



Harrier 41 Autodrive ES VS

CODE376B OPERATOR MANUAL

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CONTENTS

Introduction	5	Operating the Mower continued	
General Safety	5	Forward Travel	15
Product Overview	6	Reverse Travel	15
Product Specification	6	Parking	15
Safety & Instructional Decals	7	Turning	15
Safety Precautions	8 - 10	Grassbag	15
Safety Alert Symbol	8	Mowing without Grassbag	15
Before Operation Safety - General Safety	8	Heavy Growth	16
Before Operation Safety - Fuel Safety	8	Friction Disc	16
During Operation Safety - General Safety	8 - 9	Folding the Handle	16
During Operation Safety - Slope Safety	9	Mower Maintenance	17 - 23
After Operation Safety - General Safety	9	Engine Detail	17
Operation Safety - Hauling Safety	9	Carburetor Adjustments	17
Maintenance Safety	9	Oil Service	17
Charging the Battery Pack	10	Air Filter Service	17
Spare Parts	10	Spark Plug Service	18
Setup	11 - 12	Keeping Engine Clean	18
Delivery Checklist	11	Grassbag	18
Assembling and Unfolding the Handle	11	Easy-Wash Port	18
Grassbag Assembly	11	Securing Nuts & Bolts	19
Prevent Engine Damage	12	Rear Deflector	19
Oil Type	12	Clutch Cable Adjustment	19
Check Oil Level	12	Lubrication	19
Operating the Mower	13 - 15	Cutterblade Removal	19 - 20
Fuel Type	13	Cutterblade Assembly	20
Controls	13	Cutterblade Sharpening	20
Before Mowing	13	Blade Brake Test	21
Non Grassed Areas	14	Storage	21
Adjusting the Cutting Height	14	Battery Specification	21
Electric-start	14	Battery Fuel Gauge	22
Shutting off the Engine	14	When to Charge the Battery Pack	22
First Time Battery Charging	15		

CONTENTS

Mower Maintenance continued	
How to Charge the Battery	22
Battery Pack and Charger Storage	23
Battery Disposal Directive	23
Lithium-Ion Battery Pack Disposal	23
Maintenance Schedule	24
Trouble Shooting	25
Warranty	26
EU Privacy Statement	27
Notes	27
Company Contact Information	28

INTRODUCTION

Thank you for purchasing a Hayter mower.

The following pages are designed to help you gain safe and efficient service from your machine.

This rotary-blade, walk-behind lawn mower is intended to be used by residential homeowners. It is designed primarily for cutting grass on well-maintained lawns on residential properties.

This operator's manual should be regarded as part of the mower as it gives essential information regarding safety, operation, maintenance and specifications.

If you misplace your operator's manual, contact your local Hayter authorised dealer for a replacement. Alternatively, visit www.hayter.co.uk/handbooks to download an electronic version.

For engine details related to your product, please refer to the engine handbook provided.

To ensure maximum safety, best performance, and to gain knowledge of the mower, it is essential that you and any other operator read and understand the contents of this handbook before the engine is started. If you are unsure of any procedure detailed in this Handbook then please contact your local Hayter dealer for assistance.

Pay particular attention to the safety alert symbol which means Caution, Warning, or Danger. Read and understand the instruction as it relates to safety.

Improper maintenance or use of this mower can result in injury.

To reduce the potential for injury, comply with these safety instructions. This mower should be operated, serviced and repaired only by persons who are familiar with its particular characteristics and who are acquainted with the relevant safety procedures.

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

Hayter Limited have designed and tested this machine for reasonably safe service; however, failure to comply with the instructions in this handbook may result in personal injury.

This mower is designed solely for use in a domestic grass cutting environment. Use in any other way is considered as contrary to the intended use.

Hayter Limited reserves the right to amend product specifications without prior notification.

GENERAL SAFETY

This machine has been designed in accordance with EN ISO 5395-2:2013.

This product is capable of amputating hands and feet and of throwing objects. Always follow all safety instructions to avoid serious personal injury.

Using this product for purposes other than its intended use could prove dangerous to you and bystanders.

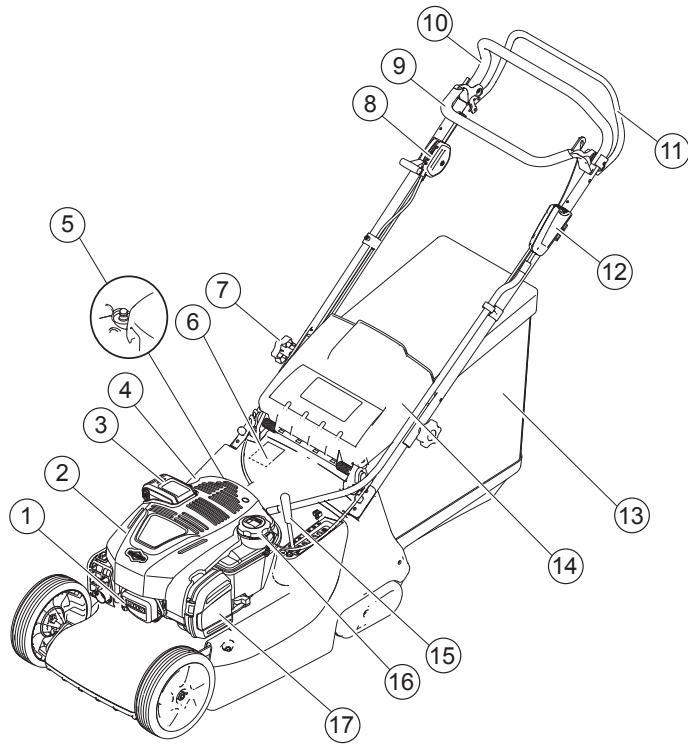
- Read, understand and follow the instructions and warnings in this Operator's Manual, on the machine and attachments before starting the engine.
- Use your full attention while operating the machine. Do not engage in any activity that causes distractions; otherwise, injury or property damage may occur.
- Do not put your hands or feet near moving parts of or under the machine. Keep clear of any discharge opening.
- Do not operate the machine without all guards and other safety protective devices in place and working on the machine.
- Keep bystanders and children a safe distance from the machine. Do not allow children to operate the machine. Allow only people who are responsible, trained, familiar with the instructions, and physically capable to operate the machine.
- Stop the machine, shut off the engine, remove the electric-start button, and wait for all moving parts to stop before servicing, fuelling, or unclogging the machine.

Improperly using or maintaining this machine can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety-alert symbol, which means Caution, Warning, or Danger - personal safety instruction. Failure to comply with these instructions may result in personal injury or death.

You can find additional safety information where needed throughout this manual.

For a full range of products and to locate your nearest authorised sales stockist, service or parts dealer please visit our website at www.hayter.co.uk

PRODUCT OVERVIEW



- | | |
|-----------------------------|-------------------------------|
| 1. Spark Plug and Lead | 10. Handle |
| 2. Engine Cover | 11. Ground Drive Clutch Lever |
| 3. Lithium-ion Battery Pack | 12. Electric-start Button |
| 4. Oil fill and Dipstick | 13. Grassbag Assembly |
| 5. Easy Wash Port | 14. Rear Deflector |
| 6. Serial Number Label | 15. Height of Cut Lever |
| 7. Handle Securing Knob | 16. Fuel Tank and Cap |
| 8. Variable Speed Control | 17. Air Filter |
| 9. Engine Stop Lever | |

PRODUCT SPECIFICATION

Code	376B
Model	Harrier 41 Autodrive VS ES IS
Weight	38 kg
Length	1440 mm
Width	485 mm
Height	1040 mm
Width of Cut	410 mm
Height of Cut	13 - 60 mm
Engine	Briggs & Stratton
Engine Type	575 InStart
Engine Power Rating (Net)	2.2 kW
Fuel Type*	Unleaded fuel
Fuel Capacity	1.5 litre
Oil Type	SAE 30 engine oil
Oil Sump Capacity	0.44 litres

* A minimum of 87 octane / 87 AKI (91 RON).

* Fuel with up to 10% ethanol is acceptable.

* Do not use unapproved fuels, such as E15 and E85

SAFETY & INSTRUCTIONAL DECALS

Please ensure all Safety Decals are secured on the mower before using the product.

If any of the decals are missing or not secure, do not use the mower, contact your local Hayter authorised dealer for replacements.

WARNING: Improper maintenance, use of non-conforming spare parts, or the removal or modification of the Safety Decals may cause death or serious injury.



Engine Stop

Moulded onto engine stop lever



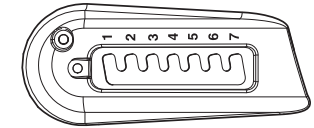
Variable speed control

Printed on control



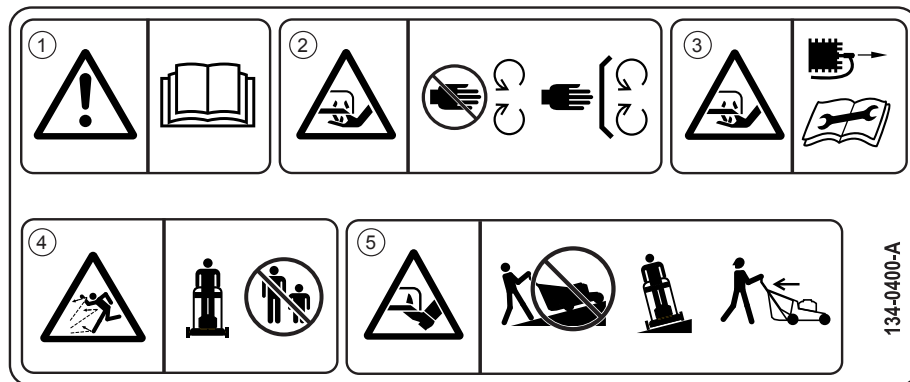
Engine start

Moulded onto electric-start button

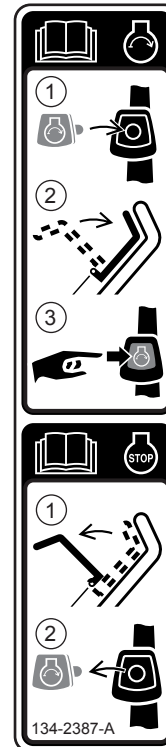


Height of Cut

Moulded in plastic cover



1. WARNING - Read Operator's Manual
2. Cutting/dismemberment hazard of hand, mower blade - stay away from moving parts; keep all guards and shields in place.
3. Cutting/dismemberment hazard of hand, mower blade - disconnect the spark plug lead and read the instructions before servicing or performing maintenance.
4. Thrown object hazard - keep bystanders a safe distance from the machine.
5. Cutting/dismemberment hazard of foot, mower blade - do not operate up and down slopes; operate side to side on slopes; look behind you when backing up.



Read the Operator's Manual for more information on starting the engine

1. Insert the electric-start button into the ignition;
2. Engage the engine stop lever;
3. Push the electric-start button to start the engine.

Read the Operator's Manual for more information on stopping the engine

1. Disengage the engine stop lever.
2. Remove the electric-start button from the ignition.

SAFETY PRECAUTIONS

Safety Alert Symbol

This safety alert symbol indicates important safety messages. When you see this symbol be alert to the possibility of injury. Carefully read the following and inform others.

Failure to observe the following precautions may result in serious injury.

Before Operation Safety - General Safety

- Always shut off the engine, and remove the electric start button. Wait for all movement to stop and allow the machine to cool before adjusting, cleaning, storing or repairing it.
- Become familiar with the safe operation of the equipment, operator controls, and safety signs.
- Check that all guards and safety devices, such as deflectors and/or grass bag, are in place and working properly.
- Always inspect the machine to ensure that the blades, blade bolts, and cutting assembly are not worn or damaged.
- Inspect the area where you will use the machine and remove all objects that could interfere with the operation of the machine or that the machine could throw.
- Adjusting the cutting height may bring you into contact with the moving blade, causing serious injury.
 - Shut off the engine, remove the electric-start button and wait for all moving parts to stop.
 - Do not put your fingers under the housing when adjusting the cutting height.

Before Operation Safety - Fuel Safety

Fuel is extremely flammable and highly explosive. A fire or explosion from fuel can burn you and others and can damage property.

- To prevent a static charge from igniting the fuel, place the container and/or machine directly on the ground before filling, not in a vehicle or on an object.
- Fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any fuel that spills.
- Do not handle fuel when smoking or around an open flame or sparks.
- Do not remove the fuel cap or add fuel to the tank while the engine is running or hot.
- If you spill fuel, do not attempt to start the engine. Avoid creating a source of ignition until the fuel vapours have dissipated.
- Store fuel in an approved container and keep it out of the reach of children.

Fuel is harmful or fatal if swallowed. Long-term exposure to vapours can cause serious injury and illness.

- Avoid prolonged breathing of vapours.
- Keep your hands and face away from the nozzle and the fuel-tank opening.
- Keep fuel away from your eyes and skin.

During Operation Safety - General Safety

- Wear appropriate clothing, including eye protection; long trousers, slip-resistant, substantial footwear; and hearing protection. Tie back long

hair, secure loose clothing, and do not wear loose jewellery.

- Do not operate the machine while ill, tired, or under the influence of alcohol or drugs.
- The blade is sharp; contacting the blade can result in serious personal injury. Shut off the engine, remove the electric-start button, and wait for all moving parts to stop before leaving the operating position.
- When you release the engine stop lever, the engine should shut off and the blade should stop within 3 seconds. If not, stop using your machine immediately and contact an Authorised Service Dealer.
- Keep bystanders, especially small children, out of the operating area. Stop the machine if anyone enters the area.
- Always look down and behind you before moving the machine in reverse.

SAFETY PRECAUTIONS

During Operation Safety - General

Safety continued

- Operate the machine only in good visibility and appropriate weather conditions. Do not operate the machine when there is the risk of lightning.
- Wet grass or leaves can cause serious injury if you slip and contact the blade. Avoid mowing in wet conditions.
- Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause the machine to overturn or cause you to lose your balance or footing.
- If the machine strikes an object or starts to vibrate, immediately shut off the engine, remove the electric-start button, wait for all moving parts to stop, and disconnect the lead from the spark plug before examining the machine for damage. Make all necessary repairs before resuming operation.
- Before leaving the operating position, shut off the engine, remove the electric-start button, and wait for all moving parts to stop.
- If the engine has been running the muffler will be hot and can severely burn you. Keep away from the hot muffler.
- Check the grassbag components and the discharge chute frequently for any wear or deterioration and replace them with the manufacturer's recommended parts when necessary.
- Use accessories and attachments approved by Hayter Limited only.

During Operation Safety - Slope Safety



- Mow across the face of slopes; never up and down. Use extreme caution when changing direction on slopes.
- Do not mow on excessively steep slopes. Poor footing could cause a slip-and-fall accident.
- Mow with caution near drop-offs, ditches, or embankments.

After Operation Safety - General Safety

- Remove the electric-start button when the machine is not in use.
- Clean grass and debris from the machine to help prevent fires. Clean up oil or fuel spills.
- Allow the engine to cool before storing the machine in any enclosure.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light, such as on a water heater or on other appliances.

Operation Safety - Hauling Safety

- Remove the electric-start button before loading the machine for hauling.
- Use care when loading or unloading the machine.
- Secure the machine from rolling.

Maintenance Safety

- Disconnect the spark plug lead from the spark

plug and remove the electric-start button before performing any maintenance procedure.

- Wear gloves and eye protection when servicing the machine.
- The blade is sharp; contacting the blade can result in serious personal injury. Wear gloves when servicing the blade.
- Never tamper with safety devices. Check their proper operation regularly.
- Tipping the machine may cause the fuel to leak.
- Fuel is flammable and explosive, and can cause personal injury. Run the engine dry to remove the fuel with a hand pump; never siphon the fuel.
- To ensure optimum performance and continued safety certification of the machine, use only genuine Hayter replacement parts and accessories.
- Replacement parts and accessories made by other manufacturers could be dangerous, and such use could void the product warranty.

SAFETY PRECAUTIONS

Charging the Battery Pack

⚠️ WARNING: Improper use of the battery and charger can result in an electrical shock, fire or explosion which can cause severe burns.

Remove the electric-start button and battery pack from the engine battery tray before performing any maintenance.

Keep the battery pack and charger dry. Do not expose the battery pack to rain or wet conditions.

To reduce the risk of electrical shock, do not allow water to flow into the AC plug.

Do not short circuit; never place any object into the battery contacts.

Only charge Briggs & Stratton battery pack with the Briggs & Stratton battery charger.

Do not use Briggs & Stratton battery charger to charge any other types of batteries.

To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.

- An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
 1. That pins on plug of extension cord are the same number, size, and shape as those of plug on charger;
 2. That the extension cord is properly wired and in good electrical condition; and
 3. That the cable is a minimum capacity of 3 amps.
- Do not operate charger with damaged plug or cord. The supply cord cannot be replaced. If the

cord is damaged, the charger should be replaced immediately.

- Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. If charger is damaged it must be replaced. Charger is not serviceable.
- Do not disassemble charger; or attempt to service.
- To reduce risk of electric shock, unplug charger from outlet before cleaning.
- Do not short circuit; never place any object into the battery contacts.
- The charger is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the charger.

Spare Parts

Below is a list of parts that can affect the Health & Safety of the Operator:

- Cutterblade
- Grassbag
- Rear Deflector
- OPC (Engine Stop)
- Warning Decals
- Owners Handbook
- Battery
- Battery Charger

For Spare Part numbers, please refer to the Hayter Parts

List.

Do not add lubricant or grease to the plastic rear roller bearings.

SETUP

IMPORTANT: Remove and discard the protective plastic sheet that covers the engine and any other plastic or wrapping on the machine.

IMPORTANT: To prevent accidental starting, do not insert the electric-start button into the electric-start ignition until you are ready to start the engine.

Note: The battery will arrive in 'sleep mode'. Refer to Mower Maintenance - When to charge the Battery, How to Charge the Battery for charging instructions.

Delivery Checklist

Check that the following items have been supplied correctly.

1. Engine Handbook
2. Grassbag Assembly
3. Parts List
4. Declaration of Conformity
5. Battery
6. Battery Charger

If any items are missing, contact your local Hayter dealer.

To prevent accidents cut off the long ribbon attached to the grassbag and discard.
(Refer fig.1)

Assembling and Unfolding the Handle

WARNING: Assembling and unfolding the handle improperly can damage the cables, causing an unsafe operating condition.

- Do not damage the cables when assembling and unfolding the handle.
- Ensure that the cables are routed to the outside of the handle.
- If a cable is damaged, contact an Authorised Service Dealer.

Unscrew the handle securing knobs sufficiently to allow the handle to pivot. Hold the engine stop lever in towards the handle and unfold the handle to the operating position, then release.

Tighten both handle knobs to secure in position.
(Refer fig.2)

Grassbag Assembly

Before first use assemble the grassbag and frame. Slide

the frame (1) into the grassbag (2), ensuring that the handle is above the grassbag as shown. Attach plastic clips (A), (B), (C) and (D) to the grassbag frame. Raise the rear deflector, lower the grassbag and hook into position. Lower the deflector to rest on the grassbag.
(Refer fig.3)

Fig. 1



Fig. 2

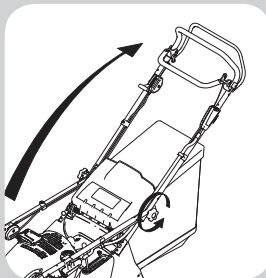
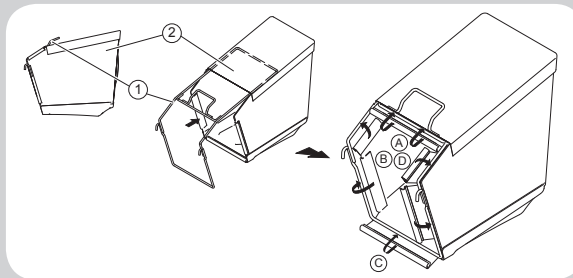


Fig. 3



SETUP

Prevent Engine Damage

To prevent engine damage the engine is shipped without oil or fuel. The engine must be filled with the correct grade of oil and fuel before starting the engine. Please refer to your engine manual for more information.

Oil Type

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil. Always change the oil in accordance with the maintenance schedule.

Use 4-stroke motor oil that meets or exceeds the requirements for API service category SJ or later. Always check the API service label on the oil container to be sure it includes the letters SJ or later.

SAE 10W-30 is recommended for general use. Other viscosities may be used when the average temperature in your area is within the indicated range.

Check Oil Level

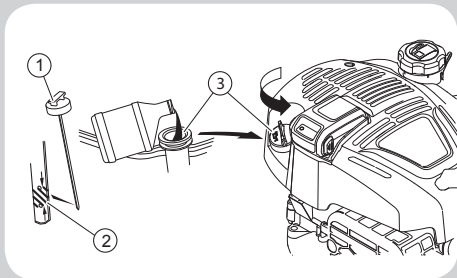
Before adding or checking the oil, ensure the engine is level and the oil fill area is clear of debris.

To add oil:

1. Remove the dipstick (1) and wipe with a clean cloth.
2. Slowly pour oil into the engine oil fill (3). Do not overfill. After adding oil, wait one minute and then check the oil level.
3. Insert and tighten the dipstick (1).
4. Remove the dipstick and check the oil level. Check that the oil level is at the top of the full indicator (2) on the dipstick.
5. Re-insert and tighten the dipstick (1).

(Refer fig.4)

Fig. 4



OPERATING THE MOWER

Fuel Type

Fuel must meet these requirements:

- Clean, fresh, unleaded.
- Purchase fuel in quantities that can be used in 30 days.
- A minimum of 86 octane. High altitude use, see below.
- Fuel with up to 10% ethanol is acceptable.

Petrol will oxidise and deteriorate in storage. Deteriorated fuel will cause hard starting, and it leaves gum deposits that clog the fuel system.

If your equipment will be used on an infrequent or intermittent basis, please mix a fuel stabiliser into the fuel. After adding a fuel stabiliser, run the engine outdoors for 10 minutes to be sure that treated fuel has replaced the untreated fuel in the carburetor.

Continue to run the engine until it stops from the lack of fuel in the carburetor fuel bowl. Running time should be less than 3 minutes.

If the fuel in your engine deteriorates during storage, you may need to have the carburetor, and other fuel system components, serviced or replaced.

All fuel is not the same. If starting or performance problems occur, change fuel providers or change brands.

Fill to base of neck to allow for fuel expansion. Do not overfill the fuel tank.
(Refer fig.5)

Controls

WARNING: Improper maintenance, use of non-conforming replacement components, or the removal or modification of the control cable(s) may cause serious injury or death.

IMPORTANT: To avoid damage to the cable, the variable speed control should only be operated whilst the engine is running.

Operate all control levers several times and ensure that the cables move freely. Check that the engine stop and ground drive clutch levers return freely to their rest position when released.
(Refer fig.6)

Before Mowing

To prevent accidents, thoroughly inspect the area

and remove all objects which when contacted by the mower cutterblade could become dangerous projectiles. Inspect the area for hidden obstructions which when contacted by the cutterblade could risk health and safety or result in damage to the mower. Remember the location of these obstructions and ensure that you mow around them.
(Refer fig.7)

Fig. 5

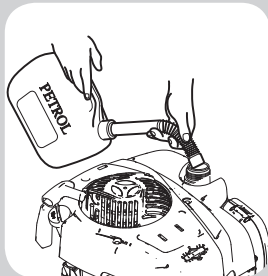


Fig. 6

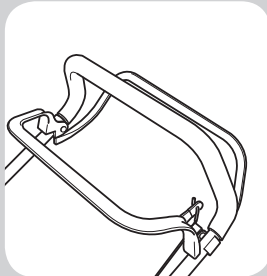


Fig. 7



OPERATING THE MOWER

Non Grassed Areas

When moving the mower across non-grassed areas, stop the engine and set the mower to the maximum height of cut to protect the cutting mechanism. (Refer fig.8)

Adjusting the Cutting Height

WARNING: Adjusting the cutting height may bring you into contact with the moving blade, causing serious injury.

- Shut off the engine, remove the electric-start button and wait for all moving parts to stop.
- Do not put your fingers under the deck housing when adjusting the cutting height.

To adjust the height of cut:

Hold the lever and pull sideways to disengage it from the locking notch, then pull backwards to raise the height of cut or push forwards to lower the height of cut. Finally release the lever at the required position and ensure it locks firmly into one of the setting notches.

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

(Refer fig.8)

Electric-start

Firmly hold the engine stop lever against the handle (1) and push the electric-start button (2) until you hear the engine start and then release the button. If the engine stop lever is released, the engine will stop. (Refer fig.9)

NOTE: To prolong the life of the starter, do not crank the engine for more than 15 seconds in any one minute.

If the engine does not start after repeated attempts, contact your local dealer or go to BRIGGSandSTRATTON.com.

To prevent engine damage do not operate the electric-start button when the engine is running.

Shutting off the Engine

To shut off the engine, release the engine stop lever (1) and ground drive clutch lever (2). Remove the electric-start button (3). (Refer fig.10)

Important: When you release the engine stop lever, the engine should shut off and the blade should stop

within 3 seconds. If they do not, stop using your machine immediately and contact an Authorised Service Dealer.

Emergency stop: As above. If the engine fails to stop, remove the electric-start button (1) and disconnect the spark plug lead (2).

(Refer fig.11)

Fig. 8

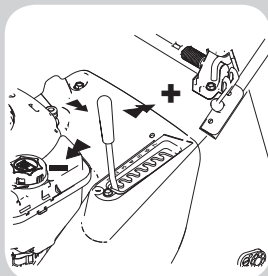


Fig. 9

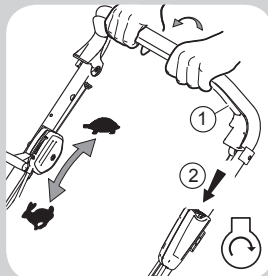


Fig. 10

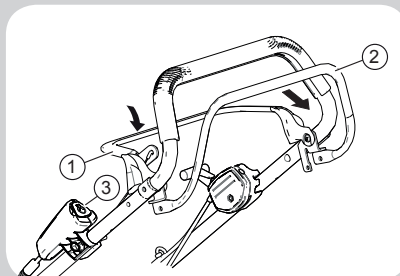
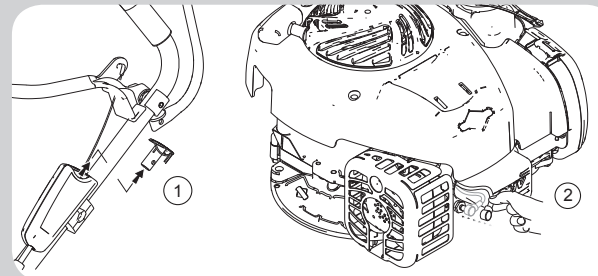


Fig. 11



OPERATING THE MOWER

First Time Battery Charging

Remove the terminal strip from the battery before inserting into the charger for the first time.

The battery requires a ten (10) second wake up before being fully charged. Refer to How to Charge the Battery Pack for further information on how to perform this operation.

Forward Travel

Firmly hold the engine stop lever (1) against the handle (2) and push the electric-start button (3). Squeeze the ground drive clutch lever (4) toward the handle and hold it to power the mower in a forward direction.

Ground speed may be adjusted by operating the variable speed control (5). Push forward to speed up and pull back to slow down. (Refer fig.12)

When the ground drive clutch lever is disengaged the mower may be pushed. This feature is useful when mowing in confined areas.

Reverse Travel

Release the ground drive clutch lever.

Hold and pull against the handle with both hands to reverse the mower.

Parking

Park on level ground.

Turning

To make a wide turn steer the mower with the handle in the direction required.

To make a tight turn release the ground drive clutch lever, apply downward pressure on the handle to raise the front wheels just above ground level and steer in the required direction.

To prevent accidents do not raise the front of the mower excessively when making a turn. Never raise the rear of the mower when the engine is running.

Grassbag

1. Raise and hold up the rear deflector (1)
2. Hook the grassbag into position (2).
3. Lower the rear deflector.

(Refer fig.13)

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 engine overloading.

(Refer fig.14)

Mowing without Grassbag

Remove the grassbag and operate the mower with the rear deflector in the closed position.

(Refer fig.15)

Fig. 12

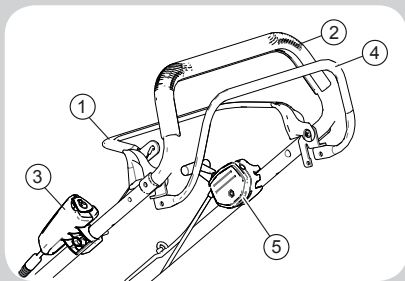


Fig. 13

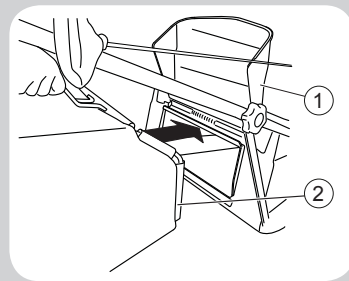


Fig. 14

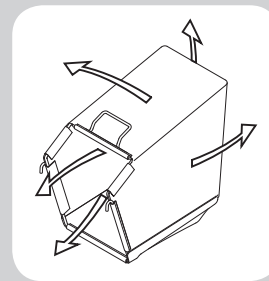
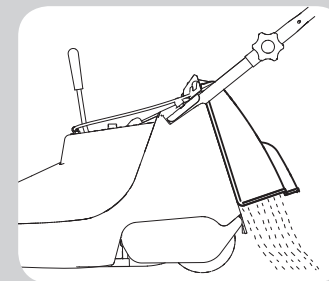


Fig. 15



OPERATING THE MOWER

Heavy Growth

Areas of heavy growth should be mown without collecting the clippings. If collection is required, first mow the area without the grassbag at the maximum height of cut setting.

Allow the grass clippings to dry out and 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.

To prevent damage to your lawn do not remove more than one third of grass height in one cut.

(Refer fig.16)

Friction Disc

The cutterblade is driven by the engine via a friction disc to help prevent damage occurring to the engine crankshaft and cutting mechanism when a hidden obstruction or overload is encountered.

(Refer fig.17)

Always stop the engine when a hidden obstruction or excessive vibration is encountered.

Remove the electric-start button, disconnect the

spark plug lead and examine the cutting mechanism.

ALWAYS replace a damaged cutterblade.

Refer to Maintenance.

Folding the Handle

Remove the electric-start button (2) from the electric-starter (1).

(Refer fig.18)

Rotate the handle forward, refer to Assembling and Unfolding the Handle.

Folding or unfolding the handle improperly can damage the cables, causing an unsafe operating condition.

- **Do not damage the cables when folding or unfolding the handle.**
- **If a cable is damaged, contact an Authorised Service Dealer.**

Important: Route the cables to the outside of the handle knobs as you fold the upper handle.

Fig. 16

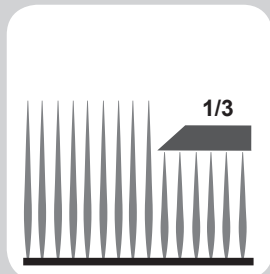


Fig. 17

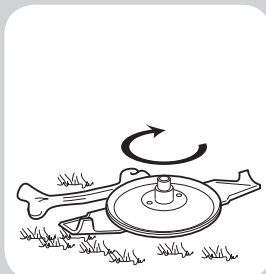
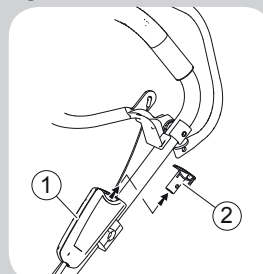


Fig. 18



MOWER MAINTENANCE

Engine Detail

NOTE: Disconnect the spark plug lead and remove the electric-start button before performing any maintenance procedures.

WARNING: Improper maintenance, use of non-conforming replacement components, or the removal or modification of the engine may cause serious injury or death.
(Refer to fig 19)

Carburetor Adjustments

Never make adjustments to the carburetor or engine speed. The carburetor was set at the factory to operate efficiently under most conditions.

Do not tamper with the governor spring, linkages, or other parts to change the engine speed detailed in the Specification section. If any adjustments are required contact your Hayter Authorised Service Dealer for service.

Oil Service

WARNING: Fuel and its vapours are extremely flammable and explosive. Fire or explosion can cause

severe burns or death.

Check the oil level before every use when starting the engine and ensure that the correct oil level is maintained. Refer to Setup - Oil Check Level.

Change the engine oil after the first 5 hours of operation and thereafter according to the Maintenance Schedule.

1. Drain the fuel by running the engine until the fuel tank is empty.
2. Remove the spark plug lead.
3. Allow the engine to cool.
4. Remove the oil filler dipstick (1) and drain the oil into a suitable container. When tipping the machine, ensure that the spark plug is kept uppermost.

(Refer to fig.20)

- Refill with new oil (3) to the mark shown (2) with the recommended SAE viscosity grade. Refer to Setup.

NOTE: Do not use pressurised air or solvents to clean the filter. Pressurised air can damage the filter and solvents will dissolve the filter.

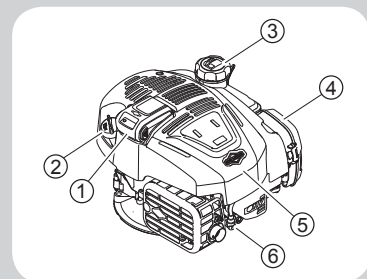
1. Open the cover (1).
 2. Remove the filter (2).
 3. Remove the pre-cleaner (3), if equipped, from the filter. To loosen debris, gently tap the filter on a hard surface. If the filter is excessively dirty, replace with a new filter.
 4. Wash the pre-cleaner in liquid detergent and water. Then allow it to thoroughly air dry. Do not oil the pre-cleaner.
 5. Assemble the dry pre-cleaner, if equipped, to the filter.
 6. Install the filter (2).
 7. Close the cover (1).
- (Refer to fig.21)

If very dirty, replace.

Air Filter Service

WARNING: Never start and run the engine with the air filter removed.

Fig. 19



1.	Lithium-Ion Battery
2.	Oil Filler & Dipstick
3.	Fuel Tank & Filler Cap
4.	Air Filter
5.	Engine Cover
6.	Spark Plug And Lead

Fig. 20

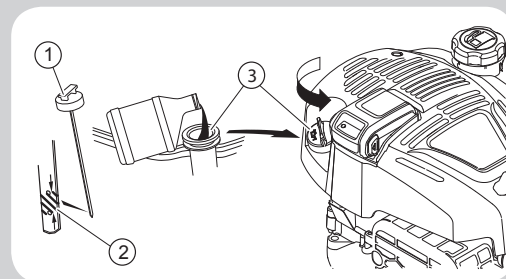
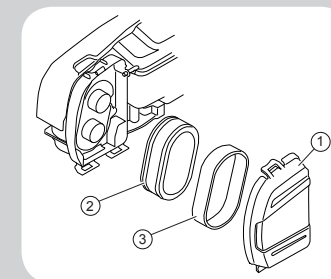


Fig. 21



MOWER MAINTENANCE

Spark Plug Service

Improper maintenance, use of nonconforming replacement components, or the modification of the spark plug may cause death or serious injury.

Use only Briggs & Stratton spark tester 19368 (1) to check for a spark as shown in the diagram. (Refer to fig.22)

Replace the spark plug every season. A spark plug wrench (19576) is available from any authorised Briggs & Stratton service dealer.

Check the spark plug gap (1 & 2) with a lead feeler gauge (3). If necessary, reset the gap to 0.76 mm. Install and tighten the spark plug, torque to 180 lb-in (20 Nm). (Refer to fig.23)

Keeping Engine Clean

Remove all grass and debris from the engine including the exhaust / exhaust guard, the air ways in the top cowl and the surrounding deck areas after every use. Never spray the engine with water during cleaning. Water can contaminate the fuel. Always clean with a brush or air. (Refer to fig.24)

Grass and debris may clog the engines air cooling system especially after prolonged operation whilst cutting tall, dry grass. The internal cooling fins and surfaces may require cleaning to prevent overheating and engine damage. We recommend that this service be carried out by an authorised Hayter Service Dealer.

Grassbag

WARNING: Improper maintenance, use of non conforming replacement components, or the removal or modification of the grassbag may cause death or serious injury.

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

To prevent accidents replace a damaged grassbag immediately.
(Refer fig.25)

Easy-Wash Port

WARNING: Improper maintenance, use of non conforming replacement components, or the removal or modification of the deck may cause death or serious injury.

Debris build up inside a mower cutterdeck can impair cut and collection performance. Keep your mower clean by using the convenient washout port.

1. Attach a garden hose that is connected to a water supply to the washout port. (Refer fig.26)
2. Turn the water on.
3. Start the engine and run it until there are no more clippings that come out from under the machine.
4. Shut off the engine.
5. Shut off the water and disconnect the garden hose from the machine.
6. Start the engine and run it for a few minutes to dry the underside of the machine.
7. Allow the engine to cool before storing the machine in an enclosed area.
8. Remove the electric-start button.

Fig. 22

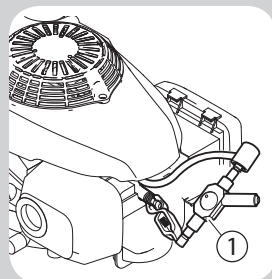


Fig. 23



Fig. 24

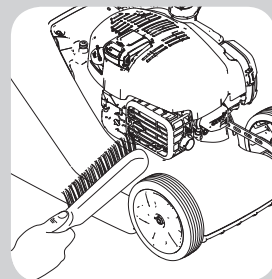


Fig. 25

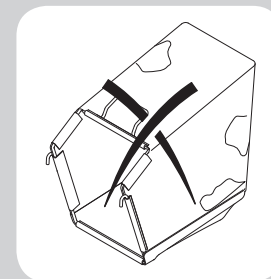
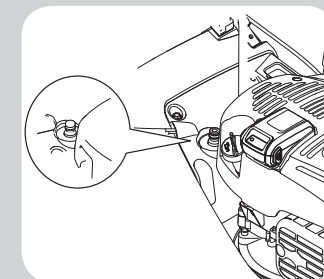


Fig. 26



MOWER MAINTENANCE

Securing Nuts & Bolts

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

Rear Deflector

WARNING: Improper maintenance, use of non conforming replacement components, or the removal or modification of the rear deflector may cause death or serious injury.

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

Clutch Cable Adjustment

At any time the operator feels that the machine is losing drive, check the following.

- Stop the engine.
- Pull the machine backwards at the same time progressively engage the clutch lever until the rear rollers lock, at this point the clutch lever should be 60 mm from the handlebar.
- If the distance between the clutch lever and handlebar is less than 60 mm regulate the engagement position with the black plastic cable

adjuster to regain the 60 mm distance.

(Refer fig.27)

- Note this is a temporary adjustment and at the nearest opportunity a service should be carried out to ensure the spring on the clutch cable attached to the gearbox clutch is set correctly. This adjustment should be done using the metal adjuster at the control with the plastic adjuster reset fully wound in. When the spring is set tighten the inner lock nut to secure in position.

(Refer figs. 28 & 29)

Lubrication

Lubricate the wheels, pivot points and linkages with engine oil every 25 operating hours.

Apply a good quality medium grease to the inner control cables at the point of entry and exit from their outer casing.

Cutterblade Removal

To prevent injury it is wise to seek assistance before turning the mower on its side.

Drain the fuel by running the engine until the fuel tank is empty and the engine stops. Remove the spark plug lead, electric-start button and allow the engine to cool. Turn the mower on its side and ensure that the air filter side of the engine is uppermost.

(Refer fig.30)

Note how the cutterblade is assembled be removal.

Firmly grip the end of the cutterblade (1) with a gloved hand and remove bolt (1), spring washer (2) and distance piece (3) securing the cutterblade with a 9/16" A/F spanner.

(Refer fig. 31)

Fig. 27

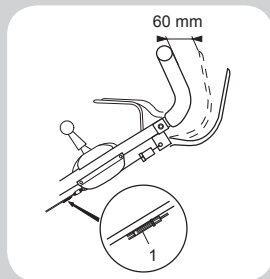


Fig. 28

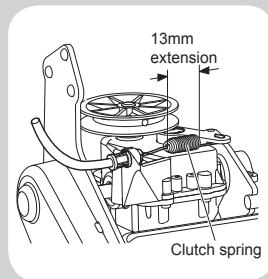


Fig. 29

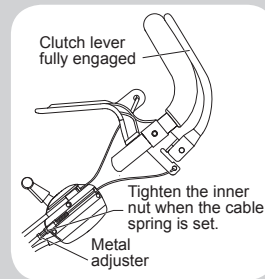


Fig. 30

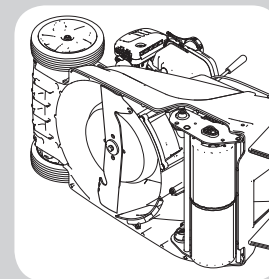
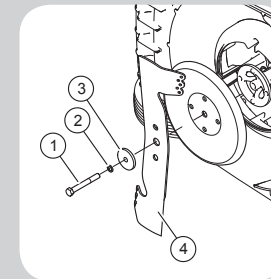


Fig. 31



MOWER MAINTENANCE

Cutterblade Removal

To prevent accidents never work on the cutterblade unless the spark plug lead has been removed. The cutterblade has sharp edges. ALWAYS wear strong work gloves to protect your hands when working on the cutterblade. DO NOT rotate 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 cutterblade and its mounting arrangement should be checked regularly for signs of wear or damage. Ensure that the cutterblade is not bent or cracked.

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

Regularly check that the bolt securing the cutterblade is tightened to the specified torque of 54 Nm.

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

Cutterblade Assembly

Assemble the cutterblade (4) with the turned up edges facing towards the engine. Secure the cutterblade (4) using the bolt (1), spring washer (2) and distance piece (3).

(Refer fig. 32)

The blade will curve slightly when tightened against the friction disc.

(Refer fig.34)

If the cutterblade is not balanced the heavy end will rotate downwards. Sharpen the heavy end until the cutterblade is correctly balanced.

(Refer fig.35)

Cutterblade Sharpening

A slightly worn cutterblade may be re-sharpened. Both blade edges must be sharpened equally to ensure balance. Sharpen the cutterblade every 25 mowing hours or more frequently if conditions require.

Remove the cutterblade from the mower and clean using a brush and water.

Inspect the cutterblade for signs of damage. Sharpen both cutting edges with a flat file to restore performance.

(Refer fig.33)

Ensure that the cutterblade is balanced. Use a screwdriver with a round shaft to support the cutterblade through its centre hole. Hold the cutterblade horizontal and then release. A balanced cutterblade will remain horizontal.

Fig. 32

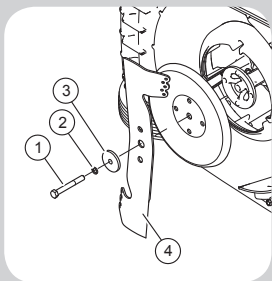


Fig. 33

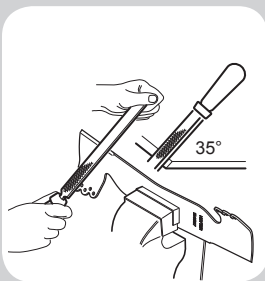


Fig. 34

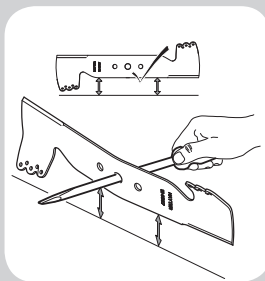
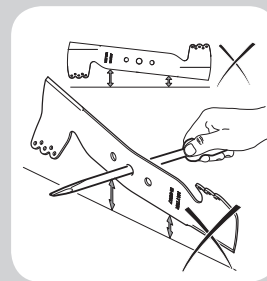


Fig. 35



MOWER MAINTENANCE

Blade Brake Test

The engine and blade are designed to stop within 3 seconds after you release the engine stop lever. Ensure that the engine stop lever functions properly each time before you operate the machine.

If the blade does not stop within 3 seconds or there is a grinding or scraping, metal-to-metal noise when you release the engine stop lever, contact an Authorised Hayter Service Dealer.

This same recommendation applies if you observe heavy vibrations when using the machine.

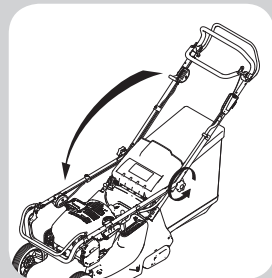
Storage

Remove the electric-start button from the electric-starter and store it in a memorable place.

When storing your mower away, ensure that cables do not become snagged at the pivot point and depress the engine stop lever to prevent it being damaged through contact with the engine.

To store the handle unscrew the 2 small securing knobs sufficiently to allow it to be pivoted forwards to rest against the mower.
(Refer fig.36)

Fig. 36



Engines stored in excess of 30 days need to be protected with fuel additive or drained of fuel to prevent gum from forming in the fuel system or on essential carburettor parts.

To ensure your mower is maintained in good working order it is important that the following procedure is adopted. Refer to the Maintenance section as necessary.

- Drain fuel from the engine by operating the engine until it stops.
- Disconnect the spark plug lead and remove the electric-start button.
- Change the engine oil.
- Remove the engine spark plug and pour 15ml of engine oil into the engine cylinder and replace the spark plug. Do not exceed the stated volume of oil as engine damage may occur on re-starting. Do not replace the spark plug lead. Slowly pull the engine start-cord once to crank the engine. This will distribute the oil and help prevent engine corrosion.
- Clean grass and debris from the engine cylinder, cylinder head cooling fins, under top cowl, around and behind exhaust / exhaust guard and ensure that the grassbag is clean.
- Lubricate the mower and treat metal parts with a

water repellent anti-corrosion product.

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

Battery Specification

Lithium-Ion Battery	
Lithium-Ion Battery Pack	10.8 V (10,8 V)
Charge Minutes	60
Charging Current	2 AMP
Charger AC Input (Variable)	90 - 240 V
Operating Temperature*	32 - 113°F (0 - 46°C)

MOWER MAINTENANCE

Battery Fuel Gauge

To check available charge, press the Battery Fuel Gauge button. The display lights will indicate the approximate amount of charge remaining in the battery.

Display Lights	Available Charge
Four lights	78% to 100%
Three lights	55% to 77%
Two lights	33% to 54%
One light	10% to 32%
Flashing light	Less than 10%

When to Charge the Battery Pack

⚠ WARNING: Improper use of the battery and charger can result in an electrical shock, fire or explosion which can cause severe burns.

The Lithium-Ion battery pack was partially charged before shipment. To maintain charge and to prevent damage while in storage, the battery pack is programmed to enter a "sleep mode".

As Required:
To check available charge, press the Battery Fuel Gauge

button (E) and charge if required.
(Refer fig.37)

How to Charge the Battery Pack

⚠ WARNING: Keep battery pack and charger dry. Do not expose battery pack or charger to rain or wet conditions.

1. Connect battery charger to a mains supply socket.
2. Slide the battery pack (G) firmly into the battery charging bay (F). If the red charging light (A) does not come on, remove the battery pack (G) and reinstall. Make sure the battery pack (G) is firmly seated in the battery charging bay (F).

- Red light indicates battery pack is charging normally.
- Green light indicates battery pack is fully charged.
- FLASHING red light indicates the battery pack is either too hot or too cold and will not accept a charge. Leave the battery pack connected and when normal operating temperature* is reached it will automatically start charging.

*Refer to Battery Specification.

From "sleep mode", the battery will wake up in approximately ten (10) seconds.

3. A complete discharged battery pack will fully charge in approximately one (1) hour. The battery pack will stay fully charged if left on the charger.
4. When the green light indicates that the battery is fully charged, it can be removed from the charger.
5. To check available charge, press the Battery Fuel Gauge button.
6. When not in use, disconnect the battery charger from the mains supply socket.

(Refer fig.38)

Fig. 37

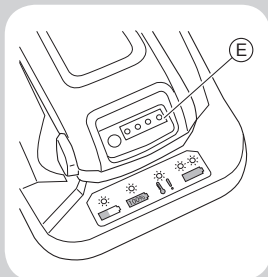
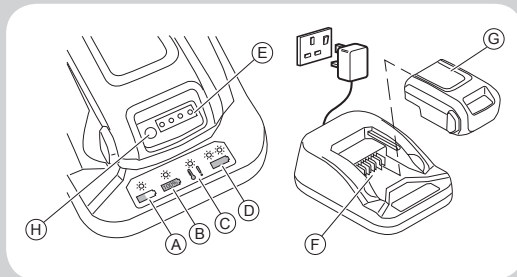


Fig. 38



A	Red light - Charging normal	E	Battery fuel gauge - Check available charge
B	Green light - Fully charged	F	Battery charger bay - Holder for battery whilst charging
C	Flashing red light - Battery pack too hot/cold and will not charge	G	Battery pack
D	Flashing red/green lights - Battery pack will not charge, replace	H	Battery charge indicator light

MOWER MAINTENANCE

Battery Pack and Charger Storage

When not in use, disconnect the battery and store in a cool, dry area. Wet, damp areas can cause corrosion of terminals and electrical contacts.

Do not expose battery pack or charger to rain or wet conditions.

If stored for long periods in high temperatures (120° F / 49° C), permanent damage to the battery pack can result. Check electrical terminals and contacts on battery packs and charger. Wipe with clean cloth or blow clean with compressed air.

After storage, a normal charge may be required. To check available charge, press the Battery Fuel Gauge button (E) and charge if required.

Battery Disposal Directive

PREVENT ENVIRONMENTAL DAMAGE.

The battery and charger have a separate collection mark. The mark indicates that the battery and battery charger must be taken to an authorised disposal site. They must not be disposed of with general waste.

EU Directive 2012/19/EU classifies these products as electrical or electronic equipment.

- The consumer has a critical role in returning waste

electronic / electrical equipment for recycling and disposal.

- Recycling keeps these products out of the municipal waste stream.
- The crossed-out bin symbol is a reminder to follow these points.

(Refer fig.39)

Lithium-Ion Battery Pack Disposal

WARNING: Battery chemicals are toxic and corrosive. Fire or explosion can cause severe burns or death.

- Never burn or incinerate discarded or used battery packs as they may explode. Toxic fumes and materials are created when battery packs are burned.
- Do not use a battery that has been crushed, dropped or damaged.
- If liquid comes in contact with your skin, wash immediately with soap and water.
- If liquid gets in your eyes, flush with clean water for at least 30 minutes. See a doctor immediately.

Used and discarded battery packs will likely still carry a

small electrical charge and should be handled with care. Always dispose of discarded or used battery packs according to local regulations.

Please contact your local authority or dealer to ask for further details regarding the correct method of disposal.

Fig. 39



MAINTENANCE SCHEDULE

Follow the hourly or calendar intervals, whichever occurs first.

More frequent service will be required if working for prolonged periods under dusty, dry conditions, when airborne debris is present or after extensive operation cutting tall, dry grass.

First 5 Hours

- After the very first five hours change the engine oil.
- Check the percentage of charge available in the battery and charge if necessary.

Daily or Each Use

- Check the oil level.
- Remove grass debris from around the engine, exhaust / exhaust guard, airways in the top cowl and the underside of the deck housing.
- Check the condition of guards and safety devices.
- Check condition of cutterblade.
- Check condition of grassbag and ensure airways are clear (replace if damaged)
- Check the percentage of charge available in the battery and charge if necessary

25 Hours Or Every Season

- Change the engine oil if continuously operating under heavy load or high ambient temperature.
- Service the air filter.
- Lubricate wheels, pivot points and linkages.
- Grease the inner control cables at point of entry and exit from their outer casing
- Check the clutch cable adjustment.
- Sharpen the cutterblade.

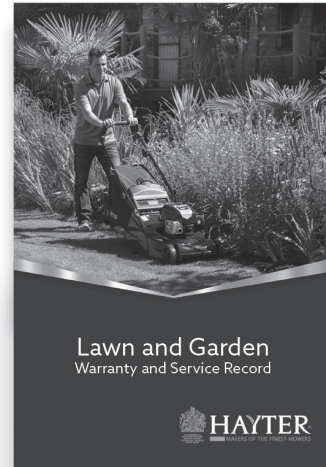
50 Hours Or Every Season

- Change the engine oil.
- Clean the air filter.

100 Hours Or Every Season

- Clean the engine cooling system. Clean more often under dusty conditions or when airborne debris is present or after prolonged operation whilst cutting tall, dry grass.
- Replace the spark plug.
- Replace the air filter.

Failure to follow this maintenance schedule could result in non-warrantable failures.



KEEP IT SAFE

You will find

- » Annual service record
- » Helpful lawnmower maintenance tips
- » Range of lawnmower accessories

If you did not receive a copy when you purchased your lawnmower, please contact your supplying dealer.

TROUBLE SHOOTING

PROBLEM	CAUSES	CORRECTIVE ACTION
Engine will not turn over	Engine stop lever released	Operate engine stop lever
	Incorrect oil level	Check oil level
	Obstruction under deck	Remove obstruction
Engine smokes	Excess oil	Check oil level
	Air filter cartridge oil soaked or blocked	Service air filter
Engine runs then stops	Fuel starvation	Fill fuel tank
	Fuel cap vent blocked	Clean fuel cap vent
Engine will not start	Engine under load	Raise the height of cut
	Incorrect / contaminated fuel	Drain tank and fill with correct fuel
	Spark plug lead disconnected	Connect spark plug lead
	Engine brake not released	Operate engine brake lever
	Faulty spark plug	Clean and adjust the gap or replace
	Wiring fault	Check wiring
Engine runs rough	Spark plug lead becoming disconnected in use	Connect spark plug lead
	Faulty spark plug	Clean and adjust gap or replace
	Air filter blocked	Service air filter
	Incorrect / contaminated fuel	Drain tank and fill with correct fuel
Engine vibrates excessively	Mounting bolt loose	Tighten bolt
	Cutterblade bolt loose	Tighten bolt
	Cutterblade out of balance	Balance cutterblade
	Bent crankshaft	Consult your dealer

PROBLEM	CAUSES	CORRECTIVE ACTION
Uneven cut	Undulating ground conditions	Change direction of travel
	Cutterblade worn	Sharpen cutterblade
	Cutterblade out of balance	Balance the cutterblade
	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
Mower is hard to push	No airflow through the grassbag	Clean the grassbag
	Cut height too low	Increase cut height
	Wheels/roller damaged	Inspect and replace as necessary
Mower will not self propel	Clutch out of adjustment	Adjust clutch cable
	Drive belt damaged	Replace drive belt
Poor grass condition	No airflow through the grassbag	Clean the grassbag
	Discharge chute blocked	Remove blockage
	Wet grass	Mow dry grass
Cutterblade drive will not engage/disengage	Grassbag full	Empty grassbag
	Engine stop lever not fully forward	Push fully forward to disengage

WARRANTY

5 Year Warranty - Residential Use / 90 Day Warranty - Commercial Use

Hayter Limited warrants to the original purchaser that this unit shall be free from defects in material and workmanship, under normal, residential use, for a period of five years from the date of purchase or, if used commercially, for a period of 90 days from the date of purchase. (Please note that a separate engine warranty is offered by the engine manufacturer and services are provided through their authorized network. Refer to the "Engine Warranty Statement" in the Engine Manual for details). To qualify for the 5 year warranty, you must have the machine serviced annually by an Authorised Hayter Service Dealer* within 12, 24, 36 and 48 months of the date of purchase. Please note that these services will be charged at a rate agreed between you and the Dealer. If the machine is not serviced annually, the warranty will automatically expire twelve months after the machine's most recent annual service.

Excluded from warranty include those items which are subject to normal wear and tear, including but not limited to tyres, wheels, cutterblades, belts, cables, grass bags, batteries and other consumable wearing parts.

Lifetime Crankshaft Warranty

All Hayter branded machines which are fitted with a genuine Hayter Friction Disc and Crank-Safe Blade Brake Clutch (integrated Blade Brake Clutch (BBC) + Friction Disc assembly) as original equipment and used by the original purchaser in accordance with recommended operating and maintenance procedures, are covered by a Lifetime Warranty against engine crankshaft bending. Machines fitted with friction washers, Blade Brake Clutch (BBC) units and other such devices are not covered by the Lifetime Crankshaft Warranty.

Lifetime Deck Warranty

Hayter Limited warrants to the original purchaser that the mower deck, consisting of the die cast structure to which the engine is secured, will not crack or break during normal use for the lifetime of the product with the original purchaser. If such damage occurs Hayter Limited shall, at our option, repair or replace the mower deck at no cost. Deck failure due to misuse or abuse and corrosion occurring due to lack of regular maintenance are not covered. Machines used commercially are excluded from this warranty.

Terms and Conditions

Hayter shall, at our option, repair or replace any part covered by warranty during the applicable period.

Your product must be registered within 14 days of purchase to qualify for the full benefit of the product warranty. Please go to www.hayter.co.uk/warranty-registration to complete this process.

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. Minor mechanical adjustments are not covered 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.

Making a Claim

To make a warranty claim, return the unit to a Hayter Authorised Service Dealer, along with proof of purchase stating the machine serial number and date of purchase and the service receipt(s) or stamped service card.

This warranty gives you specific legal rights and are in addition to any statutory rights to which you may be entitled. Your statutory rights are not affected by this warranty. If you need additional information concerning this written warranty, or assistance in obtaining services please email customer.care@hayter.co.uk, write to Hayter Limited, Customer Care Team, Spellbrook, Bishop's Stortford, Hertfordshire CM23 4BU or Tel Freephone 0800 616298 .

*Details of your local Hayter Authorised Dealer can be found on the Hayter website www.hayter.co.uk or contact: Freephone 0800616298.

EEA/UK Privacy Notice

Hayter's Use of Your Personal Information

Hayter Limited, and its parent, The Toro Company, respect your privacy. When you purchase our products, we may collect certain personal information about you, either directly from you or through your local retail outlet. We use this information to fulfil contractual obligations - such as to register your warranty, process your warranty claim or to contact you in the event of a product recall - and for legitimate business purposes - such as to gauge customer satisfaction, improve our products or provide you with product information which may be of interest. We may share your information with The Toro Company, its subsidiaries or affiliates, or with our dealers, retailers or other business partners in connection these activities. We may also disclose personal information when required by law or in connection with the sale, purchase or merger of a business. We will never sell your personal information to any other company for marketing purposes.

Retention of your Personal Information

We will keep your personal information as long as it is relevant for the above purposes and in accordance with legal requirements. For more information about applicable retention periods please contact legal@toro.com.

Hayter's Commitment to Security

Your personal information may be processed in the US or another country which may have less strict data protection laws than your country of residence. Whenever we transfer your information outside of your country of residence, we will take legally required steps to ensure that appropriate safeguards are in place to protect your information and to make sure it is treated securely.

Access and Correction

You may have the right to correct or review your personal data, or object to or restrict the processing of your data. To do so, please contact us by email at legal@toro.com. If you have concerns about the way in which Hayter Ltd. has handled your information, we encourage you to raise this directly with us. Please note that European residents have the right to complain to your Data Protection Authority.

Hayter Limited

Spellbrook,
Bishop's Stortford,
Herts
CM23 4BU
England

Customer Care Helpline: 0800 616 298
www.hayter.co.uk