

USER'S MANUAL

Carefully read these instructions
before starting and using your saw!

Set-up & installation
Use
Maintenance
Accessories



LOG CUTTING SAW WK 780 RB / 2



We manufacture
in Germany



Helmestraße 94 · 99734 Nordhausen/Harz
Zentrale: ☎ 03631/6297-0 · 📠 7-111
Internet: www.bgu-maschinen.de
e-mail: info@bgu-maschinen.de

CONTENT

List of Contents	2
1. General information	3
1.1 About this manual	3
1.2 Delivery and transport claims	3
2. Product overview	5
2.1 Logs cutting saw with log carriage and electric motor	5
3. Safety pictograms and warning labels	6
4. Safety instructions	8
4.1 Safety rules about saw blade	9
4.2 Mandatory application field and compliant use	10
5. Operating instructions	11
6. Repairs and maintenance	12
6.1 Regular maintenance	12
6.2 Cleaning at the end of work	12
6.3 Tensioning and replacing the V-belt	13
6.4 Lubricating the blade shaft bearings	13
6.5 Replacing the saw blade	13
6.6 Consumables	13
7. Accessories	14
8. Handling and transportation	15
9. Dismounting and disposing of an obsolete machine	15
10. Technical data	16
9.1 Noise emissions	16
11. Trouble-shooting	18
12. Other areas of possible hazard	18
11.1 Mechanical dangers	18
11.2 Environmental dangers	18
13. Warranty	19
14. Spare parts list WK 780 R/B	20
15. EC Statement of compliance	23

Annex Instruction manual for GX270 Honda engine

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 this 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. The sections are progressively numbered 1 through 15 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. 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 (including the one for you) before signing for acceptance and let the driver sign all copies. 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 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.

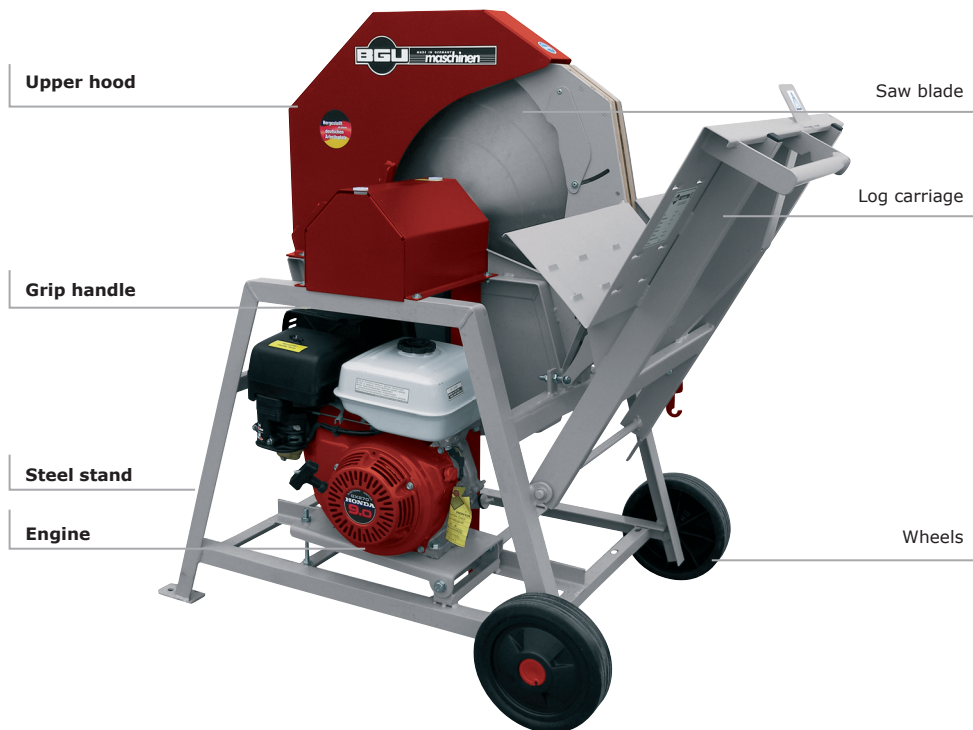
Please make sure to provide clear and exhaustive evidence (photos) of the claimed damages.

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

Haben Sie für Vorstehendes Verständnis.

2. PRODUCT OVERVIEW

2.1 Logs cutting saw with electric motor

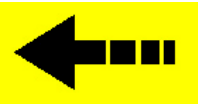


3. WARN- UND SICHERHEITSaufkleber



1 . Machine safety label
„Before setting-up, servicing, maintaining and cleaning the machine, disengage power and stop the engine. Lock the tool and secure it against accidental start.“

This safety label reminds users of a pinched hands danger.



2. Safety pictogram „Direction arrow“

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



3. Safety-alert symbol

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



4. Identification label „Product Identification“

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



6. “BGM-maschinen” Manufacturer’s logo



7. Personal protection sign

„Mind these instructions“!



8. Personal protection sign
„BEFORE OPERATING READ OPERATOR’S
MANUAL AND 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 maintenance instruction manual.



9. Safety pictogram
“Wear suitable protective boots!”



10. Safety pictogram
“Wear suitable protective gloves!”



11.Warning pictogram
Do not operate the machine indoors!



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

Vorsicht !
Heiße Teile

13. Machine safety label

Keep your hands off all machine parts identified by this label! Burning danger.

4. SAFETY INSTRUCTIONS



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 rules. Incorrect use of the saw can cause serious injury or death.

No person under school leaving age should operate a circular saw. Those who have reached school leaving age but are below the age of 18 may operate a circular saw if supervised by a competent person of 18 years or over. The machine shall be installed and kept in a suitable location selected by the customer for safest operation. Make sure that the equipment stands on a safe stable foundation.

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

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.

- 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.
- Ensure that a wide but confined area is available around the machine and assure maximum working freedom.

-
-
- Operators must wear steel toe safety shoes and snug-fitting and tear-resistant work cloths
 - No additional customised protections or tools should be provided on board of the machine, other than the ones designed and supplied by the manufacturer.
 - 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).
 - 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 work with a saw. Stop and take a rest at first occurrence of any stressful condition 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 and compliant use

These log-cutting saws are strictly designed for preparation of fire-wood. Sawing to be strictly performed with wood stock on the log trough. 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 log-cutting saw model WK 780 RB / 2 is ideally recommended for stationary use in your yard.

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 machine is equipped with inbuilt gasoline engine for independent power provision. Please read the instructions of the engine manufacturer before use.



Fig. 1
„Filling funnel

For safer filling of the engine, the machine is supplied with a fuel filling funnel. Please fill with care and avoid fuel spillage and overflowing. While filling, make sure to avoid inhaling petrol vapours.

If you working with twisted or crooked logs make sure to load the log on the carriage, so that the bolted 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 with cutting. Excessive hold-down pressure may slow the blade down and cause dangerous jamming!



Fig. 2
„Max clearance between inserts“

When pushing the log through the blade avoid all jerky, bumpy movements that could lead to risky and dangerous situations. Timber in maximum length of 1.1 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 carriage 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.



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 Figure 2)

6. 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.

6.1 Ordinary maintenance

The following tasks belong to ordinary maintenance works:

- Clean the machine from eventual residual wood, chips or dirt.
- Lubricate all moving parts.
- Grease all pivoting parts of the log carriage.
- Check-up and eventually stretch the V-belts, if required.
- Lubricate the bearings beneath the blade arbour.
- Check the oil-level in the engine

6.2 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.

6.3 Tensioning and replacing the V-belt

If you are operating a WK 780 RB /2 model, proper maintenance requires re-tensioning of the belt after a certain number of operation hours. To perform stretching of the V-belt, you need adjusting the special regulation screw located underneath the gearbox cover. Release the engine mount fixation and adjust the V-belt so that you can still provoke an approx. 10 mm of deflection by applying one finger tip pressure (see figure 3 - Stretching of the V-belt). Fit the gearbox cover and the engine mount back into place before operating the machine again. Running the saw with a loose V-belt will cause increased wear and shorten you belt life.

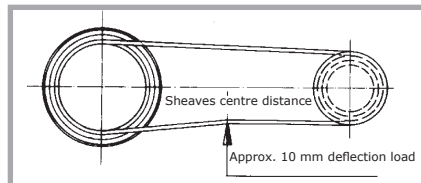


Figure 3 - Stretching of the V-belt

To replace the belt, release the clamp-screws and remove the safety guard from the V-belt drive area. 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.
BEWARE: failure to provide due re-tensioning will result into a less efficient V-belt drive that slips and may be wear out faster

6.4 Lubricating the blade shaft bearings

If you are using a „WK 780 RB / 2" 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. Make sure to refit both cover plates before working again.

6.5 Replacing the saw blade

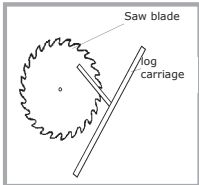


Fig. 4
„Direction of blade

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.
- Tilt the upper blade hood over by releasing the 4 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. (this to prevent the blade from turning as you undo the bolt.)
- 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.
- Mount the locking flange back on the blade shaft minding the right position of the feather-key in the flange.
- Tighten fixation bolt on the flange. BEWARE: when assembling the new blade make sure to follow the dismantling procedure: saw blade, external saw blade clamping flange, washer, fixation screw.
- Refit the blade hood in the original position duly set and clamped.



Periodically check the performance of your saw. If cutting is no longer clean and efficient let a specialist service regrind the blade. Do not self-sharpen!

6.6 Consumables

The machine is equipped with the following consumable parts for which no warranty is given!

Circular saw blade (Part no. 95011 CR) ,(Part no. 95021 HM)
Wood strips (left:Part no. 56373, right:Part no. 56372 and 56374)
V-belt (Part no.54183)

7. ACCESSORIES



Fig. 5
„Clamping jaw

On request the machine may be equipped with a special jaw for efficient and safe clamping of the log after cutting.

Code Nr.:91273

**Zubehörteile sind keine Grundausstattung und somit zusätzliche Kosten.*

8. HANDLING AND TRANSPORTATION

Log & timber cutting saws are light equipment that can be easily moved on short-distance by means of two caster wheels and an ergonomic, comfortable grip handle located on the chassis on the opposite side as the log carriage.

In order to avoid infringement of the clearance area around the machine, the grip handle is retractable (push/pull) on the model WK 780 R/B - 2.

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

For safety reasons the grip handle should remain retracted (or lifted-up) during work to avoid risk of tripping or entanglement

9. DISMOUNTING AND DISPOSING OF AN OBSOLETE MACHINE

When the machine is fully obsolete and cannot be of any longer use, it should be duly dismantled 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: 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
- Remove rubber and plastic parts from the machine that must be separately disposed

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

Electric components must be separately disposed to avoid substantial environmental threat. In the event of fire on the electric deployment system of the machine, use of an explosion-proof extinguish system is required (for example powder fire extinguishers).

10. TECHNICAL SPECIFICATIONS

Technical data	Einheit	WK 780 RB / 2
max. max. timber diameter	mm	240
Saw blade diameter	mm	700/30
Motor power P1 S6 40% ED	kW	6,6
Displacement	cm ³	270
Speed	l	6
Starter	U/min	1450
Machine size with opened log carriage		Reversierstarter
Length		
Width	mm	1220
Hight	mm	865
Weight	mm	1100
Gewicht	kg	ca. 130

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 beech wood in the size of 80+/-5% of the admissible timber diameter as per this instruction



Leerlauf	90 db(A)
Volllast	95 db(A)

Use of ears protectors is mandatory!

be therefore assumed as for a safe work environment. Although there is a relationship between noise emission and immission levels, this is

not a 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 vary 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 involved with this machine and the related protection measures.

11. TROUBLESHOOTING



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

Trouble description	Possible causes	Remedies
The saw doesn't start	<ul style="list-style-type: none">- Faulty engine- Fuel is missing- insufficient motor oil	<ul style="list-style-type: none">- Fix/change the engine- Fill fuel- Touch oil up
The saw starts but the blade doesn't operate	<ul style="list-style-type: none">- Locking flange of the blade shaft is not tight- Loose V-belt	<ul style="list-style-type: none">- Tighten the bolt- Tension the V-belt
Blade chops	<ul style="list-style-type: none">- Stump blade	<ul style="list-style-type: none">- Sharpen or replace the blade

12. OTHER AREAS OF POSSIBLE DANGER

12.1 Mechanical dangers

Possible dangers related to machine moving parts (for example chain-saw and v-belts) are minimized by means of suitable safeties and protections that cannot be dismantled unless special tools and equipment are used.

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

11.2 Environmental dangers

The machine is strictly designed for outdoor applications.

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

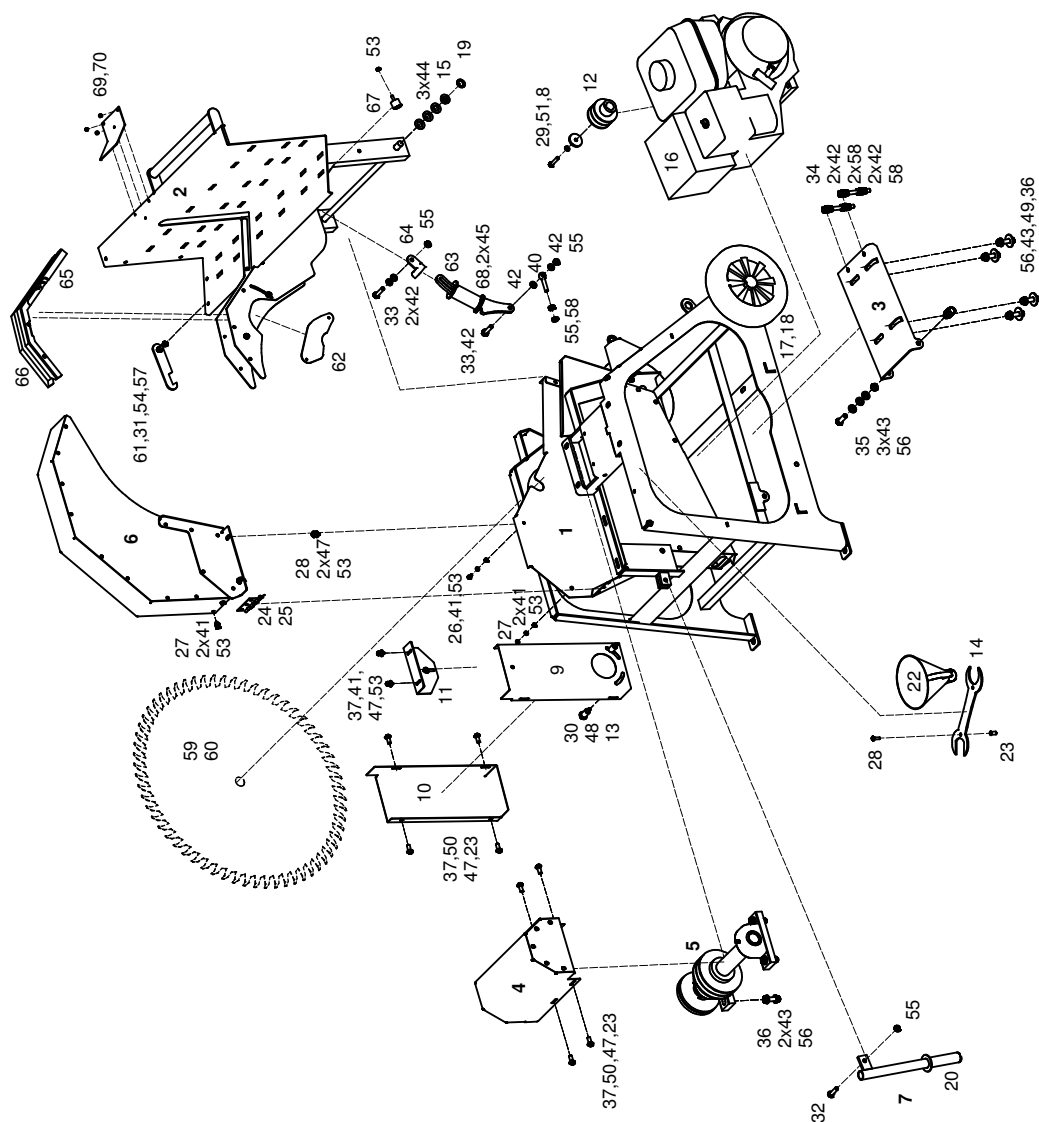
13. WARRANTY

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 and various auxiliary materials) are excluded from the warranty as well as adjustment, optimization and fine-setting or retrofitting works.

14. ERSATZTEILLISTE WK 780 RB



Pos.	Description	Code Nr.	DIN	Dimensions
1	Welded, steel stand	25028		
2	Welded log-carriage	21871		
3	Welded engine mount	25033		
4	Bolted guard on aaw arbor	25037		
5	Saw arbor assembly	23638		
6	Bolted upper hood	21868		
7	Grip handle assembly	24935		
8	Guide washer	25039		
9	V-belt casing 1	25040		
10	V-belt casing 2	25041		
11	Angle plate for V-belt casing	25042		
12	Engine belt pulley	25043		
13	Spacer bushing	25044		
14	Open-ended spanner	25129		
15	Sliding bearing with collar	17020		d=16 D=22 b=15
16	Honda gasoline engine	50756		GX 270 S 9 PS
17	Hard rubber wheel w. sliding bearing	53280		250x60x20
18	Spring washer	51234		d=20 D=36,6 H=3
19	Spring washer	51233		d=16 D=36,6 H=3
20	Grip	52110		di=25 l=110
21	V-belt	54183		
22	Plastic funnel	56259		D=160 PE
23	Blind rivet nut	51618		M6 L=16(1,5-4,0) D=9
24	Hinge	56256		80x58x1,5
25	Multi-range blind rivet (multigrip)	51848		d=4,8 l=10,5 (1,5-6,5)
26	Hex screw	51426	933	M6x12
27	Hex screw	51429	933	M6x16
28	Hex screw	51431	933	M6x20
29	Hex screw	51451	933	M8x40
30	Hex screw	52134	933	M8x45
31	Hex screw	51454	933	M8x50
32	Hex screw	51464	933	M10x35
33	Hex screw	51465	933	M10x40
34	Hex screw	52373	933	M10x100

Pos.	Description	Code Nr.	DIN	Dimensions
35	Hex screw	51479	933	M12x35
36	Hex screw	51481	933	M12x45
37	Hex socket, rounded head screw	53096	7380	M6x20
38	Phillips round head screw	55461	7985	M5x12
39	Cross recessed head screw	54395	7997	4x16
40	Eyebolt	52975	444	M10x50
41	Washer	51647	125	6,4
42	Washer	51649	125	10,5
43	Washer	51650	125	13
44	Washer	51652	125	17
45	Washer	55962	125	31
46	Washer	51694	9021	5,3
47	Washer	51696	9021	6,4
48	Washer	51697	9021	8,4
49	Washer	51699	9021	13
50	Lockwasher	51705	127	B 6
51	Lockwasher	51706	127	B 8
52	Self-locking hex nut	51605	985	M5
53	Self-locking hex nut	51606	985	M6
54	Self-locking hex nut	51607	985	M8
55	Self-locking hex nut	51608	985	M10
56	Self-locking hex nut	51609	985	M12
57	Hex nut	51592	934	M8
58	Hex nut	51594	934	M10
59	Saw blade	95021		(HM)
60	Saw blade	95011		(CR)
61	Locking lever for log carriage	25029		
62	Swivelling plate	22954		
63	Log carriage stop	18994		
64	Stop	16500		
65	Wood insert, left	21908		
66	Wood insert, right	22961		
67	Rubber/Metal buffer	52208		D=25 H=18 M6x18
68	Compression spring	53122	2098	3,5x37x98
69	Upper saw guard	24991		
70	Multi-range blind rivet (multigrip)	51847		

15. EC STATEMENT OF COMPLIANCE

In accordance with the EC Machine 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 prior written approval.

Machine type: **Log cutting saw**

Model: **WK 780 RB / 2**

Production-Nr.: see Machine Identification Plate

Applicable European Standards: EC Machine Directive 42/2006
EC Low Voltage Directive (93/68 EWG) 95/2006
EC-EMV (ElectroMagnetic Compatibility) Directive 108/2004

Other applicable Standards: Full compliance to the European safety rules was assured by enforcement of the following harmonised Standards:
EN ISO 12100-1:2009, EN ISO 12100-2:2009, EN ISO 13857:2008, EN 60204-1:2007, EN 1870-6:2009;
EN 847-1:2007

Official inspection Institute as per Annexure VI of the Machine Directive:
Prüf-und Zertifizierungsstelle
der Landwirtschaftlichen Sozialversicherung
Weißensteinstraße 70-72
34131 Kassel
Registered with no.: 2157

Südharzer Maschinenbau GmbH
Helmestraße 94 · 99734 Nordhausen/Harz
Service-Tel. 03631/6297-104 · Fax 03631/6297-111
Internet: www.bgu-maschinen.de
e-mail: info@bgu-maschinen.de

Nordhausen, 31 March 2011

Date

Official user language: English



Jörg Kernstock (Director)

(User's release)



Südharzer Maschinenbau GmbH
Helmestraße 94 · 99734 Nordhausen/Harz
Service-Tel. 03631/6297-104 · Fax 03631/6297-111
Internet: www.bgu-maschinen.de
e-mail: info@bgm-maschinen.de

Subject to changes without notice

Form: 2114.31.03.2011 - Rev. D
