

GUARANTEE

If there is any component, or components, manufactured by ALLEN POWER EQUIPMENT LTD that are found to be defective within 12 months from the date of purchase (or in the case of a machine used for hire purposes, 45 days), ALLEN POWER EQUIPMENT LTD undertake to replace the faulty component/ components free of charge through their authorised dealers.

The following are NOT covered by this Guarantee.

1. ENGINES - which are guaranteed separately by their respective manufacturers.
2. A NEW MACHINE - which has been subject to operation in excess of recommended capacities, misuse, negligence or accident, or has been altered or modified in a manner not authorised by ALLEN POWER EQUIPMENT LTD.
3. TRANSPORTATION CHARGES - to and from an authorised dealer.

ALLEN POWER EQUIPMENT LTD operate a policy of continual improvement and reserve the right to alter product specification without giving prior notice.

After each season, we recommend that you have your machine serviced by your dealer, preferably between October and January, to avoid delay at the start of the following season.

Manufactured by:

Purchased from

Date:

Serial No.



Allen Power Equipment Limited,
The Broadway, Didcot,
Oxon OX11 8ES, England
Telephone 01235 515400
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Email sales@allenpower.com

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Powerful solutions for your growing needs

petrol hover mowers & trimmers

Operating instructions

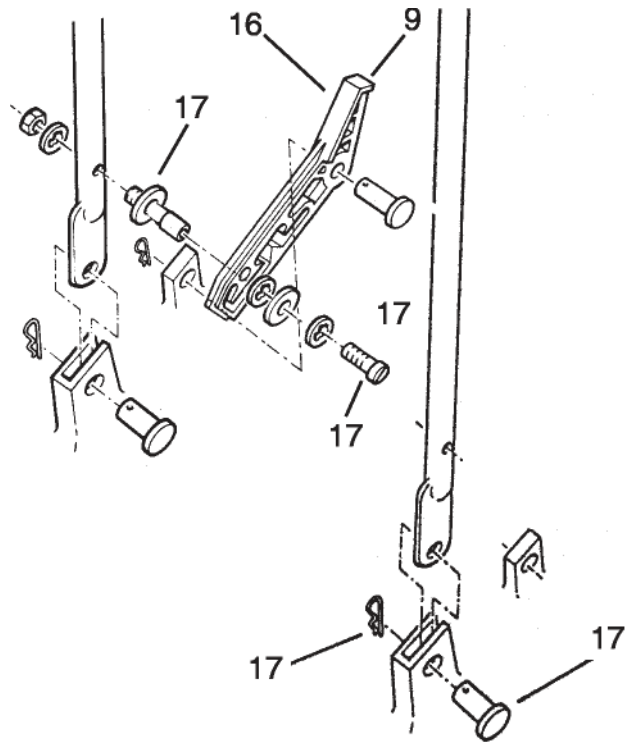
CE
£3.00

KEEP THIS BOOKLET IN A SAFE PLACE

Sept 2003

Key	Description	Model	Part No.	Quantity
1.	Handle upper	all	H290237	1
2.	Cable Assy	440	H292316	1
2.	Cable Assy (non OPC)	446-Hovertrim	H292328	1
2.	Cable Assy (OPC)	446-Contractor/450	H292315	1
3.	Kit Cable Securing	All	H190139	1
4.	Handle lower	440	H292254	1
	Handle lower	446/450	H290238	1
5.	U Bolt	All	H292026	2
6.	Handwheel	All	H192204	2
7.	Hook-handle to u/carriage	All	H192282	2
8.	Spacer-handle to u/carriage	All	H192281	2
9.	Footstop	440	H192181	1
9.	Footstop	446/450	H290286	1
10.	Kit-nut, bolt & spacer	446/450	H290097	1
11.	Undercarriage	446/450	H192284	1
12.	Kit-axle securing bolts	All	H190235	1
13.	Axle	446/450	H192286	1
14.	Kit-axle spacers	446/450	H290032	1
15.	Wheel	All	H292033	2
16.	SPARE			
17.	Kit handle location	440	H190158	1
17.	Kit handle location	446/450	H290265	1
18.	Kit-engine securing	440	H290297	1
18.	Kit-engine securing	446/450	H290267	1
19.	Kit Engine frame	446/450	H290003	1
19.	Kit Engine frame	440	H292320	1
20.	Kit plate blanking	440	H290274	1
21.	Kit engine frame to deck	440	H290268	1
21.	Kit engine frame to deck	446/450	H290004	1
22.	Kit deck assy	440	H290269	1
22.	Kit deck assy	446	H290270	1
22.	Kit deck assy	450	H290271	1
23.	Spare			
24.	Drive	440	H292376	1
24.	Kit Drive	446/450	H290011	1
25.	Trim Disc securing bolt	440	H292372	1
25.	Trim Disc securing bolt	446	H292018	1
25.	Blade securing bolt	450	H292018	1
26.	Key engine shaft sq.	440	H292336	1
26.	Key engine shaft woodruff	446/450	H292329	1
27.	Impeller	440	H296001	1
27.	Impeller	446/450	H192268	1
28.	Spacer large	All	H192270	1
29.	Spacer disc/blade	All	H192025	3
30.	Trim disc 40cm	440	H292378	1
30.	Trim disc 46cm	446	H292340	1
30.	Blade 51cm (20")	450	H292351	1
31.	Spigot blade/disc retaining	All	H192272	1
32.	Operator Presence Control	450	H290239	1
33.	Grip	All	H292276	2
34.	Bracket upstop/footstop	446/450	H292269	1
35.	Set Screw pack 5	446/450	H292279	1
36.	Kit stop switch	440	H290275	1
37.	Plastic blade pack 3	440/446	H292318	1
37.	Plastic blade pack 60	440/446	H292318-60	A/R
38.	Kit plastic blade retaining	440/446	H290276	1
*	Kit- Trim Disc complete	440	H290296	1
*	Kit- Trim Disc complete	446	H290279	1
*	Kit- Trim Disc complete	450	H290280	1

**LOWER HANDLEBAR & FOOTSTOP
MODEL 440 ONLY**



*	Engine Riser Ring	440	H292374	1
*	Spanner disc/blade retaining	446/450	H190210	1
*	Spanner disc/blade retaining	440	H292373	1
*	Wrench hex 1/4"	440/446	H292343	1
*	Logo large Allen	All	H295128	1
*	Label warning	All	H295089	1
*	Logo "a"	All	H295129	1
*	Insulator Stop Switch	440	H292322	1
*	Contact Stop Switch	440	H292321	1
*	Lead earth, stop switch	440	H292323	1
*	Screw Stop switch	440	H292337	1
*	Operators manual & parts list	All	H295142	1
*	4mm Cutting Line 1 lb spool	-	SB13182	A/R
*	3.5mm Flexiblade 2 kg spool	-	H292384	A/R
*	Safeway Blade	-	SB13166	1
*	Not illustrated			

IMPORTANT



Instructions

Read the instructions carefully. Familiarise yourself with the controls and with the correct operation of the equipment. Never allow the mower to be used by children or by persons who are unfamiliar with these instructions.

Never mow when people, and in particular children or animals are in the vicinity. Always remember that it is the operator who is responsible for accidents or injuries caused to other persons on his property.

Preparation

Strong footwear and long trousers must always be worn when mowing.

Do not use a mower when barefoot or wearing sandals.

Fully inspect the area to be mown and remove all stones, metal wire, bones and any other foreign bodies.

DANGER: Petrol is highly inflammable - see engine manufacturer's instructions for fuel recommendations. a. Keep the fuel in containers which are specially intended for

that purpose.

- b. Always fill the fuel tank out of doors. Never smoke when filling the tank.
- c. Fuel should be added before starting the machine. Never remove the lid from the tank or add petrol when the engine is running or when it is still hot.
- d. If petrol has overflowed from the tank, do not attempt to start the engine but remove the machine from the area where petrol is present and avoid creating a source of ignition until the petrol vapour has dissipated.

Any silencers which are in poor condition must be replaced. Before starting, always check the machine to ensure that the blades and the fixing bolts for the blades are not worn or damaged. Any worn or damaged blades must be replaced using standard bolts in order to maintain their state of balance.

Use

To stop the engine release the operator presence control when fitted. Where operator presence control is not fitted stop the engine by setting the throttle control to the stop position. Do not run the engine in an enclosed space in which carbon monoxide fumes could accumulate.

Mowing should take place only in daylight or under good artificial lighting.

The use of the equipment on grass which is wet should be avoided wherever possible.

Always ensure that your feet have a good grip on slopes.

WALK - DO NOT RUN

Mow across slopes, never up and down.

Exercise great care when changing direction on slopes.

Use the mower with the greatest of care, when pushing it. Never pull it when cutting grass.

The cutters must be stopped if the mower is to be transported over areas without grass and when it is being brought to the area which is to be mown.

Never vary the settings of the engine speed regulator or run the engine at an excessive speed.

Exercise care when starting the engine, keeping the feet well away from the blades.

When starting the engine do not tilt the mower more than necessary and raise only that part which is furthest from the operator. Do not put the hands and feet near or beneath the rotating components.

NEVER lift or carry a mower when the engine is running.

Stop the engine and disconnect the sparking plug lead: a.

before cleaning out any obstructions; b. before checking, cleaning or repairing the mower;

c. after having collided with a foreign body (inspect the mower for any damage, which must be repaired before the mower is restarted and used again);

d. if the mower begins to vibrate in an abnormal manner (a check must be made immediately).

Stop the engine and disconnect the sparking plug lead:

a. before leaving the mower unattended; b.

before refilling the fuel tank; c. before

SAFETY PRECAUTIONS

This product must only be used for cutting grass.

adjusting the height of the cut.

Blades continue to rotate after the operator presence control has been released.

MAINTENANCE AND STORAGE

Ensure that all nuts, bolts and screws are kept tight in order to be certain that the machine is in sound working order. The machine must never be stored with petrol in the tank inside any building in which a flame or a spark could be reached by the vapours. The engine must be allowed to cool down before being placed inside any kind of container.

In order to reduce the risk of fire, the engine and the silencer should be kept free of any grass, leaves or grease. Use a funnel when filling the fuel tank to avoid spillage on to the mower.

Any parts which are worn or damaged should be replaced in the interests of safety.

Routine Maintenance

A few minutes spent after every mowing session will ensure that your hover mower is in a good state of repair. Please ensure that the engine maintenance is carried out as recommended by the manufacturer, paying particular attention to the air cleaner system.

FAILURE TO DO THIS MAY RESULT IN PREMATURE ENGINE FAILURE AND WILL RENDER THE GUARANTEE VOID. Ensure the engine cooling fins, carburettor and impeller air vents are clear.

Always keep the underneath deck clean, this will ensure that the mower operates efficiently.

Check that the blade is tight and the spacers are correctly fitted and that no damage has been sustained by the blade or the impeller. An out of balance blade causes severe vibration and may damage the engine.

In the event of your mower hitting an obstruction and damaging either the blade or the impeller, or both, please replace before further use. **DO NOT OPERATE THE MOWER WITH AN OUT OF BALANCE BLADE OR IMPELLER.** Check all nuts and bolts occasionally and tighten when necessary.

WINTER STORAGE

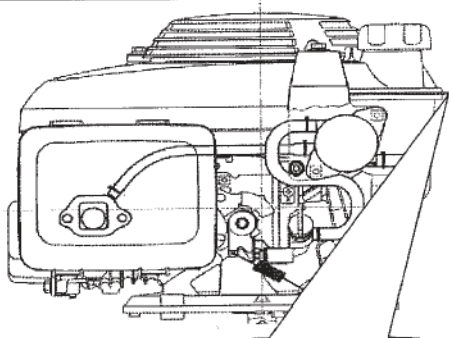
We recommend that your mower is serviced after the last cut of the season before storage.

Drain the petrol from the tank and run the engine till it stops. Close the fuel tap (if fitted) and the vent screw (if fitted). Stale fuel is a major cause of non starting at the beginning of the season.

Disconnect the spark plug lead and plug.

Storage

Gasoline is highly Flammable and gasoline vapour can explode. Unless the Mower is stored in the horizontal position all fuel should be drained from the tank to prevent the risk of fuel leakage.



Filling the fuel tank

When filling the fuel tank from empty a minimum of 400cc of fuel must be added (to the level of this line) to ensure correct priming of the fuel pump to start the engine

OPERATION

BEFORE CUTTING GRASS

Study the procedure on the engine manufacturer's leaflet carefully but remember they are related to a conventional wheeled mower.

In addition check the following:

- That the fuel tank is full. (If this mower is fitted with a 4-stroke engine, check the oil level see engine manual.
- That the operator has read and understood the instruction manual.
- That the operator is aware of all the Safety Instructions.

TO START THE MOWER

- Ensure that the fuel tap is in the on position and the tank vent is open (if fitted).
- Before pulling the starter handle, release handles from parking position, put your foot on the deck and tilt the mower TOWARDS you (Fig.6). This will take the load off the engine making it easier to start.
- Close the operator presence control if fitted by bringing it towards the handle and holding both the operator presence control and handlebar in the same hand.
- Place the choke control to the start position, if necessary, and pull the starter as recommended in the engine's handbook. (fig 6a)

When the engine starts, move the choke control to the RUN position and lower the deck slowly. For long tough grass the maximum height of cut should be selected. When cutting short, well kept grass, a low or intermediate height setting should be selected.

STOPPING

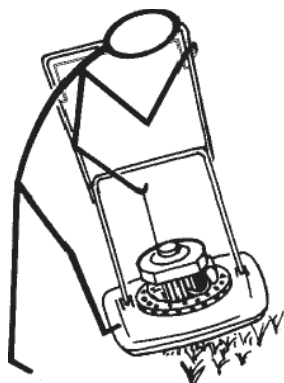


Fig.



REMEMBER - THE BLADE CONTINUES TO ROTATE FOR SEVERAL SECONDS AFTER THE OPERATOR PRESENCE CONTROL IS RELEASED.

Tilt the mower, as in Fig.6, and release the operator presence control if fitted, or place throttle control to the stop position. Disconnect the spark plug lead.

Cutting grass

Please read the following instructions before using the mower. ALWAYS MAKE SURE THE GRASS IS CLEAR OF STONES, STICKS AND SIMILAR OBJECTS BEFORE MOWING. We recommend the method of operation as shown in Fig.7 to obtain the maximum cutting performance from your mower. It is better to cut round your lawn from the outside to the inside, rather than straight up and down as you may have done up till now.

Start at the outside border of the lawn and go round the borders in a clockwise direction, working towards the centre. Always control the mower with two hands and keep the mower flat on the grass.

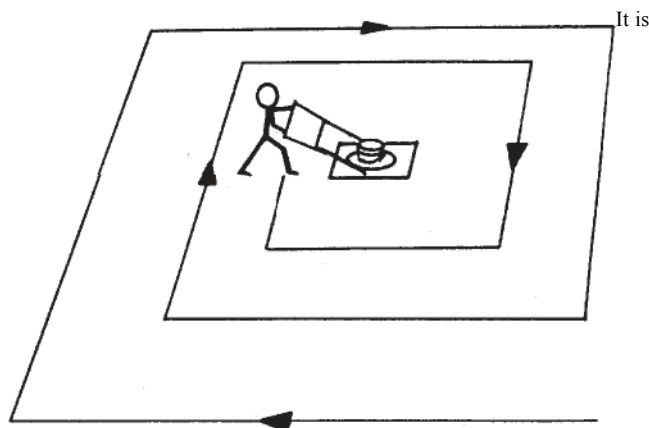


Fig. 7

normally recommended never to cut more than one third of the length of the grass at one time. Never allow the mower to struggle continuously in difficult conditions. This will only occur in long tough grass with the blade set too low.

When mowing long tough grass, always have the blade at its highest setting, use a gentle 'pecking' motion and do not force the mower through the grass.

If used on undulating ground set the blade at a height so that it does not 'scalp' the ground.

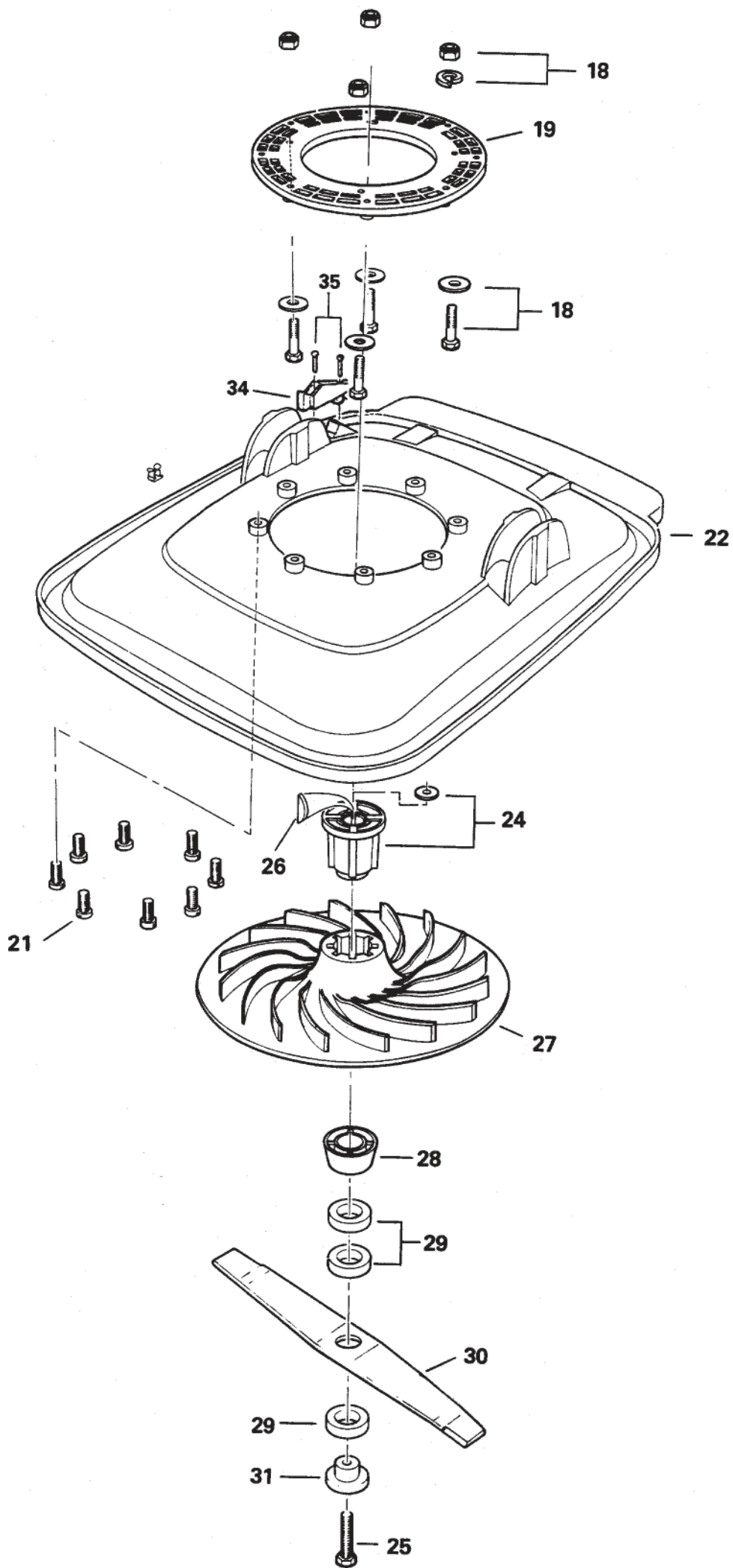
If cutting wet grass for a prolonged period ensure that there is not a build up of grass on the underside of the deck. If the build up becomes too great SWITCH OFF AND WAIT FOR THE BLADE TO STOP ROTATING, disconnect the spark plug lead, then tip the mower on its side, keeping the carburettor uppermost, and scrape away the damp grass. Try to avoid using the mower in these conditions as it can be detrimental to the condition of your lawn.

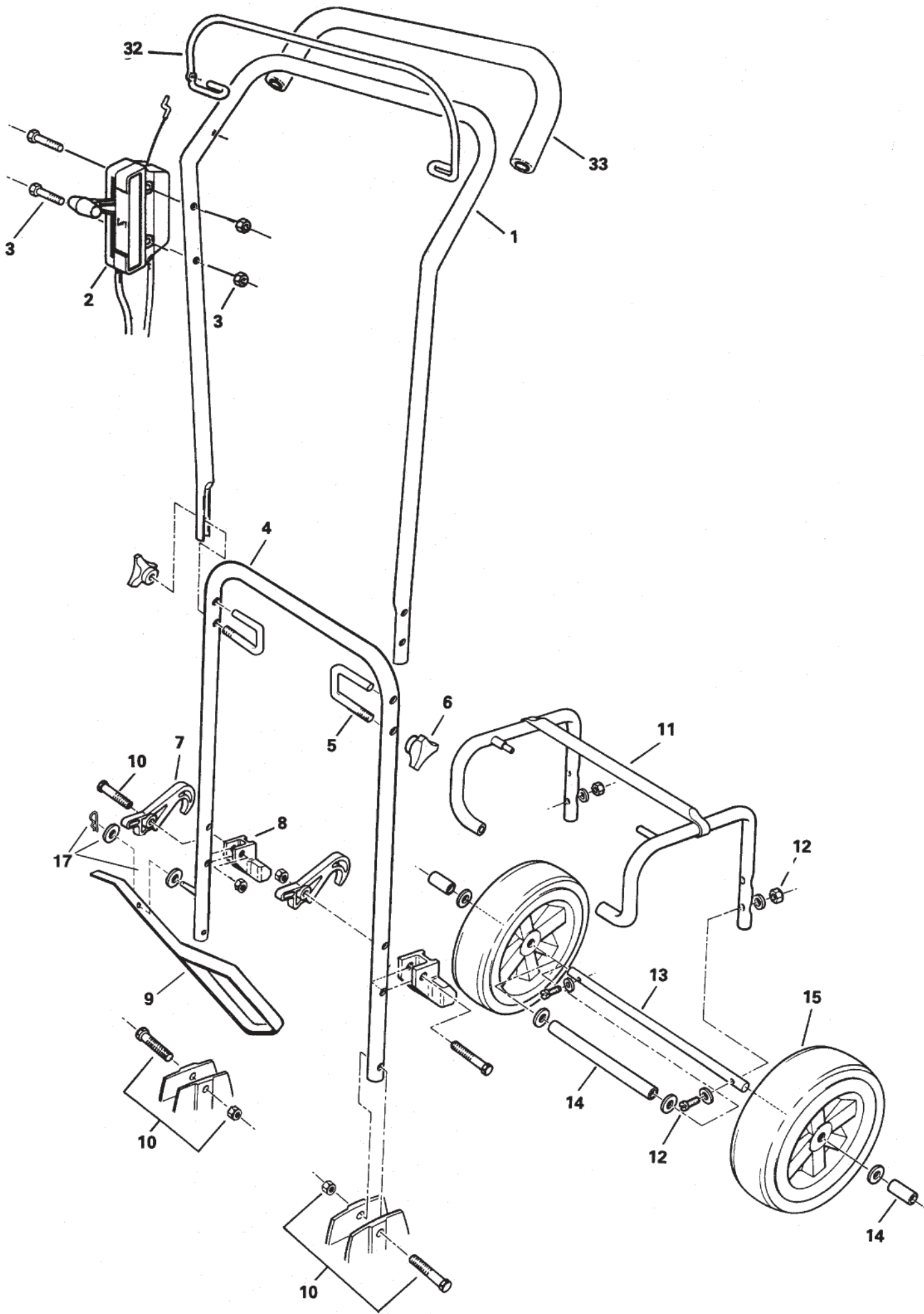
Adjusting the Handles

The handles on your mower automatically lock when placed upright, this is a stationary or parking position. The handles must be released from this position when starting the engine. To release from any limit position, depress the footstep.

When the Operator Presence Control is held to the handlebar, it is possible to start and operate your lawnmower. Release of the Operator Presence Control in the event of an emergency, or if the user leaves the operating position, will stop the engine and blade. Never fasten the Operator Presence Control into the operating position.







Adjusting the Cutting Height

All adjustments must be carried out with the engine stopped and the spark lead disconnected. If the machine has been used prior to adjustment, wait for the rotating cutter to stop. The cutting height of your mower has been set at the highest setting. If you prefer a lower cut follow these instruction: a. Shut the petrol vent screw where fitted

- b. Disconnect the spark plug lead.
- c. Tilt the mower on its side. (Keep the carburettor uppermost.)
- d. Remove the retaining bolt with the spanner provided whilst holding the blade. Make sure your hands are adequately protected from the cutting edge.
- e. Reposition the spacers as required (Fig.8). For the lowest cut all three spacers should be above the blade. For an intermediate cut there should be one or two small spacers above and two or one below the blade. To obtain the highest cut, all three spacers should be below the blade.

NOTE: The large spacer must be positioned directly below the impeller at all times.

TIGHTEN THE BLADE RETAINING BOLT - USE ONLY THE SPANNER PROVIDED.

Note for 440 & 446-Hovertrim:

1 spacer is required above disc at all times

IMPORTANT

UNDER NO CIRCUMSTANCES SHOULD ANY THREAD-LOCKING MATERIAL BE USED ON FIXINGS HOLDING

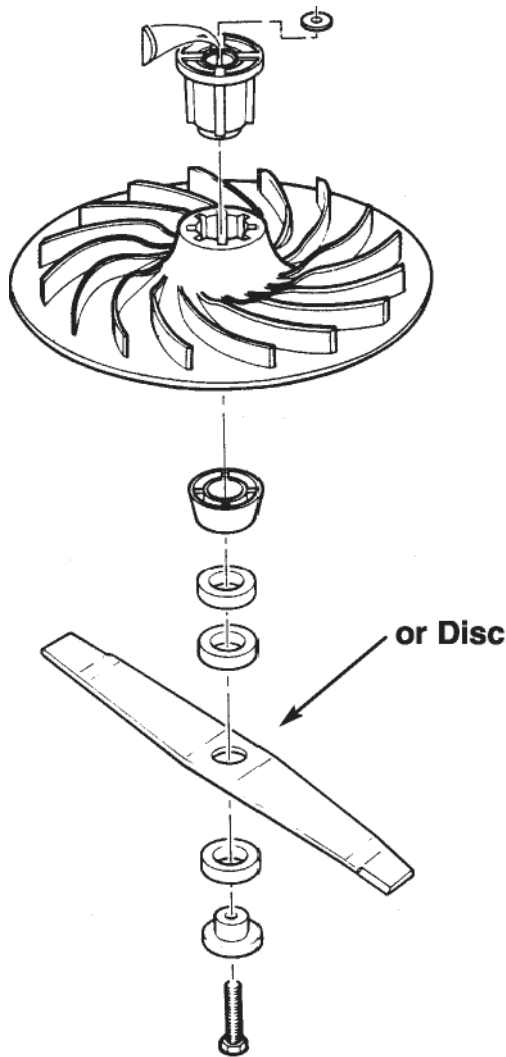


Fig. 8

ENGINE TO FRAME AND FRAME TO DECK OR ANY FIXING COMING INTO CONTACT WITH PLASTIC PARTS. THE ONLY EXCEPTION IS THE DRY LOCTITE PATCH APPLIED TO HANDLE TO DECK FIXING BOLTS. FAILURE TO OBSERVE WILL LEAD TO SERIOUS WEAKENING OF PLASTIC PARTS.

PLEASE REMEMBER

When tilting a 4-stroke machine, have the carburettor uppermost, otherwise oil will drain from the breather pipe. This will make re-starting difficult and the loss of the oil, if unchecked, could damage the engine.

Before starting the engine, read the manufacturer's instructions carefully, paying particular attention to the notes on oil levels in the crank case.

If in any doubt about anything contained in these instructions check with your dealer.

FAULT FINDING

Poor Starting

1. Make sure the petrol tap is open (if fitted). Make sure the vent screw is open (if fitted),
2. If the engine is cold the throttle control should be in the START position.
If warm, in the normal running position.
3. If the mower has been out of use the petrol may be stale.
Drain and replace.
4. Check the air filter for excessive oil.
5. The engine may be flooded, in which case, remove and dry the spark plug. Before replacing, crank the engine to remove excess fuel.
6. Check the plug for spark by placing the end of the plug (with lead connected) against the engine casing & away from the plug hole.
Do not hold the plug or lead by hand.
Crank the engine and watch for a spark at the plug points. If there is no spark, the plug should be replaced.
7. Make sure the blade is correctly fitted and tight.

Poor hovering

1. Check that the engine is running at the correct speed. 2. Check that the impeller air vents are not blocked.
3. Check that the underside of the deck is really clean. 4. Check that the blade is fitted firmly.

Excessive vibration

1. Check blade and spacers are fitted correctly. 2. Check the balance of the blade.
3. Check for loose screws or bolts.
4. If the blade has hit a heavy object the impeller crankshaft may be damaged. (See dealer.)

Engine Overheating

1. Make sure the engine cooling fins are dirt free

USE OF THE UNDERCARRIAGE

Use of the Undercarriage (Optional not 216)

Your mower can be fitted with a removable two-wheeled undercarriage which gives you a very versatile mowing machine. It can be used as a conventional hovermower without the wheels, or the wheels can be fitted to enable a variety of operations to be carried out: e.g.

- a. Without the wheels fitted it is ideal for use on steep slopes, under shrubs and hedges or general lawn mowing.
- b. With the wheels fitted to the lower handles in the general transport position (Fig.2) for easy transportation of the mower from place to place or ideal for mowing in rough or long grass using the wheels for assisted movement and as a fulcrum point for attacking the most stubborn growth. General lawn mowing can also be carried out with the wheels in this position.

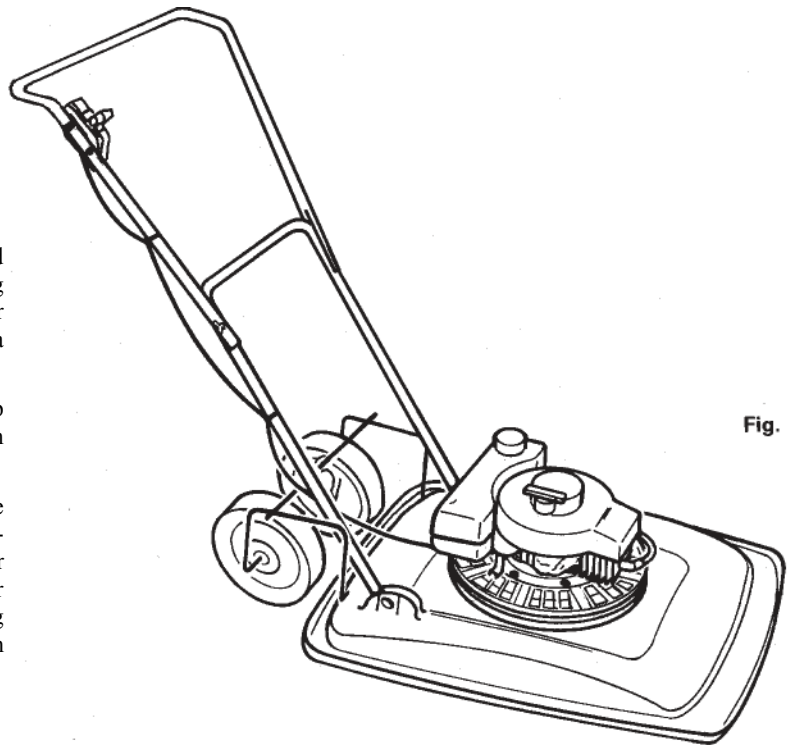


Fig.

Fitting the Undercarriage

To the lower handle (see Fig. 4)

1. Enter the smooth pin (x) into the large dished hole in the lower handle on the left hand side. Push the undercarriage over as far as it will go to the right.
2. Insert the stepped pin (y) into the large dished hole in the lower handle on the right hand side. Push the undercarriage as far as it will go to the left.
3. Swing the undercarriage upwards until the bar (z) is hooked firmly in place (Fig. 5).
4. To remove, unhook the bar and reverse the above procedure.

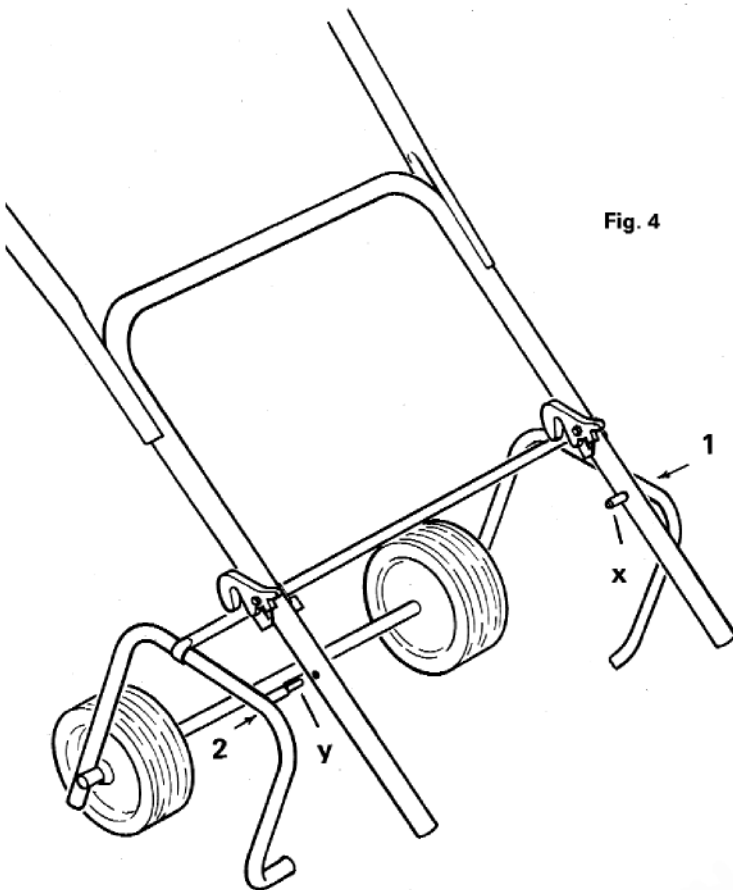


Fig. 4

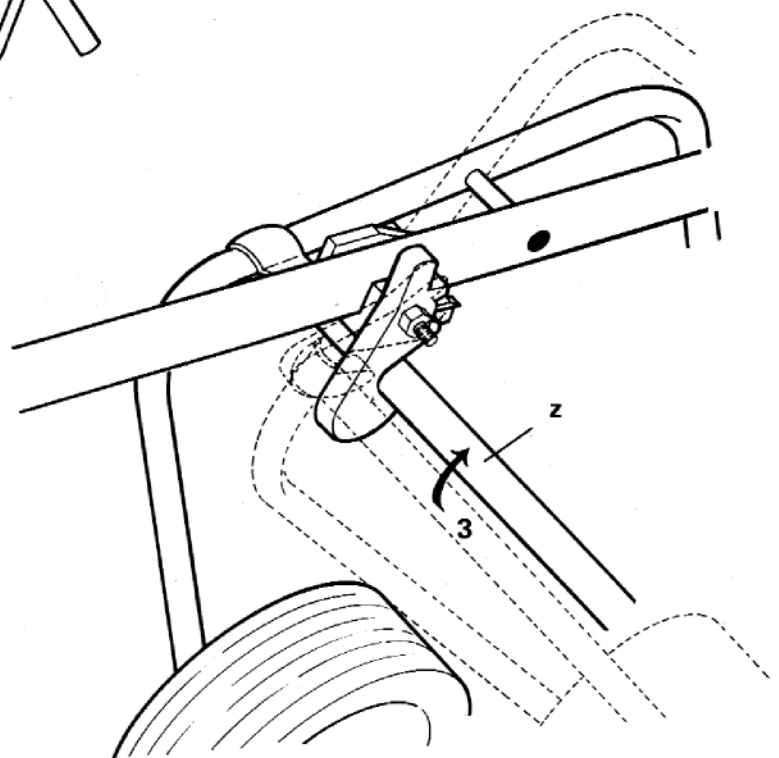
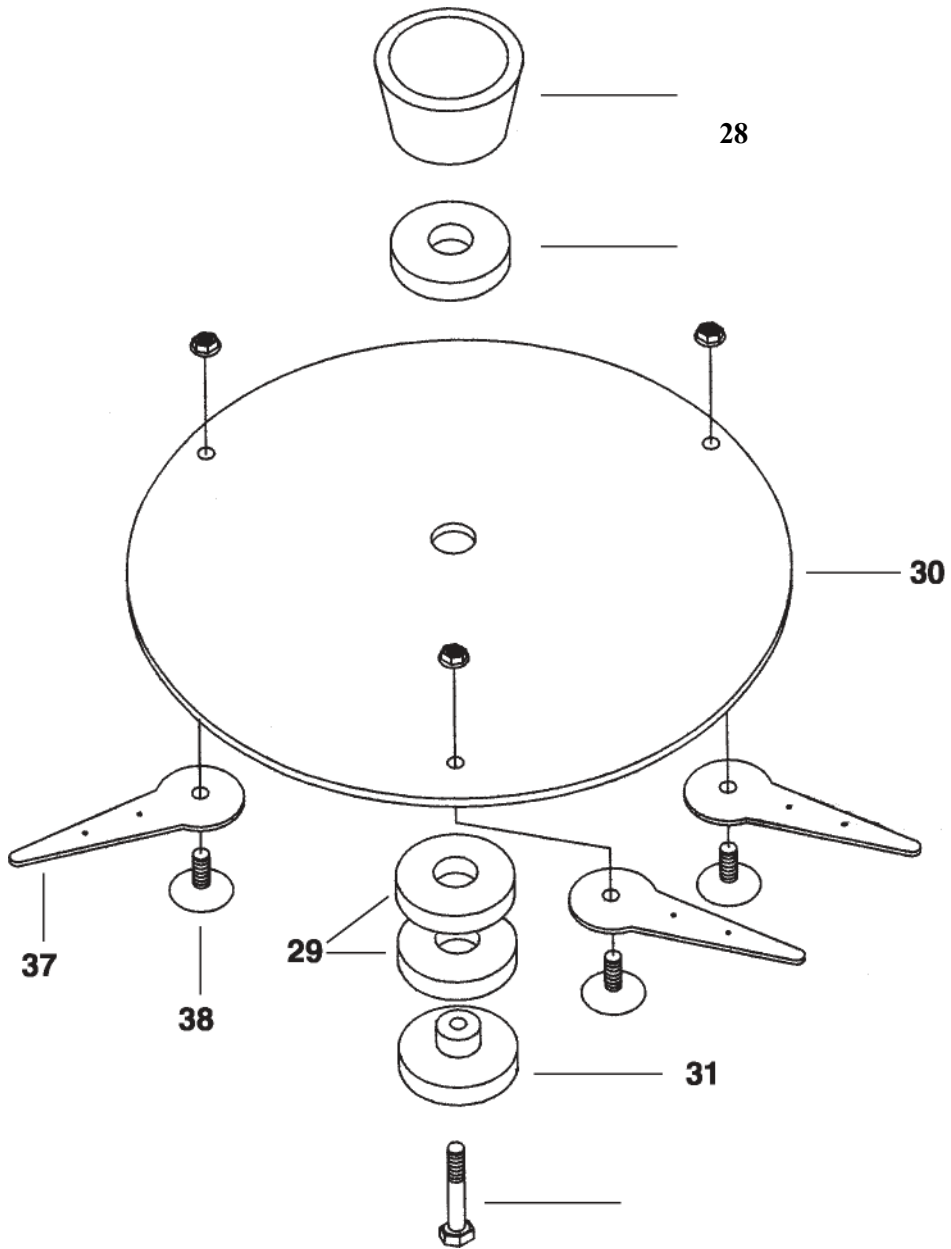


Fig. 5



NOTE:
Never change the position of the undercarriage when the engine is running.

440 / 446-Hovertrim Only



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