

HAYTER

**H-SERIES
GARDEN
TRACTOR**

**H-SERIES
GARDEN
TRACTOR**

INSTRUCTION MANUAL

CERTIFICATE OF CONFORMITY

EC Declaration of Conformity

I, the undersigned R. Kilminster of Countax Limited,
Gt Haseley, Oxon. England certify that lawnmowers:-

Model Hayter at 2900rpm	H1538	H1842
Gross Power (Kw)	9.93	12.30
Max rotation of blades (rpm)	3000	
Engine manufacturer	Kohler	
Engine type	single cyl petrol	
Mass in Kg	244	255
Max drawbar pull (Kg) at coupling hook	500	500
Max vertical load (Kg)	25	
Max sound power level	100 Db(A) @2900rpm	100 Db(A) @2900rpm
Vibration (m/s/s) hands:	7.6	4.2
Vibration (m/s/s) seat:	2.6	1.8
Type of cutting device	cutterbar	
Width of cutting device (cms)	97	107

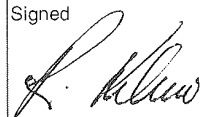
Conforms to the specifications of Directive 84/538/EEC (as adapted to technical progress by Directive 87/252/EEC and amended by Directive 88/180/EEC) and Directive 89/392/EEC (amended by 91/368/EEC, 93/44/EEC and 93/68/EEC) and Directive 89/336/EEC (amended by 91/263/EEC and 92/31/EEC).

Standards used BS5107, EN292, ISO3767, ISO3789, ISO3864.

Tested at Oxford, England.

I declare that on behalf of Countax Limited that these machines conform to EC Essential Health and Safety Requirements.

Signed



R. Kilminster
(Technical Director)

1/1/96

Contents Summary:

Safety Instructions	– Pages 2 and 3
Controls and Indicators (Dashboard)	– Page 4
Control Levers	– Pages 5 and 6
Starting and Using	– Page 7
Powered Collector	– Page 8
Care and Maintenance including:	– Pages 9 to 30
Engine, Oil and Fuel, Air & Cooling	– Pages 11 to 13
Transmission/Drive Train	– Page 14
Engine, Electrics	– Pages 15 - 18
Cutter, Cutter Belts	– Pages 19 - 24
Collector	– Pages 25 - 27
Tyres	– Pages 28 & 29
Routine Lubrication	– Page 30
Specification Summary	– Back Cover

**READ THE INSTRUCTION MANUAL
BEFORE USING THE GARDEN
TRACTOR AND ENSURE THE
OPERATORS STUDY IT FOR THEIR
OWN SAFETY.**

**THE FOLLOWING PRECAUTIONS
ARE OUTLINED TO HELP PREVENT
ACCIDENTS. A CAREFUL
OPERATOR WHO USES COMMON
SENSE IS THE SAFEST OPERATOR.**

**THESE SAFETY PRECAUTIONS ARE
IN ADDITION TO THOSE IN THE
INSTRUCTION MANUAL.**



THIS SYMBOL MEANS BE ALERT

MANDATORY SAFETY INSTRUCTIONS FOR THE OPERATION OF TRACTOR OR RIDER MOWERS

TRAINING

1. Read the instructions carefully. Be familiar with the controls and the use of the equipment
2. Never allow children or people unfamiliar with these instructions to use the mower.
3. Never mow while people, especially children, or pets are nearby.
4. The operator or user is responsible for accidents or hazards occurring to other people or their property.
5. Do not carry passengers.
6. All drivers should seek to obtain professional and practical instructions. Such instruction should emphasise:
 - The need for care and concentration when working with this machine.
 - Control of a tractor sliding on a slope will not be regained by the application of the brake.

The main reasons for loss of control are:

- Insufficient wheel grip
- Driving too fast
- Inadequate braking
- Incorrect load distribution

PREPARATION

1. Check that the machine complies with applicable regulations, including those in force when used on the public highway.
2. When mowing always wear substantial footwear and long trousers. Do not operate when barefoot or with open sandals.
3. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones and any other foreign objects.
4. 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 engine is running or when engine hot.
 - If petrol is spilled, do not attempt to start the engine but move the machine away from the area of the spillage and avoid creating any source of ignition until petrol vapours have dissipated.

- Replace the fuel tank cap securely.
- 5. Replace faulty silencers.
- 6. Before using, always inspect to see that the blades, bolts and cutter assembly are not worn or damaged.
- 7. Check the condition of the tyres and ensure that they are inflated to the correct pressures (refer to the specifications). This is particularly important if the machine is to be taken on the public highway.
- 8. Check that the mower is in good working order, paying particular attention to brake and steering.
- 9. Check that all linkages, connections and pivot nuts are secure and that the wheel nuts are torqued correctly.

OPERATION

1. Do not operate the engine in a confined space where dangerous fumes can collect.
2. Mow only in daylight or in good artificial light.
3. Before starting the engine, disengage blade and attachment drives and shift into neutral.
4. Take care on slopes of more than 10 degrees.
5. Remember there is no such thing as a "safe" slope. Travel on grass slopes requires particular care to guard against overturning:
 - Do not stop or start suddenly when going up or downhill.
 - Engage clutch slowly. Always keep machine in gear, especially when travelling downhill.
 - Machine speed should be kept low on slopes and in tight turns
 - Stay alert for humps and hollows and other hidden hazards.
 - Avoid mowing across the face of the slope.
6. Watch out for traffic when crossing or near roadways.
7. Stop the blades rotating before crossing surfaces other than grass.
8. When using the machine, never direct discharge of material toward bystanders or allow anyone near the machine while in operation.
9. Never operate the mower with defective guards, shields or without safety protective devices in place and in good working order.
10. Do not change governor settings to increase the revs of the engine. Operating an engine at excessive speed increases the hazard of injury.
11. Before leaving the operator's position:
 - Disengage the drive to the cutter blades and attachments and lower the attachments.
 - Change to neutral and set the parking brake.
 - Stop the engine and remove the ignition key.
12. Disengage drive to attachments, stop the engine and disconnect the spark plug lead or remove ignition key before:
 - cleaning blockages.
 - checking, cleaning or working on the mower.
 - refuelling.
 - removing the grass catcher.
 - After striking a foreign object. (Inspect the mower for damage and make repairs before restarting the tractor.)

- If the machine starts to vibrate abnormally check immediately and call dealer if necessary.

13. Disengage drive to attachments when transporting or not in use.
14. Reduce the throttle setting during engine run-out.
15. Never work on the mower when the engine is running.

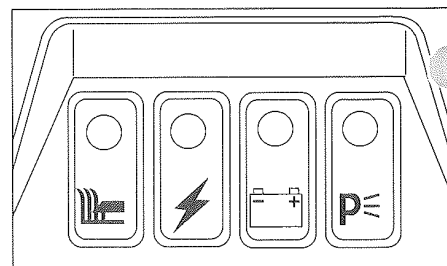
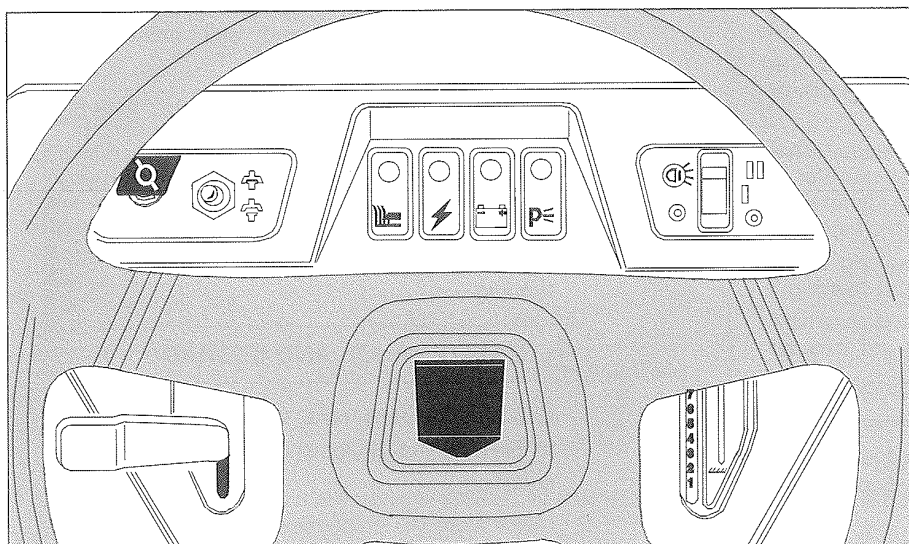
MAINTENANCE AND STORAGE

1. Check that all nuts, bolts, and screws are tight to be sure the equipment is in safe working condition.
2. Never store the equipment with petrol in tank inside a building where fumes may reach an open flame or spark.
3. Allow the engine to cool before storing in any enclosure.
4. To reduce the risk of fire, keep the engine, silencer and battery compartment free of grass, leaves, petrol or excessive grease.
5. Check the grass catcher frequently for wear or deterioration.
6. Replace worn or damaged parts for safety.
7. If the tank has to be drained, this should be done outdoors.
8. Be careful during adjustments of the machine to prevent entrapment of the fingers between moving blades and fixed parts of the machine.

SUPPLEMENTARY INSTRUCTIONS FOR USE OF HAYTER H SERIES TRACTOR

1. Use good sense at all times and, to ensure this tractor is safe and serviceable, fit only original manufacturers' supplied spares.
2. When inspecting the area to be cut note also the position of any stumps, manhole covers, bumps and depressions and avoid them to prevent damaging the blade.
3. We recommend the use of standard UNLEADED fuel and that you ensure the fuel tank is full before you start the machine.
4. Always disconnect both battery terminals before attempting any work in the engine compartment.
5. Do not leave the tractor unattended and running.
6. Do not put hands near moving belts or the Power Take-Off pulley while it is rotating.

CONTROLS AND INDICATORS – DASHBOARD



A B C D

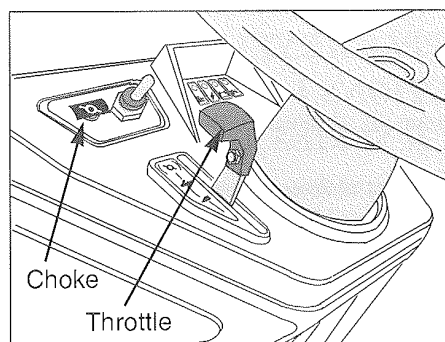
- A. 'Cutter On' indicator - flashes continuously when cutter is running.
- B. The 'Ignition On' indicator - goes out when the cutter is running.
- C. The 'Charge' indicator - comes on only when the battery is charged. (If this indicator is not lit by the end of a mowing session you should remove the battery for charging)
- D. The 'Brake On' indicator.

THROTTLE

The lever is pushed forward and up for Fast and Choke, back and down for Slow. A cold engine is started on the choke setting, a warm one on the fast setting. The Choke setting should be cancelled as soon as possible and the engine operated on FAST setting at all times.

CHOKE

An independent choke is fitted to the H1842 models. This choke should be used in combination with a fast throttle setting to start a cold engine - cancel as soon as possible. Do not use choke on warm engine.



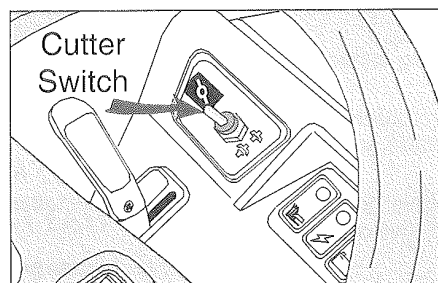
IGNITION

The key start controls both ignition and the starter. Insert the key and turn to the 1st position, the dashlights will come on (check that all is ready to start) then turn further to activate the starter. Release when engine starts.

To stop, turn the key to the left (having first switched off both cutter and PTO) IT IS ALWAYS GOOD PRACTICE TO REMOVE THE KEY AND KEEP IT SAFELY. As with a car, it is important to prevent unauthorised use by children, who could injure themselves.

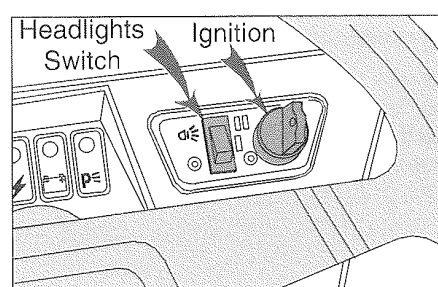
CUTTER ON/OFF SWITCH

The cutter switch controls the electromagnetic blade clutch. It works like a light switch (but in reverse) – UP for ON and DOWN for OFF. Although it always returns to the central position and the cutter deck will automatically be turned off when the engine is switched off, it is not good practice to rely on this. The cutter deck should always be switched OFF as soon as you have finished cutting and certainly BEFORE stopping the engine or getting off the tractor.



HEADLIGHTS SWITCH

The headlights are turned ON by switching the rocker switch down. The headlights will not operate when the ignition is off. Turn the headlights OFF before starting or stopping.



SAFETY SWITCHES

SEAT SAFETY SWITCH

Your Hayter H-Series Tractor is fitted with a switch that will turn OFF the engine and the cutter deck should you dismount. This is a safety back-up and should not be used voluntarily.

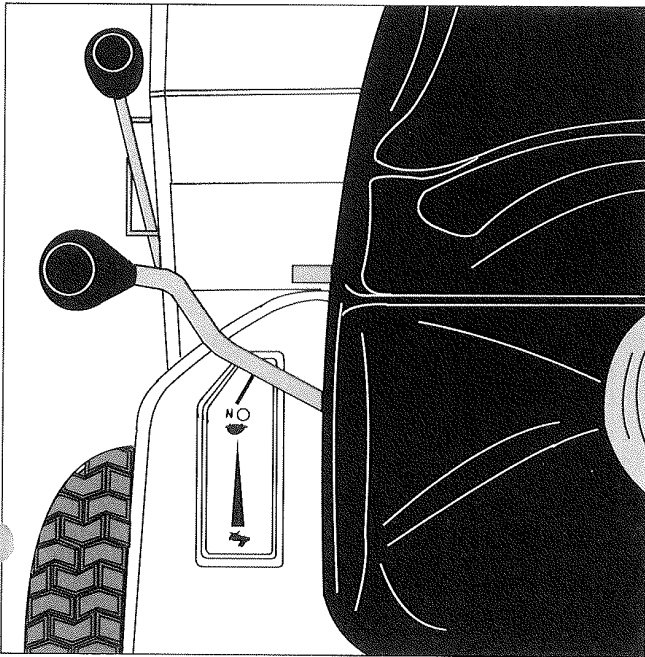
If you want to dismount from the tractor, and want the engine to continue running, first switch OFF the cutter deck, then apply the Parking Brake. You can now dismount, but DO NOT LEAVE THE TRACTOR STANDING WITH ENGINE IDLING FOR ANY LENGTH OF TIME. Should you try to dismount with the parking brake ON and the cutter deck ON, the cutter deck will cut out after a short delay of a couple of seconds. DO NOT RELY ON THIS BACK-UP CUT-OUT. ENSURE SAFETY BY SWITCHING THE CUTTER OFF.

BRAKE PEDAL SAFETY SWITCH

Your Hayter H-Series Tractor is fitted with a safety switch under the brake/clutch pedal. This switch 'earths' the ignition unless the brake is on. The engine will only start while the brake/clutch is depressed. Two red lights on the dash (Ignition - second right and Brake - far right, indicate that the engine is ready to start.

CONTROL - LEVERS

HYDROSTATIC SPEED CONTROL



The lever to the right of the driver's seat is an infinitely variable speed control on the hydrostatic drive tractor.

Select NEUTRAL, ensure the brake pedal is depressed and the cutter turned off before starting the Tractor. When the engine is started release the brake and move the lever forward to go faster. Pull it back to slow down. Return it to neutral to stop. The foot pedal operating the clutch/brake should be used only for emergency stops and for applying the parking brake. **Normal stopping on level ground can be achieved using the speed control lever.**

To select reverse - start from neutral and move the lever left and back.

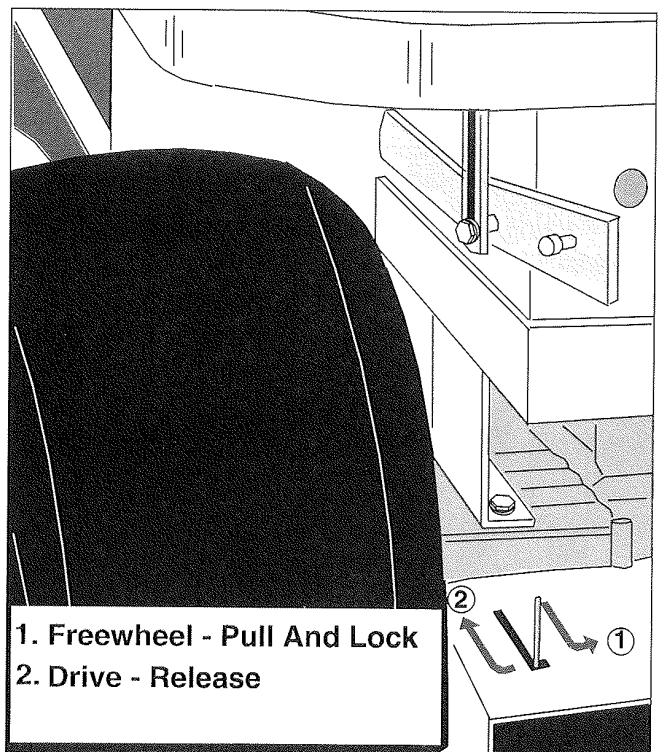
TO MAINTAIN BLADE SPEED AND OPTIMUM CUTTING EFFICIENCY, THE THROTTLE CONTROL LEVER SHOULD ALWAYS BE SET AT 'FAST' WHEN DRIVING AND CUTTING WITH YOUR TRACTOR. USE THE SPEED CONTROL LEVER OR GEAR CHANGE TO VARY THE SPEED OF YOUR TRACTOR.

SELECT MEDIUM TO SLOW SPEEDS WHEN CUTTING GRASS - Driving too fast reduces the power and therefore the efficiency of the grass cutter. Always maintain a sensible speed to ensure a good finish on your lawn.

BYPASS LEVER/DUMP VALVE

TO MOVE THE TRACTOR BY PUSHING place the speed control lever into neutral and, if fitted, operate the hydrostatic bypass lever (dump valve). This can be found alongside the rear right wheel of the Tractor. The bypass lever should only be engaged if the Tractor is stationary and standing on level ground. Pull the 'L' shaped lever and turn it to the left so it engages within the retaining slot. With this lever engaged the Tractor can be pushed for short distances and at a speed not exceeding 2mph.

WARNING - with the bypass lever engaged there will be a loss of hydrostatic braking capacity!



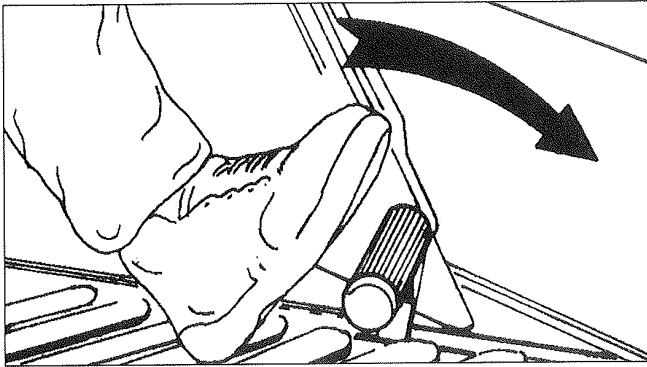
The bypass lever/dump valve is found alongside the rear left wheel

REMEMBER TO DISENGAGE THE VALVE BY MOVING THE 'L' SHAPED LEVER TO THE LEFT AND RETURNING IT TO THE FRONT BEFORE STARTING THE ENGINE AND ATTEMPTING TO MOVE OFF!

CONTROL - LEVERS

BRAKE/CLUTCH PEDAL

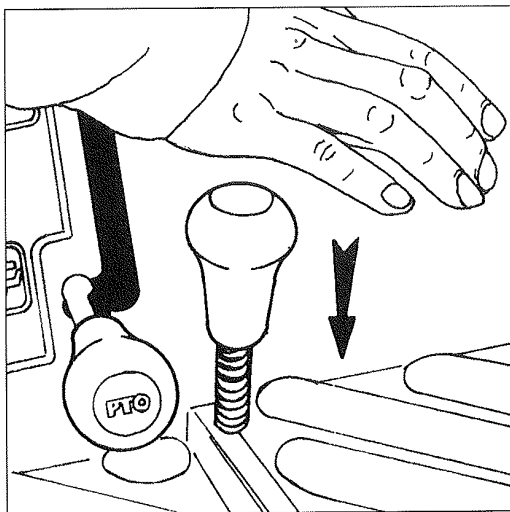
This pedal controls both the clutch and the brake and operates in two stages; the first and upper part of the travel is the clutch, the second and lower part is the brake. A safety switch (see Page 5) under the brake will not permit the engine to start **UNLESS THE BRAKE IS APPLIED**.



PARKING BRAKE

To apply the Parking Brake, this knob should be pressed down and held while the Brake/Clutch pedal is fully depressed and released. The Parking Brake will lock the foot pedal in the ON (down) position.

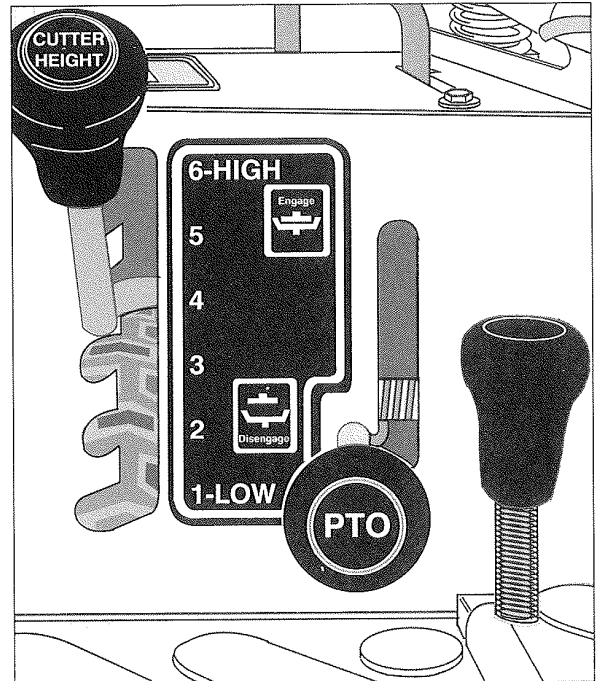
The Parking Brake is released by depressing the brake/clutch pedal.



CUTTER HEIGHT LEVER

This lever is used to select the cutting height – down for LOW, up for HIGH (from about 13mm to about 90mm). A HIGH position (5 or 6) should be selected before turning on the 'Cutter Engage' Switch. Make sure that no-one is standing near (see instructions on Page 3). The six cutting heights are numbered. We suggest you select position 2 or 3 for mowing lawns and position 4 or 5 for long grass and paddocks. In practice you will discover the height you need for each area. In wet or heavy conditions it is advisable to select a higher position than you would in light or dry conditions.

It is always a good idea to switch the cutter deck **OFF** and raise the Cutting Height Lever to the highest position before driving the tractor from one part of your grounds to another – this will limit the possibility of damage to the deck that could result from hitting an obstacle at speed.

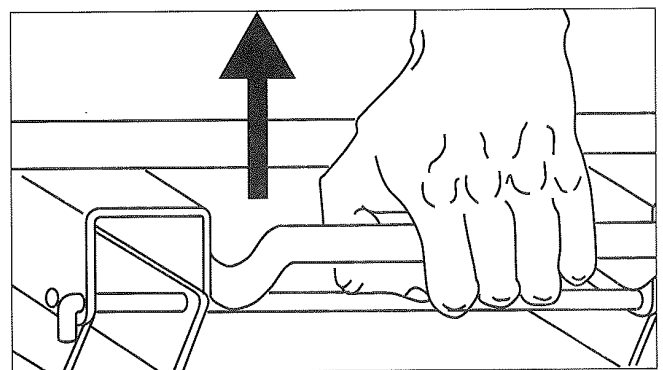


POWER-TAKE-OFF (P.T.O.)

Push the lever **DOWN** and to the left, letting it find its own height, to engage the PTO and **DOWN** and to the right to disengage. This is an **ON/OFF** lever for the powered collector. Always have this lever in the **DISENGAGED POSITION** when you are not collecting. Do not put hands near moving pulleys and belts.

SEAT ADJUSTMENT

The seat can be adjusted forward to suit your driving position. Simply pull the lever up and slide backwards until the desired position is achieved.



Seat adjustment lever

STARTING AND USING YOUR H-SERIES TRACTOR

FIRST READ THE SAFETY INSTRUCTIONS ON PAGES 2 AND 3.

1. Get on your tractor and make sure you are comfortable and can reach all the controls. Ensure that the P.T.O. is disengaged and that the parking brake is engaged. **SELECT NEUTRAL.**
2. **ADJUST THROTTLE CONTROL TO FAST/CHOKE** position for a cold engine or an intermediate position if warm. (The H1842 model has a separate choke).
3. Insert key and **TURN IGNITION TO THE RIGHT** (first position). The Ignition and Brake indicator lights on the dash will illuminate showing the tractor is ready to start – if the lights do not illuminate ensure that the brake is applied (there is a safety cut-out on the brake).
4. **TURN IGNITION FURTHER** to operate the starter motor. If the engine does not start first time, **REPEAT.**
5. **CANCEL 'CHOKE' AND SELECT FAST SETTING** when the engine is running well.
6. **BEFORE** you move off **RAISE THE CUTTER TO THE HIGHEST POSITION** – this will minimise the chances of damage whilst moving to the area to be cut.
7. **DEPRESS CLUTCH/BRAKE TO CANCEL HANDBRAKE.**
8. **HYDROSTATIC MODEL**
Whilst still in neutral, release the park-brake by pressing down the clutch/brake pedal. Then move off by advancing the hydrostatic speed control.
9. When you have reached the area to be cut, make sure the cutter is in the raised position and nobody is near the tractor, then **PUSH THE CUTTER SWITCH UP** briefly – you will hear the cutters engaging.
10. **SELECT CUTTING HEIGHT** – Second or third lowest for dry lawns, higher for wet or long grass. Cut at slow or medium speed settings on the hydrostatic speed control.
11. **TO STOP CUTTING, RAISE CUTTER DECK TO A HIGH POSITION** and **TURN THE CUTTER SWITCH OFF (DOWN).**
12. To park, first select a level area - then stop by returning the speed control lever to neutral; then apply the parking brake. **AVOID STOPPING ON SLOPES.**
13. **ADJUST THROTTLE SETTING TO LOW**, ensure that the cutters and Power-Take-Off are switched off **AND THEN TURN OFF THE IGNITION.** Remove the key to prevent unauthorised use – particularly by children.

LAYING UP YOUR TRACTOR FOR THE WINTER

Your tractor should be serviced annually by your dealer – book it early to beat the last minute rush.

1. Ensure that the last fill of your petrol tank is with clean fresh unleaded fuel.
2. Having run the engine with the new fuel either in use or for at least 15 minutes, disconnect the battery, making sure the terminal leads are removed and then **DRAIN THE FUEL TANK.**
3. Reconnect the battery and **START AND RUN THE ENGINE UNTIL IT STOPS.**
4. **WASH YOUR TRACTOR**, taking particular care to clean all cuttings from the underside of the cutter deck and keeping water away from electrical components.
5. **REMOVE THE BATTERY** and/or charge periodically throughout the winter.
6. Lubricate the Tractor and treat metal parts with a water repellent anti-corrosion product.
7. **KEEP YOUR TRACTOR IN A DRY PLACE.**

POWERED COLLECTOR

CONNECTION

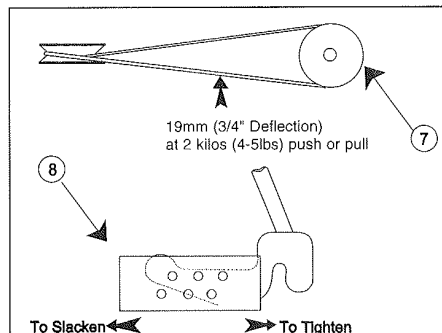
To connect the Powered Collector to the H-Series tractor, ensure that both are on an even surface with the Locking Levers (1) on the collector facing the Trailing Arms (2) on the tractor. Move the collector manually to the tractor. Lower the Trailing Arms using the lever (9) to the left of the seat.

At the end of each Trailing Arm you will find a Locating Lug (4). Slide the Channels (5) on either side of the Powered Collector over the Lugs but do not engage the Locating Lever (1) yet.

INSTALLING THE DRIVE BELT (Part No. C22-8734-00) is best achieved with the grass box detached. Place the Drive Belt over the PTO pulley (beneath the tractor seat). Standing behind and facing the tractor, lean over the collector and extend the belt with both hands parallel to the ground. Now twist the belt to form a figure '8' - the right-hand up and the left-hand down. In this position place the other end of the belt over the Powered Collector Pulley (7). *Be sure that this is installed the right way round otherwise the brush will work in reverse and collection will be poor!*

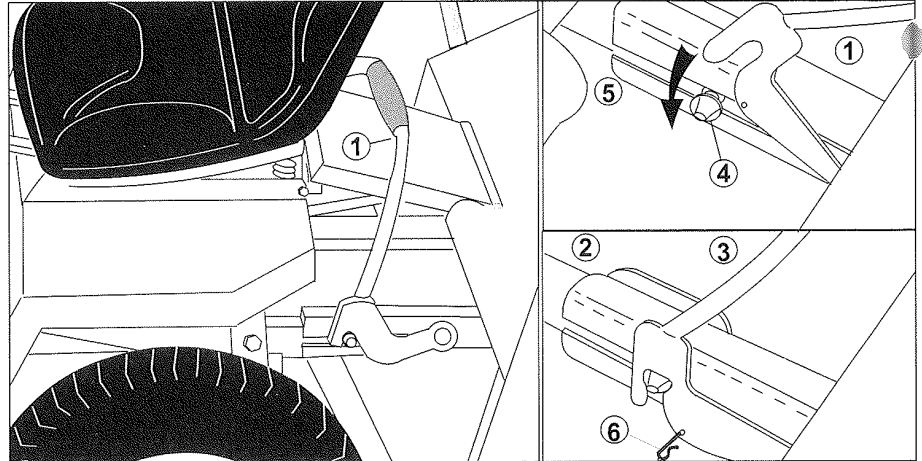
Engage the Locating Levers (1) over the Locating Lugs (4) and finally insert the Securing Pins (6)

To disconnect, reverse this procedure.



PTO DRIVE BELT TENSION

Engaging the Locating Levers tensions the belt which should not be run too tight - to check the tension there should be a 19mm deflection with light finger pressure (2Kgs) at a midway point between PTO pulley and Sweeper pulley (7). If tension needs adjustment, disconnect the collector and the adjustment holes (8) will be found on the inside of the Locating Channels. Adjust by movement of one lever at a time by one hole at a time, alternate sides. There should never be more than one hole difference from left to right. *If in doubt contact your dealer.*



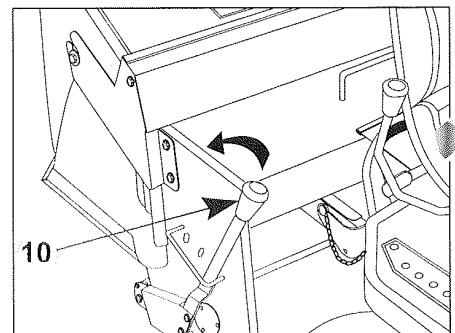
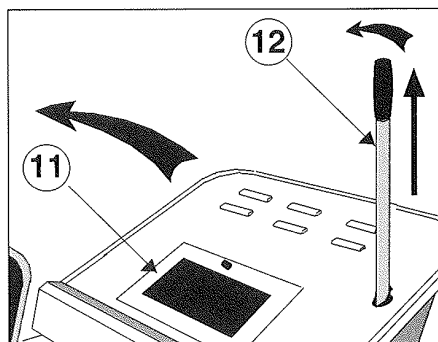
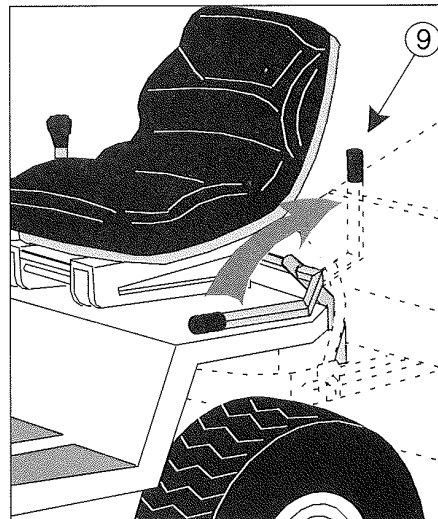
TO USE: RAISE SWEEPER TO THE TRANSPORT POSITION

A lever (9) to the driver's left-hand raises the Powered Collector to the transport position. We recommend that you drive to and from the area to be swept with the Powered Collector in this transport position and with the P.T.O. disengaged.

When you reach the area to be swept, lower the collector and then engage the brushes by pushing the sprung PTO lever to the left to release and engage.

LOWER THE COLLECTOR

Using the lever (9), lower the collector.



ADJUST THE SWEEPING HEIGHT

Using the Sweeping Height Lever (10) select the position appropriate to the conditions and the height of cut. TO GET THE BEST SWEEPING PERFORMANCE AND TO PRESERVE THE BRUSHES SELECT THE HIGHEST SETTING THAT WORKS - start high and adjust down until the brushes stop to collect (normally the middle adjustment hole). **DO NOT SET THE BRUSHES TOO LOW** - this will lead to scarifying and a very untidy finish as well as shortening brush life.

TO TIP CUTTINGS

See illustration below, left.

You can check the contents of the grassbox through the clear cover (11). When it is full, **DISENGAGE THE PTO** and raise the collector to the transport position.

Drive to your tipping area, reverse to the pile, select neutral, then extend and pull the tipping handle (12) towards you. The cuttings will discharge. If some cuttings are reluctant to come out of the grassbox, continue to tip the grass box as you drive forward from the heap.

H Series Tractor

Hints on use - Fault Finding - Simple Maintenance

Hayter tractors leave the factory after a thorough inspection and Hayter dealers carry out a further inspection before they deliver the tractor to you. All settings detailed in the following pages are correct at the time of delivery. Wear, heavy use and accidental impact can change settings and the following pages tell you how to carry out simple servicing and adjustments on the understanding that these are carried out at your risk and that the consequences of incorrect servicing and adjustments are not covered by warranty. If in doubt get your dealer to carry it out. Annual servicing by your dealer remains a condition of the Hayter Two Year Limited Warranty.

CONTENTS:

ENGINE

Check list - starting and running	Page 10
Oil level check	Page 10
Oil change and filters	Page 11
Fuel and Carburation	Page 12
Air and Cooling	Page 13
Transmission	Page 14
Electrical - Battery, Plugs and Lights	Page 15
Electrical - Fuses and PCB	Page 16
Wiring Diagram - Tractor H1538	Page 17
Wiring Diagram - H1842	Page 18

CUTTER

Check list - cutting faults	Page 19
Levelling the cutter - front to back	Page 20
Levelling the cutter - side to side	Page 21
Drive Belt Tension	Page 22
Deck Removal and Belt Replacement	Page 23
Integral Belt	Page 24

COLLECTOR

Check list - collection faults	Page 25
Drive Belt Tension and replacement	Page 26
Brush - replacement and maintenance	Page 27

TYRES

Check list	Page 28
Removal of wheels	Page 29
Puncture repair	Page 29

LUBRICATION AND GREASING

Steering, Rear Wheels and Cutter Deck	Page 30
---------------------------------------	---------

ENGINE

Starting and Running Check List

Before you start

- 1/ Check that the engine is filled with the right oil (SAE 10W-30) and to the recommended mark - never overfill. (see Fig. 3)
- 2/ Fill your petrol tank with fresh unleaded premium petrol (see page 12) If it is more than 1/3rd full of old untreated petrol that has been in the tank 8 weeks or more -drain and then refill. If less than 1/3rd full of old untreated fuel, completely fill with new premium unleaded petrol.
- 3/ Ensure the throttle is advanced to 'Fast' and, if engine is cold, the choke is engaged.
- 4/ Ensure that the Park Brake is 'on' or that the brake/clutch pedal is fully depressed.

Insert the key and turn Clockwise

If dashboard ignition lights fail to come on - check

- 1/ That the battery terminals are connected. (see page 15 fig 21)
- 2/ That the 15amp fuse is properly located and has not blown (see page 16 fig 25)
- 3/ That the battery is charged

If the engine fails to turn over - check

- 1/ That the brake is depressed or parking brake on.

If the engine turns over and does not start - check

- 1/ That the fuel tank is full.
 - 2/ That the spark plug lead is connected.
 - 3/ That the outlet in the fuel tank is not blocked.
 - 4/ That the spark plug is clean and set to the right gap (see page 15 fig 22).
 - 5/ That the fuel filter is not blocked (See page 12 fig 12).
- If the above do not apply - call your dealer.

If the engine misfires, loses power or stalls in use - check

- 1/ That you have not run out of fuel.
- 2/ That the air filter pre-cleaner is not blocked (see page 13 figs 16 and 17).
- 3/ That the cooling air intakes are not blocked (see page 13 figs 14 and 15).
- 4/ That the fuel filter is not blocked. (See page 12 fig 12).
- 5/ If the ignition lights have gone off check the 15amp fuse (see page 16 fig 25)

IF THERE IS EVIDENCE THAT THE ENGINE IS OVERHEATING
OR IF YOU FIND THE OIL CONSUMPTION IS HIGH - CALL
YOUR DEALER WITHOUT FAIL

To check oil level:

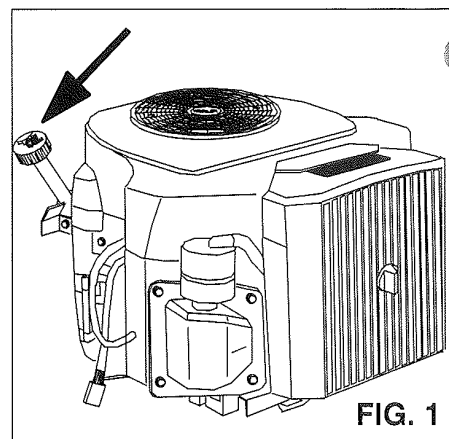


FIG. 1

Ensure that the tractor is on a firm level surface. Clean around oil filler. If engine has been running wait a few minutes after it has been turned 'OFF'.

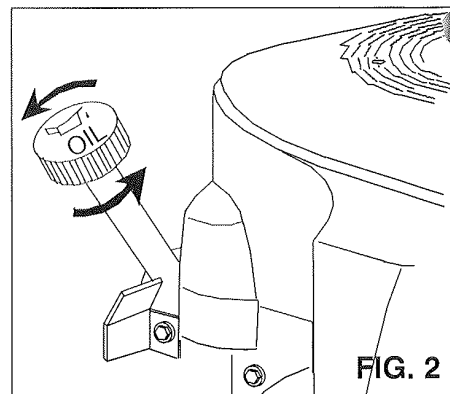


FIG. 2

Turn anti-clockwise to remove.

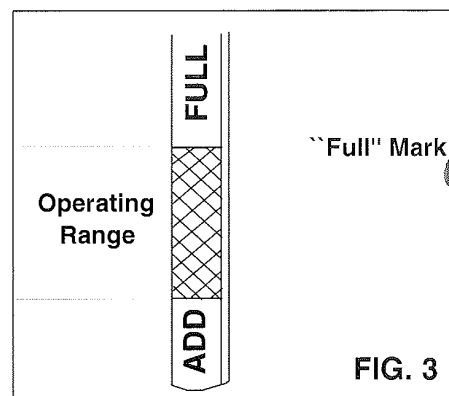


FIG. 3

Oil level should be in the grey zone.

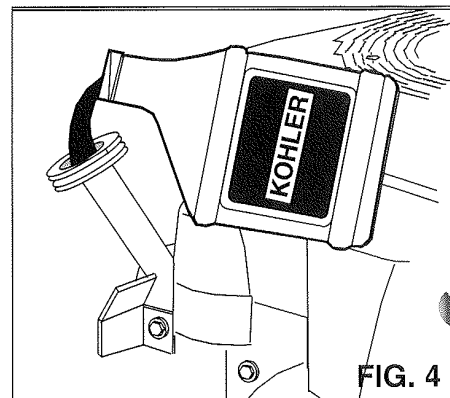


FIG. 4

If required, fill slowly then recheck.

ENGINE - OIL

OIL DRAINING

NOTE: OIL SHOULD BE CHANGED WITHOUT FAIL AFTER THE FIRST 5 HOURS RUNNING.

The H Series Garden Tractor has an oil drain adaptor (fig 5) located on the right hand (off side) of the engine. This is like a bayonet light fitting which you push in and turn anti clock wise to release. A short length of clear hose is supplied in the tool kit that fits on this adaptor so that waste oil can be poured into a can or bottle.

Before draining:

- 1/ Start up the engine and allow to idle until it is warm. (About five minutes)
- 2/ Switch off the engine, lift open the bonnet, and unscrew the oil cap/dipstick.

To drain:

- 1/ Locate the Oil drain. (fig 5)
- 2/ Remove yellow Dust Cap.
- 3/ Fit the short length of hose supplied over the nozzle of the adaptor (See fig 6) and direct the other end into a container large enough to take 2 litres of waste oil.
- 4/ Press the adaptor in, turn anti-clockwise and pull to start flow.
- 5/ When the sump is empty press in the adaptor and turn clockwise to lock. Remove hose and store for next use. Replace yellow Dust Cap.
- 6/ Refill with recommended oil (SAE30 10W-30 detergent oil classified for service - SG, SF, SH.) to engine manufacturer's instructions. **DO NOT OVERFILL.** The use of lubricants that are not recommended may lead to excessive wear or damage - and this will NOT be covered by warranty.

ALWAYS READ AND FOLLOW THE ENGINE MANUFACTURER'S INSTRUCTIONS ON ALL MATTERS RELATING TO USE AND MAINTENANCE. OBSERVING THE OIL CHANGE INTERVALS WILL GREATLY ENHANCE THE SERVICE LIFE OF YOUR ENGINE!

FIG 5

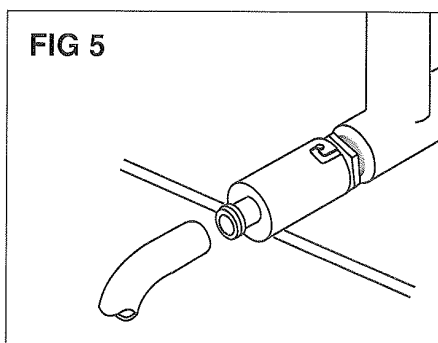


FIG 6

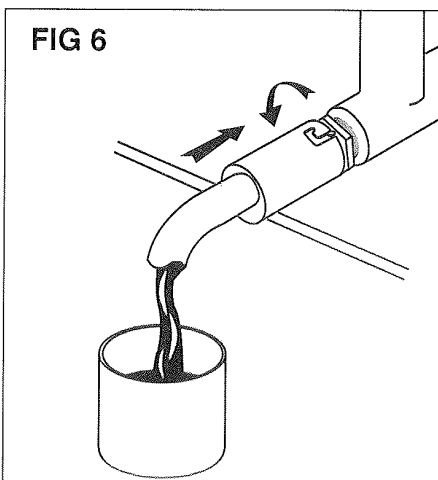
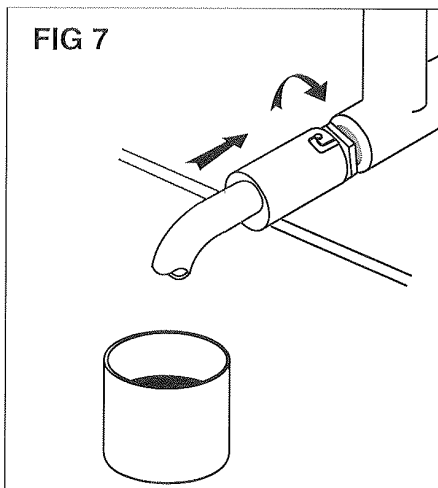


FIG 7



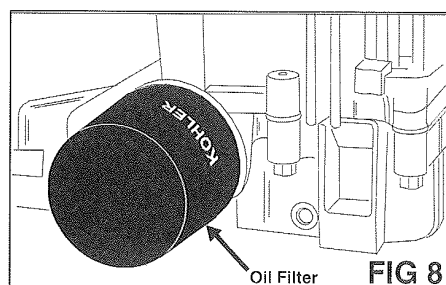
BEFORE CARRYING OUT ANY REPAIR OR SERVICING

- * Ensure that the tractor is on a firm level surface.
- * Apply the handbrake.
- * Disconnect the battery.
- * Extinguish all naked flames.

N.B.

The information contained in the following pages is given on the understanding that Hayter Limited accepts no responsibility for work carried out by a customer or for any damage thus caused, whether or not the service instructions have been misunderstood. To be absolutely sure that your warranty terms are not breached, service work should only be carried out by a Hayter dealer.

The Kohler oil filter below should be changed after 100 hrs running or at least at every annual service



ENGINE - FUEL AND CARBURATION

FILLING THE TANK

- 1/ Clean around the cap of the fuel tank before filling.
- 2/ Fill with new unleaded petrol from a CLEAN container.
- 3/ Use a clean funnel preferably with a filter.

WE RECOMMENDED THE ADDITION OF FUEL ADDITIVE PARTICULARLY IF FUEL IS TO BE LEFT IN THE TANK FOR MORE THAN A COUPLE OF WEEKS.

FUEL FILTER

If you suspect that fuel is not getting through to the engine first check that the outlet in the fuel tank is not blocked.

Then remove the hose from the carburettor side of the In-line fuel filter (having first ensured that you have a container into which fuel flow can be directed) If the fuel flows the filter is probably OK. If it is more than a year old it is sensible to replace it. If fuel is passing the In-line filter the chances are that fuel is not your problem. If the carburettor is the problem it is only serviceable by a dealer.

FIG 9

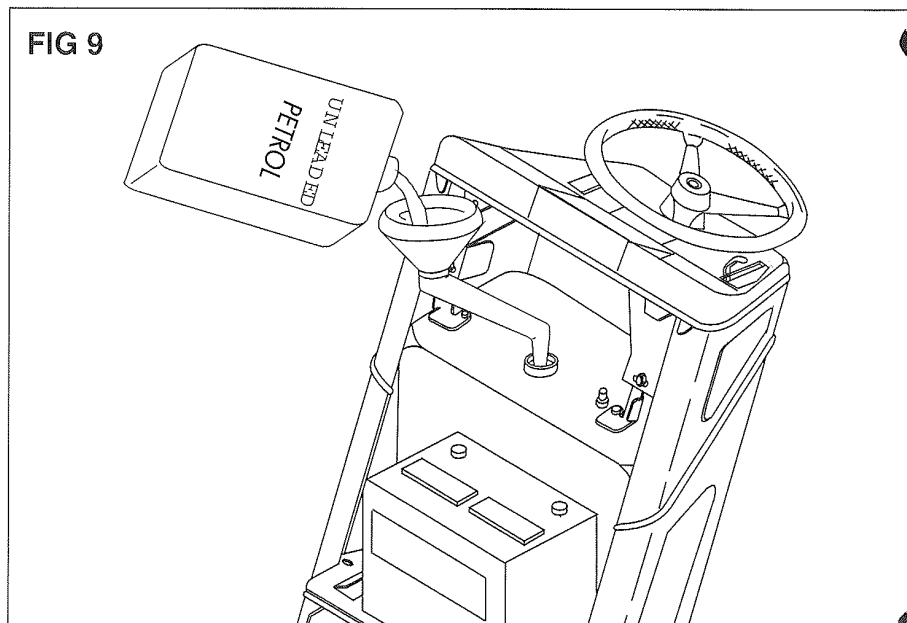
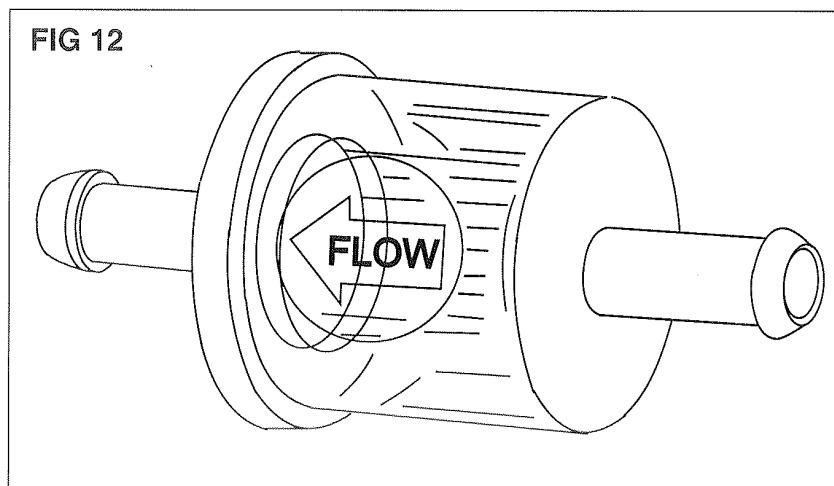


FIG 12



In-line filter, twin cylinder engine

N.B. The information contained in the following pages is given on the understanding that Hayter Limited accepts no responsibility for work carried out by a customer or for any damage thus caused, whether or not the service instructions have been misunderstood. To be absolutely sure that your warranty terms are not breached, service work should only be carried out by a Hayter dealer.

ENGINE - AIR AND COOLING

FIG 14

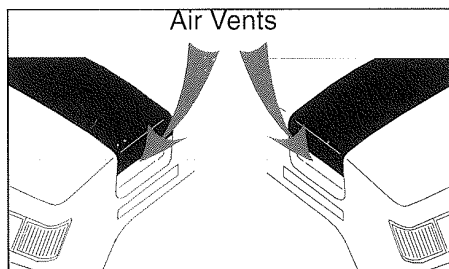
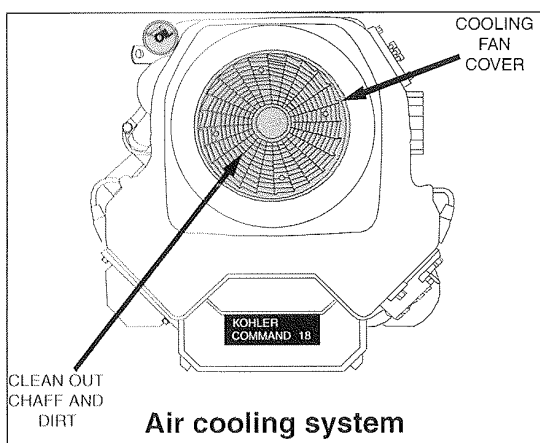


FIG 15



AIR INTAKE/ COOLING SYSTEM

The cooling fan also supplies the air to the carburettor so if the engine won't start or if it is stalling or overheating

CHECK THE COOLING SYSTEM AND THE AIR FILTERS

- 1/ Ensure the vents on either side of the bonnet are not blocked.
- 2/ Check that debris is not caught in the cooling fan cover - clean with a stiff brush.
- 3/ Remove the air filter cartridges and check that debris is not gathered on the Pre-Cleaner.

After all three checks you must consider whether the air filter cartridge should be replaced.*

The air filter pre-cleaners and cartridges should be changed every 100 hrs or at least every annual service.

ROUTINE MAINTENANCE

Keep the engine compartment free of grass, leaves, petrol or excessive grease.

FIG 16

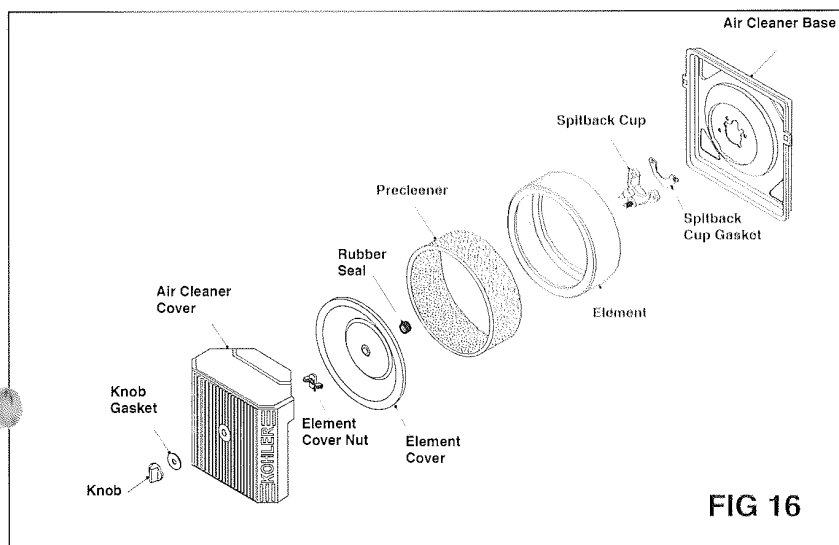
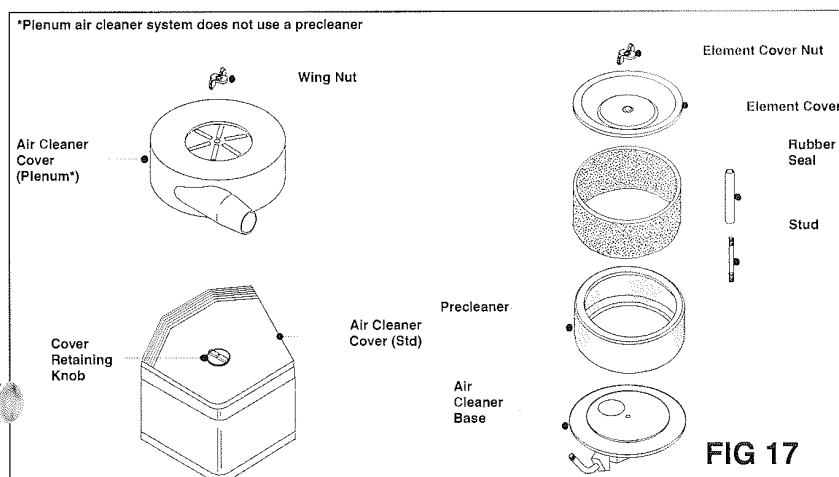


FIG 17



N.B. The information contained in the following pages is given on the understanding that Hayter Limited accepts no responsibility for work carried out by a customer or for any damage thus caused, whether or not the service instructions have been misunderstood. To be absolutely sure that your warranty terms are not breached, service work should only be carried out by a Hayter dealer.

TRANSMISSION/DRIVE TRAIN

Your Hayter Tractor was thoroughly inspected at the factory prior to delivery to your dealer. Your dealer, in turn, has carried out a pre-delivery inspection before delivering it to you. There should be no need for adjustment between services and we do not recommend that customers carry out servicing or adjustment to the transmission and drive belts (Hydrostatic transmission is sealed for life and can only be serviced by an authorised agent). During the warranty period such work **MUST** be carried out by your Hayter dealer.

When you are used to your tractor and if it subsequently develops a jerky take-up or you believe the drive belt is slipping - check:

- 1/ Is the drive belt is worn?
- 2/ If a new belt has been fitted, is it as recommended?
- 3/ Is the belt tensioner mechanism working and not jammed?

If in any doubt call your dealer. Belt type and tension are critical and can lead to damage to the engine.

ROUTINE MAINTENANCE

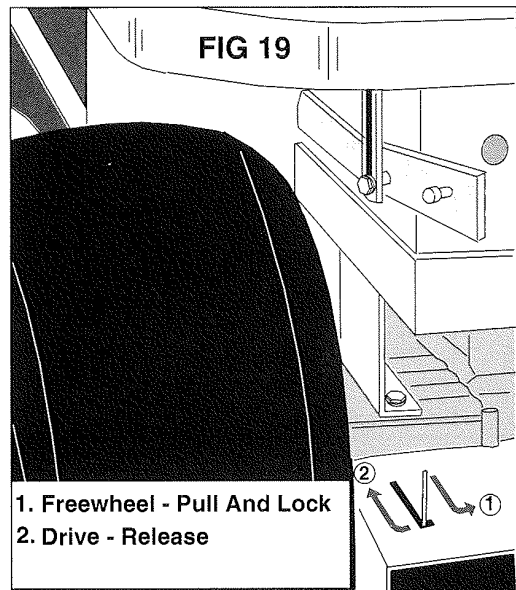
Keep the transmission free of grass and debris.

WE DO NOT RECOMMEND THAT CUSTOMERS FIT OR ADJUST TRANSMISSION DRIVE BELTS.

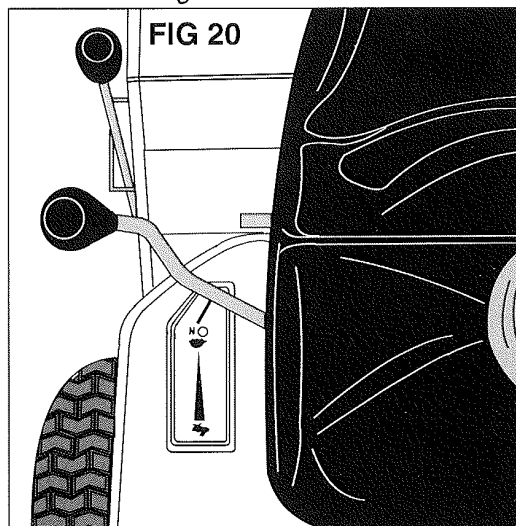
MOVING OFF - Hydrostatic gearbox (fig 19)

Select neutral with the Hydrostatic Speed Control Lever and start the engine. Lift the brake/clutch pedal before you advance (or pull back) the Speed Control Lever, and move off. If this fails to produce forward or backward movement - check:

- 1/ That the Dump Valve fitted to machines with Turf TORQ hydrostatic transmission is in drive (fig 20)



The bypass lever/dump valve is found alongside the rear left wheel.

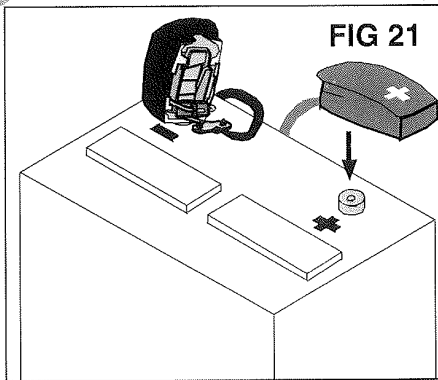


BEFORE CARRYING OUT ANY REPAIR OR SERVICING

- * Ensure that the tractor is on a firm level surface.
- * Apply the handbrake.
- * Disconnect the battery.
- * Extinguish all naked flames.

ENGINE - SPARK PLUG, LIGHTS

BATTERY



Check that the battery terminals are correctly placed - black neutral (-) red positive (+)

The battery should be periodically recharged during a winter lay-off. If it has run down during normal summer use there could be several causes:

- Distilled water not topped-up.
- Ignition or lights left on.
- 20amp charging fuse needs replacing (see page 16 fig 25)
- The battery needs replacing

If 'a' 'b' and 'c' appear not to be applicable first re-charge the battery using a trickle charger and await a second failure before calling your dealer.

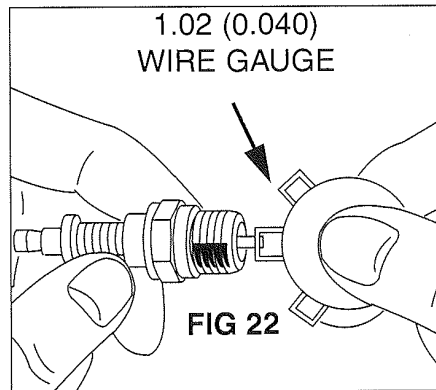
Alternatively the engine can be started with jump leads and the battery re-charged in use.

Note - You may have trouble turning on the cutter until the battery is fully charged.

ROUTINE MAINTENANCE

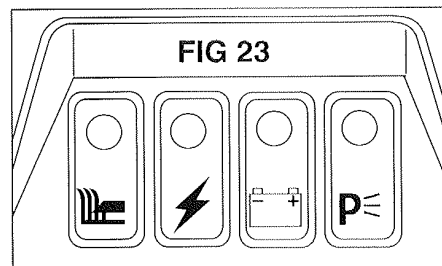
Keep electrolyte topped up to correct level - do not overfill.
Clean the battery terminals and coat with petroleum jelly.

SPARK PLUG



The spark plug should be a RC12YC or equivalent. The gap should be set to 1.02mm (0.040")

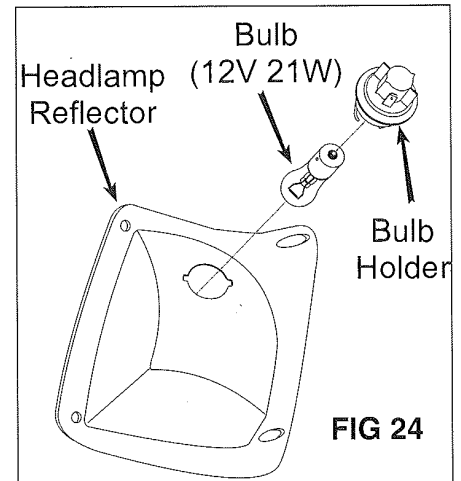
DASHBOARD LIGHTS



- 'Cutter On' indicator - flashes continuously when cutter is running.
- The 'Ignition On' indicator - goes out when the cutter is running.
- The 'Charge' indicator - comes on only when the battery is charged. (If this indicator is not lit by the end of a mowing session you should remove the battery for charging)
- The 'Brake On' indicator.

NB - The Battery Charge Light does not tell whether the battery is charging. If it is on it indicates that battery is fully charged. If it is not lit or goes out check the left hand 20Amp fuse. Remember that the tractor must be run with the throttle set to 'FAST' otherwise the battery will not charge.

LIGHTING



1. Lift bonnet and locate and unscrew bulb holder by holding firmly and rotating in an anti-clockwise direction. Be careful not to damage the reflector.

2. Remove bulb from holder by carefully pushing inwards, rotating it anti-clockwise and then pulling to release.

3. To fit replacement bulb (12V 21W) push into holder and rotate clockwise.

4. Insert bulb and bulb holder carefully into the headlight and rotate clockwise until it locates.

Note - If both lights have gone off it could be the fuse on the Printed Circuit Board - see page 16 fig 28.

ENGINE - ELECTRICAL, BATTERY, FUSES.

There are 2 fuses on standard H Series tractors,
The 20Amp (yellow) charging circuit

The 15Amp (blue) lights, ignition, safety switches.
To check - remove fuse and check small window (fig 26)
there should be an unbroken metal strip bridging the gap.

Note - If the 15Amp fuse blows when the ignition key is turned this means there is a short between the red and blue coloured wire and the body of the tractor. The usual places to investigate are:
A. The electrical PTO and socket (if fitted).

B. Seat switch wires.

C. The brake micro switch:

If fuses blow after these have been checked call your dealer.

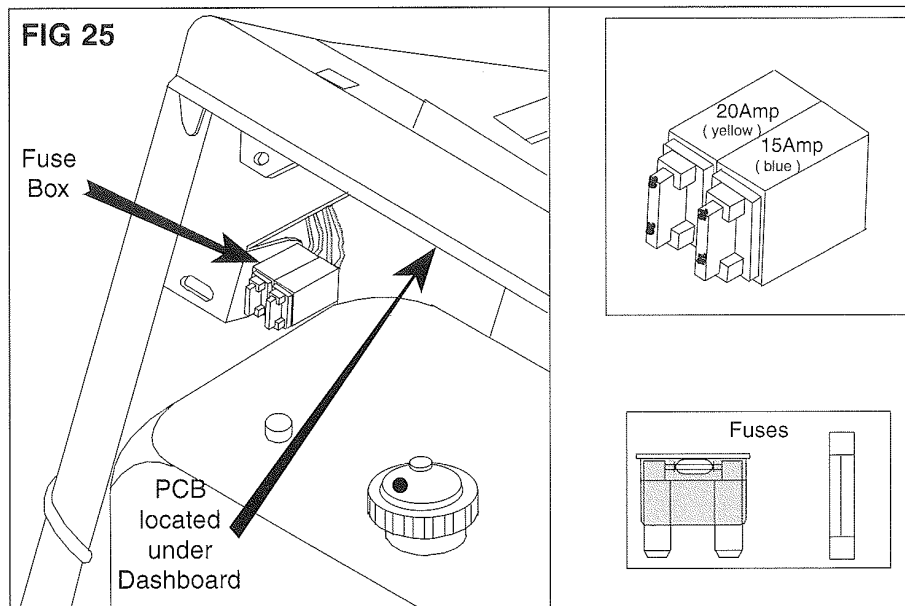
PRINTED CIRCUIT BOARD FUSES

There are 2 fuses on the Circuit Board which can be reached by removing the cover - see fig 25. These two fuses control the lights and the Electro Magnetic Blade Clutch

If the problem is not a fuse and you cannot see any loose connections - call your dealer.

Electro Magnetic Blade Clutch

If the blade clutch disengages without being switched off these are the possible causes:

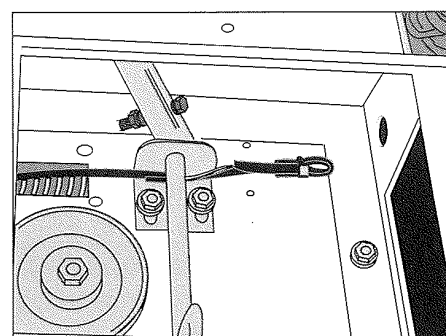


1. You have got off the seat - the safety switch will disengage the cutter.

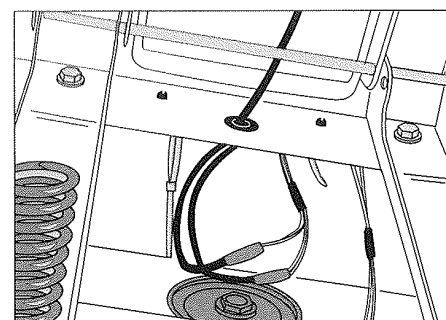
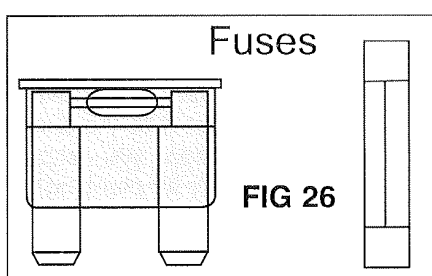
2. The battery has lost charge and will no longer hold the clutch in operation.

3. Fuse blown on Printed Circuit Board - see above.

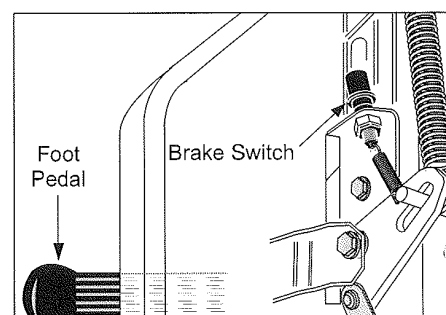
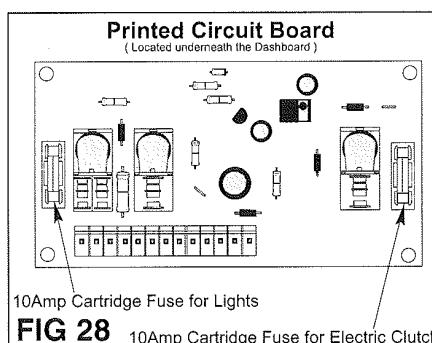
4. Faulty safety switch or break in wire - see dealer.



(A) Possible source of short - PTO wiring



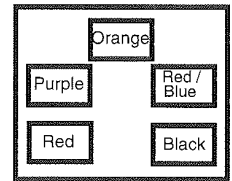
(B) Possible source of short - Seat switch



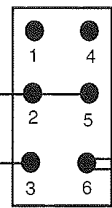
(C) Possible source of short - Brake switch

H1538 TRACTOR WIRING DIAGRAM

- 1 White
- 2 Red / Blue
- 3 Brown
- 4 Grey
- 5 Red / Blue
- 6 White / Red
- 7 Black
- 8 Purple
- 9 Yellow
- 10 Green
- 11 Orange
- 12 Red / Yellow
- 13 Blue



Electric Clutch Switch



P.T.O. Socket

Seat Switch

Brake Switch

Fuel Solenoid Socket

Regulator

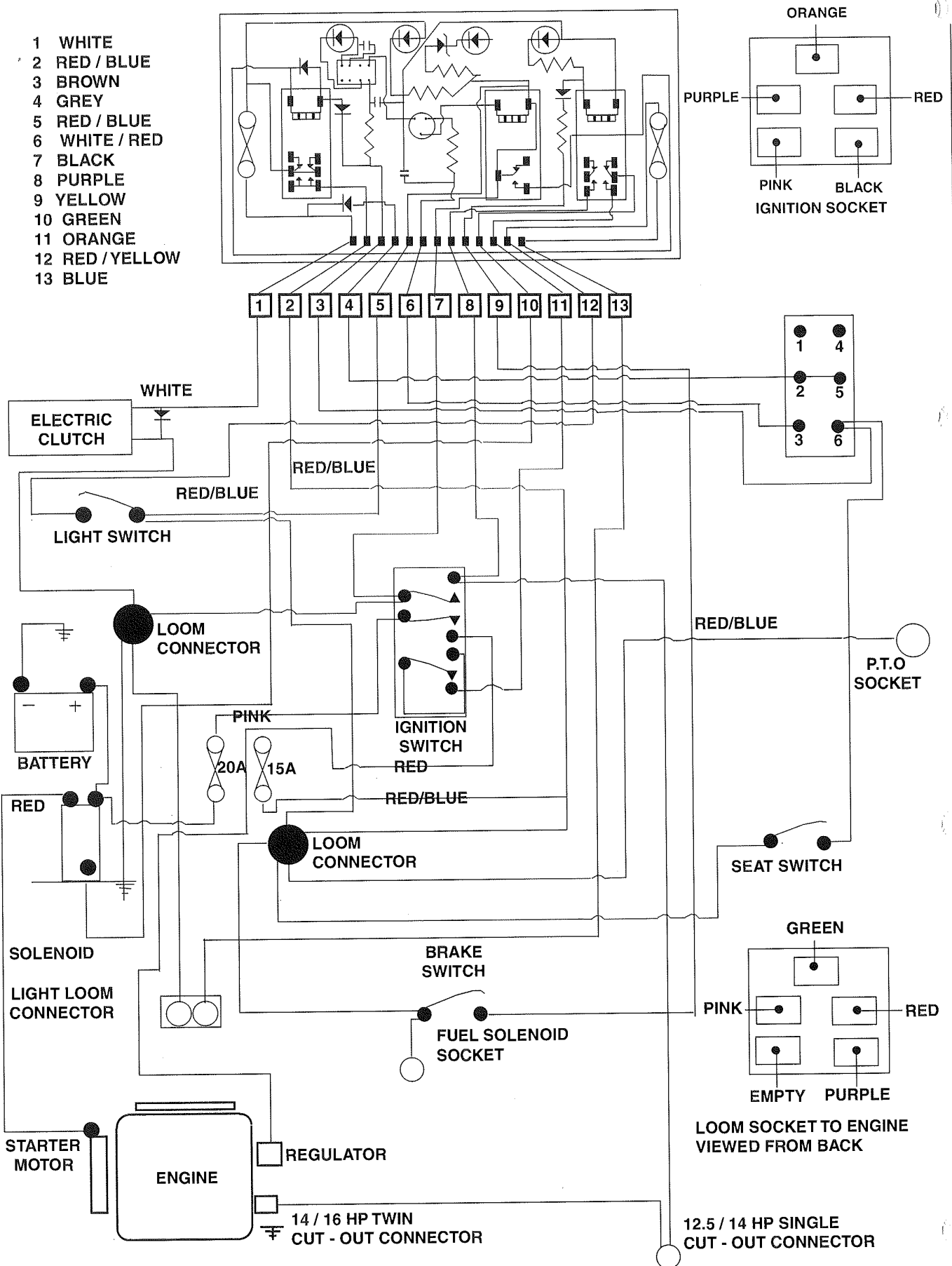
Ignition Cut Out (Female Spade Connector)

Ignition Cut Out (Bolt on Connector)

Drawing No:
B0029501

H1842 TRACTOR WIRING DIAGRAM

- 1 WHITE
- 2 RED / BLUE
- 3 BROWN
- 4 GREY
- 5 RED / BLUE
- 6 WHITE / RED
- 7 BLACK
- 8 PURPLE
- 9 YELLOW
- 10 GREEN
- 11 ORANGE
- 12 RED / YELLOW
- 13 BLUE



CUTTER

Check List

Cutter fails to start or cuts out when switched on. Check:

1. Are you on the tractor - unless you sit on the seat the safety switch cuts out the cutter.
2. Is the battery low? - the electro-magnetic switch will only operate if the battery is well charged. (See page 15 fig 21)
3. Does the 10Amp cartridge fuse on the printed circuit board need replacing (see page 16 fig 28).
4. Either the cutter switch or the safety switch on the seat are faulty - call dealer.

Uneven cut (cutting shorter one side than the other - check:

1. That the tyres are all inflated to the right pressure. (Page 28)
2. That the front axle is pivoting freely.
3. That the deck suspension brackets are moving freely and not hitching up. (See page 20)
4. That the side to side deck level adjustment is correct. (see fig 33)

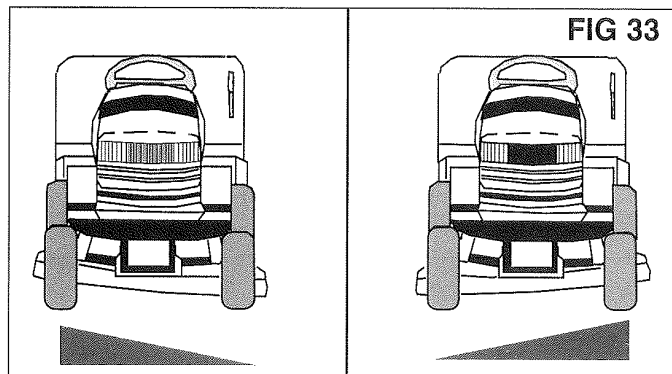
Cut is uneven or untidy in one or more sectors - check:

1. That the cutter deck is levelled correctly front to back (see figs 34 and 35)
2. If one or more of the blades are worn or damaged - call your dealer. (Fig 37)

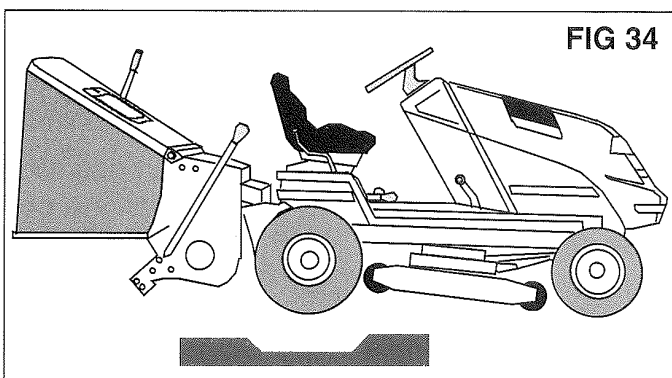
WE DO NOT RECOMMEND THAT CUSTOMERS ATTEMPT TO CHANGE CUTTING BLADES THEMSELVES - REMEMBER THAT IT IS NEVER WORTHWHILE TO HAVE BLADES REGROUND - IT IS CHEAPER AND BETTER TO REPLACE. REGRINDING IS LIKELY TO AFFECT THE HARDENING OF THE BLADE AND ITS BALANCE.

The cutter seems to lose power and the belt slips and overheats - check:

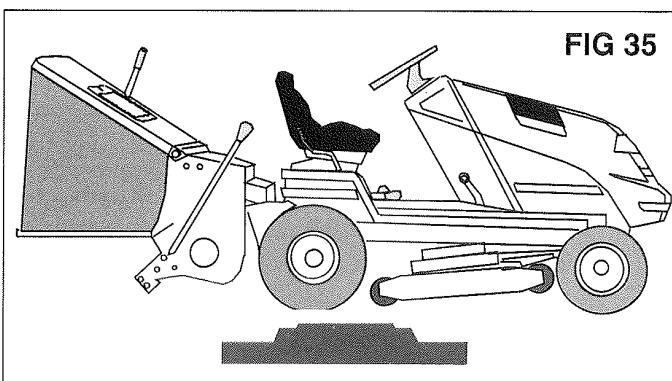
1. That the tensioner rod is correctly applied. (Page 22 fig 42)
 2. That the cutter belt tension is correct. (Page 22 fig 43)
 3. That the cutter deck is not clogged with wet cuttings.
- Is the cutter drive belt worn? To replace see page 23.



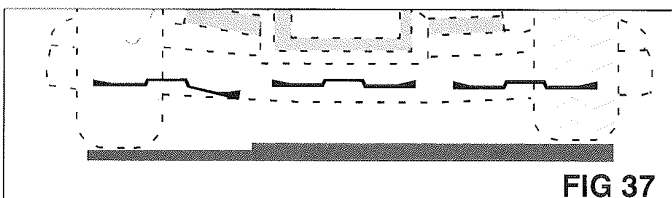
Cutter is not level side to side



Cutter is not level front to back (Tipped forward)



Cutter is not level front to back (Tipped back)



Individual cutter blades damaged or bent

The Cutter Deck on your tractor has been factory set and then checked by your dealer before delivery to you. It should not need adjustment unless impact or heavy use has affected the setting. WE DO NOT RECOMMEND THAT CUSTOMERS REPLACE CUTTER BLADES - THIS IS A JOB FOR A DEALER.

CUTTER - LEVELLING FRONT TO BACK

The cutter deck should be set so that it is parallel to the surface it is cutting with a maximum variation from side to side, or front to back of 3mm. Check this by placing the tractor on a hard level surface and measuring the clearance heights front back and side to side with a steel ruler or tape with the cutter set one adjustment up from its lowest position.

If the cutter deck seems to require levelling first check these other possible causes:

- 1/ Are the tyres inflated evenly all round - if not, inflate to the correct pressures.
- 2/ Are the cutter deck Hanger Brackets (fig 39A) moving freely or are they hitching up. To check this lift the cutter deck to its highest position and lift

and rock it, watching to ensure that the brackets move freely - if not clean and grease. (See page 30 fig 56)

3/ Is the front axle pivoting freely - if not, clean and oil.

4/ Is there any impact damage that has bent or distorted the deck or suspension brackets. (A matter for your dealer)

If the deck is still uneven:- LEVELLING FRONT TO BACK

(you need two people for this operation - one to lift the deck while the other removes or relocates the Trunnion)

- 1/ Ensure that the Anti Scalp Wheels are all adjusted in the same hole - if not, rectify.
- 2/ Lower the cutter deck to a position one above the lowest setting - check levels with ruler or tape.

3/ Now locate the front to back Adjustment Rod to the right (offside) of the cutter. At the rear end of this rod, near the rear offside wheel, you will find the Trunnion (fig 39B) that links the rod to the Deck Hanger Bracket. Both the Trunnion and the rod are threaded and adjustment is achieved by rotating the Trunnion to 'in effect' shorten or lengthen the rod.

4/ To free the Trunnion use a 9/16" spanner or socket to remove the 3/8" Nyloc nut and washer and push it free.

5/ Rotate the Trunnion to advance it up the rod to lift the back of the deck. Rotate it the other way to lift the front. Adjustment is rapid so try one or two turns and relocate the Trunnion bracket and secure - then check the effect. Repeat and re-check if necessary.

TOOLS REQUIRED:

Steel Ruler or Tape
9/16" AF Socket
1/2" Spanner
1/2" Socket
13mm Spanner
13mm Socket
Reversible Ratchet
12" Extension Bar

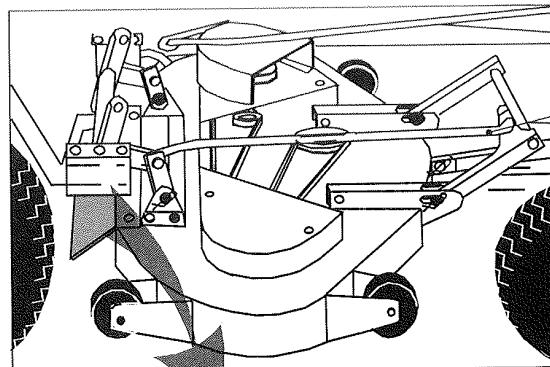


FIG 39

Front to back
Adjustment Rod

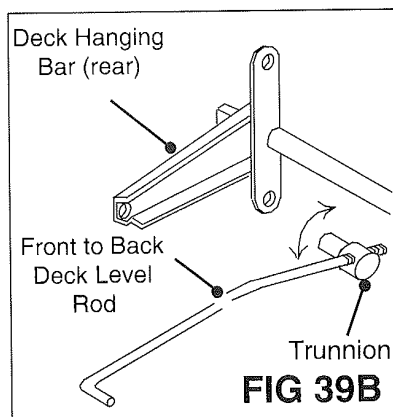
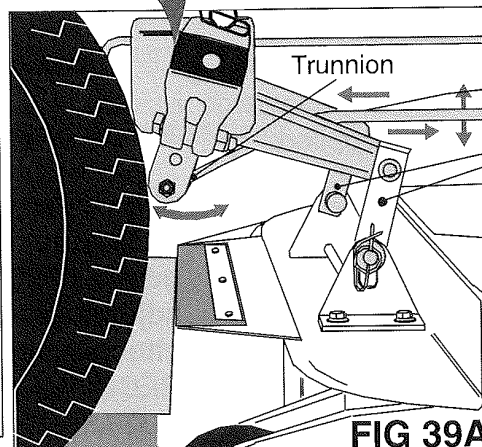


FIG 39B



Rear
Deck
Hanger
Bracket

FIG 39A

CUTTER - LEVELLING SIDE TO SIDE

LEVELLING SIDE TO SIDE

Adjustment is best done with the deck in a position one up from its lowest cut - check the level both sides and then levelling is then achieved by adjusting the left (nearside) of the deck at two points:

REAR ADJUSTMENT

1. Find the Deck Level Disk (fig 40B) near the back nearside wheel. This has a concentric slot in which the Deck Levelling Rod is located.
2. Using a 1/2" spanner, loosen the 5/16" Nyloc Nut securing this stud just enough to permit some movement.
3. Now lift or depress the deck depending on the adjustment you wish to achieve. This will move the stud up or down the disk - the higher up and nearer

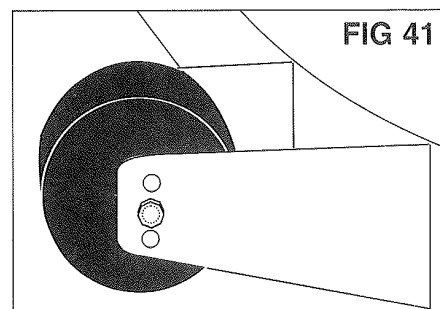
the centre of the disk the higher the deck.

- 4/ Check with your ruler or tape and having levelled the deck at the rear, re-tighten the Nyloc nut.

FRONT ADJUSTMENT

1. Having levelled the rear of the deck check if the front is level. If not, you will need to find the Deck Adjustment Plate (fig 40A) which is forward of the cutter deck near the front (nearside) wheel.
2. Before making adjustments loosen the two sets of nuts and bolts (A and B) securing the Deck Adjustment Plate using a 13mm spanner and 13mm socket.
3. Then, using a 13mm spanner, loosen (upper) locknut (D).

4. Now adjust the height by using a ratchet or spanner to turn the Nyloc nut (E) clockwise (up) to raise the deck or anti-clockwise (down) to lower it.
5. When level is achieved tighten up all nuts and bolts except E.



For the closest cut set the anti-scalp wheels in the middle adjustment holes. If you are experiencing scalping this can be minimised by setting the wheels in the lowest adjustment holes.

TOOLS REQUIRED:

- Steel Ruler or Tape
- 9/16" AF Socket
- 1/2" Spanner
- 1/2" Socket
- 13mm Spanner
- 13mm Socket
- Reversible Ratchet
- 12" Extension Bar

Side to Side Deck Levelling Rod

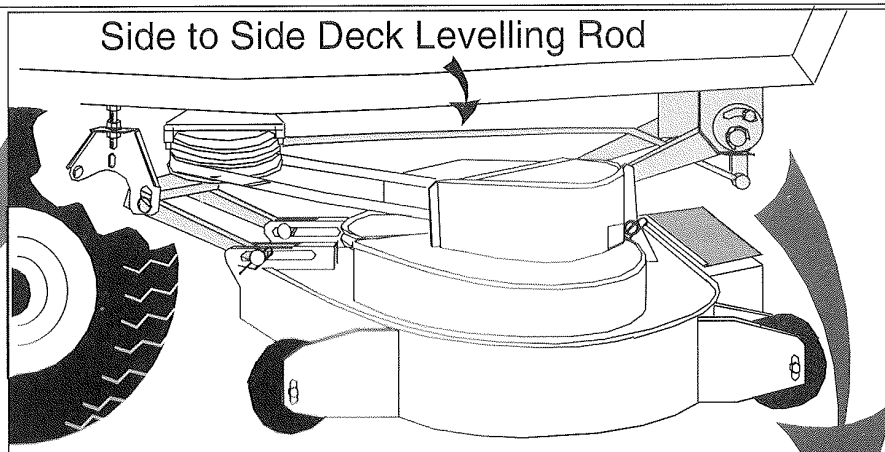


FIG 40

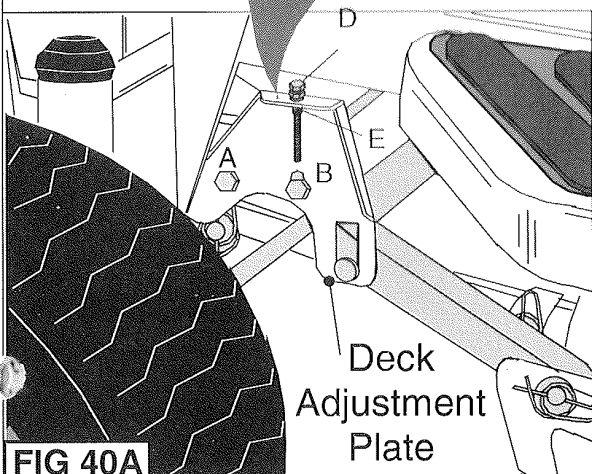


FIG 40A

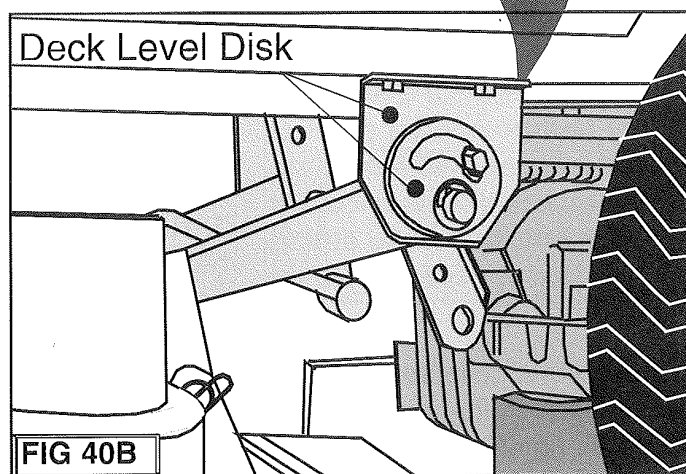
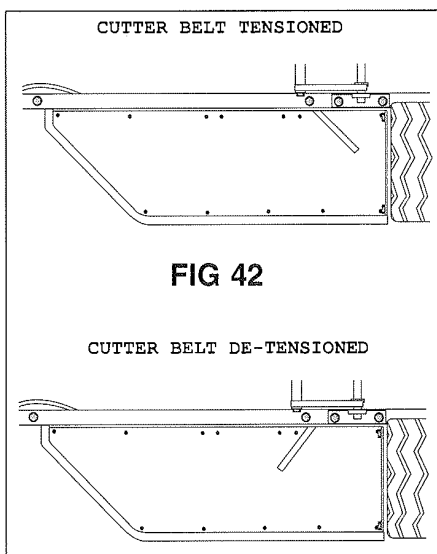


FIG 40B

CUTTER - DRIVE BELT

Engine to Cutter Drive Belt
SPECIFIED BELTS
97cm (38") deck
Part No C22-8701-00
107cm (42") deck
Part No C22-8867-00
ONLY USE THE
SPECIFIED BELT, **NEVER**
ACCEPT A SUBSTITUTE.

Before carrying out tests or adjustments (the problem may be simpler) - first CHECK the following points:
1/ Is the engine to cutter drive belt slipping? Check that the drive Belt Tension Lever (fig 42) under the left running board is in the rear (tensioned) position. If not, rectify - this is the most likely cause.



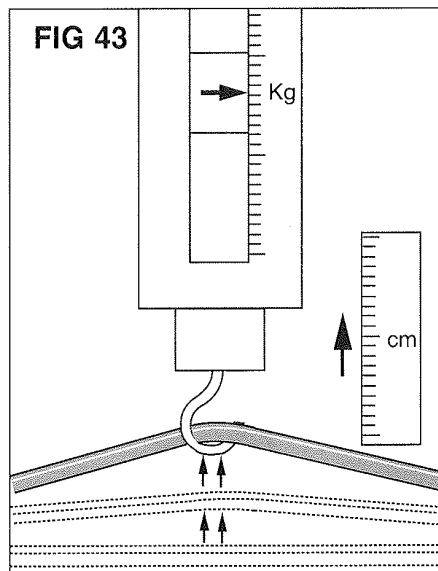
2. Has debris collected in the Cutter Deck Pulley Housing (Page 24 fig 45). If so remove the cover and remove the

obstruction.
Engine to Cutter Drive Belt Tension

The correct tension of the cutter drive belt (engine to deck) is critical. If incorrectly set it can lead to engine damage.

To check the tension follow this procedure:

1. Put the deck in a middle cutting height position. (3 on the lever setting)
2. Select the midway position on the belt between the front (electric clutch) pulley and rear (cutter deck) pulley and using, a spring balance, apply a 2Kg (4 to 5lbs) pull. (Fig 43)
3. Using a ruler or tape, measure the deflection achieved which must be 13mm (1/2"). If more the belt tension must be increased: if less, decreased.

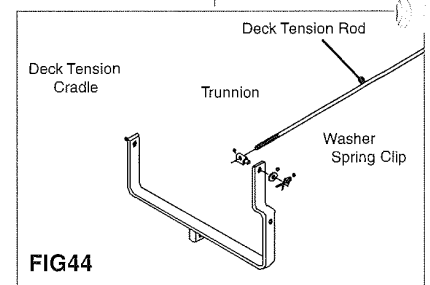
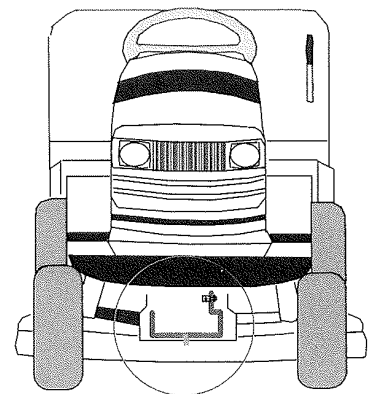


To correct the tension, follow this procedure:

1. Release the tension on the belt by pulling the Belt Tension Lever forward (see fig 42)
2. Taking care not to burn yourself on a hot exhaust, locate the Trunnion at the end of the Belt Tension Rod - lift the bonnet and look to the front

(nearside) close to the exhaust* (see fig 44)

3. Remove the spring clip and washer holding the Trunnion in place on the Deck Tension Cradle (fig 44) and release the Trunnion so it can be turned.
4. Both the Trunnion and the Belt Tension Rod are threaded. You increase belt tension by winding the trunnion towards the end of the rod and reduce tension by winding in the reverse direction.
5. Having made the adjustment re-locate and secure the Trunnion, re-tension the belt with the Belt Tensioner Lever - then re-check the belt tension.



WARNING

ON NO ACCOUNT MUST THE TRACTOR BE RUN WITH THE ENGINE TO CUTTER DRIVE BELT OVER-TENSIONED AS IT WILL DAMAGE THE ENGINE. As any such damage will NOT be covered by warranty you may prefer that your dealer sets the tension.

CUTTER - REMOVAL OF DECK/BELT

REMOVAL OF CUTTER DECK

The cutter deck can be quickly removed for servicing or cleaning or to give greater clearance when driving or towing over uneven ground.

Follow this sequence:

1. Put cutter to lowest position.
2. De-tension the Cutter Drive Belt with the lever under the left (nearside) running board.
3. Remove the 3 securing pins from the front of the deck (Fig 38B - A,B and C) by pulling out the spring clips.
4. Remove the 2 securing pins from the back of the deck (Fig 38A - D and E)
5. Slip the Cutter Drive Belt off the Engine Pulley.
6. Slide the deck out.

7. If you are going to use the tractor without the deck, remove the Securing Bar (F).

WHEN REPLACING THE CUTTER DECK, RE-TENSION THE BELT WITH THE LEVER UNDER THE RUNNING BOARD. Then check the belt tension (see page 22 fig 43)

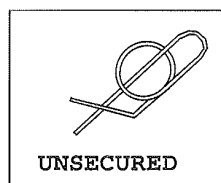
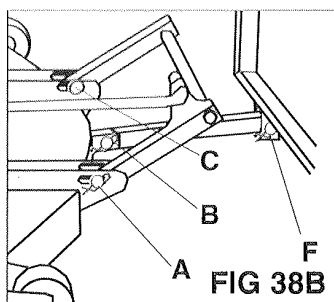
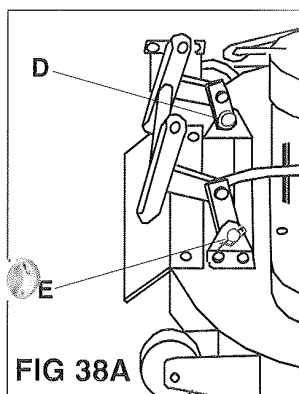
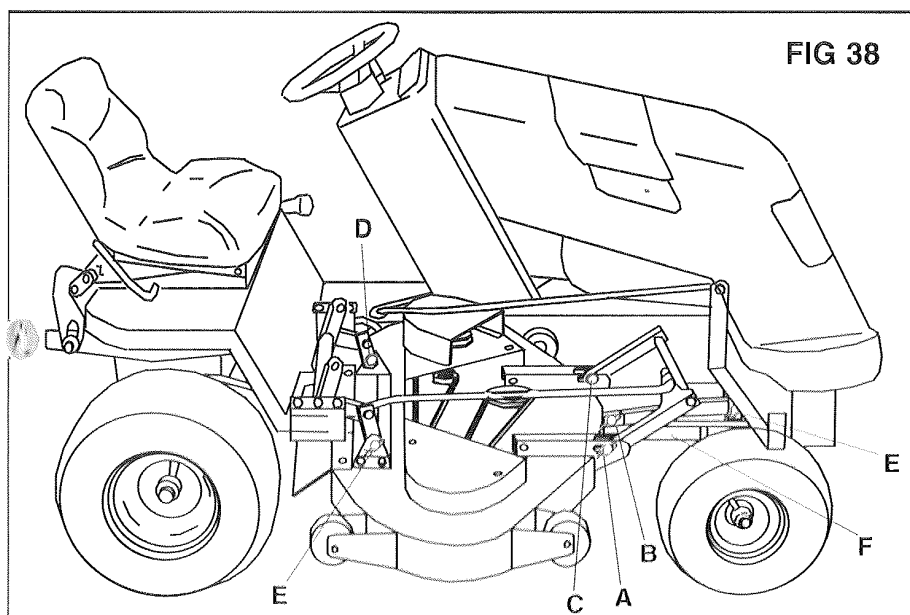
TO CLEAN CUTTER DECK

Remove the deck as instructed, stand it on its side and hose off accumulated cuttings. This may be necessary routinely to prevent build-up of cuttings, particularly at the beginning of the season when the grass is lush and wet. Thoroughly wash the underside of the cutter deck as regularly as possible.

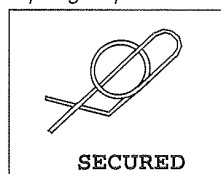
ENGINE TO CUTTER DRIVE BELT REPLACEMENT

Follow this sequence:

1. Pull the Belt Tension Lever (page 22 fig 42) forward.
2. Lower the Cutter Deck to the lowest position.
3. Remove the belt from the forward Electric Clutch Pulley - it will slip off.
4. Remove the Cover of the Cutter Deck Pulley Housing - loosen and remove the 1/4" UNF nut and bolt using two 7/16" spanners/sockets - then slide (tap) the cover off.
5. Remove the belt from the Cutter Deck Pulley - you may have to ease it off by rotating the pulley.
6. Now replace with the CORRECT BELT (see page 22) by reversing this procedure, taking care to fit the belt into the "V" grooves.
7. Pull back the Belt Tension Lever so the belt is tensioned. Now check and adjust belt tension as detailed on page 22 opposite.



Spring Clips



The belts fitted to your tractor are of a special construction and belt tensions have been precisely set in the factory. If you undertake to replace or re-tension a belt yourself you must be **VERY** careful that the correct Hayter supplied belt is used and that the tension is set accurately.

CUTTER - INTEGRAL DRIVE BELT

SPECIFIED BELTS

97cm (38") deck - AA112
Part No C22-8699-01
107cm (42") deck - AA120
Part No C22-8700-00
NB - ONLY USE THE
SPECIFIED BELT FOR
YOUR H SERIES
TRACTOR

Located on top of the Cutter Deck, the Integral Drive Belt is a special two sided belt and substitutes cannot be used.

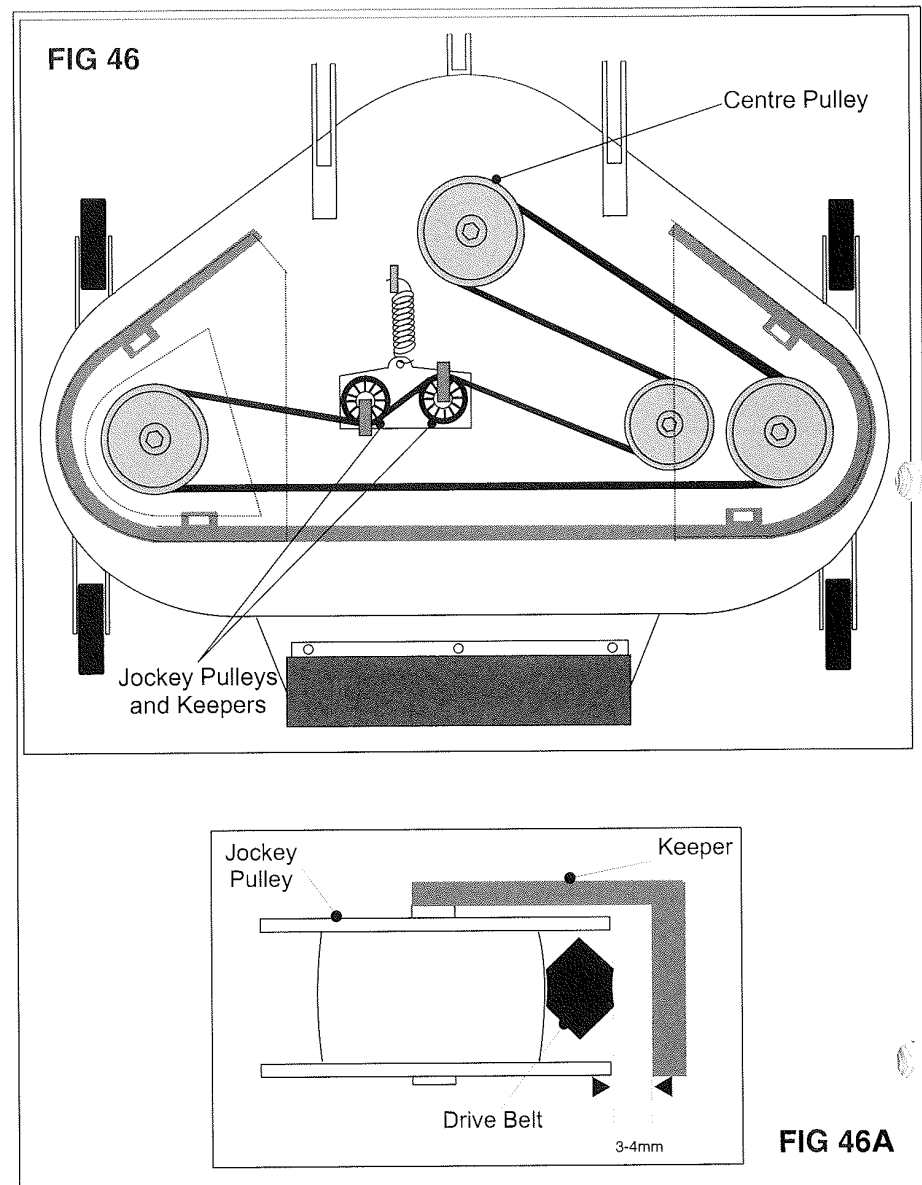
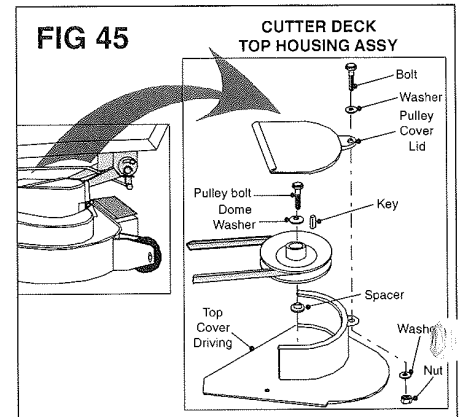
REMOVAL AND REFITTING

1. Remove the cutter deck from the tractor (see page 23) and place on a suitable flat hard surface.
2. Remove the Cover of the Cutter Deck Drive Pulley Housing (fig 45) - loosen and remove the 1/4" UNF nut and bolt using two 7/16" spanners/sockets - then slide (tap) the cover off.
3. Undo the bolt securing the Cutter Deck Drive Pulley using a 9/16" socket and ratchet - jam the blade driven by this pulley with a block of wood and be careful not to cut your hand.
4. Then remove the Drive Pulley (this may require the use of a three legged puller). Place pulley, key and spacer safely to one side.
5. Remove the two Top Covers using a 13mm spanner and place to one side.
6. Roll off the belt from the Centre Pulley (fig 46).
7. Using 1/2" spanners, slacken off (don't remove) the two Jockey Pulleys and Belt Keepers (noting their positions).

8. Remove the belt from the cutter deck pulleys.
9. Replace with new belt, carefully following the sequence and directions shown in the diagram (fig 46).
10. Tighten the Jockey Pulleys and ensure that the Belt Keepers are placed centrally between the point that the belt joins the Jockey Pulley and where it leaves it. **IMPORTANT**, the clearance between pulley and belt keeper should be 3-4mm (fig 46A).
11. Replace the two Top Covers,
12. Replace Cutter Drive Pulley (fig 45) renewing the Dome

Washer (Part No C08-8199-00) and the Pulley Bolt (Part No C02-8200-00).

FINALLY TORQUE THE PULLEY BOLT TO 4.2 KG/M (30lbs/ft)



COLLECTOR

Check List

Not picking up satisfactorily - check:

1. That the PTO lever is engaged
2. That PTO pulley beneath the seat is turning - if not, call your dealer
3. That the collector belt is not reversed (if it is correct the brush revolves against the forward direction of the tractor) (see below)
4. That the brush height adjustment is not too high or too low -start at the high setting and lower until it begins to collect.
5. That there is not a build up of congealed grass on the leading edge of the brush guard (see page 27 fig 50)
6. That the brush is not clogged.
7. That the collector belt is not slipping. If so:
 - a/ Adjust tension (see page 26)
 - b/ Or replace worn or damaged belt (see page 26)
8. That the collector net is not clogged

If so wash, or brush with a stiff hand brush.

9. That the brush is not damaged (If so you can replace individual comb brushes or fit a complete new brush (see page 27)

10. That the Ventilation Slots on the top of the Collector Box are not clogged.

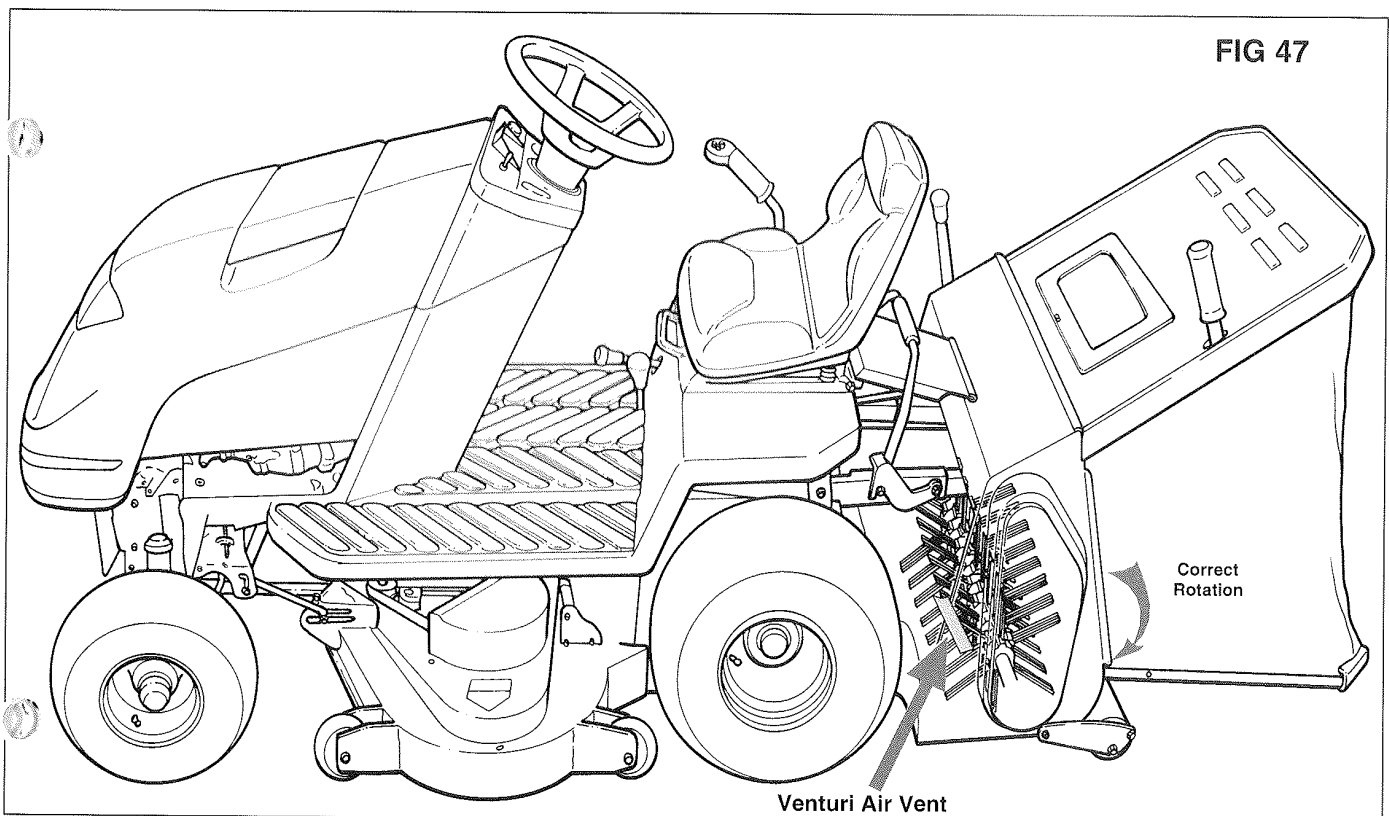
11. That the Venturi Air Vent is not blocked

USER TIPS -

If you are having problems with build-up of grass on the roller - reverse briefly at end of each pass and you will drop the grass.

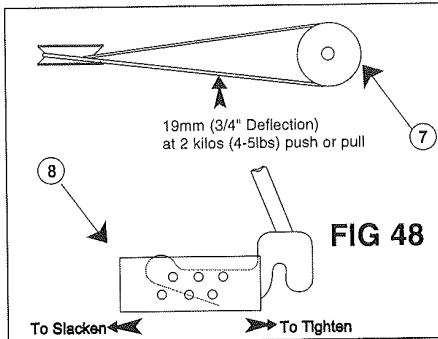
Insist that your sweeper is included in the annual dealer service - next to the cutter deck it is the hardest working part of your tractor.

Ensure that the Tipping Handle is kept clean so it slides up and down easily - if it is left sticking up it is prone to snag on branches etc



COLLECTOR - DRIVE BELTS

REPLACING AND TENSIONING PTO DRIVE BELT CONNECTION



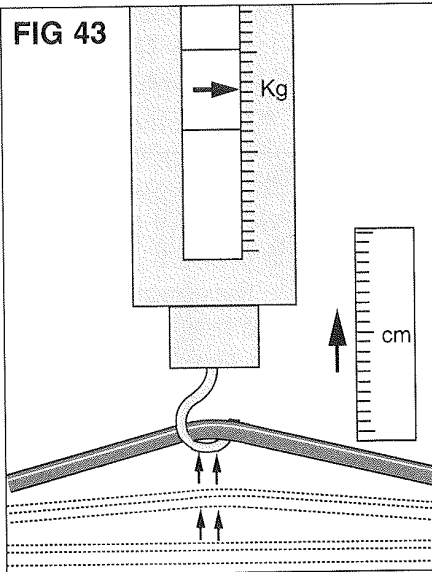
It is important that the belt from PTO to collector (Part No C22-8734-00) is crossed over in the correct direction (fig 48) before being fitted over the collector pulley. The easiest way to do this is to place the belt on the PTO pulley and then stand behind the tractor holding the belt with two hands. Turn the right hand above the left and fit the belt on to the collector pulley (7).

To check that you have this right - start the tractor and engage the PTO lever and check that the brush is revolving against the forward direction of the tractor. (see page 25 fig 47)

CORRECT BELT TENSION

To check tension:

1. Lower the collector to the operating position and check the tension using a spring balance and a ruler.
 2. Select a place on the belt midway between the PTO pulley and the Collector pulley.
 3. Pull and measure the deflection using the ruler (fig 43). It should be 19mm (3/4") at 2Kg (4 to 5Lbs).
- If the tension needs to be adjusted - first:

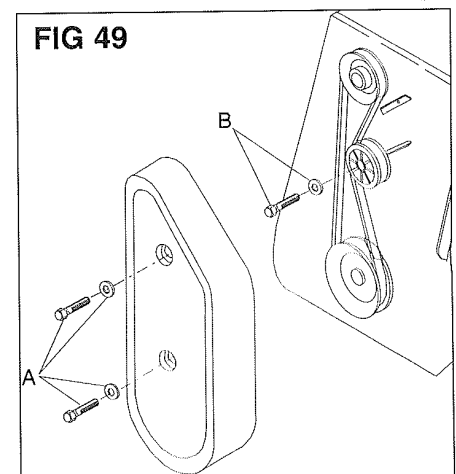


1. Remove the Collector from the tractor.
2. Locate the adjustment holes on the Locking Arms. These holes take the nuts and bolts on which the Locking Arm hinges.
3. To increase tension on the belt undo each nut and bolt and relocate them one or more holes forward (towards the tractor) . To slacken move the bolts back . Ideally the bolts should be in the same hole on each Locking Arm, however fine adjustment to get the right tension may only permit you to move one bolt - this is OK but there should not be more than one hole difference from side to side.
4. Replace the Collector on the tractor and re-check the belt tension.

N.B. The information contained in the following pages is given on the understanding that Hayter Limited accepts no responsibility for work carried out by a customer or for any damage thus caused, whether or not the service instructions have been misunderstood. To be absolutely sure that your warranty terms are not breached, service work should only be carried out by a Hayter dealer.

CHECKING, TENSIONING AND REPLACING SIDE DRIVE BELT (fig 49)

1. First remove collector from the tractor .
2. To remove the plastic cover remove the two nuts and bolts (A) using a 1/2" spanner and socket.
3. Using a 1/2" spanner and socket slacken the nut and bolt (B) holding the tension pulley and slide the pulley out of the way.
4. Remove the belt and fit the Hayter replacement (Part No C22-8328-00)
5. Tension the belt by sliding back and securing the belt tensioner. The tension is not critical but the belt must not be too tight. The ideal is 13mm (1/2") deflection at 2Kg (4/5 lbs) pull - use a spring balance and ruler or tape to check.
6. Make sure that the rectangular cover plate fits over the adjustment slot - failure to do this will allow cuttings and grit to accumulate and damage the pulleys and belt assembly.
7. Replace the plastic cover.



COLLECTOR - BRUSH

If the brush has become worn or damaged it is simple to replace the whole brush assembly or individual Brushes.

To remove the Brush Stock:

1. Remove the Grass Bag Assembly by lifting it off the Pivot Brackets.
2. Detach collector from tractor.
3. Locate the 1/4" nut and bolt at each end of the brush and

undo and remove using a 7/16" spanner and socket. Keep safely taking care not to lose the washers.

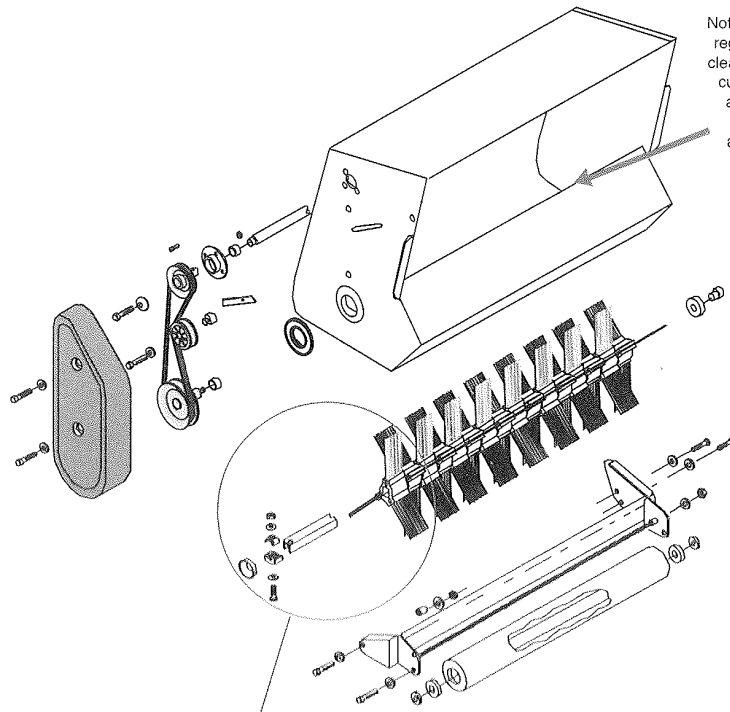
4. Now remove the cover mouldings and free the Brush Stock.

5. You can now slide off the Brush Bosses which each hold three Brushes. Note their position on the Brush Stock (fig 50A) which must alternate when you return them.

6. Slide out and replace individual Brushes where necessary and then re-assemble.

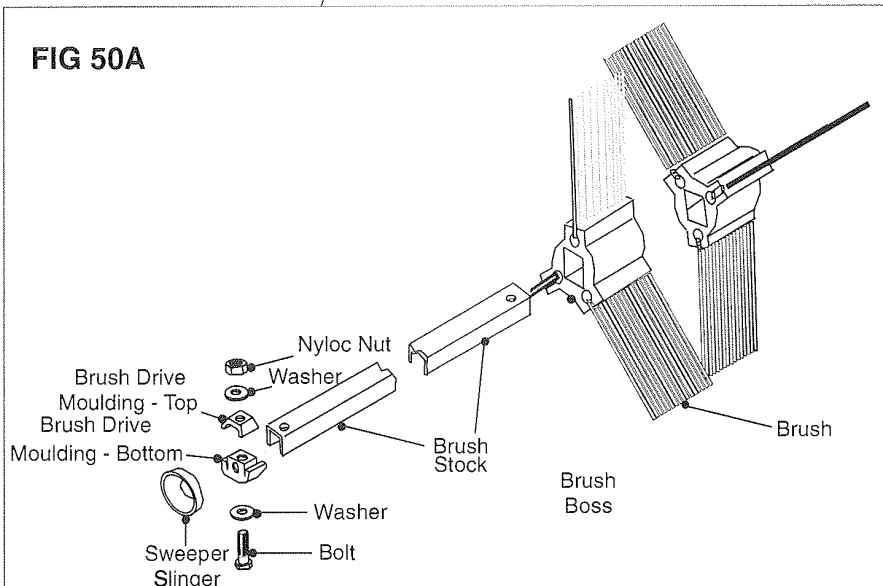
7. When you replace the cover mouldings note that the holes to take the spindles are off centre and are located at the furthest end of the Brush Stock.

FIG 50



Note: This edge should be regularly wiped and kept clean to ensure that grass cuttings do not build up and solidify impairing the grass discharge and causing damage to the bristles.

FIG 50A



TYRES - CHECKLIST

Hayter tractors are fitted with grassland tyres that are designed to present a large area to the ground for grip and are soft profile to prevent marking your turf. They are of thicker section and tougher than most 4 ply tyres.

Persistent punctures and tyre deflation are nevertheless a problem experienced by about 5% of Hayter customers. This is not a problem just for H-Series owners - it is shared by the users of all types of off-road machinery fitted with pneumatic tyres. In practically every case there is a common cause - THORNS! Blackthorn, hawthorn and rose are usually at the bottom of it and will puncture any tyres not fitted with very expensive guards.

There are less expensive ways to overcome this problem - so check and avoid the possible causes:

1/ The rim of the wheel has been damaged - breaking the seal on the tubeless tyre. There are two possible solutions:

a/ If the damage is not severe, treat with Hayter tyre sealant (Pt No 70-07-170)

b/ If the damage is significant - order a new wheel
Part No.C32-7010-00

2/ You have hawthorn, blackthorn or wild rose in your hedges - these will puncture any tyre. It makes sense to check any area you intend to cut or drive over and to remove any branches.

The long term solution is to treat all four tyres with the Hayter recommended tyre sealant (2 packs are required for all four tyres)- follow the instructions on the pack.

IF YOUR TYRES SPIN OR LOOSE GRIP CHECK:

1/ Are the tyres correctly inflated -

Front wheels 0.8Kgf/cm²(12lb PSI)* to 1.1Kgf/cm²(16lb PSI)

Rear wheels 0.7Kgf/cm² (10lb PSI)* to 0.8 Kgf/cm² (12lb PSI)

* Pressure recommended for maximum grip.

2/ Are you in too high a gear for the conditions? If so, select a lower gear or speed setting.

TYRES - REMOVAL OF WHEELS

REMOVAL OF FRONT WHEEL

1. Apply the parking brake.
2. Place chocks under all wheels that are to remain on the ground.
3. Remove the hub cap.
4. Use 3/4" socket spanner and ratchet to slacken off the wheel nut - do not remove.
5. Place jack under the front axle (fig 53) and jack up until the wheel to be removed is well clear of the ground.
6. Remove the nut and washers and keep safely.
7. Pull off the wheel carefully - **TAKING CARE NOT TO DISLODGE THE TRACTOR FROM THE JACK.**

When the tyre is repaired replace the wheel preferably using a new 1/2" Nyloc nut. Part No.C04-8224-00
Tighten to a torque setting of 5.25kg/m (38lb/ft)

WARNING - NEVER JACK THE TRACTOR UP BY JACKING UNDER THE RUNNING BOARD

WE DO NOT ADVISE OWNERS TO REPAIR PUNCTURES. IT IS BEST TO TAKE THE WHEEL TO YOUR LOCAL TYRE SPECIALIST.

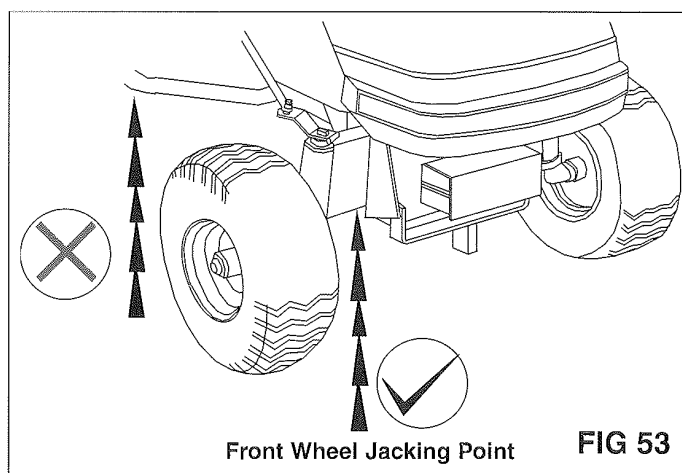
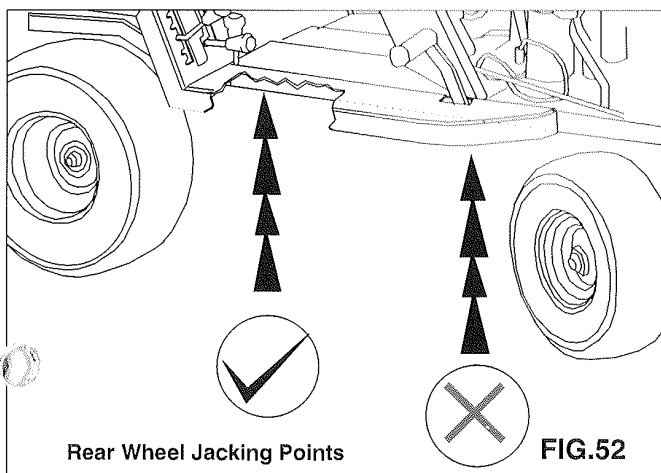
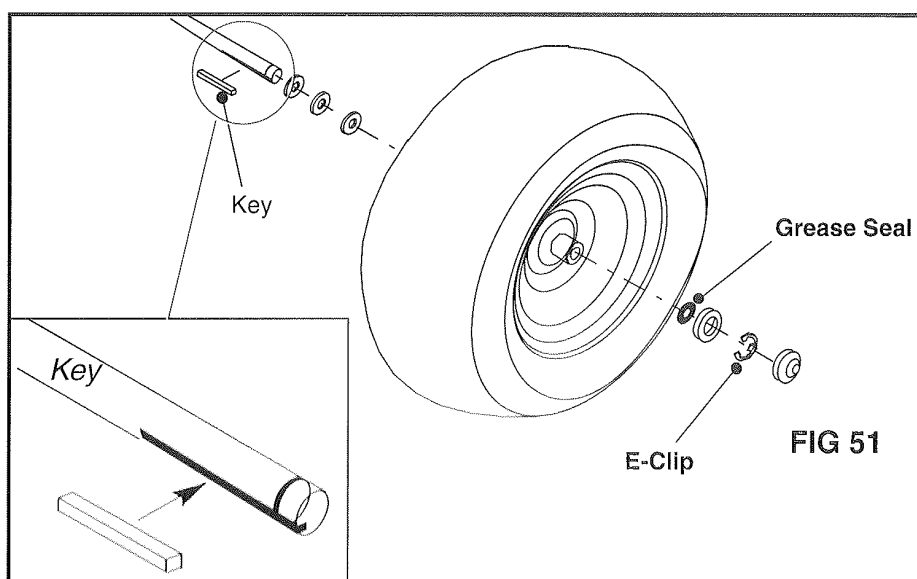
REMOVAL OF REAR WHEEL

1. Apply the parking brake.
2. Place chocks under wheels that are to remain on ground.
3. Remove the cutter deck - (see page 23)
4. Place the jack under the jacking point on the chassis (see fig 52) and raise until the wheel is well off the ground.
5. Remove the hub cap.
6. Using the flat ended screwdriver, lever off the 'E' clip and remove the washers.
7. Pull off the wheel carefully - **TAKING CARE NOT TO DISLODGE THE TRACTOR FROM THE JACK.**
8. Remove the key from the

wheel hub, first removing the grease seal from the front of the hub using a small screwdriver (keep safely with the key, 'E' clip and washers). When the tyre is repaired fit the wheel on to the shaft, line up the keyways and tap in the key. Pull the wheel forward off the shaft till the grease seal recess is just clear and refit the seal. Then slide the wheel fully on the shaft. Reverse instruction 1-6 to complete the job.

TOOLS REQUIRED

Large flat ended screwdriver
3/4" socket spanner
Ratchet
Jack
Torque wrench
Small screwdriver



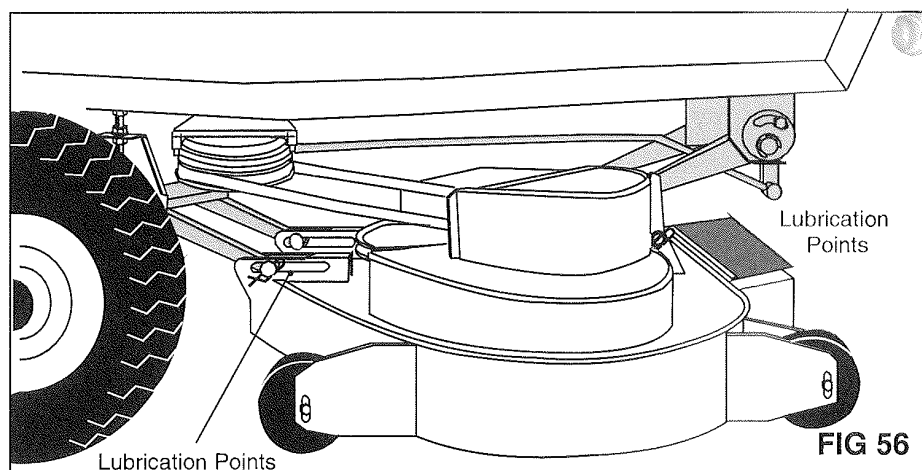
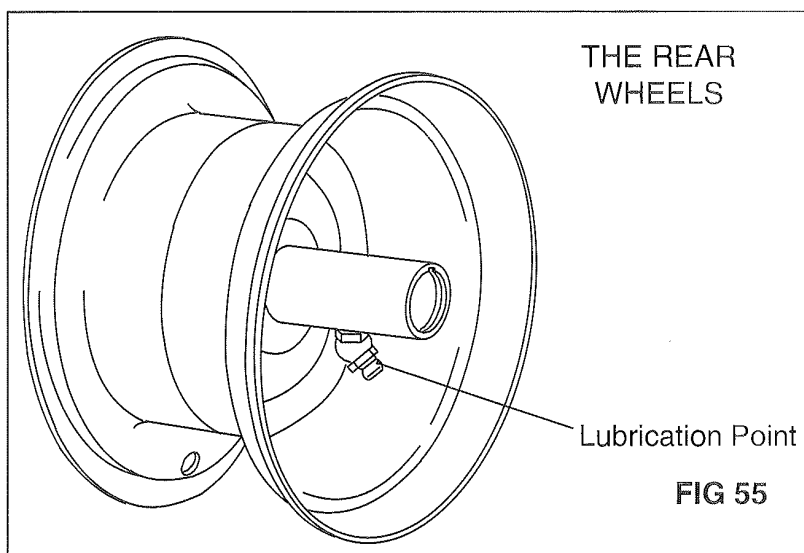
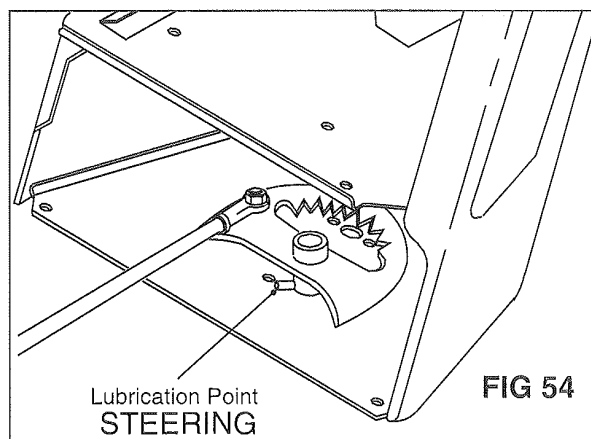
ROUTINE LUBRICATION AND GREASING

Bearings on the Hayter Tractor are sealed for life and do not require greasing. There are just three areas for your attention:

1. STEERING - A greasing point is located at the base of the steering quadrant. (see fig 54) Every month use a grease gun to apply a lithium based grease until it can be seen coming out through the top of the quadrant.

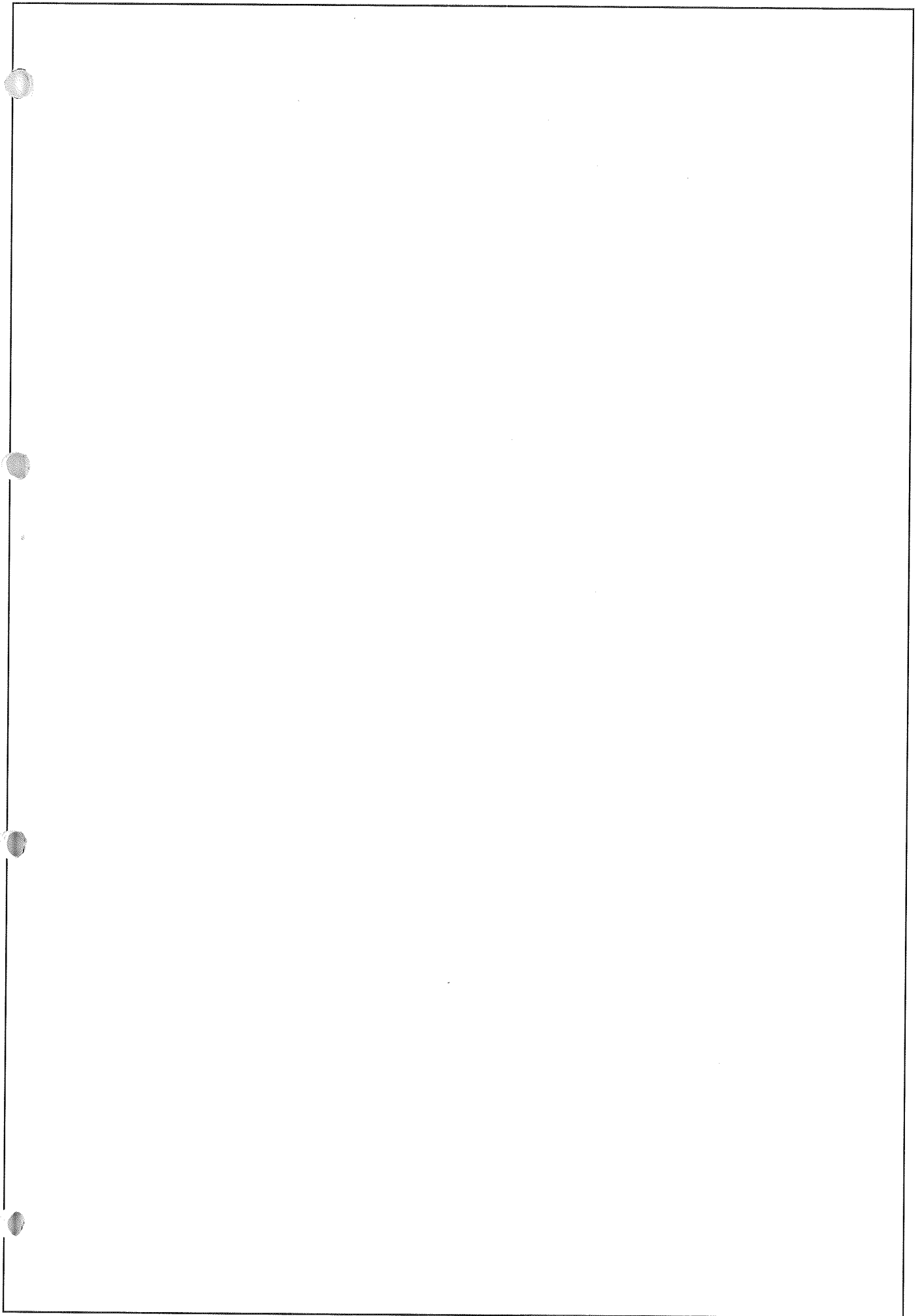
2. REAR WHEELS - Greasing points are fitted to both rear wheels (see fig 55). Twice a year, remove the hub caps and use a grease gun to apply a lithium based grease until grease can be seen coming out at the washers. Replace the hub caps.

3. CUTTER DECK HANGER BRACKETS - These must be kept clean and lubricated to ensure the cutter deck is free to move and ride over bumps. Every month clean the brackets (see fig 56) removing mud and loose grass using an old toothbrush then apply a good general purpose grease.



CUTTER DECK HANGER BRACKETS

**PERIODICALLY CHECK ALL NUTS AND BOLTS FOR TIGHTNESS
PAYING ESPECIAL ATTENTION TO THE SECURITY OF MAJOR
COMPONENTS: ENGINE, TRANSMISSION AND STEERING.**



SPECIFICATION SUMMARY

Engine

Model	Engine	Disp	KW	Torque	Bore	Stroke
H1538	Kohler Command Single Cylinder OHV Pressure Lubricated	426cc	11.2 @ 3600rpm	33.2 NM 24.5ft lbs @ 2500rpm	87mm	67mm
H1842	Kohler Command V Twin, OHV Pressure Lubricated	624cc	13.4 @ 3600rpm	40.65 NM 30ft lbs @ 2500rpm	77mm	67mm

Engine Lubricant

Crankcase capacity

H1538 1.9 litres

H1842 1.9 litres

Read and follow the
instructions in the Kohler
Handbook

Recommend 10W/30

SAE oil

Forward Speeds

0 – 8kmh (0 – 5mph)

Weight

H1538 244kg

H1842 255kg

Recommended Tyre Pressures:

Front Wheels

0.8* – 1.1KgF/cm²

12lb PSI* – 16lb PSI

Rear Wheels

0.7* – 0.8KgF/cm²

10lb PSI* – 12lb PSI

* Pressure recommended
for maximum grip.

NEVER INFLATE ABOVE
THE MAXIMUM PRESSURE
SHOWN ON THE TYRE.

Transmission

Turf-torq K55

infinitely variable speed
transaxle.

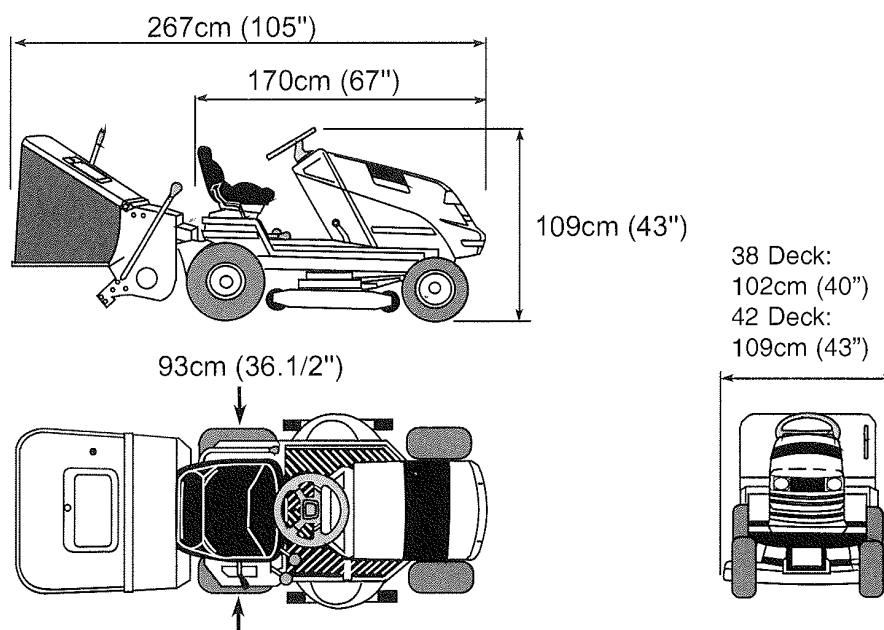
Turning Circle

145 cm (57") (approx)

Powered Grass Collector Capacity

270 litres

We reserve the right to change specifications, terms and prices without notice.
All dimensions and weights are approximate.



Hayter Limited

Bishop's Stortford, Hertfordshire CM23 4BU

Telephone: 01279 723444 Fax: 01279 723821