

# DRAPER®

## INSTRUCTIONS FOR 1200W Lawn Raker/Scarifier 2 in 1

Stock No.36644

Part No.LAR1200

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



DRAPER®

### GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself. All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

# 1. TITLE PAGE

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## **1.1 INTRODUCTION:**

USER MANUAL FOR:

**1200W LAWN RAKER/SCARIFIER 2 IN 1** Stock no. 36644

Part no. LAR1200

## **1.2 REVISIONS:**

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Date second published July 2014

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As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://www.drapertools.com/b2c/b2cmanuals.pgm>

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## **1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:**

**WARNING!** Information that draws attention to the risk of injury or death.

**CAUTION!** Information that draws attention to the risk of damage to the product or surroundings.

## **1.4 COPYRIGHT © NOTICE:**

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## 3. GUARANTEE

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### 3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Helpline (023) 8049 4344.

A proof of purchase must be provided with the tool.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee period covering parts/labour is 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase. The guarantee is extended to 24 months for parts only. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.

# 4. INTRODUCTION

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## 4.1 SCOPE

The sole purpose of this machine is to aid in re-generating domestic lawns by combing out grass, thatch and moss or cutting vertical scores into the lawn face using rotating tines along a horizontal axis. Any other operation is considered misuse.

## 4.2 SPECIFICATION

Stock no .....	36644
Part no .....	LAR1200
Rated voltage .....	230V~50Hz
Rated input .....	1200W
Revolutions per minute (max.) .....	3400r/min <sup>-1</sup>
Working height .....	Variable (+10 to -5mm)
Working width	
Blades .....	310mm
Tines .....	330mm
Collection capacity .....	40Ltr
Sound pressure level (Lpa) .....	73.7dB(A)
Sound power level (Lwa)	
Measured .....	93.7db(A)
Guaranteed .....	99db(A)
Vibration level .....	4.12m/s <sup>2</sup> , K=1.5m/s <sup>2</sup>
Weight (machine only) .....	11.0kg

## 4.3 HANDLING & STORAGE

The environment will have a negative result on its operation if you are not careful. And if not cleaned and maintained correctly or regularly the machine will not perform at its best.

## 5. HEALTH & SAFETY INFORMATION

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### **5.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE**

When using any type of power tool there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the tool will help reduce the risk of injury.

**Read the instruction manual fully.** Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

**Keep the work area tidy and clean.** Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilt on the floor could result in you slipping.

**Find a suitable location.** If the machine is bench mounted; the location should provide good natural light or artificial lighting as a replacement. Avoid damp and dust locations as it will have a negative effect on the machine's performance.

If the machine is portable; do not expose the tool to rain. In all cases do not operate power tools near any flammable materials.

**Beware of electric shock.** Avoid contact with earthed surfaces; because they can conduct electricity if there is an electrical fault with the power tool. Always protect the power cable and route it away from danger.

**Keep bystanders away.** Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

**Unplug and house all power tools that are not in use.** A power tool should never be left unattended while connected to the power supply. They must be housed in a suitable location, away locked up and from children.

**Do not overload or misuse the tool.** All tools are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use a power tool (or adapt it in any way) for an application it is not designed for. Select a tool appropriate for the size of the job. Overloading a tool will result in tool failure and user injury: This covers the use of accessories.

**Dress properly.** Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery: This can also result in parts of body being pulled into the machine.

Clothing should be close fitted, with any long hair tied back and jewellery and neck ties removed. Footwear must be fully enclosed and have a nonslip sole.

## 5. HEALTH & SAFETY INFORMATION

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**Wear personal protective equipment (PPE).** Dust, noise, vibration and swarf can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes; wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions; however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

**Do not breathe contaminated air.** If the work creates dust or fumes; connect the machine (if possible) to an extraction system either locally or remotely. Working outdoors can also help if possible.

**Move the machine as instructed.** If the machine is hand held, do not carry it by the power supply cable. If the product is heavy; employ a second or third person to help move it safely or use a mechanical device. Always refer to the instructions for the correct method.

**Do not overreach.** Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

**Maintain your tools correctly.** A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable; keep blades sharp; moving parts clean, oiled or greased; handles clean; and emergency devices working.

**Wait for the machine to stop.** Unless the machine is fitted with a safety brake; some parts may continue to move due to momentum. Wait for all parts to stop; then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

**Remove and check setting tools.** Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

**Prevent unintentional starting.** Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable; do not hold the machine near the switch and take care when putting the machine down; that nothing can operate the switch.

**Carefully select an extension lead.** Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors; use an extension lead also suitable for that environment. When using an extended lead, select one capable of handling the current (amps) drawn by the machine in use. Fully extend the lead regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will both cause the cable to heat up and can result in fire.

**Concentrate and stay alert.** Distractions are likely to cause an accident. Never operate a power tool if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

**Have this tool repaired by a qualified person.** This tool is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified; using only original parts supplied by the manufacturer: This will ensure the tool remains safe to use.

## 5. HEALTH & SAFETY INFORMATION

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### 5.2 SPECIFIC SAFETY INSTRUCTION FOR LAWN RAKE USE

1. Training:
  - a. Read the instructions carefully. Be familiar with the controls and the proper use of the machine.
2. Preparation:
  - a. Never allow people unfamiliar with these instructions or children to use the machine. Local regulations can restrict the age of the operator.
  - b. Never operate the machine while people, especially children, or pets are nearby.
  - c. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
  - d. Wear ear protection and safety glasses at all times while operating the machine.
  - e. While operating the machine, always wear substantial footwear and long trousers. Do not operate the machine when barefoot or wearing open sandals.
  - f. Thoroughly inspect the area where the machine is to be used and remove all stones, sticks, wires, bones and other foreign objects.
  - g. Before using, always visually inspect to see that the tines, bolts are not worn or damaged. Replace worn or damaged tines and bolts in sets to preserve balance.
3. Operation:
  - a. Operate the machine only in daylight or in good artificial light.
  - b. Avoid operating the machine in wet grass or take additional precautions to avoid slipping.
  - c. Always be sure of your footing on slopes.
  - d. Walk, never run.
  - e. Always work across the face of slopes, never up and down.
  - f. Exercise extreme caution when changing direction on slopes.
  - g. Do not operate the machine on steep slopes.
  - h. Use extreme caution when reversing or pulling the machine towards you.
  - i. Stop the tines if the machine has to be tilted for transportation. Do not operate the tines when crossing surfaces other than grass, and when transporting the machine to and from the working area.
  - j. Never operate the machine with defective guards, or without safety devices, for example deflectors and/or catchers, in place.
  - k. Switch on the motor carefully according to instructions and with feet well away from the tines.
  - l. Do not tilt the machine when switching on the motor, except if the machine has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator.
  - m. Do not start the motor when standing in front of the discharge chute.
  - n. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
  - o. Never pick up or carry a machine while the motor is running.
  - p. Disconnect the plug from the mains:
    - before clearing blockages or unclogging chute.
    - before checking, cleaning or working on the machine.
    - after striking a foreign object. Inspect the machine for damage and make repairs before restarting and operating the machine.
    - if the machine starts to vibrate abnormally (check immediately).
    - whenever you leave the machine.
4. Maintenance & Storage:
  - a. Keep all nuts, bolts and screws tight to be sure the machine is in a safe working condition.
  - b. Check the catcher frequently for wear or deterioration.
  - c. Examine the machine regularly and replace worn or damaged parts for safety.



## 5. HEALTH & SAFETY INFORMATION

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### ***5.3 CONNECTION TO THE POWER SUPPLY***

Make sure the power supply information on the machine's rating plate are compatible with the power supply you intend to connect it to.

This product comes supplied with a UK standard 3 pin plug fitted. It is designed for connection to a domestic power supply rated at 230V AC.

It is a Class 2 machine (double insulated); is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instruction supplied with the extension lead.

This product requires no earth connection as supplementary insulation is applied to the basic insulation to protect against electric shock in the event of failure of the basic insulation.

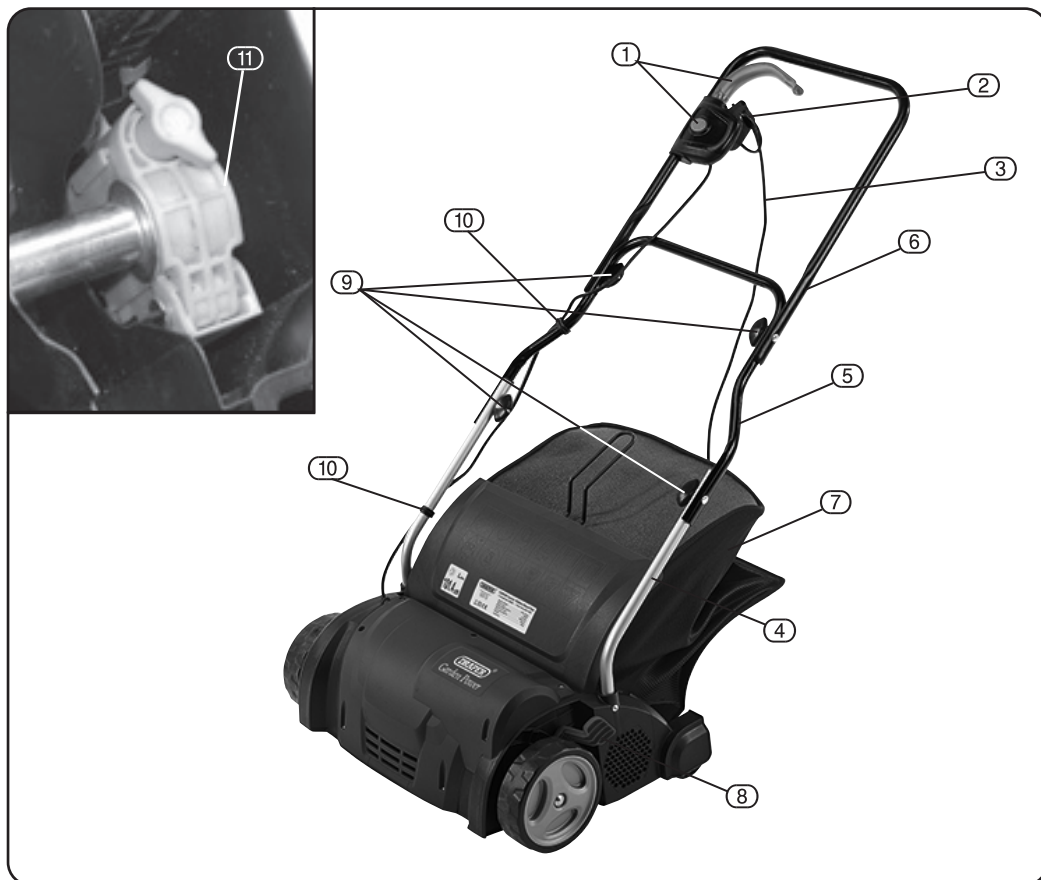
Apart from replacing the fuse in the plug, no other electrical work is recommended on this product.

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## 6. TECHNICAL DESCRIPTION

### 6.1 IDENTIFICATION



- |                               |  |
|-------------------------------|--|
| ① Operator presence controls. | ⑦ Catcher/Grass box.                     |
| ② Cable restraint.            | ⑧ Variable height adjustment.            |
| ③ Approved cable and plug.    | ⑨ Handle assembly/storage locking knobs. |
| ④ Handle (lower section).     | ⑩ Cable clip                             |
| ⑤ Handle (mid section)        | ⑪ Bearing lock                           |
| ⑥ Handle (top section)        |  |

## 7. UNPACKING & CHECKING

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### 7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing; please contact the Draper Helpline (the telephone number appears on the Title page) and do not attempt to use the product.

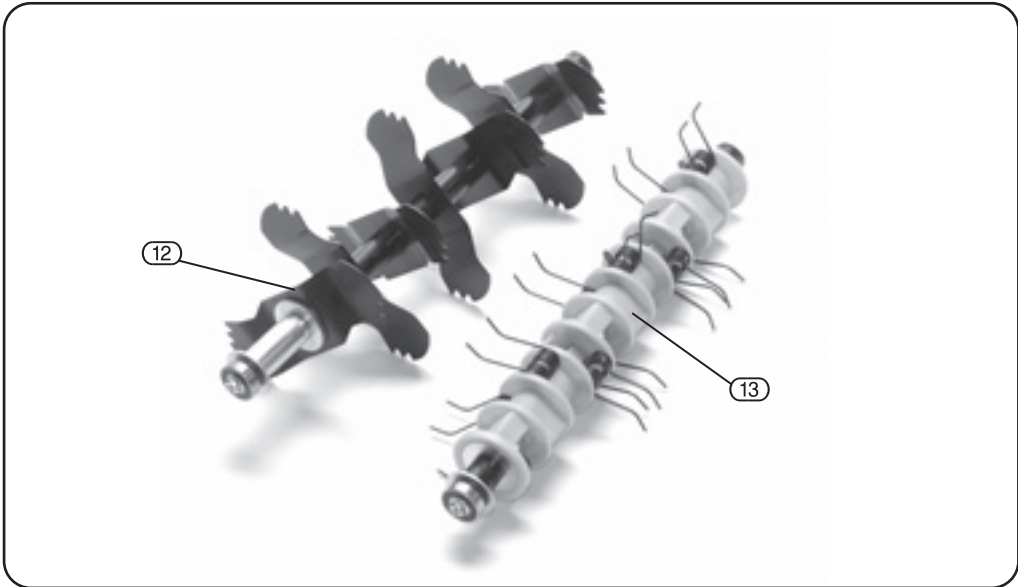
The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

Warning! Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.

### 7.2 WHAT'S IN THE BOX?

As well as the Lawn raker/scarifier; there are several parts not fitted or attached to it.



(12) Scarifier drum.

(13) Rake drum

## 8. PREPARING THE LAWN RAKER/SCARIFIER

### 8.1 HANDLE ASSEMBLY FIGS. 1 - 3

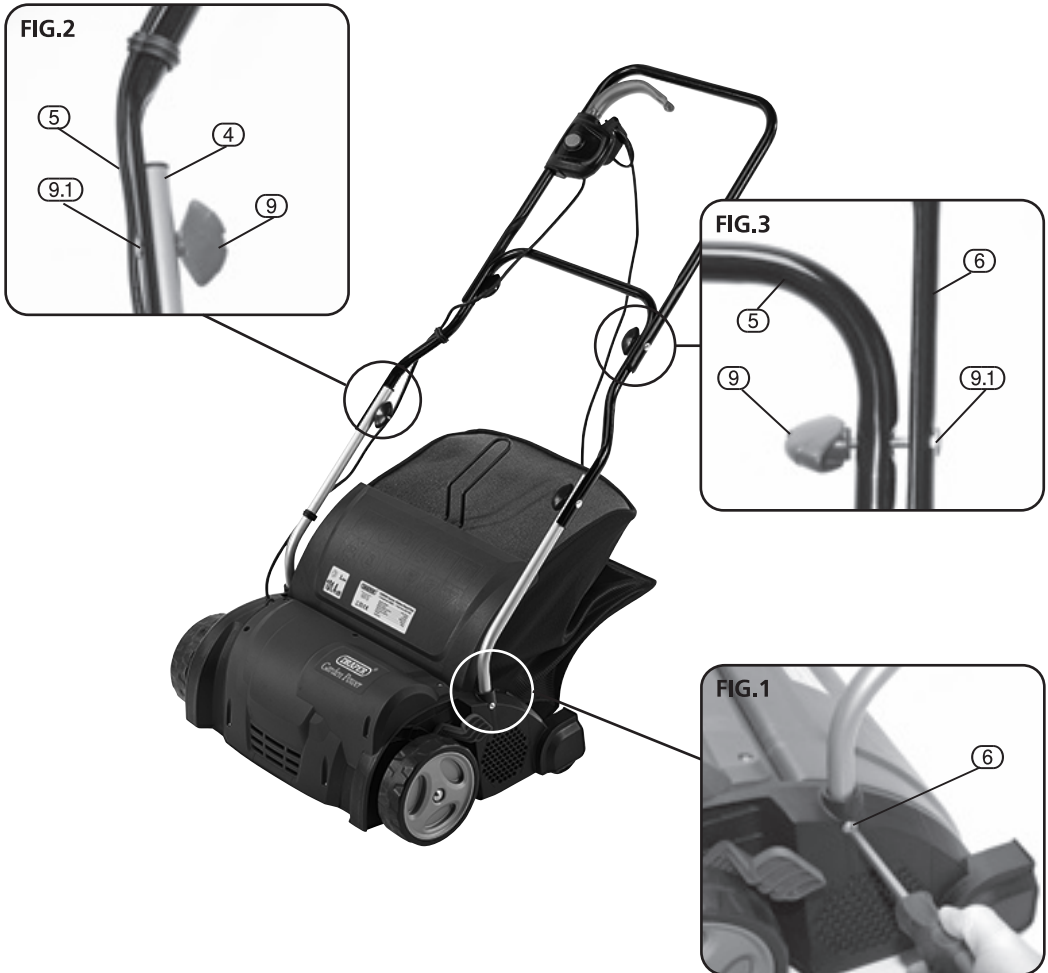
Carefully read the instructions for safe operation of the machine.

Note: Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

- Slot the handle lower section (4) into holes on body, and secure with screw provided.
- Assemble the handle mid section (5) over the outside of the lower handles (4) so the concave face of the handle is innermost.

Push bolts (9.1) inward through the mid section (locating the square shoulder) and through the lower section handle before securing with locking knob (9).

- The top section (6) of the handle is secured the same method as the mid section (5).

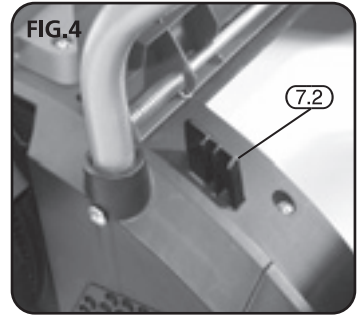


## 8. PREPARING THE LAWN RAKER/SCARIFIER

### 8.2 CATCHER/GRASS BOX - FIG. 4 & 5

Lift flap (7.1) to fully expose the rear discharge opening. To attach the catcher (7), lower the front of the catcher over the moulding on bodywork (7.2) then release the flap down onto the top of the catcher.

**NOTE:** Regularly empty the catcher and prevent the discharge opening from becoming blocked.



#### **WARNING:**

Use of this product can pose a danger to wildlife. Before attempting to use this product check the area, particularly

long grass and under bushes, for signs of life and relocate if necessary.

**NOTE:** Not all animals will be deterred by the noise of the product alone.

**NOTE:** Warning: Beware of blades. Blades continue to rotate after the motor is switched off. Keep the flexible supply cord away from the blades. Always keep bystanders away.

Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

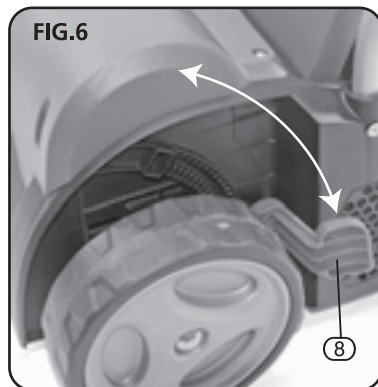
## 9. OPERATING THE LAWN RAKER/SCARIFIER

### 9.1 WORKING POSITION CONTROL - FIG. 6

**WARNING:** Do not touch the tines before the machine is disconnected from the supply and the tines have come to a complete stop.

The depth lever (8) is located at the front left wheel (when standing at the rear).

To adjust the height/depth of cut pull the lever away from the body and raise or lower the lever to the required height/depth, release the lever which will spring back into the locating ridges on the side of the body.



### 9.2 CABLE RESTRAINT - FIG.7

Hook the cable into the restraint (2) to protect the lead from accidental damage.

**WARNING:** Keep extension cords away from the tines. The tines can cause damage to the cords and lead to contact with live parts.

Connect the machine only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 30mA. Prior to use check the supply and extension cord for signs of damage or ageing.



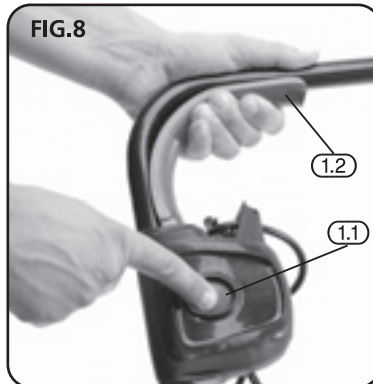
### 9.3 OPERATOR PRESENCE CONTROL - FIG.8

As a safety feature the control is designed so that it will automatically interrupt power to the drive when the operator's actuating force is removed.

To initiate starting, for safety it is necessary to tilt the machine while keeping both hands in the operating position before returning the machine to the ground.

To start the rake, depress and hold the release button (1.1). Pull the switch lever (1.2). The rake will start. Release button (1.1).

To stop the rake release the lever (1.2).



**WARNING:** Beware of sharp tines. Tines continue to rotate after the motor is switched off. Remove the plug from mains before maintenance or if the cord is damaged. Keep the supply flexible cord away from the tines.

## 9. OPERATING THE LAWN RAKER/SCARIFIER

### 9.4 TINE DRUM EXCHANGE - FIGS. 9 - 11

**NOTE:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

Turn the machine so the underside is uppermost.

Unwind moulded wingnut (11.1) by hand. Lift the bearing up to allow the tine drum sideways movement. Slide the drum to the left to disengage the point of drive.

Installing the other tine drum uses the same steps in reverse.

**NOTE:** Ensure the hexagon end (11.2) of the tine drum shaft correctly engages into the drive output (Q). Also take care that the bearing plate is correctly orientated. Failure to fit this correctly will result in the tines not being horizontal.

**WARNING:** This machine is not suitable for use by children.

Do not use the scarifier if the cords are damaged or worn.

Incase of abnormal vibration, stop the machine immediately, disconnect the mains cord and inspect for damage.

Do not connect a damaged cord to the supply or touch a damaged cord before it is disconnected from the supply. A damaged cord can lead to contact with live parts.

Disconnect the supply (i.e. remove the plug from the socket):

Whenever leaving the machine unattended.

Before cleaning a blockage.

Before checking, clearing or working the machine.

After striking a foreign object.

Whenever the machine starts to vibrate abnormally.

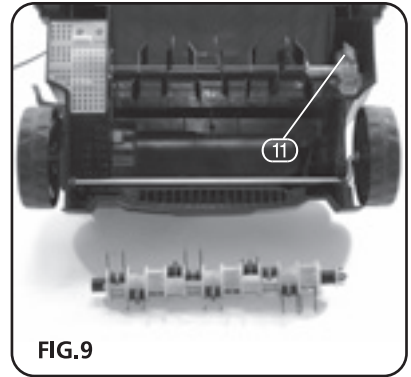


FIG.9

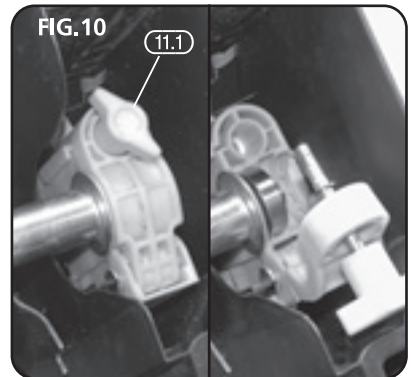


FIG.10

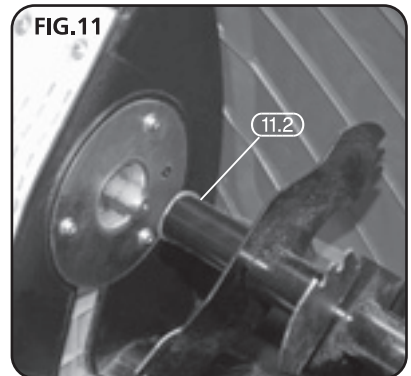


FIG.11



## 10. MAINTENANCE

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### **10.1 MAINTENANCE**

Inspect the rake before each use for damaged or loose parts.

Clean the rake after each use and ensure the tines are undamaged.

Protect the tines against rusting by spraying them with oil or rust inhibitor when the rake is stored for the winter.

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition. The motor must be correctly ventilated during operation. For this reason avoid blocking the air inlets. If replacement of the supply cord is necessary this has to be done by the manufacturer or his agent in order to avoid a safety hazard. Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

# 11. TROUBLESHOOTING

## 11.1 TROUBLESHOOTING

FAULT	REMEDY
Rake will not start	<ol style="list-style-type: none"><li>1. Check power supply.</li><li>2. Check the plug fuse and replace if necessary</li><li>3. With the rake disconnected from the power supply check the drum rotates. If the drum does not move freely, contact an authorised service agent.</li></ol>
Rake vibrates in use.	<ol style="list-style-type: none"><li>1. Stop using immediately. Disconnect the rake from the power supply, wait until the drum has stopped and then check to see if the drum bolts are loose, tighten if necessary. If the drum bolts are already tight contact an authorised service agent.</li></ol>
Rake does not pick up debris.	<ol style="list-style-type: none"><li>1. Catcher is full. Empty.</li><li>2. Grass is wet. Wait until the grass has dried.</li><li>3. The tines are clogged. Disconnect the rake from the power supply and clean the drum.</li><li>4. Damaged tines. Replace tines.</li></ol>

Replacement rake tines assembly (13) Stock No.38566.  
Available through your local Draper stockist.

Replacement scarifier blade assembly (12) Stock No.38567.  
Available through your local Draper stockist.

# 12. EXPLANATION OF SYMBOLS

## 12.1 EXPLANATION OF SYMBOLS

	Class II construction (Double insulated).		Keep supply flexible cord away from the tines.
	Do not dispose of WEEE* as unsorted municipal waste.		
	Single value noise marking. (Maximum declared A-Weighted sound power level in decibels).		
	Do not expose to moisture.		Keep bystanders away.
	Warning.		
	Read instruction handbook.		Beware of sharp tines. Tines continue to rotate after the motor is switched off - remove plug from mains before maintenance or if cord is damaged.
	Wear eye protection.		
	WARNING. Can pose a danger to wildlife.		

\* Waste Electrical & Electronic Equipment.

## 13. DISPOSAL

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### 13.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE\* as unsorted municipal waste.



\* Waste Electrical & Electronic Equipment.





## CONTACTS

- **DRAPER TOOLS LIMITED,**  
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- **Sales Fax:** (023) 8049 4209
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contact the Draper Tools Helpline for details of an  
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