User manual

Hoof trimming crush

SA0035



Manufacturer:
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Introduction

Wopa Constructiebedrijf BV specialises in development and manufacture of hoof trimming and treatment crushes for cows and bulls for professional users as well as for cattle farmers.

Our crushes are developed and manufactured in the highest possible quality, according to the strictest requirements as far as safety, user convenience, animal welfare and hygiene are concerned, always striving for an optimum.

This manual contains information and instructions relevant to installation, operation and maintenance of the machine.



- The machine is not suitable for use in explosive hazardous environments.
- All persons responsible for operation must, at minimum, read and comprehend the sections on operation and safety of these operating instructions.
- All persons responsible for assembly, installation, maintenance and/or repair must read and comprehend all these operating instructions.
- The user is responsible for interpretation and use of this manual under all conditions. Should you have any doubts or questions regarding the correct interpretation, please contact the owner or the supervisor.
- Keep this manual nearby the installation and within the users' reach.
- Keep a log of all major maintenance work, adaptations to the installations and observations, see Annex 8.1.
- Changes to the installation/machine are not permitted without prior written approval from the supplier.
- Contact the supplier for any special maintenance work not included in this manual.
- Comply with the safety requirements as given in Section 3 at all times.
- Proper functioning as well as the safety of the system can only be guaranteed if the recommended maintenance is carried out correctly and on time.

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E-Mail:	info@wopa.com
Machine Name:	Claw treatment crush
Year of construction:	2026
Type number:	SA0035
Serial number:	00..



Warranty

The warranty is subject to the following limitations. The warranty period for products supplied by Wopa is 12 months from the date on the purchasing document. The warranty is limited to production and material errors and therefore does not cover any breakdowns due to a part of the product exposed to any type of wear. Normal wear as can be expected from using this product is therefore excluded.

1. Wopa's responsibility remains limited to replacing defective parts; we recognise no claims to any other type of loss or costs.
2. The warranty is automatically void in case of overdue or poorly implemented maintenance.
3. Should you have any doubts regarding maintenance work or should the machine fail to operate correctly, contact the supplier.
4. The warranty does not apply if the defect is the result of incorrect or negligent use or of maintenance carried out contrary to the instructions in this manual.
5. The warranty is void if any repairs or adaptations are made to the product by third parties.
6. Defects ensuing from damage or accidents caused by external factors are excluded from the warranty.
7. If we replace any parts in accordance with the obligations ensuing from this warranty, the parts we replaced become our property.

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EC DECLARATION OF CONFIRMATY FOR MACHINERY (COPY)

(Conform appendix II, under A, Directive 2006/42/EC)

CE

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Declare that:

Machine: Treatment box
Type number: SA0035
Serial number: …

- Complies with the provisions of the Machinery Directive 2006/42/EC, as last amended (including safety requirements of Low Voltage Directive 2014/35/EU) and the national legislation implementing this Directive.

- Where applicable also complies with the provisions of the following EC-Directives: EMC-Directive 2014/30/EU

Following (parts of) harmonized standards are applied:

- EN-ISO 12100:2010
- EN-ISO 13854:2019
- EN-ISO 13849-1:2016
- EN-ISO 60204-1:2018

Technical documentation can be applied for at the above address through management department.

The Netherlands - Harreveld,
Date:_____

J.W.A. Wopereis
Directeur



Overview of symbols

The following symbols are used for all actions that jeopardise the safety of the user and/or technician and require caution.

	Attention!

	Hazard: High voltage!

	Tip: Offers quick insight or tips to carry out certain actions more easily and simply.

Pictograms

A number of pictograms and alerts are affixed to the installation to indicate possible risks to users, among other things.

Pictogram	Description	Location
	• Type plate	• On the machine frame
	• Read the user manual • Wear safety goggles when operating machine • Wear hearing protection when operating machine.	• On the machine frame
	• It is strictly forbidden for unauthorized persons to be within the working area of the box.	• On the machine frame
	• Warning pictograms for mechanical and electrical hazards	• On the machine frame
	• Warning pictogram Entrapment feet.	• On the machine frame

	**ATTENTION!** • Check regularly whether the pictograms and signs are still clearly recognisable and legible. Replace if this is no longer the case.

1. Technical information

	SA0035	
General		
Ambient temperature during operation	- 10 to 40	˚C
Noise production	< 75	dB(A)
Machine dimensions		
Length	2000	mm
Width	1850	mm
Height	2000	mm
Maximum product dimensions		
Length	3600	mm
Width	1850	mm
Height	2320	mm
Electrical connection (optional)		
Power supply	1 phase / AC	-
National voltage	230	V
Fuse required	4.9	A
Connected load	0.75	kVA
Electrical connection (Compacta optional)		
Power supply	1 phase / AC	-
National voltage	230	V
Fuse required	5.5	A
Connected load	0.66	kVA
Data for road transport		
Axial load	750	kg
Maximum drawbar load	100	kg
Coupling	ISO 55mm	-
Connection plug	7 or 13	pole
Tire pressure	2,9	bar
Tightening torque wheel bolts	110	Nm

- See electrical diagram
- The box must be connected to a wall socket that is protected by an earth leakage circuit breaker. (always according to the applicable local regulations) (30mA)

2. Description of the installation

	FUNCTION • This section gives an overview of the most important components and functions. If detailed information is available elsewhere in the manual, you are referred to the specific sections. • The design of your crush may differ from the figures below.

2.1. Description of the main components SA0035

	FUNCTION • The SA0035 was developed especially for dairy cattle hoof trimming in the barn. • The SA0035 is equipped with an axle with a draw bar and is suitable for transport on public roads.

The main components of the crush are shown in the illustration below:

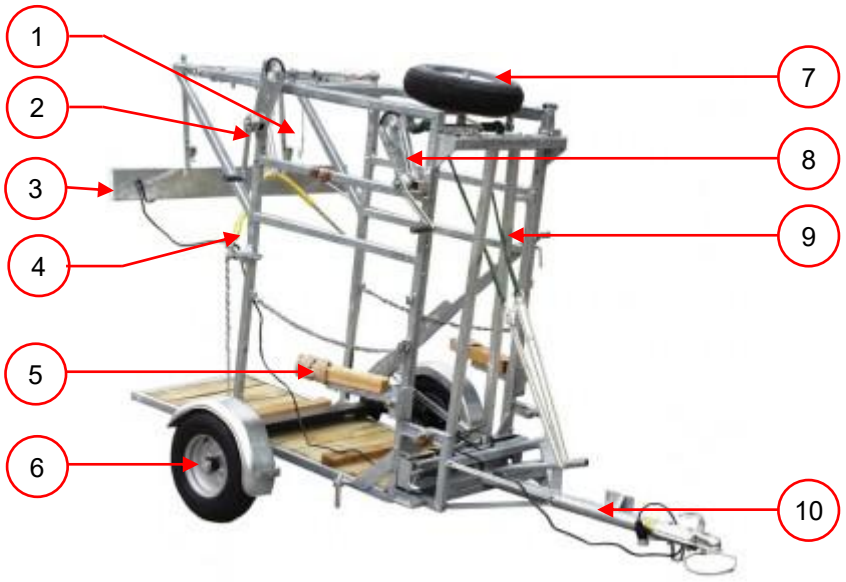

Figure 1: Overview SA0035

Main components SA0035:

Figure 1	**Component**	**Description**	**See Section**
1	Front gate operating rope	• Pulling on the rope closes the front gate. • If one wants to open it, the front gate can be unlocked by pulling the rope upward and back at an angle and then opened by slackening the rope.	
2	Manual hind leg winch	• After the strap is attached round the hind leg as shown in the photo above, the leg can be hoisted using the manual hoist so the hoof can be treated. • As an option, this operation can be done with an electric motor.	
3	Transport set (light bar)	• A light bar with a license plate is attached to the crush for transport on public roads.	
4	Rump chain Rear gate (option)	• After the cow is moved into the crush, the rump chain is stretched tightly behind the animal and secured. • The rear gate is an option. This must be pressed tightly against the cow and secured to the side with a chain (if the chain is too loose, the cow can sit on its haunches).	
5	Front leg support	• The cow's front leg can be secured to the front leg support with a rope so the leg can be treated. • Optionally, the crush can be equipped with a front leg support with a winch. • Another option is to equip it with a front leg support with electric winch.	5.3
6+7	Transport set (axle)	• An axle with mudguards and a spare tyre are attached to the crush for transport on public roads.	
8	Manual belly strap winch	• Once the cow is moved into the crush, the belly strap is attached behind the front legs. The belly strap can be lifted using the manual hoist. • As an option, this operation can be done with an electric motor.	
9	Front gate	• The front gate can be set to 3 positions using the operating rope: • Entirely open: the cow can exit the crush at the front. • Partially open: the cow can move its head through the front gate but not its shoulders. Stationary position. • Closed: the front gate is closed behind the animal's head.	
10	Transport set (draw bar arm)	• A draw bar arm is attached to the crush for transport on public roads.	

2.2. Electrical installation

	**FUNCTION** • The electrical installation provides power to the electric winches and the sockets (as an option). • See the electrical diagram in the switch box on the crush for the rest of the structure and controls of the electrical installation included in the delivery. • The placement of the control components on your installation may differ from the photo below.

	**ATTENTION**! • Work on the electrical installation can only be carried out by a technical expert.

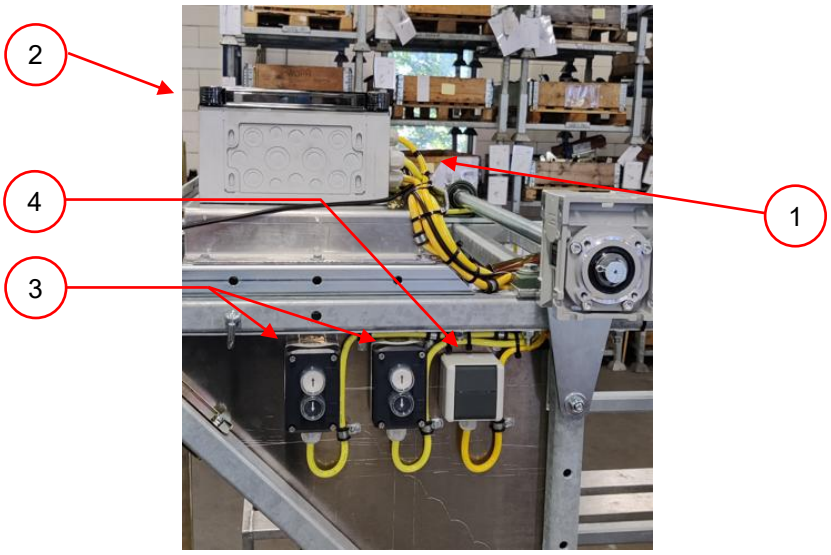

Figure 2: Overview of the electrical installation (the type of hoof trimming crush in the photo may differ from your installation).

The installation consists of the following components

Figure 2	**Component**	**Description**	**Section / location**
1	Power supply cable with plug	• To connect the machine to the power supply.	
2	Relay box	• A relay box is installed for each drive. It contains the control components of the relevant drive.	
3	Control buttons	• Each drive has 1 or 2 control panels to operate the following functions, depending on the version and/or the options available. ○ Front legs up/down ○ Belly strap up/down ○ Hind legs up/down	
4	Wall sockets	• For example, an angle grinder and / or blow dryer can be used on this connected. (total maximum 3500Watt)	

3. Safety

3.1. General

	• The guarantee will lapse and no liability will be accepted in the event of damage caused by repairs and/or modifications not authorised by the supplier. • In the event of faults please contact the supplier. • The working area around the installation must be safe. The owner of the installation must take the necessary precautionary measures in order to operate the installation safely. • Starting up the installation in an area with a risk of explosion is prohibited. • The installation has been so designed that production is safe under normal ambient conditions. • The owner of the installation must ensure that the instructions in this manual are followed in practice. • The safety features provided must not be removed. • Correct operation and safety of the system can only be guaranteed where maintenance is carried out correctly and in good time, as prescribed. • Where work is to be carried out on the installation it must be disconnected from the power supply, the power supply must be locked off and the system must be depressurised. • There is a risk of trapping when operating driven moving parts. It is the operator's responsibility to ensure that the installation is only started up when no parts of his own or other people's bodies are in the vicinity of the trapping zone. • Ensure that the weight distribution of the towed crushes is not changed. If the weight distribution between left and right sides and/or front and rear (too high or low nose load) is disturbed, this may lead to instability on the road or during use.

	• Only authorised persons appointed by the owner may carry out work on the electrical installation. • Ensure by means of internal procedures and supervision that all applicable power supplies have been switched off. • The installation must not be used during cleaning, inspection, repairs or maintenance, and must be disconnected from the electrical supply by means of the plug and/or the main switch. • Welding work must not be carried out on the installation unless the cable connection to the electrical components has first been disconnected. • The power supply to the control cabinet must not be used for the connection of machinery other than the hand tools provided for.

3.2. During normal use

	• Check before commencing operations that no work is being carried out on the installation and that it is ready for use. • Unauthorised persons must not enter the operational area of the installation. It is the operator's task to check this.

3.3. Operating personal

	• Operating personnel must be aged 18 or above. • Only authorised persons may carry out work with or on the installation. • Only work for which proper training has been received must be carried out. This applies both to maintenance activities and normal use. • The operating personnel must be familiar with all potential situations, so that rapid and effective action can be taken in an emergency. • Where a member of operational staff observes defects or risks or is not in agreement with the safety measures, this must be reported to the owner or the manager. • Safety footwear is mandatory. • Suitable work clothing is mandatory. • All employees must observe the safety instructions to avoid presenting a risk to themselves and others. Comply strictly with the operating instructions at all times.

4. Installation

	EXPLANATION • Consult the technical data and the circuit diagram provided for the correct specifications.

4.1. Location

	CAUTION • The machine must be transported and installed upright. • Place the machine on a level and stable substrate • Take account of the instructions in Section 3 when carrying out any activity. Failure to follow these may lead to serious injury.

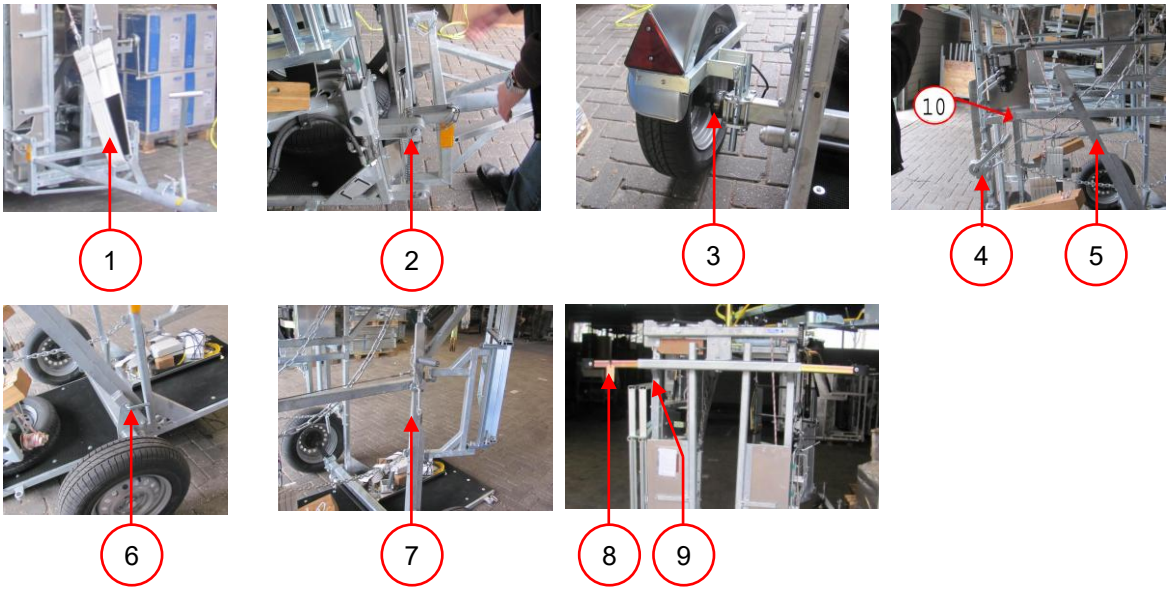

Figure 3: **details of conversion from transport set-up to working set-up.**

No.	What to do	Action	Outcome
1.	Tip the crush back.	• Tip the crush so that the drawbar is clear of the ground.	
2.	Take tension off the belly belt.	• The belly belt (Figure 3:1) holds the drawbar under tension during transportation. • Loosen the belly belt.	This stabilises the drawbar during transportation.
3.	Remove the drawbar.	• Remove the locking pins (2*) (Figure 3:2) and slide the drawbar frame out of the recesses.	
4.	Remove the lighting board.	• Remove the lighting board from the crush.	
5.	Fold the rear gate away.	• Raise the rear gate.	
6.	Tip the crush forwards.	• Lift the rear of the crush so that it tips forwards.	Lift by the rear gate for less force.
7.	Remove the mudguards	• Loosen the locking elements (Figure 3:3) and lift the mudguard out of the adapter.	
8.	Tip the axle.	• Take the tension off the locking pin by bringing the hand winch (Figure 3:4) up to tension. Where no winch is provided there will be no tension on the lever. • Remove the locking pin (Figure 3:10). • Turn the winch until the weight is off the wheels and there is no longer any tension on the lever (Figure 3:5). • Where no winch is provided place your right foot on the wheel and lower the lever (Figure 3:5) by hand. Ensure that nobody is standing in front of the lever or behind the crush. • Remove the locking pin (Figure 3:6) from the lever. • Place the lever (Figure 3:5) in the storage position (Figure 3:7) and secure with the locking pin. • Rotate the winch again until the cable is under tension.	
9.	Slide out the front gate stops.	• The stops (Figure 3:8) are slid in for transportation. • Press in the locking balls (Figure 3:9). • Slide out the stops to allow maximal travel of the front gate.	

4.2. Connect the machine

	**CAUTION** • Check that the voltage specified on the machine plate matches the mains supply. • The machine must always be connected to an earthed socket to avoid the risk of fire or electric shocks (the earth connection is coded green/yellow). • The electrical installation including the sockets must be connected in accordance with local regulations. • The power cable must always be free and nothing must be placed on top of it. • Replace the power cable immediately if it is damaged.

4.3. Preparing for transportation

	**CAUTION** • Preparing for transportation is the reverse procedure to making ready for use (see 4.1). • With crushes equipped with an axle and drawbar it is essential that all locking mechanisms are correctly installed.

4.4. Hitch trailer

The use of the tow ball coupling is equipped with a safety check indicator. The photo below refers to different positions and color fields.



Marking	Trailer hitch position	Handle position	Meaning
X	Trailer hitch position is open	Handle is pulled up	**WARNING DO NOT drive with the trailer.**
+	Trailer hitch position is closed	Handle is in the good position	The trailer is allowed to be driven.
-	Wrong position	Handle is in the good position	**WARNING DO NOT drive with the trailer.**

Uncoupling.

- Pull up the ball handle and swing it forward until the pointer remains in the red field with the cross (X position).
- The trailer may not be driven after this point.
- CAUTION! Do not insert fingers into the opened trailer coupling head!
- Even a slight pressure on the ball cap can activate the locking mechanism and lead to the fingers being injured.

Coupling.

- The trailer coupling head should be in the open X position and placed on the ball of the towing vehicle after which it engages audibly.
- The pointer in the green field is now in the + position.
- After coupling, the pointer should always be used to check that the trailer coupling head is correctly locked to the ball.
- If the pointer is in the green field (+ position) then the coupling is correctly closed and there is still sufficient wear reserve.
- CAUTION! Only in this case is a secure connection made between your vehicle and the trailer and it is permitted to drive on the open road.
- Attach the breakaway cable to the ball neck and connect the plug to the vehicle's socket. Release the handbrake from its lock.
- STOP! When the pointer is in the red field (- position), the coupling is incorrectly closed and the trailer may NOT be driven under any circumstances.
  There can be three causes for this.
  1. The ball on the vehicle is already very worn and does not provide the trailer coupling head with sufficient grip.
  2. The trailer coupling head itself is very worn and no longer provides sufficient grip on the ball. In this case, the trailer coupling head must be replaced.
  3. The locking mechanism of the trailer coupling head was activated, but there is no ball in the coupling. The trailer coupling head is loose on the ball and not connected. In this case, open the trailer coupling head as previously described and try again.
- CAUTION! When the pointer is in the red field and - position, the trailer coupling head is not closed. Under no circumstances should the trailer then be driven.
- The locking mechanism may be stiff due to lack of lubrication. In this case, lubricate the mechanism and try again.

General

- The maximum permissible swivel range of the trailer coupling head in relation to the vehicle axis is 25°.
- In the horizontal direction, turning angles in a range of approximately 20° are possible.
- CAUTION! If the turning ranges are exceeded, the components are overloaded and the function of the trailer coupling head is no longer guaranteed.
- The handle of the trailer coupling head indicates its permissible nose load.
- STOP! A trailer should not be driven with a negative nose load as it affects driving stability.
- A negative nose load can easily be changed by moving the load on the trailer.
- The installation, repair, adjustment and conversion work of drawbar eyes or trailer coupling heads may only be carried out by qualified garages.
- CAUTION! To ensure optimal driving and braking behaviour of the trailer, it is essential that the coupling heights of the towing vehicle and trailer match. According to DIN74058, the position of the coupling point on the trailer should be about 35mm above the point where the wheel is on the ground. To check the coupling height, the trailer and towing vehicle must be exactly horizontal and loaded to the full permissible weight.

5. Operation

	**CAUTION** • Take account of the instructions in Section 3 when carrying out any activity. Failure to follow these instructions may lead to serious injury.

5.1. Starting up/Switch off

No.	What to do	Action	Result
1.	Switch on the power.	• Insert the plug in the socket.	
2.	Switch off the power	• Take the plug out of the socket.	

5.2. Production

No.	What to do	Action	Result
1.	Check that the crush is ready for use.	• See Section 5.1.	
2.	Place the front gate ready.	• Open the front gate so that the head of the animal can pass through but not its withers.	
3.	Place the cow in the crush.	• Lead the cow into the crush until its head has passed through the front gate. • Close the front gate.	
4.	Attach the rump chain or rear gate.	• Tighten the rump chain around the animal and secure it.	
5.	Apply the belly belt	• Place the belly belt under the belly behind the front legs and tighten it. • Where the (optional) electrical drive to the belly belt is present, the belt remains connected and is raised from the floor until it comes up under the belly.	
6.	Process a rear hoof.	• Place the belt around the rear leg and raise the leg. • Process the rear hoof. • Allow the leg to drop and release it.	
7.	Process a front hoof.	• Pass the long, soft rope around the front leg below the dew claw and pull the leg up to the block. Wrap it around a couple of times and fasten the end to the hook on the side of the support. • Where the front leg support is provided with a winch the front leg is hooked on as shown in 5.3. Turn the winch until the leg is fixed to the block, then run the short tension rope past the knee of the front leg and fasten it to the side of the front leg support using the hook. • Process the front hoof. • Release the short tension rope. • Pull the pin on the side winch towards the hand grip with the index finger to release the rope. Unhook the rope.	See 5.3
8.	Loosen the belly belt.	• Reverse the winch and loosen the belt, or: • Allow the belt to drop to the floor (electrically, optional).	
9.	Release the crush.	• **Check that all ropes and belts have been freed.** • Open the front gate. • Lead the cow out of the crush.	
10.	Release the rump chain or raise the rear gate.	• Release the rump chain or raise the rear gate.	

5.3. Hook up the front leg.

	**CAUTION** • To avoid injury to the front leg the rope must be applied correctly. (see Figure 4)



Figure 4: **detail of hooking up front leg**

6. Maintenance



CAUTION

- Always disconnect the machine from the power supply by pulling out the plug. Where a hydraulic accumulator is present this must be depressurised.
- Test the installation on completion of maintenance work or repairs to ensure that it can be used again safely.
- Only trained technical personnel may carry out the maintenance activities described or repair work.

6.1. Maintenance diagram

The diagram below shows the maintenance activities to be carried out.

Activity	note	Daily	weekly	Every 100 animals	Annually	Every 2 years	See Section
General							
Check on panic locks and hooks.	Renew where damage is visible.	■					
Check ropes and chains.	Renew where damage is visible.	■					
Check plugs, cables, controls and connections.	Alert a competent fitter where damage is visible.	■					
Check that the left and right front leg ropes are hanging at equal lengths.	Where these are driven by a single motor.	■					
Cleaning							
Clean the machine.		■					6.2
Lubrication							
Other grease nipples.	Bearing grease.			■			
Axle and wheels							
Check the wheels.			■				6.3
Check the tyre profile.	Have this inspected by a competent person.		■				6.3
Check the tyre pressures.	Have this inspected by a competent person.		■				6.3
Drawbar							
Play in ball mounting.	Replace where minor play is evident, or see markers on the side of the ball mounting.		■				
Check the shaft bolts.	Every 10.000 km.				■		

6.2. Clean the machine.

	**EXPLANATION** • A high-pressure cleaner may be used for cleaning. • Avoid bearings, winches and motors when cleaning with a high-pressure cleaner. Spraying in these areas may result in a sharp reduction in service life. • Avoid all electrical components when cleaning with a high-pressure cleaner. Spraying in these areas may result in risk of electric shocks and /or a sharp reduction in service life.

6.3. Check the wheels.

	**EXPLANATION** • Raise the wheels from the ground and feel if any play is present. • If play can be detected this must be corrected by a competent person, or otherwise the bearings and seals must be replaced.

	**EXPLANATION** • After the first 50 km, check that all wheel bolts are still free of play. Tighten the wheel bolts using a torque wrench, see chapter 1 for the correct value.

	**EXPLANATION** • Check the physical condition of the tires and tread regularly. • Check the tire pressure regularly. See chapter 1 for the correct value.

6.4. Tyre specifications

Variant:	B1	B2	B3			
75	X	X	X			
Tyres:	**Size:**	**Pressure:**	**LI:**	**Rims:**	**ET value:**	**R.dyn.:**
B1	185/70 R13	300 kPa	90	4.5 / 5 / 5.5 / 6 J x 13	+20 tot +35	286 mm
B2	175 R13 C	450 kPa	97	4.5 / 5 / 5.5 J x 13	+20 tot +35	295 mm
B3	155 R13	290 kPa	80	4.5 / 5 J x 13	+20 tot +35	281 mm
Minimum speed class						
Symbol:	**Speed:**					
N	140 km/h					

6.5. Parts

	EXPLANATION • Consult the website at www.wopa.com for information on the available options and the parts available to order.

7. Disposal as waste

Oil and components must not be disposed of as domestic waste. When replacing components or oil or at the end of the machines service life, ensure that all materials are collected and destroyed or reused in a legal and environmentally friendly manner.



8. Appendix

8.1. Logbook

The logbook must include the following:

- The annual maintenance work
- Major replacements and any accidents
- Modifications
- Tests on emergency stop buttons and safety features

Date:	**Carried out by:** (authority, technician)	**Description:** (nature of the activities, components replaced)

Date:	**Carried out by:** (authority, technician)	**Description:** (nature of the activities, components replaced)