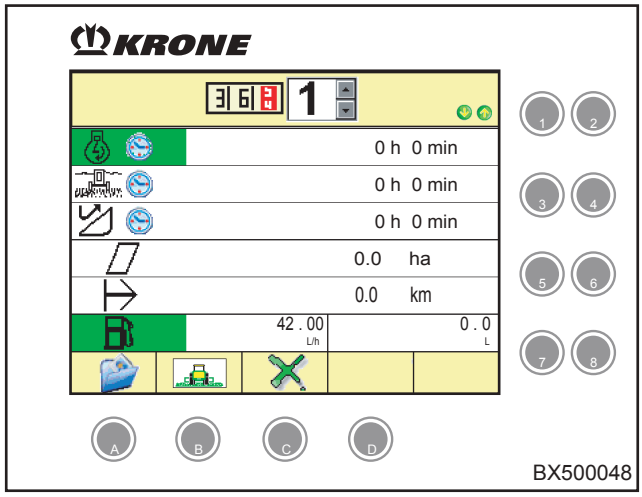
- To change counter level, activate the key for or .

It is also possible to make a setting with the rotary potentiometer:

- You can use the rotary potentiometer to select the setting for the counter level. The input field is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the selection box.
- You can use the rotary potentiometer to adjust the desired counter level.
- To exit the selection field, press the rotary potentiometer.

4.8.2 Deleting the Machine Data Counters

- Pressing the C key under the softkey deletes all counters in a set. (Only the counters of sets 1 to 3 can be deleted.)
- Pressing the key on the rotary potentiometer takes you one menu level back.
- Pressing the B key under the softkey brings up the basic screen.

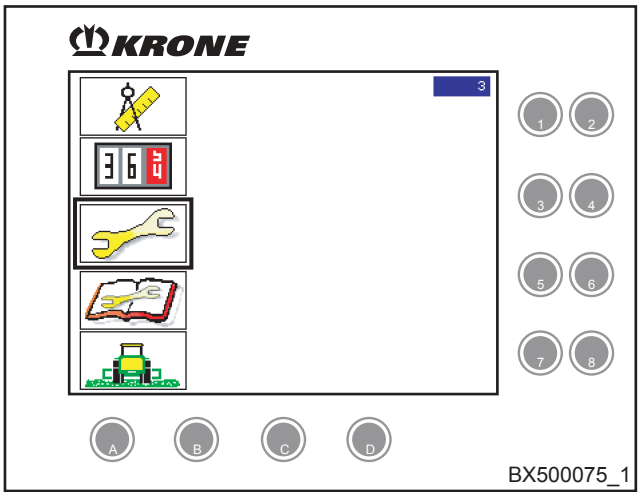


4.8.2 Switching to Customer Data Counters

- Pressing the A key under the softkey brings up the „Customer data counter“ menu.

For more information, see chapter „Customer Data Counters“

4.9 Main Menu 3 „Maintenance“



The main menu level is active.

- Select main menu 1 with the rotary potentiometer.
- Press the rotary potentiometer.

The display shows menu level 3 „Maintenance“.

The main menu „Maintenance“ is divided up into six menus:

-  = Menu 3-1 "Central lubrication/cleaning the engine compartment"
-  = Menu 3-2 „Grinding / counterblade“
-  = Menu 3-3 „Calibration of pendulum frame“
-  = Menu 3-4 „Calibration of Autopilot“
-  = Menu 3-5 „Calibration of upper discharge chute“
-  = Menu 3-6 „Calibration of cracker“
-  = Calibration of feed drive/front attachment"
-  = Menu 3-7 „Calibration of front attachment“
-  = Menu 3-8 „Calibration of travel path“
-  = Menü 3-9 „RockProtect“ (optional)
-  = Menu 3-10 "Calibration of main coupling"
-  = Menu 3-11 „Maintanance additional axis“ (option)

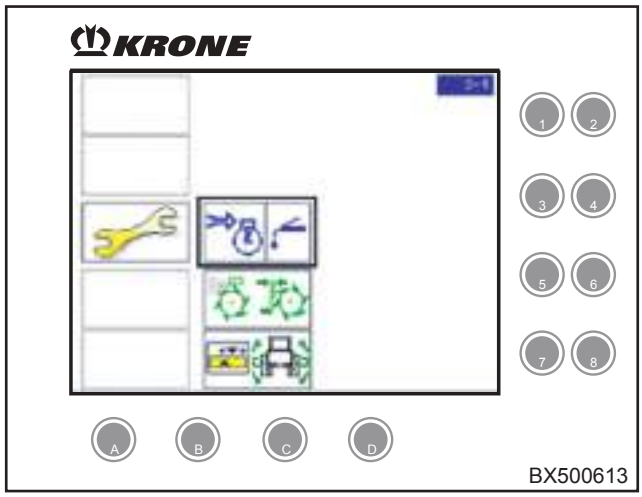
- Pressing the key on the rotary potentiometer takes you one menu level back.

When the maintenance switch in the basic screen is activated, the „Maintenance“ main menu appears automatically.

4.9.1 Menu 3-1 "Central lubrication"

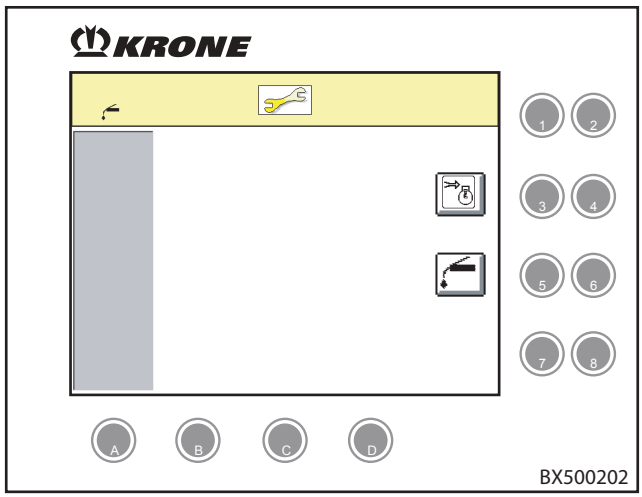
The main menu "Maintenance" is active.

- Select menu 3-1 "Central lubrication" with the rotary potentiometer.
- Press the rotary potentiometer.



The display shows the „Clean central lubrication“ mask.

- Press the (5) key to initiate the „Intermediate lubrication“ function.



Conditions for release not met

- = Release switch – road/field
- = Travelling gear release switch
- = Diesel engine speed
- = Release switch – feed drive/front attachment
- = Maintenance release switch
- = Stop switch for control unit console
- = Stop switch for manual operation

Malfunction

- = CU
- = Manual operation
- = Joystick
- = KMC2
- = KMC3

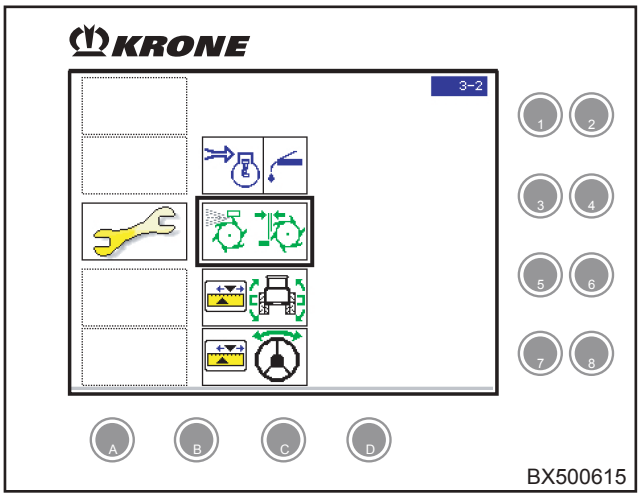
4.9.2 Menu 3-2 „Grinding / Counterblade“

The main menu „Maintenance“ is active.

- Select menu 3-2 „Grinding / counterblade“ with the rotary potentiometer.
- Press the rotary potentiometer.

> **Warning notices appear pointing out special dangers associated with grinding the cutting blade (refer to the section on Operation – grinding the cutting blade).**

- Actuating the (7) key takes you to a parameter input box for the grinding of the counterblade.



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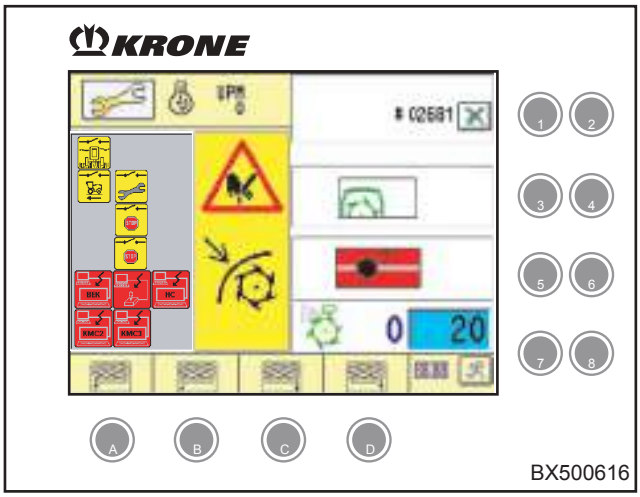


BX500616

Conditions for release not met

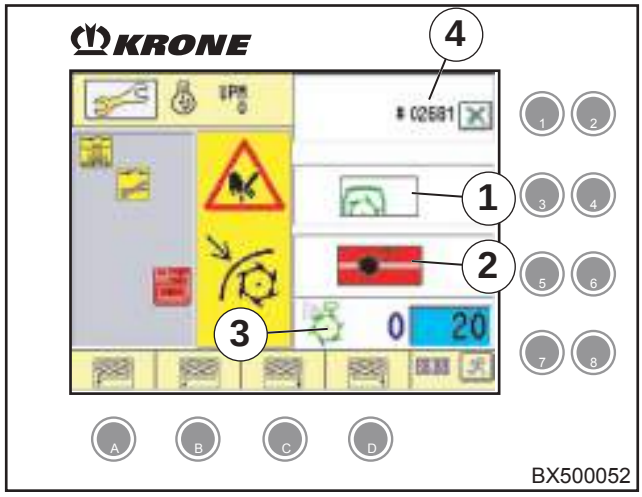
- = Release switch – road/field
- = Travelling gear release switch
- = Diesel engine speed
- = Release switch – feed drive/front attachment
- = Maintenance release switch
- = Stop switch for control unit console
- = Stop switch for manual operation

Malfunction

- = CU
- = Manual operation
- = Joystick
- = KMC2
- = KMC3

Status of the grinding flap (1)

- = Grinding flap is closed
- = Grinding flap is open



Status of the grinding stone (2)

- = Grinding stone is on the left
- = Grinding stone is in the centre
- = Grinding stone is on the right
- = Position of grinding stone unknown; grinding stone sensors are both alive/sensor is defective - FAULT

Status of grinding operation (3)

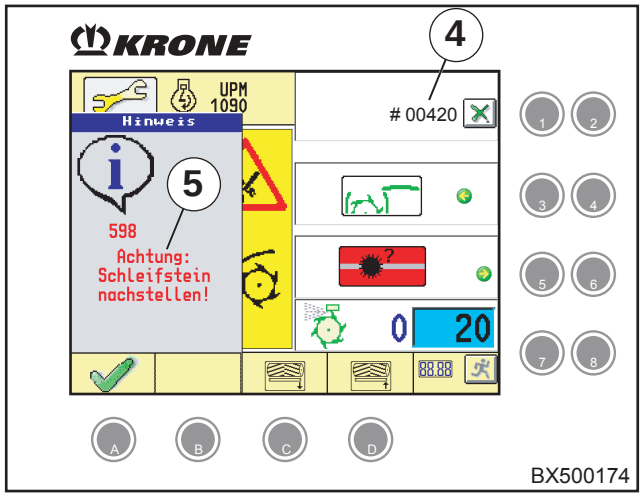
- 1. number = current grinding cycle, 2nd number = number of target grinding cycles

One grinding cycle corresponds to a double stroke of the grinding stone (1 x left/1 x right).

Status „Total of all grinding cycles“ (4)

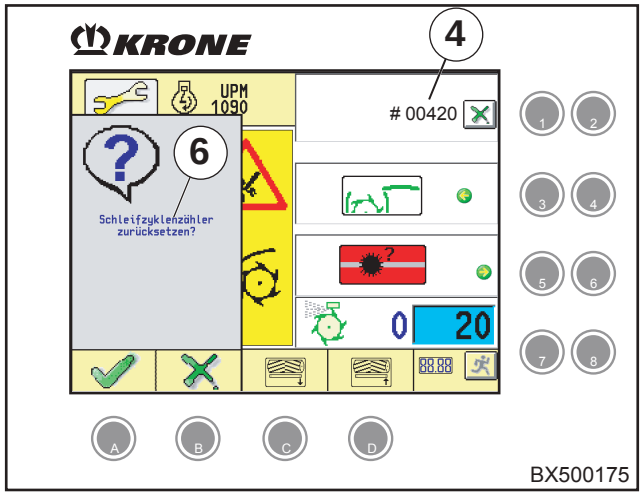
- (4) = Counter „Total of all grinding cycles“ since the last time the counter status was set to „Zero“.

After approximately 420 grinding cycles (depending on the grinding stone adjuster), the error message (5) "Readjust grinding stone" appears on the display. The grinding process is disabled until the error message has been reset.



Acknowledging the error message

- Using the A key under softkey ✓, hide the message.
- Activate the 1 key to set counter „Total of all grinding cycles“ (4) to zero. Message (6) appears in the display.
- Using the A key under softkey ✓, hide the message.
- Using the B key under softkey ✗, cancel the process.

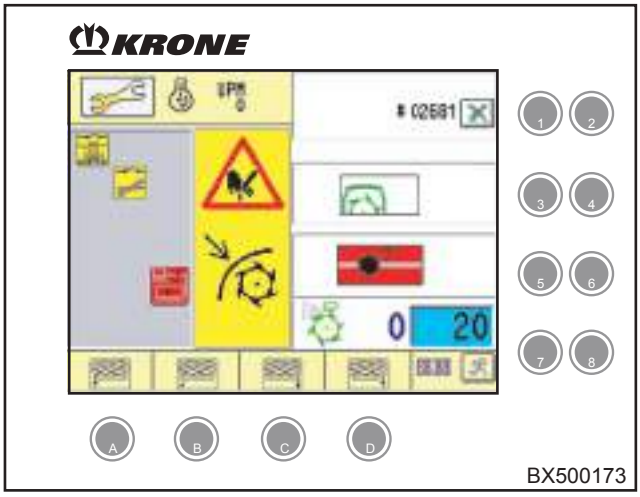


Readjust the grinding stone or replace it. (See Chapter „Readjusting or Replacing the Grinding Stone“)

Counterblade – status of the counterblade motors (data as seen in direction of travel)

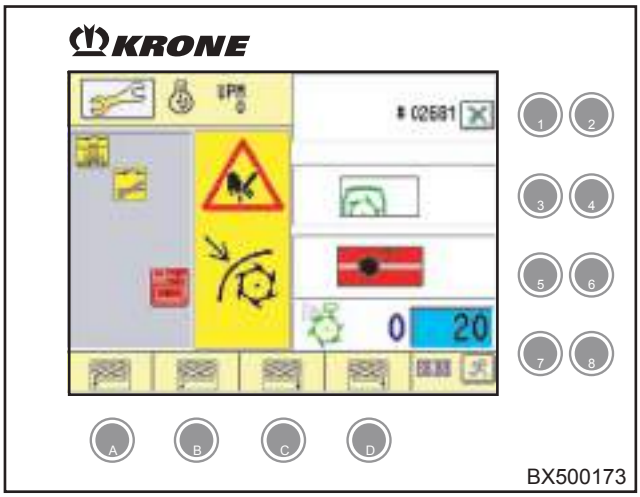
Visual display if the counterblade will be moved manually.

-  = Approach counterblade on the right active
-  = Approach counterblade on the right inactive
-  = Moving away from counterblade on the right active
-  = Moving away from counterblade on the right inactive
-  = Counterblade right broken cable
-  = Counterblade right short circuit
-  = Approach counterblade on the left active
-  = Approach counterblade on the left inactive
-  = Moving away from counterblade on the left active
-  = Moving away from counterblade on the left inactive
-  = Counterblade left broken cable
-  = Counterblade left short circuit



Adjusting the number of grinding cycles (Factory setting 20)

- You can use the rotary potentiometer to select the desired setting. The entry box is highlighted in colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the desired number.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.



Start/stop grinding operation

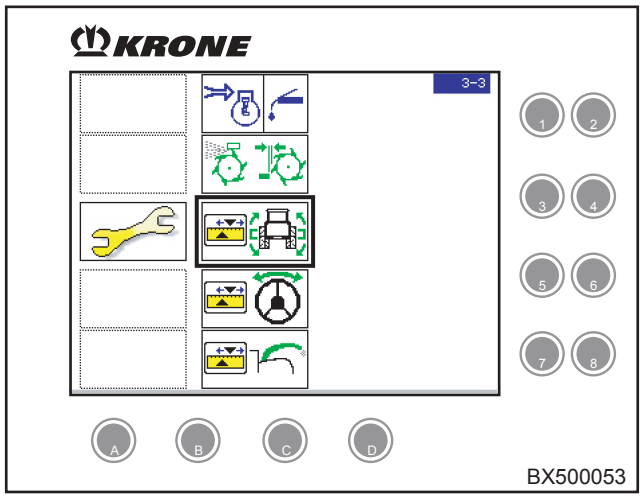
Pressing the 8 key starts or stops grinding operation.

-  = Grinding operation not possible.
-  = Start grinding operation.
-  = Stop grinding operation.
- Pressing the key on the rotary potentiometer takes you one menu level back.
- Pressing the 7 key takes you to a parameter input box for counterblade adjustment.

4.9.3 Menu 3-3 „Calibration of Pendulum Frame and Absolute Lifting Gear Height“

During the calibration, components may move around, in particular the lifting gear and pendulum frame - risk of injury!

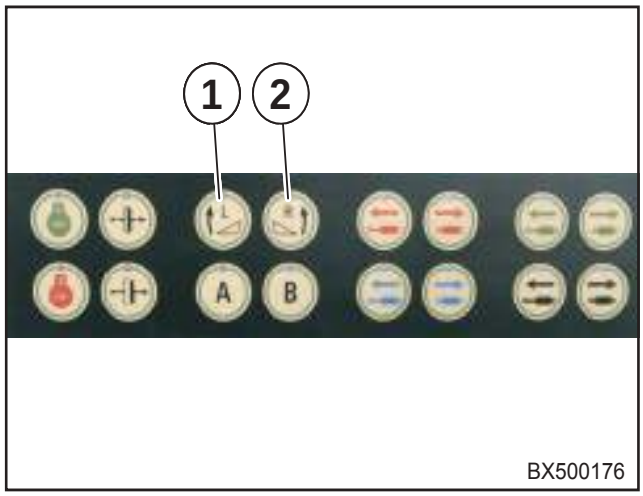
The pendulum frame only needs to be calibrated after work on the pendulum frame or after replacement of the electronic system.
Before calibrating the pendulum frame, adjust the lifting gear (see chapter „Adjusting the lifting gear“)



The main menu „Maintenance“ is active.

- Select menu 3-3 „Calibration of pendulum frame“ with the rotary potentiometer.
- Press the rotary potentiometer.

The „Calibration of pendulum frame and absolute lifting gear height“ menu appears.



Conditions for release not met

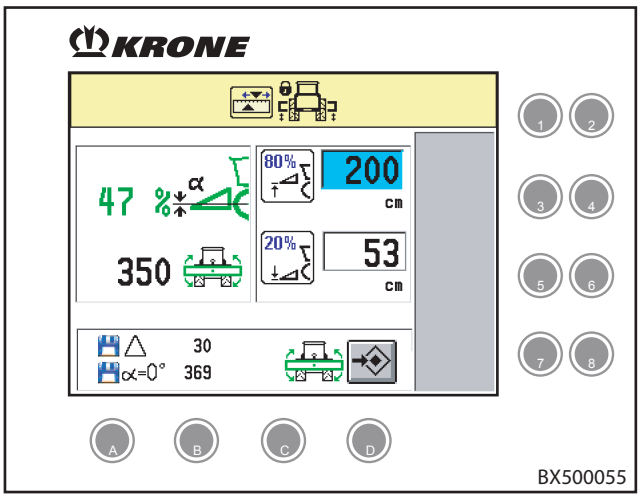
- = Release switch – road/field
- = Seat switch
- = Diesel engine speed
- = Release switch – feed drive/front attachment
- = Maintenance release switch
- = Stop switch for control unit console
- = Stop switch for manual operation

Malfunction

- = CU
- = Joystick
- = KMC2
- = KMC3

Lifting gear

- The current lifting height is indicated as a % with the symbol.
- The currently saved absolute height of the lifting gear at 80 % is indicated by the symbol.
- The currently saved absolute height of the lifting gear at 20 % is indicated by the symbol.



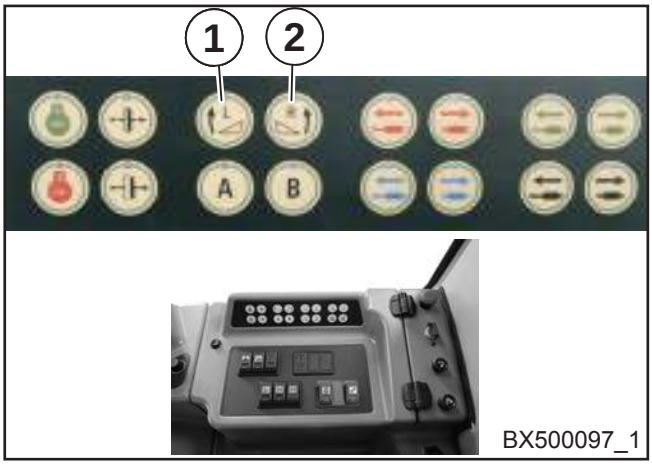
Pendulum frame

- The saved digital value for maximum deviation is indicated by the symbol ; the digital value for the pendulum frame by the symbol .
  The digital value for the pendulum frame is updated during the calibration process.
- The current value of the sensor is indicated as a digital value with the symbol for pendulum frame.

Calibration process for the pendulum frame

Prerequisites

- Field mode release switch turned on.
- Front attachment unit connected.
- The front attachment (with the maize header folded out) must be standing on the ground with a solid subsurface
- Lower the lifting gear until the front attachment comes to rest on the ground.
- If the front attachment is not horizontal to the machine, align the pendulum frame exactly with the pendulum frame left (1) or pendulum frame right (2) keys.
- To start calibration, activate the D key under softkey = „Apply setpoint value“. The display on the softkey switches to = „Calibration process running“ and = „Calibration process successfully completed“.



The saved digital value for the pendulum frame is updated.

Calibration process for absolute lifting gear height

Calibration of the absolute lifting gear height is required so that the lifting gear height can be specified in absolute terms in the Info Centre.
The calibration values are stored separately for grass pick-up and maize header.

Prerequisites

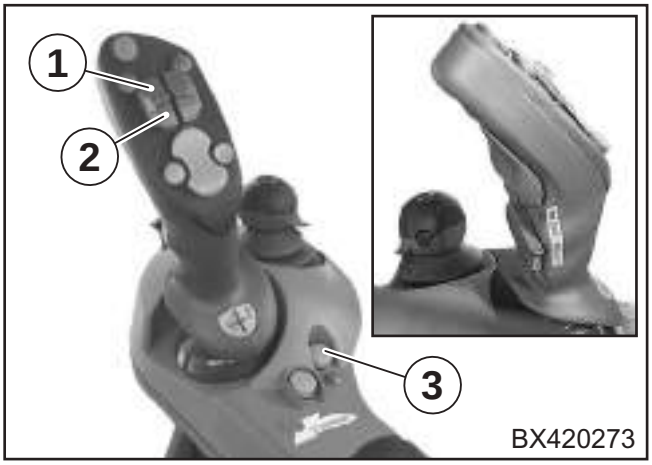
- Lifting gear adjusted (see chapter „Adjusting the lifting gear“).
- Field mode release switch off.
- Travelling gear release switch off.
- Front attachment unit connected.

- Adjust the connected front attachment to match grass pick-up or maize header mode as appropriate.

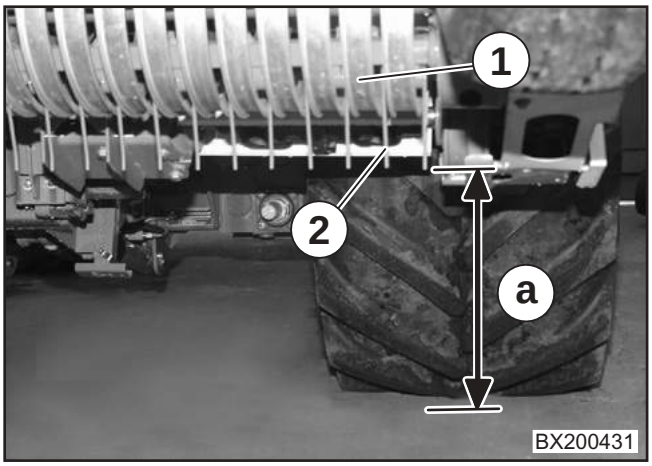
- The front attachment (with the maize header folded out) must be standing on the ground with a solid subsurface and are aligned horizontally.

Calibrate the upper lifting gear height

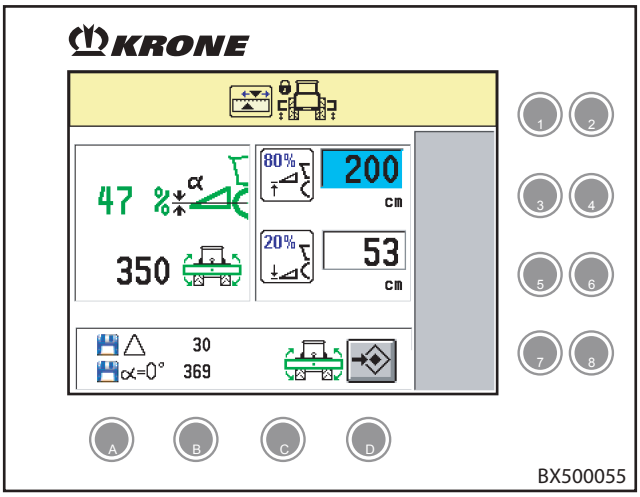
- Press the raise lifting gear key (2) and the save button for the lifting gear adjustment process (3) at the same time until the display of the current lifting height is 80 % with icon .



- For pick-up (1), measure the distance „a“ between the ground and the lowest point under spring tine (2).
  For the maize header, measure the distance between the ground and the cutter blade.



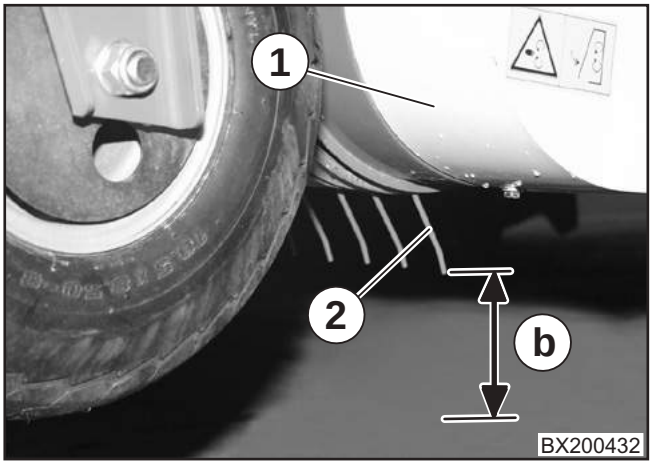
- With the rotary potentiometer, select the setting „Save the absolute height of lifting gear at 80 %“. The input field is highlighted in the colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the measured distance „a“.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.



To calibrate the lower lifting gear height

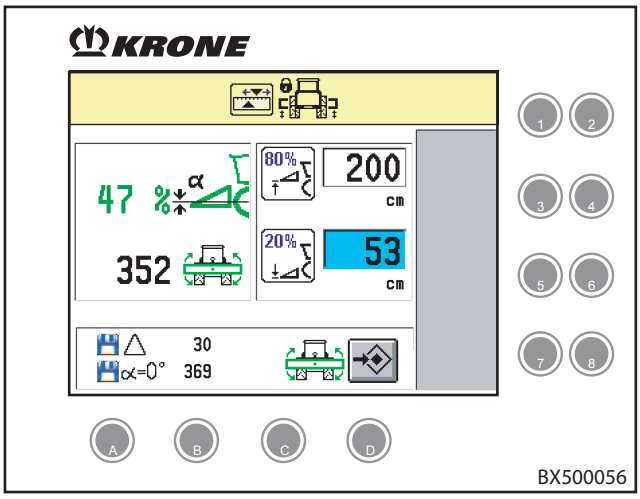
- Press the key to lower (1) or raise (2) the lifting gear until the current lifting height displayed with the symbol in the sixth field is 20 %.

- For pick-up (1), measure the distance „b“ between the ground and the lowest point under spring tine (2).
  For the maize header, measure the distance between the ground and the cutter blade.



- With the rotary potentiometer, select the setting „Save the absolute height of lifting gear at 20 %“. The input field is highlighted in the colour.
- Pressing the rotary potentiometer allows you to jump to the input field.
- You can use the rotary potentiometer to adjust the measured distance „b“.
- Pressing the rotary potentiometer causes the setting to be applied and returns you from the selection field.

The calibration process for „absolute lifting gear height“ is complete.

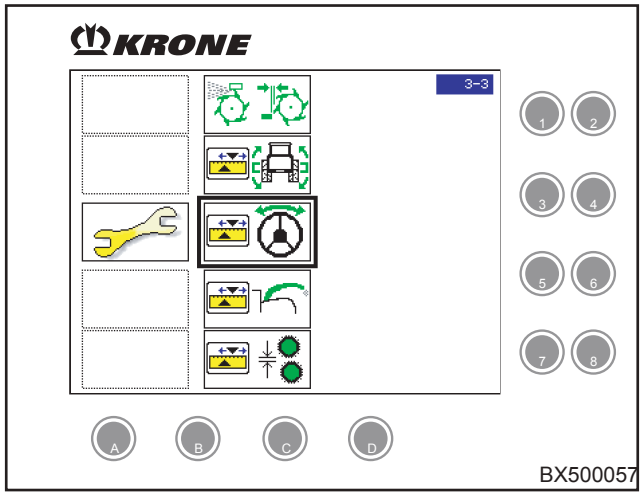


- Pressing the key on the rotary potentiometer takes you one menu level back.

4.9.4 Menu 3-4 „Calibration of Autopilot“

- **There is danger of injury during calibration due to the spontaneous movements of mechanical parts (for example the steering axle). No persons may remain in the danger zone of the machine.**
- **Work steps apply to Autopilot with software version 150 200 029-08.**

Before using autopilot for the first time, the autopilot must be calibrated to ensure problem-free operation.



BX500057

Pre-requisite:
- EASYCOLLECT maize header with row tracer attached.
- The main menu "Maintenance" is called.

When the autopilot is calibrated, the work steps must be performed in the specified order.

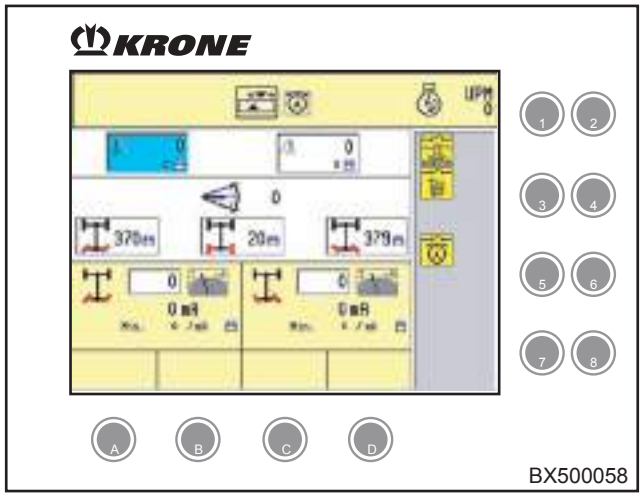
Work steps:

1. **Start the diesel engine and set the release switch to ON.**
   Start the diesel engine and turn on release switches <Field>, <Travelling gear>, and <Autopilot>.

If one of these conditions is not fulfilled, the right side of the screen will display a corresponding message. Release conditions are highlighted in yellow; errors are highlighted in red.

Conditions for release not met

- = Release switch – road/field
- = Travelling gear release switch
- = Seat switch
- = Release switch autopilot
- = Maintenance release switch
- = Stop switch for control unit console
- = Stop switch for manual operation

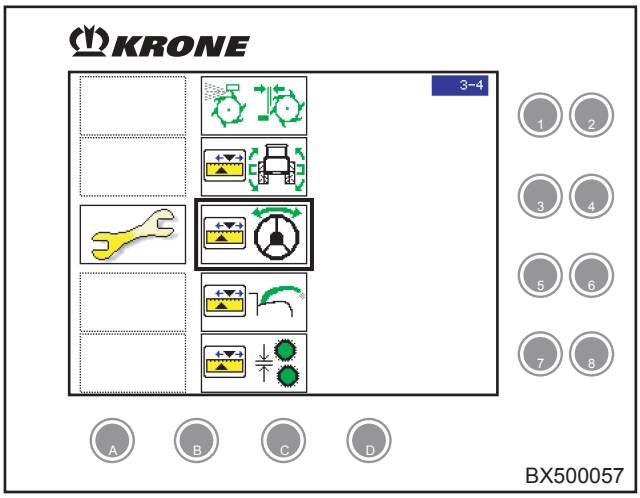


BX500058

Malfunction

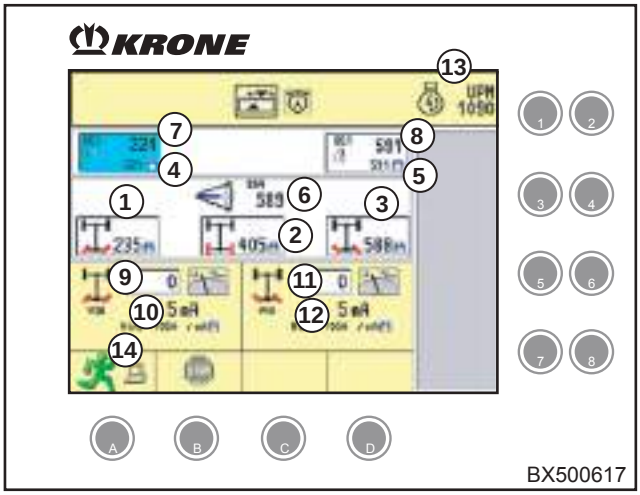
- = CU
- = Joystick
- = Autopilot
- = KMC3

2. Calling up the calibration screen on the terminal

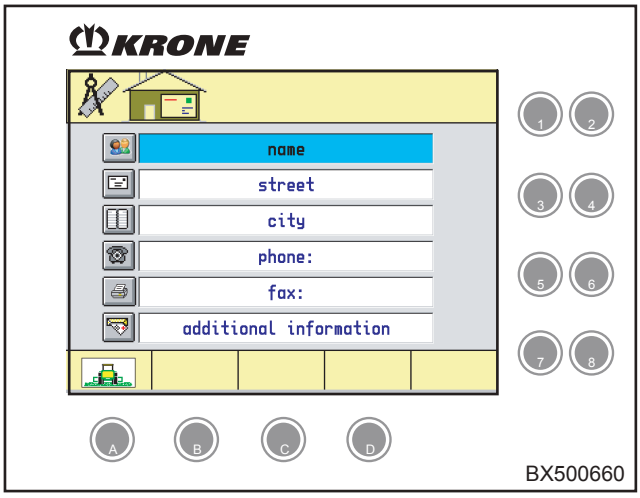


It is displayed the picture "Calibration of Autopilot"

- **Picture BX500617 display with outside tip**



- **Picture BX500660 Display with centre tip**



Pos.	Meaning
1	Saved value, maximum steering angle, left
2	Saved value, straight-ahead driving
3	Saved value, maximum steering angle, right
4	Saved value, minimum row tracer, left
5	Saved value, minimum row tracer, right
6	Actual value, steering angle sensor
7	Actual value, row tracer, left
8	Actual value, row tracer, right
9	Setpoint value, voltage/pulse duty factor at a steering angle of 0.01%, left
10	Saved value, minimum current steering angle, left
11	Setpoint value, voltage/pulse duty factor at a steering angle of 0.01%, right
12	Saved value, minimum current steering angle, right
13	Actual value, engine speed
14	Automatically calibration the minimum current from the valve steering left / right