



Operator's Manual



Rev.1.0

BL-300

Floor grinder

DiaKat®

Read the operator's manual carefully and understand the contents before you use this equipment. Always use the machine in accordance with all the instructions contained in this manual, in order to ensure safe and efficient operation as well as longevity of the machine.

The manufacturer can not be held responsible for any damages or injury arising from the use of the machine not in accordance with the instructions contained in this manual.

CONTENTS

1. SAFETY INSTRUCTION.....	2
1.1. General safety instructions.....	2
1.1.1. Qualification requirements	2
1.1.2. Duties of the entrepreneur:	2
1.1.3. Duties of the operator:	2
1.1.4. Using the machine	3
1.1.5. Checkups, maintenance, service and repair.	3
1.2. Transporting the machine	3
1.3. Prohibited activities	3
1.4. Liquidating the machine at the end of its useful lifetime.....	4
1.5. Safety instruction for work with BL-300 Floor Grinder	4
2. TECHNICAL DATA AND DESCRIPTION OF THE MACHINE.....	4
2.1. Description of the machine	4
2.2. Technical specifications.....	5
2.3. Primary operative parts of the machine	5
2.4. Description and designation of tools.....	6
2.5. Mounting and dismounting of tool	6
2.5.1. Mounting of tool	7
2.5.2. Dismounting of tool	7
2.6. Význam značek a piktogramů na použitých na stroji	7
3. BEFORE STARTING	8
3.1. Visual check up of the machine state.....	8
4. WORKING WITH THE MACHINE.....	8
4.1. Setting of the machine , start, stop	8
4.2. Working with the machine.....	8
5. MAINTENANCE.....	9
5.1. Cleaning of the machine	9
5.2. Checking screw joints	9
5.3. Tool maintenance.....	9
5.4. Engine maintenance	9

1. SAFETY INSTRUCTION

1.1. General safety instructions

1.1.1. Qualification requirements

Persons operating this machine must fulfil the following requirements:

1. The machine may be operated independently only by workers who are:
 - older than 18- teen years (or as the law in the country of use prescribes)
 - physically and mentally competent
 - trained, who proved their ability to operate the machine safely
2. All workers who will operate this machine must make themselves familiar with all the instructions contained in this manual and must adhere to them.
3. The operator must make himself familiar with all the safety instructions pertinent for use of this machine (including those specific to the country of use) and must adhere to them. The familiarisation must be documented and signed by the operator.

1.1.2. Duties of the entrepreneur:

Entrepreneur is a physical or legal entity who undertakes the work with this machine. The entrepreneur is the guarantor of the safe use of the machine.

The entrepreneur must:

- appoint the operator and provide his training
- insure safe conditions for the use of the machine by the operator
- provide regular checks and maintenance of the machine
- ensure adherence to legal requirements for the safety of the work
- regularly check observance of safety regulations
- regularly check if the operator is using the machine in conformity with the operator's manual

1.1.3. Duties of the operator:

Operator is a person which actually uses the machine to do the work for which the machine is designed. The operator must fulfil the requirements as set in 1.1.1.

Operator must:

- thoroughly familiarise himself with the Operator's manual and all safety instruction required for the work
- comply with all instructions and requirements set in this manual
- comply with all safety regulations set for work with machinery
- acquaint himself with the work environment including safety instructions
- pay full attention to operating the machine whilst working
- demand regular checks and maintenance of the machine as prescribed by this manual
- demand from his employer securing of conditions conducive to upkeep of safety regulations
- secure the machine against accidental movement and out of reach of unauthorised persons when not working

1.1.4. Using the machine

When using the machine the operator must comply with the following instructions:

1. Check the machine before use.
2. Use prescribed personal safety aids while working. (Helmet, earmuffs, safety shoes, goggles, respirator, gloves...).
3. While working monitor the machine for unusual sounds or smoke which may indicate defect. When defect is indicated immediately stop the machine and call for expert repair.
4. It is necessary to provide an adequate supply of fresh air for the operator, when using the machine in enclosed areas (tunnels etc.).
5. When grinding creates dust, connect machine to adequate dust collector.
6. When finish working, switch off the motor and move the machine the secure place and insure against unauthorized use.

1.1.5. Checkups, maintenance, service and repair.

- regularly check the technical state of the machine.
- if fault or damage is discovered ensure expert repair.
- repair or service may be carried out only by qualified personnel from a manufacturer's service organisation.
- it is prohibited to carry repairs or service at places where the safety of work is not ensured and can be affected by outside impingement, such as falling objects, collision with other machinery etc.
- changes and alteration to the machine can be carried out only with the explicit agreement of the manufacturer!

1.2. Transporting the machine

1. Transporting or lifting the machine must be carried out only by equipment of appropriate bearing or lifting capacity.
2. When transporting secure the machine against overturning, moving or falling off.
3. It is advantageous to fold the handlebars to Compact transport mode whilst transporting see pic. 1.



Pic.1 Compact transport mode

Remark: Handlebars can be easily lowered after loosening of two M10 screws placed on the rest side of the frame.

1.3. Prohibited activities

When using the machine it is forbidden:

1. Using the machine for work other than for which it is designed.
2. Operating the machine in other manners than those described in this manual.
3. Using the machine under influence of alcohol, narcotics or drugs and medicaments.

4. Using the machine whilst its running may endanger the safety of persons, property or traffic.
5. Bring in to operation and work with the machine if any of the safety features are dismantled or damaged. (Tool cover, rubber cover etc.).
6. Leave running or unsecured machine with out safeguarding it against unauthorised use.
7. Using machine whilst oil leakage, gas leakage or any other content leakage occur
8. Apply additional weight to area around main shaft.
9. Cleaning the machine while it is running.
10. Cleaning the machine with high pressure water.

1.4. Liquidating the machine at the end of its useful lifetime

When liquidating or disposing of the machine it is absolutely necessary to adhere to all rules or legislation pertinent to the country where the machine have been is used.

The manufacturer can not be held responsible for damages to health or environment in cases where all the above mentioned principles where not adhered to.

1.5. Safety instruction for work with BL-300 Floor Grinder

When working with the machine the following instructions must be complied with:

1. It is prohibited to work with the machine with out the tool cover (including the rubber collar).
2. No person except the operator is permitted within the danger perimeter of the machine.
3. Start the machine always tilted over its rear wheels with the tool a safe distance above the ground – use quick-lift shank device.
4. Observe all general rules of safe work.

2. TECHNICAL DATA AND DESCRIPTION OF THE MACHINE

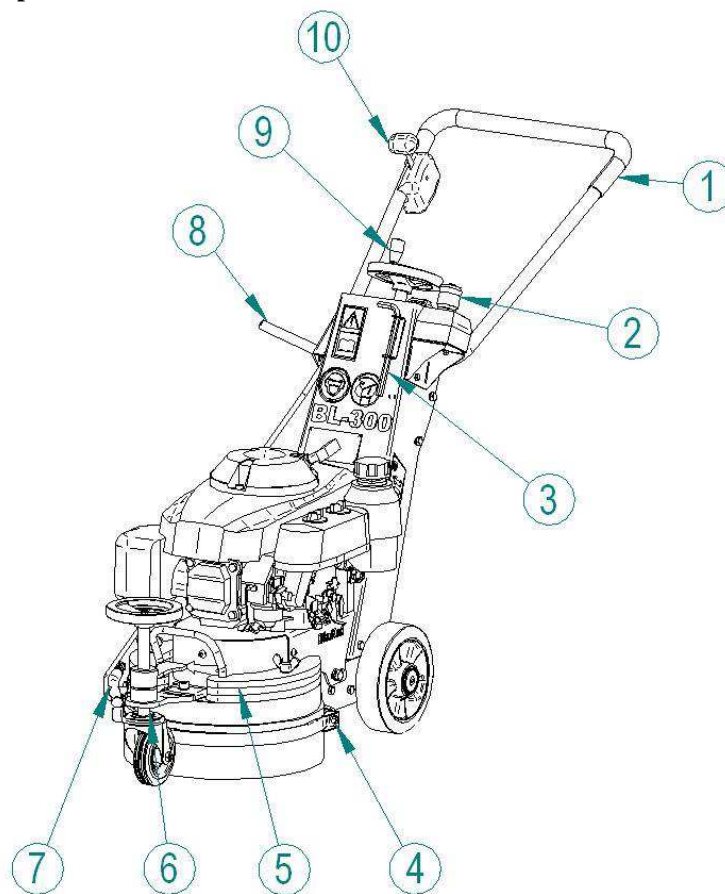
2.1. Description of the machine

The BL-300 DiaKat Floor Grinder is designed for grinding small bumps and slight unevenness of horizontal floor areas. It find its widest use in grinding and levelling of smaller concrete, anhydride and screeded floor areas with diamond or Tc tipped grinding tools The BL -300 is primarily intended for a “dry grinding” with the option of dust removing.

The grinder is powered by 3,2 kW Honda petrol engine. The engine is mounted on a rigid frame and is connected to the drive spindle by means of a flexible ring coupling. This configuration enables the tool to cope with floor unevenness and ensures smooth transfer of torque. The undercarriage consist of height adjustable rear wheels, with which the depth of cut can de adjusted and an adjustable front wheel with which the depth of cut can be restricted. The front wheel also provides easier transport. The machine is manipulated by means of adjustable handlebars.






2.2. Technical specifications

Weight	62+6 kg
Tool diameter	300 mm
Max. depth of cut	0,5-1,5 mm
Main spindle RPM's	1800 rot.min ⁻¹
Depth of cut adjusting	manual
Engine	HONDA GXV160
Engine RPM's	3000 ot.min ⁻¹
Max.output	4.0 kW (by 3600 rot.min ⁻¹)

2.3. Primary operative parts of the machine**Pic. 2** Description of operative parts

- | | |
|----------------------------------------|-------------------------------------|
| 1 – Handlebars | 7 – Quick-lift shank device |
| 2 – STOP button | 8 – shank device Controller |
| 3 – Tightener (tool, handlebars, etc.) | 9 – Depth restriction setting wheel |
| 4 – Safety rubber | 10 – Throttle controller |
| 5 – Additional weights | |
| 6 – Front wheel | |

2.4. Description and designation of tools

	Description	TCT cutters carrier 3bars x 4 x 46 / 6 Ø 300 mm
	Usage	<ul style="list-style-type: none"> * reducing of surface to desired depth * grinding of small bumps * surface roughening * tile's holding glue removal
	Depth of cut	1 - 3 mm
	Material	<ul style="list-style-type: none"> * asphalt * concrete * cemented spawns and screeds
	Description	DIAMONDS Ø 300 mm (coarse, medium, fine)
	Usage	<ul style="list-style-type: none"> * grinding of surface to desired roughness * small unlevelnesses removal * removal of old paintings
	Depth of cut	0,5 - 1,5 mm
	Material	<ul style="list-style-type: none"> * asphalt * concrete * cemented spawns and screeds
	Description	Grinding disc TC Ø 300 mm
	Usage	<ul style="list-style-type: none"> * grinding of surface to desired roughness * small unlevelnesses removal * removal of old paintings, glues
	Depth of cut	0,2 - 0,5 mm
	Material	<ul style="list-style-type: none"> * asphalt * concrete * cemented spawns and screeds * epoxy paintings
	Description	Grinding disc - sandpaper (emery discs)
	Usage	<ul style="list-style-type: none"> * grinding of surface to desired roughness * dirty removal * removal of old paintings
	Depth of cut	0,5 - 1,5 mm
	Material	<ul style="list-style-type: none"> * asphalt * concrete * cemented spawns and screeds
	Description	Polishing disc - Velcro attached polishing blocks
	Usage	* concrete polishing
	Depth of cut	N/A
	Material	* Concrete

Mounting and dismounting of tool

!ATTENTION! Always follow the instructions below when mounting or dismounting tool! (Only then you can set up the machine with tool correctly and safely.) The machine must be always secured against movement and the motor switched off when changing tool!

2.4.1. Mounting of tool




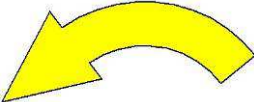
1. Bring the machine to standstill and secure it.
2. Tilt the machine over its rear wheels and rest it on the handlebars.
4. Set the tool with its centre hole on to the collar of the tool carrier; align the screw holes in the tool with the threaded holes in the carrier.
5. Hold the tool on the carrier and secure it with three high tensile screws with CSK head.
6. Tighten the screws on rota basis.
7. Make sure that the tool hole fit fully on to the collar of the carrier.

2.4.2. Dismounting of tool

Similarly dismount the tool.

2.5. Význam značek a piktogramů na použitých na stroji

BL-300 floor grinder is compliant with EU law and is marked with following stickers with following meaning:

Symbol / Sticker	Sticker meaning
	ATTENTION! Read the manual before use and follow the manual!
	!ATTENTION! The Operator is obliged to use safety breath respirator whilst using machine.
	!ATTENTION! The Operator is obliged to use ear protection whilst using machine.
	INFORMATION! Arrow shows sense of tool rotation.

3. BEFORE STARTING

3.1. Visual check up of the machine state

Regularly (before commencing work) check:

- all covers and safety features
- all screwed joints (especially tool mounting screws)
- state of tool's wear

4. WORKING WITH THE MACHINE

***!ATTENTION!** Always use adequate dust collector when grinding in enclosed area.*

4.1. Setting of the machine , start, stop

***!ATTENTION!** never start the machine if the tool is touching the floor.*

1. With the aid of front and rear setting wheels set the machine that the tool (machine frame) is parallel to the working surface and the tool is lightly touching the floor.
2. Set the depth of cut by the front setting wheel and tighten the check nut. By using the rear setting wheel again level the machine. Lock the rear setting wheel.
3. Set the machine to idle position by quick-lift controller so that the tool is in safe height above the ground.
4. Start-up the engine.
5. When reaching maximal engine RPM's lower the tool carefully on the ground.
6. According to the type of grinded material and requested pressure add corresponding additional weights (always same qty on each side of the machine) so that engine's RPM are sustained during work.

***!ATTENTION!** Select such a depth of cut (depending on the material grinded) so that the machine is not overloaded (the motor must not slow down or stall – danger of damage to the motor).*

4.2. Working with the machine

If all settings are correct the machine is moving over the surface easily. In order to achieve the best flatness of the grounded surface move the machine evenly from side to side in arches and at the same time move slowly forward. Regularly check the state of wear of the grinding tool and clogging by dirt of the TCT cutters! Clogged tool can not work properly, it wears unevenly and clogging can eventually lead to damage or destruction of carrier and cutters.

5. MAINTENANCE

The basic steps of preventive maintenance described in this manual can be carried out by the operator appointed by the entrepreneur. We recommend that all repairs and adjustments beyond the scope of this manual are carried out by authorised service centre.

!ATTENTION! In the guarantee period it is prohibited to interfere with the engine and power transmitting components in any manner whatsoever!

5.1. Cleaning of the machine

Regular cleaning prolong the life of the machine its components and tools. After finishing work clean the machine from dust and dirt by wet cloth or air before storing. Never use pressurised water for cleaning.

5.2. Checking screw joints

Check the tightness of screw joints before every start of the machine. Regularly check the tightness of the tool securing screws.

5.3. Tool maintenance

Regularly check the wear and soiling of tools. If the diamond segments are almost worn off, change the tool. If the TCT cutters are clogged with dust and dirt and can not rotate freely loosen them by light tapping of the hammer and pressurised air.

5.4. Engine maintenance

Follow the manual for Honda petrol engine!