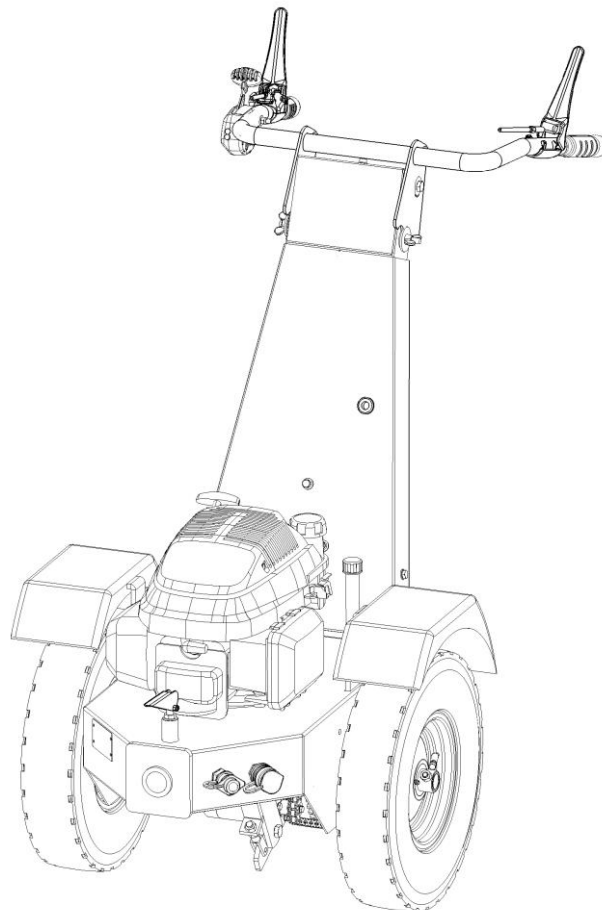




Original Operating Manual

Hydraulic Two Wheel Tractor K820 / K820 Pro

Models G - G-KLA - GL - Pro



Order: B00005

Machine.-No:

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1 Forward

Dear Customer,

Thankyou for choosing to purchase a quality product from Kersten.

This product is manufactured according to the latest manufacturing techniques and extensive quality assurance measures, because our goal has only been reached when you are truly happy with the machine.

Before the first use of this machine or the attachment, please read these operating instructions carefully and conscientiously

If you do not understand any of the information in this Manual or the product-specific installation or operating instructions, please contact your reseller or the machine manufacturer directly .

Keep this manual handy for future reference . You can read the important information and instructions if needed .

We wish you many hours of fun with your new Kersten Machine.

Dipl.- Ing. (FH) Robert Bosch



Managing Director

2 About these operating instructions

The machine or the attachment is subject to technical progress . All information , illustrations and specifications meet the highest standards at the time of publication . but the information is subject to change without notice due to technical progress .

No claims can be derived from issue with the descriptions and illustrations within this document.

2.1 Before Starting



Self propelled machines and attachments pose significant risk when used improperly. Therefore it is important for installation and training to be given by a trained person before use for the first time. Try the machine initially on flat ground in an open space.

- **This will reduce the risk of accidents by you or third parties!**

For further information and in case of problems, please contact the dealer, importer or the manufacturer directly .

- **Be sure to read the safety information on the following pages !**
- **Be sure to read the operating instructions before use!**
- **Make sure all other users first read these instructions !**

2.2 Information about this Manual

Lists are marked with bullet points

Example:

- Text
- Text

Instructions are in the order in which they are to be executed

Example:

1. Text
2. Text

3 Safety notes for Hydraulic two wheel Tractor

The important safety instructions in this manual cannot cover all possibilities. It goes without saying that common sense and caution are factors which are not installed in a machine, and must be used by the person who operates and maintains the machine.

To keep the risk of accidents as low as possible, please note the following subchapter

3.1 Applications



- The two-wheel tractor and the equipment is approved by the manufacturer for the respective usual or customary use and work in agriculture and forestry, such as Green space and park maintenance and winter maintenance.
- Any other use is considered improper. The manufacturer is not liable for any damage caused by using the machine in other applications, these risks must be borne solely by the operator.
- Intended use also includes compliance with the manufacturers written operating, service and maintenance requirements.
- The machine must only be used or serviced by competent persons, who are fully aware of the dangers.
- The relevant accident prevention regulations and other generally recognized safety and occupational health regulations must be observed.
- Unauthorized modifications to the machine will void the warranty of the manufacturer for resulting damage.

3.2 General safety and accident prevention regulations

3.2.1 Principles



- Note Besides the recommendations in this manual, the general safety and accident prevention regulations!
- The machine must not be used by persons under 16 years, even under adult supervision! Children and adolescents should be instructed not to play with the appliance!
- Only trained personnel or persons may use this machine!
- When using on public roads, follow the respective legislation!
- The machine is not approved for public transport!
- The user should avoid wearing loose clothing and wear protective footwear!
- Work only in good light and visibility!
- The warning and safety signs attached to the machine, provide important information for safe operation; Comply for your own safety!
- For transport on vehicles or trailers, the engine must be switched off!
- Be careful with moving parts on the machine, which could cause harm; Keep a safe distance.
- Beware of parts still moving after the machine is stopped. Wait until everything has finished moving before working on the machine.
- Driven parts can cause crushing or shearing injuries!
- The transport of persons and objects with this machine is forbidden!
- handling, steering and braking ability and tilting behavior are influenced by mounted or trailed equipment and loading. For this reason, only attachments approved by the manufacturer may be used. The operating speed should be adapted to suit the particular circumstances.
- Do not modify the upper idle speed of the engine. Too high a speed increases risk of accidents!
- Unauthorized alterations, which endanger the operational safety of the machine are prohibited!
- Before each use check to make sure the machine is operating properly.

3.2.2 Working and area of danger



- The user is liable to third parties in the working area!
- Staying in the immediate working area of the machine is prohibited!
- Before starting Check the immediate surroundings. Pay particular attention to children and animals in the area and make sure you have a good field of vision.
- Before starting work, foreign bodies and obstacles must be removed from the surface to be processed. Look out for further objects and remove them before driving over them.
- When working in enclosed areas, keep a safe distance to the border, in order not to damage the tool.
- When working in the immediate vicinity of public roads and paths they should be approached with caution because there is a risk of injury to third parties by objects being thrown from the machine.
- When working on public streets and squares or in the immediate vicinity; instruction and warning signs are to be set up to make all third party 's aware that works are taking place.

3.2.3 Before starting work



- Before starting work, familiarize yourself with all equipment and controls as well as with their functions and ensure that all protective devices are properly mounted and positioned to provide protection! During work it is too late!
- Make sure you are aware how to stop the engine in an emergency!

3.2.4 Starting the machine



- When starting the machine all drives must be in the neutral position!
- Do not start the engine in enclosed spaces!
- Do not stand in front of the machine or attachments when starting the engine.
- Do not use oils to assist starting the engine as this can cause explosion because of electrical wires.

3.2.5 During Operation



- When the machine is in use, the operator should never leave the position behind the handlebars!
- Never adjust the handles while driving, this could lead to an accident!
- The transport of persons and objects is forbidden!
- Turn off the engine when tampering with or cleaning the attachment!
- Leave the operator position only when all the tools of the attachment are at a standstill!
- If damage is caused to the self-propelled unit or the attachment, stop the engine immediately and repair the damage.
- In case of malfunction of the steering; stop the self-propelled device immediately and stop the engine. have the malfunction corrected as soon as possible.
- Do not use the machine on a souveer slope!
- If on a slope always drive horizontally to the slope and where necessary use ropes from above to secure the machine and use crampons to avoid slipping.
- Do not attempt any kind of slope if it is wet or slippery.



- In emergency situations, such as when the machine is slipping sideways on the slope, release the handles! Do not attempt to stop the machine sliding with the physical strength of the operator.

3.2.6 Leaving the machine



- When parking the machine close the fuel tap.
- Secure the machine by use of chocks to prevent it from rolling away.
- Secure the machine to prevent unauthorised use!
- Stop the engine and, if possible, remove the key or the spark plug connector!
- Do not leave the machine unsupervised while the engine is running!

3.2.7 Tyres and Fasteners



- When working on the tyres, make sure the implement has been safely stopped and secured from moving.
- Regularly check nuts and bolts for tightness.
- Repair work on the tires may only be carried out by qualified service personnel using appropriate tools!
- Do not over inflate the tyre as they can explode!
- Check the tyre pressure regularly.

3.2.8 Coupling and un-coupling of attachments



- Attachments should be fitted and removed only when the engine is turned off!
- When changing attachments and parts use appropriate tools and wear gloves.
- When attaching or detaching use the necessary supporting devices in the correct position and ensure sufficient stability.
- Chock the wheels of the machine to stop it from rolling away.
- When coupling attachments, particular caution is necessary to avoid injury.
- Make sure the attachment is locked in position with the prescribed devices.

3.2.9 Maintenance, cleaning and repair work



- Stop the engine before carrying out any maintenance, cleaning or repair work to the machine.
- Remove the spark plug when working on the engine.
- Tools and protective devices are subject to wear, they must be checked regularly and replaced when necessary.
- Damaged cutting tools must be replaced.
- When replacing cutters use appropriate tools and wear protective gloves.
- Use Original factory parts only as these meet the technical requirements and thus the risk of accidents is minimized!
- Cleaning with a high pressure cleaner should be performed so that the water jet is not held directly over electrical components, turned parts, grease nipples, oil seals, wheel hubs and so on. After each cleaning with a high-pressure device all moving parts and nipples must be greased!
- Check the moving parts move smoothly and re-grease if necessary!
- After cleaning and maintenance has been carried out, return protective devices to their correct position.
- Keep the machine clean to avoid fire hazards.
- Check all nuts and bolts regularly for tightness!
- Where carrying out maintenance, cleaning and repair work where the machine must be lifted off the ground, ensure suitable devices are used to keep it safely in position.



- Before repair work, ensure that the hydraulic system is not under pressure, because pressurized oil can penetrate the skin and cause serious injury! In case of injury seek immediate medical attention - risk of infection!
- Repairs may only be carried out by professionals.

- When working on the electrical components always disconnect the battery.
- Check hydraulic hoses regularly for any damage or wear and replace if necessary.
- When performing welding work on the tractor or on the mounted device , disconnect the battery.
- Repairs like welding, grinding, drilling, etc. cannot be performed on the chassis and other safety-related parts such as frames, axles, etc. !

3.2.10 Motor, Fuel and Oil



- Stop the engine and turn off the ignition (If applicable) when refueling the machine!
- Do not refill in enclosed spaces, clean up any spillages immediately.
- Keep all oil fuel and filters separate and use proper containers for storage!
- Handle the fuel with caution, increased risk of fire. Never refill fuel close to open flames, hot engine parts and flying sparks. Do not smoke when refueling!

3.2.11 Electrical systems and Battery



- When working on electrical systems, disconnect the negative battery terminal where possible.
- When connecting the battery, first connect the positive terminal and finally the negative terminal.
- Be careful with battery gases they are explosive!
- Avoid sparks and open flame near batteries.
- Be careful when handling battery acid. It is corrosive.
- Always replace the cover over the positive battery terminal.
- Persons with cardiac pacemakers must not touch the live parts of the ignition with the engine running.

3.3 Editorial Pictograms

Explanation of symbols used:



Before starting up the machine, read and observe the operating instructions and safety instructions.



Before repair, maintenance and cleaning work, stop the motor and disconnect the spark plug.



Do not remove protective devices while the engine is running.



Only touch machine parts when they are completely stopped.



keep safe distance from the machine when the engine is running - risk of air borne objects.



Read the technical manual before carrying out maintenance.

3.4 Special warnings and safety regulations for filled lead - acid - batteries



- Notes on the battery and the operating instructions follow.



- Use Eye protection.



- Keep battery acid away from children.



Risk of explosion:

- Note the procedure for charging batteries as the mixture is highly explosive.



- Fire , sparks, open flame and smoking prohibited.
- Avoid sparks when handling cables and electronic devices as well as electronic charging.
- Avoid short circuits.



Burn Hazards:

- Battery acid is highly corrosive:
- Wear protective gloves and eye protection.
- Do not tip the battery as the acid can leak out.



First Aid:

- If Acid splashes in the eyes; Immediately rinse for several minutes with clean water . Then consult a doctor.
- If Acid splashes on skin or clothing; Immediately neutralize with soapy water and rinse with clean water.
- Consult a doctor immediately if you swallow battery acid.



Warnings:

- Do not expose batteries to direct sunlight.
- Discharged batteries can freeze, therefore store in an area above freezing .



Disposal:

- Batteries must be recycled.
- When transporting the following instructions should be followed.
- Never dispose batteries in household waste.



Pb

4 Disposal

The equipment must be disposed in compliance with regulations of the municipality, the city or the country.

Depending on the material, dispose of the parts in the correct way, i.e. residual waste , waste or recycling. The company Kersten Areal GmbH accepts no disposal.

5 Guarantee

The device is sent with a warranty form, which determines, among other things the date for the beginning of the warranty period. Please When selling the appliance fill in the warranty form and send it back within 14 days of receipt. Should a warranty claim be filed, no warranty service will take place without receipt of the warranty form.

Warranty claims should be submitted immediately. However, they must be submitted no later than six weeks after the damage occurred, otherwise no guarantee processing is carried out . Findings must be confirmed by the company Kersten Areal GmbH. Wearing parts are excluded from the guarantee. Furthermore, the warranty will be void in case of improper use, or when carrying out any maintenance incorrectly, by unauthorized persons or with the use of non-original spare parts.

6 Recommendations

6.1 Lubricants

For engine and transmission use the specified lubricants (see "Specifications ")

For " Open " lubrication points or nipple places we recommend using Bio oil or Bio grease . With the use of bio lubricants you act ecologically, protect the environment and the wellbeing of humans, animals and plants.

6.2 Fuels

We use B & S or Honda engines, which can be easily operated with commercial unleaded regular and premium gasoline and leaded premium gasoline.

Do not add oil to the petrol.

If unleaded gasoline is used, if the engine isto be out of use for more than 30 days you must completely discharge the fuel to prevent resin residue in the carburetor, fuel filter and tank, or you can mix the fuel a fuel stabilizer .

6.3 Maintenance and repair

Your dealer has trained mechanics who perform expert maintenance and repair. Major maintenance and repairs should only be undertaken yourself if you have the proper tools and knowledge of machines and internal combustion engines.



Fig. 7.1

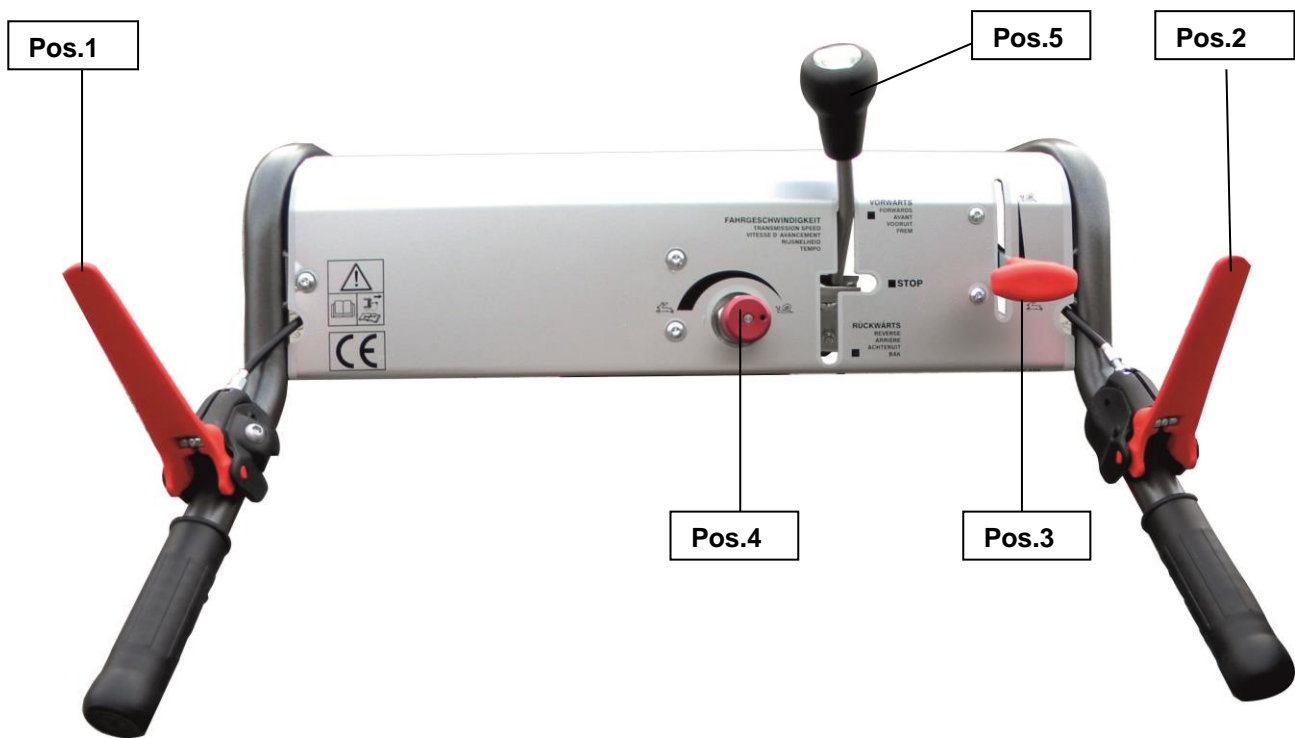


Fig. 7.2

7 Operation of the Self Propelled unit

7.1 Starting the engine

- Turn the fuel tap (ON position).
- To start the engine in the cold state, slide the throttle lever (Fig.7.1 ; Item 3) all the way forward until it stops . In this position, also called the CHOKE position an enriched fuel mixture is supplied to the engine compared with normal operation.
- If the engine starts, the throttle lever must be pulled back until the lever locks into the next position . In this position, the motor rotates at its maximum speed. This is also the position the engine should be started in if it is warm.



When starting the machine, the drive levers (Fig.7.1; Pos. 1 - 2) must not be engaged.

- To start the engine follow the specific instructions of the motor manufacturer .
- Engine start for the K820 Pro is different!
- Turn the fuel tap (ON position)
- To start the engine in the cold state, slide the throttle lever (Fig.7.2 ; Item 3) all the way forward until it stops . In this position, also called the CHOKE position an enriched fuel mixture is supplied to the engine compared with normal operation.



When starting the machine, the drive levers (Fig.7.2; Pos. 1, 2 and 5) must not be engaged.

- To start the engine, follow the respective operating instructions of the engine manufacturer

7.2 Driving off

- Set the throttle (Fig.7.1 ; Item 3) in the position range between MIN . and MAX. or slide between the symbols tortoise and the hare in the lower third.
- Ensure that nobody is in front of and behind the machine!
- In order to drive forwards, press the lever (Fig.7.1 ; item 1) slowly. The slower the lever is pushed down, the softer it engages drive to the machine. To protect the components, violent acceleration should be avoided.
- The throttle (Fig.7.1 ; item 3) controls the speed of the motor and thus the driving speed is affected . Always try to drive with the lowest necessary speed.
- The PTO is engaged with the lever (Fig.7.1 ; Pos.2). This is also to be operated slowly in order to avoid unwanted reactions . If the machine is equipped with a sweeper for example engaging rapidly can push the single axle jerkily backwards.

7.2.1 Driving off with the K820 Pro

- Set the throttle (Fig.7.2 ; Pos.3) approx 1/3 from the bottom.
- Ensure that nobody is in front of and behind the machine!
- For engaging forward drive, push the lever (Fig.7.2 ; Pos.5) upwards and for reversing, pull the lever down .



Make sure that the lever is always in its end position!

- After the preselection of the direction, the lever (Fig.7.2 ; item 1) should be slowly pressed down. The slower the lever is pushed down, the softer the drive to the machine. To protect the components , violent acceleration should be avoided.
- The speed of the machine can be adjusted by turning the knob (Fig.7.2 ; Item 4).
- The throttle (Fig.7.2 ; Pos 3) controls the speed of the motor and thus the driving speed is affected . Always try to drive with the lowest necessary speed.
- The PTO is engaged with the lever (Fig.7.2 ; Pos.2). This is also to be operated slowly in order to avoid unwanted reactions . If the machine is equipped with a sweeper for example engaging rapidly can push the single axle jerkily backwards.

7.3 Stopping the Engine

- Set the throttle (Fig.7.1 ; Item 3) in idle position and allow the engine to stay in idle for about 30 seconds.
- Set the throttle (Fig.7.1; Pos.3) to its lowest position.
- Turn the fuel tap off (set to OFF).
- Secure the machine to prevent use by unauthorised persons and remove the key (if applicable)
- Secure the machine with chocks to ensure it cannot roll away.

Tip:

If the machine is going to be stood without use for any length of time, switch the fuel tap to the off position and run the engine until it naturally stops from lack of fuel. This will empty the carbourette and the keep the fuel system in good condition. Only do this in open spaces where there is plenty of ventilation.



7.3.1 Stopping the engine on the K820 Pro

- Before switching off the engine, make sure that the drive lever (Fig.7.2 ; item 5) is in the Neutral position.
- Set the throttle (Fig.7.2 ; Item 3) in idle position and allow the engine to stay in idle for about 30 seconds.
- The Motor - off - switch which is located on the engine , put in " 0 " position.
- Close the fuel tap.
- Secure the machine to prevent use by unauthorised persons and remove the key (if applicable)
- Secure the machine with chocks to ensure it cannot roll away.

Tip:

If the machine is going to be stood without use for any length of time, switch the fuel tap to the off position and run the engine until it naturally stops from lack of fuel. This will empty the carbourette and the keep the fuel system in good condition. Only do this in open spaces where there is plenty of ventilation.



7.4 Height adjustment of the handle bars

To ensure the operator an ergonomically optimal working height , the height of the handle bars (Fig.7.3 , Item 1) can be adjusted as follows



Fig. 7.3

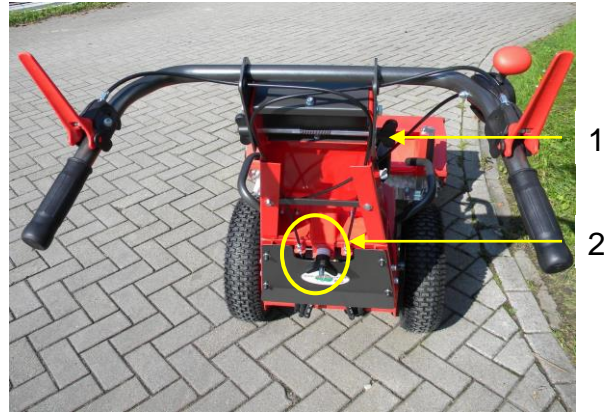


Fig. 7.4

- By loosening the two wing nuts (Fig.7.3 ; pos.1 - Fig.7.4 ; item 1) and by pulling or pushing the hand rail to the desired height you can set the handle bars. A total of three different settings are possible.
- Subsequently tighten the wingnuts again to secure the handles in place.

7.5 Fully folding handlebars

- The Single Axle K820 (Model G - KLA) has handle bars, which can be folded forward for transport purposes.
- To fold the handlebars, the handwheel (Fig.7.4 ; Item 2) should be completely undone , so that the entire lock can be swung down.
- If necessary, the hand rail can also be folded back by undoing the wing nuts (Fig.7.3 ; pos.1 - Fig.7.4 ; Item 1).

8 Assembly

8.1 Mounting the attachment

- Before you install or remove the attachments , turn off the engine and remove the spark plug.
- For receiving an attachment, both male and female parts of the receiver (on the machine and the attachment) should be free from dirt and well greased (see fig 8.1)
- The coupling from the attachment and the receiver of the drive unit must be level to allow pushing together . For this purpose, parking stands are available and for some attachments , the appropriate height can be adjusted.
- Pull the locking lever, to lock in the up position.
- Slide the coupling of the attachment into the receiver on the machine.
- Fold the locking lever back down and ensure that the pin is fully engaged.
- Now connect the hydraulic hoses.
- To remove the attachment, carry out the steps above in reverse. Ensure that when the hydraulic hoses are disconnected, the hoses on the machine are connected together to prevent contamination.



Fig 8.1

9 General instructions for load securing and transport

- Observe the towing capacity of the towing vehicle and the total weight of any trailer!
- Suitable ramps are to be used with sufficient capacity for loading the machine.
- The ramps must be secured against slipping.
- The machine must be secured during transport to prevent rolling.
- If possible apply the parking brake to the drive wheels.
- Stop the engine and close the fuel tap.
- Before unloading the machine, ensure that the space immediately before the ramps is clear of obstacles, otherwise there is a danger of collision. When unloading several machines, these are to drive far enough out of the loading zone to avoid becoming obstacles.

10 Maintenance

10.1 General Maintenance instructions



- Check all safety related parts of the machine before use. Failure to do so can result in injury to persons or damage to the machine.
- oil change must be made according to the recommendations of the relevant motor manufacturer .
- Before each use, check the hydraulic connections for leaks.
- **Under high pressure, escaping fluids (for example, hydraulic oil and diesel fuel) can penetrate the skin and cause serious injury! In the case of an accident, seek immediate medical attention - risk of infection!**
- The hydraulic system is operated with biodegradable oil.
- The machine must undergo regular maintenance.
- Oil, fuel and filters must be kept separate and disposed of properly.
- When working on the electrical system, disconnect the battery.
- Repair, maintenance, cleaning work and the correction of malfunctions must only take place if the drive and the engine are switched off . remove Ignition key or spark plug cap ! After carrying out this work all guards must be put back in place!
- If the machine is transported in any other way than with the built-in drive , then this must be done with the engine off!
- Nuts and bolts must be checked regularly and tightened if necessary.
- When carrying out electric welding work on the machine and on the attachment, disconnect the alternator and the battery!
- Only use original spare parts from the manufacturer !
- After the first 5 hours of operation , check that all screw and bolt connections are tight.
- Oil or grease all moving parts regularly.
- Check the hydraulic connections for the first time after 5 hours of operation , tighten if necessary.



**In case of a leak, if first tightening does not succeed.
Remove the hydraulic coupling completely, clean it and put it back on, ensuring it is tight.**

10.2 Daily Maintenance

- Before each use check the wear of all safety devices and moving parts.
- Check the Hydraulic oil level before each use. Do this by unscrewing the cap and checking the level on the dipstick.
- Check the engine oil level and the cleanliness of the air filter. (See the operators manual from the engine manufacturer for instructions.
- Before and during use , particularly when mowing , check the protective grille for the suction of cooling air is working and free from dirt and plant parts . Uninterrupted operation with a clogged cooling system causes the engine to heat up and may cause damage
- Clean the engine with a brush or compressed air.
- Check the hydraulic connections and hoses.
- Check the air pressure in the tyres.
- Perform a test run before each use.
- Clean the machine after each use.

10.3 Maintenance after 20 hours of operation.

- Periodically and at the beginning and end of the season grease or oil all the moving parts.
- Grease the male coupling on the attachment and the female receiver on the machine.
- Grease or oil cables as necessary.
- Hydraulic oil and filter should be changed for the first time after 20 operating hours , then every 100 operating hours . (For oil type, see Technical data sheet)

10.4 Maintenance every 100 hours of use.

- Clean the fan housing after every 100 hours and 1 time every year - preferably before the season - and then clean the cooling fins on the cylinder and cylinder head. Then, in the air cooling system clean the baffles, air screen and oil cooler.
- Hydraulic oil and filter should be changed for the first time after 20 operating hours , then every 100 operating hours . (For oil type, see Technical data sheet)
- Clean the spark plug of carbon deposits using a wire brush and subsequently check the electrode spacing . The electrode gap should be about 1 mm. Renew the plug after 200 hours of use.
- Replace the air filter after every 100 hours and after a few hours in very dusty conditions.

10.5 Storage

When the machine is not used for a long time , the following measures are recommended :

1.) Perform cleaning

2.) Engine preservation (Instructions of the motor manufacturer)!

- Completely drain the fuel or add fuel stabiliser to a full tank.
- Run the engine for 1 minute.
- Put a teaspoon of engine oil in the plug hole and the crank the engine slowly.
- Re install the spark plug, but do not put the cap back on. While pulling on the starter handle compression resistance is felt, which indicates the valves are closed.
- Pull the engine over three times, feeling that there is compression resistance.

3.) Lift the wheels

- Jack up the machine with the help of wooden blocks , so that the drive wheels are not on the floor . Ensure the machine is stable!

4.) Put away the machine

- To prevent corrosion , protect the machine from the elements. Do not store the machine in damp rooms where fertilizer is stored or in stables.

5.) Cover the machine with a cloth or similar

11 Technical Data

Technische Daten				
Type	K820			
Model	G	G-KLA	GL	Pro
Motor	Honda GCV 160		Honda GXV 160	
Power	4,1 kW (5,5 PS)		4,0 kW (5,5 PS)	
Max. Torque	11,4 Nm / 2.500 min ⁻¹		10,8 Nm / 2.500 min ⁻¹	
Capacity	160 ccm		163	
Upper Idle Speed	3.000 min ⁻¹		3.000 min ⁻¹	
Spark Plug	NGK BPR 5 ES		NGK BPR 5 ES	
Engine oil	Ca. 0,55 l SAE 10W-30 API SJ		Ca. 0,65 SAE 10W-30 API SJ	
Fuel	Refer to chapter recommendations			
Fuel tank	0,9 Liter		1,4 Liter	
Fuel consumption	313 g/kWh		327 g/kWh	
Air Filter	Dry – Filter element			
Starting method	Recoil			
Electric Start Battery	Unavailable			
PTO	Unavailable			
Oil flow	Ca. 9 l bei 165 bar		Ca. 12 l bei 165 bar	
Hydraulic oil tank	Ca. 4.5 Liter			
Hydraulic oil type	Bio-Hydraulic oil (Bio 46 recommended)			
Viscosity Grade ISO	VG 46			
Drive speed Forwards	0 – 6 km/h			
Drive Speed Backwards	Unavailable			

- Technical data is subject to change! -

Technische Daten		
Parking brake	unavailable	
Handlebar	Adjustable height	
Steering	unavailable	
Wheel air pressure 4.00 – 8	Standard values (max. Tire pressure 1.5 bar - risk of explosion) Max. 1.5 bar	
Weight of base unit	68 kg (without tyres)	
Weight of Tyres	4.00-8 Standard 7,5 kg	16x6,5-8 10,2 kg
Width of base unit	640 mm with 4.00-8 Tyres (Without guards)	
Hand Arm Vibratin according to DIN EN 12733 : 2009	-	
Noise level LWA according to DIN EN 12733 : 2009	-	
Noise level at operators ear	-	

- Technical data subject to change! -

12 Fault Diagnosis



This chapter describes the main faults that may occur during operation, any major work should be carried out by an authorised dealer!

Fault:	Possible causes:	Remedy:
Petrol Engine:		
Petrol Engine not starting	<ul style="list-style-type: none"> - Spark plug cap not on properly - Choke is required - Engine shut-off switch to "0 " - Safety mechanisms not in start position - Fuel tank empty or poor fuel - Clogged fuel line - defective spark - The engine is flooded (too much fuel) - defective engine shut off wire - wrong amount of air due to loose carburetor 	<ul style="list-style-type: none"> Put the cap back in position Bring the choke lever to the choke position switch engine shut-off switch to " I " Bring the safety mechanisms to start position Fill the fuel tank with fresh fuel Clean the fuel line Clean, adjust or exchange spark plug Dry and clean spark plug Start with full throttle Check the cable and connections Tighten the fixing screws
Petrol Engine Stutters	<ul style="list-style-type: none"> - Engine running with choke set - Ignition cable loose - Clogged fuel line of poor fuel - Ventilation in the fuel tank lid Blocked - Water or dirt in the fuel system - Air filter dirty - Adjusted carburetor 	<ul style="list-style-type: none"> Move the throttle lever into running position Make sure plug cap is firmly connected to the ignition wire and also to the spark plug. Change the fuel filter or put in fresh fuel Replace fuel cap Drain fuel, clean system and put in fresh fuel Clean or replace the air filter Adjust carburetor
Petrol Engine Is too hot	<ul style="list-style-type: none"> - Insufficient oil - limited air through cooling system - Air filter blocked - Carburetor not adjusted properly 	<ul style="list-style-type: none"> Refill engine oil immediately Clean the fan guard and the cooling fins Clean or replace the air filter Adjust carburetor
Petrol engine Revs at high Speed	<ul style="list-style-type: none"> - Short firing intervals - Idle mixture incorrectly adjusted 	<ul style="list-style-type: none"> Adjust spark plug Adjust carburetor
Petrol Engine often Cuts out when idle	<ul style="list-style-type: none"> - Firing interval is too long - Defective spark plug - Carburetor not adjusted properly - Air Filter is dirty 	<ul style="list-style-type: none"> Adjust or replace spark plug Adjust Carburetor Clean or replace the air filter

Fault:	Possible causes:	Remedy:
Petrol Engine:		
Petrol Engine Working irregularly	- Governor dirty or stuck	Clean Governor linkage
Petrol Engine Will not turn off	- Engine stop cable defective, - Bad Earth	Leitung und Steckverbindungen prüfen Check Earth contact
Petrol Engine has Insufficient power	- Air filter is blocked - Cylinder head gasket loose Or damaged - Poor compression	Clean or replace air filter Tighten or replace cylinder head gasket Have Engine checked
E-Start Equipment:		
E-Starter not functioning	- Flat Battery - Faulty Fuse - Defective wiring loom for E-Start	Charge or replace the Battery Replace the Fuse Check loom and E-Starter

13 EG – Konformitätserklärung
CE Déclaration de conformité
EC Declaration Conformity
EG conformiteitsverklaring

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Arealmaschinen GmbH
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Einachsschlepper	Porte-Outils	Tool Carrier	Werktuigdrager
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K820 G - G-KLA – GL - Pro

mit allen einschlägigen Bestimmungen der EG-Maschinenrichtlinie 2006/42/EG in Übereinstimmung ist.	satisfait à l'ensemble de la directive machines 2006/42/CE.	fulfills all relevant provisions of Directive 2006/42/EC.	voldoet aan alle toepasselijke bepalingen van EG-Machinerichtlijn 2006/42/EG.
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Die Maschine ist auch in Übereinstimmung mit allen einschlägigen Bestimmungen der folgenden EG-Richtlinien:	Cette machine satisfait également à toutes les dispositions pertinentes des directives CE suivantes:	The machinery is also in compliance with all relevant provisions of the following EC directives:	De machine is ook in overeenstemming met alle toepasselijke bepalingen van de volgende EG-richtlijnen:
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Weiterhin wurden folgende Normen angewandt wendet:	En outre, les normes et spécifications techniques suivantes ont été utilisées:	The following harmonised standards apply:	Volgende geharmoniseerde normen gehanteerd:
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EN ISO 12100:2010

Herr	Monsieur	Mr.	De heer
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Dipl. Ing. (FH) Robert Bosch
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ist bevollmächtigt die technischen Unterlagen zusammenzustellen.	est autorisé à constituer la documentation Technique conformément à l'annexe VII A.	is authorised to compile the technical file according to Annex VII A.	is gemachtigd het technische dossier samen te stellen.
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Rees, 28.04.2014

R. Bosch

Geschäftsführer	Directeur	Managing Director	Bedrijfsleider
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