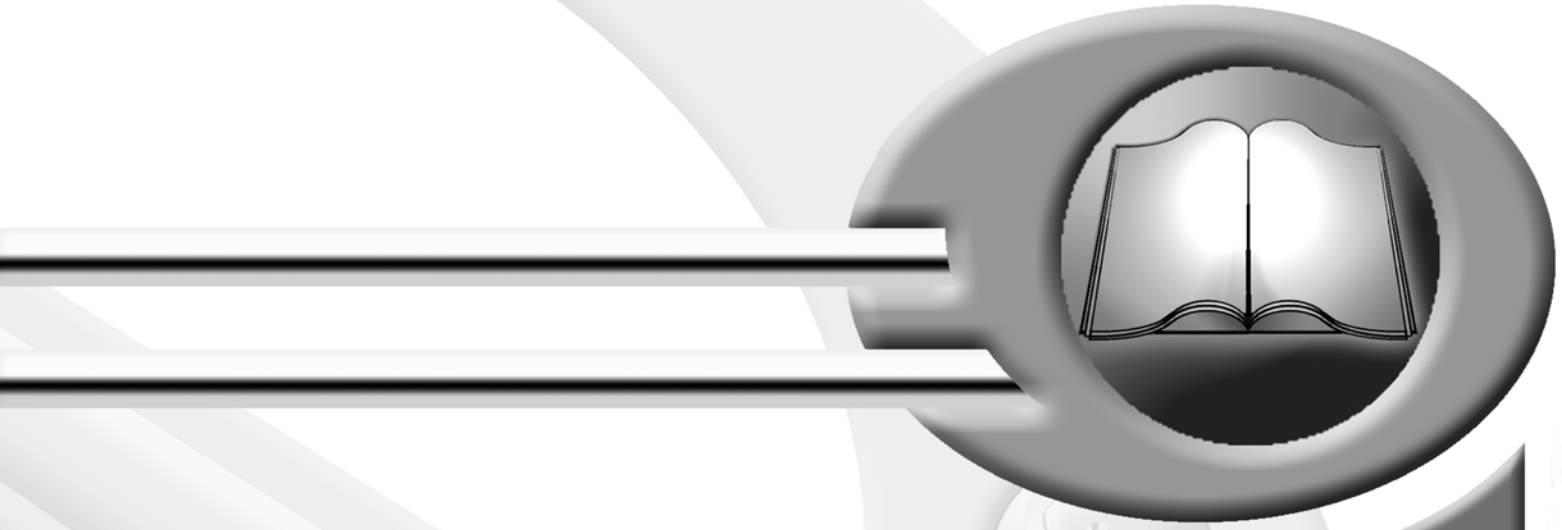
OPERATOR'S MANUAL

AN101BGBA

Read carefully before starting the machine



Mixer feeder wagon

PROFILE . 2DS

AN101BGB A

D4600 > E4681

KUHN

Original instructions

AN101BGBA

- English - 10-2018

1. Dear Owner

In buying a Kuhn machine you have chosen wisely. Into it have gone years of thought, research and improvement. You will find, as have thousands of owners all over the world, that you have the best that engineering skill and actual field testing can produce. You have purchased a dependable machine, but only through proper care and operation can you expect to receive the performance and long service built into it.

This manual contains all the necessary information for you to receive full efficiency from your machine. The performance you get from this machine is largely dependent on how well you read and understand this manual and apply this knowledge. Please DO NOT ASSUME YOU KNOW HOW TO OPERATE AND MAINTAIN YOUR MACHINE before reading this manual carefully. KEEP THIS MANUAL AVAILABLE FOR REFERENCE. Pass it on to the next owner if you re-sell the machine.

Your KUHN dealer can offer a complete line of genuine KUHN service parts. These parts are manufactured and carefully inspected in the same factory that builds the machine to assure high quality and accurate fitting of any necessary replacements.

About improvements

We are continually striving to improve our products. We therefore reserve the right to make improvements or changes when it becomes practical to do so, without incurring any obligations to make changes or additions to the equipment sold previously.

Wear parts

Wearing parts fitted on our machines have been tested in very different situations to optimize their service life. Nevertheless, the service life depends highly on the conditions of use (products to handle, soil, weather conditions, etc...).

Document illustrations

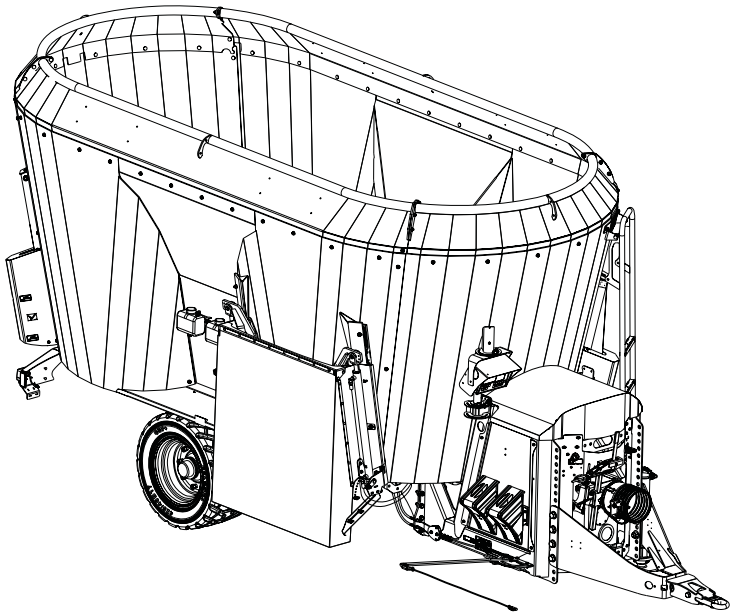
The illustrations in this manual are based on one machine model and in a given configuration. However, all instructions apply to all machines covered in this manual.

2. Contents

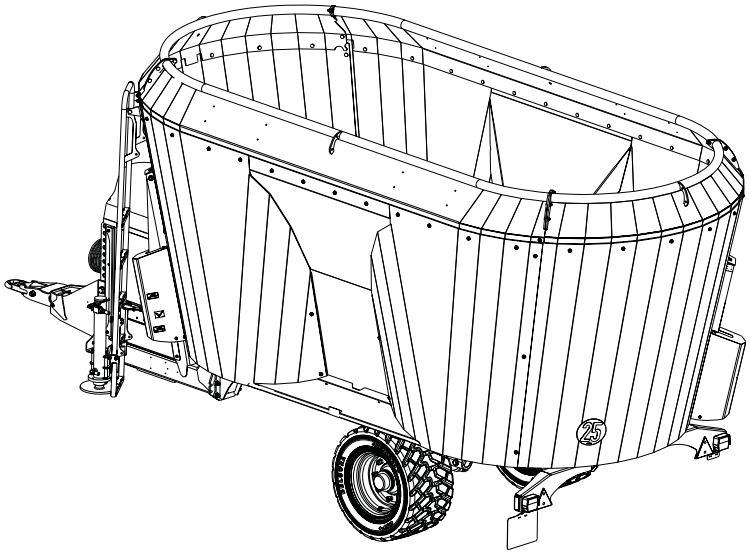
3. Identification of the machine

3.1 Machine with front doors

- **Front view**

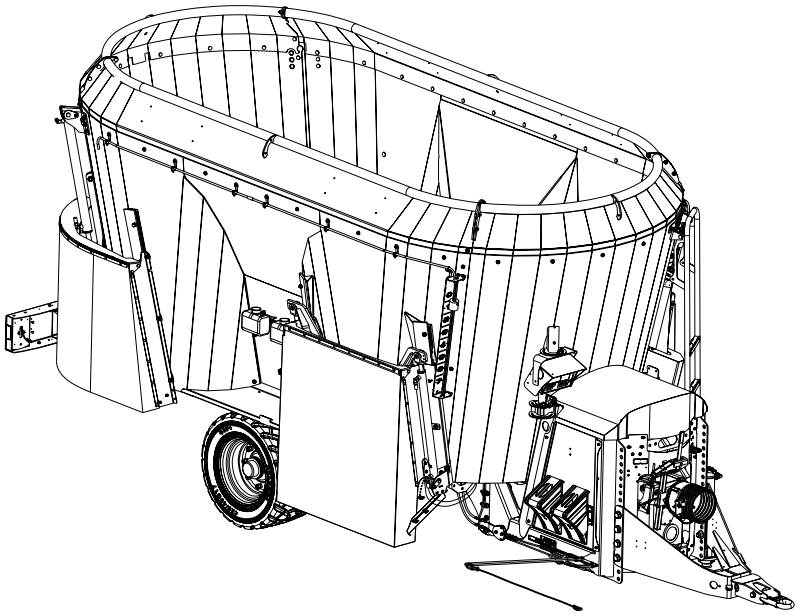


- **Rear view**

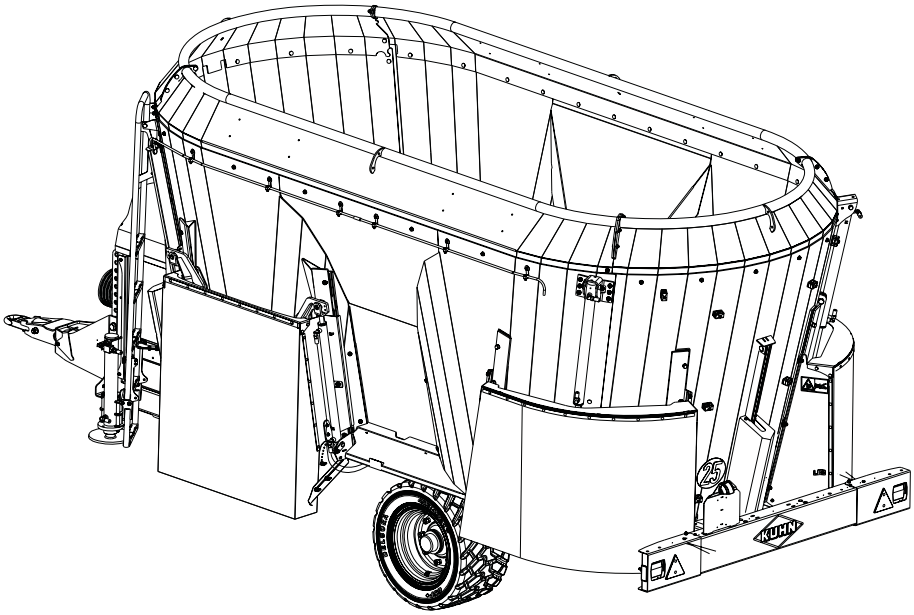


3.2 Machine with rear doors

- **Front view**

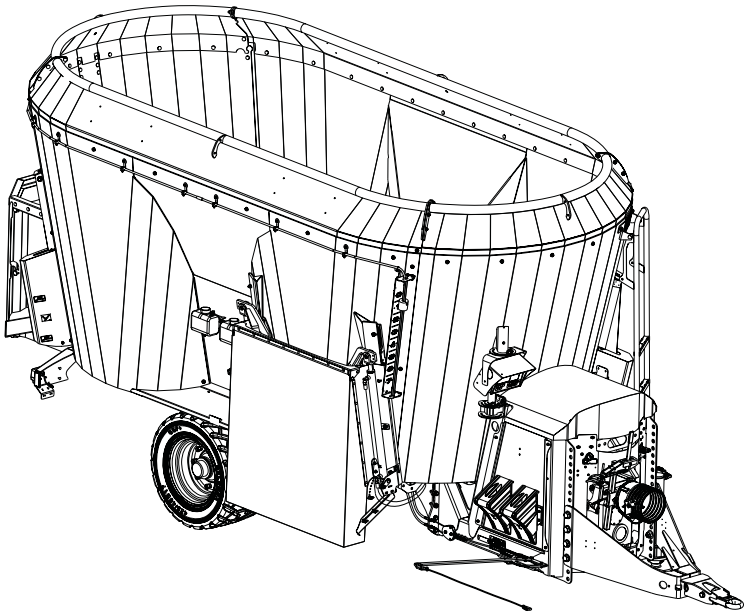


- **Rear view**

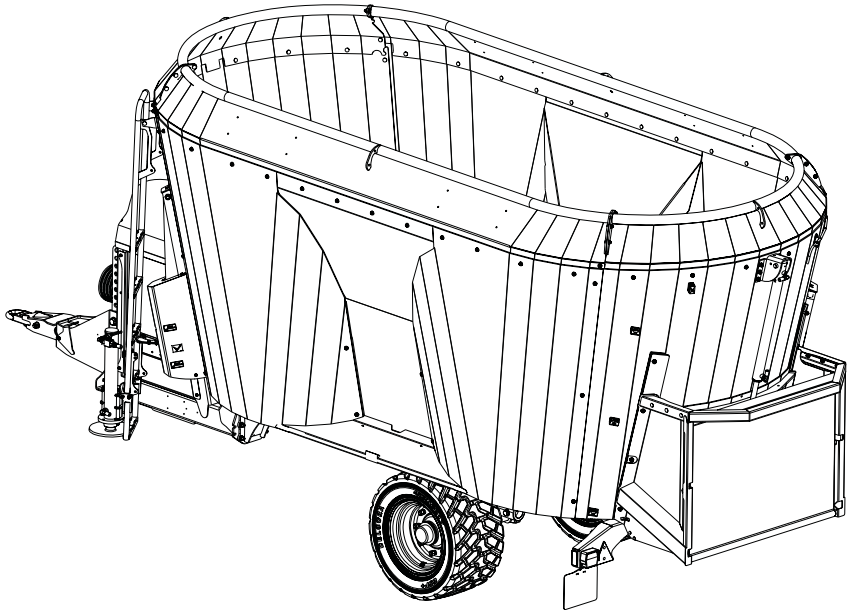


3.3 Machine with rear center door

- **Front view**



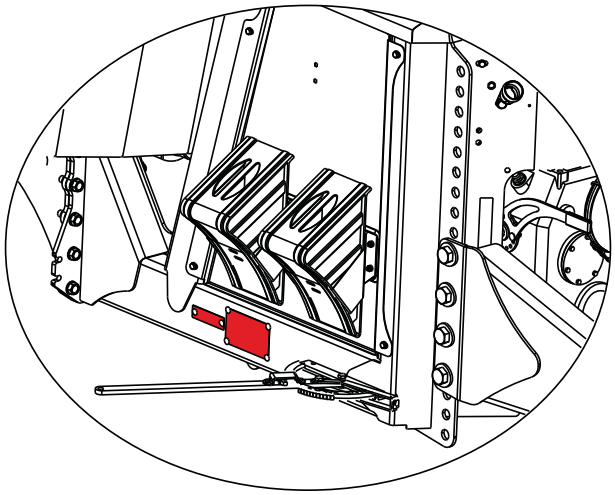
- **Rear view**

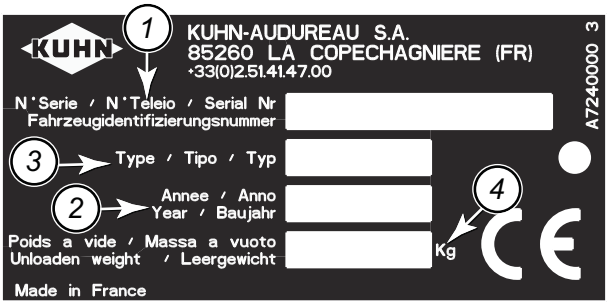


3.4 Model identification plate

Please write below the type and serial number of the machine. This information is to be given to the Kuhn authorized dealer for any spare parts order or warranty claim.

The model identification plate is located on the machine right side.



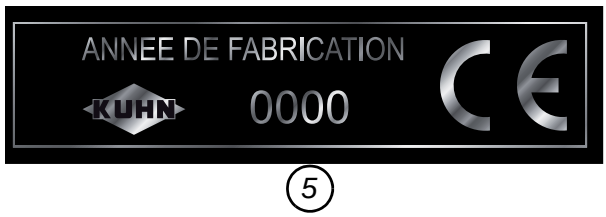


- (1) Serial Number:
- (2) Manufacturing year:
- (3) Type:
- (4) Weight:

■ **According to the country of destination, additional plates can be fitted on the machine.**

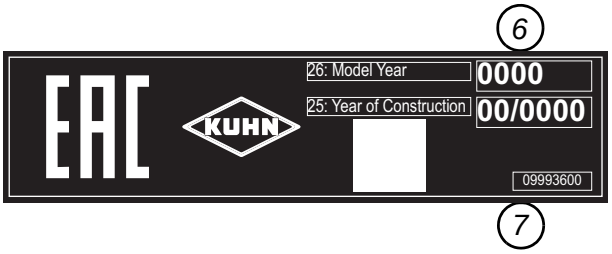
For machines aimed at countries which are members of the European Union (EC marking):

- (5) Manufacturing year:



For machines aimed at countries member of the Eurasian customs union (EAC marking):

- (6) Model year:
- (7) Manufacturing year:



3.5 Optional equipment

Tick box corresponding to the equipment fitted on your machine:

- ❑ Hydraulic support plates
- ❑ Tilting conveyor 0.80 m (2’7’’)
- ❑ Tilting conveyor 1.10 m (3’7’’)
- ❑ Anti-overflow ring (1470)
- ❑ Flow divider
- ❑ 2V air brakes (Germany)
- ❑ Braking 6 km/h (Germany)
- ❑ Programmable weighing unit KDW 341
- ❑ Raising wedges15 m^3 (530 cu.ft) ;16 m^3 (565 cu.ft) ; 18 m^3 (635 cu.ft) ; 20 m^3 (706 cu.ft)
- ❑ Without weighing unit
- ❑ Without lighting
- ❑ Without braking
- ❑ Hydraulic stand for uncoupled machine with/without optional weighing unit
- ❑ Two-speed gearbox
- ❑ Tungsten carbide tipped knife
- ❑ Double wide angle (constant velocity) PTO shaft
- ❑ Magnet on mixing screw
- ❑ Twin wheels 215/75 R17,5

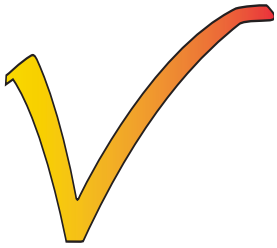
4. Safety

4.1 Description of symbols used in this document

This symbol indicates a potentially hazardous situation that if not avoided, could result in serious bodily injury.

This symbol is used to identify special instructions or procedures which, if not followed strictly, could result in machinery damage.

This symbol is used to communicate technical information of particular interest.



4.2 Safety instructions

Introduction

The machine must only be operated, maintained and repaired by competent persons who are familiar with machines' specifications and operation and aware of safety regulations for preventing accidents.

The operator must imperatively respect safety instructions in this manual and in the warnings posted on the machine. The operator is also obliged to respect current legislation concerning accident prevention, work safety and public traffic circulation.

Designated use of the machine also means following operation, maintenance and repair recommendations given by the manufacturer, and using only genuine spare parts, equipment and accessories, as recommended by the manufacturer.

The manufacturer is not held liable for any damage resulting from machine applications other than those specified by the manufacturer. Any use other than the designated operation is at the risk and responsibility of the operator.

The manufacturer is not held liable for any damage or accident resulting from machine modifications carried out by the operator himself or by a third party without previous written agreement from the manufacturer.

Read and follow the safety instructions

Before using the machine, carefully read all the safety instructions in this manual and the warnings placed on the machine.

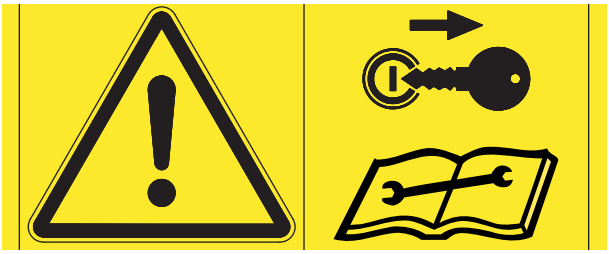
Before starting work, the operator must be familiar with all machine controls, handling devices and their functions. It is too late to learn once work has been started!

Never let anyone operate the machine who is not trained to do so.

Should you have any difficulties in understanding any parts of this manual, please contact your KUHN dealer.

Precautions to be taken before carrying out any operations on the machine

Before leaving the tractor or before adjusting, maintaining or repairing the machine, disengage the PTO drive, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop and apply park brake.



Precautions to take before using the machine

Do not wear loose clothing which could become caught up in moving parts.

Wear the appropriate protective clothing for the work in hand (gloves, shoes, goggles, helmet, ear defenders, etc.).

Ensure that all operating controls (ropes, cables, rods, etc) are placed so as they cannot be operated unintentionally and cause damage or injury.

Before operating the machine, check tightness of nuts and bolts, particularly on fixing elements (tines, forks, blades, knives, etc). Retighten if necessary.

Before operating the machine, ensure that all the safety guards are firmly in place and in good condition. Immediately replace any worn or damaged guard.

Precautions when driving

Tractor handling, stability, performance and braking efficiency are all affected by weight distribution, trailed or mounted implements, additional ballast and driving conditions. It is therefore of great importance that the operator exercises caution in every given situation.

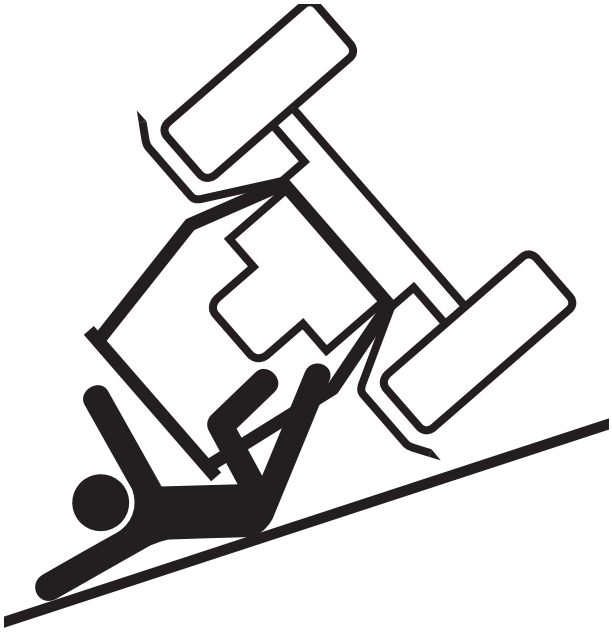
Groundspeed must be adapted to ground conditions as well as to roads and paths. Always avoid abrupt changes of direction.

Be particularly cautious when turning corners, paying attention to machine overhang, length, height and weight.

Never use a narrow track tractor on very uneven or steeply sloping ground.

Never leave the tractor seat while the machine is operating.

Carrying people or animals on the machine when working or in transport is strictly forbidden.



■ Precautions when driving on public roads

Dimensions

Depending on the dimensions of the machine, contact the relevant authorities to ensure that it can be legally transported on public roads.

If the machine is over the maximum legal size, follow the local regulations for special transportation of oversize equipment.

Gross weight and weight per axle

Check that the tractor's authorized gross weight as well as its lift capacity and maximum weight per axle are not exceeded.

If necessary, add ballast weights to the front or to the rear to preserve the steering and braking efficiency.

The front axle load (1) must never, under any circumstances, be less than 20% of the tractor's unladen weight.

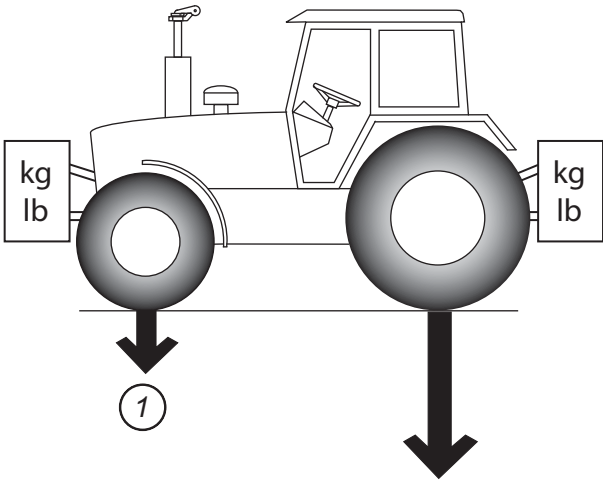
Transport position

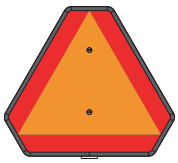
Before transporting the machine on public roads, place the machine into its transport position, according to the instructions in this manual.

Lights and indicators

Before transporting the machine on public roads, ensure that all legally required lightings and signallings are in place.

Ensure that lightings and signallings are clean and in good working order. Replace any missing or broken equipment.





Always obey current regulations for driving on roads

■ Maximum speed

Always keep to the legal speed limit for driving a tractor-machine assembly on public roads.

Precautions when coupling

Before attaching the machine, make sure that it cannot accidentally start moving (chock the wheels) and that the parking stand is in the right position.

The machine must only be attached to the hitch points provided for this purpose.

Never stand between the tractor and the machine when operating the three point linkage.

Do not stand between the machine and the tractor or on the machine without having first applied the tractor parking brake and placed the gearbox in the neutral position.

Hydraulic circuit

Caution! The hydraulic circuit is under high pressure. Maximum pressure at work: 215 bar (3118.4 psi).

Before connecting hoses to the tractor hydraulics, ensure that tractor and machine circuits are not under pressure. Before disconnecting a hose, depressurize the hydraulic circuit.

To avoid making incorrect connections, mark hydraulic couplers and corresponding hoses with colors. WARNING! Functions could be reversed (for example: lift/lower) and cause accidents.

Regularly make visual inspection to check if hydraulic hoses are damaged or worn. In case of normal wear, the hydraulic hoses must be replaced every 5 years. Damaged or worn hoses must immediately be replaced. When replacing the hydraulic hoses, only use hoses with the specification recommended by the manufacturer of the machine.

To locate a leak, use appropriate means. Protect body and hands from liquid under pressure.

Any liquid under pressure (particularly oil from hydraulics) can penetrate the skin and cause severe injury. If injured, see a doctor immediately, there could be danger of infection.

Before any adjustments, maintenance or repairs are carried out, lower the machine to the ground, depressurize the hydraulics, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop.

PTO shaft

Use only PTO shafts supplied with the machine or recommended by the machine manufacturer.

The protective shield of the tractor PTO stub, the PTO shaft guards and the protective shield of the machine input shaft must always be in place and in good condition.

Make sure that the PTO shaft guards are secured with the safety chains provided.

Any worn or damaged guards must be replaced immediately. A worn guard or an unprotected PTO shaft can cause a serious or even a lethal accident.

Do not wear loose clothing that could be caught in the rotating PTO shaft.

Before attaching or removing a PTO shaft, or before doing any work on the machine, disengage the PTO drive, turn off the engine, remove ignition key and wait for all moving parts to come to a complete stop.

If the primary PTO shaft is equipped with a torque limiter or a free wheel, these must be fitted on the machine side.

Ensure that the PTO shaft is always correctly fitted and locked into place.

Before connecting the PTO shaft, ensure that the PTO speed (rotational frequency) and direction of rotation are in line with the machine manufacturer's recommendations.

Before engaging the PTO drive, make sure that there are no people or animals near the machine. Never engage the PTO drive when the tractor engine is stopped.

When uncoupling the machine, rest the PTO shaft on the support specially provided, and replace protective shield on the PTO stub of the tractor.

Read and follow the instructions in the operator's manual provided with the PTO shaft.

Precautions during manoeuvres

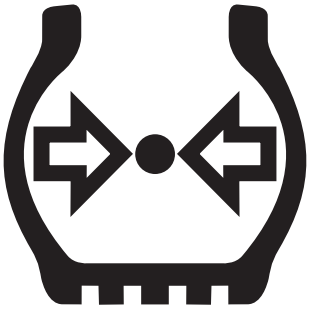
When moving the machine from the transport position to the working position and vice versa, make sure that nobody is within the machine pivoting area.

Remote controlled components

Danger of crushing and shearing can exist when components are operated by hydraulic or pneumatic controls. Keep away from these danger zones.

Tyres

Regularly check the tyre pressure.Respect manufacturers' recommendations on pressure. Assembly, disassembly and repair of wheels and tyres must only be carried out by competent persons who are equipped with standardized tools. Before any work is performed on the wheels, ensure that the machine rests on the ground and is perfectly stable so that it cannot move accidentally (put chocks in place).

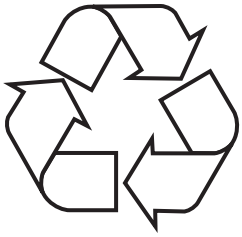


Safety decals

Safety warning decals are placed in pictorial form on various parts of the machine. They are there to warn you of potential dangers and to tell you how to avoid accidents.

Always keep the safety decals clean and readable, and replace them when they are worn, damaged, missing or illegible.

Waste disposal



Respect the environment! Never spill pollutants (oil, grease, filters, etc.) on the ground, never pour them down the drain and never discard them in any other place where they could pollute the environment. Never throw away or burn a tyre. Always take waste to specialized recycling or waste disposal centers.

Precautions for maintenance and repair work

Before leaving the tractor or before adjusting, maintaining or repairing the machine, disengage the PTO drive, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop and apply park brake.

Rest the machine on the ground, release the pressure from the hydraulic circuit and leave the machine to cool down.

Make sure that the parts of the machine that need to be lifted for maintenance or repair work are firmly propped up.

Before any work is done on the electric circuit or before any electric welding is carried out on the attached machine, disconnect the machine from the tractor electrical circuit. Also disconnect alternator and battery terminals.

Repairs on elements under pressure or tension (springs, pressure accumulators, etc.) must only be carried out by competent persons with regulation equipment.

Wear the appropriate protective clothing for the work in hand (gloves, shoes, goggles, helmet, ear defenders, etc.).

Do not solder, weld or use a blow torch near fluids under pressure or inflammable products.

For your own safety and for correct machine operation, only use original manufacturer parts.

■ Precautions and prevention of fire risk

Your machine works with highly flammable products.

There is therefore a real risk of fire resulting from:

- Overheating of the power takeoff friction limiter. Please do not use this limiter excessively. If smoke issues from the transmission, stop the machine immediately and leave the limiter to cool outside the buildings.

- Worn bearing. Grease bearings regularly and check their condition.

- Sparks caused by pebbles or metal objects in the straw.

It is highly recommended to have an extinguisher which has been checked and maintained, on your tractor. Recommended types: sprayed water + additive, ABC powder.

It is strictly prohibited to use your machine stationary inside a building.

Precautions to take before using the machine

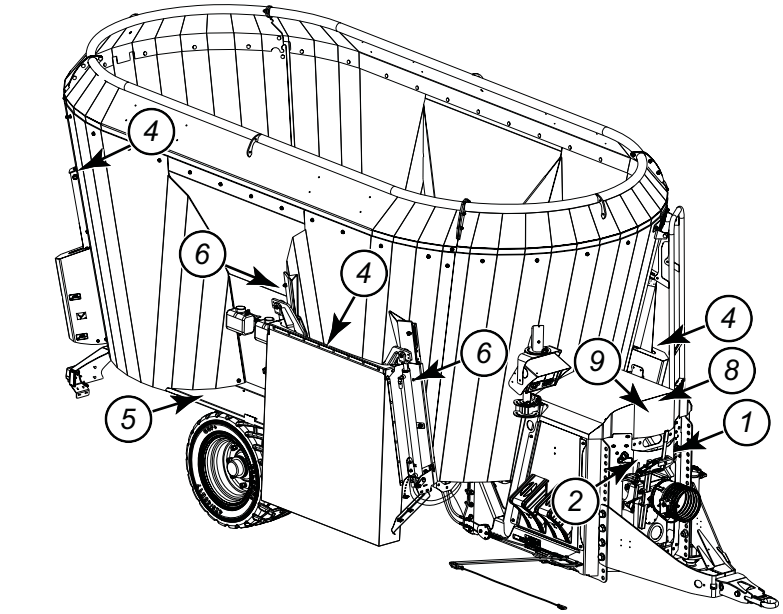
Turn the electrical control box off.
The electrical components that are on for long periods, when the machine is not being used, can cause fire.

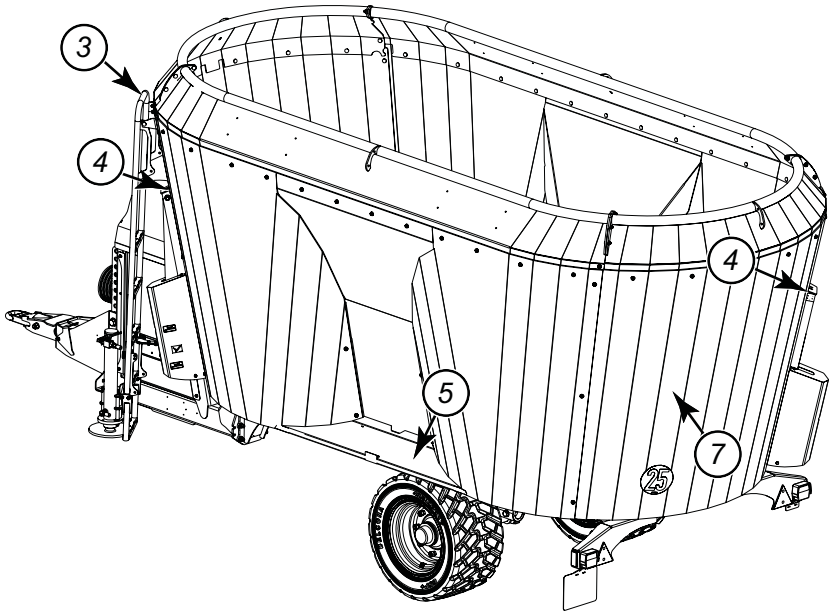
Precautions to take before using the parking stands

134138: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
134139: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
133983: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
133987: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
133988: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

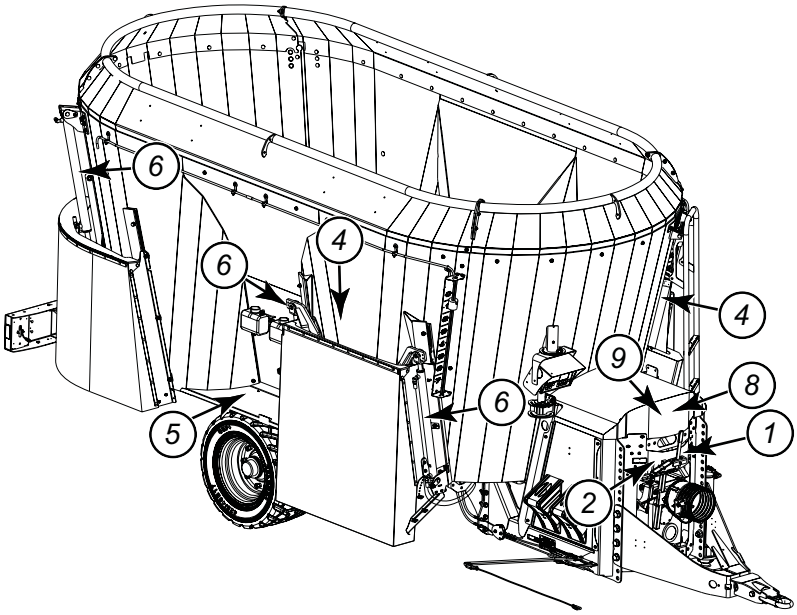
4.3 Location and description of safety decals on the machine

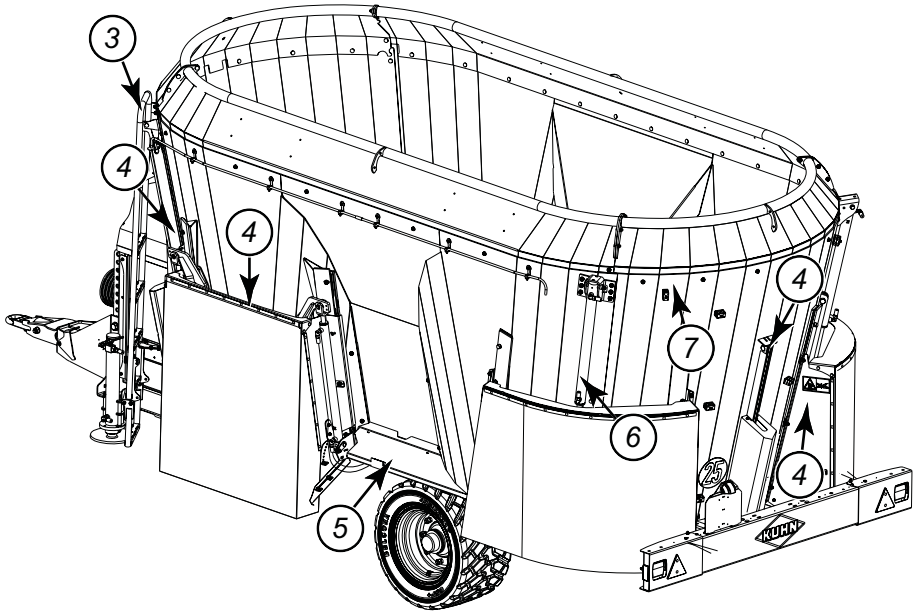
4.3.1 Machine with front doors



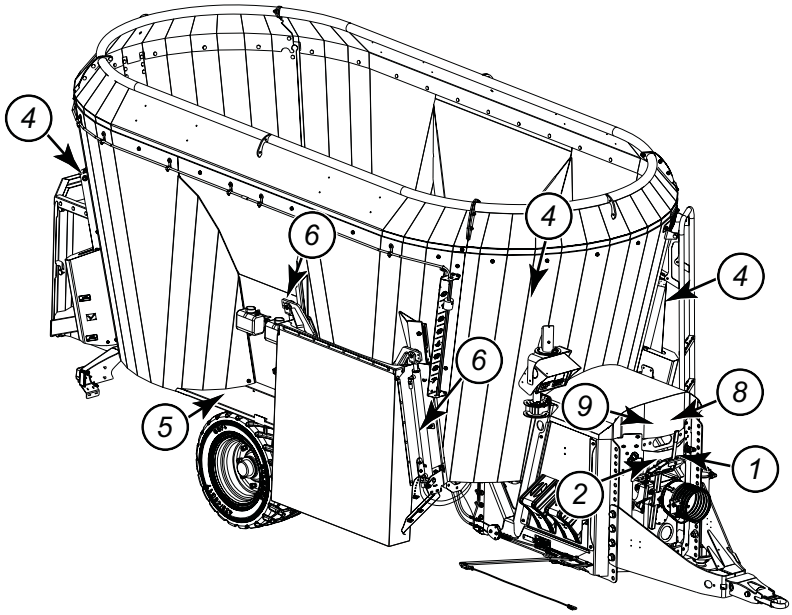


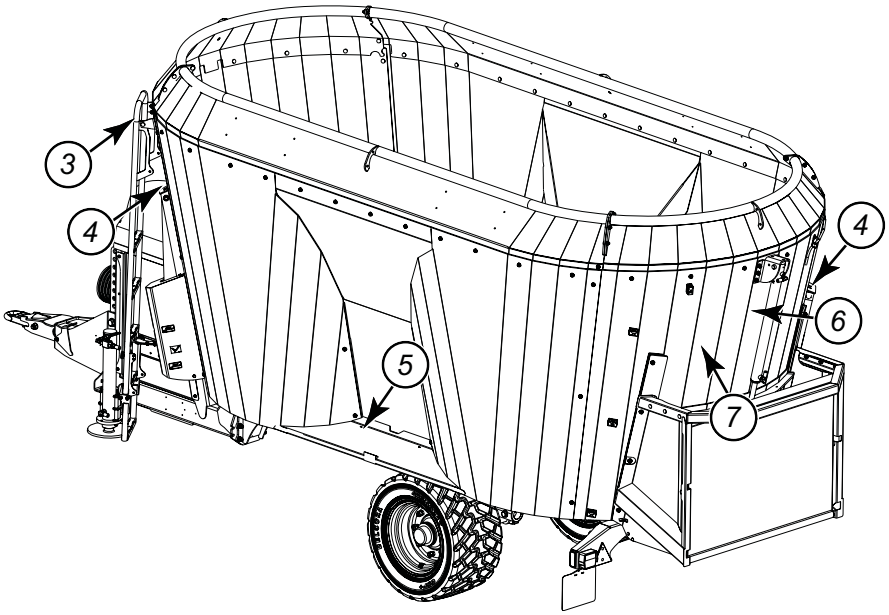
4.3.2 Machine with rear doors





4.3.3 Machine with rear center door





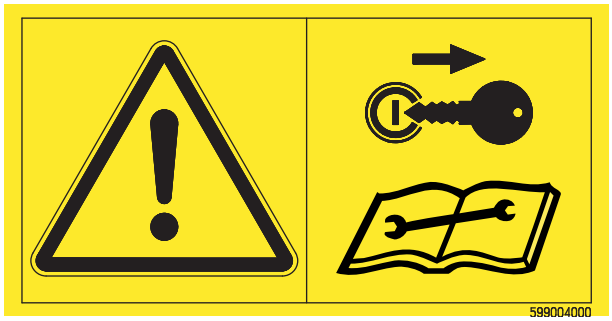
4.3.4 Description of safety decals

Operating instructions (1)

The operators' manual contains all the information necessary for using the machine safely. It is imperative to read and comply with all instructions.

Working on the machine (2)

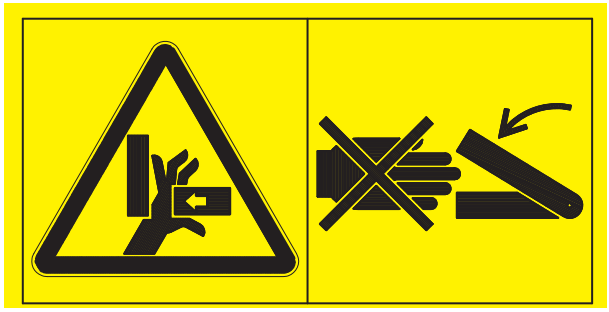
Before leaving the tractor or before adjusting, maintaining or repairing the machine, disengage the PTO drive, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop and apply park brake.



Risk of falling (3)

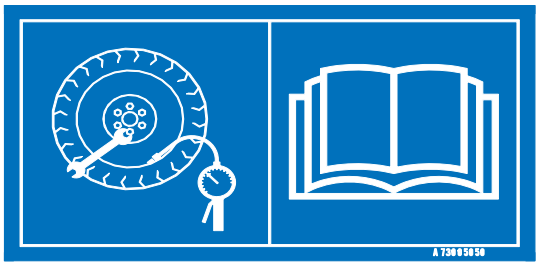
Crushing area (4)

Never operate in an area where there is a crushing risk before all moving parts have come to a complete stop.



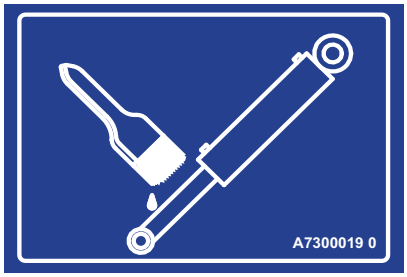
Tire pressure (5)

Check the fixing of the wheels and the tire pressure regularly.



Greasing the cylinder rod (6)

Grease the cylinder rods in contact with the outside.



Speed (7)

Always keep to the legal speed limit of 25 km/h for driving a tractor-machine assembly on public roads.

PTO speed (8)

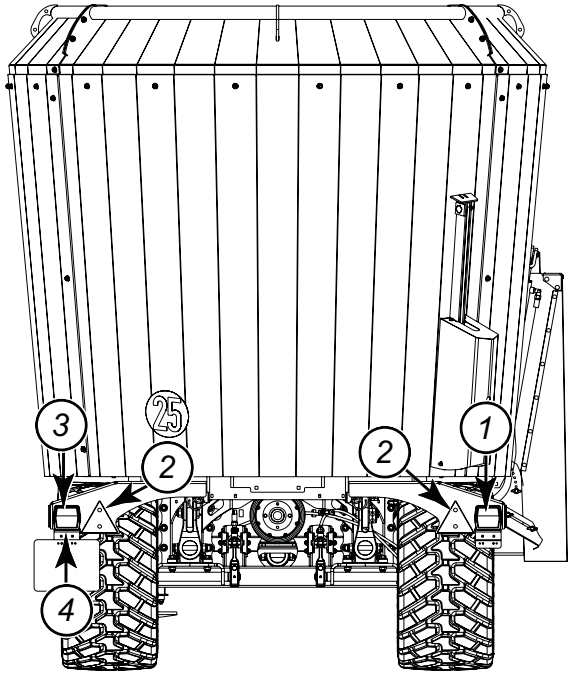
PTO speed: 540 min^{-1}

(9) Driving on public roads forbidden

According to the road legislation in force in the country

It is forbidden to drive with this machine on public roads. See the machine's instruction manual.

4.4 Road safety equipment and recommendations



The road safety equipment is mounted in the factory or by your authorized Kuhn dealer according to current safety regulations. Always keep to the legal speed limit for driving a tractor-machine assembly on public roads. Whatever the speed, we recommend, for everyones' safety, not to exceed a maximum speed of 25 km/h.

4.4.1 Machine with front doors

The rear safety device comprises:

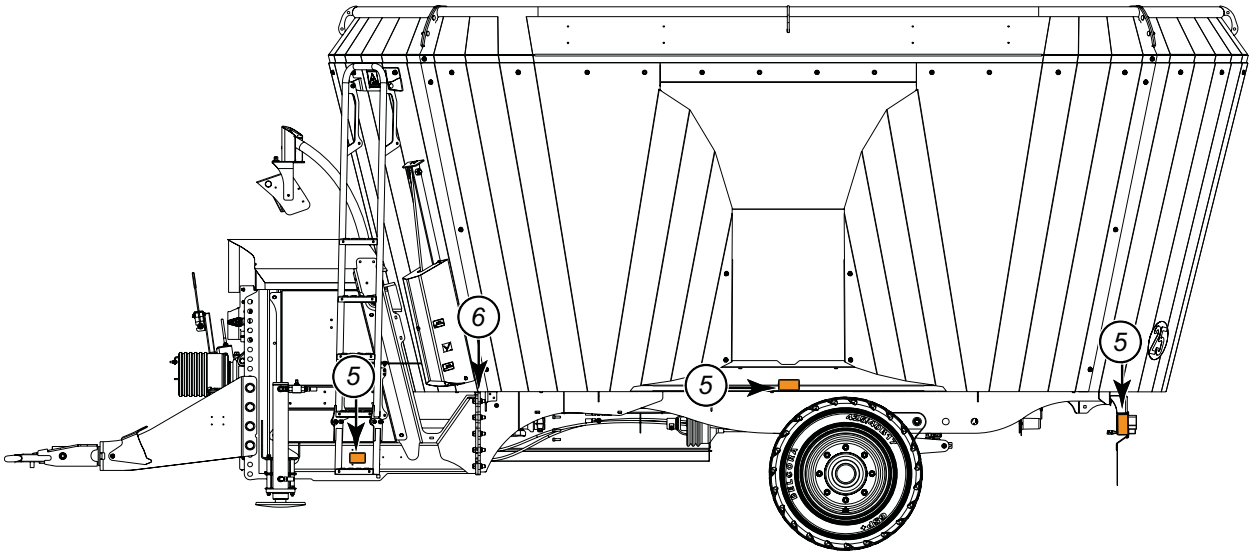
- 1 right rear light (1)
- 2 reflective triangles (2)
- 1 left rear light (3)
- 1 number plate lamp (4)
- 1 pre-mounted wiring harness
- A number plate holder

The side device comprises:

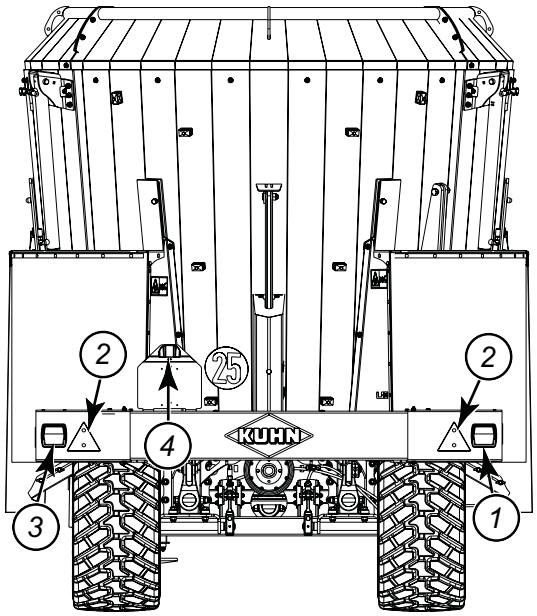
- 6 reflectors, 3 each side (5)

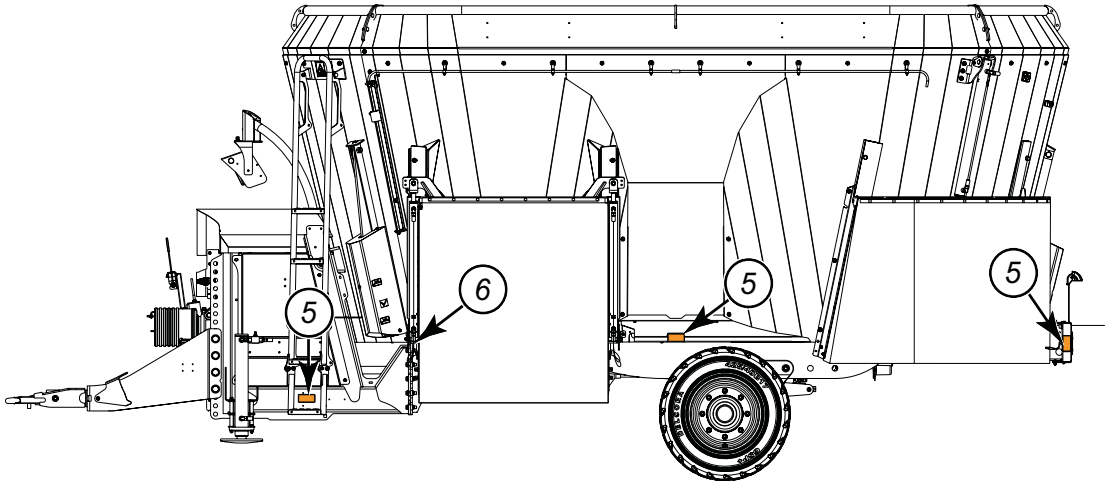
The front safety device comprises:

- 2 white reflectors (6)

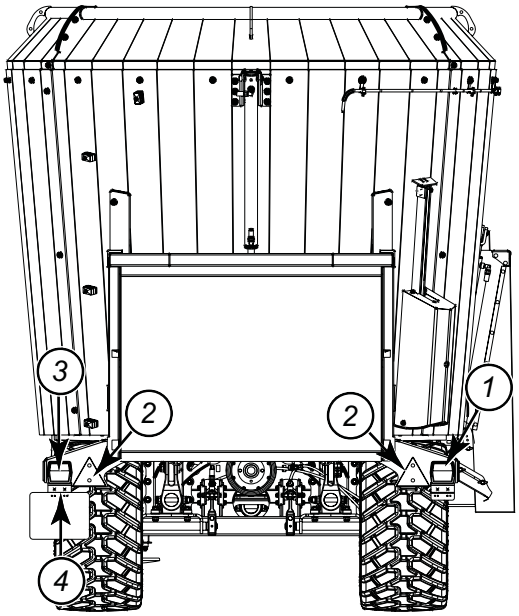


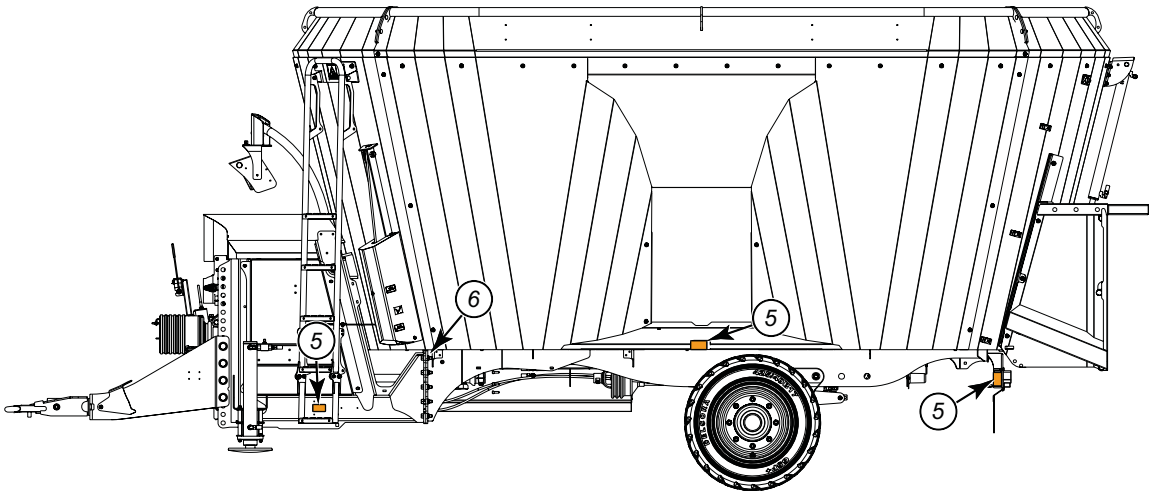
4.4.2 Machine with rear doors





4.4.3 Machine with rear center door





4.5 Likely critical failures

- 133993: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 133994: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 133995: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

4.6 Incorrect use of the machine by the user

133996: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

- 133998: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 133999: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134000: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134001: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 139867: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

134002: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

134003: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

4.7 Limit state criteria

- 134006: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134007: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134008: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134009: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

4.7.1 Specific recommendations for the European Union

The 1 line hydraulic braking device does not meet European approval requirements and may therefore be forbidden for road transport in certain countries European Union.

Before taking the machine on public roads, make sure the machine conforms to local road regulations.

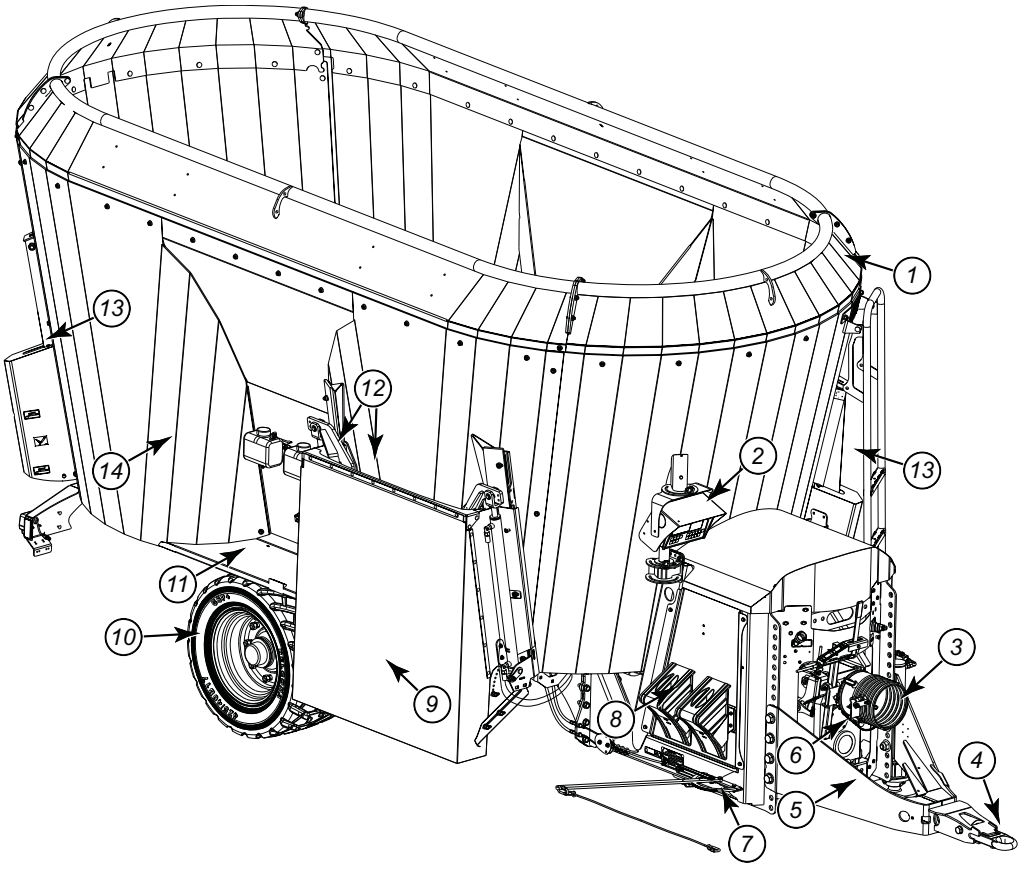
4.7.2 Specific requirements for the Netherlands

It is forbidden to drive on public roads with a 1-line braking system.

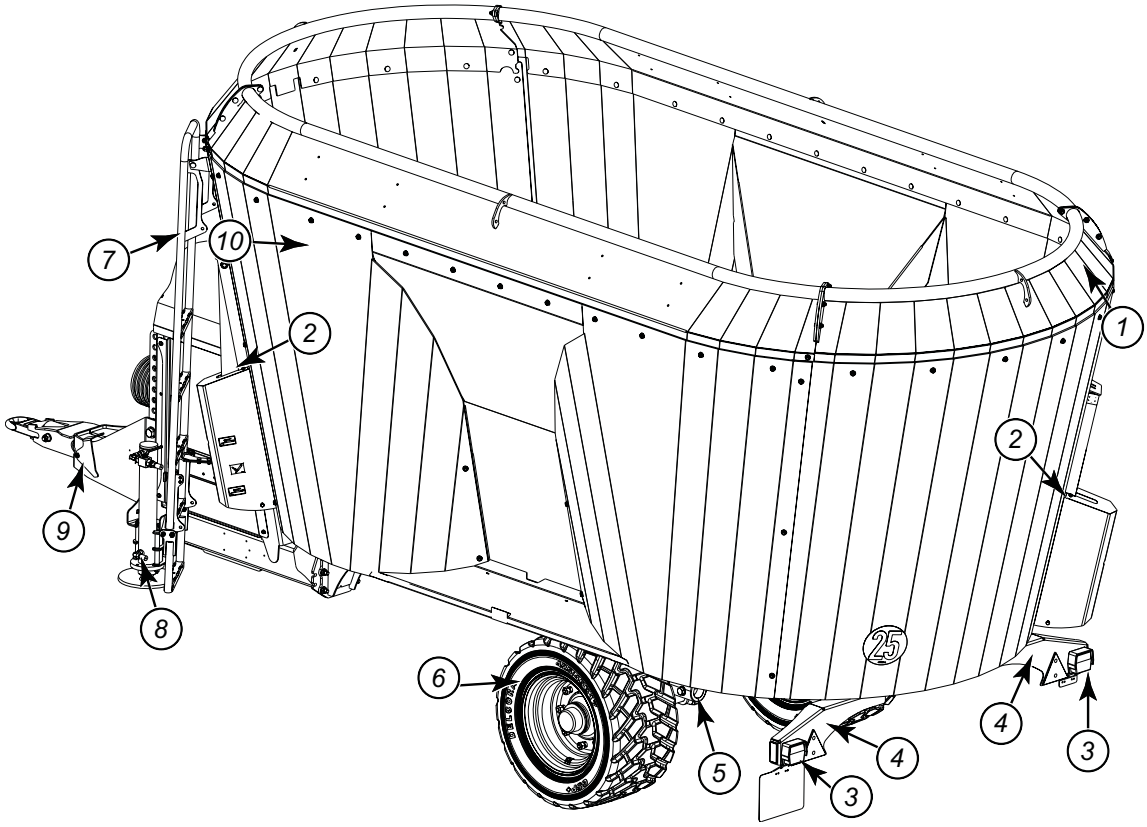
5. Machine specifications

5.1 Description and glossary

5.1.1 Machine with front doors

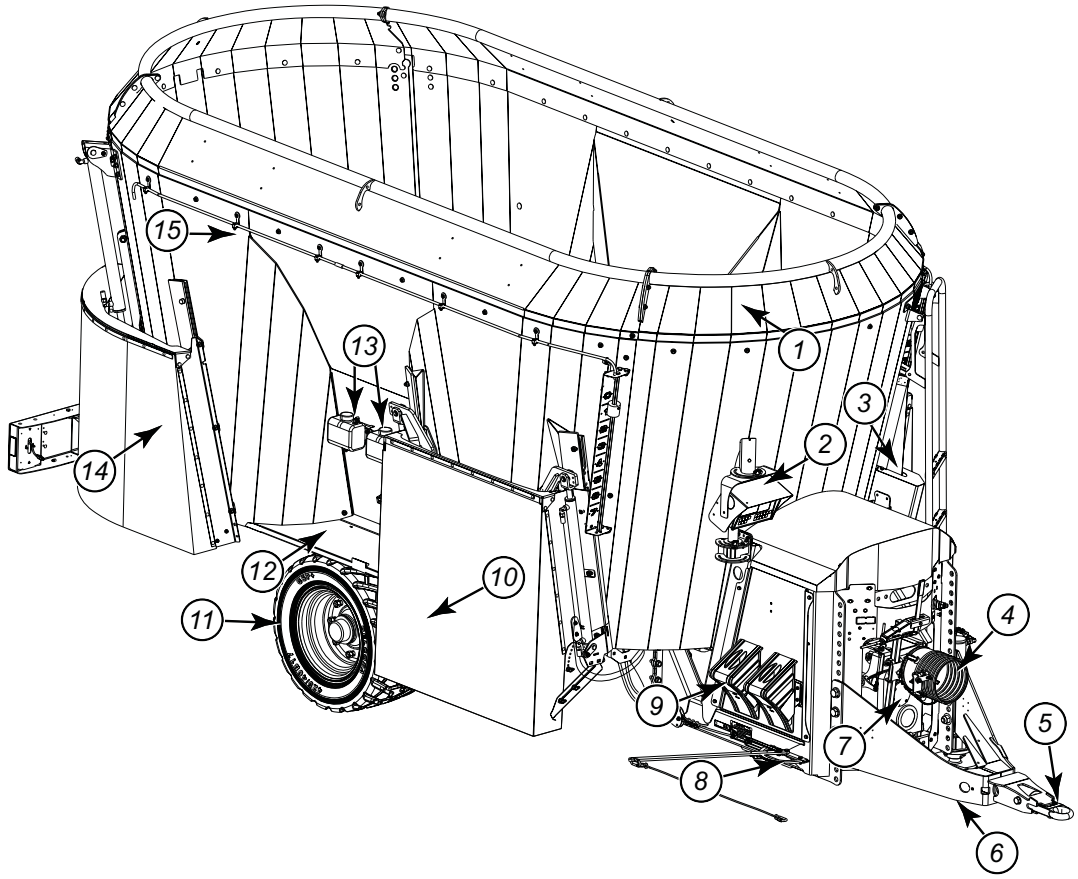


1 :	Extension	2 :	Weighing unit
3 :	Protection cone	4 :	Towing eye
5 :	Drawbar	6 :	Two-speed gearbox (Optional equipment)
7 :	Parking brake	8 :	Wheel chocks
9 :	Front right discharge chute	10 :	Wheel
11 :	Mudguard	12 :	Tank
13 :	Support plate	14 :	Unit shell

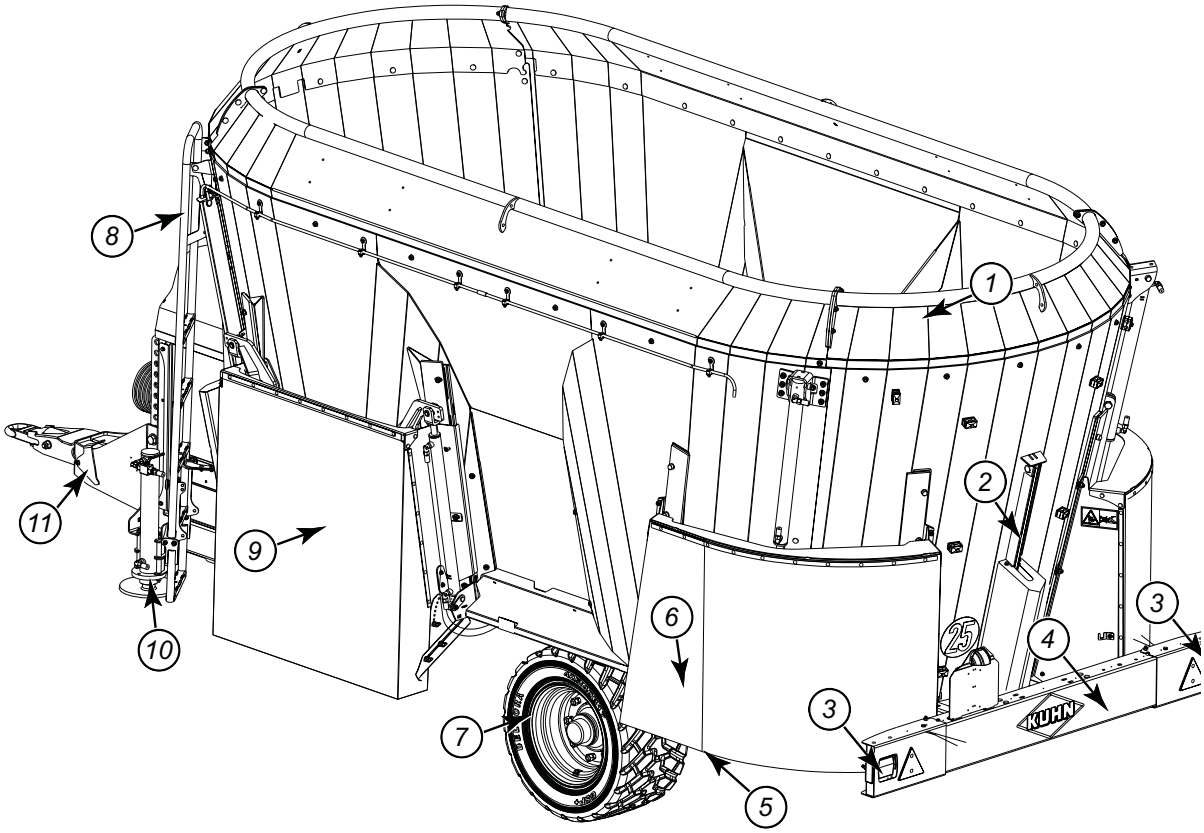


1 : Extension
2 : Support plate
3 : Rear lights
4 : Bumper
5 : Axle
6 : Wheel
7 : Ladder
8 : Parking stand
9 : Drive shaft support
10 : Unit shell

5.1.2 Machine with rear doors

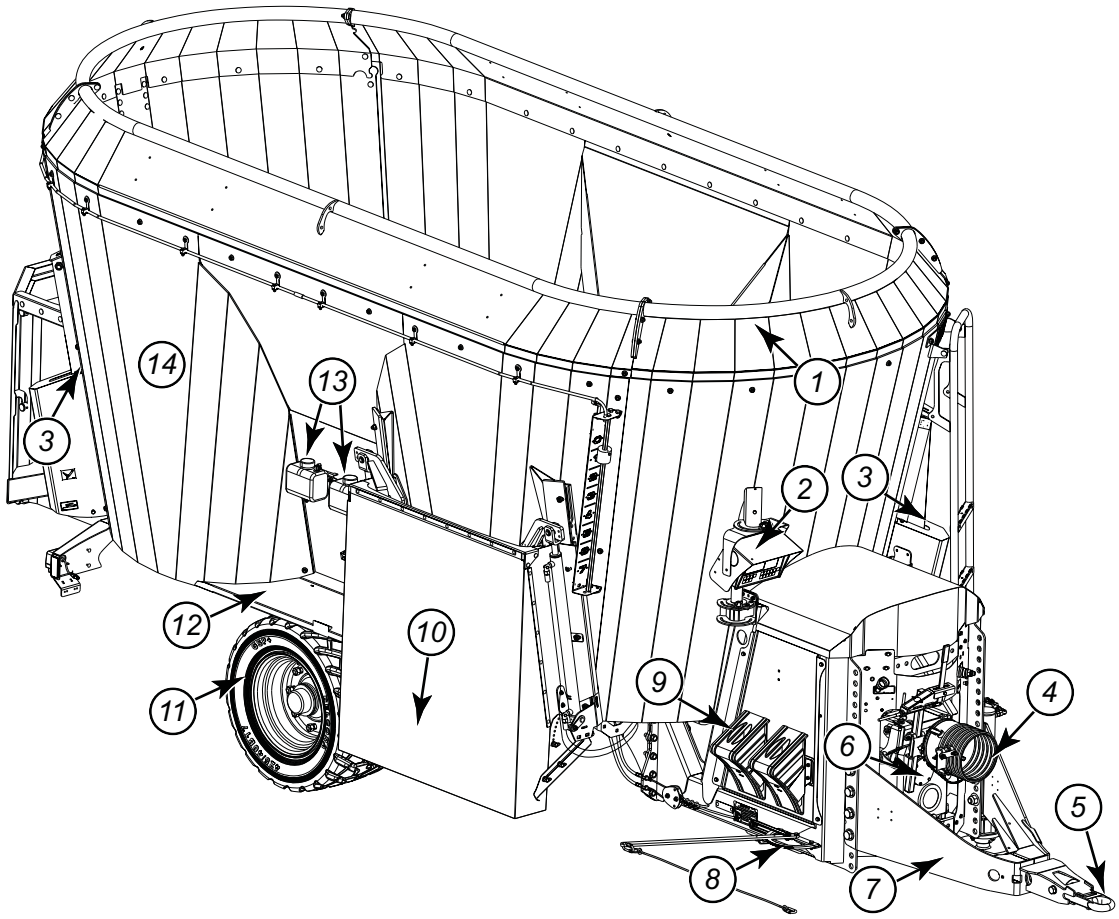


1 : Extension
2 : Weighing unit
3 : Support plate
4 : Protection cone
5 : Towing eye
6 : Drawbar
7 : Two-speed gearbox
8 : Parking brake
9 : Wheel chocks
10 : Front right discharge chute
11 : Wheel
12 : Mudguard
13 : Tank
14 : Rear right discharge chute
15 : Unit shell

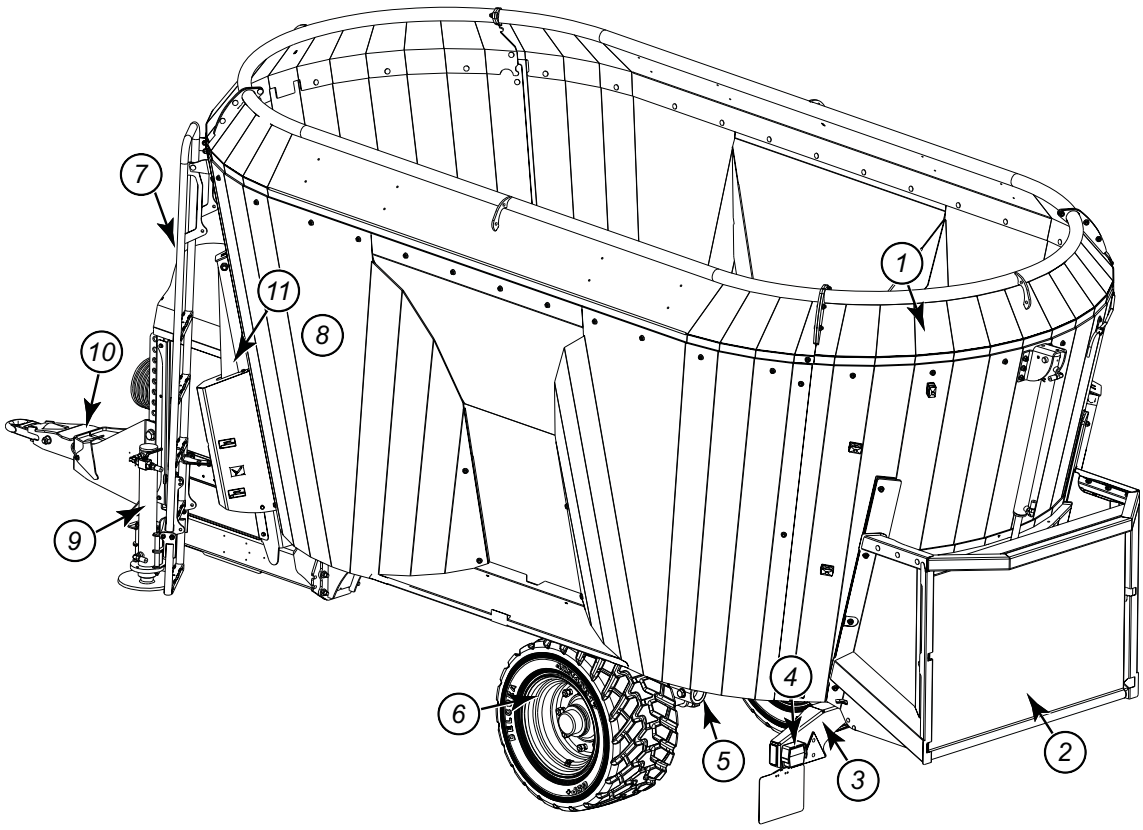


1 : Extension
2 : Support plate
3 : Rear lights
4 : Bumper
5 : Axle
6 : Rear left discharge chute
7 : Wheel
8 : Climbing aids
9 : Front left discharge chute
10 : Parking stand
11 : Drive shaft support

5.1.3 Machine with rear center door



1 : Extension
2 : Weighing unit
3 : Support plate
4 : Protection cone
5 : Towing eye
6 : Two-speed gearbox
7 : Drawbar
8 : Parking brake
9 : Wheel chocks
10 : Discharge chute
11 : Wheel
12 : Mudguard
13 : Tank
14 : Unit shell



1 : Extension
2 : Rear center discharge chute
3 : Lights holder
4 : Rear lights
5 : Axle
6 : Wheel
7 : Climbing aids
8 : Unit shell
9 : Parking stand
10 : Drive shaft support
11 : Support plate

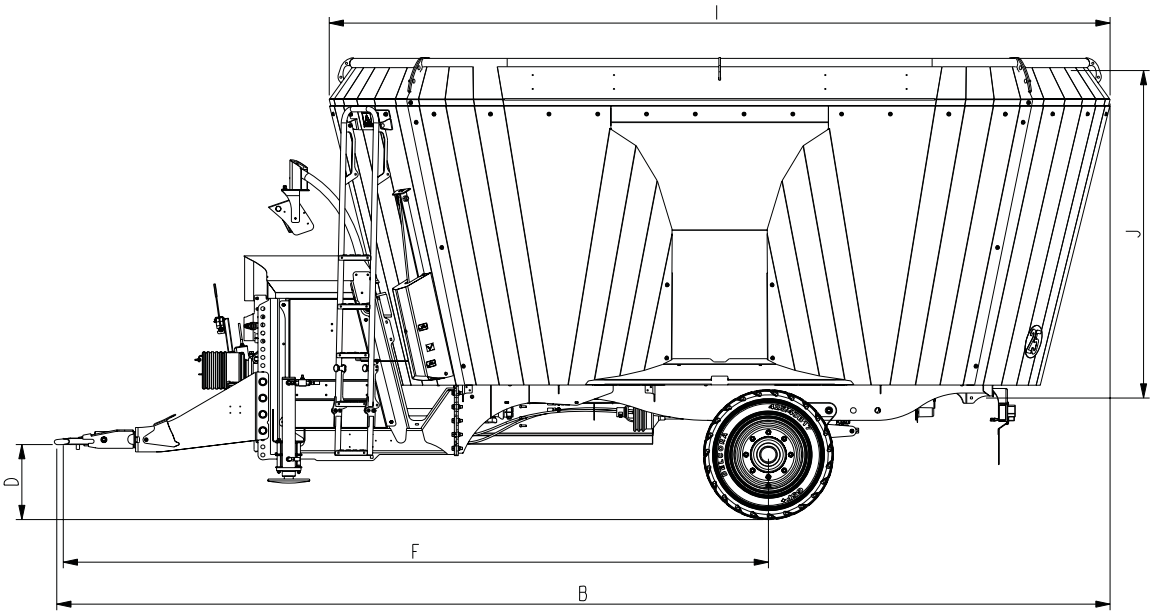
Designated use of the machine

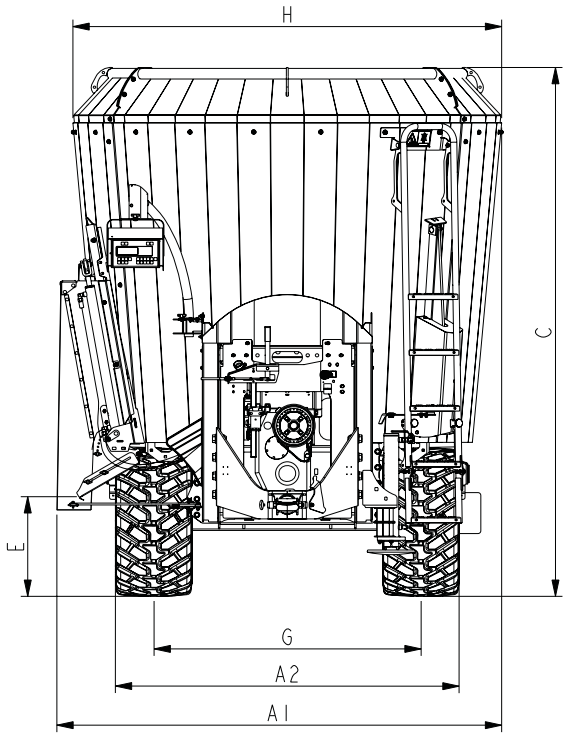
The **PROFILE . 2 DS** mixer feeder wagon must only be used for work for which it has been designed: mixing of fodder, silage, hay, wrapped grass, mixing with sub-products or additives for feeding cattle, transport and distribution in the feeding areas.

5.2 Technical specifications

5.2.1 Machine with front right door

- **PROFILE 1470 - 1570 - 1670**





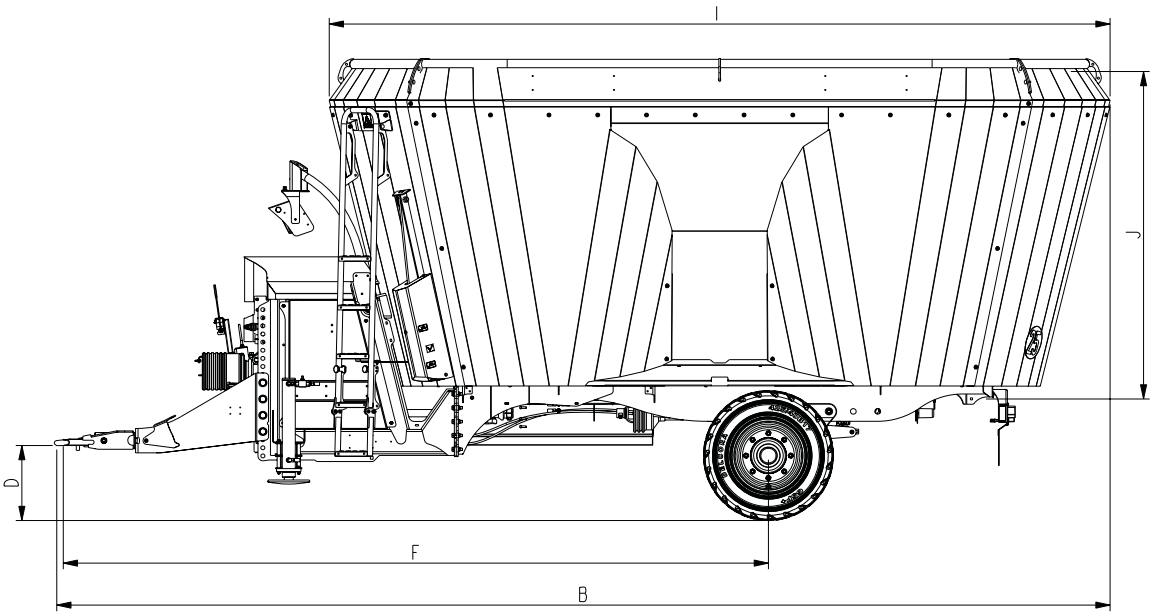
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 1 right chute		2.41 m (7’11’’)	
A2	Overall width outside wheels		1.88 m (6’2’’)	
B	Overall length		6.45 m (21’2’’)	
C	Overall height *****	2.67 m (8’9’’)	2.84 m (9’4’’)	2.97 m (9’9’’)
D	Hitch height ******		0.55 m (1’10’’)	
E	Height under closed deflector		0.64 m (2’1’’)	
F	Wheelbase		4.30 m (14’1’’)	
G	Track		1.44 m (4’9’’)	
H	Body width		2.30 m (7’7’’)	
I	Body length		4.80 m (15’9’’)	
J	Body height	1.70 m (5’7’’)	1.87 m (6’2’’)	2.00 m (6’7’’)
	Mixing capacity	14 m^3 (494 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	5058 kg (11151 Lb)	4948 kg (10908 Lb)	4962 kg (10939 Lb)
	Unloaded weight in working order	5376 kg (11852 Lb)	5552 kg (12940Lb)	5538 kg (12209Lb)
	Weight on the ring Unladen max.	733 kg (1616 Lb) 1300 kg (2866 Lb)	738 kg (1627 Lb) 1300 kg (2866 Lb)	744 kg (1640.2 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	4643 kg (10236 Lb) 9500 kg (20943.7 Lb)	4813 kg (10611 Lb) 9500 kg (20943.7 Lb)	4794 kg (10569 Lb) 9500 kg (20943.7 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148.3 Lb)	
	Axle		Single axle	
	Tyres *******		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

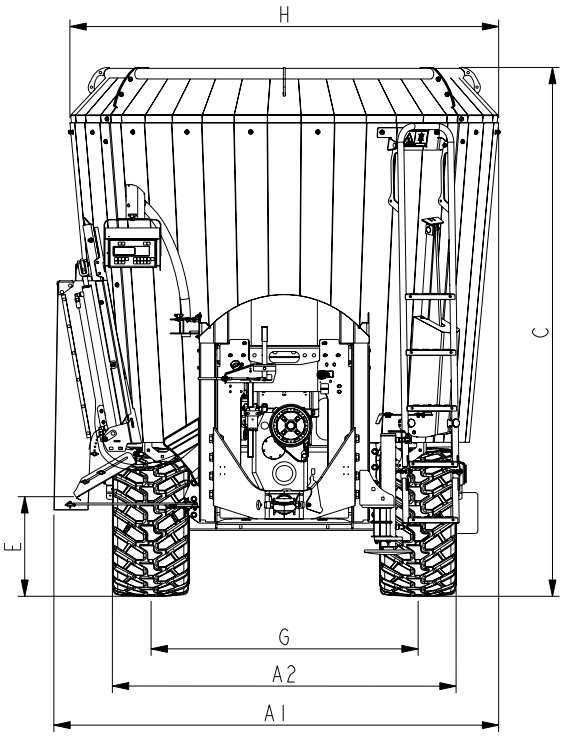
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 1 right chute	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.49 m (21'4'')	6.54 m (21'5'')
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4874 kg (10745Lb)	4762 kg (10498 Lb)
	Unloaded weight in working order	5626 kg (12403Lb)	5738 kg (12650 Lb)
	Weight on the ring Unladen max.	 750 kg (1653.5 Lb) 1300 kg (2866 Lb)	 758 kg (1671.1 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 4876 kg (10750 Lb) 9500 kg (20943.7 Lb)	 4980 kg (10979 Lb) 9500 kg (20943.7 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23148.3 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19,5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

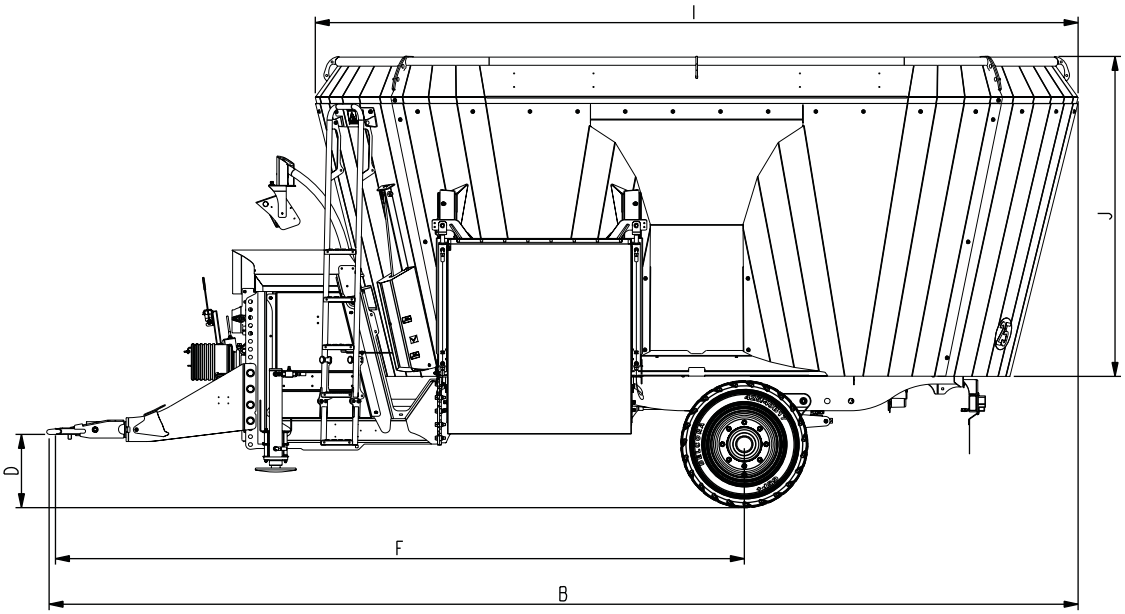
***** Height of machine horizontal and Depending on tyres

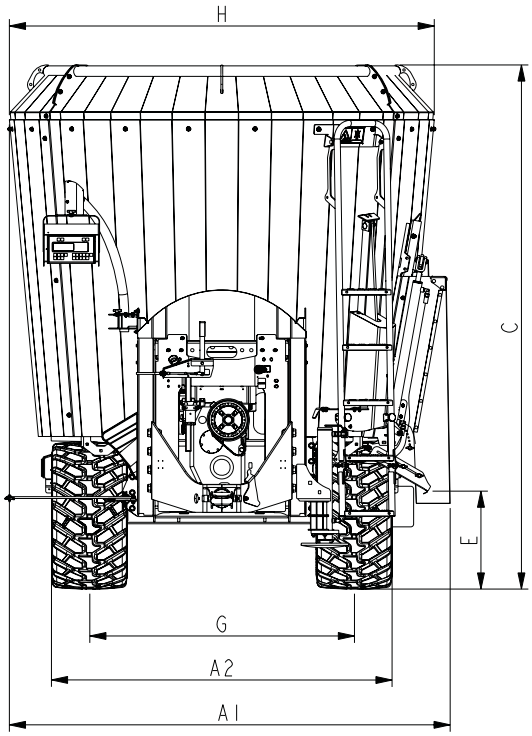
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.2 Machine with front left door

- **PROFILE 1470 - 1570 - 1670**





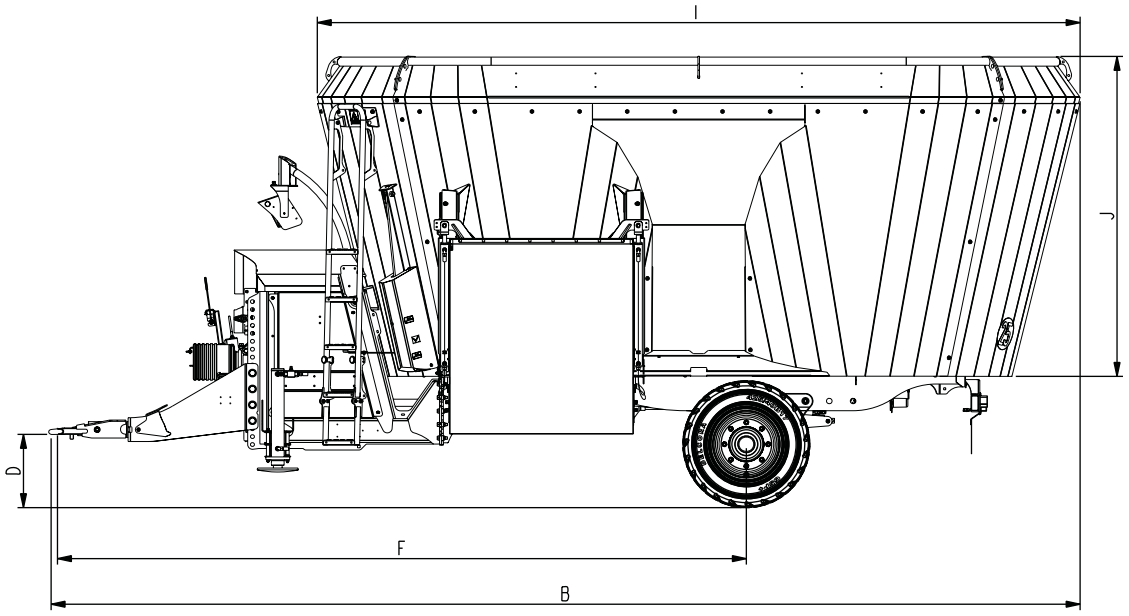
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 1 Distribution chute to the left		2.37 m (7’9’’)	
A2	Overall width outside wheels		1.88 m (6’2’’)	
B	Overall length		6.45 m (21’2’’)	
C	Overall height *	2.67 m (8’9’’)	2.84 m (9’4’’)	2.97 m (9’9’’)
D	Hitch height **		0.55 m (1’10’’)	
E	Height under closed deflector		0.64 m (2’1’’)	
F	Wheelbase		4.30 m (14’1’’)	
G	Track		1.44 m (4’9’’)	
H	Body width		2.30 m (7’7’’)	
I	Body length		4.80 m (15’9’’)	
J	Body height	1.70 m (5’7’’)	1.87 m (6’2’’)	2.00 m (6’7’’)
	Mixing capacity	15 m^3 (530 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	5058 kg (11151 Lb)	4948 kg (10908 Lb)	4896 kg (10794 Lb)
	Unloaded weight in working order	5442 kg (11997 Lb)	5552 kg (12240Lb)	5604 kg (12355 Lb)
	Weight on the ring Unladen max.	 733 kg (1616 Lb) 1300 kg (2866 Lb)	 738 kg (1627 Lb) 1300 kg (2866 Lb)	 744 kg (1640 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 4709 kg (10382 Lb) 9500 kg (20944 Lb)	 4813 kg (10611Lb) 9500 kg (20944 Lb)	 4860 kg (10714 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres ***		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

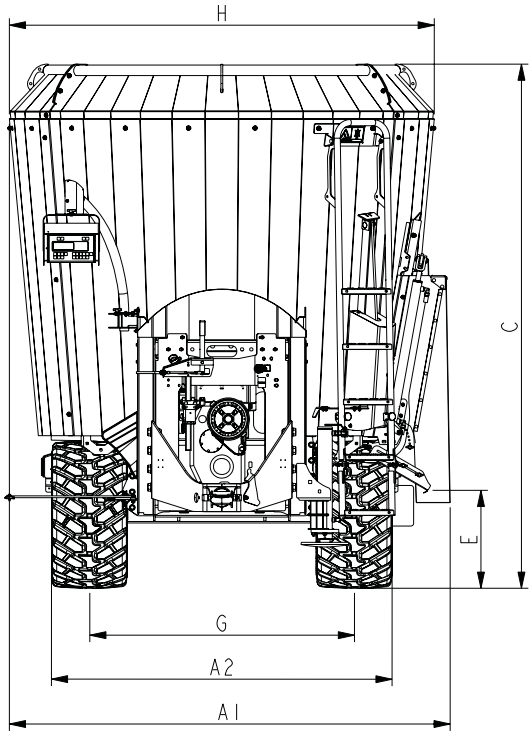
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 1 Distribution chute to the left	2.38 m (7’10’’)	2.40 m (7’10’’)
A2	Overall width outside wheels	1.88 m (6’2’’)	
B	Overall length	6.49 m (21’4’’)	6.54 m (21’5’’)
C	Overall height *	3.13 m (10’3’’)	3.33 m (10’11’’)
D	Hitch height **	0.55 m (1’10’’)	
E	Height under closed deflector	0.64 m (2’1’’)	
F	Wheelbase	4.30 m (14’1’’)	
G	Track	1.44 m (4’9’’)	
H	Body width	2.30 m (7’7’’)	
I	Body length	4.80 m (15’9’’)	
J	Body height	1.70 m (5’7’’)	2.00 m (6’7’’)
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4808 kg (10560 Lb)	4696 kg (10353 Lb)
	Unloaded weight in working order	5692 kg (12549 Lb)	5804 kg (12796 Lb)
	Weight on the ring Unladen max.	 750 kg (1654 Lb) 1300 kg (2866 Lb)	 758 kg (1671 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 4942 kg (10895 Lb) 9500 kg (20944 Lb)	 5046 kg (11124 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23149 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19,5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

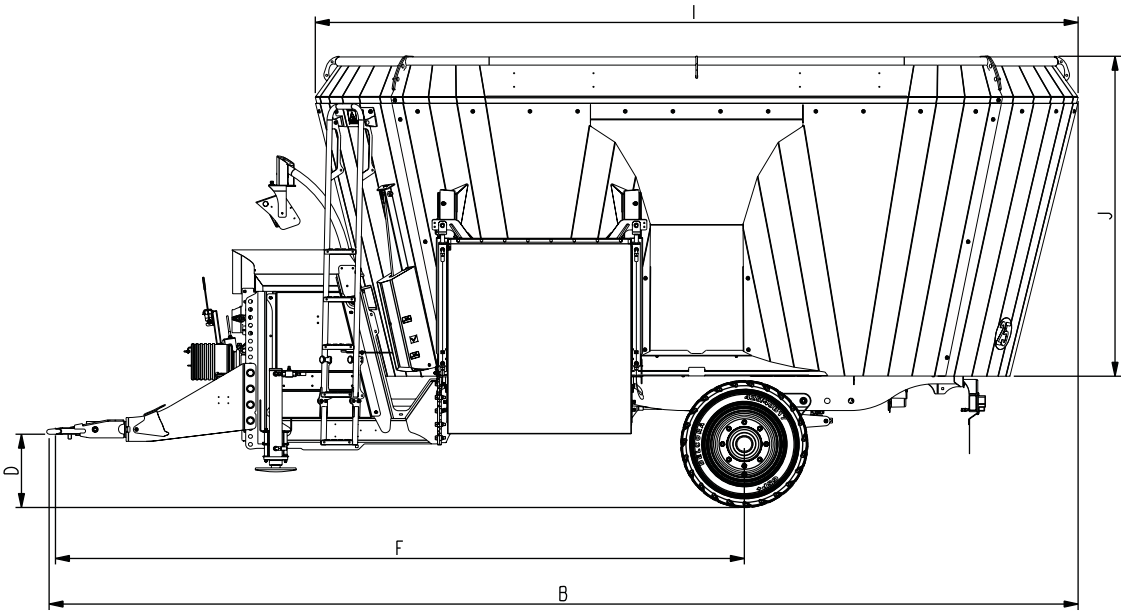
***** Height of machine horizontal and Depending on tyres

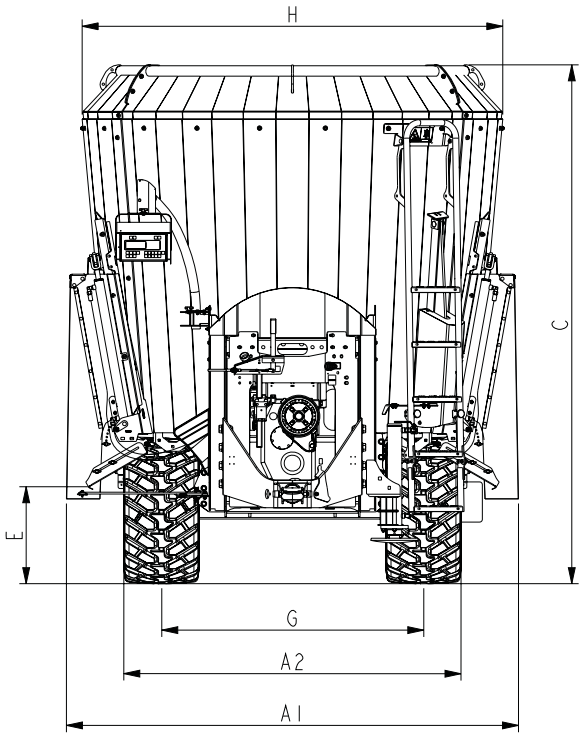
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.3 Machine with front right and left doors

- **PROFILE 1470 - 1570 - 1670**





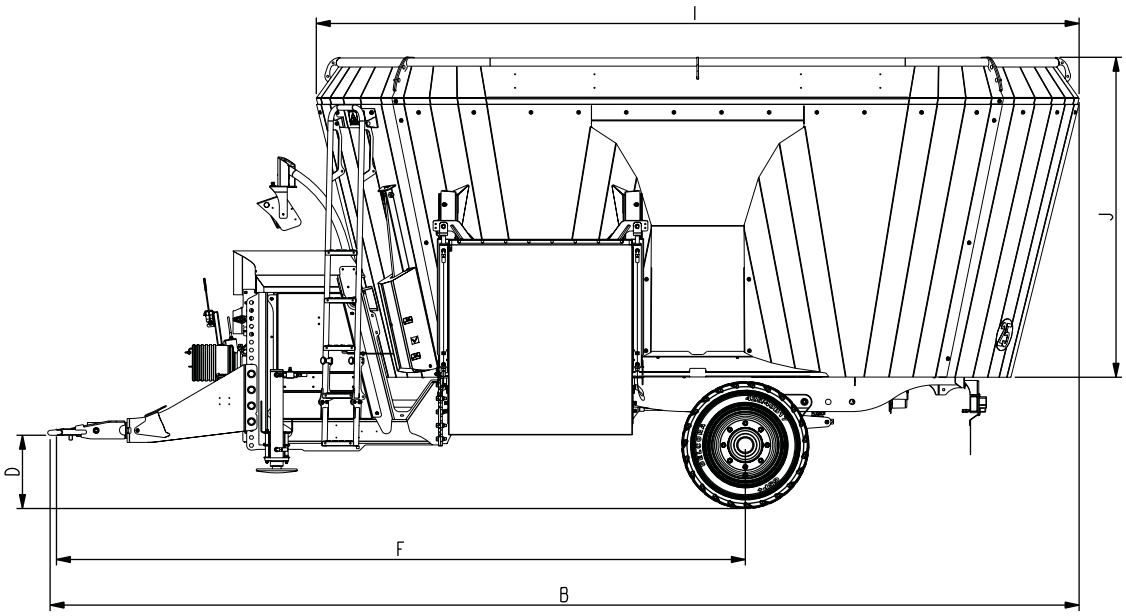
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 2 chutes		2.44 m (8')	
A2	Overall width outside wheels		1.88 m (6'2'')	
B	Overall length		6.45 m (21'2'')	
C	Overall height *	2.67 m (8'9'')	2.84 m (9'4'')	2.97 m (9'9'')
D	Hitch height **		0.55 m (1'10'')	
E	Height under closed deflector		0.64 m (2'1'')	
F	Wheelbase		4.30 m (14'1'')	
G	Track		1.44 m (4'9'')	
H	Body width		2.30 m (7'7'')	
I	Body length		4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	1.87 m (6'2'')	2.00 m (6'7'')
	Mixing capacity	14 m^3 (494.4 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	4958 kg (10930 Lb)	4848 kg (10688Lb)	4796 kg (10573 Lb)
	Unloaded weight in working order	5542 kg (12218 Lb)	5652 kg (12460 Lb)	5704 kg (12575 Lb)
	Weight on the ring Unladen max.	 763 kg (1682 Lb) 1300 kg (2866 Lb)	 767 kg (1691 Lb) 1300 kg (2866 Lb)	 774 kg (1706 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 4779 kg (10536 Lb) 9500 kg (20944 Lb)	 4885 kg (10769 Lb) 9500 kg (20944 Lb)	 4930 kg (10869 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres ***		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

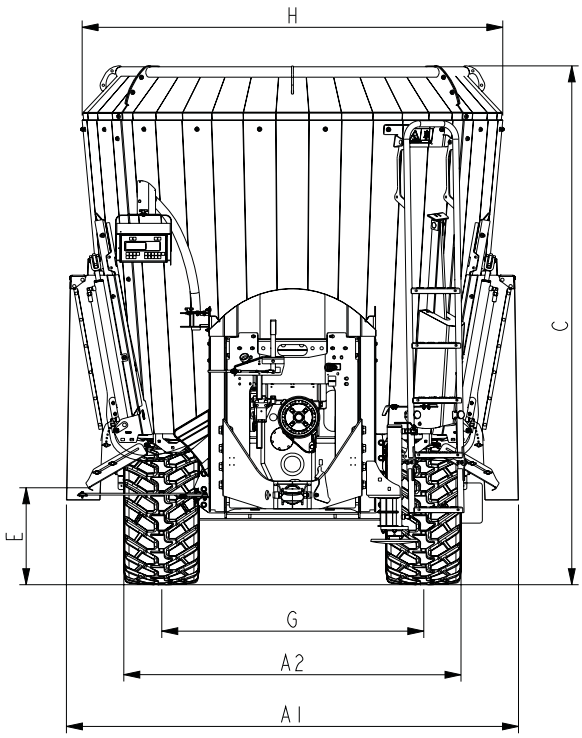
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 2 chutes	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.49 m (21'4'')	6.54 m (21'5'')
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4708 kg (10379 Lb)	4596 kg (10132 Lb)
	Unloaded weight in working order	5792 kg (12769 Lb)	5904 kg (13016 Lb)
	Weight on the ring Unladen max.	780 kg (1720 Lb) 1300 kg (2866 Lb)	788 kg (1737 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	5042 kg (11116 Lb) 9500 kg (20944 Lb)	5146 kg (11345 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23148 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19,5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

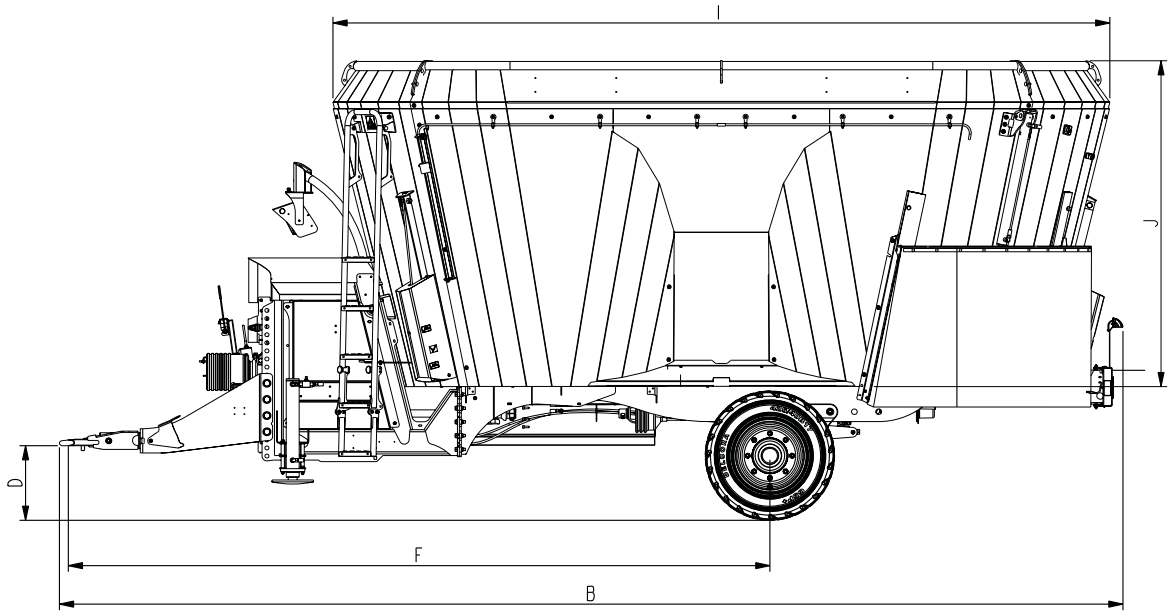
***** Height of machine horizontal and Depending on tyres

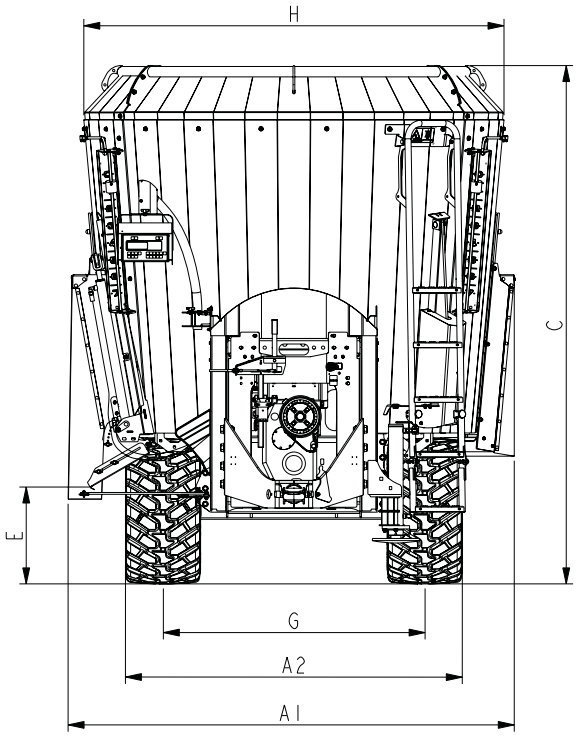
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.4 Machine with front right door and 2 rear doors

- **PROFILE 1470 - 1570 - 1670**





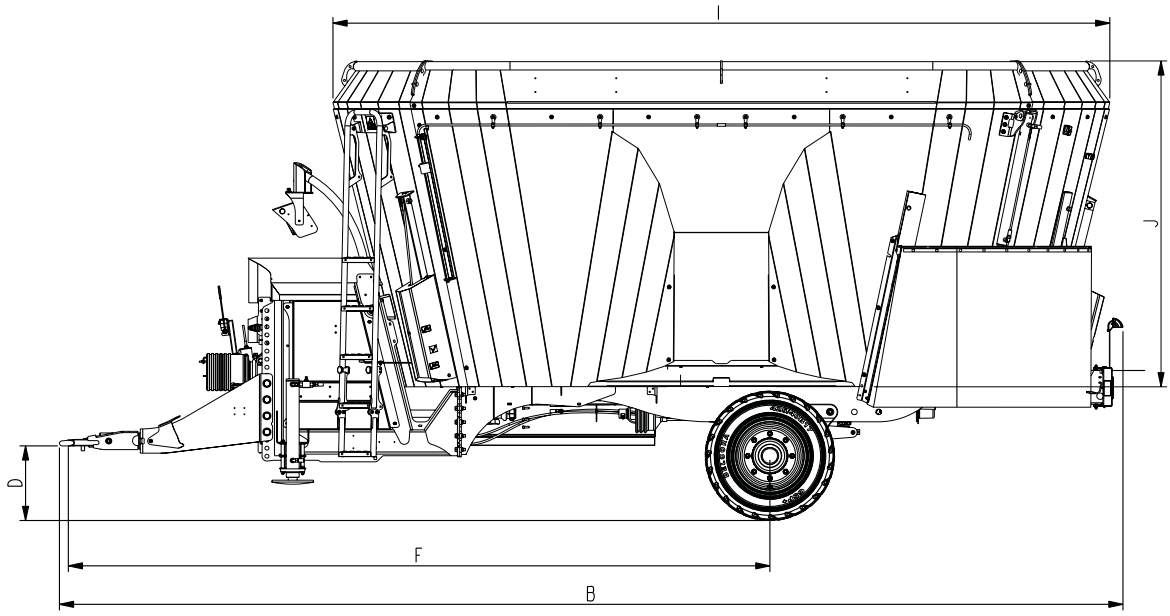
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 1 right chute and 2 rear chutes		2.44 m (8')	
A2	Overall width outside wheels		1.88 m (6'2'')	
B	Overall length		6.54 m (21'5'')	
C	Overall height *****	2.67 m (8'9'')	2.84 m (9'4'')	2.97 m (9'9'')
D	Hitch height ******		0.55 m (1'10'')	
E	Height under closed deflector		0.64 m (2'1'')	
F	Wheelbase		4.30 m (14'1'')	
G	Track		1.44 m (4'9'')	
H	Body width		2.30 m (7'7'')	
I	Body length		4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	1.87 m (6'2'')	2.00 m (6'7'')
	Mixing capacity	14 m^3 (494.4 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	4884 kg (10767 Lb)	4774 kg (10525 Lb)	4722 kg (10410 Lb)
	Unloaded weight in working order	5616 kg (12381 Lb)	5726 kg (12623 Lb)	5778 kg (12738 Lb)
	Weight on the ring Unladen max.	 675 kg (1488 Lb) 1300 kg (2866 Lb)	 679 kg (1497Lb) 1300 kg (2866 Lb)	 686 kg (1512 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 4941 kg (10893 Lb) 9500 kg (20944 Lb)	 5047 kg (11128 Lb) 9500 kg (20944 Lb)	 5092 kg (11226 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres *******		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

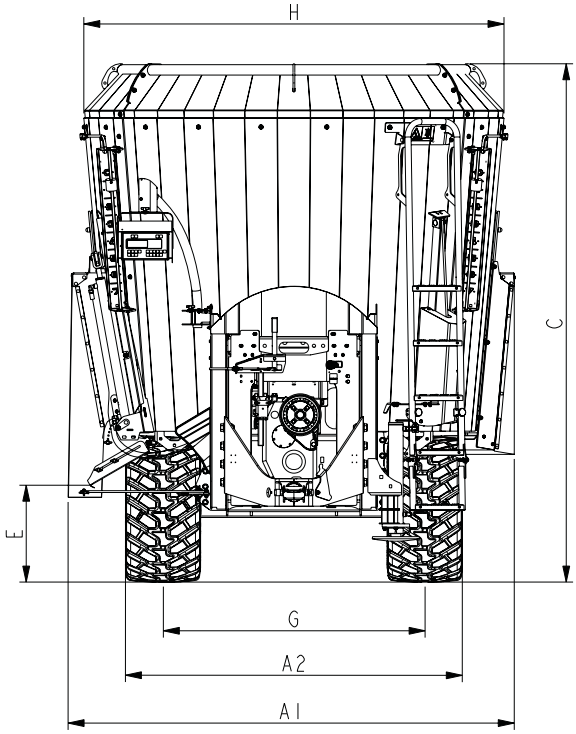
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 1 right chute and2 rear chutes	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.54 m (21'5'')	
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4634 kg (10216 Lb)	4522 kg (9969 Lb)
	Unloaded weight in working order	5866 kg (12932 Lb)	5978 kg (13179 Lb)
	Weight on the ring Unladen max.	 692 kg (1526 Lb) 1300 kg (2866 Lb)	 700 kg (1543 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 5174 kg (11407 Lb) 9500 kg (20944 Lb)	 5278 kg (11636 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg1 (23148 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19,5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

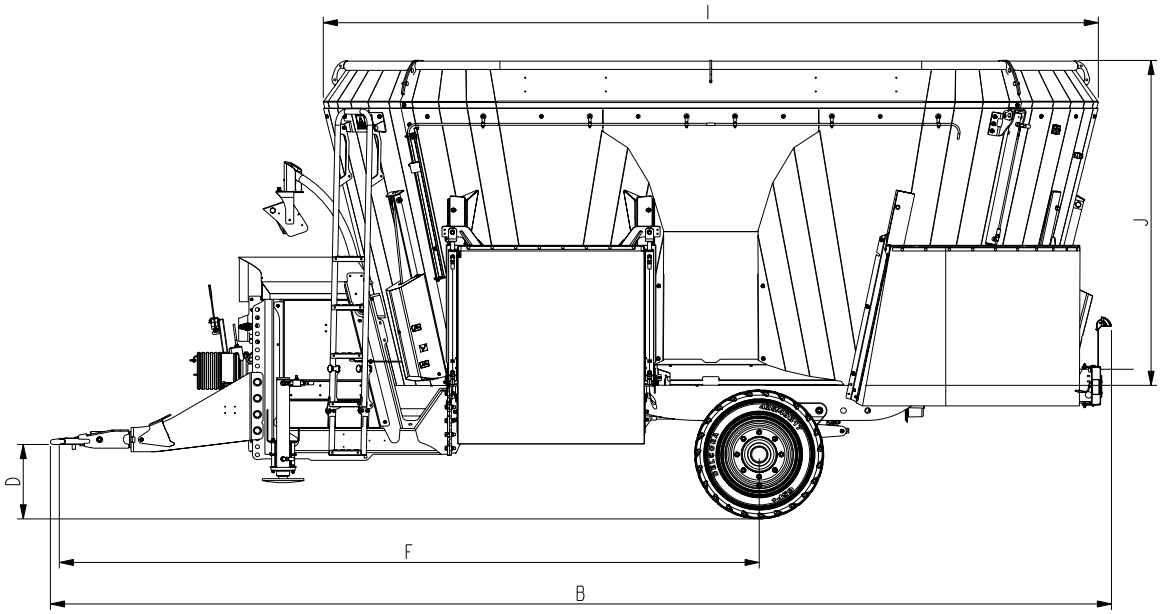
***** Height of machine horizontal and Depending on tyres

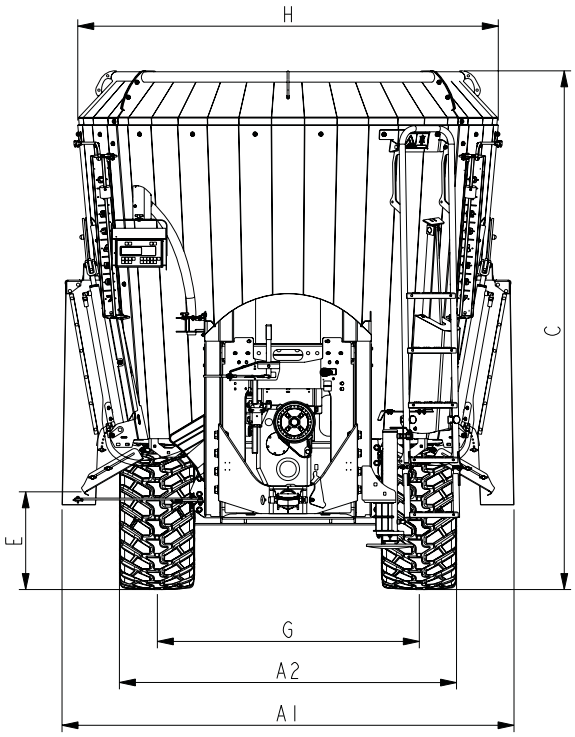
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.5 4-door machine

- **PROFILE 1470 - 1570 - 1670**





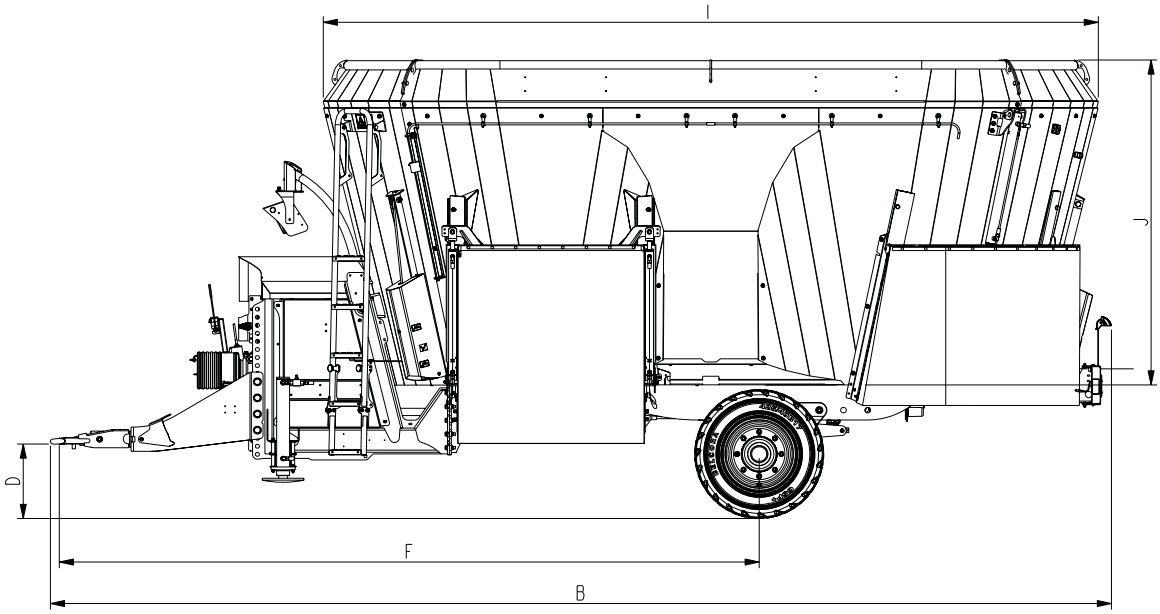
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 4 chutes		2.44 m (8')	
A2	Overall width outside wheels		1.88 m (6'2'')	
B	Overall length		6.54 m (21'5'')	
C	Overall height *	2.67 m (8'9'')	2.84 m (9'4'')	2.97 m (9'9'')
D	Hitch height **		0.55 m (1'10'')	
E	Height under closed deflector		0.64 m (2'1'')	
F	Wheelbase		4.30 m (14'1'')	
G	Track		1.44 m (4'9'')	
H	Body width		2.30 m (7'7'')	
I	Body length		4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	1.87 m (6'2'')	2.00 m (6'7'')
	Mixing capacity	14 m^3 (494.4 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	4784 kg (10547 Lb)	4674 kg (10304 Lb)	4622 kg (10190 Lb)
	Unloaded weight in working order	5716 kg (12602 Lb)	5826 kg (12844Lb)	5878 kg (12959 Lb)
	Weight on the ring Unladen max.	 705 kg (1554 Lb) 1300 kg (2866 Lb)	 709 kg (1563 Lb) 1300 kg (2866 Lb)	 716 kg (1579 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 5011 kg (11047 Lb) 9500 kg (20944 Lb)	 5117 kg (11281 Lb) 9500 kg (20944 Lb)	 5162 kg (11380 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres ***		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

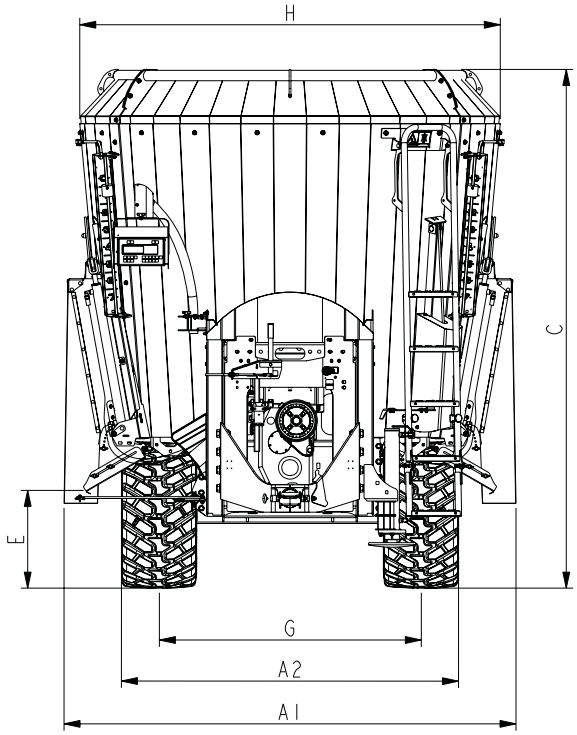
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 4 chutes	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.54 m (21'5'')	
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4534 kg (9996 Lb)	4422 kg (9749 Lb)
	Unloaded weight in working order	5966 kg (13153 Lb)	6078 kg (13399 Lb)
	Weight on the ring Unladen max.	 722 kg (1592 Lb) 1300 kg (2866 Lb)	 730 kg (1609 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	 5244 kg (11561 Lb) 9500 kg (20944 Lb)	 5348 kg (11790 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23148 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19,5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

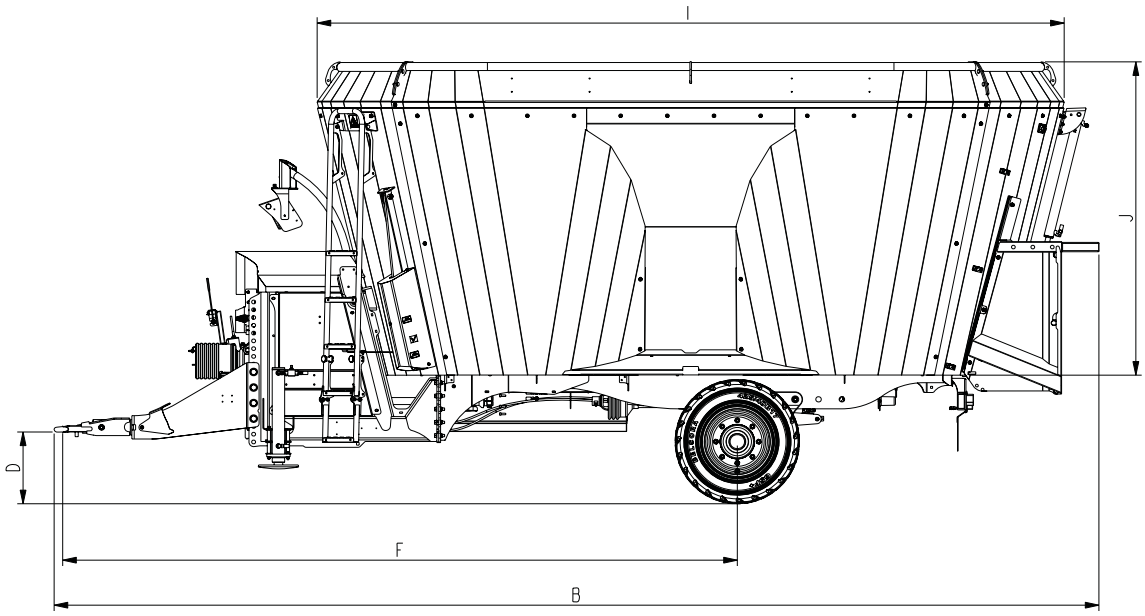
***** Height of machine horizontal and Depending on tyres

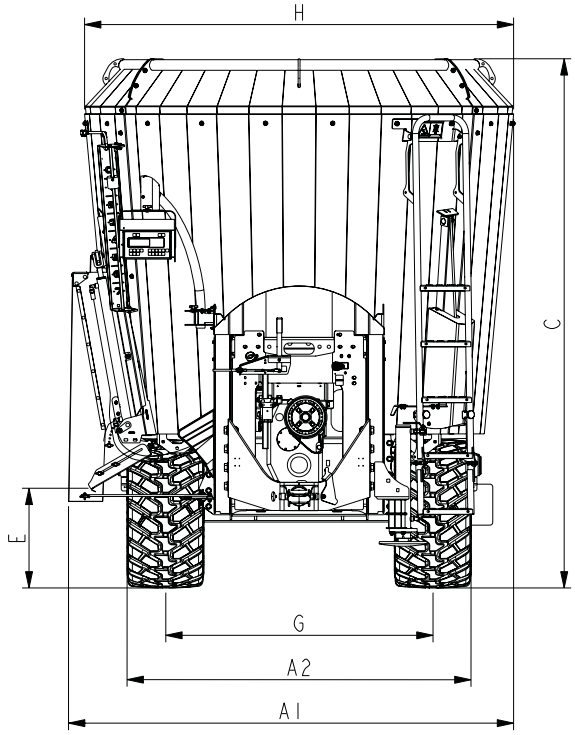
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.6 Machine with front right door and rear center door

- **PROFILE 1470 - 1570- 1670**





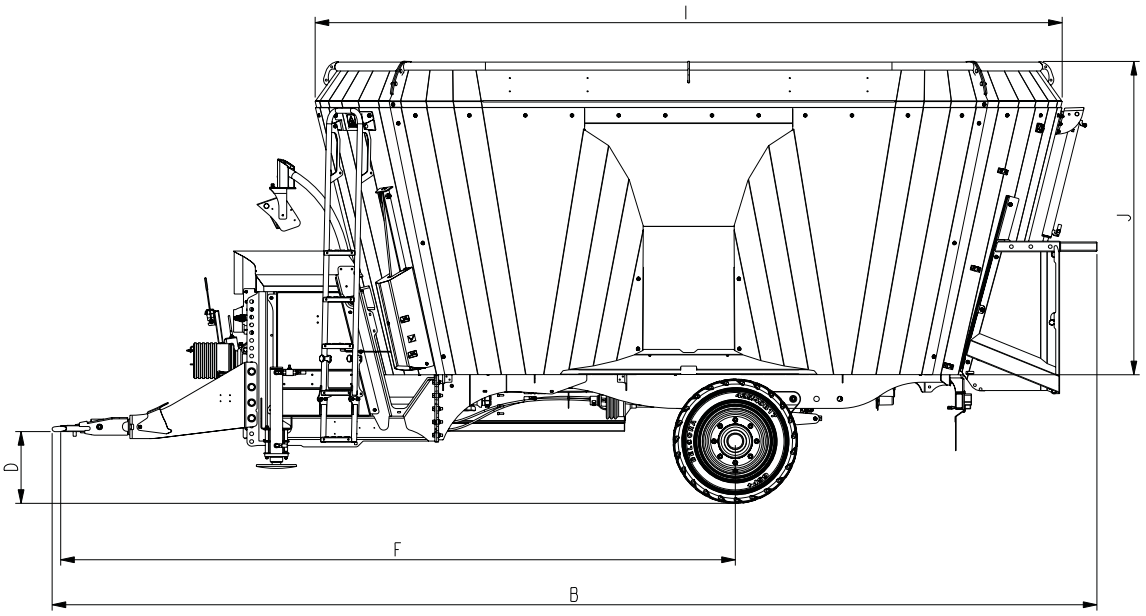
Ref.	Description	PROFILE 1470	PROFILE 1470	PROFILE 1670
A1	Overall width : 1 right chute and 1 rear center chute		2.41 m (7’11’’)	
A2	Overall width outside wheels		1.88 m (6’2’’)	
B	Overall length		6.66 m (21’10’’)	
C	Overall height *****	2.67 m (8’9’’)	2.84 m (9’4’’)	2.97 m (9’9’’)
D	Hitch height ******		0.55 m (1’10’’)	
E	Height under closed deflector		0.64 m (2’1’’)	
F	Wheelbase		4.30 m (14’1’’)	
G	Track		1.44 m (4’9’’)	
H	Body width		2.30 m (7’7’’)	
I	Body length		4.80 m (15’9’’)	
J	Body height	1.70 m (5’7’’)	1.87 m 6’2’’)	2.00 m (6’7’’)
	Mixing capacity	14 m^3 (494.4 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	4988 kg (10997 Lb)	4878 kg (10754 Lb)	4826 kg (10639 Lb)
	Unloaded weight in working order	5512 kg (12152 Lb)	5622 kg (12394 Lb)	5674 kg (12509 Lb)
	Weight on the ring Unladen max.	702 kg (1548 Lb) 1300 kg (2866 Lb)	706 kg (1556 Lb) 1300 kg (2866 Lb)	713 kg (1572 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	4810 kg (10604 Lb) 9500 kg (20944 Lb)	4916 kg (10838 Lb) 9500 kg (20944 Lb)	4961 kg (10937 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres *******		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

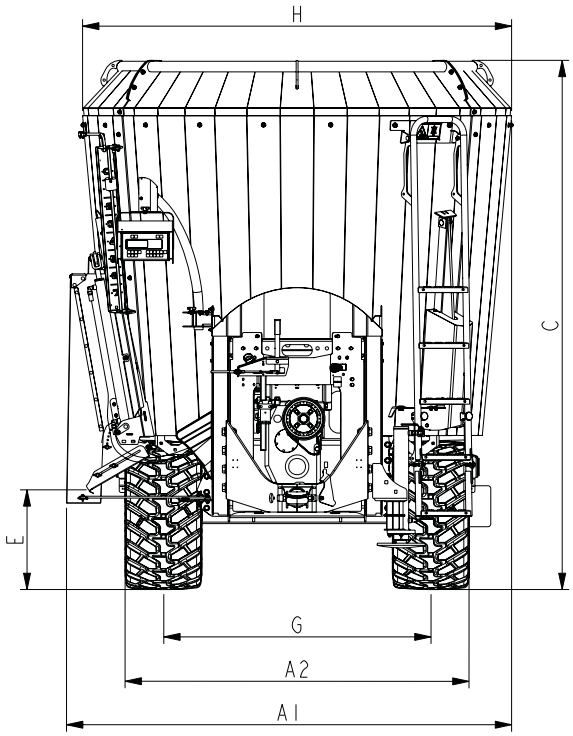
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 1 right chute and 1 rear center chute	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.66 m (21'10'')	
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4738 kg (10445 Lb)	4626 kg (10199 Lb)
	Unloaded weight in working order	5762 kg (12703 Lb)	5874 kg (12950 Lb)
	Weight on the ring Unladen max.	719 kg (1585 Lb) 1300 kg (2866 Lb)	727 kg (1603 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	5043 kg (11118 Lb) 9500 kg (20944 Lb)	5147 kg (11347 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23148 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19, 5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

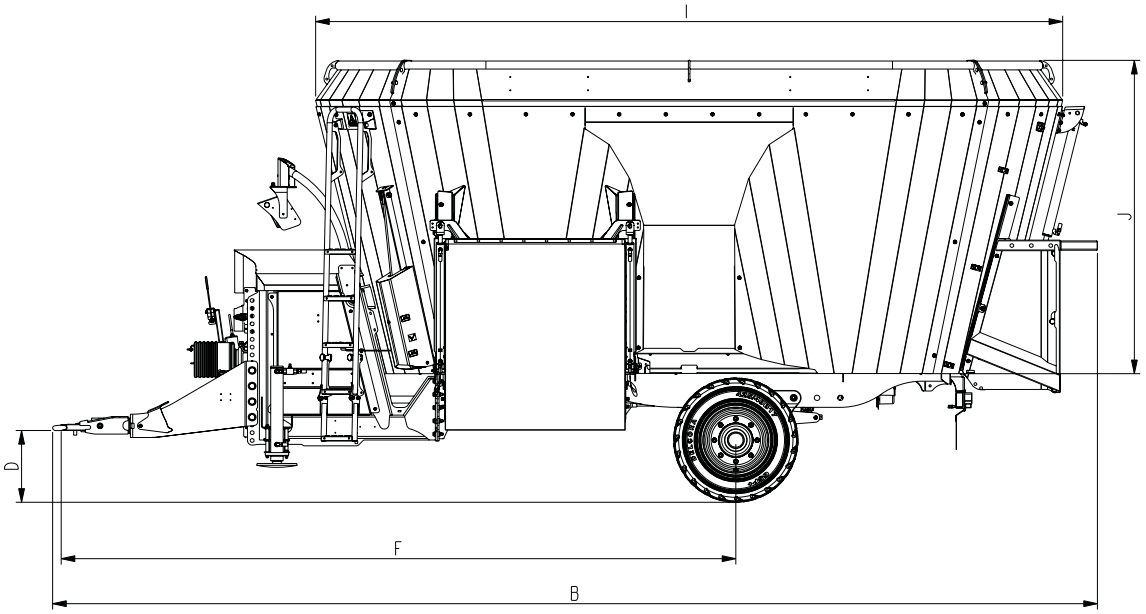
***** Height of machine horizontal and Depending on tyres

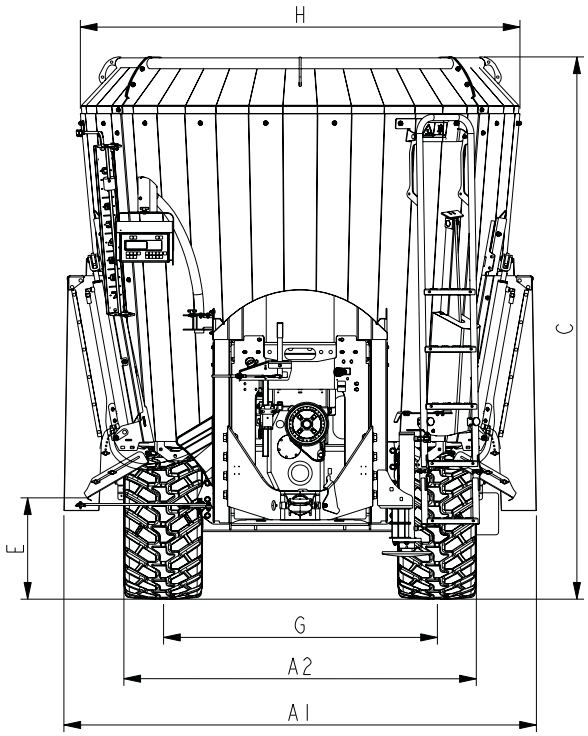
****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.7 Machine with front right and left doors and rear center door

- **PROFILE 1470 - 1570- 1670**





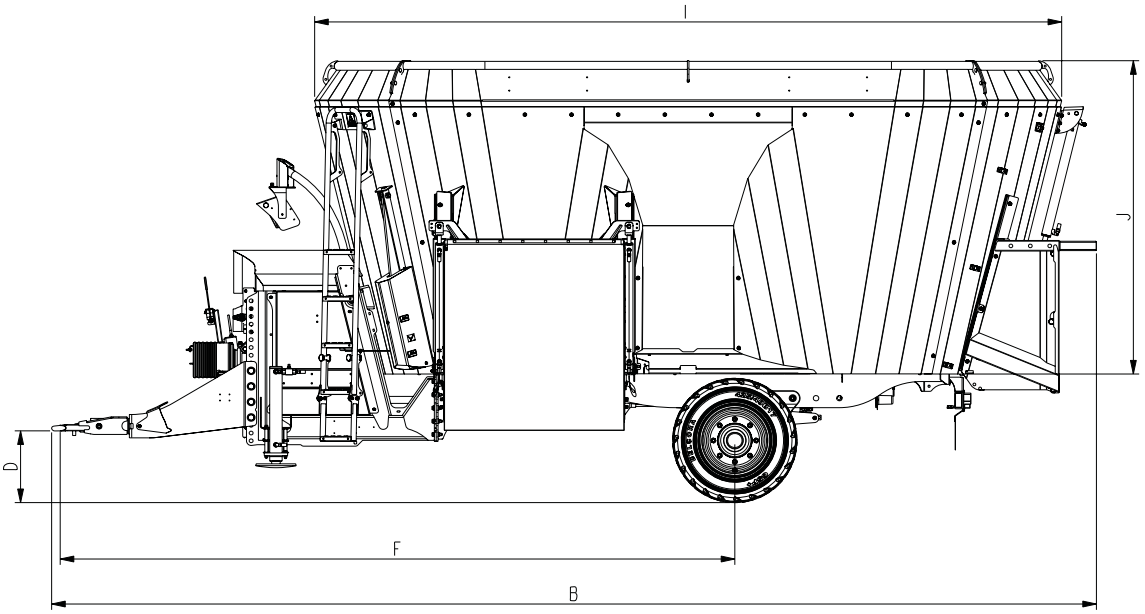
Ref.	Description	PROFILE 1470	PROFILE 1570	PROFILE 1670
A1	Overall width : 2 chutes and 1 rear center chute		2.44 m (8')	
A2	Overall width outside wheels		1.88 m (6'2'')	
B	Overall length		6.66 m (21'10'')	
C	Overall height *****	2.67 m (8'9'')	2.84 m (9'4'')	2.97 m (9'9'')
D	Hitch height ******		0.55 m (1'10'')	
E	Height under closed deflector		0.64 m (2'1'')	
F	Wheelbase		4.30 m (14'1'')	
G	Track		1.44 m (4'9'')	
H	Body width		2.30 m (7'7'')	
I	Body length		4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	1.87 m (6'2'')	2.00 m (6'7'')
	Mixing capacity	14 m^3 (494.4 cu.ft)	15 m^3 (530 cu.ft)	16 m^3 (565 cu.ft)
	Working load ***	4888 kg (10776 Lb)	4778 kg (10534 Lb)	4726 kg (10419 Lb)
	Unloaded weight in working order	5612 kg (12372 Lb)	5722 kg (12615 Lb)	5774 kg (12729 Lb)
	Weight on the ring Unladen max.	732 kg (1614 Lb) 1300 kg (2866 Lb)	736 kg (1623Lb) 1300 kg (2866 Lb)	743 kg (1638 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	4880 kg (10758 Lb) 9500 kg (20944 Lb)	4986 kg (10992 Lb) 9500 kg (20944 Lb)	5031 kg (11091 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h		10500 kg (23148 Lb)	
	Axle		Single axle	
	Tyres *******		435/50 R19,5	
	Tire pressure		8 bar (116 psi)	
	Min. power requirement		59 kW / 80 hp	

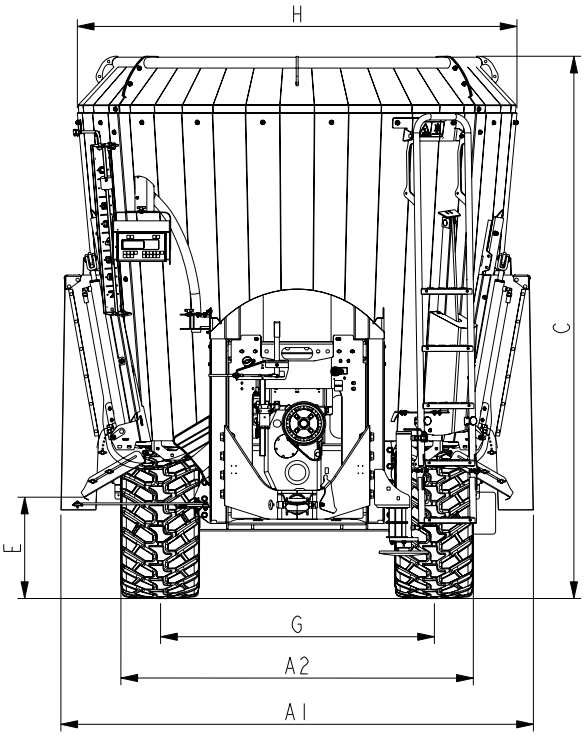
***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

■ PROFILE 1870 - 2070





Ref.	Description	PROFILE 1870	PROFILE 2070
A1	Overall width : 2 chutes and 1 rear center chute	2.44 m (8')	
A2	Overall width outside wheels	1.88 m (6'2'')	
B	Overall length	6.66 m (21'10'')	
C	Overall height *	3.13 m (10'3'')	3.33 m (10'11'')
D	Hitch height **	0.55 m (1'10'')	
E	Height under closed deflector	0.64 m (2'1'')	
F	Wheelbase	4.30 m (14'1'')	
G	Track	1.44 m (4'9'')	
H	Body width	2.30 m (7'7'')	
I	Body length	4.80 m (15'9'')	
J	Body height	1.70 m (5'7'')	2.00 m (6'7'')
	Mixing capacity	18 m^3 (635.7 cu.ft)	20 m^3 (706.3 cu.ft)
	Working load ***	4638 kg (10225 Lb)	4526 kg (9978 Lb)
	Unloaded weight in working order	5862 kg (12923 Lb)	5974 kg (13170 Lb)
	Weight on the ring Unladen max.	749 kg (1651 Lb) 1300 kg (2866 Lb)	757 kg (1669 Lb) 1300 kg (2866 Lb)
	Weight on the axle Unladen max.	5113 kg (11272 Lb) 9500 kg (20944 Lb)	5217 kg (11501 Lb) 9500 kg (20944 Lb)
	Total loaded weight *** Road certification 25 km/h	10500 kg (23148 Lb)	
	Axle	Single axle	
	Tyres ***	435/50 R19, 5	
	Tire pressure	8 bar (116 psi)	
	Min. power requirement	66 kW / 90 hp	

***** Height of machine horizontal and Depending on tyres

****** According to towing eye setting

******* According to the road traffic legislation in force in the country, refer to the machine's specification sheet or the machine identification plate for use on public roads.

5.2.8 Designated parameters

134013: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

5.3 Sound levels

Sound levels have been measured in accordance with the measuring methods as defined in:
NF EN ISO 4254-1 «Agricultural machinery - Safety - Part 1: General requirements»
Weighted equivalent continuous acoustic pressure level at the driver's seat (closed cabin) L (A) eq:
Tractor only:**70.90 dB (A)**
Tractor + machine: **69.66 dB (A)**

6. Putting into service

6.1 Description of control elements

6.1.1 Control box

(Optional equipment)

- **Positioning and parking**

  The control box must be easily accessible from the tractor cab.

- **Control box mounting**

  The electrical control box is in the cab according to the user's request.

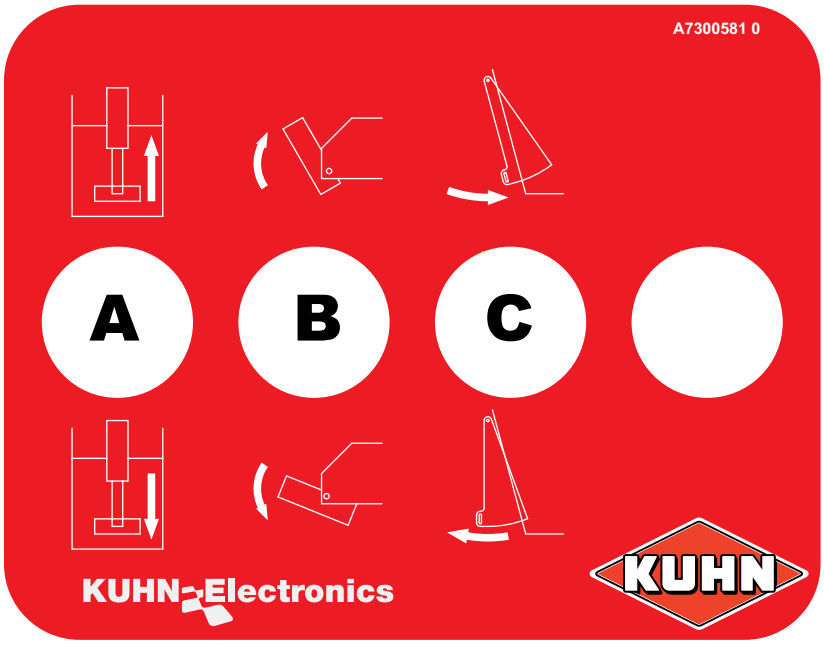
- **Control box removal**

  Store control box in a dry place free of dust.

6.2 Description of the controls

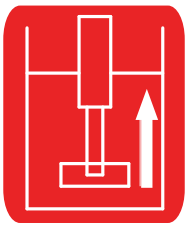
6.2.1 Electrical controls : 4 functions

Either 1 front door or 1 rear door

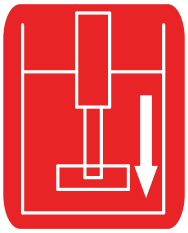


Opening or closing a flap(A)

Opening the flap



Closing the flap



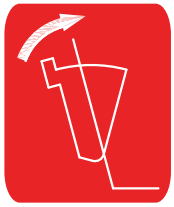
Raising or lowering of the conveyor (B)
(Optional equipment)

Raising of the conveyor

Lowering of the conveyor

Hydraulic support plates in or out (C)
(Optional equipment)

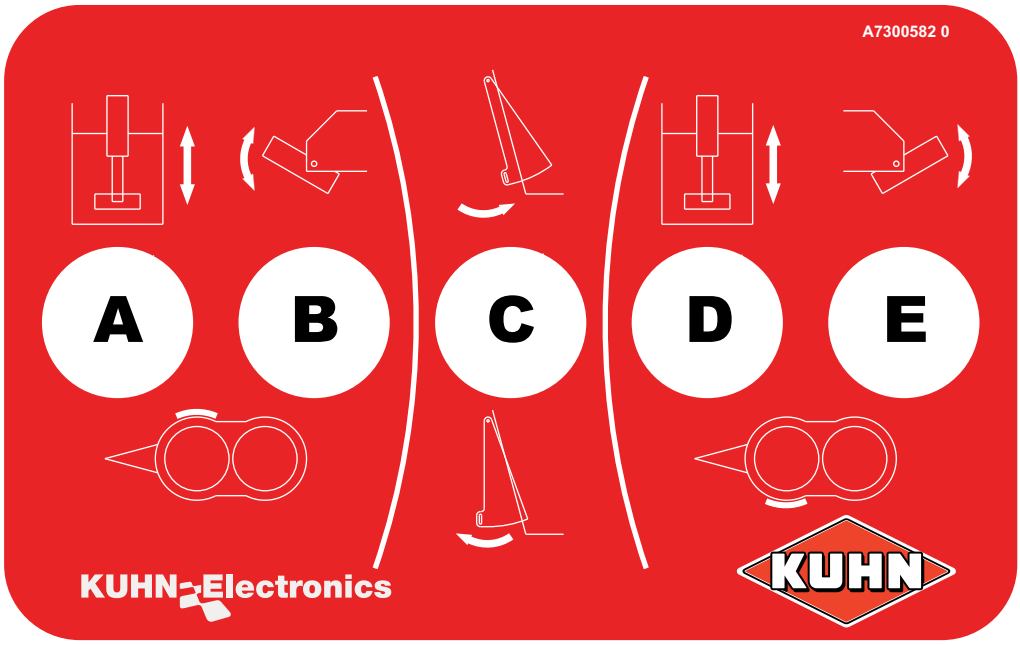
Support plates in



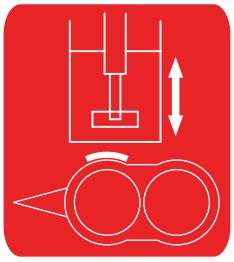
Support plates out

6.2.2 Electrical controls : 5 functions

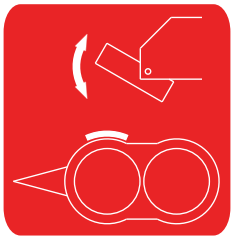
- **2 Doors**



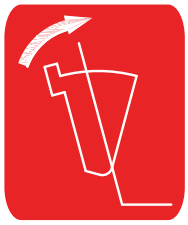
Opening / closing the front right flap (A)



Raising/lowering the front right conveyor (B)
(Optional equipment)

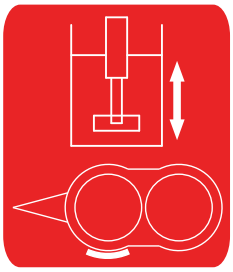


Hydraulic support plates in or out (C)
(Optional equipment)
Support plates in

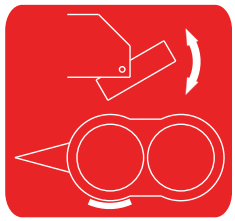


Support plates out

Opening / closing the front left flap (D)

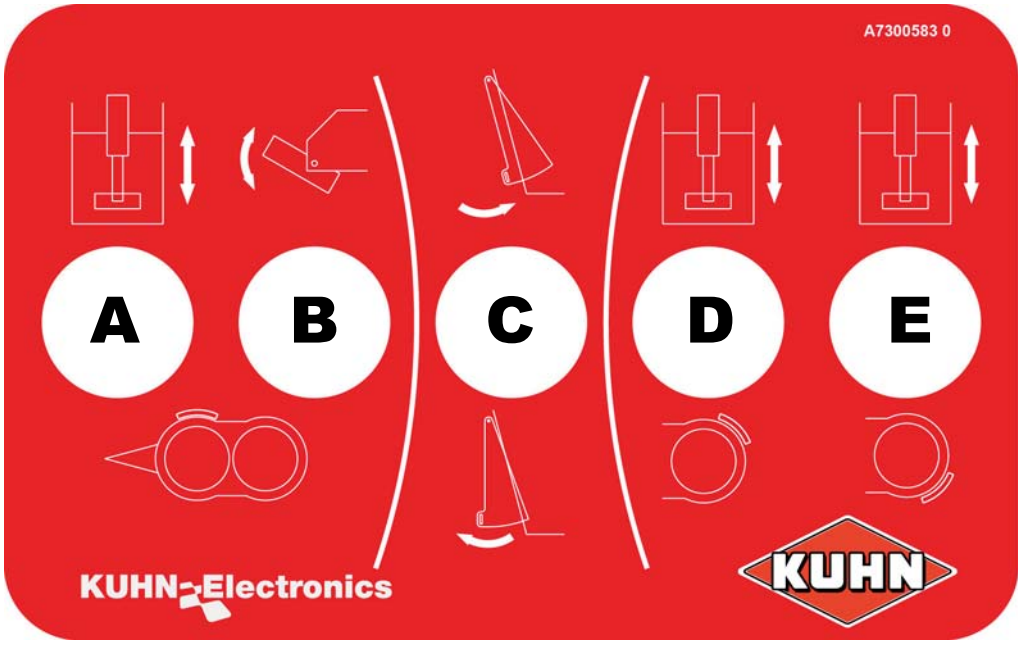


Raising/lowering the front left conveyor (E)
(Optional equipment)

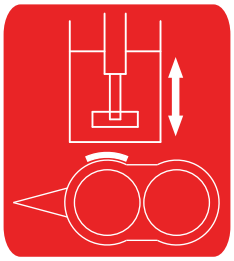


6.2.3 Electrical controls: 5 functions

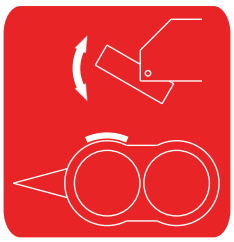
3 Doors



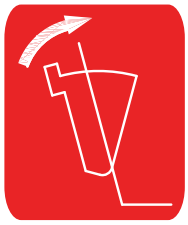
Opening / closing the front right flap (A)



Raising/lowering the front right conveyor (B)
(Optional equipment)

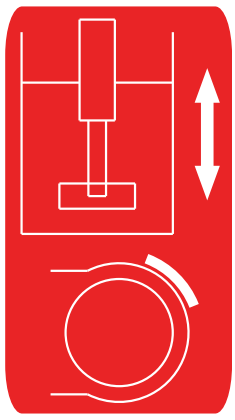


Hydraulic support plates in or out (C)
(Optional equipment)
Support plates in

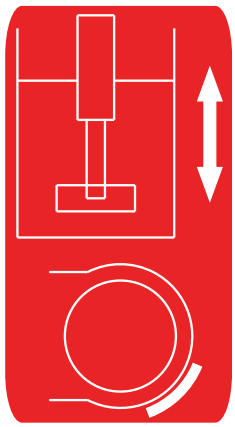


Support plates out

Opening / closing the right rear flap (D)

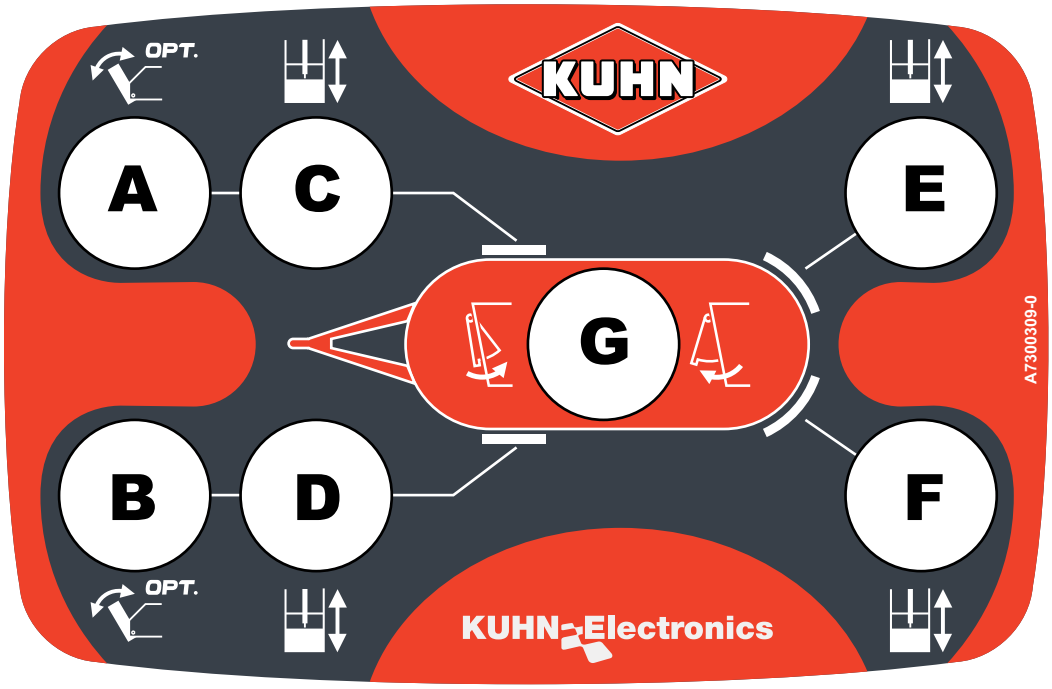


Opening / closing the left rear flap (E)



6.2.4 Electrical controls: 7 functions

- **4 Doors**



Raising or lowering of the conveyor (A) (B)
(Optional equipment)

Raising/lowering the front right conveyor (A)

Raising/lowering the front left conveyor (B)

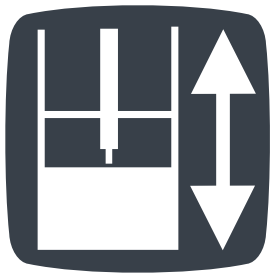
Opening or closing the flaps

Opening / closing the front right flap (C)

Opening / closing the front left flap (D)

Opening / closing the right rear flap (E)

Opening / closing the left rear flap (F)



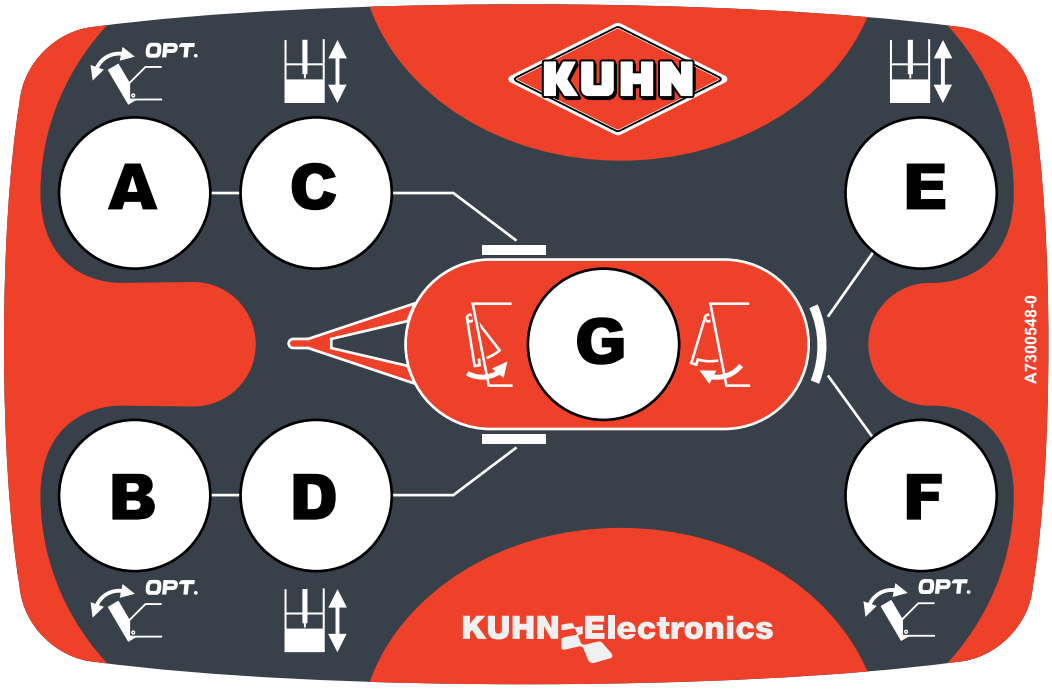
Hydraulic support plates in or out (G)
(Optional equipment)

Support plates in

Support plates out

6.2.5 Electrical controls: 7 functions

- **2 front doors and 1 rear center door**

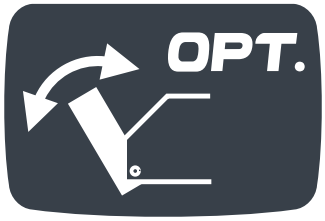


Raising/lowering of conveyors
(Optional equipment)

Raising/lowering the front right conveyor (A)

Raising/lowering the front left conveyor (B)

Raising/lowering the rear center conveyor (F)

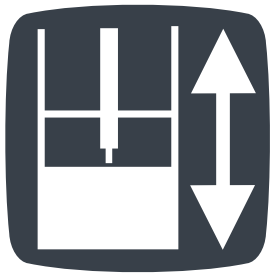


Opening or closing the flaps

Opening / closing the front right flap (C)

Opening / closing the front left flap (D)

Opening / closing the rear center flap (E)



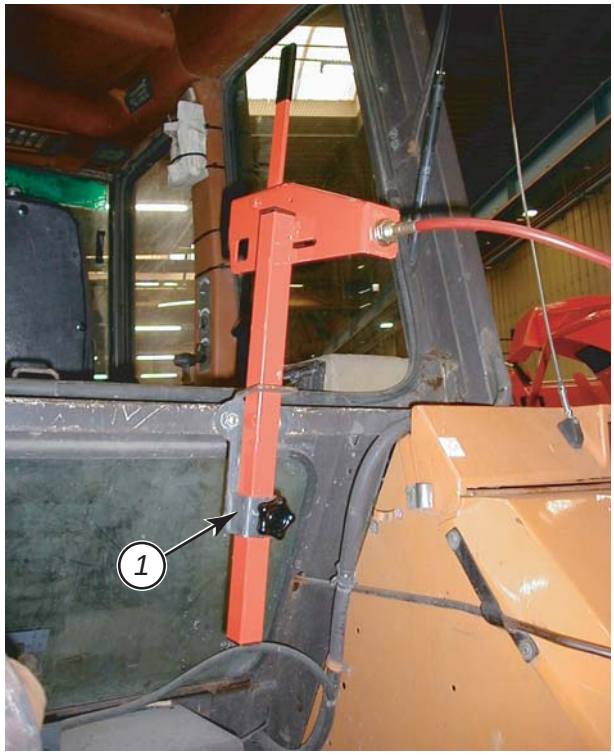
Hydraulic support plates in or out (G)
(Optional equipment)

Support plates in

Support plates out

6.2.6 Mechanical controls

Gear shift lever



The gear stick is placed on the tractor on a holder (1) to be fixed with 2 M8 screws.

This lever is used to select the mixing auger speed.

For a rotation speed of 16 min^{-1} :
- push the lever towards the tortoise.

Blower in distribution position.

For a rotation speed of 29 min^{-1}:
- Pull the lever towards the hare.

Blower in straw-feeding position.

Every time you change gear, make sure the screws are not turning and always go via neutral.

6.3 Coupling and uncoupling

6.3.1 Description of coupling elements

■ Preparing the tractor

Before hitching the machine, make sure that there is sufficient ballast on the front axle of the tractor.

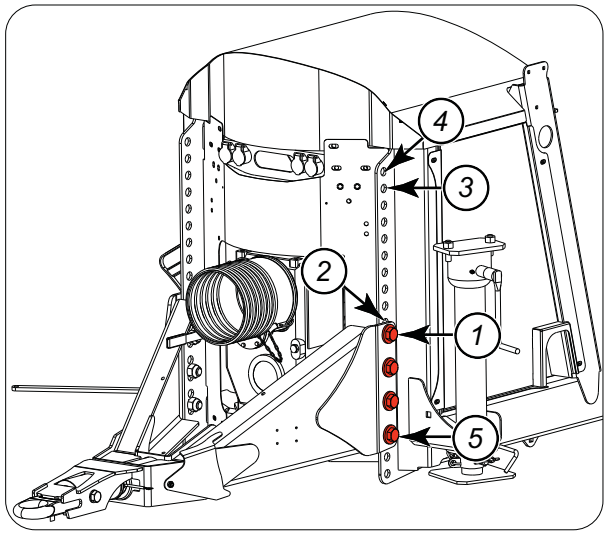
Ballast may need to be added to the front of the tractor at the right place and in conformity with the tractor manufacturer's recommendations. The front axle load must not be below 20 % of the tractor's tare.

■ Preparing the machine

Drawbar height adjustment

In order to adapt the machine to the linkage height of the tractor used, the drawbar has:

- Low linkage positions (1.2).
- High linkage positions (3.4).

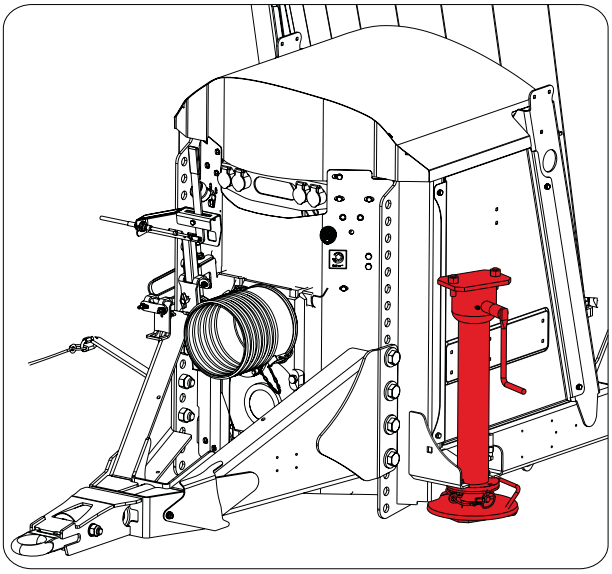


To adjust the drawbar:

- Remove the 8 screws (5), with a 36 spanner.
- Place the drawbar at the required height.
- Reinstall the 8 mounting bolts (5):
  - Torque 60 daN.m (443 Lb.ft).

6.3.2 Coupling the machine

The machine should only be hitched to the tractor at the special linkage points in accordance with the safety standards in force (tractor yoke, eye bolt or hook).



■ Manual parking stand

- Using the parking stand, set the towing eye to the height of the eye bolt.

- Back up the tractor then raise the parking stand to attach the machine to the tractor.

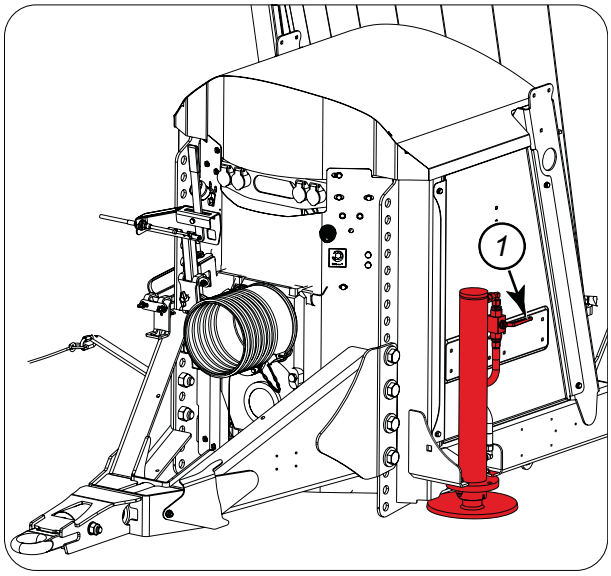
- Raise the parking stand to hitch the machine to the tractor.

- Lock the linkage with the system provided.

■ Hydraulic parking stand

Optional equipment

- Connect the parking stand hoses to a double-acting distributor on the tractor.



The parking stand hoses have a white collar.

- Open the safety valve (1).

- Using the parking stand, set the towing eye to the height of the eye bolt.

- Back up the tractor then raise the parking stand to attach the machine to the tractor.

- Raise the parking stand to hitch the machine to the tractor.

- Lock the linkage with the system provided.

- Close the safety valve.

■ Hydraulic stand with manual pump

(Optional equipment)

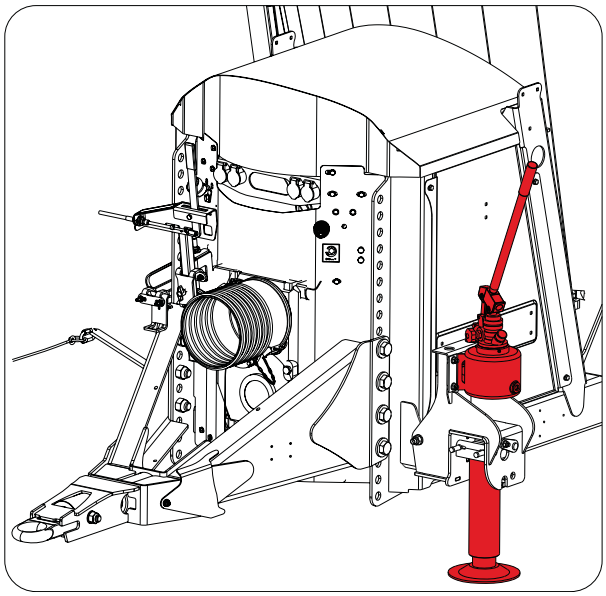
- Using the parking stand, set the towing eye to the height of the eye bolt.

- Back up the tractor then raise the parking stand to attach the machine to the tractor.

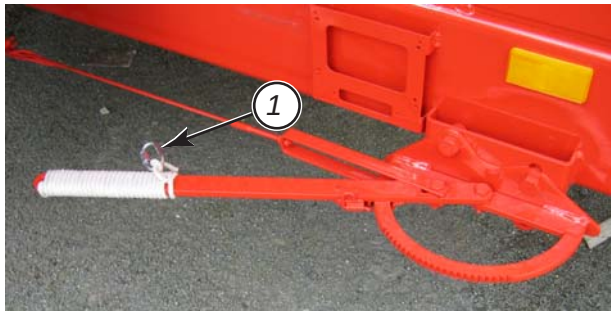
- Raise the parking stand to hitch the machine to the tractor.

- Lock the linkage with the system provided.

- Reposition the parking stand into the transport position.

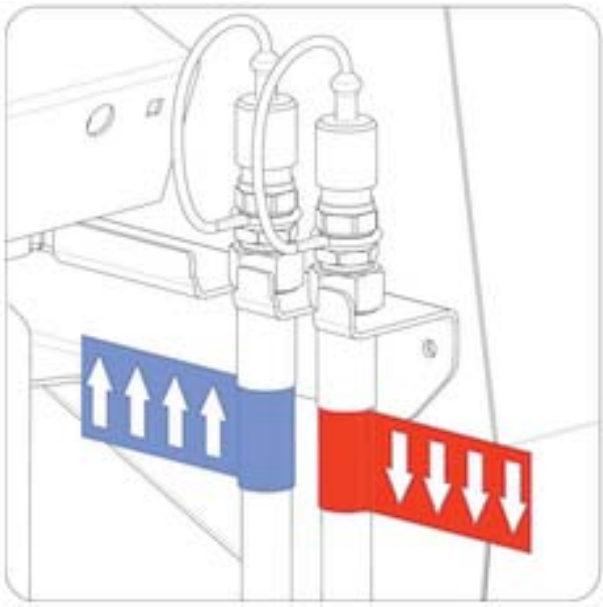


Connect the contact breaking cable (1) to a fixed point on the tractor with the quick link.



6.3.3 Hydraulic connections

The machines hydraulic circuit operates at a maximum pressure of 180 bar (2610.7 psi) and with a flow comprised between 20 l/min (5.3 gal/min) and 45 l/min (11.9 gal/min).



To use the machine with a tractor with a hydraulic output in excess of 45 l/min (11.9 gal min) ; a flow divider must be fitted to prevent the circuit overheating.

The pressure, return and parking stand hoses are equipped with a push-pull male coupler (standard ISO 7241).

The pressure hose has a white arrow on a red background, pointing from the tractor to the machine.

The return hose has a white arrow on a blue background pointing from the machine to the tractor.

■ **Machine directly controlled from the tractor : Basic machine**

- The hydraulic connection to the tractor must be connected to the 2 double-acting hydraulic control valves with independent lift for the hydraulic circuit.

1 control valve to activate the door and 1 control valve for the cross-conveyor.

- The first port is used to connect the pressure hose and the second for the return hose.
- On fitting, make sure that the direction of oil flow is correct.
- Optional equipment:
  - Hydraulic support plates
  - Hydraulic offset
  - Tilting conveyor
- require a double-acting control valve per function.

■ Electrically controlled machine

The hydraulic connection to the tractor can be done in two ways:

- Connection to a single-acting control valve and direct return to the tank.

- Connection to a double-acting control valve.
  - The first port is used to connect the pressure hose and the second for the return hose.
  - On fitting, make sure that the direction of oil flow is correct.

After connecting the hoses, check that there is no risk of catching them during operation.

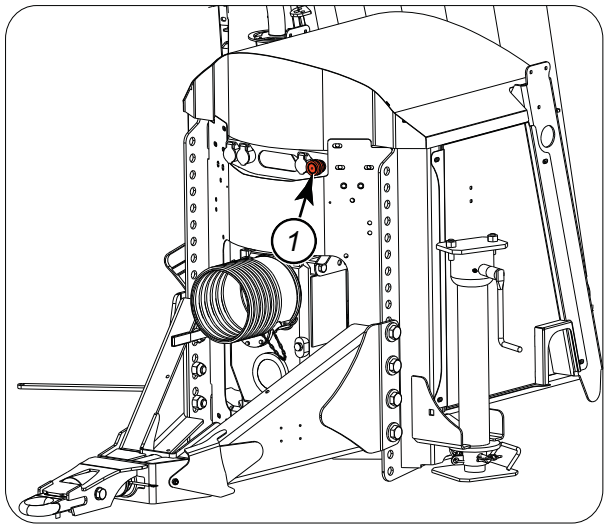
Clean the couplers before each connection.

6.3.4 Brake connections

(according to the regulations in force)

The machine is equipped with hydraulic brakes.

The brake hose is equipped with a push-pull female brake valve (standard ISO 5676).



Connect the braking coupler correctly and check that the brakes work correctly before moving the machine.

When the machine is unhitched from the tractor, all the hydraulic hoses must be hooked back in their original places (1).

6.3.5 Specific recommendations for the European Union

The 1 line hydraulic braking device does not meet European approval requirements and may therefore be forbidden for road transport in certain countries European Union.

Before taking the machine on public roads, make sure the machine conforms to local road regulations.

6.3.6 Specific requirements for the Netherlands

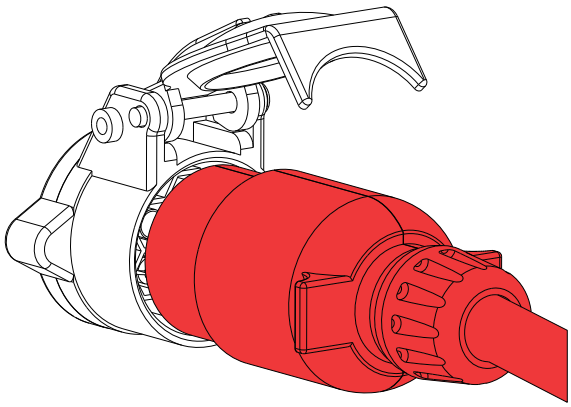
It is forbidden to drive on public roads with a 1-line braking system.

6.3.7 Electrical connections

■ Lighting

Connect to the standardized 7-pin socket located at the back of the tractor.

Mandatory or optional equipment depending on legislation in each country.

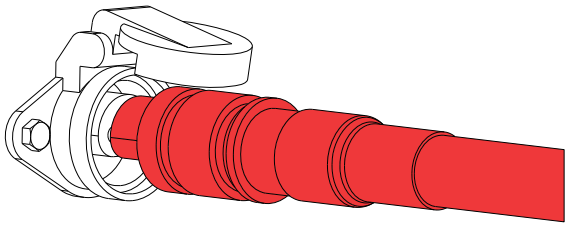


Control and Weighing Unit Power Supply

On tractors equipped with a 3 terminal female connector in accordance with the standard DIN 9680A, connect the control and weighing unit directly.

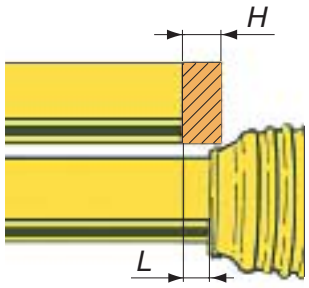
For other tractors, a harness to be connected directly to the battery is delivered with the machine.

The wiring harness is fitted with a 15 Amp ATO type fuse.



*To use the machine with another tractor, a second tractor-side power harness can be ordered under p/n **83233002**.*

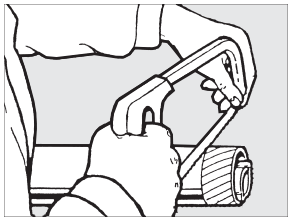
6.3.8 PTO shaft

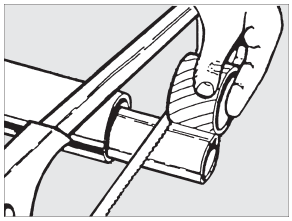


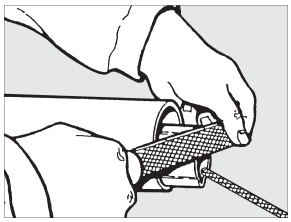
Before using the machine for the first time: Grease the transmission.

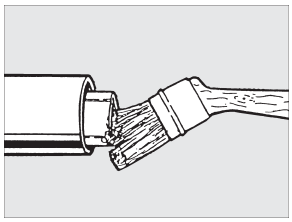
Make sure that the PTO shaft is correctly adjusted, to avoid premature wear and tear.

- Separate the two half PTO shafts and connect them to the machine's input shaft and to the tractor PTO stub.
- Check the length of the PTO shaft:
  - Check the maximum overlap when the machine is in transport position and the tractor turned to the direction which provides maximum overlap.
  - When the PTO shaft is in its maximum overlap position (retracted), tubes should not butt against the yokes. As a safety measure, a clearance (L) of at least 25 mm (1'') must be maintained.
  - When the PTO shaft is in its maximum extended position, the tube overlap must be more than 250 mm (10'')





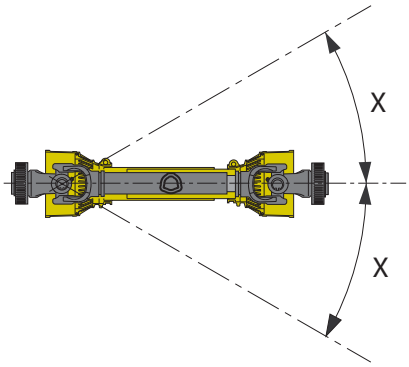




If this is not the case:

- Mark length (H) to cut when the transmission is the maximum overlap position.
- Shorten the guard tubes and the transmission tubes by the same length.
- Bevel and clean the tubes.
- Grease the inside of the outer tube.

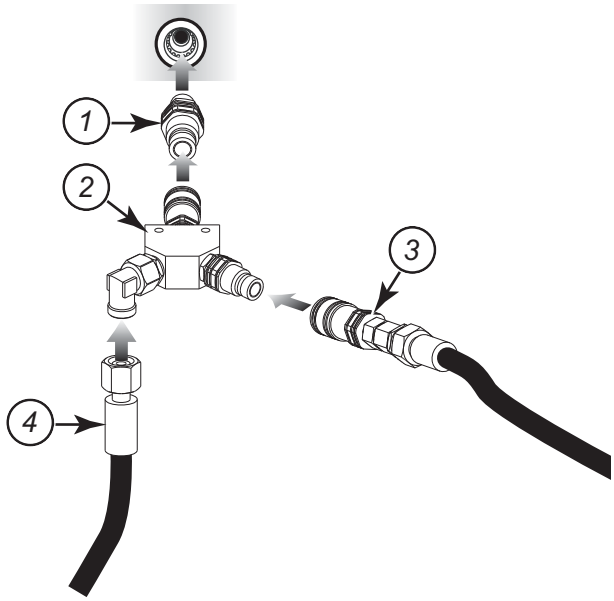
Check that there is still a minimum overlap of 250 mm (10'') when the machine is in working position and the tractor in line with the machine.



The drive shaft with a wide angle joint must not work at an angle X greater than 25° constantly and *2 when working

To avoid serious accidents, the PTO drive shaft guards must be properly in place and fixed with the chains provided.

- Attach PTO shaft guard chain in hole (1) on machine side.



Immediately replace any worn or damaged guard.

Please read the instructions supplied with the transmission carefully.

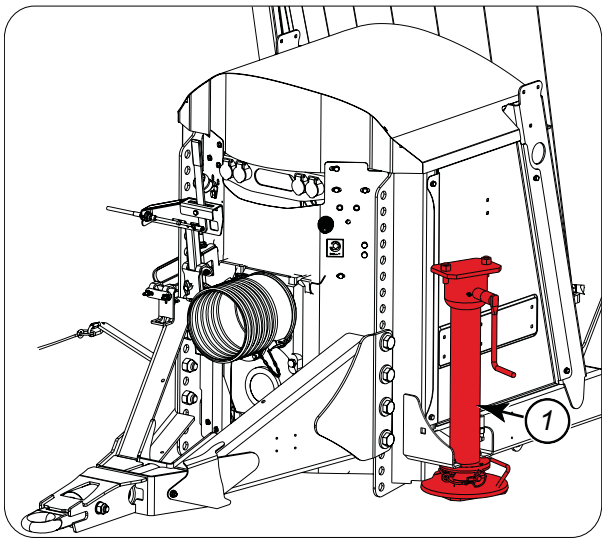
6.3.9 Uncoupling the machine

Before leaving the tractor or before adjusting, maintaining or repairing the machine, disengage the PTO drive, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop and apply park brake.

■ Manual parking stand

- Uncouple the transmission.
- Block the wheels with the 2 chocks supplied with the machine.
- Apply parking brake.
- Remove the hitch safety cable.
- Position the parking stand (1) on the ground.
- Uncouple all hydraulic and electrical connections.
- Unhitch.

The machine is uncoupled.

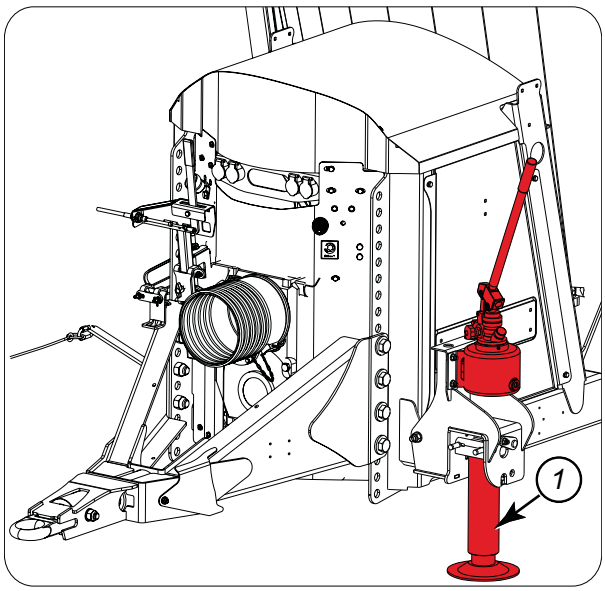


■ Hydraulic stand with manual pump

(Optional equipment)

- Uncouple the transmission.
- Block the wheels with the 2 chocks supplied with the machine.
- Apply parking brake.
- Remove the hitch safety cable.
- Position the parking stand (1) on the ground.
- Uncouple all hydraulic and electrical connections.
- Unhitch.

The machine is uncoupled.

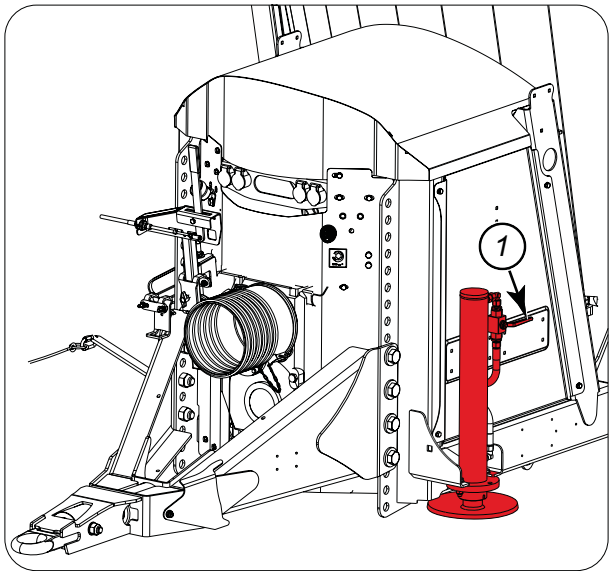


■ Hydraulic parking stand

Optional equipment

- Uncouple the transmission.
- Open the parking stand safety valve (1).
- Release the linkage.
- Block the wheels with the 2 chocks supplied with the machine.
- Apply parking brake.
- Remove the hitch safety cable.
- Position the parking stand on the ground.
- Close the safety valve of the parking stand.
- Uncouple all hydraulic and electrical connections.
- Unhitch.

The machine is uncoupled.



7. Instructions for transport

7.1 Conformity with the road regulations

Before driving the machine on public roads, ensure that the machine complies with current highway code regulations.

- Check that the braking and lighting systems are in good condition.

7.2 Machine transport using transport means

134035: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
134036: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

7.3 Putting the machine into transport position

Close all the machine's hatches.

8. Instructions for work

Before placing the machine in working position:

Check the immediate surroundings before starting up the machine. Make sure that the visibility is adequate and that there are no obstacles in the machine working area.

Keep all persons and animals out of the machine's danger zone: risk of flying debris.

8.1 Preliminary checks

Prior to using the machine, check the following points:

- Check the tightness of the wheel screws and nuts (See chapter on "Tires").

- Check that the safety stickers are in place and readable.

- Grease all moving parts. Use only lubricants recommended by the manufacturer (See chapter "Table of lubricants").

- Check the oil in the gearbox and angle drives (See chapter "Oil change and level").

- Make sure the cardan drive shaft protectors are in good condition. Replace if necessary.

- Check the condition of the hydraulic hoses. Replace if necessary.

8.2 Functional check, no load

- Make sure you can change PTO speed. (Caution: this is not synchronised).
- Select a gear.
- Align the tractor and the machine, then engage the PTO drive and leave the tractor idling.
- Gradually increase the engine speed until the PTO reaches 540 min^{-1}.

If the machine is noisy or vibrating abnormally, stop the PTO immediately and refer to the troubleshooting section or contact your Kuhn dealer. When the problem has been solved, start the test procedure again from the beginning.

- Operate the hydraulically-controlled elements and check that the machine is functioning properly.
- Stop the PTO, switch off the control unit and switch off the tractor engine.

If one of the hydraulic functions is not working, or is running in the wrong direction, check the hose connections and start the test procedure again from the beginning.

If you have the optional lighting equipment:

- Test the operation of the lighting and signalling system (front and rear light, brake lights and indicators).

8.3 Precautions and prevention of fire risk

Your machine works with highly flammable products.

There is therefore a real risk of fire resulting from:

- Overheating of the power takeoff friction limiter. Please do not use this limiter excessively. If smoke issues from the transmission, stop the machine immediately and leave the limiter to cool outside the buildings.

- Worn bearing. Grease bearings regularly and check their condition.

- Sparks caused by pebbles or metal objects in the straw.

It is highly recommended to have an extinguisher which has been checked and maintained, on your tractor. Recommended types: sprayed water + additive, ABC powder.

It is strictly prohibited to use your machine stationary inside a building.

8.4 Machine use

8.4.1 Loading

The machine is loaded from above only. Use a front loader, a telescopic arm or any other suitable handling equipment. Beware of catching the sides of the body during loading operations.

When loading from a raised bay or platform, adopt the necessary measures (safety rails, etc.) to avoid falling into the machine.

Comply with the safety instructions stipulated in the User Manuals for the handling equipment used for loading the machine.

Before loading with a telescopic arm or loader, make sure that there can be no accidental contact with a power line.

- To obtain a good mix and to facilitate the work of the mixing screw, load the products in the following order:
  - Fibrous products (full bales or loose).
  - Concentrates and minerals.
  - Silage.

Rations with a high fiber content take up a greater volume.

8.4.2 Mixing

Never attempt to clear the product by hand or with a tool (fork, etc.) while the machine is running.

Never climb on the machine or work inside the body while the machine is running.

With fibrous mixes (e.g.: straw and haylage), proceed as follows:

- Mixing speed:
  - Standard machine: 29 min^{-1}
  - Machine with two-speed gearbox: 16 min^{-1}
- Put the support plates back into the body.
- Load the first bale (always load the lightest product first, e.g. straw).
- Wait for a few moments.
- Take the support plates out from the body so that the product stays at the bottom of the bowl.
- Load the second bale, this bale should be milled within a few moments.
- Put the support plates back into the body.
- Wait until an even mix is obtained.

For dairy type mixes (e.g. hay, flour, grass silage and/or maize silage), proceed as follows:

- Mixing speed:
  - Standard machine: 29 min^{-1}
  - Machine with two-speed gearbox: 16 min^{-1}
- Put the support plates back into the body.
- Load the fiber.
- Wait for a few moments.
- Take the support plates out from the body so that the product stays at the bottom of the bowl.
- Load the flour.
- Load the grass silage and/or the maize silage.
- Wait until an even mix is obtained.

Every time you change gear, make sure the screws are not turning and always go via neutral.

Beware of the working angles of the drive shaft, the optional wide-angle PTO shaft is suited to such mixing operations in transit. Optional equipment: homokinetic transmission is adapted for mixing operations during travelling.

After road transport with a tank full of dairy type mixture, start at slow speed: tortoise position 16 min^{-1}.

8.4.3 Distribution of forage

Check that the safety flap on the discharge chute(s) is in good condition.

Never attempt to clear the product by hand or with a tool (fork, etc.) while the machine is running.

Never climb on the machine or work inside the body while the machine is running.

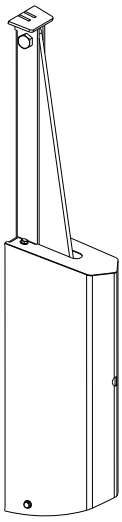
- Engage the tractor PTO.
- Start the tractor hydraulics and put it to its nominal speed (machine without hydraulic system).
- Open the appropriate flap(s).

- The product output is adjusted by
  - The tractor engine speed (which determines the speed of rotation of the PTO and the hydraulic output).
  - the forward speed of the tractor.
  - The opening of the flap.
  - The speed of rotation of the auger on feeding: 29 min^{-1}
- Close the flap(s) after feeding.
- Stop the tractor hydraulics.
- Disengage the tractor PTO and switch off the engine.

9. Optional equipment

9.1 Hydraulic support plates

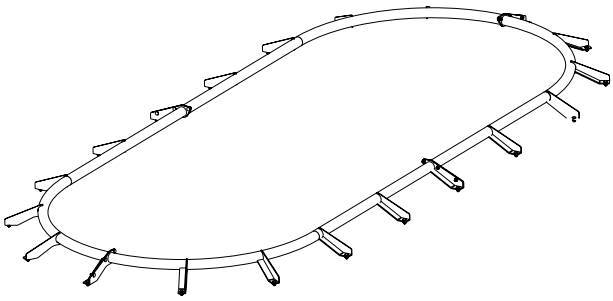
For easier use, the support plates (manual on standard equipment) can be hydraulically controlled from the tractor cab. It is therefore possible to refine the mix by activating them as required.



9.2 Anti-overflow ring

Only for PROFILE 1470

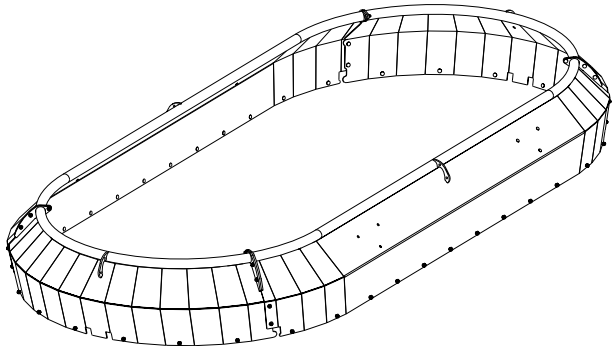
This option helps to keep fibrous products inside the machine body.



Increases the total height by 130 mm (5'').

9.3 Raising wedges

This equipment is used to change the machine's usable volume from 14 m^3 (494.4 cu.ft) to 16 m^3 (565 cu.ft) ; 18 m^3 (637.7 cu.ft) ; 20 m^3 (706.03 cu.ft), if the size of your herd changes.

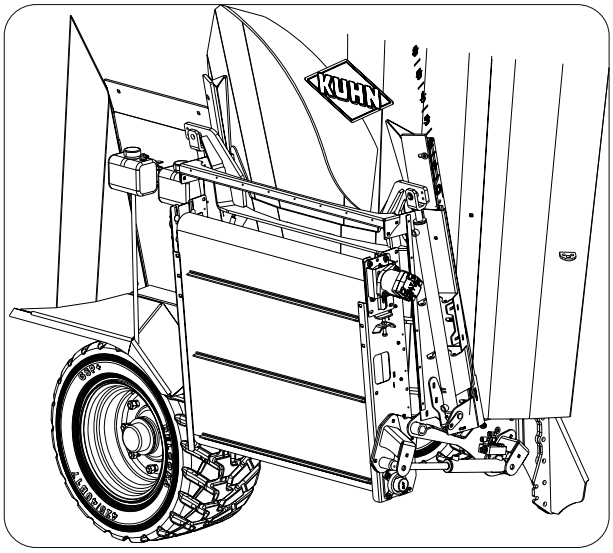


9.4 Tilting conveyor

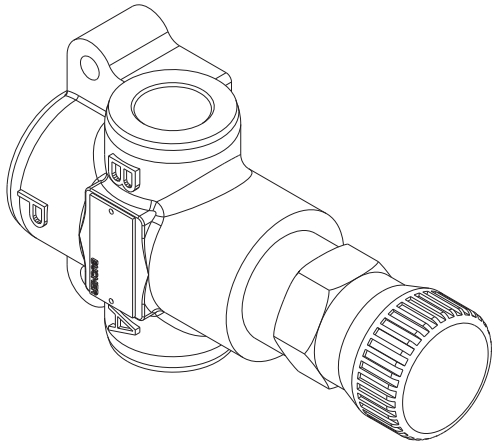
This is a factory-mounted option.

The tilting conveyor is designed to provide higher and/or wider distribution. It also solves the problem of inaccessibility.

For the operation of the tilting conveyor, see the chapter 'Description of control elements'.



9.5 Flow divider



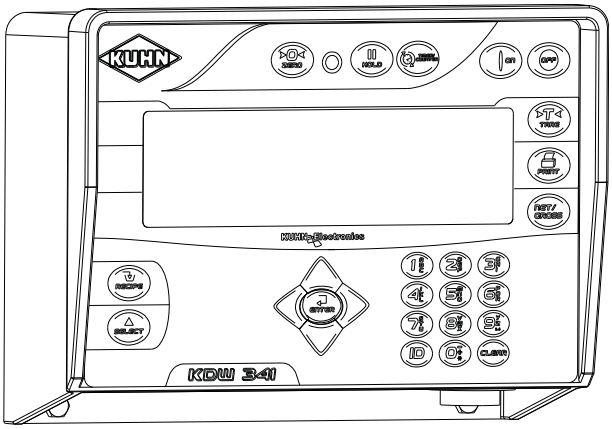
Device used to regulate the hydraulic oil flow from the tractor.

For tractors with an oil flow of more than 45 l/min (11.9 gal/min).

9.6 2V air brakes (Germany)

Instead of hydraulic brakes, this braking system is for tractors equipped with air brakes.

9.7 Programmable weighing unit KDW 341

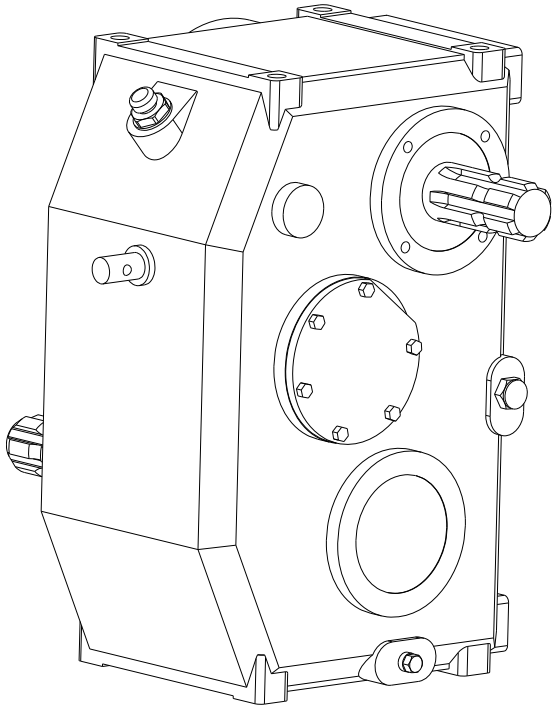


This unit weighs and programs the animals' feed rations.

Read the instructions carefully before weighing.

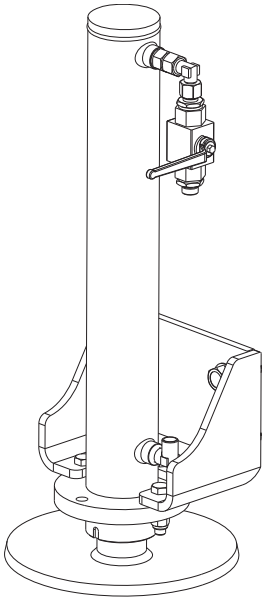
9.8 Two-speed gearbox

The gearbox reduces the rotation speed of the mixing screw. Change speed from 29 min^{-1} to 16 min^{-1}.

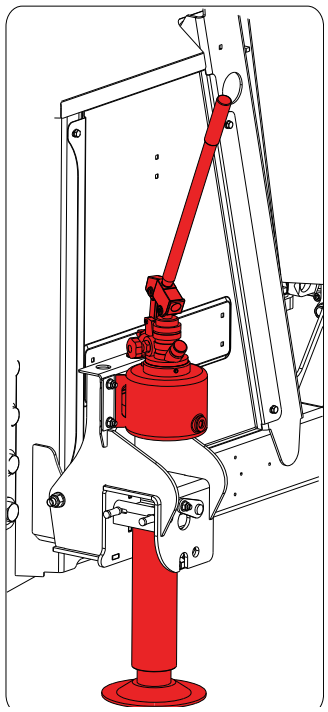


9.9 Hydraulic parking stand

The parking stand (which is manual on standard equipment) can be operated hydraulically to make it easier to use.



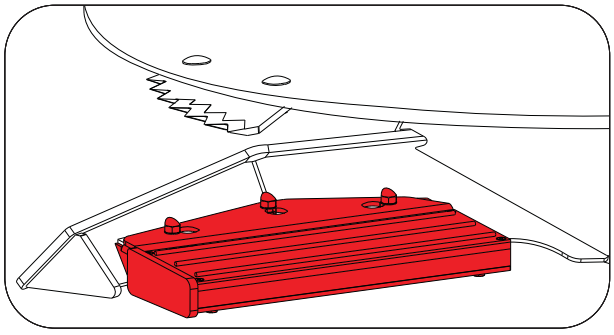
9.10 Hydraulic stand with manual pump



9.11 Magnet on mixing screw

The device allows the risk of metal pieces in the power cord to be reduced.

Read the notice delivered with the'magnet on the mixing screw' option carefully.



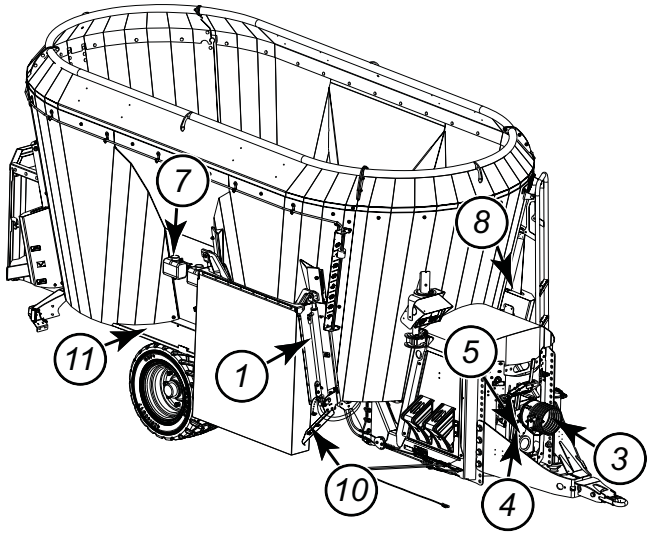
10. Maintenance and storage

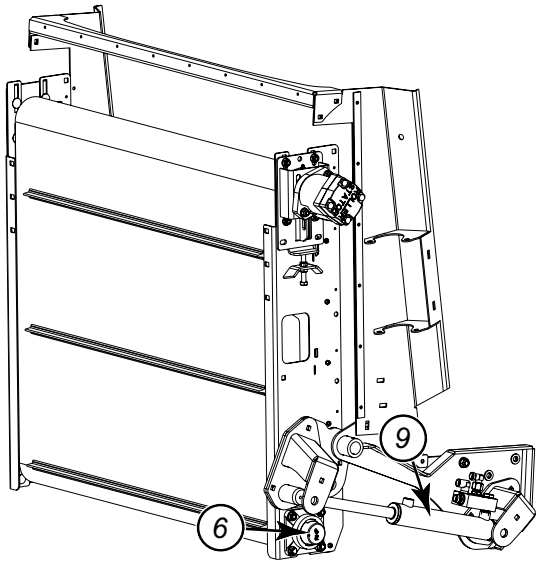
10.1 Greasing and oil change

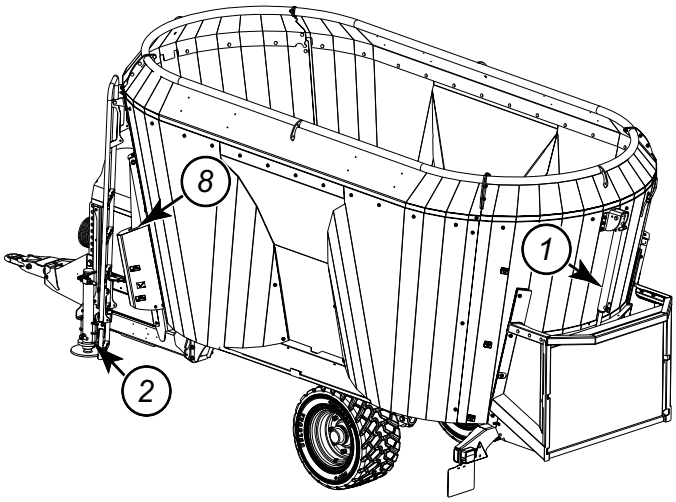
10.1.1 Frequency chart

	After 10 hours	After 50 hours	Every 100 hours	Every 1500 hours
Greasing				
Grease: - Greasing points from (1) to (11)		✓	✓	
Draining				
Oil change: - The angle drive unit - Two-speed gearbox (optional equipment)				✓
Maintenance				
Check levels - The angle drive unit - Two-speed gearbox			✓	
- Check wheelnut tightness - Check tyre pressure - Check that all the various parts are correctly tightened - Check the unloading conveyor is working (Centering and tension of the band, adjustment of scrapers))	✓	✓	✓	
- Check the state of wear of the moving parts, replace them if necessary with KUHN parts			✓	

10.1.2 Greasing and oil change points







1 : Door cylinder(s)
2 : Parking stand
3 : PTO shaft
4 : Universal joint at gearbox output
5 : Two-speed gearbox
6 : Conveyor bearings (Tilting conveyor: Optional equipment)
7 : The angle drive unit
8 : Support plate
9 : Conveyor lift cylinder (Tilting conveyor: Optional equipment)
10 : Universal joint at first gearbox input
11 : Intermediate PTO shaft

10.1.3 Greasing

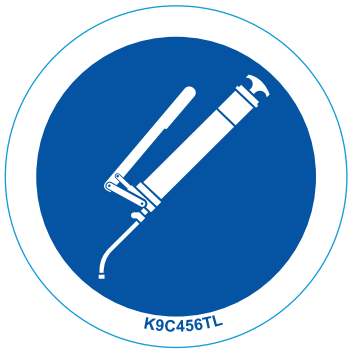
Before carrying out any maintenance or repairs on the machine, switch off the tractor engine, remove ignition key, wait until all moving parts have come to a standstill and remove PTO shaft

The greasing points are shown by a white picture on a blue background.

Some greasers are situated under cases or protective plugs.

Upon delivery, take the time to open all the cases in order to find all the different greasing points.

Regular greasing allows the life span of the rotating parts to be significantly increased.

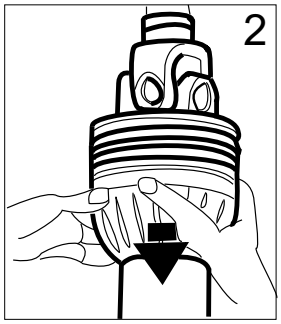


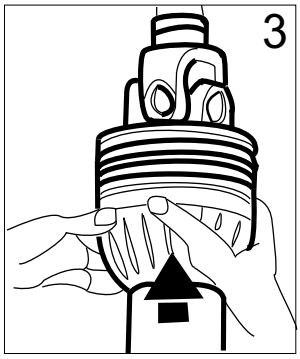
10.1.4 Lubricant chart

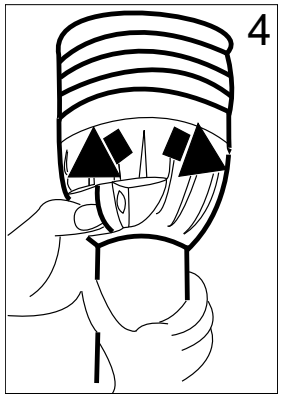
Description	Recommended lubricants	Equivalent standard
Two-speed gearbox Fill quantity 10 L (2.6 gal)	Q8 GOYA 150	ISO CKC 150/ SAE 80 W 90
Angle gearbox Fill quantity 49 L (12.9 gal) (For the 2)	Q8 GOYA 150	ISO CKC 150/ SAE 80 W 90
Greasing	SHELL RETINAX EP2	NLG1

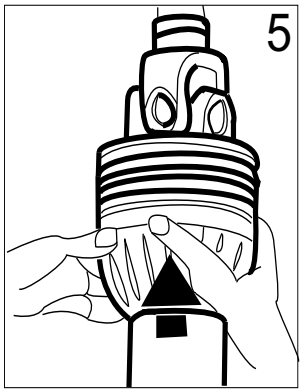
10.1.5 Greasing the intermediate transmission

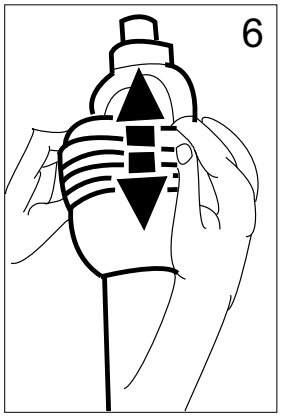
- Detach the protector (1).
- Move the protector (2) back.
- Grease the transmission.
- Reinstall guard (3).
- Turn the protector to block it (4).
- Push strongly to assemble (5).
- Make sure the protector is assembled (6).









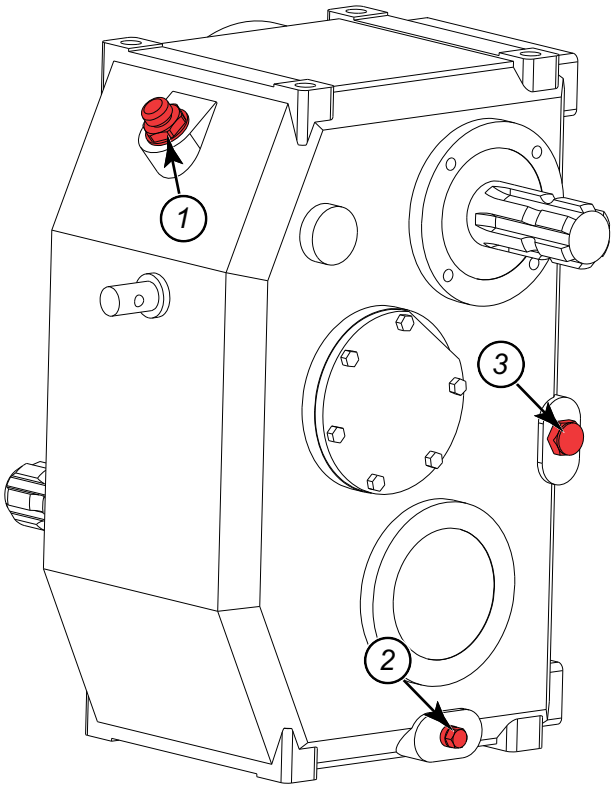


Read and follow the instructions in the operator's manual provided with the PTO shaft.

10.2 Oil change and level check

Check the oil level regularly to prevent abnormal component wear.

10.2.1 Two-speed gearbox



- **Draining**

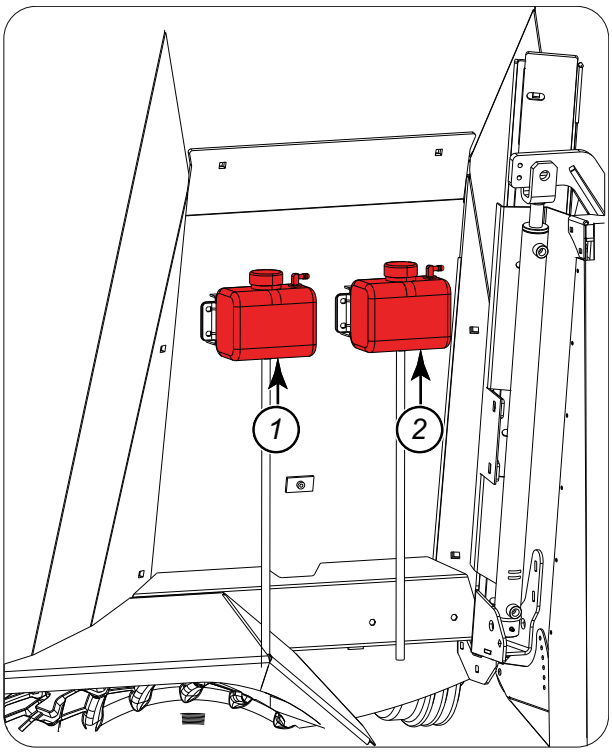
  - Remove filler plug (1) (20 mm wrench).
  - Place a container underneath the gearbox.
  - Remove the draining plug (2) (22 spanner).

- **Filling**

  - Reinstall draining plug (2).
  - Remove level plug (3).
  - Fill the gearbox with a funnel.
  - The oil level is correct when oil flows through the level opening.
  - Reinstall level plug (3).
  - Reinstall filler plug (1).

Fill quantity 10 L (2.9 gal) SAE 80 W 90 oil.

10.2.2 Angle gearbox



Due to its position on the machine, the angle gearbox is difficult to access.

The maintenance operations for the angle gearbox are carried out on the hand side of the machine.

The oil level can be checked on expansion tanks (1) and (2).

■ Checking the oil level

Always check the oil level when it is cold.

The level on the expansion tank corresponds to the oil level of the angle gearbox.

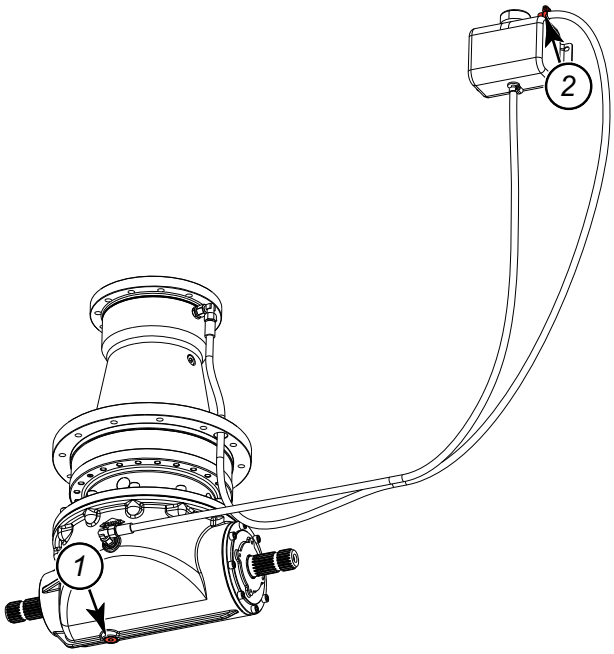
During operation, the oil heats up and the level rises in the tank.

This rise in the oil level is normal.

■ Draining

The angle gearbox draining plug can be accessed underneath the machine.

- Place a container underneath the gearbox.
- Remove the plug (1) from the bottom of the angle gearbox.
- Wait until all the oil has drained out.
- Disconnect the hose from the expansion tank (2).
- Blow air with a maximum pressure of 0.5 bar (7.3 psi) inside to drain the gearbox completely.
- Refit the plug (1) to the bottom of the angle gearbox.



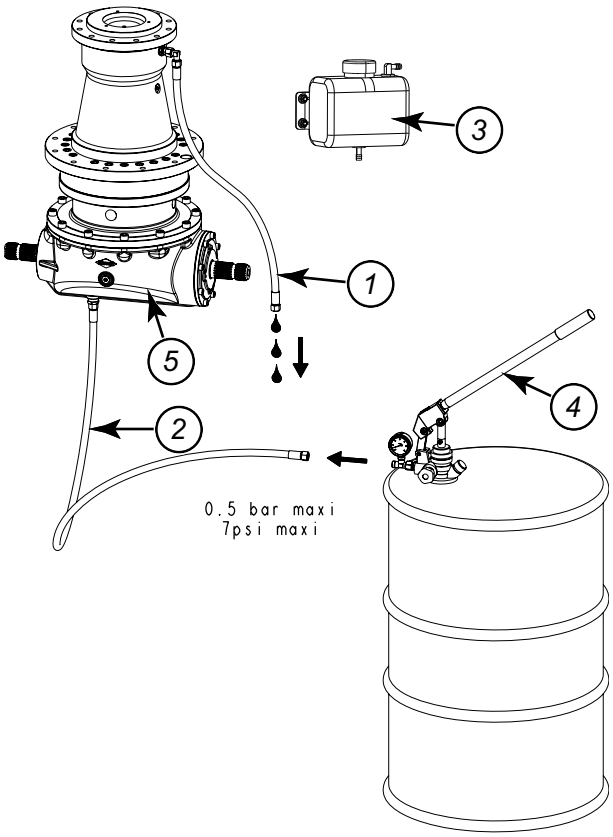
Before changing the oil in the angle gearbox, operate the machine for a short time in order to make the oil fluid.

■ Filling with a pump

- Disconnect the 2 pipes (1) (2) linking the box to the expansion tank (3).
- Once the angle gearbox is empty, blow out the pipe (1) with a maximum pressure of 1 bar (14.5 psi).5 psi).

This operation is necessary to ensure that the oil flowing out of the pipe (1) on refilling is indeed new oil.

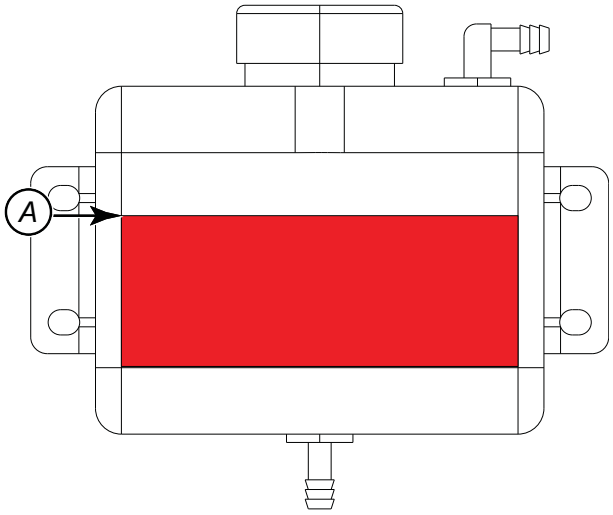
- Use an oil pump (4), to pump oil into the pipe (2) which is connected at the bottom of the angle transmission (5) until the oil flows out of the other pipe (1).



Pump pressure must be lower than 0.5 bar (7.3 psi) to avoid damaging the angle transmission seals.

When the oil starts to run out of the other pipe (1), wait a few seconds to be sure that no air is left in the circuit.

- Connect the hoses:
  - The hose at the bottom of the angle transmission goes into the bottom of the tank.
  - The hose at the top of the angle transmission goes to the top of the tank.
- Top up the tank as far as the mark (A).



For a twin-auger machine, fill the 2 units separately.

Capacity 21 L (5.5 gal) of oil per box.

Capacity 49 L (12.9 gal) of oil SAE 80 W 90 for the 2 boxes plus the top-up in the tank.

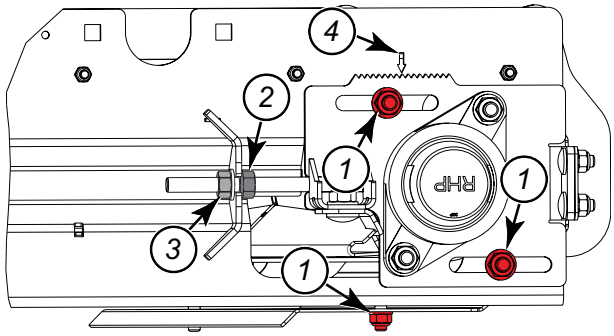
10.3 Maintenance

■ **Each time the machine is used**

- Check the condition and the presence of the safety elements and replace if necessary.

- Check that the safety stickers are in place and readable.

10.3.1 PVC belt tension



Only re-tighten the belt if it is slipping.

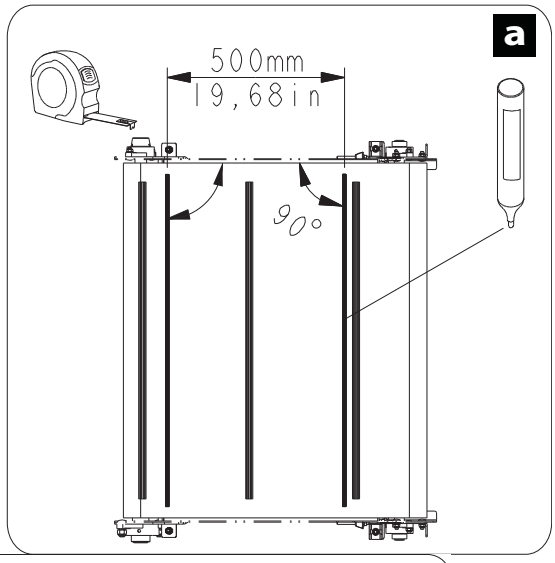
To tighten the belt:

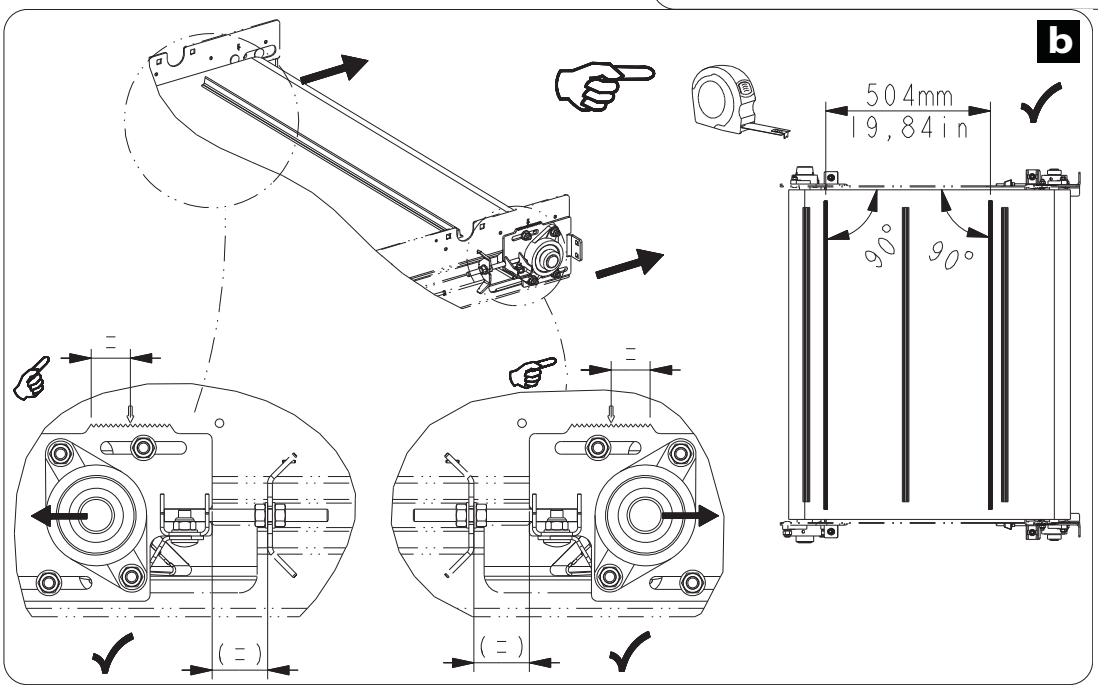
- Unscrew the 3 bolts (1).
- Unscrew the counter nuts (2), in order to tighten the screw (3).
- Tighten the band using the notches (4).
- Increase by half a sprocket each time until the belt stops slipping.
- Re-tighten the counter nuts (2) in order to block the screw (3).
- Tighten the 3 nuts (1).

Procedure to be carried out for the tension of the PVC belt

a - Place marks on the PVC belt 2 lines 500 mm (1’8’’) apart.

b - Always tighten the PVC belt from 2 sides equally to 504 mm (1’8’’).



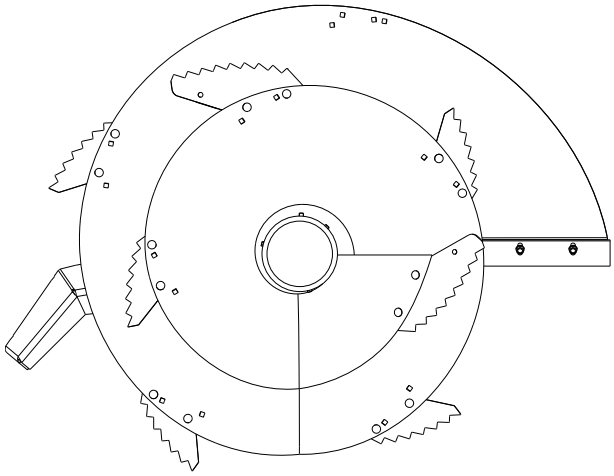


10.3.2 Checking the mixing auger blades

To replace the mixing auger knives, you must descend into the body.

Before going inside the body, the tractor must be separated from the machine to prevent the machine from starting up.

Use safe and stable means of access (clean mixing screw and body interior).

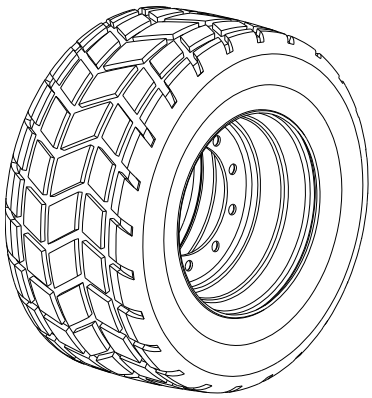


When replacing a working part, wear protective gloves and only use appropriate tools.

- Check regularly the state of wear of the mixing auger blades and replace them if necessary.
  • Torque : 27.8 daN.m (205.04 Lb.ft).

The power needed for a good mixing and good cutting of fibrous products depends on the state of wear of the blades.

10.3.3 Tyres

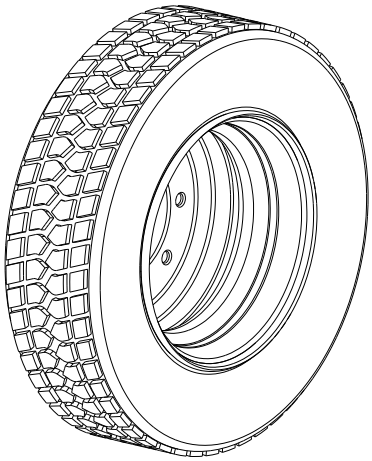


The machine is fitted with tires 435/50 R 19.5.

- The tyre inflation pressure : 8 bar (116 psi).

The machine is equipped with 425/40 B 17 wheels.

- The tyre inflation pressure : 9 bar (130.5 psi).



The machine can be fitted with 215/75 R 17.5 twin wheels.

- The tyre inflation pressure : 8.5 bar (123 psi).

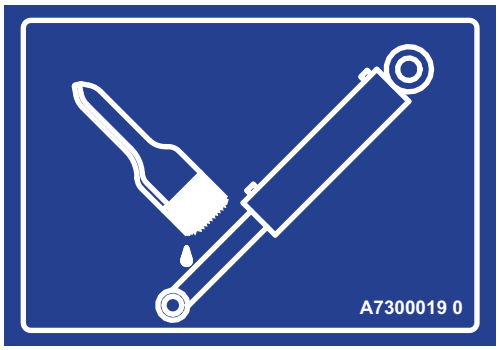
Check torques of wheel nuts 29 daN.m (213.89 Lb.ft). Retighten if necessary.

10.4 Storage

If the machine is not to be used for a long period, prepare it for storage:

- Clean the body (inside, outside and underside).

Do not clean the cylinder rods with a pressurized washer and detergent.



Do not direct a pressurized jet of water towards a cylinder rod scraper seal.

- Remove any build-up of vegetation.
- Repaint any surface in danger of rusting with a special paint.
- Grease the underbody.
- Push the cylinder rods in to the maximum to protect them from humidity and dust.

Grease the cylinder rods in contact with the outside every month.

- Clean all the greasing points and joints and grease them.
- Put the machine under cover in a dry place.
- Check the tire pressure and that the studs are tightened.

When using the machine after a long-term storage:

- Clean the ram rods.
- Check all machine oil levels.

10.4.1 Storage

- 139884: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 139885: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 139886: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 139888: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134014: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134062: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134063: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134064: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).
- 134192: Specific requirements for countries member of the Eurasian Economic Community (EAC marking).

10.5 Dismantling and scrapping of the machine

At the end of the machine's life, the various machine components must be disposed of or recycled in compliance with local regulations in force.

- Make sure the machine is stable (parking stands, holders, slings, etc.) prior to carrying out any repair or maintenance.
- Before any repair or maintenance on a circuit including an accumulator, depressurize the circuit.
- Do not grind or drill on the shell of the hydro-pneumatic accumulator.
- Always empty and recover the oil of the machine's gearboxes and the hydraulic circuit to entrust it to waste oil recycling companies.
- Empty fluids or components such as coolant, cooling liquid, brake fluid, batteries, filters and entrust them to a specialized company.
- Cut the electric power prior to carrying out any repair or maintenance on the circuits or electric/electronic components.
- Entrust electronic waste such as control box, wiring harness... of the machine to a specialized company.
- Separate the metal components, plastic components and rubber components and entrust them to specialized companies.

11. Troubleshooting guide

Problem	Cause	Remedy
Lack of power on the conveyor motor	Valve wrongly calibrated or adjusted	Check the general valve on the distributor.
	Motor not working	If the valve calibration is correct: Check internal leaks in the motor.
Lack of power on all the hydraulic controls	Dirty valve	Check the general valve (disassemble and clean the valve) and check the valve seat.
	Hydraulic pump pinion damaged	On machines with the hydraulic system: check the condition of the drive pinion of the hydraulic pump.
Conveyor not moving	The belt slips	Check the tension of the PVC belt
Hydraulic offset of the conveyor not working	Dirt in the conveyor slide rails	Clean the conveyor slide rails
The hydraulic functions do not work	Dirt in the distributors.	Check that the hoses are correctly connected to the tractor distributor (check that the valves open properly: dirt can prevent correct functioning).
	Supply voltage too weak.	Check that the voltage supplied by the battery is over 11 volts.
	Tractor distributor.	Check that the original tractor distributor is in the continuous pumping position (except for the hydraulic system).
	Bad electrical connection.	Check if the electrical power cable of the control box is connected.
	Supply cable cut.	Check that the supply from the battery reaches the socket.
	Bad connection.	Check the polarity of the socket.
	BY-PASS functions incorrectly.	Check if the BY-PASS is correctly controlled.
	Seizing of the solenoid valve.	Check if the slide-valve of the solenoid valve has not seized up (if it has seized up, disassemble it to polish it).
	Solenoid valve does not function correctly.	Simultaneous movement: check the travel of the slide-valve of the solenoid valve which is not controlled by pressing with a screwdriver on the control button of the slide-valve.

For any other problems that are not solved by following the instructions above, please consult your Kuhn dealer.

12. Limited Warranty

"KUHN-AUDUREAU S.A. B.P. 19, 85260 LA COPECHAGNIERE, FRANCE (hereinafter called ""the Company"") warrants, in accordance with the provisions below, to each original retail purchaser of new KUHN equipment of its own manufacture from an authorized KUHN dealer, that such equipment is, at the time of delivery to such purchaser, free from defects in material and workmanship, providing the machine is used and serviced in accordance with the recommendations in the Operator's manual".

This Limited Warranty covers the equipment for a period of one year starting from the date the equipment is delivered to the retail purchaser and during this period up to a limit of 500 hours of use.

The invoicing date to the final purchaser and entry of the warranty certificate by the reseller for the Company, after signing by the reseller and purchaser, will be proof of delivery of the equipment..

The warranty covers reimbursement for parts (or repair) and the labor devoted to the intervention based on the time allocated by KUHN, as long as the relevant defect has been identified by our technical service and recognized as being KUHN's responsibility..

These conditions are subject to the following exceptions:

- Parts of the machine which are not of KUHN manufacture, such as tires, PTO shafts, slip clutches, hydraulic jacks, etc. are not covered by the KUHN Limited Warranty, but are subject to the warranty of the original manufacturer.
- Warranty claims related to these types of parts must be handled in the same way as if they were parts manufactured by KUHN. However, compensation will be paid in accordance with the warranty agreement of the manufacturer concerned, in as much as the latter justifies such a claim.
- Obviously, this Warranty does not apply to failure through normal wear and tear, to damage resulting from negligence or to faulty surveillance, to wrong use, to lack of maintenance and/or if the machine has been involved in an accident, lent out or used for purposes other than which it was intended by the Company.
- This Limited Warranty will not apply to any product that is altered or modified in any way without the express permission of the Company, or if parts not made by Kuhn are used on a machine sold by the Company and/or if repairs have been carried out by anyone other than Authorized Service Dealers.
- The Company shall not be responsible for any damage to the machine or its equipment in transit or handling by any common carrier, within or without the Warranty period.
- The Company cannot be held responsible for any claims or accidents to the owner or to any third party, nor to any resulting responsibility.
- In the same way, the Company cannot be held responsible for paying an indemnity for whatever reason in the case of loss of anticipated profits or of any prejudice due to a failing, a hidden fault or breakdown of the machine.

The customer will be responsible for and bear the costs of:

- Normal maintenance of the material, i.e. greasing, maintenance of oil levels, minor adjustments, etc.
- Labor charges due to removing and replacing the faulty part(s) or, as applicable, the adjustment of the new replacement part(s).
- Dealer travel time, or traveling costs to and from the machine.
- Transporting machines, equipment or parts to the repair site and returning them to the user site.
- Wear parts, such as belts, tires, blades, forks, disks, knives, spades, teeth, torque limiters, conveyor belts, etc., that are not covered by the warranty.

The Limited Warranty is dependent on the strict observance of the following conditions:

- The material must be put in service by the dealer according to our instructions.
- The machine has been registered on line via extranet - www.kuhn.com or the warranty/product registration form has been completed and returned to the address indicated on the form as soon as the machine has been delivered to the retail purchaser.
- The warranty claim is completed on line via extranet - www.kuhn.com or submitted on a KUHN warranty claim form and and returned to the Company within one month after the date of failure or the date of problem becoming apparent.
- The claim must be completed by the dealer and following information must be mentioned:
  - **Dealer's name, address and code number**
  - **Name and address of purchaser**
  - **Exact type of machine**
  - **Machine serial number**
  - **Date of delivery to the purchaser**
  - **Date of the incident**
  - **Number of hours or area (hectares, acres) of use**
  - **Power of tractor used**
  - **Detailed description and presumed cause of the incident**
  - **Quantity, reference number and name of the damaged parts**
  - **Invoice number and date for replacement parts.**
- The dealer should send the damaged parts to the Company address for survey report along with a copy of the Warranty/claims form. Transport costs for the return of said parts are borne by the sender.
- The machine must be used and maintained according to the instructions in the operator's manual. The quality and quantity of lubricants used must always be in accordance with Company regulations.
- The safety measures set out in the Operator's manual and on the machine itself must be followed, and all the guards and protective elements, of whatever nature, must be inspected regularly and maintained in perfect working order.
- The judgment of the Company in all case of claims under this Limited Warranty shall be final and conclusive and the purchaser agrees to accept its decisions.
- If the Warranty is refused, the dealer is allowed a period of 15 days from the date of receiving our letter to request the return of the damaged parts.

Further conditions: limits of application and responsibility

- This Limited Warranty shall not be assigned or transferred to anyone unless the written consent of the Company has first been obtained.
- Persons dealing in the Company's products have no right or authority to assume any obligation or take any decision on their behalf, whether expressly or tacitly.
- Technical assistance given by the Company or its agents for repairing or operating material does not lead to any responsibility on their behalf and cannot under any circumstances bring novation or derogation to the conditions of the present Limited Warranty.
- The Company reserves the right to change its machines without prior notice and without being obliged to apply these changes to machines that are already sold or in service.
- Moreover, because of the constant progress in technology, no guarantee is given to the descriptions of equipment published in any document by the Company.
- The present Limited Warranty excludes any other responsibility, whether legal or conventional, express or implied, and there are no warranties extending beyond those defined herein.

Specimen of the "Declaration of conformity"

AGRICULTURAL MACHINERY

EC Declaration of conformity
(European directive 2006/42/CE)

The manufacturer:
Manufacturer name and address

declares that the product described hereafter:

Brand : Brand
Machine : Machine
Type / Model : Type / Model
Serial no. : Serial no.

- conforms to the requirements of the European directive 2006/42/CE.
- conforms to the requirements of following European harmonized standards:

List of standards

- conforms to the requirements of following standards or technical specifications:

List of specific standards

Town, Date

Signatory 1
Name / Signatory function 1

Signatory 2
Name / Signatory function 1

Name and address of the person authorised to compile the technical file:
Name and address of the person authorised to compile the technical file

In the event of the machine being re-sold, this declaration of conformity is to be passed on to the new owner

Customer code or order number

EC compliance certificat code

www.kuhn.com

KUHN S.A. - B.P. 50060 - F - 67706 SAVERNE CEDEX (FRANCE)

KUHN-AUDUREAU S.A. - B.P. 19 - F - 85260 LA COPECHAGNIERE (FRANCE)

KUHN-BLANCHARD SAS - 24, route de Nantes - F - 44680 CHEMERE (FRANCE)

KUHN-HUARD S.A. - B.P. 49 - F - 44142 CHATEAUBRIANT CEDEX (FRANCE)

KUHN-GELDROP B.V. - P.O. Box 9 - 5660 AA GELDROP (THE NETHERLANDS)

KUHN NORTH AMERICA INC - P.O. Box 167 - Brodhead, WI 53520 (USA)

KUHN KRAUSE, INC. - PO. Box 2707 - Hutchinson, KS 67504 (USA)

KUHN DO BRASIL S/A PASSO FUNDO - RS - 99050-130 (BRASIL)

KUHN MONTANA SÃO JOSÉ DOS PINHAIS - PR - 83025-410 (BRASIL)

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