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MODEL
BL-183 / BL-233
Sander/ Polisher



CONTENTS – SECTION 1 GENERAL SAFETY RULES

WARNING – To reduce the risk of injury, user must read instruction manual.

General Safety Rules

WARNING! Read all instructions Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Avoid accidental starting. Ensure the switch is in the off-position before plugging in.** Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

SECTION 1 GENERAL SAFETY RULES

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
 - e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
 - f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
 - g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust-related hazards.
- 4) **Power tool use and care**
- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
 - b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
 - c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
 - d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
 - e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
 - f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 - g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- 5) **Service**
- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

CONTENTS – SECTION 2 SPECIFIC SAFETY RULES

Safety Warnings Common for Sanding or Polishing Operations:

- a) **This power tool is intended to function as a sander or polisher tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b) **Operations such as grinding, wire brushing or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their RATED SPEED can break and fly apart.
- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- f) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.
- h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- j) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

- k) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- l) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- m) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- n) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- o) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.
- b) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
- c) **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

Safety Warnings Specific for Sanding Operations:

- a) **Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations, when selecting sanding paper.** Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

Safety Warnings Specific for Polishing Operations:

- a) **Do not allow any loose portion of the polishing bonnet or its attachment strings to spin freely. Tuck away or trim any loose attachment strings.** Loose and spinning attachment strings can entangle your fingers or snag on the workpiece.

CONTENTS – SECTION 3 SYMBOLS

The following denominations and symbols are used in the Operating Instructions to highlight areas of particular importance:



Symbol of operational safety.
 In these Operating Instructions this symbol will be shown next to all safety precautions that are to be taken in order to ensure prevention of life and injury. Follow these instructions and take special care in these circumstances. In addition to these instructions, the general safety precautions and accident prevention guidelines are also to be followed.



Particular details regarding the economical use of the equipment.



Information, instructions and restrictions with regard to possible risks to persons or to extensive material damages.



Warning against dangerous voltages.



Indications relating to protective devices in electrical appliances.

SECTION 3 SYMBOLS



Indications where consultation with the manufacturer is required.



Instructions relating to periodic checks.



Reference to important instructions contained in the Operating Instructions.



WARNING – To reduce the risk of injury always wear eye protection

CONTENTS – SECTION 4 ADDITIONAL SAFETY RULES

The **Operating Instructions** are to be kept **near the location where the machine** is being operated, and must be **within reach at all times!**

Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances.

Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.

If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user. (Applicable only to Class I [grounded] tools.)

Double insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.

Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system. (Applicable only to Class II tools.)

Replace damaged cords immediately. Damaged cords increase the risk of electric shock.



The **Operating Instructions** are to be kept **near the location where the machine** is being operated, and must be **within reach at all times!**

In addition to these Operating Instructions, general and legal regulations regarding accident prevention and environmental protection must be complied with and indicated!

Such duties may, for example, relate to the handling of hazardous substances, or to the provision and wearing of personal protection equipment, as well as compliance with traffic regulations.

SECTION 4 ADDITIONAL SAFETY RULES

The Operating Instructions must be **supplemented** by other **instructions**; this includes the duty to **supervise** and **report** incidents relating to **particular**

working practices, for example, work organization, work procedures and personnel allocation.

Personnel entrusted with working with the machine must read the **Operating Instructions** before starting work, in particular all safety instructions. To read these instructions after work has commenced is too late. This particularly applies to incidental activities such as setting up the equipment, carrying out maintenance work or training staff to work with the machine.

From time to time the working practices of the operators are to be checked by a supervisor, especially as to the items regarding awareness of **safety and hazards**.

Personnel must tie back long hair, and not wear loose clothing or jewelry including rings. There is a risk of injury through items getting caught or being drawn into moving machinery.



Use **personnel protection equipment** if necessary or required by local regulations! Take notice of **all** safety and hazard notices on the machine!

All **safety and hazard notices** at or on the machine must be kept complete and **legible**!

If **safety-critical changes** occur to the machine or its working method, the machine must be **shut down immediately**! The cause of the fault must be established and remedied immediately!



Changes, add-ons or conversions to the machine which might impair safety, must not be made, without **the manufacturer's permission**!

This applies in particular to the fitting and adjustment of safety devices as well as to welding on load-bearing parts.

Spare parts must comply with the technical requirements specified by the manufacturer. This is always guaranteed if original spare parts are used.

SECTION 4 ADDITIONAL SAFETY RULES



Intervals for recurring **checks and inspections** specified in these Operating Instructions must be complied with!

To perform maintenance work correctly, it is imperative to be equipped with the proper tools for the task in question.



The **location** and the operation of **fire extinguishers** must be made known on each work site!

Take note of the facilities for reporting of, and fighting fires!

Fundamental duties:

- a) Work on the machine may only be undertaken by **trained personnel**.
- b) Only trained personnel may be employed. **Note the statutory minimum age!** Specify clearly the responsibilities of personnel for operation, setting up, servicing and maintenance work!
- c) **Make sure** that only **authorized** personnel operate or work on the machine!
- d) Define responsibilities of the machine operator, with regard to traffic **safety regulations**, and inform him not to take instructions from third parties who may not be complying with the local safety requirements!
- e) Personnel, who are being trained to operate equipment, may only use the machine **under constant supervision of an experienced person!**



Work on **electrical** equipment may only be undertaken by a **skilled electrician** or by **trained** persons under the **supervision** of a **skilled electrician**, as well as in accordance with the local **electrical engineering regulations**.

Do not allow any method of working that **impairs safety!**

Recognized official procedures have to be used, to ensure the machine is operated in the safest and best conditions.



Only operate the machine when all **safety devices**, and related **safety equipment**, are present and **operational!**

SECTION 4 ADDITIONAL SAFETY RULES



Check the machine visually for any **damage** and **defects** at least once a day!

In the event of **operational malfunctions**, the machine must be **shut down immediately** and secured, and the fault must be rectified!



Carry out the switch on and switch off operations in accordance with the operations manual!

Do not switch off, or remove the exhaust, and/or the ventilation devices while the machine is running!



All persons in the proximity of the machine must wear ear protectors and safety shoes. In addition, the machine operator must wear close fitting protective clothing.

- a) **Use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- b) **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- c) **Check for misalignment or binding of moving parts, breakage or parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- d) **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.
 - a) **Tool service must be performed only by qualified repair personnel.**
 - b) **Service or maintenance performed by unqualified personnel could result in a risk of injury.**

- c) When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of electric shock or injury.

Mechanical servicing work:

- a) Put the machine in the **Safety off position** as described below before carrying out any servicing work on the machine in order to prevent the machine from being **switched on** accidentally.
- b) Follow any special **safety instructions** in sections on servicing the machine. **See Section 7.**
- c) **Adjustment, servicing and inspection work on the period of time limits**, specified in these Operating Instructions as well as any information on the replacement of parts and equipment must be **undertaken and/or complied with!**
- d) These activities may only be undertaken by **qualified personnel**.
- e) Do not use any **aggressive** cleaning materials! Use lint-free **cleaning cloths!** The **operator must be given information** about **maintenance and work procedures**, before starting the cleaning process!
- f) Always tighten any screen connections that are undone during servicing and maintenance work!
- g) If **safety devices** need to be **dismantled** during setting up, servicing and repairs, these **safety devices** must be **reinstalled** and inspected immediately after completion of the servicing and repair work.
- h) **Make sure that process materials and replaced parts are disposed of safely and in an environmentally-friendly manner!**

**Electrical servicing work:**

Make sure that electrical components used for replacement purposes comply with the original parts and are correctly adjusted if necessary.

Definition of the Safety Off Position: The machine is in a safe condition where it cannot generate any hazard.

Putting the equipment in the Safety off position involves:

- ✓ **Switching off the grinding machine.**
- ✓ **Switching off the dust collector (if being used).**
- ✓ **Waiting for all drives to stop.**
- ✓ **Pulling out mains plug.**
- ✓ **Securing against unintended restart.**



Any machine, if it is **not used according to the regulations**, may be **hazardous** for operating, set-up and service personnel. The **operating authority** is responsible for **compliance with the safety regulations** during operation and maintenance, and for the use of safety **devices** supplied with the machine, as well as the provision of appropriate additional safety devices!

CONTENTS – SECTION 5 GENERAL INFORMATION

- 5.1 Range of application
- 5.2 Description of the machine

5.1 RATING

Unit / Designation: Sander / Polisher

Machine Type: BL-183 / BL-233

Manufacturer:



Blastrac US
13201 North Santa Fe
Oklahoma City, OK 73114
United States of America
Local: 405-478-3440
Toll-free: 800-256-3440
info@blastrac.com
www.blastrac.com

5.2 UNIT SPECIFICATIONS

Technical Data:

Grinding machine	BL-183	BL-233
Frequency	60 Hz	60 Hz
Rated Voltage*	120 V	120 V
Rated current	15 A	15 A
Sanding disc capacity	180 mm (7")	230 mm (9")
Rated speed	8500 (min ⁻¹)	6600 (min ⁻¹)
Spindle thread	5/8" – 11UNC	5/8" – 11UNC
Overall length	481 mm (19")	481 mm (19")
Net Weight	4.8 kg (10.6 lbs)	4.8 kg (10.6 lbs)

*Be sure to check the nameplate on the product, because the voltage is subject to change depending on the area in which the product is to be used.

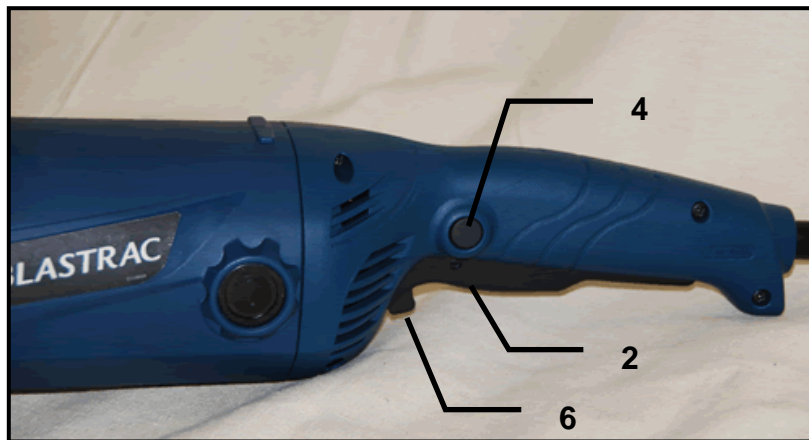
CONTENTS – SECTION 6 FUNCTIONAL DESCRIPTION

- 6.1 Range of application
- 6.2 Description of the machine

6.1 RANGE OF APPLICATION

Use the BL-183 / BL-233 for the following applications only:

- Sanding and grinding concrete surfaces
- For removing rust from steel surfaces as well as finishing
- Surface finishing wood
- Polishing painted metal, lacquered wood, synthetic resin, etc.
- Sanding metal plate surfaces

6.2 DESCRIPTION OF THE MACHINE

Item No.	Part Description
1	Aux. Handle
2	Switch
3	Spindle Shaft
4	Lock Button
5	Spindle Lock
6	Safety Lever

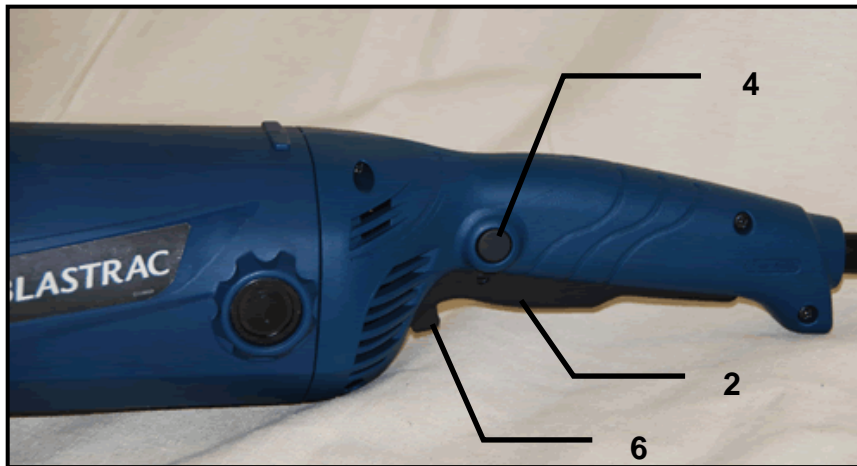
CONTENTS – SECTION 7 OPERATION

7.1 Operating Instructions

7.1 OPERATING INSTRUCTIONS



Before start-up, the operating personnel must be familiar with the safety regulations given in this manual.



This tool is started by depressing the safety (6) and engaging the switch (2). The tool is stopped by releasing the switch (2).

For continuous operation, depress the lock button (4) while the switch is engaged. To release continuous operation, depress the switch (2) and release.



To lock the spindle from rotation, press and hold the spindle locking button (5). Turn the spindle shaft (3) until the shaft locks in position. To release, simply let off the locking button (5). The shaft should turn freely.

SECTION 7 OPERATION

The handle can be attached to either side or on top. Make sure it is tight before use.



Never cover the air vents since they must always be open for proper motor cooling.

The key to efficient operating is controlling the pressure and surface contact between the disc/polishing wool and work piece.

CONTENTS – SECTION 8 MAINTENANCE

- 8.1 Care and Maintenance
- 8.2 Replacement Parts

8.1 CARE AND MAINTENANCE

Operational safety and service life of the machine depend, among other things, on proper maintenance.

After use, check the tool to make sure that it is in top condition.

It is recommended that you take this to a Blastrac Authorized Service Center for a thorough cleaning and lubrication at least once a year.

Do not make any adjustments while the motor is in motion.

Always disconnect the power cord from the receptacle before changing removable or expendable parts (blade, bit, sanding paper, etc.), lubricating or working on the unit.

WARNING! To ensure safety and reliability, all repairs should be performed by an AUTHORIZED SERVICE CENTER or other QUALIFIED SERVICE ORGANIZATION.

Special attendance and regular maintenance of the machine are imperative for functioning and safety.

Pay attention to unusual noises or strong vibrations. Check for the cause of every big change. Call a technician if you have doubts about the cause or when a repair without a technician does not seem possible without damages.

Before using the machine you should always check all screws and connection points for correct seating.

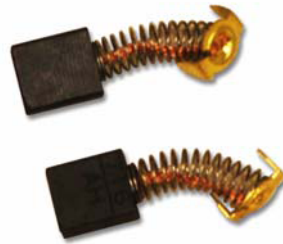
Due to different working conditions it cannot be foreseen how frequently inspections for wear checks, maintenance and repair work should be carried out. Prepare a suitable inspection schedule considering known working conditions and experience.



Our specialists will be happy to assist with more advice.
Please call 1-800-256-3440.

8.2 REPLACEMENT PARTS

Part Number: 05-32113
Part Description: Brush Set, BL-183/BL-233



Part Number: 05-32111
Part Description: Cord Set, BL-183/BL-233

