

SAFETY MANUAL

04.02.2014 Issue date
2086364_04_en Order number



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Document number 2086364_04_en
Translation of the original safety manual

Date of first issue 14.08.2007

Date of amendment 04.02.2014

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TABLE OF CONTENTS

1	Preface.....	5
1.00	General.....	5
1.01	Correct use.....	6
1.02	Conversion / modification prohibition.....	6
1.03	Legal note.....	6
1.04	A word to the user.....	7
1.05	Safety devices.....	8
1.06	Personnel qualifications.....	10
1.07	Safety labels.....	11
2	Work zone protection.....	15
2.00	General.....	15
2.01	Night operation.....	15
3	Site organization.....	16
3.00	Danger zones.....	16
3.01	Responsibilities when working with the machine.....	17
4	Personal protective equipment (PPE).....	19
4.00	General.....	19
4.01	Working with hot mix/bitumen emulsion.....	19
4.02	First aid.....	20
5	Operational preparations.....	21
5.00	General.....	21
5.01	Setting up.....	21
5.02	Visual inspection.....	23
5.03	Lighting.....	25
5.04	Mirrors and cameras.....	25
5.05	Fuelling.....	26
5.06	Re-fuelling from tankers.....	27
5.07	Starting the engine.....	27
5.08	Starting aids.....	27
6	Starting up.....	29
6.00	General.....	29

6.01	When you get on or leave the machine.....	29
6.02	After starting the engine.....	31
7	Operation.....	32
7.00	General operating instructions.....	32
7.01	Working area.....	35
7.02	Operation in the vicinity of power cables.....	36
7.03	Working in thunderstorms.....	37
7.04	Obstacles.....	37
8	Shutting down.....	39
8.00	General.....	39
9	Transportation.....	41
9.00	Driving from one place to another.....	41
9.01	Loading.....	42
9.02	Unloading your machine.....	44
10	Maintenance.....	45
10.00	General.....	45
10.01	Fluids.....	47
10.02	Pressure systems, filters.....	48
10.03	Cleaning.....	49
10.04	Belt drives and cooling fans.....	51
10.05	Battery.....	51
10.06	Pneumatic tyres.....	52
10.07	Solid tyres and crawlers.....	52
10.08	Electrical system.....	53
10.09	High pressure cleaner.....	53

1 PREFACE

1.00 General



1001

This safety manual is to be carefully read and adhered to by all persons who are involved in the application, operation, assembly and service of the machine.

Additional precautions may be necessary, depending on the machine used, conditions in the field or in the maintenance area.

Most accidents involving machinery are caused by disregarding basic safety regulations. Such accidents can be often avoided by recognizing possible dangerous situations in advance.

Incorrect startup and operation of the machine is dangerous and can result in serious injuries - or even fatal consequences!

Personnel must not be permitted to operate or service this VÖGELE machine before they have received adequate training concerning its operation and handling. All personnel must carefully read and fully understand the instruction manual and the safety manual.



1002

Persons under the influence of alcohol, prescription medication or drugs are prohibited from operating, servicing or repairing the machine!

This safety manual contains instructions identified as DANGER, WARNING and CAUTION; it is imperative these instructions are followed.



This sign is used when compliance with certain instructions is of economical importance for the machine's operation.

▲ DANGER

Identifies immediate danger. If this danger is not avoided, fatality or very serious injuries will be caused.

▲ WARNING

Identifies a possibly dangerous situation. If this situation is not avoided, fatality or very serious injuries may be caused.

⚠ CAUTION

Identifies a possibly dangerous situation. If this situation is not avoided, minor injuries or damage may be caused.

1.01 Correct use

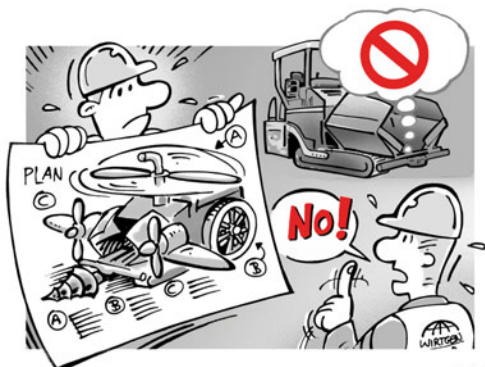


1003

This machine may only be used for commercial purposes on cordoned-off fields.

Operation of the machine in public traffic is only permitted when the machine is additionally equipped with the required equipment and the necessary approval has been issued by the governing authorities.

1.02 Conversion / modification prohibition



1038

Modification or conversions to the machine are prohibited without permission of the manufacturer.

Pressure relief valves or throttles must not be re-set or adjusted without the manufacturer's consent.

Without prior consent of the manufacturer, it is prohibited to weld on or bolt on any additional components, or to drill any holes in the machine.

The reliability of the machine could be adversely affected.

1.03 Legal note



The information and illustrations contained in this translation of the original safety manual must not be reproduced, distributed or used for competitive purposes!

The publisher reserves all rights thereof!

Translations are made to be the best of our knowledge. No liability can be accepted for translation errors or any resulting consequences; also not in the case that the translation was made by us or was commissioned by us. The original German text is binding for all warranty and liability claims.

This safety manual and the instruction manual must always be carried with the machine!

1.04 A word to the user

This safety manual is intended to point out some of the basic situations which may be encountered during the normal operation and maintenance of your machine and to suggest possible ways of dealing with these conditions.

The information provided in this manual supplements the specific information about your machine included in the instruction manual.

It is your responsibility to read and understand this safety manual and the instruction manual(s) before operating your machine.

This safety manual takes you step-by-step through your working day. Basic situations that may occur during normal operation as well as during service and maintenance work are described.

▲ CAUTION

Carefully read and comply with all safety instructions in this safety manual and in the machine's instruction manual prior to starting-up the machine!

If the machine is started incorrectly or operated incorrectly, serious injuries or fatality may result.

If you do not have the instruction manual(s) for your particular machine, get a replacement set of instruction manual from your employer or from your dealer.



1001

VÖGELE has no direct control over machine application, operation, inspection, or service. It is therefore your responsibility to use good safety practices and common sense to ensure your safety and that of your crew.

Additional information which may affect the safe operation of your machine is contained on safety signs attached to the machine, employer's safety programs, safety codes, laws, rules and regulations.

Keep this safety manual and the instruction manual(s) with your machine.

Also pass on the safety instructions to other people.

Remember that YOU are the key to safety.

Good safety practices not only protect you but also protect the people around you.

Make the procedures written in this safety manual and in the instruction manual(s) a working part of your safety program.

If you do not understand information in this safety manual or in your instruction manual, or if you find mistakes or contradictions, ask your superior, **BEFORE** you work on or with the machine.

Be careful

Human error is caused by many factors:

Carelessness, fatigue, overload, preoccupation, drugs, and alcohol to name a few. Damage to the machine can be fixed in a short period of time, but injury or death has a lasting effect.

For your safety and the safety of others:

- Encourage your fellow workers to act safely.
- Learn the operating and maintenance characteristics, capacities and limitations of your machine and its mounted equipment.
- Familiarise yourself with the safety devices and instructions on your machine.

1.05 Safety devices

Know what safety devices your machine is equipped with and see that each item is securely in place and is operating properly at the beginning of each shift.

Safety devices are e.g.:

- Hopper locking
- Screed mechanical locking
- Horn
- EMERGENCY STOP devices
- Seat locking
- Control panel locking

You will find detailed information on this aspect in the instruction manual for your machine.



0016

Ensure that all safety stickers / warning signs on the machine are intact and legible.

Replace missing or damaged safety stickers / warning signs.

All safety devices and safety stickers / warning signs are listed and explained in the instruction manual of your machine.



1001

Always follow the national and/or local road traffic regulations.

Always remember that you are a responsible traffic participant when operating the machine.

Check the operational (road) safety of the machine each time prior to starting work/start-up.

Ensure that the machine is operated only in a proper technical condition.



1015

As the machine operator, you are permitted to refuse any orders that do not comply with the rules and regulations.

If you should receive instructions from your superiors, VÖGELE employees or other authorised instruction personnel that are contrary to the machine's instruction manual, the safety manual, any relevant documentation published by VÖGELE or the local rules and regulations, the published instructions must be adhered to at all times.

Only use the machine for the intended purpose.

Ensure that the intervals of any regular safety tests are always adhered to.



1097

You must never disable, bypass or modify the function of any safety device, such as limit switches.

Ensure that the safety devices for the screed are fitted and functional as per the screed operating instructions.

Do not stand on the frames for the screed extensions during operation.

Check whether the warning lights are functional when the extending screed is adjusted.

With the widened spreader auger check whether the front limiting plate is fitted at least as wide as the spreader auger.

1.06 Personnel qualifications



Do not perform any work unless you are authorised and qualified to do so.

The authorised personnel must:

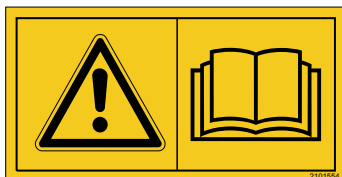
- be at least 18 years of age
- be trained in first aid and also be able to provide first aid
- have read and understood the safety manual
- be familiar with and able to apply accident prevention regulations and safety instructions on the machine
- have the physical and mental faculties to be able to perform his/her responsibilities, tasks and activities on the machine
- be appropriately trained and instructed for his/her responsibilities, tasks and activities on the machine
- have understood and be able to practically implement the technical documentation related to his/her responsibilities, tasks and activities on the machine.

People employed to operate the machine must also:

- Have been instructed on operating the machine
- Have a valid driving license for machines approved for use on public roads
- Have demonstrated their skills to the employer
- Can be expected to reliably tackle the tasks given to them.

They must be appointed by the employer / organisation to operate the machine.

1.07 Safety labels



Read documentation

Read operating instructions and safety manual before starting work with the machine or maintaining the machine. Ignoring this instructions can cause serious injuries or death.



Dangerous noise level

May cause damage to the hearing. Wear personal protective equipment.



Risk of falling

A fall will cause serious injuries or death. Increased caution, do not climb up.



Risk of crushing

Pinch point can cause serious injuries. Keep away.



Uncontrolled machine movements

Unexpected machine movements can cause serious injuries or death. Do not start or operate machine from the ground.



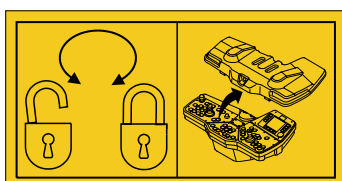
Uncontrolled machine movements

Unexpected machine movements can cause serious injuries or death. Only start and operate machine from the control stand.



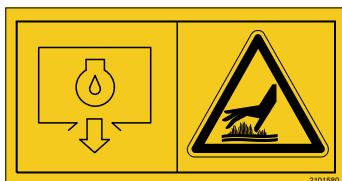
Pressurised tank

System contains accumulator. Prior to starting service work, the operating and maintenance instructions are to be read.



Starting the engine

Prior to starting and operating the machine, remove vandalism protection.



Risk of burns

Engine oil and engine parts can be very hot, there is a risk of injury. Keep away. Wear personal protective equipment.



Risk of burns

Coolant can be very hot, there is a risk of injury. Keep away. Wear personal protective equipment.



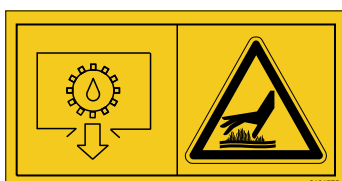
Risk of burns

Fluid can be very hot, there is a risk of injury. Keep away. Wear personal protective equipment.



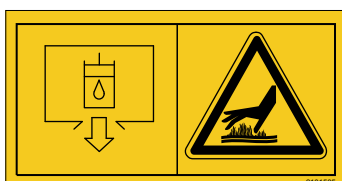
Hazard due to rotating parts

With machine running, serious injuries or death may be caused. Prior to maintenance work, shut down engine and remove ignition key. Wait until all machine components have come to a standstill.



Risk of burns

Oil and gearbox parts can be very hot, there is a risk of injury. Keep away. Wear personal protective equipment.



Risk of burns, hydraulic oil drain

Oil can be very hot, there is a risk of injury. Wear personal protective equipment.



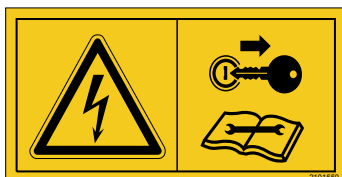
Risk of explosion, battery area

Risk due to caustic fluid and gases. No naked flames or sparks. Wear personal protective equipment.



Hazard due to rotating parts

With machine running, serious injuries or death may be caused. Prior to maintenance work, shut down engine and remove ignition key. Wait until all machine components have come to a standstill.



Dangerous voltage

Cables and components are live, there is a risk of serious injuries or death. Prior to maintenance work, shut down engine and remove ignition key.



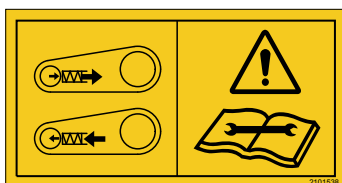
Entanglement hazard, open belts or chains

With machine running, serious injuries or death may be caused. Prior to maintenance work, shut down engine and remove ignition key. Wait until all machine components have come to a standstill.



Dangerous situation

Fluid may enter control units and cause injury and / or damage to the machine. Do not spray components with water.



Danger due to track tensioner

The tensioning units for the crawler are under high pressure and can cause serious injury or death. Follow operating and maintenance instructions. Only have work undertaken by qualified personnel.



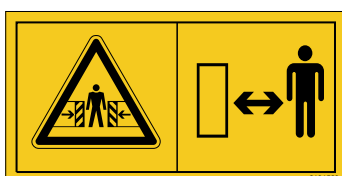
Information on the towing point

Machine movements can cause serious injuries or death. Prior to towing read operating and maintenance instructions.



Keep out

Access to the machine components is not allowed. Moving machine components can cause serious injuries or death. Prior to maintenance work, shut down engine and remove ignition key. Wait until all machine components have come to a standstill.



Risk of crushing

Pinch point can cause serious injuries or death. Keep away.



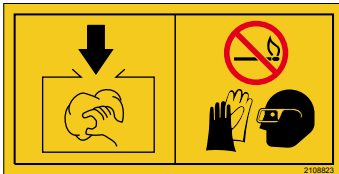
Risk of burns

Surfaces can be very hot. Do not touch surface. Keep away.



Entanglement hazard

Rotating augers can cause serious injuries or death. Keep away.



Fire hazard

Release agents and their vapours are inflammable and harmful for the health. No naked flames or sparks. Wear personal protective equipment.



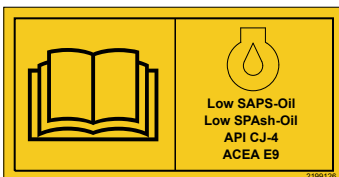
Dangerous situation

Presence in this area can cause serious injuries or death. Keep away.



Keep out

Access to the machine components is not allowed. Moving machine components can cause serious injuries or death. Keep away.



Engine oil COM IIIB / Tier 4i

Use only the prescribed engine oil. Follow operating and maintenance instructions.

2 WORK ZONE PROTECTION

2.00 General



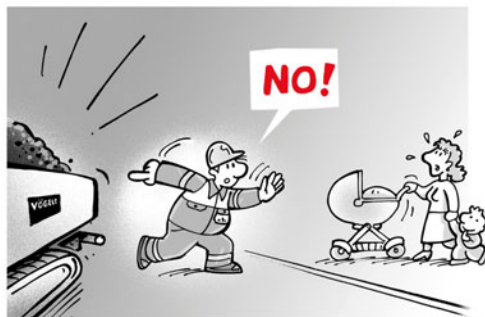
1003

The operation site must be cordoned-off to public traffic or level-crossings in use!

Always follow the national and/or local requirements.

Check the working area for entrances and exits and pay attention to curb stones, pavements and drives.

Move all obstacles away from the machine's direction of travel and area of operation.



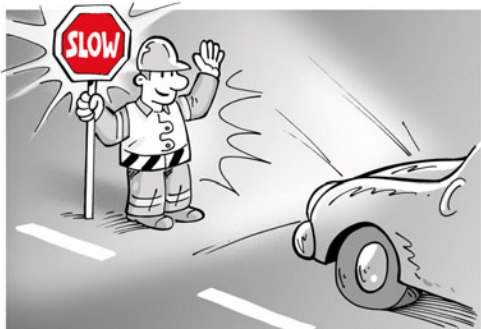
1004

Always ensure that no-one is within the danger zone prior to starting-up and while operating the machine!

Clear the area of all people by sounding horn and/or other means prior to starting the engine or moving the machine.

Keep all unauthorised people away from the machine / working area.

2.01 Night operation



1107

Night operations are different to daylight operations. Be alert, pay attention to people on the field or who are crossing the field. They may not be alert.

Ensure visibility of gauges and controls.

Wear appropriate reflective apparel at all times. This applies to operators and crew on night operations.



1110

Ensure adequate lighting to illuminate the work zone in compliance with state and local regulations.

Ensure adequate hazard lights (strobe or flashing/rotating lights) in compliance with state and local regulations.

Plan the work site. Inform those working on the work site about the work site plan and inspect the working area in daylight.

Mark obstacles ahead of time with reflective material.

3 SITE ORGANIZATION



1005

Develop safe work procedures based on the hazards specific conditions on the field, and make sure they are enforced.

Ensure that

- all people receive a job briefing
- all people are trained about site-specific safe working procedures
- the implementation of site-specific working procedures is monitored

Ensure that mobile equipment operators are directed by a worker with an unobstructed view of the area that the vehicle is moving into.



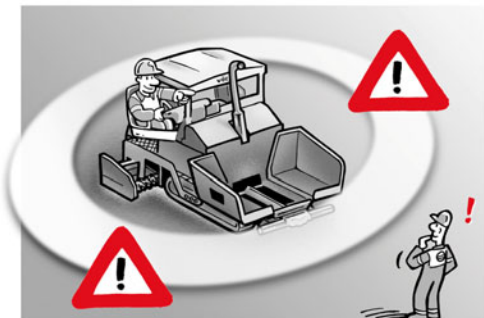
0006

Be alert!

Know where to get assistance.

Know how to use a first aid kit and fire extinguishers.

3.00 Danger zones



1007

There are danger zones around all construction machines. A danger zone is any area where your safety is at risk or could be placed at risk.

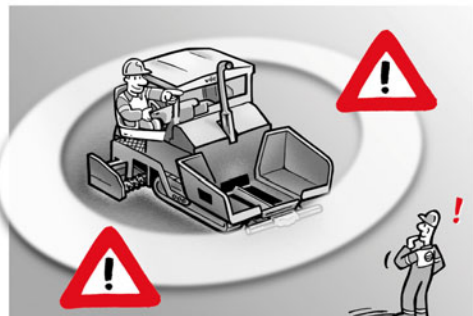
Increased vigilance and common sense are necessary to prevent risks in this area. This situation means that the operator and all other people must observe the work with increased attention.

There must not be any people in the danger zone.

Examples of danger zones are e.g. the areas in front of, beside, behind, or below the machine which cannot be monitored by the machine operator, trapping areas on belt conveyors, charging augers, hopper walls, push rollers, spreader augers, paving screeds, and other equipment, and the areas right in front of or behind the wheels or crawler units.

Depending on machine operation or your task (e.g. maintenance work) further danger zones can be present or develop.

3.01 Responsibilities when working with the machine



1007

⚠ WARNING

RUN OVER HAZARD!

Moving machines can cause severe injury or death!

There are areas around the machine which are hard or impossible for the operator to see.

Position lookout men to monitor these areas.

Do not operate the machine until these lookout men have signaled to you that the danger zone is free.

Acquaint yourself with the signals/signs used by the lookout men during the job briefing.

Stop the machine immediately if anyone enters the danger zone or if you approach anyone with the machine.

3.01.01 Machine operator



1009

⚠ CAUTION

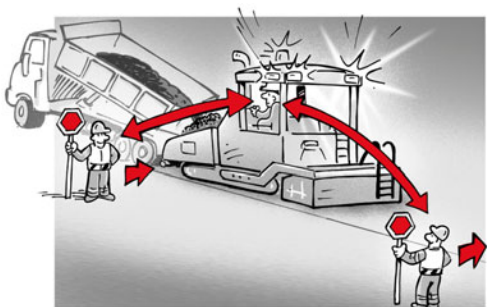
PRECAUTIONS FOR MACHINE OPERATORS!

Only operate the machine if you can see everyone in the vicinity of the machine and if these persons have signaled that the danger zone is clear.

⚠ WARNING

DANGER TO LIFE!

Incorrect operation and placing in operation of the machine is dangerous and can result in injuries and, in some circumstances, fatality.



1109

Utilise direct line of sight. Choose assistants if direct line of sight is not possible. Light can be reflected in mirrors and represent an "invisible" hazard.

Adjust work lights to minimise glare for traffic and workers.

Know where the other workers are at all times. Tell others where you are going.

Beware of fatigue! Check on crew members!

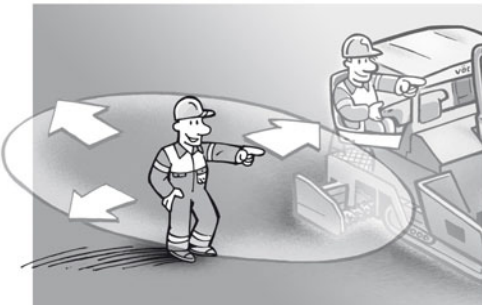
Stay in assigned work zones.



1108

Enter and exit machine on side away from traffic.
Increased risk of being struck or backed over by vehicles or equipment at night.

3.01.02 Screed operators



1010

The screed operator/s act/s as the eyes and ears of the machine operator. The screed operator works closely with the machine operator and can assist the machine operator with the machine.

Their task is to adjust the pavement thickness, the height and width settings of the machine and monitor the paving process. Ground personnel are responsible for their own safety and the general safety within the vicinity of the machine.

▲ WARNING

DANGER OF BEING RUN OVER / CRUSHED!

Moving machines can cause severe injury or death!



1098

Stay clear of the front, side or rear of the machine.

Ensure that the screed's safety devices are fitted and functional. Pay attention to the warning lights that switch on when the screed extension units are moved.

Keep hands and feet clear of the screed and other moving parts while adjusting or working with the outer control stands, grade controllers or sensors.

During operation always stay beside the screed, never in front or behind.

The paving screed floor must stretch across the entire paving width.

Ensure that the machine operator sees you whenever you approach the machine.

Only use the floor to cross the machine with the machine stationary.

3.01.03 Precautionary measures for lookout-men

Lookout-men shall

- be trained in their tasks,
- not stand in the path of construction vehicles and equipment,
- shall maintain a direct line of sight with the operator at all times.

4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

4.00 General



0011

Always wear warning clothing, safety shoes, hard hat, safety glasses, ear protection, gloves and other safety clothing in accordance with the working conditions!



0012

If necessary, wear hearing protection, as the noise level can exceed 80 dB (A).



0013

Never wear loose clothing or jewellery that could be caught in the controls or other parts of the machine!
Wear hair protection if necessary.

4.01 Working with hot mix/bitumen emulsion

▲ WARNING

BURN HAZARD!

Working with hot mix/bitumen emulsion can result in serious injuries, burns or death.

To prevent injuries with hot mix / bitumen emulsion, wear protective clothing and avoid skin contact.

To prevent contact with hot mix / bitumen emulsion, use the following items of personal protective equipment:



Helmet with neck protection and visor to protect the face (goggles only protect eyes)



Heat-resistant gloves with cuffs worn inside coverall sleeves



Safety boots



Fire-resistant overalls with legs worn over boots

4.02 First aid

Seek medical attention in all cases of burns.
First aid must be provided immediately on the field.

4.02.01 Burns caused by bitumen / bitumen emulsion



1014

If an accident has occurred with hot bitumen, the related part of the body must be cooled immediately to prevent further injury due to the heat.

Flush burns of skin for at least 10 minutes with fresh water, eyes for at least 15 minutes. Never rub the eyes dry.

It is not allowed to attempt to remove the bitumen from the affected area of skin.

It is only allowed to attempt to remove the bitumen stuck to the skin under medical supervision. The cooled bitumen forms a water-proof sterile coating that protects the burnt skin against drying out. If the bitumen is removed from the wound, the skin may be further injured and there is a risk of complications.

5 OPERATIONAL PREPARATIONS

5.00 General



1014

Be alert!

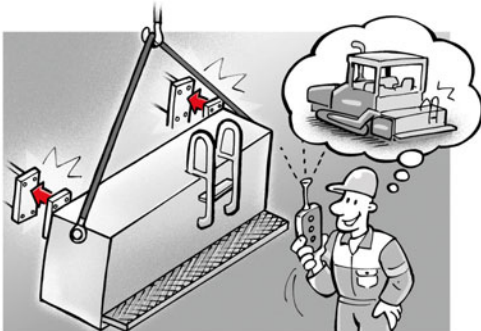
Always be informed about first aid facilities and ways to rescue injured persons (emergency doctor and ambulance services by road and air).

Ensure that a first aid kit with approved contents is always available.

Perform all recommended daily maintenance.

5.01 Setting up

5.01.01 Fitting and setting up the paving screed



1101

⚠ WARNING

HAZARD DUE TO HEAVY LOADS!

Never walk or stand under suspended loads. Danger to life!

Caution when lowering/raising the paving screed, risk of crushing!

The paving screed is heavy and can cause serious injuries or fatality!

Use suitable lifting gear for transporting and fitting heavy extensions or accessories.

Wear personal protective equipment. Pay attention to the screed arm. Use lifting equipment.

Secure screed against tipping.

Secure raised parts of the machine against falling.

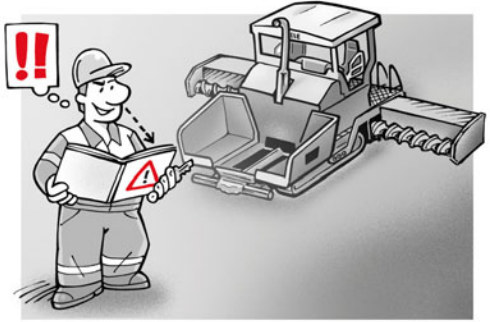


1100

Screed and extensions may sink and be damaged. Only move extension on the screed with screws tightened.

Do not stand between screed and road paver.

All bolted joints must comply with the stipulated specifications in the operating instructions / list of spare parts. Pay attention to tightening torques. Bolts and nuts must not be damaged, bent or deformed. Damaged or deformed bolts and nuts are to be replaced.



1104

▲ WARNING

HAZARD DUE TO HEAVY PARTS!

Ancillary parts such as strike-off plates and end plates are heavy!

Heavy falling parts can cause serious injuries or fatality!

Follow operating instructions when fitting ancillary parts.
Ensure that the safety devices of the paving screeds are fitted as per the paving screed operating instructions and are functional.

5.01.02 Setting up spreader auger



1102

▲ WARNING

HAZARD DUE TO ROTATING PARTS!

Rotating parts can cause serious injuries or fatality!

Ensure all drives are disabled when working on the spreader augers.

Switch off engine!

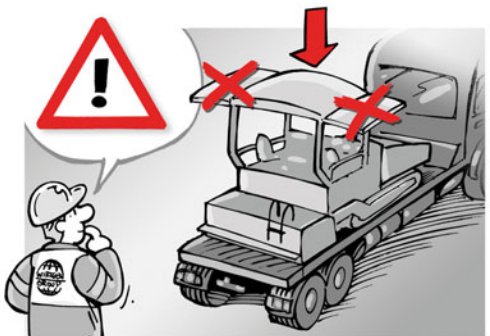
Press emergency stop!

Wear personal protective equipment.

Use suitable lifting gear for transporting and fitting heavy extensions or accessories.

All bolted joints must comply with the stipulated specifications in the operating instructions / list of spare parts. Pay attention to tightening torques. Bolts and nuts must not be damaged, bent or deformed.

5.01.03 Raising and changing the canopy



1103

▲ DANGER

HAZARD DUE TO HEAVY LOADS!

Never walk or stand under suspended loads. Risk of fatality!

Park machine on level ground.

Switch off engine!

Wear personal safety equipment when raising or changing the canopy. The roof frames are heavy and can cause injury.

There must not be any people on the platform when the canopy is raised or lowered.

Always lock awnings.

Always push in and lock awnings for transport.

Do not over-estimate your own strength, always ask a second person to help.

5.02 Visual inspection



1015

Before starting each shift, walk around the machine and inspect for leaks, loose or missing parts, damaged parts, or parts out of adjustment.

Check the machine for visual faults / alterations - in particular the safety devices. They must all be complete, correctly installed, and in their correct places.

Loose or damaged fuel and oil lines, leaking pipes and hoses are a fire hazard and must be repaired or replaced immediately.

Check the electrical cables and connections for abrasion and damage. Renew any damaged components immediately.

Check that all important elements, such as trim panels, heat shields, etc. are correctly installed.

Check the wheel nuts daily for tightness.

Check that all pins, spring clips and other safety elements are correctly installed and in good condition.

Ensure that all safety guards and covers are correctly installed and functional.



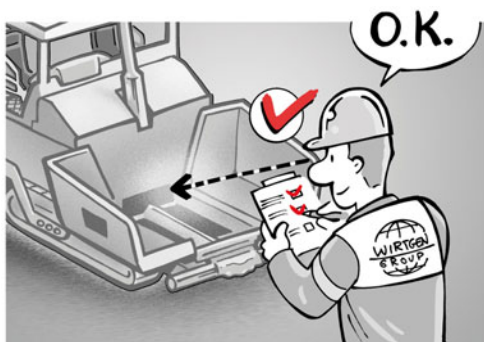
0016

Ensure that all safety stickers / warning signs on the machine are intact and legible.

Replace missing or damaged safety stickers / warning signs.

All safety devices and safety stickers / warning signs are listed and explained in the safety manual of your machine.

Always follow the national and/or local road traffic regulations.



1017

Check that all pins, spring clips and other safety elements are correctly installed and in good condition.

Check the residual current device or the insulation monitoring unit daily.



0018

Make sure the operator's stand, ladders, handrails, and floors are clean.

Oil, grease, snow, ice or mud in these areas can cause you to slip and fall.

The paving screed floor must stretch across the entire paving width!



0019

Never carry flammable substances, such as starter fluids, ether or fuels in cans or canisters on the machine.



0020

Ensure that all accessories (tools) are safely stowed away.

Secure and lock all compartments, boxes and doors correctly.



1021

Move all obstacles away from the machine's direction of travel and area of operation.

Clean the wheels prior to travelling along a road!



1022

When you get on or leave the machine, always:

- Clean your boots before climbing onto the machine.
- If the screed is raised, the first step can be more than 600 mm above the ground.
- Face the machine.
- Maintain a three point contact with the ladder/steps and railings.
- Never jump off the machine.
- Always use the ladders, platforms and handles when getting on or off the machine.
- Do not use the steering wheel or any controls as hand holds.



1023

Set all controls to OFF, 0 or NEUTRAL position.

Before starting the engine, be sure you know the EMERGENCY shutdown procedure.

Know the correct starting and operation procedure for your machine.

Check steering and the brake for function before you start on-site operation.

5.03 Lighting



0024

Ensure that the machine is equipped with the correct lights according to the operational requirements.

Clean all lights. Check all lights for function.

Adjust all lights to reduce glare to oncoming traffic.

5.04 Mirrors and cameras



0008

Adjust rear view mirrors so that you can maneuver the machine properly.

Please note that mirrors must not be used as a safety device as they cannot detect all persons and obstacles.

Due to the spheric surface of the mirror, objects in the mirror are closer than they appear.

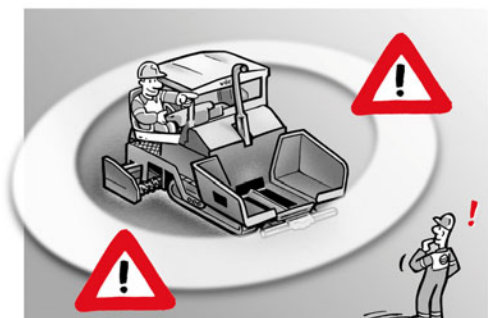


0025

If your machine is equipped with a camera / monitor system, adjust the monitor correctly for easy and glare-free viewing.

Such a system may only be used for the intended purpose, i.e. the detection of obstacles right in front of the machine or monitoring the quality of the work.

The camera/monitor system must not be used as a safety feature to detect persons or obstacles.



1007

▲ WARNING

RUN OVER HAZARD!

Moving machines can cause severe injury or death!

There are areas around the machine which are hard or impossible for the operator to see.

Position lookout men to monitor these areas.

Do not operate the machine until these lookout men have signaled to you that the danger zone is free.

Acquaint yourself with the signals/signs used by the lookout men during the job briefing.

Stop the machine immediately if anyone enters the danger zone or if you approach anyone with the machine.

5.05 Fuelling



0027

▲ DANGER

FIRE HAZARD!

Fuels and fuel vapors are highly flammable and also toxic!

Only fill fuel outdoors, or if the room is sufficiently ventilated!

Stop the engine and any additional heaters prior to filling fuel.

Exposed flames in the area of refuelling are strictly prohibited.

Never overfill fuel tank or reservoirs.

Wipe up spilt fuel or oil.

Smoking is strictly prohibited!

Do not inhale vapours.

Always keep fire extinguishers readily available.

5.06 Re-fuelling from tankers



0026

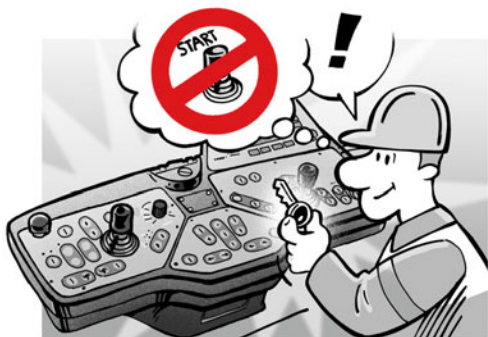
The machine must be positioned on a surface where leaking fuel can be easily identified and cleaned up!

Always adhere to the local requirements.

i The tank of construction machines may only be filled by tankers if it has:

- a closed hose system, an fuel nozzle which closes automatically and which is approved for this vehicle type,
- a maximum volume flow rate of 100 litres/min.

5.07 Starting the engine



1023

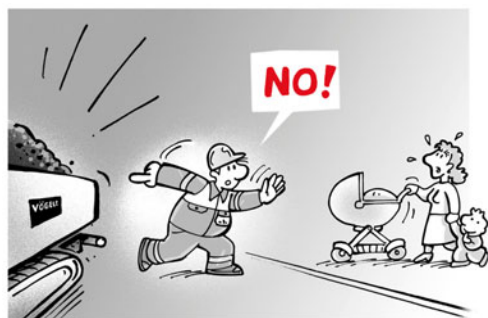
Start the engine and operate the machine only following the instruction manual.

Start and operate the machine from the operator's stand only.

Adjust your seating position.

Position yourself so that you can operate all controls properly.

Set all controls to OFF, 0 or NEUTRAL position.



1004

Always ensure that no-one is within the danger zone prior to starting-up and while operating the machine!

Clear the area of all people by sounding horn and/or other means prior to starting the engine or moving the machine.

Keep all unauthorised people away from the machine / working area.

5.08 Starting aids



0029

▲ WARNING

When working with batteries do not expose them to fire, sparks and naked flames and do not smoke. Non-compliance can lead to an explosion!

Batteries contain caustic acid! Wear appropriate protective clothing, safety glasses and acid-proof rubber gloves.

If jumper cables are used, follow the instruction manual. A battery explosion or a run-away machine could result if proper procedures are not followed.



No machine should be operated if any part is not in proper operating condition.

It is the OPERATOR'S RESPONSIBILITY to check the condition of all systems including safety interlocks.

6 STARTING UP

6.00 General



1078

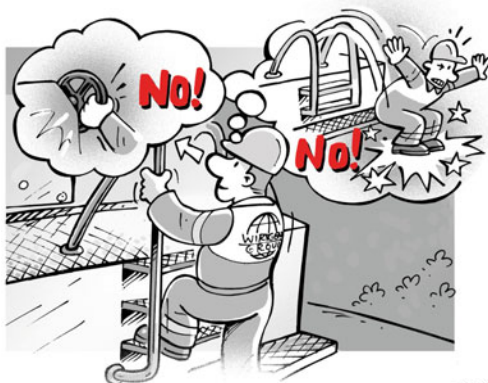
▲ DANGER

SUFFOCATION HAZARD!

Exhaust fumes are toxic and there is a risk of suffocation!

If the machine is to be started and operated indoors, ensure sufficient ventilation.

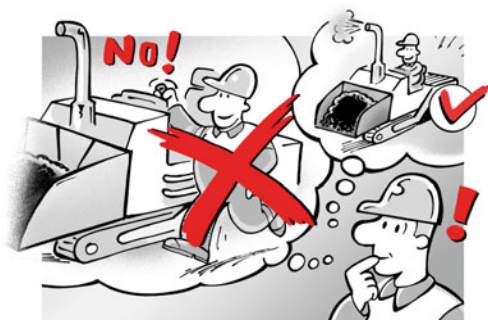
6.01 When you get on or leave the machine



1074

When you get on or leave the machine, always:

- Clean your boots before getting on the machine.
- If the screed is raised, the first step can be more than 600 mm above the ground.
- Face the machine.
- Maintain a three point contact with the ladder/steps and railings.
- Never jump off the machine.
- Always use the ladders, platforms and handles when getting on or off the machine.
- Do not use the steering wheel or any controls as hand holds.



1075

Start and operate the machine from the operator's station only. Only operate the machine with control panel and driver's seat locked.

Never adjust the driver's seat / control panel when operating or transporting the machine.

Prior to starting-up the machine, ensure that no people or obstacles are next to, in front of, behind, under or in the machine.

Sound the warning horn before starting the engine!



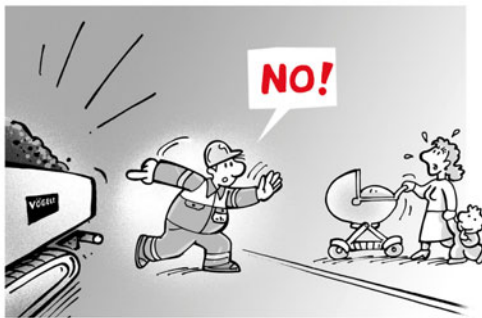
1080

Keep all unauthorised people away from the machine / working area.

Ensure there is nobody near the machine's hazard areas and moving parts.

Moving parts are for example:

- Push rollers
- Hopper walls
- Conveyor
- Belt conveyors
- Crawler unit
- Trim panels
- Spreader augers
- Charging auger
- Paving screeds
- All drive units
- Spraying devices



1004

▲ DANGER

CRUSHING HAZARD!

When driving, ensure the route is clear of people and objects.

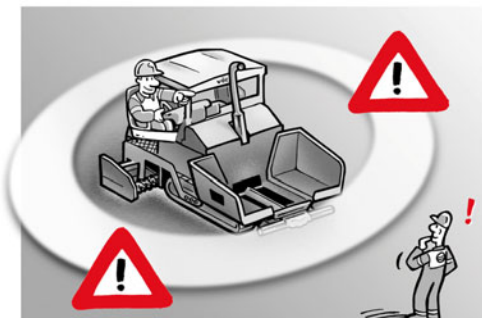
Caution when lowering/raising the paving screed, when pivoting the hopper, when switching on the conveyor/the spreader auger.

There is a risk of crushing.

Always ensure that no-one is within the danger zone prior to starting-up and while operating the machine!

Clear the area of all people by sounding horn and/or other means prior to starting the engine or moving the machine.

Keep all unauthorised people away from the machine / working area.



1007

▲ WARNING

RUN OVER HAZARD!

Moving machines can cause severe injury or death!

There are areas around the machine which are hard or impossible for the operator to see.

Position lookout men to monitor these areas.

Do not operate the machine until these lookout men have signaled to you that the danger zone is free.

Stop the machine immediately if anyone enters the danger zone or if you approach anyone with the machine.



1077

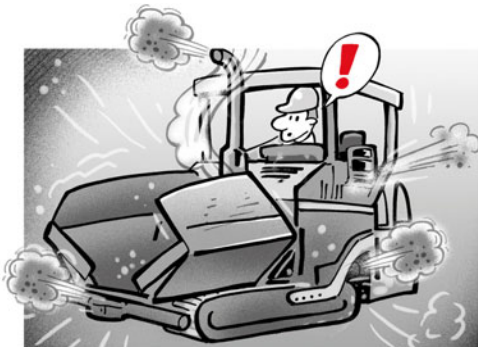
Never start the engine or operate the controls if there is a warning sign attached stating that they are not to be operated! Start and operate the machine from the operator's station only.

6.02 After starting the engine



1067

Check the functions.
Observe gauges, instruments, and warning lights to assure that they are functioning and their readings are within the operating range.
Actuate the controls carefully to ensure correct operation.



1068

Make sure the engine is operating correctly.
Check propulsion drive, brakes and steering while moving slowly.
During operation, listen for any unusual noises and check for any unusual vibrations which could indicate trouble.
No machine should be operated if any part is not in proper operating condition.
It is the OPERATOR'S RESPONSIBILITY to check the condition of all systems including safety interlocks.
Before starting the engine, be sure you know the EMERGENCY shutdown procedure.
Operate the controls only when the engine is running; unless otherwise expressly stated in the instructions!

7 OPERATION

7.00 General operating instructions



1065

⚠ WARNING

INCORRECT OPERATION OF THE MACHINE!

Moving machines can cause severe injury or death!

Always follow the instructions in the Instruction Manual.
The machine must not be used to transport people.

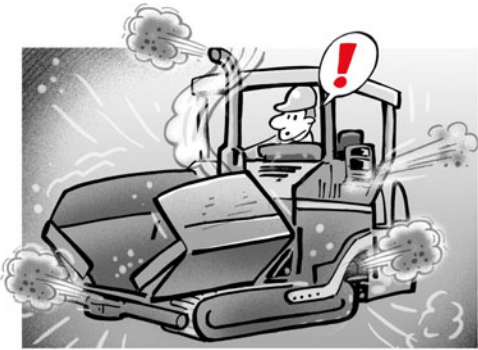


1066

Always select the operator's stand that does not face the traffic flow on the road or that on the construction site.

Only drive down a gradient at the lowest travelling speed.

If the machine operator is placed at risk by traffic driving past with the operator's seats pivoted outwards, special safety measures are to be taken.



1068

⚠ CAUTION

INCORRECT OPERATION OF THE MACHINE!

Ignoring anomalies on the machine can result in damage or injuries.

Be aware of unusual noises, smoke development or other unusual circumstances!

Stop the machine immediately in case of such anomalies.

Have the defect rectified immediately.

Switch on the machine's functions during on-site operation only, and not when repositioning or moving the machine.

If the machine is equipped with a canopy and all-round trim panels, never close all the all-round trim panels when the machine is in operation. When operating the machine, always pay attention to the good ventilation of the control stand.



1046

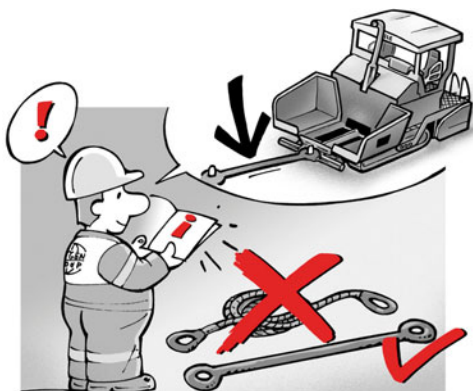
Adjust the machine's road speed to the working conditions.



1023

Always stop the engine prior to leaving the operator's station and always secure the machine against rolling away or unauthorized operation!

It is not allowed to climb onto or leave the moving machine.



1043

Follow the machine's operating instructions when towing the machine (e.g. away from a hazard area).

In the event it is necessary to tow the machine backwards, do not use the screed, but use instead the transport eyes on the machine.

Use the stipulated towing equipment.

Pull away slowly when towing.

There must not be any people in the area of the towing equipment.

Pay attention that the weight, the tractive force and the braking force of the towing vehicle is sufficient.



1092

Always ensure that all drive systems have been switched off before carrying out work such as maintenance, cleaning or repair on the conveyor unit.



Become familiar with the machine's stopping distance, and always select a safe speed for operation and transport!

⚠ CAUTION

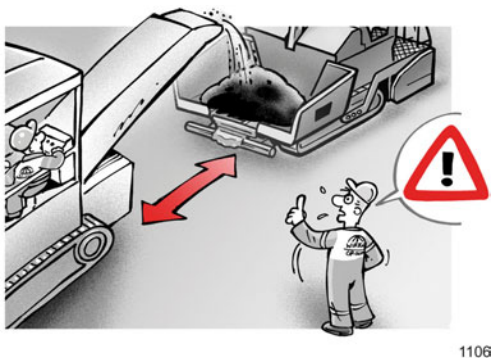
HAZARDOUS CONDITION!

If the machine is overloaded or not used as intended, excessive oscillations and vibrations can be generated which may be harmful to your health or cause dangerous operating conditions.

Always have complete control over the machine and never operate it beyond its capacity.

If the machine is used with a lorry as a material transfer vehicle (MTV), the following points must be observed:

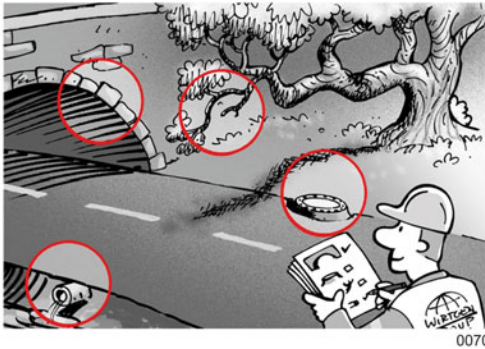
- Keep workers away from the area between the machine and the lorry.
- Become familiar with the machine's stopping distance, and always select a safe speed for operation and transport!
- Visibility may be restricted. Take additional precautions as necessary, for instance mirrors.
- Shut down the engine of machine and lorry before you climb into the hopper.



If the machine is operated with a mobile feeder, the following points must be observed:

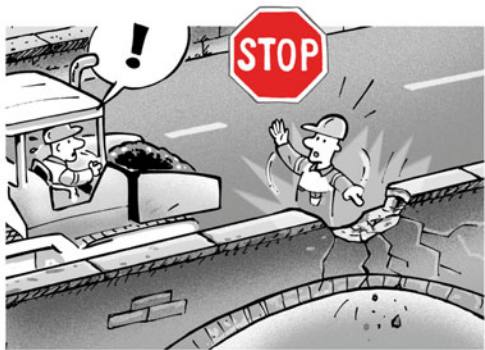
- Keep people away from the conveyor.
- Keep the workers away from the area between the machine and the mobile feeder.
- Pay attention to the machine's stopping distance and select a suitable travelling speed if the work is performed using a mobile feeder!
- Visibility may be restricted. Take additional precautions as necessary, for instance mirrors.
- Shut down the engine of the machine and the mobile feeder before you climb into the hopper.
- Secure the container in the road paver hopper.

7.01 Working area



Learn - beforehand - as much as possible about the construction site:

- Condition of roads, bridges and other working areas.
- Working direction.
- Pot holes, obstacles, mud or ice.
- Traffic conditions.



Always be aware of the load capacity of any bridge, cellar roof, arched structure or similar construction before moving the machine.

Only move over ground capable of supporting the plant.



Learn all signals used on the field, and who has the responsibility for signalling.

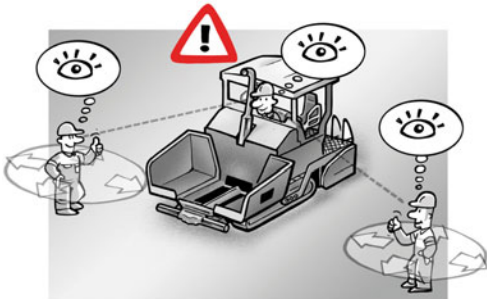
Learn thoroughly the "rules" that should be observed at the field.



Learn to tell, at a glance, the meaning of all flags, signs and markings.

Only operate the machine if you can see everyone in the vicinity of the machine and if these persons have signaled that the danger zone is clear.

Stop the machine immediately if anyone enters the danger zone or if you approach anyone with the machine.



1063

Make sure at all times that no-one is endangered.
Position look-out men who can monitor all danger zones.
Acquaint yourself with the signals/signs used by the look-out-men during the job briefing.
At all times keep an eye on all persons in the vicinity of the machine.



1076

⚠ WARNING

RUN OVER HAZARD!

Moving machines can cause severe injury or death!

There are areas around the machine which are hard or impossible for the operator to see.
Position lookout men to monitor these areas.
Only operate the machine if there are no people in the hazard area.
Acquaint yourself with the signals/signs used by the look-out-men during the job briefing.
Stop the machine immediately if anyone enters the danger zone or if you approach anyone with the machine.

7.02 Operation in the vicinity of power cables



1064

⚠ DANGER

HAZARDOUS VOLTAGE!

Physical contact with power cables will result in electric shock - DANGER TO LIFE!

Ensure that the machine/equipment does not touch power cables.
Be aware of required safety distances.
Check the distances above and beside the machine.
Keep an eye on the delivery vehicles and ensure that they maintain a sufficient distance to lines and flyovers above and lateral to them.

If the machine should touch high-voltage cables, observe the following:

- Do not attempt to get off the machine!
- If possible, move the machine away from the danger zone!
- Warn others not to come near or touch the machine.
- Ask someone to have the power supply switched off.
- Do not attempt to get off the machine before the touched / damaged cable is switched off and no longer carries electricity.

7.03 Working in thunderstorms



1061

⚠ WARNING

HAZARDOUS VOLTAGE!

The operation of the machine in thunderstorms represents a high risk and can result in serious injuries or death and damage.

In thunderstorms the machine may draw lightning that results in death due to electric shock.

Shut down the machine and keep well away from the machine until the thunderstorm has passed!

7.04 Obstacles

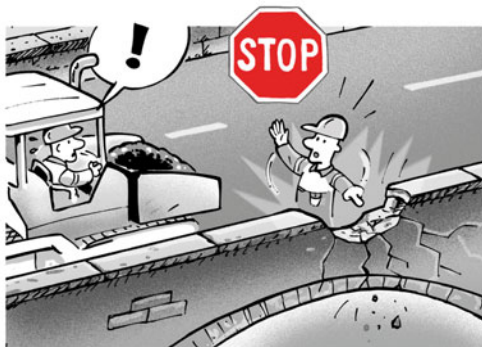


1071

Check the admissible transportation height / width (e.g. weather canopy, ladders etc.)!

Always keep well clear when travelling under or over bridges, through tunnels or past high-voltage pylons etc.

Check the distances above and beside the machine.



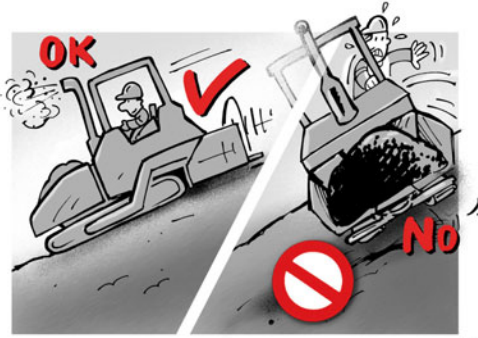
1072

Always be aware of the load capacity of any bridge, cellar roof, arched structure, parking floor or similar construction before moving the machine.

Only move over ground capable of supporting the machine!

Never endanger the stability of the machine. Never suddenly change the machine's direction or speed.

If underground gas or electrical lines or their protective covers are unexpectedly encountered or damaged, stop work immediately and inform your supervisor.



1050

▲ WARNING

HAZARDOUS CONDITION!

Tipping or uncontrollable machine can cause serious injury or death.

Always move and operate the machine carefully on steep gradients either directly uphill or directly downhill.

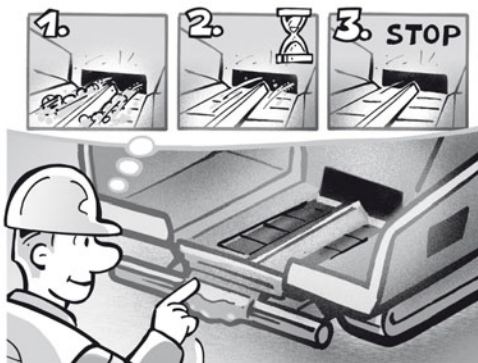
Never move and operate the machine across a slope.

Never exceed permitted gradients as specified in the instruction manual.

The values may be reduced drastically due to the specific working conditions such as ground condition and loading condition of the machine.

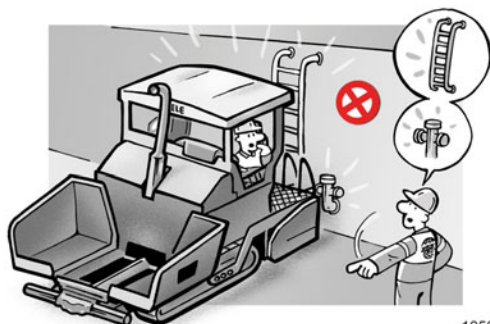
8 SHUTTING DOWN

8.00 General



1058

If possible, park the machine on a hard, flat surface.
Run the conveyor belt / conveyor completely empty.
Secure the hopper.
Lock the screed.



1056

Never park the machine in front of emergency exits, fire hydrants or the like if that would prevent their use!
Place the main drive switch in PARK POSITION.
Lower any height-adjustable units and, if necessary, secure them.



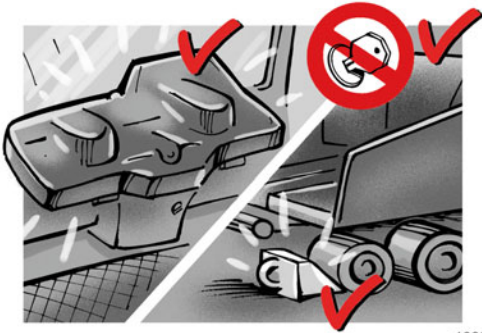
1023

Set all controls to OFF, 0 or NEUTRAL position!
Remove the ignition key.



0020

Secure and lock all compartments, boxes and doors correctly.



1089

Secure the machine against rolling away and unauthorized operation.
Use the ladders and handles to get down from the machine.



1003

If the machine could interface with the normal flow of traffic, ensure that it is clearly cordoned-off (e.g. warning signs, lights, etc.).
If the machine is parked on a public road, the road traffic regulations are to be observed.

9 TRANSPORTATION

9.00 Driving from one place to another



1094

Place all controls of the attachments on neutral position / park position.

Fold in the hopper walls and lock them.

Secure the raised paving screed using the mechanical screed locks.

If there are awnings on the roof, push them in and lock them.

Secure all moving/adjustable machine parts using the securing elements provided.

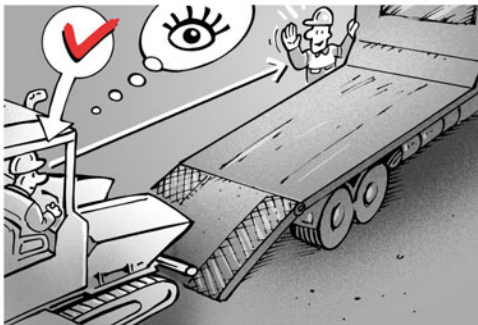


1046

On machines approved for use on public roads, the applicable national road traffic regulations are to be observed:

- The machine must be fitted with the necessary equipment specified by law.
- The related authority must have issued the necessary approval. This approval is always to be carried.
- Mark the machine with a sign, if necessary, indicating that the machine is slow moving.
- The machine operator must have the necessary driving license and must carry this license.
- The machine operator must be appointed by the employer to drive the machine.
- Adjust the machine's road speed to the working conditions.
- Monitor the machine's stopping distance and select the road speed accordingly.
- Do not drive across gradients.
- Observe the inclines/gradients stipulated for machine use.
- Never change gear on a downhill incline.
- Operate the controls for changing the direction of travel only when stationary.
- Drive down inclines at appropriate road speed.
- Do not operate the machine in any way that may affect the machine's stability!

9.01 Loading



1057

▲ WARNING

HAZARDOUS CONDITION!

Hazardous situations can arise while loading the machine. Tipping or sliding of the machine can cause serious injury, death or damage.

Use sturdy, secure and sufficiently wide loading ramps when loading!

The loading supervisor should be easily visible by the operator, and outside the danger zone!

Assistants must wear warning clothing so that they can be clearly seen.



1060

Ensure that the ramps are free of dirt, oil, snow, etc.!

The ramps must have an anti-slip surface!

Never drive metal over metal!

The gradient on the ramps must not exceed the data stated in the instruction manual.

Ensure the load is correctly distributed on the transport vehicle.

Ensure that no-one can be endangered if the machine should slip or tip over!

Keep all unauthorized personnel away from the loading zone!



1023

Stop the engine after loading the machine!

Remove the ignition key!



1034

⚠ WARNING

HAZARDOUS CONDITION!

Never walk or stand under suspended loads. This action may result in serious injuries or death.

Remove parts that protrude beyond the transport width and stow them safely.

All moving parts, e.g. direction indicators, material hoppers, height sensors, paving screed etc., that could exceed the admissible transport width during transport are to be secured against unintentional movement.

If there are awnings on the roof, push them in and lock them.

Ensure that lifting devices are strong enough before lifting the machine or any of its components!



0020

Secure and lock all compartments, boxes and doors!



1035

Properly lash the machine to the transportation vehicle!

Secure machine against rolling away, sliding and tipping on the transporter.

Use suitable lashing equipment.

Observe the legal requirements for securing loads.

During transport on the transporter, the paving screed is to be lowered onto the transporter and the complete machine is to be secured against rolling away, sliding or tipping by lashing.

Use the lashing eyes or suitable features on the machine.

Pay attention to the labels.

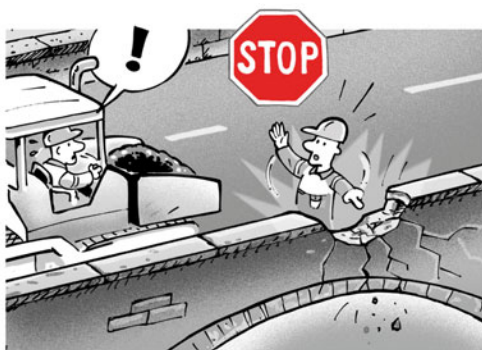


1071

Check the admissible transportation height / width (e.g. weather canopy, ladders etc.)!

Ensure that there is sufficient clearance to travel under bridges and overhead cables, and through tunnels!

Check the distances above and beside the vehicle.



1072

Always be aware of the load capacity of any bridge, cellar roof, arched structure or similar construction before moving the machine.

Only move over ground capable of supporting the machine!

Never endanger the stability of the machine. Never suddenly change the machine's direction or speed.

If underground gas or electrical lines or their protective covers are unexpectedly encountered or damaged, stop work immediately and inform your supervisor.

9.02 Unloading your machine



1060

Familiarise yourself with the correct unloading procedure for your machine. Machines are not all unloaded the same way, the manufacturer's instructions must therefore always be followed.

Several precautions are applicable to all machines:

- Unload on a level surface.
- Block transport vehicle so it cannot move.
- Prior to unloading, completely remove all lashing and securing equipment.
- Use ramps of adequate size and strength, low angle, and proper height.
- Keep trailer bed and ramps clean of clay, oil and all materials which can become slippery.
- Keep all but essential personnel clear of the unloading area.

10 MAINTENANCE

10.00 General



1069

⚠ WARNING

HAZARDOUS CONDITION!

Incorrect maintenance is dangerous and can cause serious injuries - or even death!

Always follow the maintenance manual of your machine.

Never use damaged tools.

Only regularly serviced machines are safe for operation.

Thorough cleaning of the machine after every on-site operation is a part of regular service, in particular all components that are subject to extreme contamination by concrete, asphalt or similar materials.

All service and maintenance work on the machine must only be carried out by trained and qualified personnel while using the correct tools.

Only allow untrained personnel, or personnel who are presently undergoing training, to work on the machine when they are under continuous supervision of an experienced specialist.

If safety devices must be removed to carry out setup or maintenance work, these must be re-installed or re-fitted immediately on completion of the work.



0040

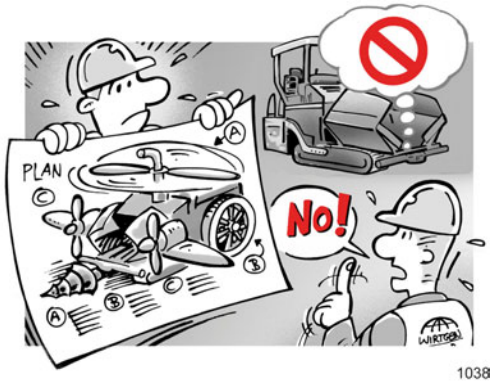
⚠ WARNING

RISK OF INJURY!

Service and/or maintenance on running equipment can cause severe injury or death.

If not otherwise explicitly described, all service and maintenance work is to be carried out when the machine's engine is switched off.

Put the machine on firm and level ground.



1038

We hereby explicitly inform you that spare parts not supplied by us have not been tested and approved. The installation/ application of such components can degrade the machine's performance and influence its active and/or passive operational safety.

The manufacturer rejects all liability for damage resulting from the application of non-original spare parts and special equipment.

The machine manufacturer disclaims all responsibility for damage or injuries resulting from conversions, modifications or alterations that are carried out without the consent of the manufacturer!



1077

Affix a warning sign on the operator's station prior to starting service and maintenance work to prevent unintended start-up.

Remove the ignition key.

Never start the engine or operate any controls when they bear a sign stating that they should not be operated!



1080

Keep all unauthorised people away from the machine / working area while carrying out service and maintenance work.

Always turn off the engine of the machine prior carrying out service and maintenance work; except when otherwise explicitly instructed.

Do not perform any adjustments while the machine or the engine is running.



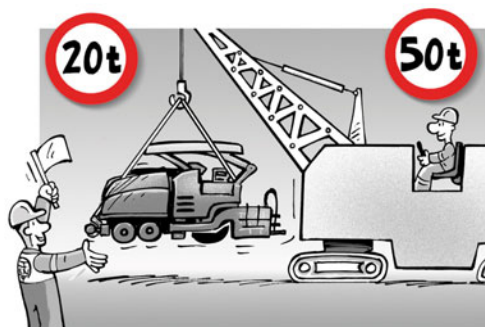
1078

⚠ DANGER

SUFFOCATION HAZARD!

Exhaust fumes are toxic and there is a risk of suffocation!

Start the engine outdoors only. If the engine must be operated indoors, ensure that the exhaust fumes are directed outdoors.



1034

Ensure that lifting devices are strong enough before lifting the machine or any of its components.

The machine must be sufficiently supported.

Ensure that no-one is on the machine while work is being carried out underneath it.

Ensure that the paving screed is safely supported and secured against lowering when working under the raised paving screed.

Never trust alone in the hydraulic or electric system of the machine when performing maintenance works.

Secure all raised machine components against falling down.



0088

Always use safe ladders and stands when carrying out overhead work.

Never climb on top of machine components.

Always wear fall protection when working at great height.

10.01 Fluids



0081

▲ WARNING

PRESSURISED / HOT FLUIDS ESCAPING!

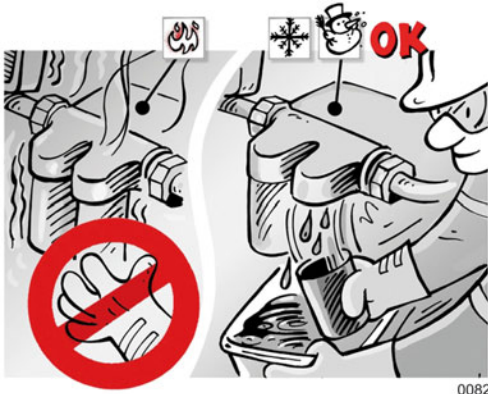
Hot and/or pressurised fluids, including hydraulic oil or coolant can be sprayed out and cause serious burns, injuries or death.

Wear protective clothing during maintenance work in the area of hot and/or pressurised fluids.

Let the system cool down and be sure the pressure is released.

Always switch off the engine and release pressure when handling operational fluids (e.g. coolant, oils, lubricants, etc.).

Oils, greases, etc. are only to be checked after they have cooled down sufficiently.



▲ WARNING

BURN HAZARD!

Hot fluids can cause severe burns.

Never check, drain or change fuels or lubricants when they are hot.

Appropriate protective clothing must be worn when handling fuels / lubricants even after a sufficient cool down period!



▲ WARNING

COOLANT!

Be careful when removing the cooler lid.

Coolant is under pressure.

Anti-freeze can be toxic and abrasive.



DISPOSAL OF COOLANT

The engine must be switched off prior to draining the coolant.

Collect the drained coolant in a suitable container and dispose of correctly!

10.02 Pressure systems, filters

▲ WARNING

RISK OF INJURY!

Depressurize the hydraulic system prior to inspection and repair work.

Never use your hands to scan pressurized hydraulic pipes, hoses and components for leaks.

In case of injury it is imperative you seek medical attention.



Replace hydraulic hoses at least every five years, even if no safety-related defects are visible.

Do not wait to replace hydraulic hoses alone when wear or a tear has been detected. Hydraulic hoses age over time and need to be changed regularly, even if they look intact.

Never hit or bend high-pressure hydraulic lines! Damaged pipes and connectors must not be re-used! A visual inspection for leaks has to be carried out carefully on all hydraulic pipes, hoses and components. Tighten all connectors to the recommended torque.

The machine parts are to be secured against lowering / tipping when working on hydraulic cylinder.



0085

⚠ WARNING

BURN HAZARD!

Touching hot objects or hot fluids, including hydraulic oil or coolant can result in serious burns, injuries or death.

Wear protective clothing during work in the area of hot objects or hot fluids.

Prior to maintenance work, allow hot objects and systems to cool down, if these contain hot fluids.



0086

When changing oil or oil filter, collect all waste oil in a suitable vessel!

Oil must not be allowed to enter and contaminate the ground!

Waste oil and engine oil filters or oil filter elements must be disposed of correctly.

It is only allowed to use synthetic hydraulic fluids if the machine was filled with this hydraulic fluid originally.

Check whether the hydraulic hoses and seals are suitable for synthetic hydraulic fluids.

10.03 Cleaning



0087

Be careful with cleaning agents.

Never use petrol (gasoline) as a cleaning agent!

Never use abrasive cleaning agents!

Always follow the product's safety instructions when using oil, greases and other chemical substances.



1092

⚠ WARNING

ENTANGLEMENT AND CRUSHING HAZARD!

If you reach into moving conveyor units (conveyors or spreader augers), serious injuries and/or fatality may result.

Ensure all drives are out of operation prior to working on conveyor units.



Lock the hopper walls.

Lock and secure the screed.

The cleaning agent may be flammable. Never use the cleaning system while the screed burner is in operation.

Do not smoke and do not allow others to smoke while the cleaning system is in use.

A qualified operator must be on the control stand if the engine is operated during cleaning and washing. The cleaning personnel must be visible for the operator.



▲ WARNING

ENTANGLEMENT AND CRUSHING HAZARD!

If you reach into moving conveyor units (conveyors or spreader augers), serious injuries and/or fatality may result.

Ensure all drives are out of operation prior to working on conveyor units.

The spreader auger and the conveyors must only be operated long enough to access all surfaces with a spray solvent.

Remove all paving material from the control stands and walkways so that they do not become slippery and cause accidents.

Start cleaning only after all workers have left the machine.

Follow all applicable regulations in relation to washing the equipment and the disposal of waste.

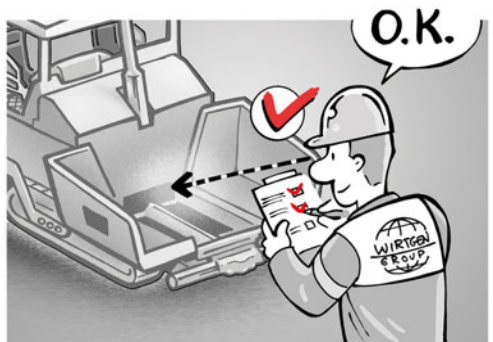


Ensure that all safety stickers / warning signs on the machine are intact and legible.

Replace missing or damaged safety stickers / warning signs.

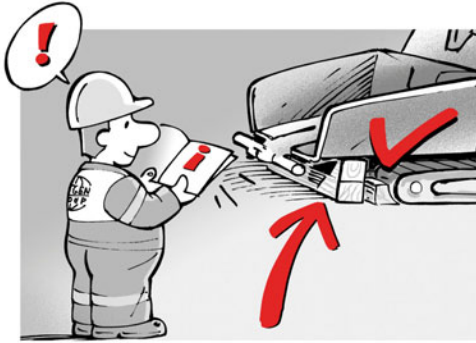
All safety devices and safety stickers / warning signs are listed and explained in the instruction manual of your machine.

Always follow the national and/or local road traffic regulations.



Check that all pins, spring clips and other safety elements are correctly installed and in good condition.

Check the residual current device or the insulation monitoring unit daily.



1095

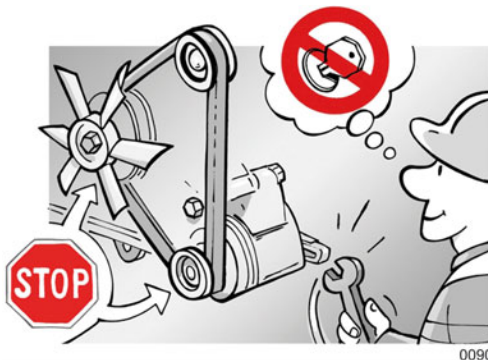
▲ CAUTION

RISK OF INJURY!

Be careful when opening doors and flaps etc. – Risk of injuries. Wear protective clothing!

Ensure that the machine is secured and prevented against rolling away when working on its wheels/crawler units!

10.04 Belt drives and cooling fans



0090

▲ WARNING

ENTANGLEMENT HAZARD!

Belt drives and cooling fans can cause severe injury. Keep away from rotating or moving parts and do not touch them.

Always stop the engine/drive unit before checking or tensioning V-belts!

10.05 Battery



0091

▲ WARNING

EXPLOSION HAZARD!

Batteries during charging may explode and cause severe injury.

Remove all covers when charging non maintenance-free batteries so that the explosive gases can disperse.

Avoid sparks and exposed flames near the batteries!

Smoking is strictly forbidden.

Never disconnect batteries while the engine is running.

Read the instructions from the manufacturer before you maintain the batteries, use jump starting cables or a battery charger.

▲ WARNING

ELECTROLYTE IS TOXIC AND CAUSTIC!

Skin burns, blinding are possible consequences.

Always wear eye and face protection.

Dispose of old batteries in accordance with regulations.

10.06 Pneumatic tyres



0045

▲ WARNING

EXPLOSION HAZARD!

Explosive separation of a tyre and/or rim parts can cause serious injury or death.

Always follow the manufacturer's recommendations or see your tyre supplier if your machine is equipped with pneumatic tyres.

Always maintain the correct tyre pressure. Do not inflate the tyres above the recommended pressure.

Inspect tyres and wheels daily. Do not operate with low pressure, cuts, excessive wear, bubbles, damaged rims or missing lug bolts or nuts.

Maintain wheel nuts tightened to manufacturer's recommendations.

When adjusting tyre pressure, do so from a distance. Use a long hose with self-attaching chuck. Always stand behind tread when adjusting tyre pressure.

Replace worn or damaged tyres.

Do not inflate tyres with flammable gases.

10.07 Solid tyres and crawlers



1049

Replace badly worn or damaged solid tyres or crawler pads (if so equipped) in accordance with the instruction manual. Adjust track tension (if so equipped) according to the instruction manual.

10.08 Electrical system



1096

⚠ WARNING

ELECTRIC SHOCK!

Touching live power cables can result in electric shock with serious injuries or death.

The necessary protection against hazards for the electrical equipment and systems is provided if the regulations applicable for setting up, placing in operation and maintenance are followed.

All troubleshooting and repair work is only allowed to be performed by qualified specialist personnel, when the machine is stationary and electrically isolated, and the machine is secured against switching back on.

Check if de-energized.

Switch off the heating circuit with a circuit breaker when performing trouble-shooting and repair works on the electric heating system.

Blown fuses are indicative of overload or a fault in the system. Fit new fuses as per the instruction manual. Never mend or bridge fuses.

Check all electrical cables and connectors for chafing and damage! Renew any damaged components immediately.

10.09 High pressure cleaner



0053

The fittings on all hoses must be screwed tight.

Hoses must be depressurized before they are taken apart.

Care should be taken not to damage the high pressure hose (danger of bursting).

If damaged the high-pressure hose must be replaced immediately.

Only use the hoses and screw couplings recommended by the manufacturer.

Check the high pressure cleaner and its accessories for correct working condition and safety before use.

If this is not the case, then the equipment may not be used.



0073

⚠ WARNING

BURN, EXPLOSION AND / OR POISONING HAZARD!

The spray mist from cleaning agents containing solvents can cause serious injuries or death.

Never use fluids containing solvents.

This includes: petrol, paint thinner, diesel/heating oil, acetone, undiluted acids, solvents, etc.

Furthermore, these fluids can attack the materials used in the equipment.

Cover electrical parts, insulating materials and combustion air intakes, and do not direct the jet at such components.

Remove all covers again after cleaning.

The operating trigger on the spray gun must not be locked in position during operation.

If required, protective clothing should be worn in order to protect against anything which may splash back from the machine.

Never direct the jet of cleaning agent at people, animals, the high-pressure unit itself or electrical components.

⚠ WARNING

RISK OF INJURY!

Exploding damaged tyres and/or parts of wheels can cause serious injuries or death.

If a spray gun is used, vehicle tyres and tyre valves may only be cleaned from a distance of at least 30 cm otherwise the tyres/ tyre valves may get damaged by the high-pressure jet.

The first sign of damage is a discoloration of the tyre.

Materials which contain substances harmful to the health must not be sprayed.

Only use solvents which are intended for this purpose and approved by the manufacturer.

The operator must use the high pressure cleaner in accordance with the provisions specified for its use. He must take into account local conditions and watch out for other people in the area when operating the equipment.

The high pressure hose should never be left unattended while it is in operation.

The jet of cleaning agent emerging from the high-pressure nozzle exerts a recoiling force on the sprayer gun. Therefore, the gun and the steel tube must always be held tightly when the equipment is in operation.