# HARRIER
# 41

## BATTERY ELECTRIC

**CODE - 313N**

# OWNER'S HANDBOOK

**(English Version)**
**FROM SERIAL NO: 313N001795** **HANDBOOK: 313005 (REV .4.)**
**ISSUE 10.08.98**

## CERTIFICATE OF CONFORMITY

**I, the undersigned M.A. Wright, of ;**

HAYTER LIMITED. Spellbrook, Bishop's Stortford,
Herts, CM23 4BU,
ENGLAND.

| | |
|---|---|
| **certify that the lawnmowers;** | CODE 313N |
| 1. Model No. | 313N |
| 2. Category. | Motor |
| 3. Make. | Hayter |
| 4. Type. | Rotary |
| 5. Motor - Manufacturer. | Briggs & Stratton |
| - Type. | BE 2011010101 |
| - Speed of rotation during test. | 3300rpm |

**Conforms to the specifications of Directive 84/538/EEC as adapted to technical progress by Directive 87/252/EECand amended by Directive 88/180/EEC.**

| | |
|---|---|
| **Guaranteed maximum sound power level.** | 96 dB(A) |
| - Type of cutting device. | Cutterbar |
| - Width of cutting device. | 41 cm |
| - Speed of rotation of the cutting device. | 3300 rpm |

TESTED AT SUDBURY,
SUFFOLK, ENGLAND.

Signed:  Date: 16-02-96

M.A. Wright
( Technical Director ).

## EC DECLARATION OF CONFORMITY

Company Name HAYTER LIMITED.

Company Address
Spellbrook
Bishop's Stortford
Herts. CM23 4BU
ENGLAND.

Machine Type No. Code 313N
Model Harrier 41 - Battery Electric

Directives complied with:
89/392/EEC amended by 91/368/EEC, 93/44/EEC and 93/68/EEC.
Essential Health & Safety Requirements Relating to the Design & Construction of Machinery and Safety Components.
84/538/EEC amended by 87/252/EEC and 88/180/EEC Permissible Sound Power Levels of Lawn Mowers.
89/336/EEC amended by 92/31/EEC Electromagnetic Compatibility.

Standards Used: EN836. EN292. EN50081 and EN50082.

I declare on behalf of Hayter Limited that these machines conform to the EC Essential Health & Safety Requirements.

Signed:  Date: 10.08.98

M.A. Wright
( Technical Director ).

## VIBRATION INFORMATION

Lawnmower vibration information. RMS acceleration measured in 3 - axes at operators contact position on the handlebars. **CODE 313N = 3.0ms$^{-2}$**

| CONTENTS | Page No. |
|---|---|
| **INTRODUCTION.** | **1.2** |
| **WARRANTY.** | **1.3** |
| **SAFETY PRECAUTIONS.** | **1.4 - 1.7** |
| **SPECIFICATIONS.** | **1.8** |
| **ASSEMBLY INSTRUCTIONS.** | **1.9 - 1.11** |
| General assembly. | 1.9 |
| Assembling the mower for the first time. | 1.10 - 1.11 |
| **OPERATING THE MOWER.** | **1.12 - 1.19** |
| Before starting the mower. | 1.12 |
| To start the mower. | 1.12 |
| Stopping the mower. | 1.12 |
| Safety notice. | 1.13 |
| Overload protection. | 1.14 |
| Height of cut. | 1.14 |
| Travel. | 1.15 |
| Turning the mower. | 1.15 |
| Mowing with grass collection. | 1.16 |
| Mowing without grass collection. | 1.17 |
| Heavy growth. | 1.17 |
| Transporting the mower. | 1.17 |
| Cutterbar operation. | 1.18 |
| Mowing and grass care tips. | 1.18 - 1.19 |
| **MAINTENANCE.** | **1.20 - 1.24** |
| Battery charging | 1.20 - 1.21 |
| Motor. | 1.22 |
| Switch control unit. | 1.22 |
| Grassbag. | 1.22 |
| Cleaning. | 1.22 |
| Securing nuts and bolts. | 1.22 |
| Lubrication. | 1.23 |
| Cutterbar. | 1.23 - 1.24 |
| **PREPARING THE MOWER FOR STORAGE.** | **1.25** |
| **FAULT FINDING.** | **1.26 - 1.27** |
| **313N PARTS LIST.** | **2.1 - 2.2** |
| **313N LOWER MAINFRAME DIAGRAM.** | **2.3** |
| **313N UPPER MAINFRAME DIAGRAM.** | **2.4** |
| **NOTES.** | **2.5** |
| **CUSTOMER INFORMATION.** | **2.6** |

## INTRODUCTION

Thank you for purchasing a **Hayter** mower. The following pages are designed to help you gain safe and efficient service from your machine.

**IMPORTANT:** This 'Owners Handbook' should be regarded as part of the machine as it gives essential information regarding machine safety, operation, maintenance and specifications. Read and understand this handbook prior to operating your machine for the first time. Make sure you are familiar with all the controls and points of regular maintenance. If you have any doubts, consult your **Hayter** authorised dealer who will be pleased to give you assistance.

**IMPORTANT:** This machine is designed solely for use in a domestic grass cutting environment. Use in any other way is considered as contrary to the intended use. Compliance with and strict adherence to the conditions of operation, service and repair as specified in this handbook also constitute essential elements of the intended use.
This machine should be operated, serviced and repaired only be persons who are familiar with its particular characteristics and who are acquainted with the relevant safety procedures.
The safety precautions listed here in and all other generally recognised regulations on safety must be observed at all times.
Any arbitrary modifications carried out to this machine may relieve Hayter Limited of liability for any resulting damage or injury.

All **Hayter** mowers are robustly constructed and designed for efficient economical performance under normal mowing conditions. Correct operation and maintenance will ensure a long and satisfactory service life. Prior to despatch from our factory every effort is made to ensure your machine arrives in perfect condition. Your dealer will carry out a pre-delivery inspection to ensure that there has been no transit damage prior to installation. **Please allow your dealer to familiarise you with the controls and safety features of the machine during installation.**

Throughout this handbook all references to left hand and right hand are as viewed from behind the handlebar, facing in the direction of forward travel.

This handbook is based on information available at the time of publication.
**HAYTER LIMITED** reserve the right to make changes at any time without notice.

## LIMITED WARRANTY

**Hayter Limited** warrants to the original user/purchaser that this unit shall be free from defects in material and workmanship under normal use and service for a period of **three years** from the date of purchase. The manufacturer of the engines furnish their own warranty and services are provided through their authorised network (Refer to "Engine Warranty Statement"). To qualify for the full benefit of the warranty, the warranty registration card must be returned within 60 days of purchase. Subject to the conditions and exclusions noted in this limited warranty, we shall at our option, repair or replace any warranted part during the applicable period. If you are in doubt or experience any difficulty, please consult a Hayter Authorised Service Dealer for clarification.

To qualify for the extended warranty (second and third year) of the three year limited warranty the machine must have annual services carried out by an Authorised Hayter Service Dealer. These chargeable services should be carried out within 12 and 24 months of the date of purchase.

Excluded from the extended warranty period are those items which are subject to normal wear and tear e.g. tyres, wheels, cutterblades, cables, batteries and other consumable wearing parts.

**All** consumer machines which are fitted with a **genuine** Hayter friction disc as original equipment before use, are covered by a **Lifetime Warranty** against the engine crankshaft bending. **Note:** friction washers, blade brake units and other such devices are not applicable. Only machines fitted with a **genuine** Hayter friction disc, which are used in accordance with the recommended operating and maintenance procedures, are covered.

This warranty does not apply to any unit that has been tampered with, altered, misused, abused or used for hire, and will become invalid if non genuine Hayter parts are fitted. This warranty does not cover minor mechanical adjustments unless they are due to defective material or workmanship. Consult the Owner's Handbook or a Hayter Authorised Service Dealer for assistance when making these adjustments.

**A warranty period of 90 days applies to machines used for commercial purposes.**

To make a warranty claim, return the unit to a Hayter authorised dealer along with proof of purchase stating the machine serial number and date of purchase. The service receipt(s) or this Owners Handbook with the 1st/2nd year service boxes fully completed, must be produced as proof of entitlement to the extended warranty period. Subject to the conditions and exclusions in this limited warranty, the authorised dealer will, at our option, repair or replace any warranted part within the duration of the warranty period.

This limited warranty gives you specific legal rights and is in addition to any statutory rights to which you may be entitled and your statutory rights are not affected by this warranty. If you need additional information concerning this written warranty, or assistance in obtaining services, please write to : **HAYTER LIMITED, Service Department, Spellbrook, Bishop's Stortford, Hertfordshire CM23 4BU**

**UK ONLY:** Details of your local **Hayter** authorised dealer are contained in Yellow Pages or contact:- Freephone 0800 616298.

1st Year Service Record

DEALER STAMP

Date.....

Signed.....

2nd Year Service Record

DEALER STAMP

Date.....

Signed.....

Issue: 12.10.00

## SAFETY PRECAUTIONS

**THIS SYMBOL MEANS BE ALERT! YOUR SAFETY IS INVOLVED. WHEN YOU SEE THIS SYMBOL BE ALERT TO THE POSSIBILITY OF INJURY. CAREFULLY READ THE MESSAGE THAT FOLLOWS AND INFORM OTHERS. EXERCISE GREAT CARE AND FOLLOW THE ADVICE GIVEN TO AVOID POTENTIALLY HAZARDOUS SITUATIONS. The Harrier 41 Battery Electric Mower is perfectly safe if used correctly. Failure to observe the following simple precautions may result in serious injury.**

**Training:**

Read the instructions carefully. Ensure that you are familiar with the controls and the proper use of the equipment. Learn how to stop the mower quickly in an emergency.

Insert the safety key directly before the mower is to be operated. At all other times store the safety key in a safe place away from the mower.

Never allow children or people unfamiliar with these instructions to use the mower.

Never mow while people , especially children, or pets are nearby.

Keep in mind that the user is responsible for accidents or hazards occurring to other people or their property.

**Preparation:**

Always wear substantial footwear and long trousers while mowing. Do not operate the equipment when barefoot or wearing sandals.

Thoroughly inspect the area where the mower is to be used and remove all objects which may be thrown by the machine.

Always ensure that the mower is in a safe operating condition. Frequently check all nuts, bolts and screws for tightness. Use only genuine Hayter parts.

**SAFETY PRECAUTIONS** **Continued.**

A damaged cutterbar or loose fixing bolt are major hazards. Before use, visually inspect the cutting mechanism to ensure that it is in good condition. A damaged cutterbar must be replaced immediately with a genuine **Hayter** replacement part. A cutterbar which is slightly worn can be resharpened. Ensure that both cutting edges are resharpened equally to maintain balance. An unbalanced cutterbar may cause serious damage to your machine.
Refer to "Maintenance."

**Operation:**

**WARNING: REMOVE THE SAFETY KEY AND BATTERY PACK.**

- Before clearing blockages or unclogging the discharge chute.
- Before cleaning, checking or working on the mower.
- Before carrying the mower.
- After striking a foreign object. Inspect the mower for damage and make repairs before restarting and operating the mower.
- If the mower starts to vibrate abnormally ( check immediately ).

**WARNING: REMOVE THE SAFETY KEY WHENEVER YOU LEAVE THE MOWER.**

**WARNING: THE CUTTERBAR CAN CONTINUE TO ROTATE AFTER THE MACHINE IS SWITCHED OFF.**

Mow only in daylight or in good artificial light.

Never operate the mower in rain or wet grass conditions.

Always be sure of your footing on slopes.

Walk, never run.

Mow across the face of slopes, never up and down.

Exercise extreme caution when changing direction on slopes.

Do not mow excessively steep slopes.

Use extreme caution when reversing or pulling the mower towards you.

**SAFETY PRECAUTIONS** **Continued.**


Switch off if the mower has to be tilted for transportation when crossing surfaces other than grass and when transporting the mower to and from the area to be mowed.


Never operate the mower unless the guards are securely in position and in good condition.


Start the mower carefully, with feet well away from the cutterbar.


Do not tilt the front of the mower more than is absolutely necessary when starting. Never lift the rear of the mower.


Do not put hands or feet near or under rotating parts.


Never pick up or carry a mower while it is running .


Do not lift the rear deflector plate whilst the mower is in operation, particularly when using without a grassbag.

**Maintenance and storage:**


Always remove the safety key and battery pack before carrying, cleaning or servicing any part of the mower.


Always remove the safety key when storing the mower.


Keep all nuts, bolts and screws tight to ensure that the mower is in a safe working condition.


Check the grassbag frequently for wear or deterioration and replace if necessary.


Replace worn or damage parts for safety.


Never attempt to dispose of the battery pack by burning as the batteries may explode.


Do not mutilate the battery pack. Released electrolyte is toxic if swallowed. It is corrosive and may damage the eyes or skin.


Never open the battery pack casing as this is a non-serviceable part. Conducting items such as watches, rings, bracelets etc. can short the batteries and cause burns.


Never charge the battery pack in the rain or in a wet location.

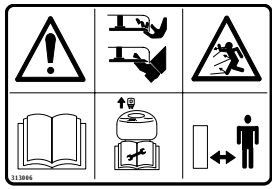

Never attempt to charge the battery pack with equipment other than that supplied with the mower. Incorrect use may result in electric shock, overheating or leakage of corrosive liquid from the batteries.

## DECALS

### WARNING DECAL: Part No. 313006

WARNING - CAUTION RISK OF DANGER - SAFETY ALERT.

DANGER OF SEVERING TOES OR FINGERS IN CUTTING MECHANISM.



DANGER OF BEING HIT BY THROWN OBJECTS.
KEEP BYSTANDERS AT A SAFE DISTANCE FROM THE MACHINE.

CAREFULLY READ THE OWNER'S HANDBOOK BEFORE USING THE MACHINE.

SWITCH OFF AND REMOVE SAFETY KEY FROM BATTERY PACK BEFORE PERFORMING MAINTENANCE OR REPAIR WORK.

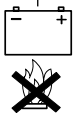
DO NOT BURN BATTERY PACK. BATTERIES MAY EXPLODE.

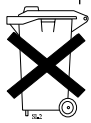
THE BATTERY PACK MUST NOT BE DISPOSED OF WITH GENERAL WASTE.

DO NOT CLEAN BATTERY PACK WITH WATER. DO NOT OPERATE OR CHARGE BATTERY PACK IN RAIN OR WET ENVIRONMENT

BATTERY PACK CAN BE RECYCLED







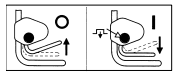
**CUT HEIGHT ADJUSTMENT DECAL :**
**Part No. 320006**



**CUT HEIGHT ADJUSTMENT DECAL :**
**Part No. 305113**




**SWITCH DECAL :**
**Part No. 309041**

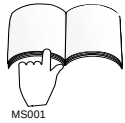


## SPECIFICATIONS

| MODELS | CODE 313N |
|---|---|
| **Operating voltage** | 24-V DC |
| **Motor rating** | 746 W |
| **Charger supply** | 220 - 240 V⎓ 50 Hz |
| **Fuse rating (Charger)** | 3 AMP |
| **Weight** | 28 Kg ( 61 lbs ) |
| **Cutterbar speed** | 3300 rpm |
| **Cutting width** | 410 mm ( 16" ) |
| **Cutting height** | 12 - 65 mm ( 0.5 - 2.6 inch ) |
| **Operator ear noise level** | $L_{pA}$ 79.6 dB ( A ) |
| **Sound power level** | $L_{WA}$ 96 dB ( A ) |
| **Overall dimensions** | 1,270 x 451 x 1,041mm ( 50 x 17.75 x 41 inch ) |

## ASSEMBLY INSTRUCTIONS

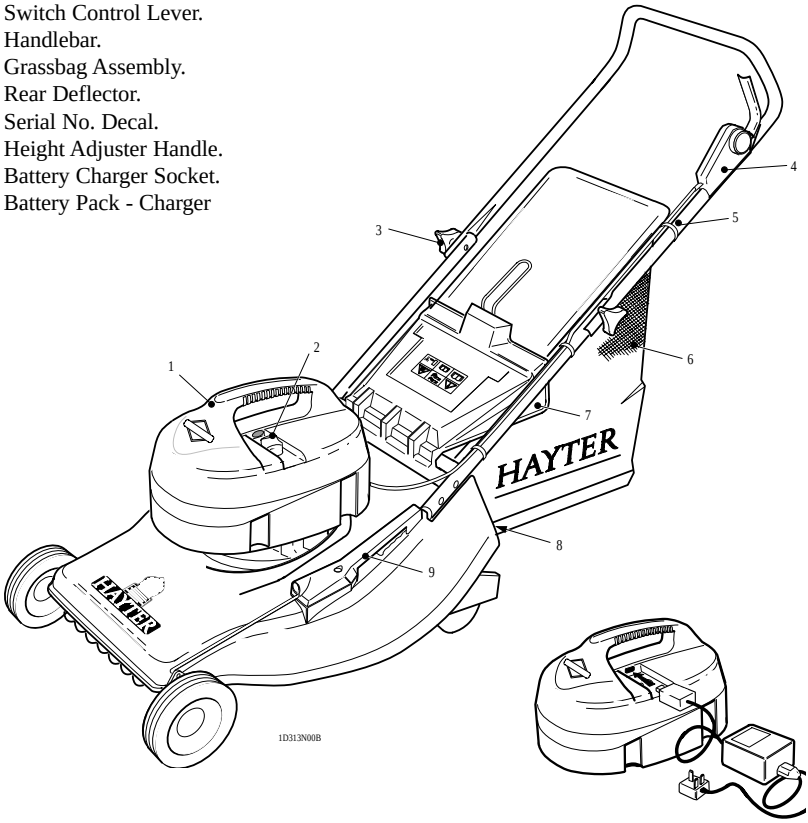
### SAFETY NOTICE




**Before using the mower, read the owner's handbook carefully. Pay particular attention to the safety precautions.**

### GENERAL ASSEMBLY

1. Battery pack
2. Safety key
3. Handlebar Securing Knob.
4. Switch Control Lever.
5. Handlebar.
6. Grassbag Assembly.
7. Rear Deflector.
8. Serial No. Decal.
9. Height Adjuster Handle.
10. Battery Charger Socket.
11. Battery Pack - Charger



## ASSEMBLING THE MOWER FOR THE FIRST TIME

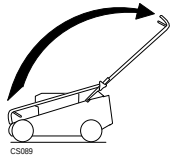
**Check that parts are delivered correctly:** Remove the mower from the packaging and check that all loose items have been supplied correctly. Refer to the delivery checklist opposite and the general assembly. If any items are missing, contact your local Hayter Dealer.

DELIVERY CHECKLIST

| Description | Quantity |
|---|---|
| Safety Key | 1 |
| Grassbag | 1 |
| Battery Pack Charger | 1 |
| Owner's Handbook | 1 |
| Owner's Handbook - (Battery Pack System) | 1 |

**WARNING: PREVENT ACCIDENTS - NEVER insert the safety key while carrying out the following procedures. Failure to observe this precaution may result in the mower starting unexpectedly with risk to health and safety.**

**Assemble the handlebar:** Unscrew the knobs securing the handlebar sufficiently to allow it to be pivoted and unfold the handlebar to the operating position. Tighten the two knobs to secure the handlebar. Ensure that the knobs are assembled to the outside of the handlebars.



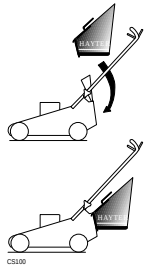

**CAUTION - PREVENT DAMAGE : When unfolding the handlebar, take care to ensure that the switch control unit and cable do not become damaged. Always replace damaged parts before using the mower.**

**Assemble the grassbag:** Identify the grassbag and remo the long ribbon label ( when fitted ) by cutting it off close the grassbag. Discard the ribbon label.




**WARNING - AVOID ENTANGLEMENT : Complet remove this ribbon before using the mower.**

Raise the rear deflector and lower the grassbag through the handlebar aperture to connect onto the upper mounting points. Lower the grassbag to rest against the rear of the mower. Finally lower the rear deflector to rest against the top of the grassbag.



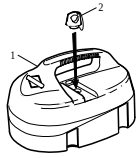
## ASSEMBLING THE MOWER FOR THE FIRST TIME Continued.

**Check that all fasteners are secure.**

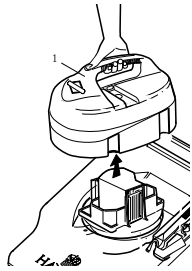



**To charge the battery pack:** It is essential that the battery pack is fully charged prior to using the mower for the first time. Refer to **"MAINTENANCE" - Battery charging**.

**Removal of Battery Pack:** Remove the safety key (2) and lift the battery pack (1) directly upwards using the handle.

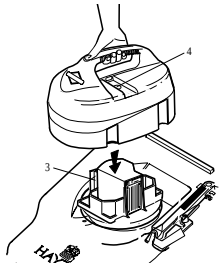



1. Battery Pack.
2. Safety Key.




**Replacement of Battery Pack:** To replace the battery pack (1), first make sure it is orientated correctly and then lower it directly downwards onto the mower motor (3). The safety key aperture (4) should be on the lefthand side when standing behind the mower.

Ensure that the battery pack is firmly engaged before attempting to use the mower.

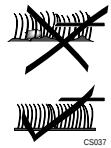



3. Motor.
4. Safety Key Aperture.

## BEFORE STARTING THE MOWER

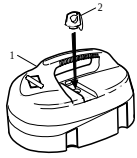
**WARNING: PREVENT ACCIDENTS - The cutterbar rotates when the motor is running.**

**ALWAYS** position the mower on a level stone free surface before starting the mower. Ensure that the cutterbar is set above grass height to prevent the motor being started under load.



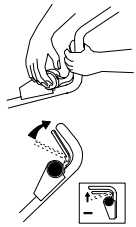

## TO START THE MOWER

**Safety Key:** Insert the safety key (2) into the socket on top of the battery pack (1).




1. Battery Pack.
2. Safety Key.

**Operate the switch control lever:** Locate the switch control lever mounted on the handlebar and ensure that your feet are clear of the mower deck. Depress the safety button and pull the lever towards the handlebar. The motor will now start. The safety button will remain depressed until the lever is released. **Failure to depress the safety button before operating the lever can cause permanent damage to the switch control unit.**



## STOPPING THE MOWER

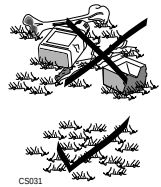
**Stopping the mower:** Release the switch control lever.

**WARNING: AVOID ACCIDENTS - The cutterbar may continue to rotate after the mower is switched off.**



## SAFETY NOTICE

**WARNING: PREVENT ACCIDENTS - Before mowing, thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wires, bones and other foreign objects, which when contacted by the mower cutterbar could become dangerous projectiles.**
**Inspect the area for hidden obstructions which when contacted by the cutterbar could risk health and safety. Remember the location of these obstructions and ensure that you mow around them.**



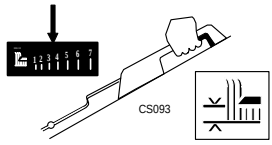

**WARNING: PREVENT ACCIDENTS - Always remove the safety key when leaving the mower.**
**ALWAYS remove the battery pack, before carrying, cleaning or adjusting the mower.**

## OVERLOAD PROTECTION

The mower is equipped with an electronic device which will stop the motor if it is overloaded. When this situation occurs remove the safety key and the battery pack and examine the underneath of the mower. Clear any obstruction from the cutterbar and the underside of the mower deck. Examine the discharge chute and remove any blockage . Empty the grassbag and ensure that the airways are clear. It may also be necessary to readjust to a higher cut position and/or mow at a slower pace to prevent the motor from being overloaded. Replace the battery pack and the grassbag. Insert the safety key and resume mowing.

Do not let the motor labour or slow down through being overloaded as this will severely reduce the available mowing time before the battery pack requires recharging.

## HEIGHT OF CUT




**To adjust the height of cut:** Hold the trigger against the handle and raise or lower the mower using the handle to achieve the desired height of cut. Release the trigger to secure the mower at the required position.

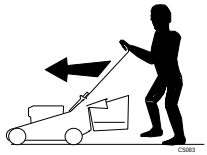
There are seven height of cut positions. The setting is indicated by the position of the connecting rod relative to the height of cut indicator.

Always select a height of cut to suit operating conditions. Prevent motor overloading and blockages by avoiding low cuts in long grass conditions. Be prepared to make two cuts when the grass is long.

## TRAVEL

**Forward travel:** Hold and push against the handlebar with both hands to move the mower forwards.

**Reverse travel:** Hold and pull against the handlebar with both hands to reverse the mower towards you.



**WARNING: PREVENT ACCIDENTS - ALWAYS reverse the mower carefully towards you. ALWAYS switch off the motor before walking backwards with the mower.**

## TURNING THE MOWER

**To make a wide turn :** Steer the mower with the handlebar whilst travelling forward.

**To make a tight turn :** Stop forward travel. Apply downward pressure on the handlebar to raise the front wheels of the mower just above ground level and steer the mower using the handlebar in the required direction.

**WARNING: PREVENT ACCIDENTS - DO NOT raise the front of the mower excessively when making a turn. NEVER raise the rear of the mower when the motor is running.**

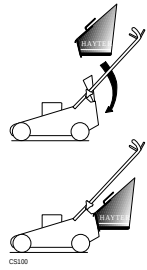
## MOWING WITH GRASS COLLECTION

The grassbag is designed to collect grass clippings.

To achieve best grass collection performance, mow in dry operating conditions.

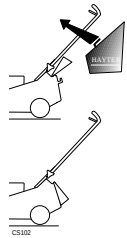
Recognise that when the grassbag is full the airflow stops and the grassbag deflates.

**WARNING: PREVENT ACCIDENTS - ALWAYS check the condition of the grassbag for signs of damage. Replace a damaged grassbag immediately. DO NOT operate the mower with a damaged grassbag. ALWAYS stop the mower, remove the safety key and battery pack before attempting to remove a grass blockage.**



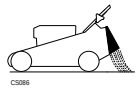

**Grassbag attachment:** Raise the rear deflector and lower the grassbag through the handlebar aperture to connect onto the upper mounting points. Rest the grassbag against the rear of the mower and finally lower the rear deflector to rest against the top of the grassbag.

**Grassbag removal:** Raise the rear deflector and lift the grassbag away from the mower through the handlebar aperture. Finally lower the rear deflector to rest against the rear of the mower.




**Grassbag emptying:** To empty the grassbag, pour out the grass clippings and shake the grassbag vigorously to clean the airways. Good grass collection depends on good air flow through the grassbag. When collecting grass clippings it is important that the grassbag is emptied regularly to prevent blockages and overloading of the electric motor.

## MOWING WITHOUT GRASS COLLECTION




To mow without collecting the grass clippings, remove the grassbag and operate the mower with the rear deflector in its lowest position.

**WARNING: PREVENT ACCIDENTS - ALWAYS check the condition of the rear deflector for signs of damage. Replace a damaged rear deflector immediately. NEVER operate the mower with a damaged rear deflector.**

## HEAVY GROWTH

Areas of heavy growth should be mown without grass collection. If grass collection is required first mow the area without grass collection at the maximum height of cut setting. Allow the grass clippings to dry out then mow the area at the maximum height of cut setting with the grassbag fitted. Reduce the height of cut and mow the area again as necessary until the required finish is obtained.

## TRANSPORTING THE MOWER

Set the mower to its maximum height of cut to protect the cutting mechanism when transporting the mower over surfaces other than grass.

**WARNING: PREVENT ACCIDENTS - Transport the mower carefully at slow walking speed with the motor switched off.**

## CUTTERBAR OPERATION

The cutterbar rotates at the same speed as the motor. The cutterbar will stop within three seconds of the motor being switched off.

**WARNING: PREVENT ACCIDENTS - DO NOT operate the mower if the cutterbar fails to stop within three seconds. Return the mower to your Hayter dealer for examination and repair.**

**WARNING: PREVENT ACCIDENTS - ALWAYS stop the motor when a hidden obstruction or excessive vibration is encountered. Stop the motor, remove the safety key and the battery pack and examine the cutting mechanism. ALWAYS replace a damaged cutterbar - refer to "Maintenance".**

## MOWING AND GRASS CARE TIPS

In dry weather conditions leave the grass long to help retain ground moisture.

Aerate the lawn to stimulate soil organisms and root growth. In spring and late summer remove dead grass and aerate the lawn by raking or using a purpose made product.

Maintain a sharp cutterbar. A blunt cutterbar will tear the grass and cause the tips to turn brown.

Prevent scalping. Plan your direction of travel to mow across hollows and humps.

Prevent grass damage. Stop forward travel when making a turn.

Prevent grass damage. **DO NOT** mow in wet conditions.

Brush the lawn surface to disperse worm casts before mowing.

## MOWING AND GRASS CARE TIPS Continued.

Spike compacted lawn areas with a fork. Fill the holes with sand to improve aeration and drainage.

Mow lawns in a different direction to the previous cut.

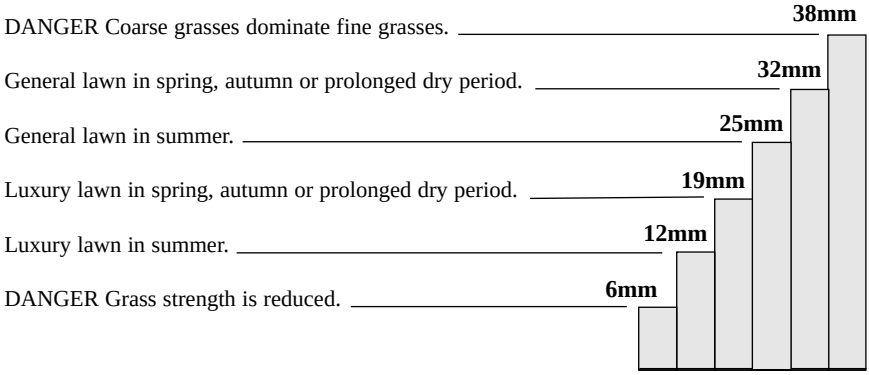
As a general rule the grass clippings should be removed each time you mow. If weather conditions are dry and hot and the grass is weed free, leave the clippings on the lawn to help maintain ground moisture.

Mow lawns twice a week when the grass is growing vigorously in the summer.

Mow lawns once a week in spring, autumn and during prolonged dry weather in the summer.

**PREVENT GRASS DAMAGE - DO NOT remove more than one third of the grass height in one cut.**

**Recommended grass height for lawns:**



## MAINTENANCE

### SAFETY NOTICE

**WARNING: PREVENT ACCIDENTS - ALWAYS REMOVE THE SAFETY KEY AND THE BATTERY PACK BEFORE ATTEMPTING ANY MAINTENANCE PROCEDURES.**

### BATTERY CHARGING

**WARNING: PREVENT ACCIDENTS - The battery pack contains corrosive fluid and toxic material - HANDLE WITH CARE. Keep away from children and pets. Do not attempt to disassemble, puncture or incinerate. The battery pack contains no serviceable parts.**

**If battery fluids come into contact with eyes, skin or clothing, immediately flush with water. Seek immediate medical attention if the fluid comes into contact with the eyes.**

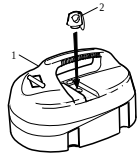
**Explosive gases are produced during the battery charging process - ALWAYS charge in a well ventilated area away from all sources of ignition.**

**ALWAYS switch off the electricity supply at the mains socket and remove the '3 pin' plug before removing the charger lead from the battery pack.**

**ALWAYS use the battery charger supplied with the mower.**

Recharge the battery pack immediately before using the mower for the first time. Recharge the battery pack immediately following each use of the mower. Never store the battery pack in a discharged or partly discharged condition as this may permanently damage the batteries.
It is essential that the battery pack is recharged at least every 6 months when not in use.
For best results leave the battery pack on continuous charge when not in use. This will not harm or reduce the life of the battery pack.

**To recharge the battery pack:** First remove the safety key (2). The battery pack (1) may be recharged on the mower or removed to a suitable work surface.



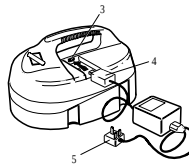

1. Battery Pack.
2. Safety Key.

## BATTERY CHARGING Continued

**To recharge the battery pack:** Insert the charger lead connector (4) with the indicator lamps uppermost, into the battery pack charger socket (3) sited adjacent to the safety key aperture.

Insert the charger '3 pin' plug (5) into a mains electricity socket, switch on and check that the red lamp is illuminated this indicates that the power is on . The battery pack is now on charge. It will take at least 16 hours to recharge an exhausted battery pack.
The green lamp will illuminate when the battery pack is fully charged

Switch off the electricity supply at the mains socket and remove the charger plug (5). Then remove the charger lead connector from the battery pack.




3. Charger Socket.
4. Charger Lead Connector.
5. 3 Pin Plug (Charger).

**IMPORTANT: PREVENT DAMAGE - Do not remove the charger lead connector from the battery pack by gripping the cable. Always grip the connector body to remove.**

**CAUTION: PREVENT ENVIRONMENTAL DAMAGE - Dispose of a used battery pack correctly. The battery has a separate collection mark. This means that the battery must not be disposed of with general waste, but must be taken to an authorised disposal site.**




**Note: Additional battery pack:** A spare battery pack Part No:313009 may be purchased as an option, through your Hayter dealer.

## MOTOR

**Motor:** The motor is maintenance free.

## SWITCH CONTROL UNIT

**Switch control unit :** The switch control unit is maintenance free.

## GRASSBAG

Remove grass debris from the grassbag immediately after use and check its condition for signs of damage.



CS109

**WARNING: PREVENT ACCIDENTS - ALWAYS replace a damaged grassbag immediately.**

## CLEANING

**IMPORTANT: PREVENT DAMAGE: Never use water when cleaning**

Remove grass debris from the deck housing and around the motor and battery pack immediately after use.

**IMPORTANT: PREVENT DAMAGE - An accumulation of debris around the motor and battery pack could clog the cooling ducts causing overheating and permanent damage.**

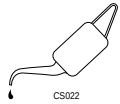
## SECURING NUTS AND BOLTS

Regularly check that all securing nuts and bolts are tight. Replace missing or damaged items immediately.


CS015

## LUBRICATION

Lubricate the wheels, pivot points and linkages with engine oil every 25 operating hours.
Do not attempt to lubricate the motor




## CUTTERBAR

**WARNING: PREVENT ACCIDENTS - Remove the safety key and the battery pack before working on the cutterbar.**

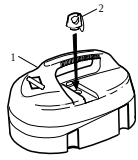
**The cutterbar has sharp edges. ALWAYS wear strong gloves to protect your hands when working on the cutterbar. DO NOT operate tools towards the cutting edges to avoid the risk of injury should the tool slip. ALWAYS use genuine Hayter replacement parts.**

**The condition of the cutterbar and its mounting arrangement should be checked regularly for signs of wear or damage. Ensure that the cutterbar is not bent or cracked.**

**A damaged cutterbar that is out of balance will vibrate excessively and may break. DO NOT use an unbalanced cutterbar.**

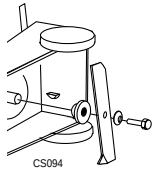
**Regularly check that the bolt securing the cutterbar is tightened to a torque of 23 - 28Nm.**

**Replace the cutterbar every 2 years or sooner if excessively worn or damaged.**



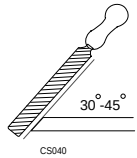

1. Battery Pack.
2. Safety Key.

**To replace the cutterbar:** Turn the machine on its side. Use a 13mm A / F spanner to loosen the central fixing bolt by turning anticlockwise. Use a strong glove or a thick pad to protect the hand while holding the cutterbar to prevent it turning. The cutterbar adaptor may slide off the shaft after removal of the cutterbar. This should be cleaned and replaced. Ensure that the flat on the shaft locates correctly with the flat on the cutterbar adaptor. Assemble the cutterbar with the turned up edges facing towards the motor. Replace the central securing bolt and washer tighten to a torque of 23 - 28Nm while using hand protection to steady the end of the cutterbar. Do not pull or push the spanner towards the cutting edges of the cutterbar as serious injury could result if the spanner slips.



## CUTTERBAR Continued.

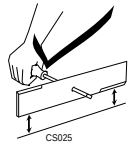
**How to sharpen and balance the cutterbar:** A slightly worn cutterbar may be re-sharpened. All cutting edges must be sharpened equally to ensure balance. Sharpen the cutterbar every 25 mowing hours or more frequently if conditions require.
Remove the cutterbar from the mower and clean using a brush and water. Inspect the cutterbar for signs of damage.



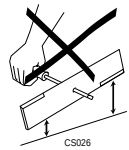
CS040

**DO NOT use a damaged or excessively worn cutterbar.**

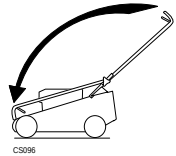
Sharpen all the cutting edges with a flat file to restore the original cutting edge.


CS025

Ensure that the cutterbar is balanced. Use a screw driver with a round shaft to support the cutterbar through its centre hole. Hold the cutterbar horizontal and then release. A balanced cutterbar will remain horizontal. If the cutterbar is not balanced the heavy end will rotate downwards. Sharpen the heavy end until the cutterbar is correctly balanced.


CS026

## PREPARING THE MOWER FOR STORAGE




**Handlebar storage:** To lower the handlebar unscrew the 2 securing knobs sufficiently to allow it to be pivoted forwards to rest against the mower. Take care to ensure that the cable does not become snagged at the pivot point.

**Storage for long periods:** To ensure your mower is maintained in good working order it is important that the following procedure is adopted when the mower is stored for periods in excess of one month. Refer to the Maintenance section as necessary.

Clean all areas of the mower and ensure that the grassbag is clean.

Lubricate the mower.

Treat metal parts with a water repellent anti-corrosion product.

Lower the handlebar if desired.

Cover the mower with a protective sheet and store it in a dry, ventilated area.

Rest the mower deck on wooden blocks to remove the weight of the mower from its wheels / roller.

Do not store near corrosive materials such as fertilizers, etc.

Charge the battery pack.

**IMPORTANT PREVENT DAMAGE :- NEVER STORE THE BATTERY PACK - In a discharged or partly charged condition. Failure to observe this rule may result in the battery being permanently damaged.**

**WARNING: PREVENT ACCIDENTS - Store the battery pack in a clean dry location out of the reach of children and pets.**

## FAULT FINDING

| PROBLEM | POSSIBLE FAULT | REMEDY |
|---|---|---|
| Motor fails to start. | Safety key not inserted correctly. | Re-engage the safety key. |
| | Battery pack not fully engaged onto the motor. | Re-engage the battery pack. Check for correct engagement. |
| | Cutterbar obstructed. | Remove the battery pack and clear any obstructions. |
| | Battery discharged. | Recharge battery pack. |
| | Motor seized. | Remove battery pack and check that cutterbar rotates freely. If seized consult your Hayter dealer. |
| Motor loses power during operation. | Low battery charge. | Recharge battery pack. |
| Motor stops during operation. | Internal cutout tripped through overload. | Remove battery pack and clear any blockages. Restart the mower. |
| | Safety key dislodged. | Re - engage safety key. |
| | Battery pack discharged | Recharge battery pack. |
| | Motor seized. | Remove battery pack and check that cutterbar rotates freely. If seized consult your Hayter dealer. |
| Motor will not stop. | Faulty switch control unit. | Ensure switch lever has returned to the 'OFF' position. Remove the safety key and contact your Hayter dealer. |
| Cutterbar runs on excessively after switching **'OFF'.** | Faulty brake unit. | Contact your Hayter dealer. |
| Mowing time between charges steadily deteriorates | Spent battery pack. | Replace battery pack. |
| | Faulty charger. | Contact your Hayter dealer. |

**FAULT FINDING** **Continued.**

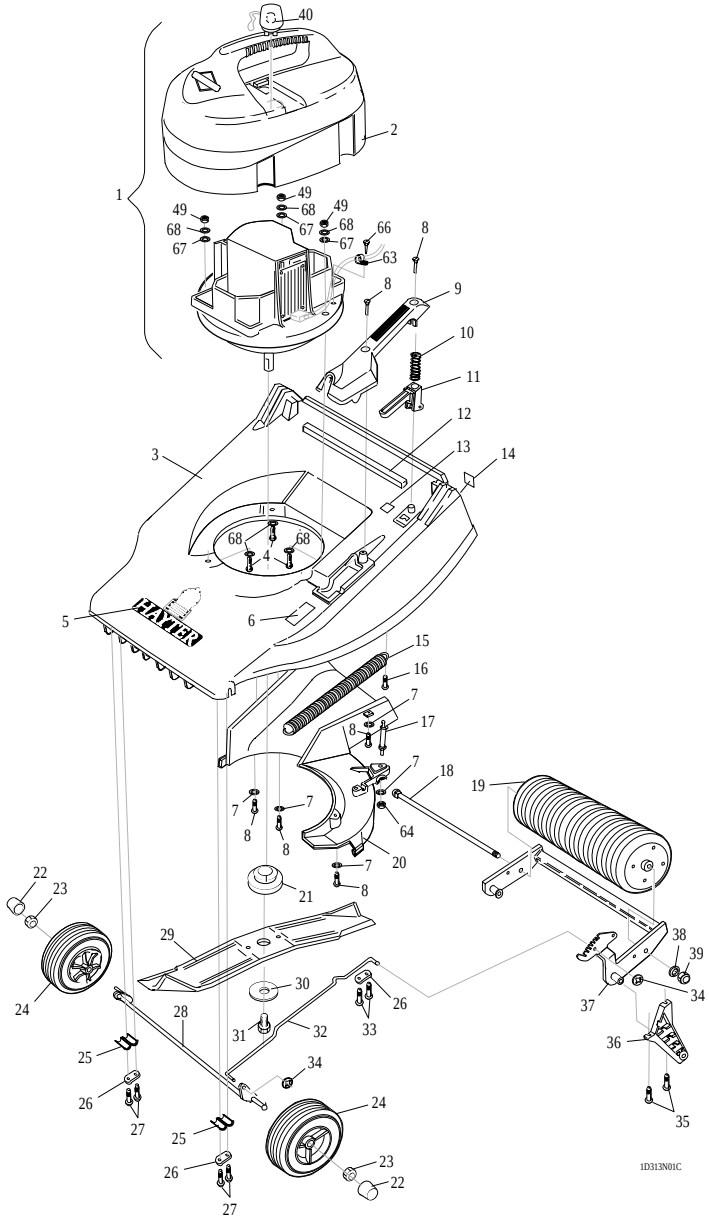
| PROBLEM | POSSIBLE FAULT | REMEDY |
|---|---|---|
| Motor vibrates excessively. | Mounting bolts loose. | Tighten bolts. |
| | Cutterbar bolt loose. | Tighten bolt. |
| | Cutterbar out of balance. | Balance cutterbar. |
| Uneven cut | Undulating ground contours. | Change direction of travel. |
| | Cutterbar worn. | Sharpen the cutterbar. |
| | Cutterbar out of balance. | Balance cutterbar. |
| | Wheels / Roller damaged. | Inspect and replace as necessary. |
| Discharge chute blocks. | Grass is wet. | Mow dry grass. |
| | Cut height too low. | Increase cut height. |
| | Grassbag full. | Empty grassbag. |
| | No airflow through the grassbag. | Clean the grassbag. |
| Mower is hard to push. | Cut height too low. | Increase cut height. |
| | Wheels / Roller damaged. | Inspect and lubricate or replace as necessary. |
| Poor grass collection. | No airflow through the grassbag. | Clean the grassbag. |
| | Discharge chute blocked. | Remove blockage. |
| | Wet grass. | Mow dry grass. |
| | Grassbag full. | Empty grassbag. |

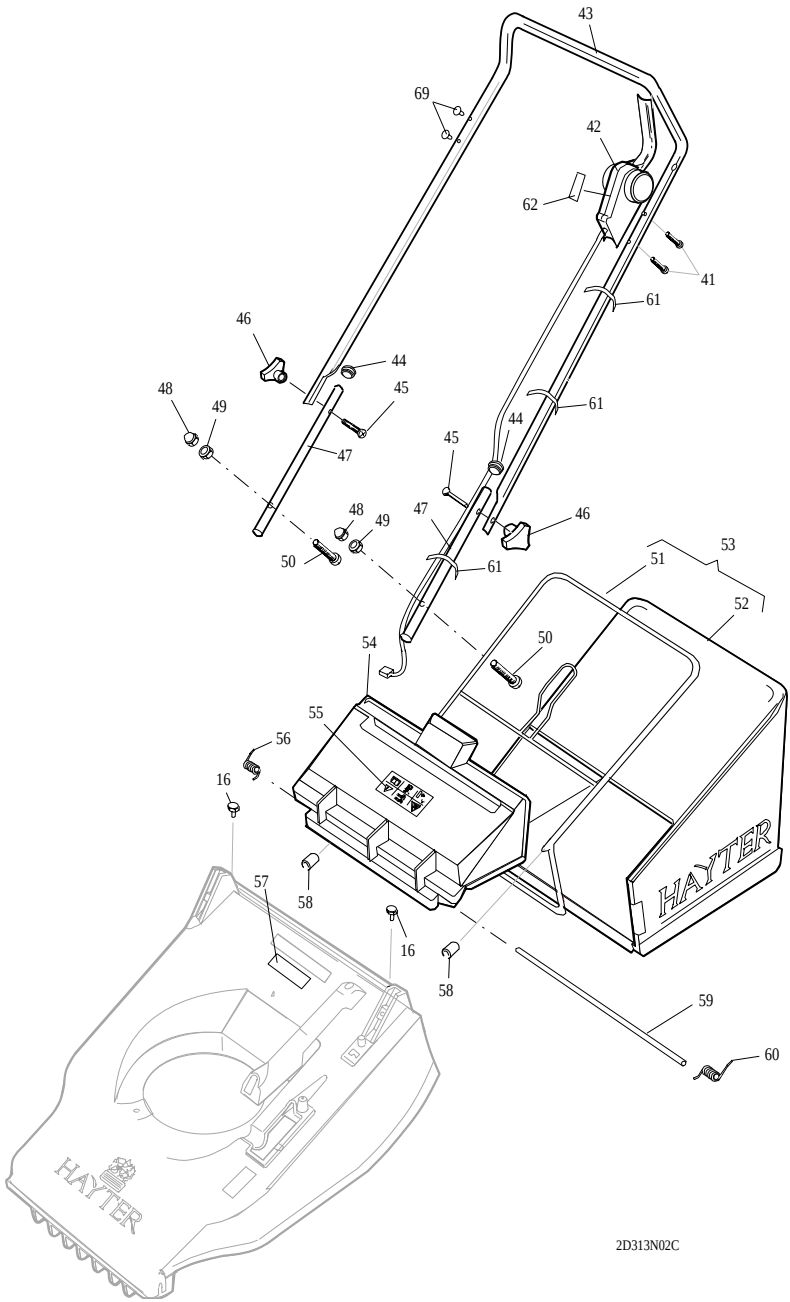
## PARTS LIST

| ITEM NO. | DESCRIPTION | PART NO. | QTY. |
|---|---|---|---|
| 1 | Powerhead Assembly (Includes Items 2, 40) | 313001 | 1 |
| 2 | Battery Pack | 313009 | 1 |
| 3 | Deck | 305101V | 1 |
| 4 | Bolt M8 x 35 | 09631 | 3 |
| 5 | Decal ( Hayter / Royal Warrant ) | 300157 | 1 |
| 6 | Decal ( Height of Cut Indicator) | 305113 | 1 |
| 7 | M6 Plain Washer | 09472 | 5 |
| 8 | M6 x 16 Pan. Pozi Taptite Screw | 09596 | 6 |
| 9 | Height Adjuster Handle | 305112 | 1 |
| 10 | Trigger Spring | 300067 | 1 |
| 11 | Trigger | 300066 | 1 |
| 12 | Sealing Strip | 305119 | 1 |
| 13 | Decal ( Height of Cut ) | 320006 | 1 |
| 14 | Decal ( Serial No. ) | ——— | 1 |
| 15 | Compensating Spring | 300070 | 1 |
| 16 | M6 x 20 Hex Washer Hd Screw | 09575 | 3 |
| 17 | Pillar | 300137 | 1 |
| 18 | Axle Bolt | 308021 | 1 |
| 19 | Rear Roller | 201007 | 2 |
| 20 | Throw Plate | 300124 | 1 |
| 21 | Adapter - Cutterbar | 313004 | 1 |
| 22 | Hub Cap | 219143 | 2 |
| 23 | 1/2" Nyloc Wheel Nut | 4486 | 2 |
| 24 | 6" Wheel | 302016 | 2 |
| 25 | Axle Bush | 305108 | 2 |
| 26 | Securing Plate | 219037 | 3 |
| 27 | M6 x 12 W/Hd Pozi Taptite Screw | 09546 | 4 |
| 28 | Front Axle Assembly | 300111 | 1 |
| 29 | Cutterbar 16" | 313003 | 1 |
| 30 | Washer | MU17x137 | 1 |
| 31 | 5/16" UNF x 2" Bolt | 09088 | 1 |
| 32 | Connecting Rod | 305109 | 1 |
| 33 | Screw | 09634 | 2 |
| 34 | Grip-Fix | 02385 | 2 |
| 35 | M6 x 16 Screw Taptite | 09365 | 2 |
| 36 | Axle Support | 305130 | 1 |
| 37 | Rear Roller Frame | 308050W | 1 |
| 38 | 3/8" Plain Washer (Axle Spacers) | 09271 | As Required |
| 39 | 3/8" UNF Nylon Ins. 'T' Type Nut | 09216 | 1 |
| 40 | Key (Safety) | 313011 | 1 |

**PARTS LIST** **Continued.**

| ITEM NO. | DESCRIPTION | PART NO. | QTY. |
|---|---|---|---|
| 41 | Setscrew 3/16" x 1 1/4" | 09726 | 2 |
| 42 | Control / Cable Assembly | 313002 | 1 |
| 43 | Handlebar Upper | 313008W | 1 |
| 44 | 7/8" Tube Plug | 300160 | 2 |
| 45 | M8 x 45 Saddle Hd Bolt | 226024 | 2 |
| 46 | Knob | 226013 | 2 |
| 47 | Handlebar Lower | 300062 | 2 |
| 48 | M8 Nut Cap | 234051 | 2 |
| 49 | M8 Nylon Ins. 'T' Type Nut | 09441 | 2 |
| 50 | M8 x 40 Coachbolt | 09379 | 2 |
| 51 | Grassbag Frame | 305105W | 1 |
| 52 | Grassbag | 305104 | 1 |
| 53 | Grassbag Complete Assembly | 305118 | 1 |
| 54 | Deflector | 305102 | 1 |
| 55 | Decal ( Caution ) | 313006 | 1 |
| 56 | Deflector Spring R/H | 305111 | 1 |
| 57 | Decal (Harrier 41 Battery Electric) | 313007 | 1 |
| 58 | Ferrule | 305115 | 2 |
| 59 | Deflector Rod | 305103 | 1 |
| 60 | Deflector Spring L/H | 305110 | 1 |
| 61 | Cable Tie | 3966 | 3 |
| 62 | Decal (Switch) | 309041 | 1 |
| 63 | 'P' Clip | 313012 | 1 |
| 64 | M6 Nylon Ins. Nut | 09544 | 1 |
| 65 | Charger - Battery Pack (Not Illustrated) | 313010 | 1 |
| 66 | Screw - No.8 x 1/2" | 09729 | 1 |
| 67 | Washer - Special. | 09742 | 3 |
| 68 | Washer -M8 | 09475 | 3 |
| 69 | Drive Fastener | 300144 | 2 |
| 70 | Nut - M8 Nyloc Flanged | 09741 | 3 |


1D313N01C


43
69
42
62
41
61
46
44
48
49
45
47
61
45
44
48
49
47
46
50
61
53
51
52
54
50
55
56
16
57
58
16
58
59
60
HAYTER
HAYTER
2D313N02C

**MACHINE SERIAL NUMBER:**

.....

**ENGINE SERIAL NUMBER:**

.....