

Operator's Instruction Manual

TG-10



Turbo Grinder

**Available in Gasoline, Propane
and Electric Models**



100 Thomas Johnson Drive, Frederick, MD 21702-4600 USA
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READ AND UNDERSTAND THE OPERATORS INSTRUCTION MANUAL *THOROUGHLY* BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.



Death or serious injury could occur if this machine is used improperly.



SAFETY MESSAGES

- Safety Instructions are preceded by a graphic alert symbol of DANGER, WARNING, or CAUTION.



Indicates an imminent hazard which, if not avoided, will result in death or serious injury.



Indicates an imminent hazard which, if not avoided, can result in death or serious injury.



Indicates hazards which, if not avoided, could result in serious injury and or damage to the equipment.

GASOLINE/PROPANE POWERED EQUIPMENT



- Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



- Gasoline is extremely flammable and poisonous. It should only be dispensed in well ventilated areas, and with a cool engine.

- Small gasoline engines produce high concentrations of carbon monoxide (CO) example: a 5 HP 4 cycle engine operation in an enclosed 100,000 cu. ft. area with only one change of air per hour is capable of providing deadly concentrations of CO in less than fifteen minutes. Five changes of air in the same area will produce noxious fumes in less than 30 minutes. Gasoline or propane powered equipment should not be used in enclosed or partially enclosed areas. Symptoms of CO poisoning include, headache, nausea, weakness, dizziness, visual problems and loss of consciousness. If symptoms occur - get into fresh air and seek medical attention immediately.

ELECTRICAL POWERED EQUIPMENT



Extreme care must be taken when operating electric models with water present: Ensure power cord is properly grounded, is attached to a Ground-Fault-Interrupter (GFI) outlet, and is undamaged.

- Check all electrical cables - be sure connections are tight and cable is continuous and in good condition. Be sure cable is correctly rated for both the operating current and voltage of this equipment.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with qualified electrician or service person if there is any doubt as to whether the outlet is properly grounded. Adhere to all local codes and ordinances.
- **NOTE:** In the event of a malfunction or breakdown, grounding provides a path of least resistance for the electric current to dissipate. The motor is equipped with a grounded plug and must be connected to an outlet that is properly installed and properly grounded. **DO NOT** modify the plug provided on the motor. If the plug does not fit the outlet have a qualified electrician install the proper receptacle.
- Switch motor **OFF** **before** disconnecting power.

- Do not disconnect power by pulling cord. To disconnect, grasp the plug, not the cord.
- Unplug power cord at the machine when not in use and before servicing.

GENERAL INSTRUCTIONS

- Equipment should only be operated by trained personnel in good physical condition and mental health (not fatigued). The operator and maintenance personnel must be physically able to handle the bulk weight and power of this equipment.
- This is a one person tool. Maintain a safe operating distance to other personnel. It is the **operators' responsibility** to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc. for a safe distance. Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.
- This equipment is intended for commercial use only.
- For the operator's safety and the safety of others, always keep all guards in place during operation.
- Never let equipment run unattended.



- Personal Protection Equipment and proper safety attire must be worn when operating this machinery. The operator must wear approved safety equipment appropriate for the job such as hard hat and safety shoes when conditions require. Hearing protection **MUST** be used (operational noise levels of this equipment may exceed 90db). Eye protection **MUST** be worn at all times.



Keep body parts and loose clothing away from moving parts. Failure to do so could result in dismemberment or death.

- Do not modify the machine.
- Stop motor/engine when adjusting or servicing this equipment. Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.

DUST WARNING



Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints, and
- Crystalline silica from bricks and concrete and other masonry products.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your risk: work in a well ventilated area, use a dust control system, such as an industrial-style vacuum, and wear approved personal safety equipment, such as a dust/particle respirator designed to filter out microscopic particles.

EDCO Model TG-10 TURBO GRINDER

Operator's Instruction Manual

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HOW TO ORDER REPAIR PARTS

To insure product safety and reliability, always use genuine EDCO replacement parts when making repairs to the equipment.

When ordering parts, please specify the MODEL and SERIAL NUMBER of the machine as given on the NAMEPLATE. In addition, give part number, description and quantity as listed on the parts list.

Please note: Due to improvements and changes in the equipment the illustrations shown may be different from the actual machine.

Toll Free: Voice 1-800-638-3326 • Fax 1-800-447-3326

Dimensions and specifications are approximate and subject to change.

Model	TG10-5B	TG10-11H	TG10-11P
Length	41"/104cm	41"/104cm	41"/104cm
Width	24"/61cm	24"/61cm	24"/61cm
Height	38"/97cm	38"/97cm	38"/97cm
Weight	175 lbs.	180 lbs.	220 lbs.

Weights include 10" Diamond Disc (20 segments)



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Read and understand the *Operator's Manual*,
and the *Engine Manufacturer's Owner's Manual*
before operating this equipment.



Death or serious injury can result if this machine is used improperly.



Safety Guidelines



Eye and ear protection must be worn at all times when this machine is in use. During normal use, sound levels exceed 92dB. Use only ANSI approved safety glasses to help prevent eye injury.



Operator must wear appropriate clothing and footwear. Do not wear loose clothing or jewelry that can get tangled in moving parts.



Grinding creates a large volume of airborne dust. The operator must wear an applicable respirator and a heavy duty vacuum, such as the EDCO VAC-160. The dust may contain chemicals known to cause serious illnesses. The vacuum unit should be capable of removing particles to 3 micron or less and if necessary, have the capability to be equipped with a HEPA filter. Check the chemical properties of the material to be removed and follow all EPA/OSHA regulations. **FAILURE TO COMPLY COULD LEAD TO SERIOUS ILLNESS.**

- Keep a safe operating distance from other personnel and never leave the machine running unattended.
- Maintain the machine in safe operating condition with all guards in place and secure, all mechanical fasteners tight, all controls in working order and the grinder configured for the job application.
- The TG-10 Turbo Grinder is designed to remove excess surface material, epoxy or urethane coatings, for grinding high joints, hard-troweled or polymer concrete, for flattening curling or uneven slabs and for leveling bridge decks and runways. To prevent damage to the grinder and/or serious personal injury, avoid protruding slab inserts, nails, screws, or any other debris, pipe extensions, uneven joints, machinery bases or any objects that transmit sudden shock to the grinding assembly.
- The TG-10 Turbo Grinder is to be operated by a properly trained and qualified operator from a position at the rear of the machine.
- Inspect the disc carefully before installing. Do not use any damaged disc since serious personal injury and/or damage to the equipment can result.
- Never operate the TG-10 Turbo Grinder if under the influence of drugs, alcohol or when taking medications that impair the senses or reactions, or when excessively tired or under stress.
- Be sure all safety decals on the machine can be clearly read and understood. Replace damaged or missing decals immediately.

Safety warnings and guidelines do not by themselves eliminate danger.
They are not given as substitutes for proper accident prevention and good judgement.



Exhaust from this engine contains Carbon Monoxide, an invisible, odorless gas that can kill. In addition, it contains chemicals known, in certain quantities, to cause cancer, birth defects or other reproductive harm.

Operating Instructions

Before Operating:

- **Visually inspect machine:**

- Verify all guards are in place and fasteners are tight.
- Check engine oil level (if gasoline/propane model).
- Inspect power cord for damage and check for proper grounding (If electric model).

- **Inspect disc assembly:**

- Check discs for damage or wear.
- Check mounting hardware.
- Check belt tension after first 4 hours of use with factory new equipment or after installing new belts.

- **Inspect the work area:**

Inspect work area carefully before starting to grind. EDCO will not be held responsible for damage to the discs caused by striking protruding slab inserts, nails, screws, pipe extension, machinery bases, or other objects that transmit sudden shocks.

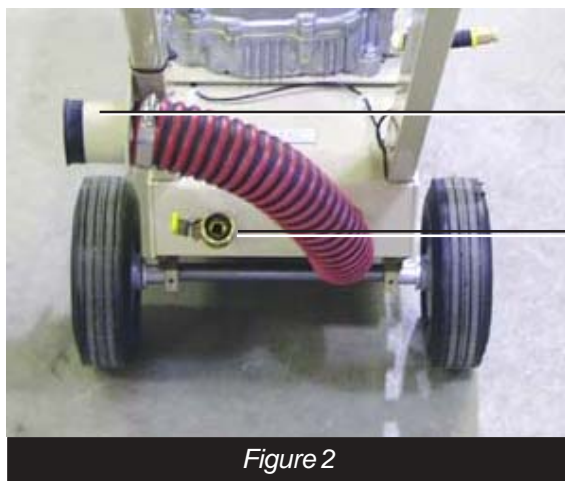


Figure 2

- **If dry cutting:**

- Hook up heavy-duty vacuum.

- **If wet cutting:**

- Attach hose to water supply.
- NOTE: Do not use vacuum when wet cutting.

Important Reminder!

A water mist system or an industrial vacuum **must** be used while operating this equipment and the operator must wear a respirator. Failure to comply could lead to serious illness and possible death.



Gasoline Models: (11 HP Honda Engine)

To Start the Engine:

- Tilt the machine back slightly to allow the disc to clear the slab surface.
- Start the engine according to the directions in the engine manufacturer's Owner's Manual.

NOTE: If during operation refueling becomes necessary, allow the engine to cool down. NEVER refuel a hot engine.

To Stop the Gasoline Model:

- Tilt the machine back slightly to allow the disc to clear the slab surface.
- Turn the engine off.

To shut off the engine -
Press and hold the Emergency Stop Button
(Figure 3)



Figure 3

Propane Models: (11 HP Honda Motor with 115V Electric Start)



Propane is extremely flammable.

To Start the Engine:

- Turn on the main valve at the propane tank.
- Check all connections for tightness and inspect for leaks. If you detect a gas odor, immediately shut off the main fuel valve and consult a qualified LP-gas service person or call EDCO directly. NEVER check for leaks using an open flame; use a leak-testing solution. NEVER allow propane to escape in an enclosed area; propane is heavier than air and will "settle".
- Tilt the machine back slightly to allow the disc to clear the slab surface.
- Start the engine according to the directions in the engine manufacturer's Owner's Manual.

To Stop the Propane Model:

- Tilt the machine back slightly to allow the disc to clear the slab surface.
- Turn the engine off.
- Close the valve on the propane tank.

Electric Models:

(5 HP Baldor. Available in 1 Phase or 3 Phase)



Electric units must be connected to a properly grounded electrical system using an approved electrical cable.

To Start the Machine:

- Tilt the machine back slightly, just enough for the disc to be clear of the slab surface.
- Press the ON button on the power box.
- Gently set the machine back down until the disc touches the slab surface and begin moving the machine.

To Stop the Machine:

- Tilt back the machine to allow the disc to clear the slab surface.
- Press OFF on the power box.

Wet Grinding:

- In the wet grinding stage - water is fed from a standard garden hose into a ball valve cut off, then into a nozzle that sprays over the disc assembly. (Figure 4)
Use the ball valve to regulate the flow of water to the disc.



Only use enough water flow to reduce dust. Excess water flow will create clean up problems and could cause a hazardous walking area.



Always use dust control when using this product.

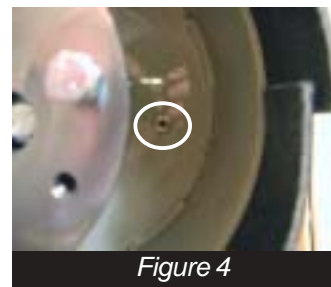


Figure 4

Dry Grinding:

Dry Grinding creates a large volume of airborne dust. For health reasons, the operator should wear an applicable respirator. The dust may contain chemicals known to cause serious illnesses, including Silicosis - a fatal disease of the lungs. Check the chemical properties of the material to be removed and follow all EPA/ OSHA regulations.

- An Industrial vacuum, capable of handling high volume of fine dust, such as the VAC - 160 (Figure 5), should be used when dry grinding with this machine. If the material being used is hazardous or contains Silica - the vacuum unit should be capable of removing Respirable Silica and hazardous particles of less than 3 microns and if necessary, have the capability to be equipped with a HEPA filter.

Most standard drum type units use a paper bag filter. The dust created during grinding is extremely fine and will clog the filter bag of these units and eventually damage the vacuums motor. In addition, damage to the TG-10 engine could occur.

- The collected debris and filters should be disposed of according to procedures that comply with current EPA/OSHA standards.



Vac-160

Figure 5



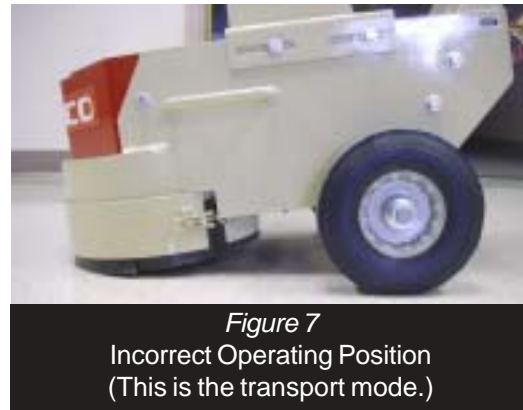
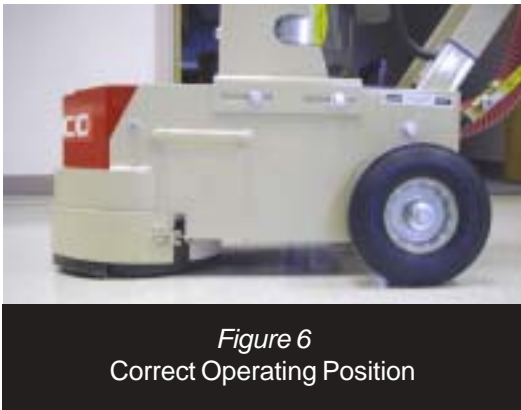
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Controlling the Grind:

- Grinding discs are **extremely** aggressive. It is important to **KEEP THE GRINDER MOVING IN A SIDE-TO-SIDE MOTION**, do not let the grinder stay in one spot, even for a few seconds, or the surface will be damaged. When grinding is completed, tilt the machine back and shut off the power.
- This tool is primarily used to remove excess or damaged concrete surfaces (high joints, slab curling, bridge, road surface, extra hard surface concrete of 7000 p.s.i. or greater) quickly and at a controlled rate. It is not designed to produce a smooth, polished finish; it will always leave faint “rings” in the surface. While this is not objectionable for bridge work or other removal work, it will definitely show through a painted surface or under thin vinyl tile.
- To achieve a smooth “polished” surface, complete the grinding operation with an EDCO dual disc unit using grinding stones or dyma serts.
- To remove a light coating, move the grinder quickly. For heavier removal, move the grinder more slowly.
- Keep the grinding disc flat - do not attempt to grind against vertical surfaces. Be sure the machine is in the correct operating position. (See *Figures 6 and 7* below..)

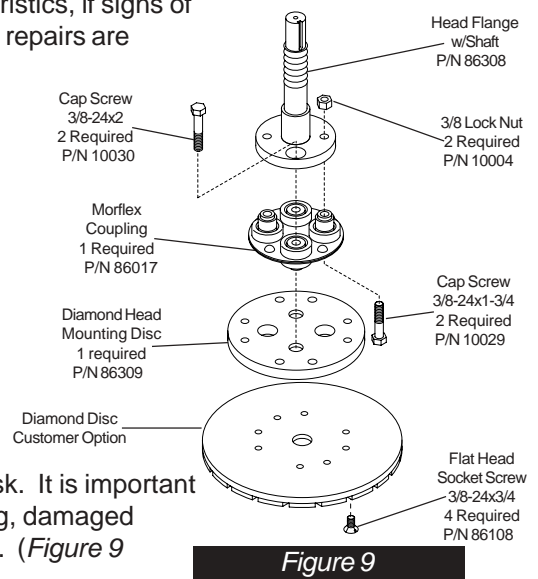


Discs:

- Inspect the disc (*Figure 8*) periodically to determine it’s wear characteristics, if signs of uneven wear appear the cause should be determined and corrected. If repairs are needed contact EDCO or your EDCO representative.



- Each new machine is shipped with a 10”/255 mm factory balanced disk. It is important to maintain the coupling to which the disk is attached. A worn coupling, damaged bearings or a bent shaft will cause the grinding discs to wear unevenly. (*Figure 9* shows the head assembly.)



Maintenance

Follow the engine manufacturer's guidelines for regular maintenance.

WARNING

Disconnect spark plug lead (*Figure 10*) before performing any maintenance on this machine! Or on the electric model, unplug the electric cord at the machine (instead of at the wall) to assure the machine will remain unplugged while you are working on it.



Figure 10



Figure 11

Every 8 Hours:

- Inspect the disc mounting screws. (*Figure 11*) The constant vibration and heat generated, especially when grinding dry, could cause the screws to loosen and the disc to become off balance.

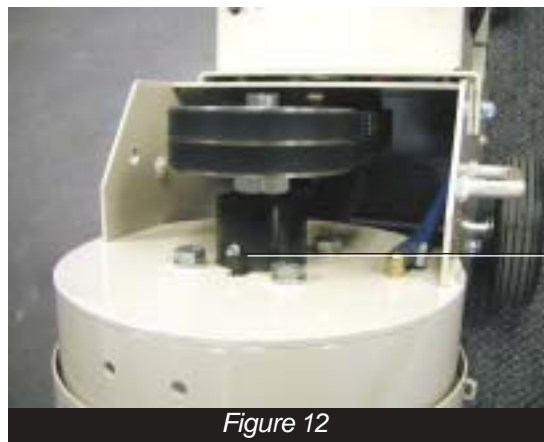


Figure 12

Every 100 Hours:

- Bearings (*Figure 12*) must be lubricated every 100 hours.
- Belt guard has to be removed to access bearing lubrication fitting.



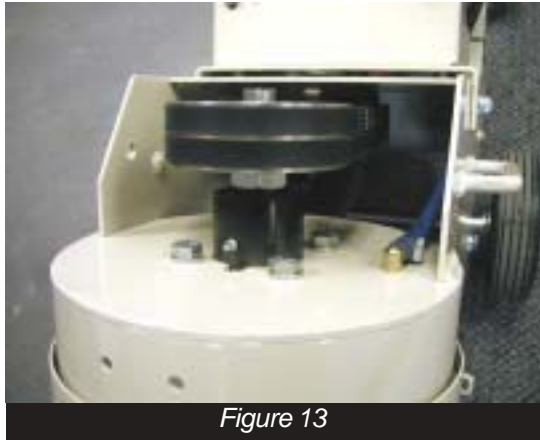


Figure 13



Figure 14

Belts:

To remove/replace belts:

- Remove belt cover to expose belts. (Figure 13)
- Loosen engine mounting bolts (Figure 14) on both sides of the TG-10 and slide engine to allow belts to slide off.
- **Replace worn belts with a complete set of new belts** - even if only one belt is showing wear.
- Slide engine back in place until belts are tight and retighten engine mounting bolts.
- Reinstall belt cover and tighten hardware.
- After four hours of use, retighten belts.

Engine Air Filter:

Inspect the air filters (Figure 15) for excess dust, dirt or damage before the engine is operated. More often if operating in a dusty environment.

Operating the engine with a damaged or dirty air filter, or without an air filter, will allow dirt to enter the engine causing rapid engine wear which would not be covered under the engine manufacturer's warranty.

Follow the engine manufacturer's procedures for keeping the filters in good condition.

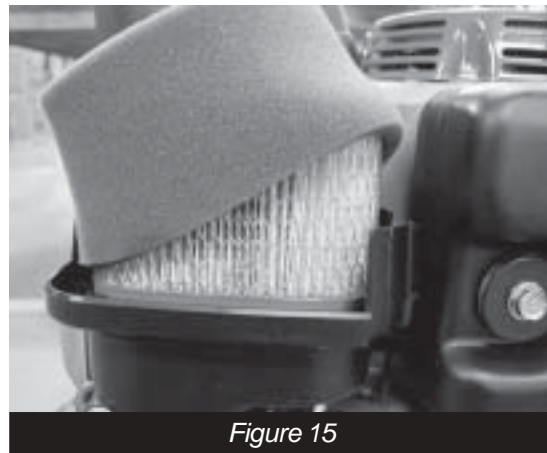


Figure 15



Read and follow the engine manufacturer's maintenance schedule.



Repairs are to be done by authorized EDCO Dealers only.

Maintenance Schedule

	Before Operation	Every 4 Hours	Every 8 Hours	As Necessary
Inspect Entire Machine	X			
* Check Oil & Fuel Levels	X			
* Check Air Filter (Clean if Necessary)	X			
* Inspect Propane Connections	X			
Inspect Disc	X			
Inspect Belt Tension		X		X
Lubricate Shaft Bearings		X		
Inspect/Tighten Disc Mounting Screws			X	X
Adjust Wheel Height				X
* Inspect Vacuum (empty bins, etc.)				X

* When applicable.



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LIMITED EQUIPMENT WARRANTY

Equipment Development Company, Inc. herein referred to as EDCO warrants that each new unit manufactured by EDCO to be free from defects in materia and workmanship in normal use and service for a period of (1) one year (except in the case of the cutter drum assembly on all model concrete asphalt planes, in which case the warranty period shall be 90 days) from date of shipment to the original buyer or equipment rental center owner.

EDCO will, at its option, repair or replace, at the EDCO factory or at a point designated by EDCO any part, which shall appear to the satisfaction of EDCO inspection to have been defective in material or workmanship.

This warranty, does not apply to failure occurring as a result of abuse, misuse, negligent repairs, corrosion, erosion, normal wear and tear, alterations or modifications made to the product without express written consent of EDCO: or failure to follow the recommended operating practices and maintenance procedures as provided in the products operating and maintenance manuals.

This warranty does not obligate EDCO to bear any transportation charges in connection with the replacement or repair of defective parts. This warranty does not obligate EDCO to bear any expense for travel time or of personnel in connection with any service calls.

Accessories or equipment furnished and installed on the product by EDCO but manufactured by others, including but not limited to engines, motors, electrical equipment, transmissions, etc., shall carry the accessory manufacturers' own warranty.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

LIABILITY LIMITATIONS

The remedies of the user set forth under provisions of warranty outlined above are the exclusive and total liability of EDCO with the respect to their sale or the equipment and service furnished hereunder, in connection with the performance or breach thereof, or from the sale, delivery, installation, repair or technical direction covered by or furnished under the sale, whether based on contract, warranty, negligence, indemnity, strict liability, or otherwise shall not exceed the purchase price of the unit of equipment upon which such liability is based.

EDCO will not in any event be liable to the user, any successors in interest or any beneficiary or assignee relating to this sale for any consequential, incidental, indirect, special or punitive damages arising out of this sale or any breach thereof, or any defects on, or failure of, or malfunction of the equipment under this sale based upon loss of use, lost profits or revenue, interest, lost goodwill, work stoppage, impairment of other goods, loss by reason of shutdown or non-operation, increased expenses of operation of the equipment, cost of purchase or replacement power of claims of users or customers of the user for service interruption whether or not such loss or damage is based on contract, warranty, negligence, indemnity, strict liability, or otherwise.

EDCO reserves the right to modify, alter and improve any part or parts without incurring any obligation to replace any part or parts previously sold without such modified, altered or improved part or parts.

No person is authorized to give any other warranty or to assume any additional obligation on EDCO's behalf unless made in writing and signed by an officer of EDCO.

Equipment Development Company, Inc.

USE ONLY GENUINE EDCO PARTS AND ACCESSORIES

For your own safety, the safety of others and the life of your machine

