



HAYTER

OWNERS H A N D B O O K

HARRIER

CODE 309K **ELECTRIC** CODE 311K

41

ROTARY LAWN MOWER

FROM SERIAL No's. 309 1001
311 1001

HAYTERS PLC.

BISHOP'S STORTFORD
HERTS CM 23 4BU ENGLAND

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 : 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.

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.

It is essential that all securing nuts and bolts are checked and tightened as necessary after a short period of use, due to possible settlement of new components.

LIMITED WARRANTY

Hayters PLC 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 one year from the date of purchase. This warranty does not cover wearing parts i.e cutterbars, wheels and tyres.

This warranty which is your exclusive right, 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 materials or workmanship. Consult the owners handbook or your authorised Hayter 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 the authorised Hayter dealer through whom the machine was originally supplied, along with proof of purchase indicating the machine serial number and purchase date. 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. If you need additional information concerning this written warranty or assistance in obtaining services please write to: **HAYTERS PLC, Service Department, Spellbrook, Herts. CM23 4BU.**

SAFETY PRECAUTIONS

THIS SYMBOL MEANS BE ALERT! YOUR SAFETY IS INVOLVED. EXERCISE GREAT CARE AND FOLLOW THE ADVICE GIVEN TO AVOID POTENTIALLY HAZARDOUS SITUATIONS.

The Harrier 41 Electric Mower is perfectly safe if used correctly. Failure to observe the following simple precautions may result in serious injury.

TRAINING

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



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

It is recommended that a high sensitivity Residual Current Device (RCD) with a trip current of not more than 30 mA is installed at the mains power socket. This will provide the user with additional protection against electric shock. The fuse installed in the plug only provides protection for the electrical equipment and will not safeguard against electrocution. Always check the RCD before using the mower.



WARNING: Regularly inspect the supply cable for signs of damage or ageing. Replace immediately if defective.



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



Thoroughly inspect the area where the mower is to be used and remove all stones, sticks, wires, bones and other foreign objects.



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.



Damaged cutterbars and loose fixing bolts 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. Cutterbars which are slightly worn can be resharpened. Ensure that both cutting edges are resharpened equally to maintain balance. An unbalanced cutterbar may cause serious damage to your machine.

OPERATION**WARNING : SWITCH OFF AND REMOVE PLUG FROM MAINS**

- Before clearing blockages or unclogging the discharge chute.
- Before cleaning, checking or working on the mower.
- Whenever you leave 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).
- If the supply cable is entangled.

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

Keep the supply cable clear of the cutterbar at all times.
Take care not to mow across the supply cable. Immediately disconnect the cable from the mains supply if this occurs and check for damage. Do not use a defective supply cable.



Mow only in the daylight or in 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.



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



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



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



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



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



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



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

MAINTENANCE



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



Carefully examine the supply cable for signs of damage or ageing. Replace immediately if defective.



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

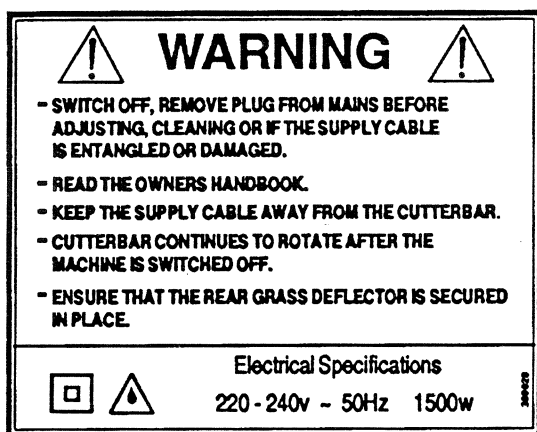


Replace worn or damaged parts for safety.

WARNING DECAL

WARNING DECAL.

Location: On the back of the motor cover.



SPECIFICATIONS

Machine Code	309K , 311K	Cutterbar Speed	2950 R.P.M.
Supply	220 - 240V ~ 50Hz	Cutting Width	410 mm (16")
Rated Input	1500W	Cutting Height	13-57mm (1/2 - 2 1/4")
Fuse Rating	13A	Operator Ear Noise Level	LpA 80 dB (A)
Weight	25 Kg (55 lbs)	Sound Power Level	LwA 93 dB (A)

SUPPLY CABLE: (For European specification - 311K only)

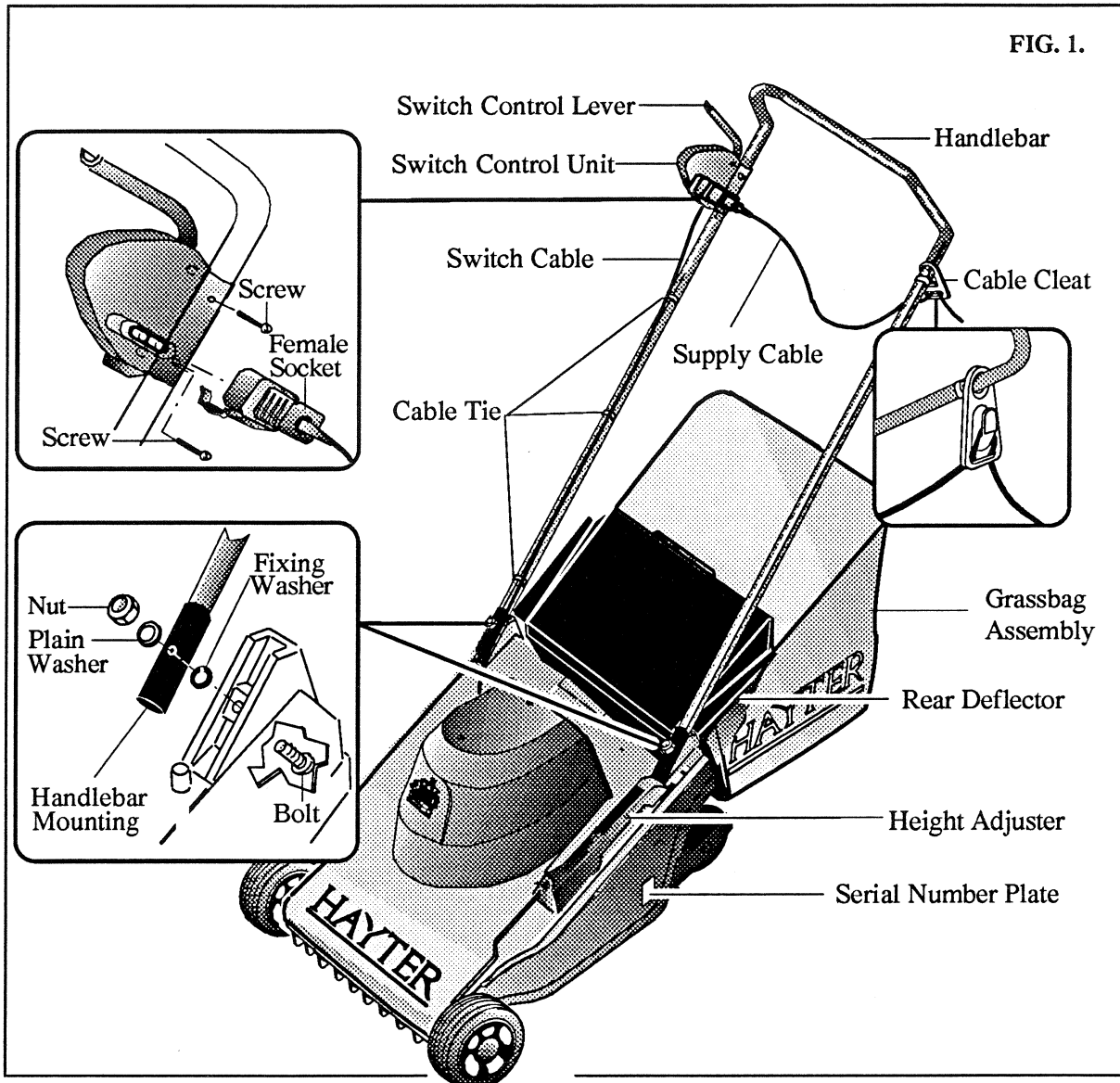
Cable - HO5RNF, 3 x 1 sq . mm . Appliance coupler - VDE / CEE 7 . Mains plug - Fused in accordance with the above specifications and compliant with the local standards in the country of use. This item is not included with code 311K mowers due to variation in European mains plug specifications and should be supplied separately by your Hayter Dealer.

ASSEMBLY INSTRUCTIONS



Before using the machine, READ the owners handbook carefully, paying particular attention to the SAFETY PRECAUTIONS.

FIG. 1.



Before assembling the mower ensure that all items have been supplied correctly using the check list opposite. If items are missing contact your Hayter Dealer.

Refer to Fig. 1. and carry out the following procedures to ensure that the mower is correctly assembled.

HANDLEBAR : Raise the mower to the maximum height of cut-Refer to OPERATING THE MOWER . Assemble the bolts from the underside of the mower deck using the fixing washers. Unpack the handlebar and align with the bolts . Assemble the plain washers and nuts. Tighten the nuts to 11 Nm (8 lb. ft) maximum torque.

DANGER : Do not overtighten the nuts as this may cause the insulated handlebar mountings to be damaged causing risk to health and safety.

DESCRIPTION	QUANTITY
Grassbag	1
Grassbag frame	1
Screw	2
Handlebar	1
Bolt	2
Nut	2
Plain washer	2
Fixing washer	2
Cable tie	3
Supply cable (309K Only)	1



SWITCH CONTROL UNIT: Identify the switch control unit and assemble to the right hand side of the handlebar. Tighten the screws to secure it in position. Route the switch cable along the inside of the right hand side of the handlebar and secure using the three cable ties supplied. Ensure that the cable is free of tension at each end.

GRASSBAG ASSEMBLY : Unpack the grassbag and the grassbag frame. Assemble the frame inside the grassbag, and secure the grassbag aperture to the handle end of the frame. Identify the round location stubs on each side of the wire frame. Lift the rear deflector with one hand and offer the grassbag assembly to the discharge aperture with the other. Position the two location stubs into the recesses on the mower deck casting. Lower the rear grass deflector to rest against the top of the grassbag assembly.

SUPPLY CABLE : Unpack the supply cable and identify the female socket end which is to be attached to the mower. Fold back the hinged protector cap and plug into the handlebar switch control unit. The hinged cap should snap into position behind the control unit when fully engaged. Route the supply cable loosely across to the cable cleat on the left side of the handlebar. Make a loop in the supply cable and secure to the cable cleat.

Your mower should now be correctly assembled as shown in Fig. 1.

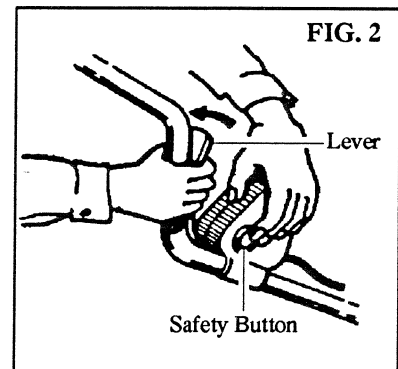
OPERATING THE MOWER

ELECTRICAL CONNECTION : Position the mower on the grass area to be cut. Carefully uncoil the supply cable clear of the mower and take the plug end connection to the mains socket outlet. Ensure that the mains socket is switched 'OFF' before locating the RCD unit- refer to SAFETY PRECAUTIONS - PREPARATION. Switch 'ON' and check the operation of the RCD unit. Switch 'OFF' before installing the mower supply cable plug and finally switch 'ON'.

HEIGHT OF CUT ADJUSTMENT : Locate the height adjuster handle on the mower deck and squeeze the trigger. Raise or lower the mower as required and release the trigger to lock the position. Refer to Fig.1.

STARTING THE MOWER : Locate the switch control lever mounted on the handlebar and ensure that your feet are clear of the mower deck. Depress the safety button with the left hand and pull the lever towards the handlebar with the right hand. The motor will now start. The safety button will remain depressed until the lever is released. Refer to Fig. 2. Failure to depress the safety button before operating the lever can cause permanent damage to the switch control unit.

STOPPING THE MOWER : Releasing the motor switch control lever will stop the motor.



THE CUTTERBAR MAY CONTINUE TO ROTATE AFTER THE MOTOR IS SWITCHED OFF.

When the motor is started prior to cutting it can be an advantage to raise the front of the mower slightly by bearing down on the handlebars. This will allow the motor to reach its optimum speed of rotation and prevent unnecessary loading during the starting phase.



Never lift the rear of the mower.

OVERLOAD PREVENTION : Do not let the motor labour or slow down through being overloaded in work. When this situation occurs, raise the front of the mower slightly by bearing down on the handlebar, allow the motor to reach maximum speed and proceed to mow at a slower pace. Alternatively readjust to a higher cut position. If the motor continues to labour, switch off and remove the plug from the mains supply. Remove and empty the grassbag. Examine the discharge chute and remove any blockage. Turn the machine on its side and clear any obstruction from the cutterbar and the underside of the mower deck. Place the machine upright and replace the grassbag. Readjust to a higher cut position if necessary. Restart the motor and proceed to mow at a pace which does not overload the motor.



IMPORTANT : Do not continue to operate the mower with the motor in an overloaded condition. If this does occur, stop mowing and allow the motor to run at maximum speed for one minute. This will allow the motor to cool down to its normal working temperature.

SAFE MOWING PRACTICE



Take extreme care to avoid mowing across the supply cable. If this should occur, switch off immediately and disconnect the cable plug from the power supply. Carefully examine the cable for cuts and damage. A defective cable must be replaced before the mower is used again. Always be aware of the location of the supply cable in relationship to the mower and the grass area. Do not allow the cable to become hidden in the uncut grass. Keep the cable over the cut area at all times. A cable which is out of sight is out of mind and this could lead to a hazardous situation. Plan a 'cutting scheme' which works away from the power supply point and ensures that the cable is trailed out over the cut area. Work up and down the lawn in rows. Turn the machine round at the end of the row and step across the cable so that the cable is trailed along in the cut area on the return run.

When working around flower beds, prevent the cable from trailing across the cultivated area by positioning a stake at the corner of the bed. Do not allow the cable to be pulled around sharp obstructions. Stop mowing immediately if cable resistance is felt and remove the obstruction. Do not allow the cable to become entangled.



WARNING : SWITCH OFF, REMOVE PLUG FROM MAINS BEFORE ADJUSTING, CLEANING OR IF THE CABLE IS ENTANGLED.

MOWING PROCEDURES

The following practices will help to provide satisfactory results and prevent the mower from being subjected to undue stress.

LAWNS : Fit the grassbag and select a ' height of cut ' to suit the conditions. Aim to prevent blockages and overloading of the motor by avoiding an excessively low setting. Always be prepared to make two cuts when the grass is long.

HEAVY GROWTH : Remove the grassbag and ensure that the rear grass deflector is secure in its lowest position. Select the maximum height of cut and proceed at a pace which prevents the motor from being overloaded.

BORDERS : The inset wheels allow the mower to cut over lawn edges and close up to walls, fences and other obstructions. Borders should be cut with edging shears prior to mowing.

HIDDEN OBSTRUCTIONS : The mower should be immediately switched off when a hidden obstruction is encountered. Disconnect the plug from the power supply and examine the cutting mechanism. The cutterbar must be replaced if there are any signs of serious damage - Refer to MAINTENANCE-CUTTERBAR . If the cutting mechanism is undamaged, remove the obstruction or proceed to work around it.

BLOCKAGE IN THE DISCHARGE CHUTE : The discharge chute should remain relatively clean to achieve best results from the mower. Blockage can be avoided to a large degree by following the above procedures. Never allow the grassbag to become excessively full as this will eventually block the discharge chute.



ALWAYS SWITCH OFF AND REMOVE PLUG FROM MAINS BEFORE ATTEMPTING TO REMOVE A BLOCKAGE.



NEVER ATTEMPT TO PUT A HAND INTO THE DISCHARGE CHUTE APERTURE WHILE THE MOTOR IS RUNNING.

MAINTENANCE

ALWAYS SWITCH OFF AND REMOVE PLUG FROM MAINS BEFORE ATTEMPTING ANY MAINTENANCE PROCEDURES.



DO NOT USE WATER WHEN CLEANING.

DECK : Use a suitable tool to remove any grass debris from the underside of the deck immediately after use.

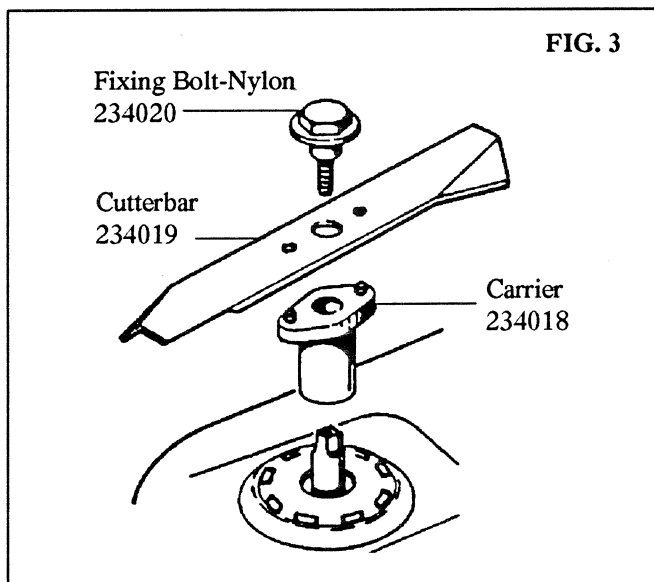
MOTOR COVER : Remove all loose grass from around the gap between the motor cover and the deck immediately after use.

SECURING NUTS & BOLTS : Periodically check all securing nuts and bolts and tighten if necessary.

LUBRICATION : Periodically apply a quality lubricating oil to all linkage points , wheels and roller axle.



CUTTERBAR : The condition of the cutterbar should be regularly checked for wear or damage. A slightly worn cutterbar may be resharpened. Both cutting edges must be resharpened equally to preserve the balance. An unbalanced blade can cause vibration which may result in serious damage to the machine. A badly worn or damaged cutterbar must be replaced immediately with a genuine Hayter replacement part. To replace a cutterbar, turn the machine on its side and refer to Fig. 3 . Use a 36mm A/F spanner to loosen the central fixing bolt by turning anti-clockwise. Use a strong glove or a thick pad to protect the hand while holding the cutterbar to prevent it turning. The carrier may slide off the shaft after removal of the cutterbar. This should be cleaned and replaced. Ensure that the flats on the shaft locate correctly with the flats on the carrier. Ensure that the new cutterbar is the correct way up before locating it onto the two carrier pins. Replace the central securing bolt and tighten to 27Nm (20 lb.ft) and again use hand protection to steady the end of the cutterbar. Do not pull or push the spanner towards the cutting edge of the cutterbar as a serious injury could result if the spanner slips.



MOTOR: The motor is maintenance free.

SUPPLY CABLE : Check the condition of the supply cable for damage or ageing. Replace immediately if defective.

GRASSBAG : Remove grass debris from the grassbag immediately after use. Check the condition of the grassbag for signs of damage . Replace immediately if defective.

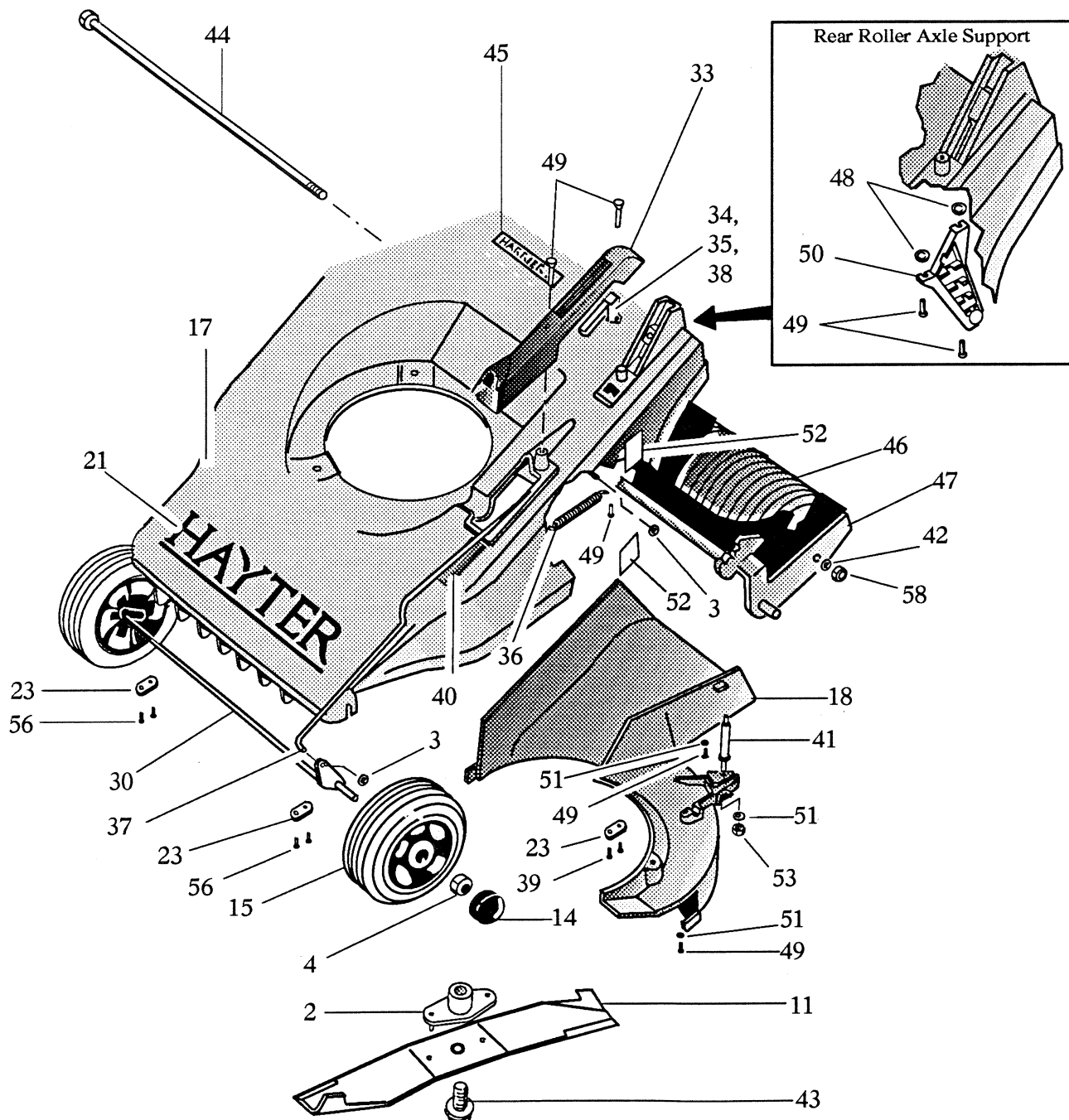
SIMPLE FAULT DIAGNOSIS

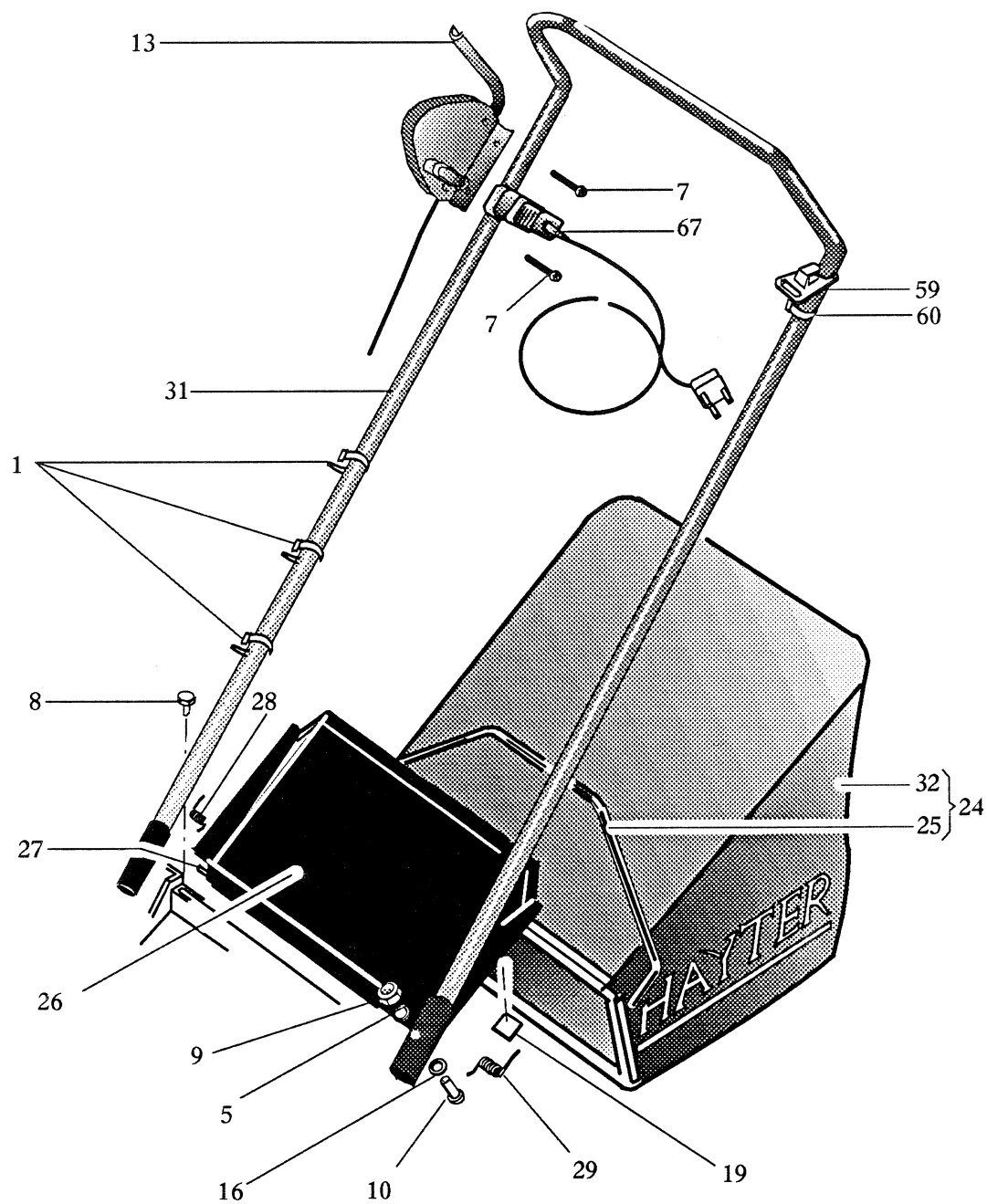
FAULT	POSSIBLE CAUSE	REMEDY
Motor fails to start.	Mains supply socket dead. RCD tripped. Plug pulled out of mains socket . Fuse failure. Supply cable damaged. Cutterbar obstructed. Cable socket pulled out of switch control unit.	Test socket by plugging in another appliance. Remove mower plug and check RCD action. Check the supply cable for any obvious signs of damage and replace immediately if defective. If no obvious faults are found a serious electrical fault is indicated. Contact your Hayter Dealer. Re-engage plug. Fit a new 13 amp fuse. Disconnect from the mains and check the supply cable for any obvious signs of damage. Replace immediately if defective. Disconnect from the mains and remove any obstructions. Re-engage cable socket.
Motor will not stop.	Faulty switch control unit.	Ensure switch lever has returned to the OFF position. Disconnect from the mains and contact your Hayter Dealer.
Cutterbar runs on excessively after switching OFF.	Faulty brake unit.	Contact your Hayter Dealer.
Failure to cut or collect grass satisfactorily.	Build up of grass and debris under the mower deck. Discharge chute obstructed. Cutterbar badly worn or damaged. Height of cut setting too low. Grass excessively long.	Disconnect from the mains and use a suitable tool to clean the underside of the deck. Disconnect from the mains and clean as required. Disconnect from the mains and replace the cutterbar. Refer to MAINTENANCE - CUTTERBAR. Adjust to a higher cut setting. Remove the grassbag and ensure that the rear grass deflector is in the lowest position. Adjust to a high cut setting.
Excessive vibration.	Cutterbar badly worn or damaged.	Disconnect from the mains and replace the cutterbar. Refer to MAINTENANCE - CUTTERBAR.

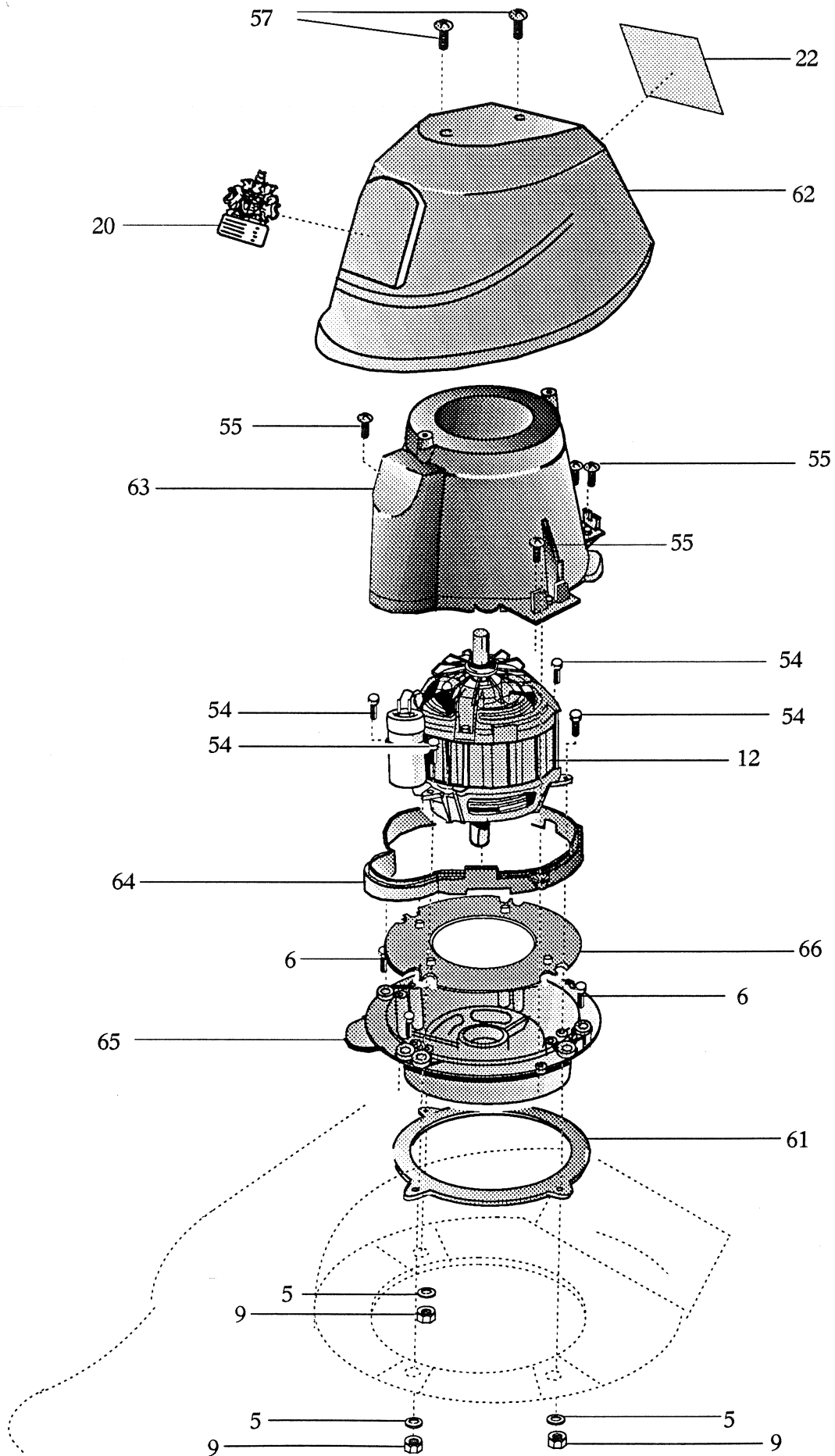
PARTS LIST

ITEM NO.	PART NO.	QTY	DESCRIPTION
1	3966	3	Cable Tie
2	234018	1	Carrier
3	02385	2	Gripfix
4	4486	2	Wheel Nut
5	09475	5	M8 Washer
6	09681	3	M8 x 40 Hex. Hd. Bolt
7	09528	2	M4 x 25 Screw
8	09575	3	M6 x 20 Taptite Screw
9	09442	5	M8 Nylon Ins. 'P'-type Nut
10	09375	2	M8 x 45 Coachbolt
11	234019	1	Cutterbar
12	309011	1	Motor 1.5kw
13	309026	1	Switch
14	219143	2	Hub Cap
15	302016	2	6" Wheel
16	09601	2	M8 Pushnut Retainer
17	300123	1	Deck
18	300124	1	Throwplate
19	300110	2	Buffer Anti - Rattle
20	5877	1	Royal Warrant Label
21	201110	1	Hayter Label
22	309028	1	Warning Label
23	219037	3	Securing Plate
24	300040	1	Grassbag Assembly. (Includes items 25 & 32)
25	300045	1	Frame
26	300050	1	Deflector
27	300051	1	Deflector Rod
28	300052	1	Deflector Spring - offside
29	300053	1	Deflector Spring - nearside
30	300111	1	Front Axle Assembly
31	309015	1	Handlebar Assembly
32	300043	1	Grassbag
33	300065	1	Height Adjuster Handle
34	300066	1	Trigger
35	300067	1	Trigger Spring
36	300070	1	Compensating Spring
37	300104	1	Connecting Rod
38	301074	1	Roll Pin
39	09634	2	6mm x 16 Pozidrive Screw
40	300006	1	Height of Cut Label
41	300125	1	Pillar
42	09271	1	3/8" Washer
43	234020	1	Fixing Bolt -Nylon
44	308021	1	Axle Bolt
45	309002	1	Harrier 41 Electric Label
46	201007	2	Roller
47	308028	1	Roller Frame Welded Assembly
48	09262	2	Plain Washer
49	09596	9	M6 x 16 Screw
50	305040	1	Axle Support
51	09472	7	M6 Plain Washer
52	N/A	1	Serial Number Label
53	09544	1	M6 Nyl. Ins. 'T'-type Nut
54	09670	4	No. 14 x 1.1/4" Self Tapping Screw
55	09669	4	No. 10 x 1.1/2" Self Tapping Screw

ITEM NO.	PART NO.	QTY	DESCRIPTION
56	09546	4	M6 x 12 Screw
57	09528	2	No. 8 x 1" Pan.Hd. Plastite Screw
58	09216	1	3/8" UNF Nut
59	234014	1	Cleat
60	234029	1	Hose Clip - Black
61	309019	1	Base Plate Motor
62	309020	1	Motor Cover Top
63	309022	1	Motor Cover
64	309023	1	Motor Spacer
65	309024	1	Motor Flange
66	309025	1	Motor Screen
67	309027	1	Coupler & Cable Assembly







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