

SAFETY STANDARDS

Your safety and the safety of those working nearby depends on you! It is absolutely vital that you have a full understanding of the manual instructions concerning proper machine operation, inspection and maintenance work.

Read this manual carefully and in particular make sure:

- that you understand the control symbols and the safety recommendations both in this manual and on the machine.
- that you are perfectly aware of machine performance data such as speed, stability, braking and steering radius. Should you have any doubts whatsoever please get in touch with your **Ahlmann** Distributor.

The safety information contained in this manual refers to situations which may occur during normal machine use and maintenance work, and gives various ways of dealing with such situations. The manual also contains safety information concerning other dangers.

Whatever the work being carried out, the applicable private and public work site safety regulations are those which comply with standards in force in the country or professional sector in which the machine is being used (e.g. mines, quarries, underground works).

The safety regulations described in this manual summarise basic safety rules which should be observed at all times and do not exonerate the user from observance of the highway code or conditions of insurance.

Foot board and handholds



To get in and out of the drive cab, use the footboard and the handholds.



Never use the steering wheel, the loading gear control levers or the door handles to get in and out of the cab.



Clean footboard and handholds and wipe away all traces of grease, oil, mud and ice (in winter).



Never jump down from the machine. Always face the vehicle when getting down from the driver's cab and use the footboard and the handholds.

Before using the machine



Do not drive the vehicle until the instructions and warnings contained in this manual have been read and fully understood.



Vehicle control requires great care: prudence will help you avoid accidents. Make sure you are aware of machine performance, limitations and necessary steering space.
The steering zone has blind spots: it is therefore advisable to have someone guide work when visibility cannot be ensured.



Lubricant, oil, mud or ice (in winter) on the footboard and handholds may cause accidents. Keep them clean at all times.



Check the machine every day in order to make sure there are no oil or hydraulic fluid leaks. Tighten and replace wherever necessary.



Maximise visibility by cleaning the windshield, windows and rear-view mirrors.
In case of poor visibility do not use the vehicle.



Make sure you understand on-site hand signals. This will ensure that you are properly guided during precision machine manoeuvres or when direct visibility is impaired.



Before transferring to another site or starting night work make sure that all lights/indicators are working properly.



Before moving the vehicle always make sure that the doors, the engine hood and the front inspection hatch are properly closed.



Never leave anything (tools etc.) lying on the machine or in the driver's seat.



Only the driver should be in the vehicle. Make sure that there is nobody near or on the vehicle.



When getting in and out of the cab always use the footboard and the handholds.



Make sure that you are fully aware of the position and function of all the controls. Incorrect use of the controls could cause serious physical injury.



Check that all controls and safety devices are working properly and that you are in a safe, obstacle-free area before starting work.



Keep well away from danger zones such as ditches, overhangs, subsidence-prone areas etc. Inspect the work zone before using the machine and carefully evaluate the risks.



Check out and weigh up all possible risks before driving the vehicle in a new work zone. Holes, obstacles, rubble and other risk factors may cause serious physical injury.



Be ready in case of an emergency! Always keep a first-aid kit nearby and a fire extinguisher on board the vehicle, within the driver's reach. Have the extinguisher regularly serviced in compliance with the manufacturer's instructions.



Make sure you clearly understand the safety sticker symbols on the machine. Make sure they are clean and legible at all times.



Always fasten your seat belt before starting. The vehicle is equipped with a roll-over protection system (ROPS) which ensures safety. The seat belt must not be too slack: it will protect the driver efficiently if fastened correctly and worn at all times. The belt must not even be twisted or jammed in the seat.



In order to avoid accidents, dress properly. Do not wear too large clothes which may be trapped by the machinery.



Before driving the vehicle on the road fasten the loading gear into place and make sure all safety devices are in place as required by the standards in force.



Periodically check tire pressure and wear.



Operator must be in perfect physical conditions. In case of tiredness he/ she must not drive the vehicle. Should the operator have drunk spirits or taken drugs/ medicines which could lower attention, he/ she must avoid driving.

Machine use



Vehicle must be driven only by expert and authorised personnel. For on-road transfers the drivers must have a regular driving licence (“B” or upper category); the use of a pivotable headlight is compulsory.



When working on a roadside site, use the standard traffic signs, bearing in mind the machine steering radius. Local legislation will define the number, type and position of signs and reflectors.



Do not run the engine in a closed space. Always provide adequate ventilation.



Never authorise anybody to get on the vehicle since a passenger could fall or cause an accident.



It is forbidden to carry passengers on the vehicle. The vehicle has been approved for the transport of one person only. It is not allowed to use the vehicle (bucket, forks, etc.) as a base plate for lifting people.



Never operate a loader control or vehicle drive device unless you are properly seated in the drive seat.



Do not work near live overhead power cables without first ensuring observance of minimum distances. Less than 57.000 Volt: 3 metres, more than 57.000 Volt: 5 metres.



Locate pipes/ducts/cabling etc. before digging. Electrical cables, gas mains, water pipes and other underground works could cause serious physical injury.



Before manoeuvring the vehicle, take working conditions (slopes, rough terrain), road conditions and weather conditions into careful consideration. Behave and drive accordingly. The max on-road-transfer speed is 32 km/h (20 km/h in Germany). The max on-site speed is 7 km/h.



Never allow anyone to enter the vehicle work zone. A wrong move by the driver could cause an accident. Stop all movement until the person has left the area.



Use the controls in sequence to ensure proper machine operation.



When transporting the machine on a trailer position the speed selector at on-site speed. Keep the loading bucket at least 20 cm from the ground.



Using the digging gear to “sweep” the ground to level dug out material or push objects (side-on gear stress) is absolutely forbidden.



Stop the engine even during brief pauses.



Never leave the driver’s cab with the engine running.



When getting in and out of the driver’s seat the loading gear controls MUST categorically be locked in place. NEVER disobey this safety regulation.



Dust, smoke and fog reduce visibility, increasing the likelihood of an accident. Stop or slow down until visibility is restored.



Never jump down from the machine. When getting out of the cab always use the footboard and the handholds.



In the event of malfunction or breakdown, immediately set the digging gear down on the ground, stop the engine and pull the hand brake. Identify the fault and/or report it: take any necessary measures to prohibit machine use.



All on-road transfers must be effected in forward gear.



Should the machine be stopped on a gradient, chock the wheels (law in certain countries).

Parking the vehicle

When parking the vehicle proceed as follows:

1. Bring the machine to a halt on a flat horizontal surface, away from unstable ground, digging works or a poorly propped hole/ditch.
2. Set the loader bucket down on the ground.
3. Turn the speed selector switch to neutral.
4. Immobilise the vehicle with the hand brake.
5. Stop the engine and remove the ignition key.
6. Reduce hydraulic pressure by acting on the control lever both ways.
7. Lock the loader gear control levers into place.
8. Check that the doors, the engine hood and the front inspection hatch are properly bolted and the driver cab doors locked.
9. Make sure that no vehicle parts protrude into a traffic lane. If this is unavoidable position warning signs in compliance with the standards in force.



Maintenance and checks



Never carry out maintenance work until the instructions contained in this manual have been read and fully understood.



When carrying out maintenance work wear appropriate clothing.



Before commencing maintenance work place a “DO NOT START” sticker on the side panel.



Always use protective eyewear when using a tool that could cause dispersion of metallic particles. When fitting gudgeons use a “soft”-headed hammer (e.g. in copper).



Sub-standard maintenance and adjustment work could lead to serious injury. If you are unsure about any of the maintenance or adjustment procedures get in touch with your **Ahlmann** Distributor.



Certain machine components must be certified. Should they need to be replaced make sure that all spare parts comply with safety regulations. Use original **Ahlmann** spare parts.



Removing equipment or manoeuvring the machine without the operator may cause serious injury. Before carrying out maintenance work on the machine proceed as follows:

1. Bring the machine to a halt on a flat horizontal surface.
 2. Set the loader gear down on the ground.
 3. Stop the engine.
 4. Pull the handbrake lever.
 5. Lock the loader gear controls into place.
 6. Chock the wheels to keep the vehicle perfectly still.
- Should maintenance/adjustment work require that the loader gear be raised, the pneumatic jack stabiliser must be used.



Unauthorised machine modifications could cause serious injury. Never carry out modifications without obtaining prior authorisation from your **Ahlmann** Distributor. All modifications must be compatible with machine technical features and comply with the safety standards in force.



Penetration of hydraulic fluid or pressurised grease into the skin could cause serious bodily harm. Take the necessary precautions (suitable clothing plus gloves and protective eyewear) to avoid such risks. Also, read the manufacturer's advice carefully before handling these products. Should hydraulic fluid penetrate the skin seek medical advice immediately.



Before carrying out any welding work disconnect the battery and connect the welding gear earth to the part to be welded. Never connect the earth to a hydraulic circuit component. Before carrying out any welding make sure that the working area is well ventilated.



A tire blow-out could cause serious injury. Periodically check the tires for wear and always keep them at the right pressure in accordance with tire type and terrain conditions.



When checking tire pressure or inflating the tire always position yourself in line with tire tread, not in front of the tire wall. When removing a wheel from the vehicle always use an inflation cage. Keep all personnel well away from the area.



Never do any welding near a tire. The tire **MUST** be removed before doing any welding.



Machine structure complies with FOPS and ROPS safety standards. Any modifications (drilling, welding etc.) may annul compliance with such standards.



Before carrying out maintenance work on the vehicle still warm, pay special attention to hot fluids and components which may cause burns.

Stickers



An illegible or missing sticker could have serious consequences. Check them every day.



Ensure that all stickers are perfectly legible. Replace them with new ones if ruined, missing or faded. Should a sticker-carrying part be replaced make sure you put a new sticker on the new part.

Preventing fire and explosions



Engine fuel could provoke an explosion or a fire.

- Never fill up the fuel tank with the engine running.
- Never smoke during refuelling.
- Take all necessary safety precautions during welding and adjustment work or in the presence of naked flames.



Always use a non-flammable solvent when cleaning parts.



A spark or naked flame could cause the hydrogen in one of the batteries to explode. To prevent explosions always observe the following rules:

- When disconnecting the battery cables always detach the negative cable (-) first.
- When reconnecting the battery cables always connect the negative cable (-) last.
- Never short circuit the battery terminals with two pieces of metal.
- Never weld, carry out adjustments or smoke near the battery.



Engine electric and/or exhaust systems may give off sparks. If operating in an area which might contain inflammable vapours ventilate it properly before utilising the machine.



Always keep a fire extinguisher within reach in the cab. Make sure that it is serviced regularly in compliance with the maker's instructions.



Periodically clean the vehicle. Remove all possibly inflammable deposits.



Inspect for leaks, replace damaged hoses, piping and connecting pieces. After repair work has been completed clean the vehicle before using it.



E' assolutamente vietato l'avviamento e l'utilizzo della macchina in ambienti a rischio di incendi o di esplosioni.

Preventing burns



Battery electrolyte can cause serious burns. The battery contains sulphuric acid. Avoid contact with skin, eyes and clothing.

Treatment:

EXTERNAL: rinse with water.

INTERNAL: drink lots of water or milk. Then drink milk of magnesia, one beaten egg or some vegetable oil. Seek medical advice immediately.

EYES: rinse with water for 15 minutes and seek medical advice immediately.



When battery electrolyte is frozen it may explode if you try to charge the battery or jump-start the engine with another battery. To prevent the electrolyte freezing always keep the battery charged.



Should the radiator cap be removed when the engine is still hot boiling coolant could be released. Let the system cool down first, then rotate the cap as far as the first notch and wait until pressure is completely released. Then remove the cap.

Declared performances

Working conditions

Standard use (continuous running), working temperature:

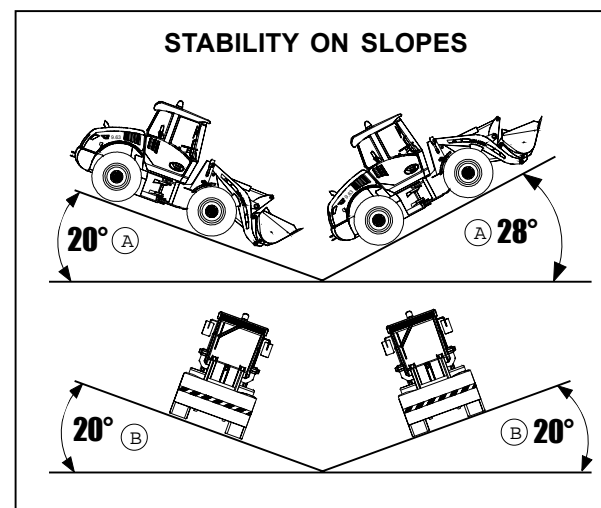
- Max 48° C
- Min -15° C (standard vehicle)

R.p.m.

Medium: vehicle usually works at medium r.p.m and load levels, with peaks near max.values.

Expected life-span

Provided that all the required checks, maintenance works and overhauls prescribed in this manual are carried out, the actual vehicle life-span will be 10,000 hours. Once this hour amount has been reached, it is not allowed to use the vehicle if not overhauled and checked by the Constructor.



Note A: - 25° continuous (35° intermittent max 15 sec.)

Note B: - 20° Vehicle on a horizontal surface (not steered)

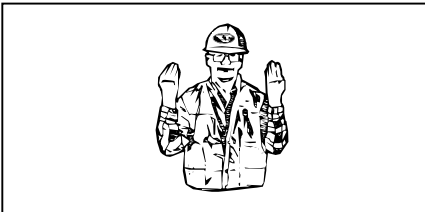
Hand signals

Should the machine be used in precision manoeuvres or for jobs with restricted visibility it is advisable to have the driver guided by a ground-based assistant using hand signals. Make sure that both driver and assistant understand the signals to be used.

Start the engine

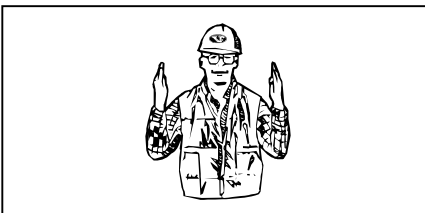


Come forward

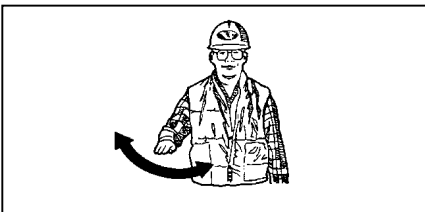


Move hands back and forth (palm facing inwards).

Move

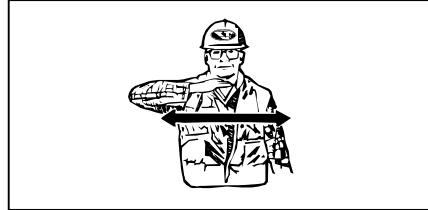


Stop

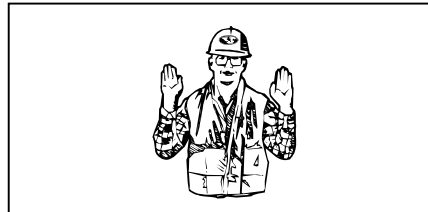


Move one hand back and forth

Switch off the engine

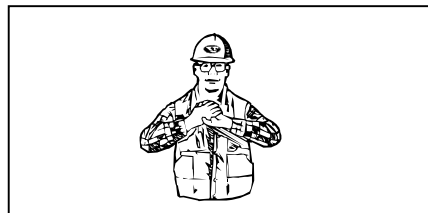


Reverse

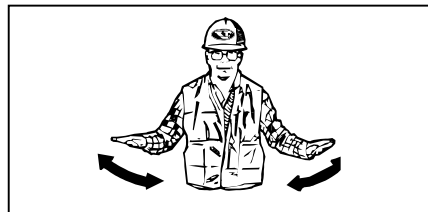


Move hands back and forth (palm facing outwards).

Stop and wait

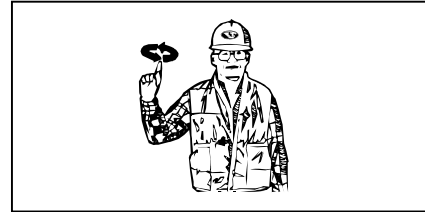


Emergency stop

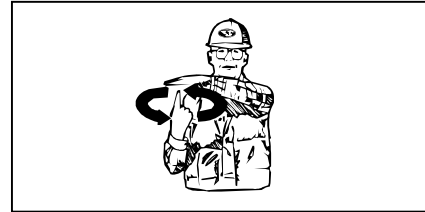


Move hands back and forth

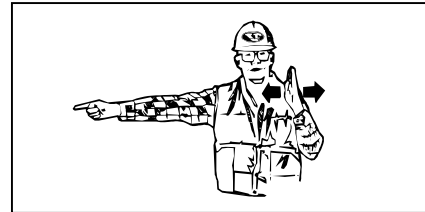
Lift the load or loader equipment



Lift the load or loader equipment slowly

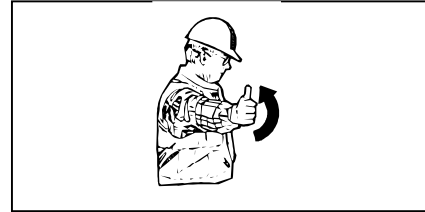


Turn the vehicle to the left (turn load to the left)

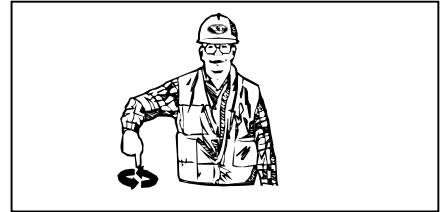


To stop the manoeuvre stop moving your hand and make a fist.

Raise the loader bucket



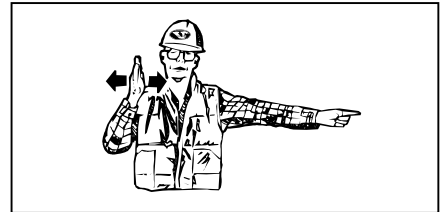
Lower the load or loader equipment



Lower the load or loader equipment slowly



Turn the vehicle to the right (turn load to the right)



To stop the manoeuvre stop moving your hand and make a fist.

Lower the loader bucket

