

# **ECO-SHREDDER** BY DUROSTAR

## **OWNERS OPERATING MANUAL**

**CHIPPER / SHREDDER / MULCHER MODEL ES1600**



### **SPECIFICATIONS:**

**Horse Power: 2.5HP**

**Hopper Size: 15-1/4" x 10-3/8"**

**Side Chute: 1-3/8" x 2-5/16"**

**R.P.M: 3450**

### **THANK YOU FOR PURCHASING AN ECO-SHREDDER, CHIPPER / SHREDDER / MULCHER.**

Your new Chipper / Shredder / Mulcher has been engineered and manufactured to the highest standards of dependability, ease of use and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.

**CAUTION: Carefully read through this entire owner's manual before using your new Chipper / Shredder / Mulcher.**

Pay close attention to the Rules for Safe Operation, Warnings and Cautions.

If you use your Chipper / Mulcher / Shredder properly and only for what it is intended, you will enjoy years of safe, reliable service.

Thank you again for buying DUROSTAR equipment.

**SAVE THIS MANUAL FOR FUTURE REFERENCE**

## RULES FOR SAFE OPERATION

The purpose of safety rules is to attract your attention to possible dangers. The safety symbols and the explanations with them require your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.



**SAFETY ALERT SYMBOL.** Indicates caution or warning. May be used in conjunction with other symbols or pictures.



**WARNING:** Failure to obey a safety warning can result in serious injury to you or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.



**WARNING:** Do not attempt to operate this tool until you have read thoroughly and understood completely, safety rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock or serious personal injury. Save owners manual and review frequently for continuing safe operation and instructing others who may use this tool.

The operation of any tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power equipment operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. Wear a wide vision safety mask for use over eyeglasses or standard safety glasses with side shields.

1. **KNOW YOUR POWER TOOL.** Read owners manual carefully. Learn its applications and limitations as well as the specific potential hazards related to this tool.
2. **GUARD AGAINST ELECTRICAL SHOCK BY PREVENTING BODY CONTACT WITH GROUNDED SURFACES.** For example, pipes, radiators, ranges, refrigerator enclosures.
3. **KEEP WORK AREA CLEAN.** Cluttered areas invite accidents.
4. **AVOID DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations or expose to rain. Keep work area well lit.
5. **KEEP CHILDREN AND VISITORS AWAY.** Visitors should wear safety glasses and be kept a safe distance from work area. Do not let visitors contact tool or extension cord.
6. **STORE IDLE TOOLS.** When not in use, tools should be stored in a dry and high or locked place out of reach of children.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate at which it was designed.
8. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool. Don't use a tool for a purpose not intended.
9. **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Also wear protective hair covering to contain long hair.

- 10) **ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses have only impact resistant lenses, they are not safety glasses.
- 11) **PROTECT YOUR LUNGS.** Wear a dust mask if operation is dusty.
- 12) **PROTECT YOUR HEARING.** Wear hearing protection during operation.
- 13) **DON'T OVERREACH.** Keep proper footing and balance at all times. Do not use tool on an unstable support.
- 14) **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories.
- 15) **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 16) **NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.
- 17) **KEEP HANDLES DRY, CLEAN AND FREE OF OIL AND GREASE.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum based products or any strong solvents to clean you tool.
- 18) **STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. Do not rush.
- 19) **CHECK DAMAGED PARTS.** Before further use of the tool a guard or any other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or any other part that is damaged should be properly repaired or replaced by an authorized service center.
- 20) **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by authorized service center.
- 21) **DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR ANY MEDICATIONS.**

SAVE THESE INSTRUCTIONS  
FOR FUTURE REFERENCE

Due to continued product  
refinement policy, product features  
and specifications can and will  
change without notice.  
Check current features and  
specifications with your retailer.

• **ASSEMBLE FRAME & WHEELS**

Align the holes in the wheels to the holes in the axle section of the frame and secure tightly with the bolts, spring washers and nuts provided as shown in Fig. 1.

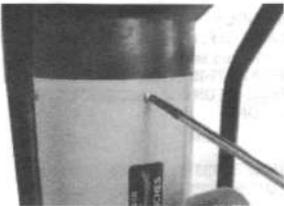


Affix the hub caps to the wheels.  
Fig. 2



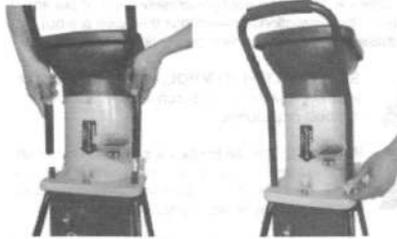
• **TOP HOPPER**

Place the Top Hopper onto the metal feed tube and align the attaching holes. Secure the one way screw.  
Fig. 3



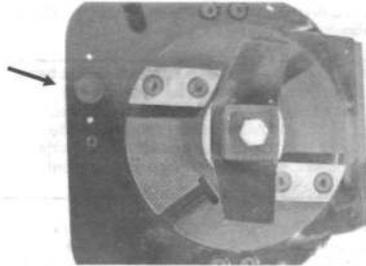
• **HANDLE**

Insert the handle bar into the handle shafts located at the rear of the machine. Align the holes in the handle bar to the holes in the handle shafts and secure with the 2 knobs as shown in Fig. 4 & 5.



• **SAFETY SWITCH**

The safety switch that is located on the cutter base is activated when the Top Hopper assembly is removed to help prevent accidental starting. Fig. 6



• **OPERATION**

Read and understand the safety instructions in this owner's manual before using your ECO-SHREDDER. Connect the machine to a suitable power outlet. To start the machine, place the On/Off switch located at the rear of the motor to "ON" position. Fig. 7. To stop the machine, switch to the "OFF" position.



#### • ATTACHING MULCH BAG

Place a heavy duty garbage bag over the lip of the discharge chute and secure into position using a strap. Fig. 8



#### • MAINTENANCE

Your ECO-SHREDDER has been designed for a low level of maintenance, involving routine cleaning and inspection. The motor of the machine is maintenance free and requires no attention. For best results the blades must be kept sharp at all times. The blades have dramatically less cutting power when dull. The machine will tear rather than cut when the blades are dull. When this occurs rotate the double sided blades or replace the blades immediately.

#### WARNING

Before attempting any maintenance, switch the machine off and disconnect the power cord from power source.

#### • JAMMING

If blades become jammed, switch off the machine and disconnect the power cord from the power source. Always wear gloves when attempting maintenance of the cutting chamber. Unscrew the 3 securing Top Hopper assembly knobs. Remove the Top Hopper assembly and remove the obstruction from the cutting chamber.

#### WARNING

Take extreme care not to come in contact with cutting blades. Assemble the Top Hopper in reverse order stated above.

#### WARNING

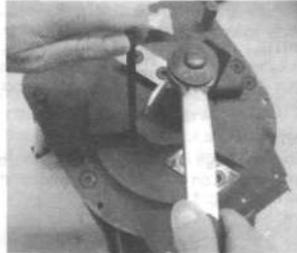
If ejection chute becomes clogged or cutting blades become jammed, under no circumstances should you place your hands in the ejection chute to try to clear the obstruction as this will lead to serious injury.

#### • V-CUTTER MAINTENANCE

- Switch the machine off and disconnect the power cord ensuring all moving parts are completely stopped.
- Wear gloves when attempting any maintenance to the cutting blades.
- If blades require replacing, ensure you use DÜROSTAR genuine parts.

#### • DISASSEMBLY

1. Unscrew the 3 Top Hopper assembly knobs and remove the Top Hopper assembly.
2. Rotate the cutter base counter clockwise and place a piece of wood between the cutter base and the cutting chamber wall so as to stop the cutting base from rotating. Fig. 9
3. Remove the center hold down bolt by turning it counter clockwise using a wrench.
4. Remove the square washer, square bushing, V-cutter and V-cutter base to expose the cutter base.



#### • SHREDDING BLADES MAINTENANCE

To inspect or replace the double sided shredding blades there is no need to remove the V-cutter or cutting base. To remove simply undo the countersunk screws with the hex wrench provided with the machine and turn them 180°. These blades are double ground and can be used on both sides. When dull on both sides replace with new blades and make sure they are screwed in tightly.

#### • ASSEMBLY

This is carried out in the reverse order to that of the disassembly but with careful inspection of all components. Ensure that the cutter base is assembled with the scraping plates facing down towards the motor and that the spring washer is situated under the head of the center hold down bolt. Fig. 10

Before replacing the top cover assembly, ensure that the V-cutter is positioned as shown in Fig. 11. Replace the Top Hopper assembly and secure with the three (3) Top Hopper assembly knobs.

Fig. 10



Fig. 11



#### • CLEANING

After use, always wipe clean the outside of the machine to remove any build up of material with a damp cloth. Clean the inside of the cutting chamber and remove any left over material.

● **TOP HOPPER – FRONT CHUTE**

The sloping chute of the Top Hopper is designed to accept leaves and small garden clippings. Shredding and mulching is achieved by natural suction of the debris through the blade chamber. Do not overload and do not feed wet, soggy material into the machine as this may clog the blade chamber and the discharge chute. Fig. 12  
If a finer mulch is required than is initially achieved, re-feed the mulch through again until the desired result is obtained.

**DO NOT FEED SOLID BRANCHES THROUGH THE TOP HOPPER CHUTE.**

● **SIDE CHUTE**

The chute located at the rear of the machine is specially designed to accept solid garden clippings and branches up to 1-1/4" in diameter.

**IMPORTANT:**

When feeding long, large diameter material, control the rate of feed by pulling back on the material so as not to stall or overload the motor. Fig. 13

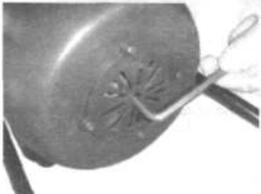


**WARNING**

Do not under any circumstances place hands inside the feeding chutes while the machine is in operation. Force feeding of debris is not necessary due to the natural suction of the machine.

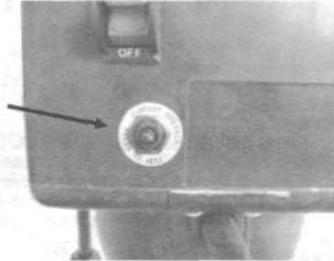
● **Motor jamming**

When the motor stopped by over thick branch or other cause, the over current protective device will be off, then turn off the switch, use the "L" hexagon spanner to turn the motor shaft through the hole on the bottom of the motor house. After resolve block, please turn on the over current protective device and ON/OFF switch, if still block, please take apart the house to resolve again.



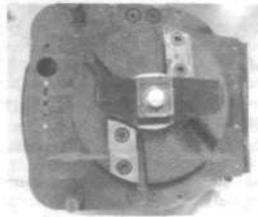
● **OVERLOAD PROTECTION AND MOTOR JAMMING**

If over feeding clogs the machine the overload protection switch may cut out the motor. To restart, first switch the machine off and disconnect the power cord. Unscrew the 3 Top Hopper assembly knobs and remove the Top Hopper assembly to remove any clogged debris from the cutting chamber. If the top cover assembly becomes jammed and will not lift off, turn the V-cutter by pushing a piece of wood through the back chute of the Top Hopper to rotate the V-Cutter to enable the top cover assembly to be removed. Reset the motor overload protection switch. Fig. 14.



**IMPORTANT:**

Before replacing top cover assembly ensure that the V-cutter is positioned as shown in Fig. 15. Replace the top cover assembly together with the three (3) Top Hopper assembly knobs ensuring they are tight.



● **CONTACT INFORMATION:**

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1669 Puddingstone Dr. Fax: 800-629-2329  
La Verne, CA. 91750  
Email : customer\_service@maxtool.com

## DUROSTAR POWER EQUIPMENT WARRANTY

Subject to the warranty conditions below, this DUROSTAR product, (hereafter called "the Product"), is warranted by DUROSTAR to be free from defects in material and workmanship for a period of 12 months from the date of original purchase covering both parts and labor. Under the terms of this warranty, the repair or replacement of any part shall be at the option of DUROSTAR or its authorized agent. Should service become necessary during the warranty period, the owner should contact DUROSTAR directly. In order to obtain warranty service the owner must provide the sales invoice and Warranty Certificate to confirm date of purchase. This product is sold by the retailer or agent as principal and the retailer has no authority from the company to give any additional warranty or guarantee on the DUROSTAR'S behalf except as herein contained or herein referred to.

### **Warranty Conditions:**

This warranty only applies provided that the Product has been used in accordance with the manufacturer's recommendations under normal

use and reasonable care (in the opinion of DUROSTAR) and such warranty does not cover consumable components, damage, malfunction or failure resulting from misuse, neglect, abuse or used for a purpose for which it was not designed or is not suited and no repairs, alterations or modifications have been attempted by other than an Authorized Service Agent. This warranty will not apply if the tool is damaged by accident or if repairs arise from normal wear and tear.

Accessories such as blades are excluded from this warranty. Normal consumable parts such as carbon brushes, bearings, blades and cutters are excluded from this warranty.

DUROSTAR accepts no additional liability pursuant to this warranty for the costs of traveling or transportation of the Product to and from the service dealer or agent.

Nothing herein shall have the effect of excluding, restricting or modifying any condition, warranty, right or liability imposed, to the extent only that such exclusion, restriction or modification would render any term herein void.

### **DUROSTAR**

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### **THIS WARRANTY FORM**

#### **SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES.**

For your record and to assist in establishing date of purchase (necessary for in-warranty service), please keep your purchase invoice and this form, completed with the following particulars.

PURCHASED FROM: \_\_\_\_\_

ADDRESS OF RETAILER: \_\_\_\_\_

DATE: \_\_\_\_\_ MODEL NO: \_\_\_\_\_ SERIAL NO: \_\_\_\_\_

Present this form with your Purchase Invoice when Warranty Service is requested.