USER'S MANUAL

Carefully read these instructions before starting and using your saw!



LOG-CUTTING SAW WK 700 Z CLASSIC





Made in Germany



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1. GENERAL INFORMATION

Dear customer,

thank you very much for your trust and preference in choosing our equipment and joining the number of our best customers in the world. We are confident that our equipment will be up to all your expectations and assure you a long lasting quality and performance.

1.1 About the manual

Please take time to read this manual and learn to how operate and maintain the saw safely. For your easier reading this manual is laid out in several sections progressively numbered 1 through 14 and listed on the "content" page.

The information, pictures and technical data in this document reflect current or planned product features, functions, and characteristics as of the publication date. Because of on-going product improvements and feature additions, information in this document is subject to change without notice.

If you are experiencing a problem or functional trouble on your machine, please read the "trouble-shooting" section to identify possible causes and remedies. If the problem or functional trouble is not listed in the troubleshooting chart contained in this manual, ask your Authorized Service Centre for service. When you have checked all the possible causes listed and you are still experiencing the problem, ask your Authorized Service Centre for help.

When you order parts maintenance or repair services, your Authorized Service Centre, your dealer or eventually the manufacturer need your machine serial number and engine serial number. These are the numbers that you have recorded on the product identification label of the manufacturer on the machine.

1.2 Delivery and transport claims

Upon delivery of the machine please check for visual machine damages such as damaged packing or scratched buckled parts. If so, make a remark on all copies of the delivery bill before signing for acceptance.

Also have the truck driver sign al copies of the delivery bill. Should your shipper or the truck driver refuse to accept your claim, fully reject delivery and make sure to inform us (the manufacturer) immediately. No claims shall be taken into account by the shipper or by the insurance company, if a reservation note is not made on the delivery bill.

All transport damages including hidden ones must be notified within latest 2 days from delivery. Therefore delivery must be collected and inspected within this term. Later claims shall be disregarded. In case of assumed but not visually clear transport damages make sure to mark the following sentence on the delivery bill: "Reserved delivery due to assumed transportation damages."

Insurance and shipping companies act with extreme caution in case of transport damages and sometimes refuse to accept responsibility. Please make sure to provide clear and exhaustive evidence (photos) of the claimed damages.

Thank you in advance for your help and understanding in this matter.

2. PRODUCT OVERVIEW

2.1 PTO Log-cutting saw



3. SAFETY PICTOGRAMS AND WARNING LABELS



Machine safety label

Before setting-up, servicing, maintaining and cleaning the machine, disengage power and stop the engine. Lock the tool and secure against accidental start."

Keep your hands away from all moving parts! Pinched hands danger!!



2. Safety pictogram, Wear ear plugs and goggles!"

Loud noise can cause impairment or loss of hearing, wear a suitable protective device such as ear plugs and safety goggles.



3. Safety pictogram "Direction arrow"

Motor, PTO shaft and driveline must be turning in the same direction as shown by this arrow.

Max. 540 U/min

 Warning label (only on PTO powered versions) "Max. 540 RPM"

This label shows the max admissible number of PTO shaft revolutions.



5. Safety-alert symbol

Read and recognize safety information. Be alert to the potential for personal injury when you see this safety-alert symbol.



6. Identification label "Product identification""

This label shows the company details of the manufacturer and the main machine technical data.



7. "BGU-maschinen" Manufacturer's logo



8. Personal protection sign

Mind these instructions for safe operation!



9. Personal protection sign "Wear suitable protective boots!"

This label shows that you must wear safety boots when working with the saw.



10. Machine safety label Refore operating the machine read t

"Before operating the machine read this manual and mind all safety instructions"

To avoid personal injury or death, carefully read and understand all instructions pertaining to the saw including the engine manufacturer's operating and maintenace instruction manual.



11. Personal protecion sign "Wear suitable protective gloves!"

This label shows that you must wear safety gloves when working with the saw.



12. Warning label "Do not operate the machine indoors!"

Never run the machine inside a closed area. Exhaust fumes are toxic!

4. SAFETY



Strictly perform installation, set-up, maintenance, cleaning and transportation with the motor switched off and the blade firmly secured against accidental operation. Immediately disconnect power off the machine in case of any eventual fault or trouble.

The user shall strictly comply with these operation, set-up, maintenance, repair and trouble-shooting instructions in order to assure safe operation and no damages to the equipment. Moreover we recommend to let the machine be run only and strictly by trained and skilled staff who must be familiar with the applicable occupational safety and health administration rules as well as applicable transportation and traffic rules. Incorrect use of the saw can cause serious injury or death.

No person under school leaving age of 18 should operate a circular saw. However, young people in age of 16 or slightly more may work on the machine providing that they received adequate training, that they carry all due personal protection safeties and that an adult supervisor keeps standing nearby. Machine instability can result in injury or severe damages. To ensure stability during operation make sure to choose a flat, dry floor free from any tall grass, brush or other interferences.

The working area around the machine must be kept as clear as possible from surrounding tripping obstacles and slippery foundation floors should be duly treated (do not use saw dust or wood ash for this purpose).

Make sure that the equipment stands on a safe stable foundation.

Do not allow within the hazardous zone any unauthorized third or persons who are not familiar with the dangers related to use and operation of the machine. Allow no bystanders, especially children and pets in the working area.

The maximum number of drive shaft revolutions is 540 rev/min. PTO and drive shaft rotate at 540 rpm when at full recommended speed. For your own safety, make sure that this speed is never exceeded.

- Due and proper illumination of the working site must be provided at all times.
- The saw blade must be duly sharpened for maximum performance and no recoil danger. Flash and chips must be removed off the crown wheel.
- Damaged or buckled blades (very likely to break during operation) should not be used.

- Always wear suitable hearing (ear plugs or muffs) and eye protection (goggles or safety glasses) while operating the machine.
- Set up the machine on a firm surface which is free from stumps, boulders and other obstructions.
- Operators must wear steel toe safety shoes and snug-fitting, tearresistant work cloths.
- No additional customised protections or tools are provided on board of the machine, other than the ones designed and supplied by the manufacturer.
- The cardan shaft keeps turning (PTO models) till the blade comes to a complete stop after switching the machine off.
- Do not apply pressure (for instance by means of the wood stock) against the blade to make it come to a quicker stop.
- The machine is not designed for indoor use (dust release).
- Make sure that the cardan shaft is not coupled when you start the engine of your tractor.
- NEVER leave the machine unattended with the running motor.
- Before leaving the operator's station for any reason, stop the machine motor, disconnect power and secure the machine against accidental operation.
- Logging and woodworking involve a lot of operator's care and attention. Make sure to feel perfectly fit and comfortable when you workwith a saw. Stop and take a rest at first occurrence of any stressfulcondition or sign of fatigue.

4.1 Safety rules about saw blade

The unit is strictly designed for use with a 700mm (outer diameter) blade. The blade (Cr) is capable to withstand a maximum number of revolutions of 3000 rev. per minute. Strictly use blades as per EN Standard 847-1.

Do not ever use worn out blades in need of sharpening. Make sure that the blade shows good conditions, no damages, no cracks, no buckling and no missing/broken teeth/bits.

Hard metal blades require special care and handling. Make sure that the blade bits do not ever hit against hard surfaces (for example concrete floors), which might cause invisible bits damage. Hard metal blades must be suitable to operate at 2700 revolutions per minute.

4.2 Mandatory application field

These log-cutting saws are strictly designed for cutting firewood chunks loaded on the special log carriage. All other applications are forbidden and considered as "misuse".

The manufacturer is not liable for any damage or injury resulting from misuse! The machine is capable to handle wood stocks in diameter of 8 - 26 cm. Shrubs and tiny branches bundles must be loaded on the trough and securely hold on both sides of the blade.

The machine is strictly conceived for ONE-MAN OPERATION ONLY.

5. OPERATING INSTRUCTIONS

This PTO-powered version "WK 700 Z Classic" is an excellent machine with inbuilt hydraulic system and PTO drive for firewood preparation directly in the forest/wood by simply powering it off your tractor via a cardan shaft. A rugged all-steel construction assures longest machine life at any operative condition.

This machine is specially designed to work with a 700 mm blade approved and manufactured to EN 847-1.

This model is PTO-powered by the tractor by means of cardan shaft. When you switch the machine on make sure to check that the blade is mounted to rotate in the proper direction before cutting any material. The blade must rotate against the operator that is upward toward the operator.

Load the log in the carriage and **smoothly** push it to the blade.



If you working with twisted or crooked logs make sure to load the log on the carriage, so that the bolged side of the log is turned to the blade in order to avoid the log from tipping over or jamming during cutting and consequent possible even major damages to the blade.

Now fasten the grip on the log carriage and push to smoothly tilt it over towards and through the blade.

NOTE: avoid excessive pressure on the carriage through the blade while cutting. Excessive hold-down pressure may slow the blade down and cause dangerous jamming!

When feeding the log to the blade avoid all jerky, bumpy movements that could lead to risky and dangerous situations. Timber in maximum length of $1.1\,\mathrm{m}$ must lay on the carriage by the entire length with no projecting end. After the first log is cut off the timber, let the carriage swing down to start-position (wide opened) before advancing the remaining timber to the blade and starting a new sawing cycle. If you try to feed the stock forward and cut before the trough reaches back to start position, you may run the risk of hitting the stock against the blade guard consequently causing severe personal injuries and machine damages for which the manufacturer carries no liability.

On all PTO-powered models the tool (blade) keeps turning for a while before it comes to a complete stop after the PTO-drive has been disconnected.

5.1 About use if the PTO version

This PTO-powered version WK 700 Z Classic is an excellent machine with inbuilt hydraulic system and PTO drive for firewood preparation directly in the forest/wood by simply powering it off your tractor via a cardan shaft. **Benefits:** sawdust, bark rests and wood chips can be left in the forest saving extra disposal work and costs.



If the maximum 16 mm spacing between clearance inserts (wood strips) is reduced because of excessive wear, provide for immediate replacement of the wooden inserts! (see fig. A1)!



Figure 1 "Maximum size of the clearance inserts""

6. CONNECTION AND DISCONNECTION TO PTO DRIVE

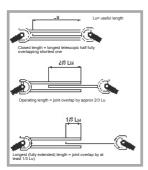


Fig. 2 Driveline coupling scheme

The PTO-driven WK 700 Z Classic is equipped with a three-point linkage to fit on the one available on your tractor. The drive shaft is going to act as linkage and driving element between the tractor and the saw and should be therefore duly mounted and secured by the special pins available on the machine.

Make sure to perform accurate connection of your PTO drive shaft both on saw and power input side. A pictogram on the drive shaft showing a little tractor tells you which side must be connected to tractor power output.

Press the detent lock inwards as you slide the machine shaft onto the tractor PTO stub shaft. Slide the machine shaft forward far enough to make sure the detent lock has snapped into the lock position.

Secure the drive shaft with the special restraining chain to avoid dangerous twisting.

For increased safety make sure that a minimum wrapping of 1/3 of the total useful length is achieved. (see Figure 2).

Do not perform any repair, adjustment, cleaning or maintenance work whatsoever while the machine is running (disconnect PTO-drive or switch the motor off)!

Strictly use certified and approved drive shafts.

Always connect and secure the driveline in compliance with shaft manufacturer instructions.



Never use a PTO driveline without safety shield or with a damaged guard. Never use a PTO driveline without safety shield or with a damaged guard and make sure that the shield is of the correct size and length for the drive shaft.

 $\ensuremath{\mathsf{PTO}}\xspace\text{-}\mathsf{versions}$ are stationary machines to be strictly operated on ground.

6.1 Safety rules



Never let another person stand between the tractor and the implement during hitching and during operation. Keep all components of the PTO system shielded and guarded. Never let a helper or unauthorized thirds stand between the tractor and 3-point hitch implement. Crushing injuries and death can result.

7. REPAIRS AND MAINTENANCE



Make sure that the machine is fully disconnected and all moving parts are secured before performing any maintenance/repair work on the machine. In the event of any malfunctioning, switch the machine off before trouble-shooting.

7.1 Regular maintenance

The following tasks belong to ordinary maintenance works:

- Clean the machine from eventual residual wood, chips or dirt.
- Lubricate all moving parts.
- Lubricate the bearings beneath the blade arbour

Additional ordinary maintenance for PTO powered versions:

- Check-up and eventually stretch the V-belts, if required.
- Lubricate the bearings beneath the blade arbour

7.2 Yearly maintenance (or every 50 operation hours)

Hydraulic oil change: Oil capacity approx. 0.4 l Oil viscosity: Class CLP/CC 150 (ISO 150) SAE 90G

7.3 Cleaning after use

Remove wood chips and saw dust produced and left on the machine during work.

Clean the log carriage assembly removing all wood rests.

7.4 Tensioning and replacing the V-belt

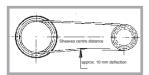


Figure 3 "Stretching a V-belt"

If you are operating a WK 700Z Classic (PTO) model, proper maintenance requires re-tensioning of the belt after a certain number of operation hours.

To perform stretching of the V-belt between the angular gearbox and the blade arbour, you need adjusting the clamping bolts located beneath the angular gearbox.

Adjust the V-belt so that you can still provoke an approx. 10 mm of deflection by applying one finger tip pressure in the middle (see figure 3 - Stretching a V-belt) of the distance between sheaves middle axis. BEWARE: failure to provide due re-tensioning will result into a less efficient V-belt drive that slips and may be wear out faster.

To replace the belt, release the clamp-screws and remove the safety guard from the V-belt drive area.

Release and remove the old belts from the sheaves and fit the new ones on.

Make sure to refit the V-belt casing back in place before operating the machine again.

7.5 Lubricating the blade shaft bearings

If you are using a "WK 700Z Classic" model, make sure to provide periodical lubrication of the blade shaft after each 100 hours of operation. Remove both cover plates on the safety guard over the blade shaft and use a regular greasing gun to perform bearings lubrication. Provide lubrication by means of a greasing nipple. Make sure to refit both cover plates before working again.

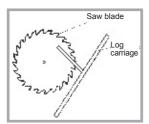
7.6 Replacing the saw blade



Safety note! Wear safety gloves - pinched hands danger.



Before replacing the blade make sure to disconnect the machine from power (unplug the electric motor or turn the tractor



To replace the blade, following precautions must be taken at all times: • Disconnect power off the machine (unplug power cord or stop the

- motor of the tractor) and wait for the blade to come to a complete stop.
- Tipp the upper blade hood over by releasing and removing the 4 hex-screws with hex-nuts.
- Release and undo the fixation bolt on the blade clamping flange using a spanner and hold the blade using another spanner to secure the blade flange on the motor side as you undo the nut.
- Remove the clamping flange.
- Pull the old blade off the shaft (make sure to wear tear-resistant gloves. DANGER!)
- Fit the new blade on the shaft. Note direction of rotation. All tools must always work against the feed direction that is revolutions must occur towards the operator's station. (see Figure 4)
- Mount the locking flange back on the blade shaft minding the right position of the feather-key in the flange.
- Tighten fixation bolt with nut on the flange.
- Refit the blade hood in the original position duly set and clamped.
- Now the saw is ready to operate again.



Fia. 4

rotation"

"Direction of blade

WARNING: Do not regrind worn out blades if the tips do not show above bench level when the blade is in the resting position. In this case old blades must be replaced.

8. TRANSPORT

Log & timber cutting saws are light equipment that can be easily moved on shortdistance by means of two caster wheels and an ergonomic, comfortable grip handle located on the chassis on the rear side of the machine.

Simply fasten the grip and lift the saw for safe and rapid hauling of the machine.

For safety reasons the grip handle is retractable and should remain retracted during work to avoid risk of tripping or entanglement.

8.1 Transporting the machine on a three-points hitch

Transporting requires attachment to a three-point hitch on a tractor (or other equivalent vehicles). Make sure to comply with the provisions set forth by this paragraph.

Should the dimensions of the machine hide any of the travel signs and illumination systems on board of your tractor (rear/head lights, rear travel lights, stop lights, turn indicators etc...), you must provide for the same signs and lights on the machine is order to travel on public roads.

The same applies for eventual other tools and ancillary equipment infringing the tractor profile by 1 meter in the back and by 40 cm on the sides. In this latter case side lights must be provided in the front. Make sure to apply suitable warning sings (white/red) as per DIN Standards 11300 to warn about protruding obstacles likely to endanger the nearby traffic.

Up-to-date rules and road traffic provisions as per your local State vehicle codes.

If transporting by attachment to a three-point hitch on a tractor, make sure to provide suitable front ballast for increased steering performance. The maximum speed of the vehicle while transporting the saw should not exceed 30 km/h.

9. DISMOUNTING AND DISCARDING AN

OBSOLETE MACHINE

When the machine is fully obsolete and cannot be of any longer use, it should be duly dismounted ahead of discarding. Certain components need deactivation and dismantling in order to assure that no further use is made by other parties and that no worn out parts are recycled for other applications.

During dismantle be alert for possible recyclable materials and components that belong to differentiated waste collection procedures applicable in your country.

The manufacturer is not liable and undertakes no responsibility for personal injuries or damages that may result from the recycling of worn out machine parts and eventual re-use in other applications different than originally stated in this manual.

Dismantling procedure:

Take good note please: each and every dismantling task must be performed by authorized service centres or trained skilled staff only!

- · Pull the machine down into single components
- · Lock and clamp all moving machine parts
- Deliver each single component only to authorized waste management facilities
- Drain oil and fuel out of respective tanks and lines before disposal of the machine
- Remove rubber and plastic parts from the machine that must be se parately disposed of

Deactivated, clamped moving/driving parts and components are of no further risk and danger.

10. TECHICAL DATA

Technical data	Unit of measurement	WK 700 Z Classic
Max. log diameter	mm	approx. 240
Blade diameter	mm	700/30
Weight	kg	144
Max. number of PTO shaft revolutions	RPM	540
Size and dimensions	(with opened log carriage)	
Length	mm	1220
Width	mm	865
Height	mm	1100

10.1 Noise emissions

The noise level was measured in compliance with the general rules for establishment of noise and acoustic pollution of garden and agricultural equipment on work sites as well as with other national standards for noise measurement. The applicable measuring parameters were:

Measurement on the machine front edge at 1600 mm height and 400mm away from the blade on the right hand side, while processing round beech wood in the size of 80+/-5% of the admissible timber diameter as per this instruction book.

Detected noise levels:



No load	91 db(A)	
Max load	105 db(A)	

Hearing protection is mandatory!

The above mentioned values are emission measurements and may not be therefore assumed as for a safe work environment. Although there is a relationship between noise emission and immission levels, this is no sufficient basis to determine the extent of on-site required protection. There are a lot of other factors that can influence site work and risk of injuries and namely: the actual site/buildings configuration, the concomitant presence of other noise sources (for instance other machines performing other works in the neighbourhood) etc... The factors applied for determining safety of a workplace may also very from one country to the other. We are reporting here the noise values detected in the facility of the manufacturer on order to allow the user performing a better evaluation of the possible risk/disturbance.

11. TROUBLE-SHOOTING CHART



The following section will detail procedures for checking your saw, should you encounter a malfunction. Before setting, operating, cleaning, maintaining or repairing the processor, read the manufacturer's operating and maintenance instruction manual.

Type of trouble	Possible causes	Remedies
The machine starts but the blade does not run.	 Locking flange of the blade shaft is not tight 	- Tighten both the screw and
	- V-belt slips	- Tension the V-belt
Blade runs but in the wrong direction	 The tractor driveline runs re- volving in the wrong direction 	- Set the driveline to run in the right direction
Blade chops	- Stump blade	- Sharpen or replace the blade
Loud noise out of the gearbox	- Low or no oil in the gearbox - Faulty gearbox	- Fill new oil in the gearbox - Replace gearbox

12. OTHER AREAS OF POSSIBLE HAZARD

12.1 Mechanical dangers

Possible dangers related to machine moving parts (saw blade) are minimized by means of suitable safeties and protections that cannot be dismounted unless special tools and equipment is used. Do not attempt to remove or by-pass any of the machine inbuilt safeties.

DANGER: removing or by-passing inbuilt machine safeties may result into serious operator's personal injuries.

12.2 Environmental dangers

The machine is strictly designed for outdoor applications.

DANGER: do not operate the machine indoors to avoid risk of inhaling wood dust.

13. WARRANTY

All BGU machines are covered with warranty terms in accordance with the law. Customers should promptly notify the manufacturer eventual material or production claims on their detection. While asking for warranty service, customer should show copy of their purchase invoice or receipt. The warranty does not cover for faults due to natural wear, temperature or weather agents as well as misuse, faulty installation or set-up, improper operation and lubrication or acts of vandalism.

No warranty will be given on parts damaged by improper handling, use and application. The manufacturer is further not responsible for warranty service on machines used for other applications than mentioned in this manual, altered or modified by the customer or other thirds, or overloaded. Never attempt to use an incomplete machine or one fitted with unauthorized modification. Any modifications to your machine can cause personal injuries, and will void your warranty.

Consumable parts with a prescribed life (i.e. pulleys, tools, blades and various auxiliary materials) are excluded from the warranty as well as adjustment, optimization and fine-setting or retrofitting works.

14. CE - STATEMENT OF COMPLIANCE

to the EC Machines Directive No. 42/2006 and EMV (Low Voltage) Directive 108/2004

We hereby declare that the equipment described in this manual responds in full to the actual version brought on the market. We, the manufacturer further declare that this equipment was duly designed and manufactured in accordance with the actual European Safety and Health Standards settled by the relevant EEC directives as well as the latest electromagnetic standards issued by the European Council of 3.5.89 and later enforced by all member states.

This statement of compliance does not apply to customer modifications of the equipment without manufacturer's written approval.

cutting	saws
	cutting

Model: WK 700 Z Classic

Machine type: see model label

Applicable

European Standards: EC Machine Directive No. 42/2006 EMV (Low Voltage) Directive 108/2004

Other harmonised Standards

especially: In order to assure full compliance to these European

Standards, the following national codes, standard practices, and Technical Specifications have been implemented: EN 1870-6. EN 61000-3-2. EN 61000-3-3. EN 55014-1.

EN 55014-2, EN 294, EN 847-1, EN-60204-1

Official inspection Institute who performed EEC specimen approval as per Annexure IV of the Machine Directive:

Deutsche Prüfstelle für Land- und Forsttechnik DPLF

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01.07.2016

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Subject to changes

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