Harrier 48 Pro

CODE 486S
(Auto Drive)

OWNER'S HANDBOOK

English Version
FROM SERIAL NO: 486S001221
Issue : 1/04/99

HANDBOOK: 486004 (Rev.1.)

PROTO

CERTIFICATE OF CONFORMITY

I, the undersigned M.A. Wright, of:

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

certify that the lawnmowers:

1. Machine Type No.	CODE 486S
2. Category.	Combustion Engine
3. Make.	Hayter
4. Type.	Rotary
5. Engine - Manufacturer.	Briggs & Stratton
- Type.	121682 0247E1
- Speed of rotation during test.	2870 rpm

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

Guaranteed maximum sound power level.	96 dB(A)
- Type of cutting device	Cutterbar
- Width of cutting device	48cm
- Speed of rotation of the cutting device	2870 rpm

TESTED AT SUDBURY, SUFFOLK, ENGLAND 26/01/99

Signed

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 486S
Models	Harrier 48 ProAuto Drive

CE

Directives complied with:
98/37/EC Essential Health & Safety Requirements Relating to the Design & Construction of Machinery and Safety Components.
84/538/EEC amended by 87/252/EEC and 88/180EEC Permissible Sound Power Levels of Lawn Mowers
89/336/EEC amended by 92/31/EEC Electromagnetic Compatibility

Standards Used: EN292, EN836, ENISO14982

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

Signed Date: 01.04.99

M.A. Wright
(Technical Director)

VIBRATION INFORMATION

Lawnmower vibration information. RMS acceleration measured in 3 - axes at operators contact position on the handlebars. **CODE 486S = 5 ms^{-2}**

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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 48 Pro 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.

⚠ 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:

⚠ While mowing, always wear substantial footwear and long trousers. 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.

⚠ **WARNING**: Petrol is highly flammable.

- Store fuel in containers specifically designed for this purpose.

- Refuel outdoors only and do not smoke while refuelling.

- Add fuel before starting the engine. Never remove the cap from the fuel tank or add petrol while the engine is running or when the engine is hot. Allow the engine to cool for at least 2 minutes before refuelling.

- Do not attempt to start the engine if petrol is spilled or a smell of petrol is present. Move the mower away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.

SAFETY PRECAUTIONS

Continued.

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

- Always use fresh fuel. Stale fuel can block the carburettor and cause leakage.

- Replace fuel tank and container caps securely.

- Replace faulty exhaust mufflers.

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

⚠ 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 re-sharpened. Ensure that both cutting edges are re-sharpened equally to maintain balance. An unbalanced cutterbar may cause serious damage to your machine.
Refer to “Maintenance”.

Operation:

⚠ Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.

⚠ Always pull the starter cord slowly until resistance is felt. Then pull the cord rapidly to avoid kickback and prevent hand or arm injury.

⚠ Mow only in daylight or good artificial light.

⚠ Avoid using the mower on wet grass, where feasible.

⚠ 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.

⚠ Stop the engine 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.

SAFETY PRECAUTIONS **Continued.**

⚠ Do not change the engine governor settings or overspeed the engine.

⚠ Disengage the rear roller drive clutch before starting the engine.

⚠ Start the engine carefully, with feet well away from the cutterbar.

⚠ Do not tilt the mower when starting the engine.

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

⚠ Never pick up or carry a mower while the engine is running.

⚠ Never pick up or carry the mower alone.

⚠ Stop the engine and disconnect the spark plug lead:

- Before clearing blockages or unclogging the discharge chute.
- Before cleaning / checking or working on 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).

⚠ Stop the engine:

- Whenever you leave the mower.
- Before refuelling.

⚠ Never lift the deflector plate whilst the mower is in operation.

⚠ Never touch the engine muffler / muffler guard or cooling fins when the engine is hot.

⚠ **WARNING: THE CUTTERBAR CAN CONTINUE TO ROTATE AFTER THE ENGINE IS SWITCHED OFF**

SAFETY PRECAUTIONS **Continued.**

Maintenance and Storage:

⚠ Keep all nuts, bolts and screws tight to ensure that the equipment is in safe operating condition.

⚠ Frequently check fuel lines and fittings for cracks or leaks and replace if necessary.

⚠ Never check for a spark with the spark plug removed. (Use an approved tester).

⚠ Never crank the engine with the spark plug removed. If the engine is flooded, move the throttle to the 'fast' position and crank the engine until it starts.

⚠ Never strike the flywheel with a hammer or hard object as this may cause the flywheel to shatter in operation. Always use the correct tools to service the engine.

⚠ Never operate the engine without a muffler guard. Inspect the muffler periodically and replace if worn or leaking.

⚠ Never start the engine with the air-cleaner or air-cleaner cover removed.

⚠ Never store the mower with petrol in the tank within an enclosed area where fumes may reach an open flame or spark.

⚠ Allow the engine to cool before storing in any enclosure.

⚠ To reduce the fire hazard, keep the engine, muffler, cooling fins and petrol storage area free of grass, leaves, or excessive grease.

⚠ Check the grassbag frequently for wear or deterioration.

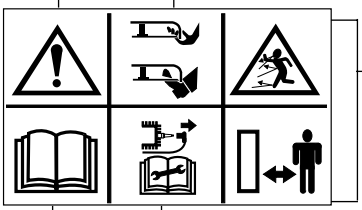
⚠ Replace worn or damaged parts for safety.

⚠ If the fuel tank has to be drained, it is essential that this be done outdoors.

⚠ **WARNING: PREVENT INJURY. ALWAYS TAKE NECESSARY PRECAUTIONS WHEN LIFTING OR CARRYING YOUR MACHINE. NEVER ATTEMPT TO LIFT ON YOUR OWN**

DECALS

WARNING DECAL



WARNING - 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.

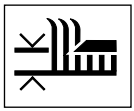
STOP ENGINE AND REMOVE SPARK PLUG LEAD BEFORE PERFORMING MAINTE-NANCE OR REPAIR WORK.

CAREFULLY READ THE OWNERS HAND-BOOK BEFORE USING THE MACHINE.

ENGINE STOP DECAL: Part No. 331046



CUT HEIGHT ADJUSTMENT :



THROTTLE CONTROL:



SPECIFICATIONS

MODELS	CODE 486S Auto Drive
Engine	Briggs & Stratton INTEK EDGE 60
Engine Type	121682-0247-E1
Engine / Cutterbar Speed	2870 rpm
Fuel Type	Unleaded Petrol
Fuel Capacity	1.5 litres
Oil Type	SAE 30 engine oil
Oil Sump Capacity	0.6 litres
Cutting Width	480mm
Cutting Height	12 - 65mm
Overall Dimensions	1044 x 514 x 1377mm
Dry Weight	49 Kg

ASSEMBLY INSTRUCTIONS

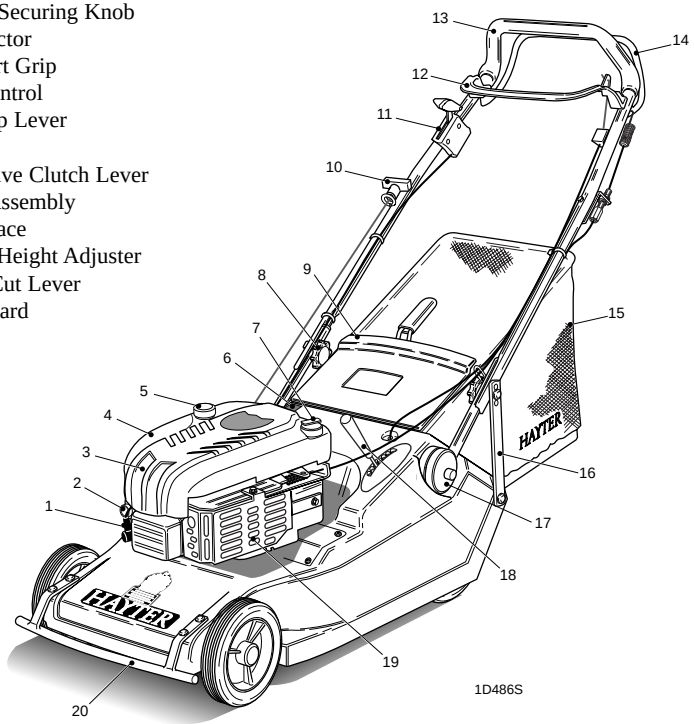
SAFETY NOTICE

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



GENERAL ASSEMBLY

1. Spark Plug Lead
2. Primer Bulb
3. Engine Cover
4. Air Cleaner
5. Fuel Cap
6. Serial Number Label
7. Oil Filler Cap & Dipstick
8. Handlebar Securing Knob
9. Rear Deflector
10. Engine Start Grip
11. Throttle Control
12. Engine Stop Lever
13. Handlebar
14. Ground Drive Clutch Lever
15. Grassbag Assembly
16. Support Brace
17. Handlebar Height Adjuster
18. Height of Cut Lever
19. Muffler Guard
20. Front Rail



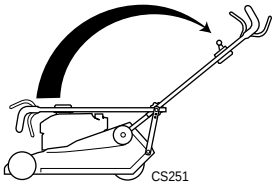
ASSEMBLING THE MOWER FOR THE FIRST TIME

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

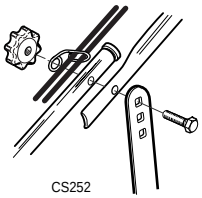
Description	Quantity
Grassbag	1
Owner's Handbook	1
Warranty Registration Card	1

Assemble the handlebar: Unscrew the handlebar securing knobs sufficiently to allow the handlebar to be pivoted. Move the engine stop lever away from the engine to avoid damage and unfold the handlebar to its operating position. Ensure that both Knobs are on the outside of the handlebar and the cable guide is positioned as shown. Tighten to secure handlebar in position.


CS251

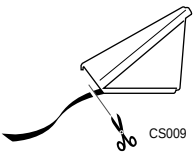
IMPORTANT - PREVENT DAMAGE : When unfolding the handlebar, take care to ensure that the controls and cables do not become damaged. Always replace damaged controls and cables before using the mower.

Adjust height of handlebar: Unscrew the two handlebar securing Knobs to release the handlebar brace then loosen the two nyloc nuts at the base of the handlebar sufficiently to allow it to be moved to the upper, middle or lower position. Re-attach the handlebar brace in relevant hole for best position and comfort. Ensure that both sides are set to the same height. Tighten both the nyloc nuts and knobs to secure the handlebar in place.

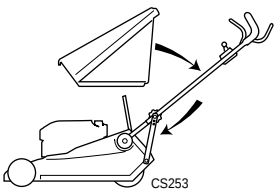

CS252

Assemble the grassbag: Remove the long ribbon label by cutting it off close to the grassbag. Discard the ribbon label.

WARNING - AVOID ENTANGLEMENT : Completely remove this ribbon before using the mower


CS009

Grassbag attachment: Raise the rear deflector. Lower the grassbag through the handlebar and hook in position behind the deflector springs. Lower the grassbag to rest against the rear of the mower. Finally, lower the rear deflector to rest against the top of the grassbag.


CS253

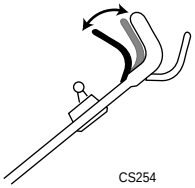
ASSEMBLING THE MOWER FOR THE FIRST TIME

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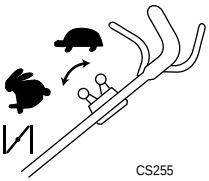
Check that all fasteners are secure.


CS015

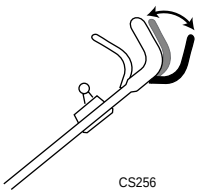
Check engine stop lever operation: Operate the engine stop lever several times. Ensure that the cable moves freely and that the lever returns automatically to the engine stop position when released.


CS254

Check throttle lever operation: Operate the throttle lever several times and ensure that the cable moves freely whilst operating the engine throttle mechanism. Slight resistance should be felt when the lever moves to the 'choke' position.

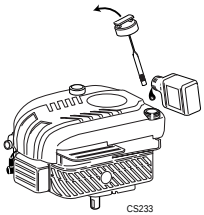

CS255

Check clutch lever operation: Operate the clutch lever several times and ensure that the cable moves freely.


CS256

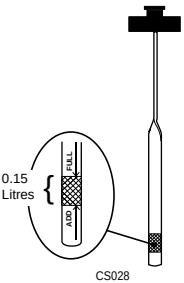
BEFORE STARTING THE ENGINE

IMPORTANT - PREVENT ENGINE DAMAGE: The engine is shipped without oil or petrol. The engine must be filled with the correct grade of oil and petrol before starting the engine.



Oil recommendations: Always use high quality detergent oil classified “For service SE, SF, SG” SAE 30 oil. Never use additives with recommended oils.
SAE 10W-30 multigrade oil may be used, but this will result in higher engine operating temperatures with consequential high oil consumption. It is imperative that the oil level is checked more frequently if this grade of oil is used in order to guard against serious engine damage.

Check oil level: Clean around the oil filler cap before removing. With the mower on a level surface, unscrew and remove the oil filler - dipstick. Wipe oil from it with a clean cloth. Screw the oil filler - dipstick back in place, then unscrew and remove it to check the oil level.



The oil level is correct when it is at the **full** mark on the dip-stick. **DO NOT OVERFILL.**

Slowly fill with engine oil as necessary and replace the oil filler - dipstick.

IMPORTANT: The oil filler dipstick must be secured to prevent oil leakage during operation.

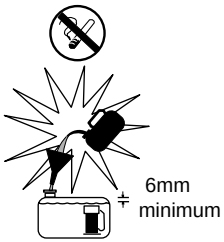
BEFORE STARTING THE ENGINE Continued.

Fuel Recommendations: Always use clean, fresh unleaded petrol. Purchase fuel in quantities which can be used within 30 days. Never mix oil with petrol. For added engine protection Briggs & Stratton recommend the use of their fuel additive which is available from an authorised Briggs & Stratton service dealer.

Check fuel level: Clean around the fuel filler cap before removing and fill the fuel tank with clean unleaded petrol.

Do not overfill the fuel tank. Allow 6mm minimum of tank space for fuel expansion.

IMPORTANT: The fuel filler cap must be secured to prevent fuel leakage during operation.

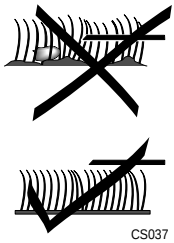


CS036

WARNING - PREVENT ACCIDENTS: The cutterbar rotates when the engine is operating.

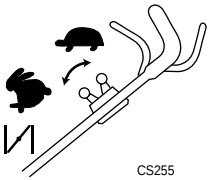
ALWAYS operate the engine stop lever several times and ensure the engine stop cable moves freely before starting the engine.

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

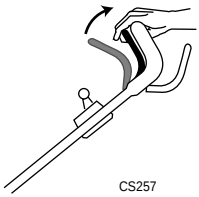

CS037

TO START THE ENGINE

Operate the throttle control lever: Push the lever to 'choke' position before starting a cold engine. It should only be necessary to push the lever to the 'fast' position before starting a warm engine.

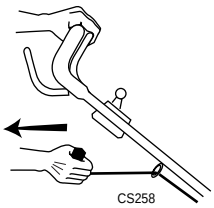


Operate the engine stop lever: Use one hand to hold the engine stop lever in the operating position firmly against the handlebar. To start and operate the engine the engine stop lever must be held in the operating position. If the engine stop lever is released the engine will stop.



Operate the engine start - grip: Stand behind the mower and maintain a firm hold on the handlebar and the engine stop lever to prevent the mower moving towards you. Use your right hand to hold the engine start - grip and pull slowly until resistance is felt, then pull rapidly to crank the engine. When the engine starts carefully return the engine start - grip to the storage position. If the engine does not start after 5 attempts - refer to "Fault Finding".

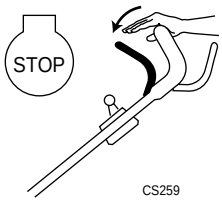
Allow the engine to warm up and return the throttle lever to the 'fast' position after starting a cold engine.



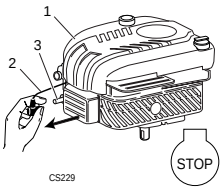
IMPORTANT - PREVENT ENGINE DAMAGE: Never pull the engine start - grip when the engine is running.

STOPPING THE ENGINE

Stopping the engine: Reduce the throttle setting and disengage the engine stop lever by releasing the lever.



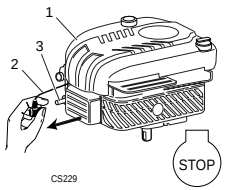
Emergency stop: If the engine stop lever fails, move the throttle lever to the 'slow' position and disconnect the spark plug lead to stop the engine.



1. Engine
2. Spark Plug Lead
3. Spark plug

SAFETY NOTICE

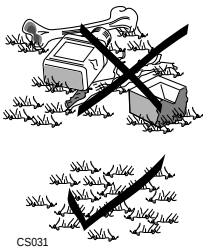
WARNING - PREVENT ACCIDENTAL STARTING : Always stop the engine and disconnect the spark plug lead before cleaning, inspecting or working on the machine.



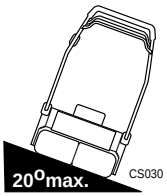
1. Engine
2. Spark Plug Lead
3. Spark plug

SAFETY NOTICE

WARNING - PREVENT ACCIDENTS: Before mowing, thoroughly inspect the area where the mower is to be used and remove all 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.

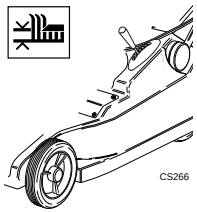


IMPORTANT - PREVENT ENGINE DAMAGE : DO NOT use the mower on a slope greater than 20 degrees.



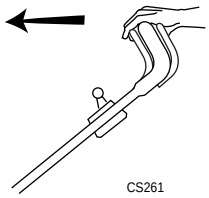
HEIGHT OF CUT

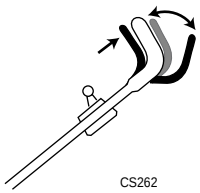
To adjust the height of cut: Grip the lever and pull sideways to disengage it from the locking notch, then push forwards to lower or pull backwards to raise the height of cut. Finally release the lever at the required position and ensure it locks firmly into one of the seven notch settings.



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.

TRAVEL


CS261


CS262

Forward travel: Hold the handlebar and operate the clutch lever to power the mower in a forward direction.

Travel speed is controlled by engine speed. Use the throttle control to increase forward travel speed.

Release the clutch lever to stop the mower from travelling in a forward direction.

When the clutch lever is disengaged the mower can be operated as a push model. This feature is useful when mowing in confined areas.
Note: The engine stop lever must be held firmly against the handlebar to keep the engine running.

Reverse travel: Release the clutch lever. 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 release the engine stop lever to stop the engine before walking backwards with the mower.**

TURNING THE MOWER

To make a wide turn: Steer the mower with the handlebar in the direction required.

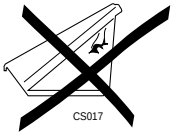
To make a tight turn: Stop and apply downward pressure on the handlebar to raise the front wheels of the mower just above ground level and steer the mower using the handlebar in the required direction.

⚠ **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 engine is running.**

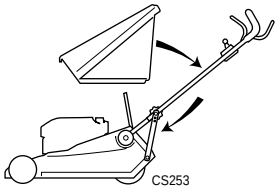
MOWING WITH GRASS COLLECTION

The grassbag is designed to collect grass clippings.
For optimum performance, mow in dry conditions with the throttle control set at 'fast'.

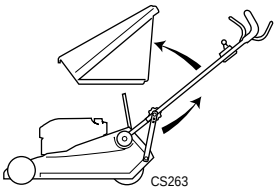
⚠ **WARNING - PREVENT ACCIDENTS: ALWAYS check the condition of the grassbag for signs of damage. Replace a damaged grassbag immediately. DO NOT operate the mower with a damaged grassbag. ALWAYS stop the engine and disconnect the spark plug lead before attempting to remove a grass blockage. Ensure the rear grass deflector is sitting on the grassbag correctly.**



Grassbag attachment: Raise the rear deflector. Lower the grassbag through the handlebar and hook in position behind the deflector springs. Lower the grassbag to rest against the rear of the mower. Finally, lower the rear deflector to rest against the top of the grassbag.



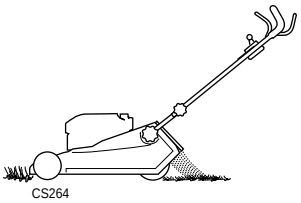
Grassbag removal: Raise the rear deflector and lift the grassbag through the handlebar. Finally lower the rear deflector to rest against the rear of the mower.



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 engine overloading.

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.


CS264

⚠ **WARNING - PREVENT ACCIDENTS: ALWAYS check the condition of the rear deflector for signs of damage and ensure it is positioned correctly on the rear of the mainframe. 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 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.

MOVING THE MOWER ACROSS NON-GRASSED AREAS

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

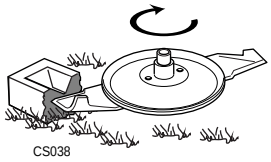
⚠ **WARNING - PREVENT ACCIDENTS : ALWAYS stop the engine and push the mower carefully at slow walking speed.**

CUTTERBAR OPERATION

The cutterbar rotates at the same speed as the engine. The cutterbar will stop within three seconds of the engine 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.**

The cutterbar is driven by the engine via a friction device to help prevent damage occurring to the cutting mechanism when a hidden obstruction or overload is encountered. When the obstruction or overload is removed the friction device will automatically reset.


CS038

⚠ **WARNING - PREVENT ACCIDENTS: ALWAYS stop the engine when a hidden obstruction or excessive vibration is encountered. Disconnect the spark plug lead 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 similar means.

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

MOWING AND GRASS CARE TIPS Continued.

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

Prevent grass damage. Take care when turning the mower.

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

Brush the lawn surface to disperse worm casts before mowing.

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 heights for lawns :

DANGER Coarse grasses dominate fine grasses. — **38mm**

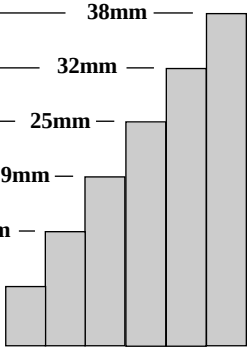
General lawn in spring, autumn or prolonged dry period. — **32mm**

General lawn in summer. — **25mm**

Luxury lawn in spring, autumn or prolonged dry period. — **19mm**

Luxury lawn in summer. — **12mm**

DANGER Grass strength is reduced. — **6mm**



MAINTENANCE

⚠ **WARNING - PREVENT ACCIDENTS: Stop the engine and disconnect the spark plug lead before attempting to carry out maintenance procedures on the mower.**

ENGINE

Engine Handbook: For details of engine maintenance refer to the engine operating manual supplied with your machine.



KEEPING THE ENGINE CLEAN

⚠ **WARNING - PREVENT ACCIDENTS : Accumulation of debris around the muffler could cause a fire. Inspect and clean the engine after every use.**

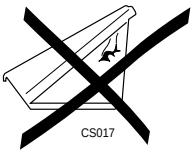
Remove all grass and debris from the engine including the muffler / muffler guard, the air ways in the top cowl and the surrounding deck areas on a daily basis after use.

IMPORTANT - PREVENT ENGINE DAMAGE: Never spray the engine with water during cleaning. Water can contaminate the fuel. Always clean with a brush or compressed air.

NOTE: Grass and debris may clog the engine's air cooling system especially after prolonged operation while cutting tall, dry grass. The internal cooling fins and surfaces may require cleaning to prevent overheating and engine damage. We would recommend that this be carried out by an authorised Briggs & Stratton dealer.

GRASSBAG

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



⚠ **WARNING - PREVENT ACCIDENTS: Replace a damaged grassbag immediately.**

DECK HOUSING

Remove grass debris from the top and underside of the deck housing immediately after use.

IMPORTANT - PREVENT DAMAGE: Fertilisers and top dressings are particularly corrosive. Thoroughly clean the mower deck immediately after use on treated grass and store well away from corrosive materials.

SECURING NUTS AND BOLTS

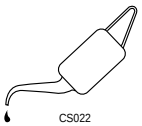
Regularly check that all securing nuts and bolts are tight. Replace missing or damaged items immediately.



LUBRICATION

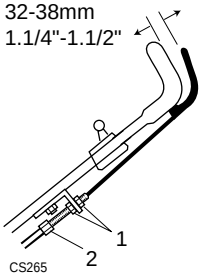
Lubricate the wheels, pivot points and linkages with engine oil every 25 operating hours.

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



CLUTCH CABLE ADJUSTMENT

Check the clutch cable operation every 25 operating hours and adjust if necessary. The clutch cable is adjusted correctly when the belt drive just engages with the clutch lever positioned 32-38mm (1.1/4" - 1.1/2") from the handlebar.



Unscrew the lock nuts (1) and screw the adjuster (2) in or out as necessary. Tighten the locknuts (1) when correctly adjusted.

IMPORTANT - PREVENT DAMAGE: ALWAYS operate the mower with the clutch cable correctly adjusted. ALWAYS replace damaged cables.

CUTTERBAR

WARNING - PREVENT ACCIDENTS: Never work on the cutterbar unless the spark plug lead has been removed. The cutterbar has sharp edges. ALWAYS wear strong gloves to protect your hands when working on the cutterbar. 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 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 the specified torque of 54Nm (40 lbs ft).

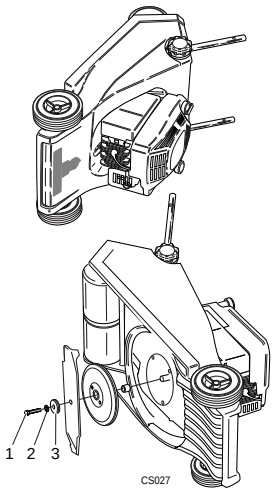
Replace the cutterbar every 2 years or sooner if excessively worn or damaged.

How to remove the cutterbar: Drain the fuel by running the engine until the fuel tank is empty and the engine stops. **Remove the spark plug lead** and allow the engine to cool. Turn the mower on its left hand side and ensure that the air cleaner side of the engine is uppermost.

WARNING - PREVENT INJURY: **It is wise to seek assistance when turning the mower on its side.**

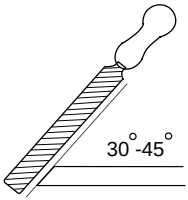
Firmly grip the end of the cutterbar with the gloved hand and remove the bolt, spring washer and distance piece securing the cutterbar with a 9/16" A/F spanner.

How to assemble the cutterbar: Assemble the cutterbar with the turned up edges facing towards the engine. Secure the cutterbar using the original bolt (1), spring washer (2), and distance piece (3) and tighten to a torque of 54Nm (40 lbs ft).



CUTTERBAR **Continued.**

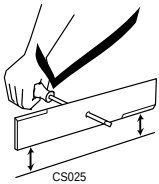
How to sharpen and balance the cutterbar: A slightly worn cutterbar may be re-sharpened. Both cutting edges must be sharpened equally to ensure balance. Sharpen the cutterbar every 25 mowing hours or more frequently if conditions require. Remove the cutterbar from the mower and clean using a brush and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



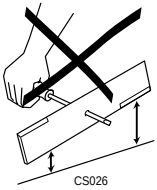
CS040

WARNING - PREVENT ACCIDENTS : DO NOT use a damaged or excessively worn cutterbar.

Sharpen both 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

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, or when airborne debris is present or after extensive operation cutting tall, dry grass.

AFTER FIRST 5 HOURS

- ***Change engine oil***

EVERY 5 HOURS OR DAILY

- ***Check oil level***
- ***Remove grass debris from around engine, muffler/muffler guard and air ways in the top cowl.***
- ***Remove grass debris from top and underside of deck housing.***
- ***Remove grass debris from the grassbag and check for signs of damage.***
- ***Check condition of guards and safety devices.***
- ***Check condition of cutterbar.***

EVERY 25 HOURS OR EVERY SEASON

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

MAINTENANCE SCHEDULE Continued.

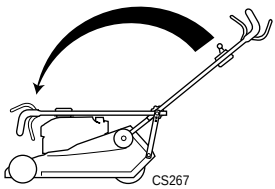
EVERY 50 HOURS OR EVERY SEASON

- ***Change engine oil.***

EVERY 100 HOURS OR EVERY SEASON

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

PREPARING THE MOWER FOR STORAGE



Handlebar storage: To lower the handlebar unscrew the 2 small securing knobs sufficiently to allow it to be pivoted forwards to rest against the mower. Take care to ensure that the control 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 spark plug.

Storage for periods in excess of 30 days: Engines stored in excess of 30 days need to be protected with Briggs & Stratton 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.

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 - grip 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, and around and behind muffler/muffler guard.

Clean all other 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.

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

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

FAULT FINDING

PROBLEM	POSSIBLE FAULT	REMEDY
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 level	Check oil level
	Air cleaner cartridge oil soaked or plugged	Service air cleaner
Engine runs then stops	Fuel starvation	Fill fuel tank
	Fuel cap vent blocked	Clean fuel cap vent

FAULT FINDING **Continued.**

PROBLEM	POSSIBLE FAULT	REMEDY
Engine will not start	Engine under load	Raise height of cut
	Fuel starvation	Fill fuel tank
	Engine cold	Set throttle to ‘choke’ position
	Incorrect/contaminated fuel	Drain fuel tank and fill with correct fuel
	Spark plug lead disconnected	Connect spark plug lead
	Throttle setting incorrect	Set throttle to ‘fast’ position
	Engine brake not released	Operate engine brake lever
	Faulty spark plug	Clean and adjust gap or replace
Engine runs rough	Spark plug lead becoming disconnected in use	Connect spark plug lead
	Faulty spark plug	Clean and adjust gap or replace
	Air cleaner blocked	Service air cleaner
	Incorrect/contaminated fuel	Drain fuel tank and fill with correct fuel
Engine vibrates excessively	Mounting bolts loose	Tighten bolts
	Cutterbar bolt loose	Tighten bolt
	Cutterbar out of balance	Balance cutterbar
	Bent crankshaft	Consult your dealer

FAULT FINDING **Continued.**

PROBLEM	POSSIBLE FAULT	REMEDY
Uneven cut	Undulating ground conditions	Change direction of travel
	Cutterbar worn	Sharpen the cutterbar
	Cutterbar out of balance	Balance the 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
	Slow engine speed	Increase engine speed
	Airflow through the grassbag is restricted	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
Mower will not self propel	Clutch out of adjustment	Adjust clutch cable
	Drive belt damaged	Replace drive belt
Poor grass collection	Airflow through the grassbag is restricted	Clean the grassbag
	Discharge chute blocked	Remove blockage
	Slow engine speed	Increase engine speed
	Wet grass	Mow dry grass
	Grassbag full	Empty grassbag

PARTS LIST

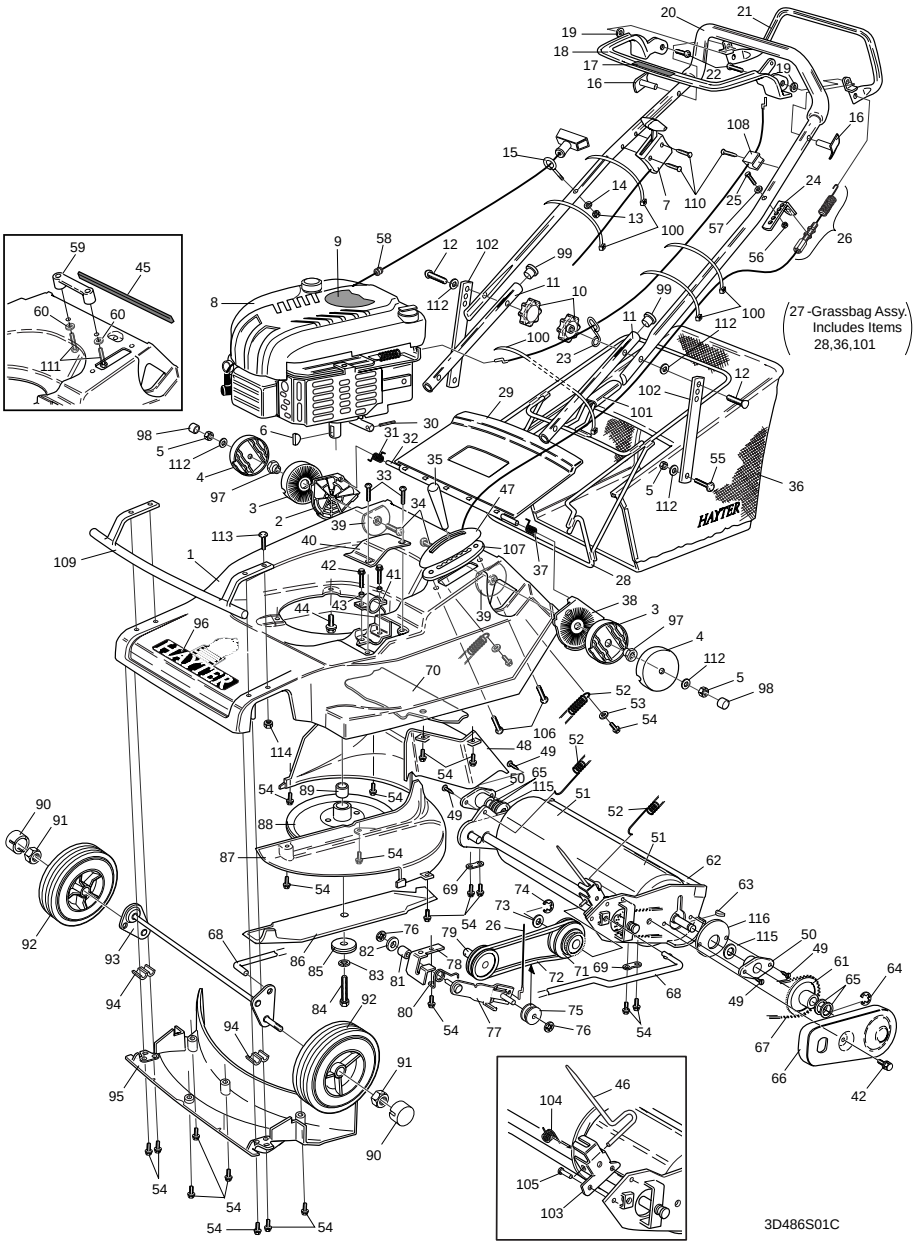
ITEM NO.	DESCRIPTION	PART NO.	QTY
1	Mainframe - Casting	486015V	1
2	Plate - Location RH	480083V	1
3	Clamp - Boss Inner	480084W	2
4	Clamp - Boss Outer	480085W	2
5	Nut - Nyloc Insert 'T' Type	09441	4
6	Key - Woodruff	1662	1
7	Throttle Control	486012	1
8	Engine - B/S Intek edge 60 OHV	486006	1
9	Decal - Engine	486005	1
10	Knob - Handlebar	480088	2
11	Handlebar - Lower	480089W	2
12	Bolt - Handlebar	09180	2
13	Nut - Nylon Insert	09544	1
14	Washer - Plain	09472	1
15	Guide Rope	305093	1
16	Pin - Pivot	480079	2
17	Decal - Engine Stop	331046	1
18	Lever - Engine	340179	1
19	Washer - Nylon	09688	2
20	Handlebar	486013W	1
21	Lever - Clutch	306094W	1
22	Screw	09687	2
23	Cable Guide	480123	1
24	Bracket - Cable Clutch	306108	1
25	Screw	09704	1
26	Cable - Clutch	480094	1
27	Grassbag - Assy (Includes items 28, 36 & 101)	486021	1
28	Frame - Grassbag	486018W	1
29	Deflector - Rear	480140	1
30	Pin - Roll	03997	1
31	Spring - Deflector RH	480131	1
32	Rod - Deflector	480062	1
33	Screw - Pozi Pan Taptite	09758	2
34	Bolt - Coach	09549	2
35	Knob - HOC	480134	1
36	Grassbag - Fabric	486019	1
37	Spring - Deflector LH	480130	1
38	Plate - Location LH	480082V	1
39	Plate - Handlebar Retainer	480055	2
40	Cover - APTO	480014	1
41	Bearing - APTO	480050	1

PARTS LIST

ITEM NO.	DESCRIPTION	PART NO.	QTY
42	Screw - Washer Hd Taptite	09575	3
43	Bush	340154	2
44	Screw - Taptite	09349	3
45	Foam Strip	480119	1
46	Lever - HOC	480128	1
47	Ratchet HOC Moulding	480147	1
48	Throwplate - Main Body	480011	1
49	Screw - Taptite	09545	4
50	Bearing - Roller Housing	219102	2
51	Roller - Rear W/A	486025W	1
52	Spring Tension - Rear Axle	480133	2
53	Washer	09262	2
54	Screw - Taptite	09365	22
55	Bolt - Coach	09666	2
56	Nut	09657	1
57	Washer	09658	1
58	Rope - Stop	MU42189	1
59	Handle	486016	1
60	Washer - Spring	03469	2
61	Sprocket - 22 Teeth	480039	1
62	Frame - Rear Roller W/A	480136W	1
63	Key - woodruff	5321	1
64	Circlip	1428	1
65	Washer	480097	4
66	Cover - Transmission	480043	1
67	Chain	480068	1
68	Rod - Connecting	480045	1
69	Plate - Securing	219037	2
70	Filler - Throwplate	480017W	1
71	Pulley - Sprocket Fixed Speed	480095	1
72	Belt - V APTO	480063	1
73	Washer	02575	1
74	Circlip	03096	1
75	Pulley - Jockey	219156	1
76	Washer - Starlock	0201086	2
77	Bracket - Idler Assy	480115	1
78	Belt Guide	480116	1
79	Pulley - Drive APTO	480038	1
80	Spring - Torsion Idler	480066	1
81	Bush	4452	1
82	Washer - M12 H.D.	09280	1

PARTS LIST

ITEM NO.	DESCRIPTION	PART NO.	QTY
83	Washer - Spring	09273	1
84	Bolt - UNF	09121	1
85	Distance Piece - Cutterbar	4014	1
86	Cutterbar - 19”	4013	1
87	Cover - Throwplate Drive	480012	1
88	Disc - Friction	480070W	1
89	Spacer	480072	1
90	Cap - Hub	219143	2
91	Nut - UNF Nyloc	4486	2
92	Wheel	5218	2
93	Axle - Front W/A	219031	1
94	Moulding - Front axle Bearing	219036	2
95	Fin - Front Insert	480013	1
96	Decal - Hayter & Royal Warrant	219186	1
97	Nut - M8 Shouldered	480086	2
98	Cap	234051	2
99	Plug - Tube	300160	2
100	Tie - Cable	3966	4
101	Handle - Grip	480106	1
102	Brace - Support	486003W	2
103	Bracket HOC	480127	1
104	Torsion Spring HOC	480132	1
105	Rivet	-	2
106	Screw	09634	2
107	Ratchet	480148	1
108	Cable - Engine Brake	486007	1
109	Rail - Front	486008W	1
110	Screw	09358	3
111	Screw	09368	2
112	Washer	09475	6
113	Bolt - Coach	09668	4
114	Nut	09438	4
115	Washer - Nylon	4017	2
116	Cover - Plate	480018	1


27 -Grassbag Assy. Includes Items 28,36,101
3D486S01C

These parts are available through an authorised Briggs & Stratton dealer.

FUEL ADDITIVE

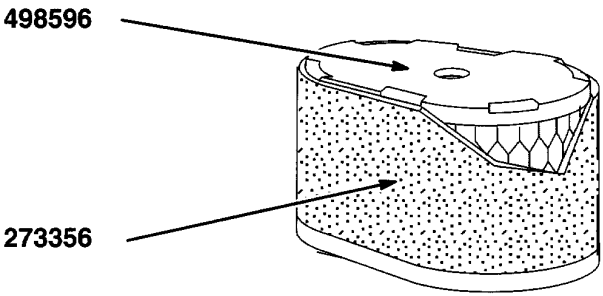


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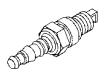


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AIR CLEANER CARTRIDGE

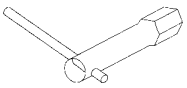


SPARK PLUG



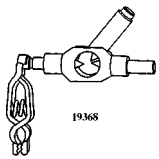
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SPARK PLUG WRENCH



19374

SPARK PLUG TESTER



19368

Machine Serial No:.....

Engine Serial No:.....