

# Clarke<sup>TM</sup>

## ROTARY LAWN MOWER

MODEL Nos.  
CLM420PR & CLM490SR



OPERATING & MAINTENANCE  
INSTRUCTIONS



0100



## WARNING!

If not used properly, this lawn mower can be dangerous!

This lawn mower can cause serious Injury to the operator and others, the warnings and safety instructions **MUST** be followed to ensure reasonable safety and efficiency when in use.

The operator is responsible for following the warning and safety instructions in this manual and on the lawn mower.

**NEVER** use the mower unless the grass box or guards provided are in position.

Thank you for purchasing this CLARKE Rotary Lawn mower.

Before attempting to use the lawn mower, it is most important that you read this manual thoroughly and carefully follow all instructions given. This will not only ensure the safety of yourself, and that of others around you, but also that the machine will give you long and satisfactory service.

## GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase. This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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# SAFETY PRECAUTIONS

## **IMPORTANT!**

*Read the user instructions carefully to make sure you understand all the controls and what they do.*

## **A. General**

1. **NEVER** allow children or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
2. Only use the lawn mower in the manner and for the functions described in these instructions.
3. Never operate the lawn mower when you are tired, ill or under the influence of alcohol, drugs or medicine.
4. REMEMBER...the operator or user is responsible for accidents or hazards occurring to other people or their property.

## **B. Fuel Safety**

### **WARNING - Petrol is highly flammable**

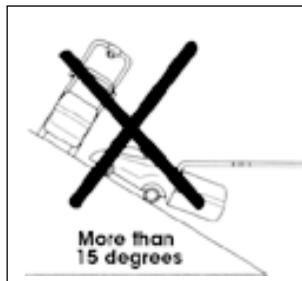
1. Store fuel in a cool place in a container specifically designed for the purpose. In general plastic containers are unsuitable
2. Refuel outdoors only and do not smoke while refuelling
3. Add fuel **BEFORE** starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot
4. If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated
5. Replace all fuel tanks and container caps securely
6. Move the lawn mower away from the fuelling area before starting

## **C. Preparation**

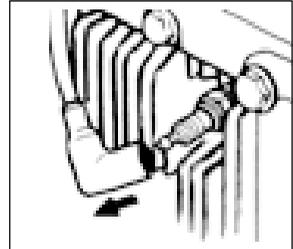
1. Do not mow barefoot or in open sandals. Always wear suitable clothing, gloves, and stout shoes.
2. Make sure the lawn is clear of sticks, stones, bones, wire and debris....they could be thrown by the blade.
3. Before use always visually inspect to see that blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades together with their fixings, in sets, to preserve balance.
4. If the silencer is damaged it must be repaired or replaced.

## D. When in Use

1. Do not operate the engine in a confined space where exhaust fumes (carbon monoxide) can collect.
2. Use the lawn mower only in daylight or good artificial light.
3. Avoid operating your lawn mower on wet grass, wherever possible.
4. Take care in wet grass, you may lose your footing.
5. On slopes, be extra careful of your footing and wear non-slip footwear.
6. Mow across the face of slopes, **NEVER** up and down.
7. Exercise extreme caution when changing direction on slopes.
8. Mowing on banks and slopes can be dangerous. Do not mow on banks or steep slopes of more than 15 degrees.
9. Do not walk backwards when mowing, you could trip. Walk, never run.
10. Never cut grass by pulling the mower towards you.
11. Release the Operator Presence Control ('DEAD MANS'), to stop the engine before pushing the mower across surfaces other than grass, and when transporting the lawn mower to and from the area to be mowed.
12. **NEVER** operate the lawn mower with damaged guards or without guards in place.
13. Do not overspeed the engine or alter governor settings. Excessive speed is dangerous and shortens lawn mower life.
14. Disengage all blade and drive clutches before starting.
15. Always start the lawn mower carefully with feet well away from the blades.
16. Do not tilt lawn mower when starting the engine.
17. Do not put hands near the grass discharge chute whilst engine is running.
16. Never pick up or carry the lawn mower while the engine is running
19. The spark plug wire may be hot - handle with care.
20. Do not attempt any maintenance on your lawn mower when the engine is hot.
21. Release the 'Dead Mans' lever, to stop the engine, and wait until the blade has stopped, before:



- a. leaving the mower unattended for any period.
  - b. refuelling.
22. Release the Operator Presence Control, to stop the engine, wait until the blade has stopped, then disconnect the spark plug lead:
- a. before clearing a blockage.
  - b. before checking, cleaning or working on the appliance.
  - c. if you hit an object. (Do not use your lawn mower until you are sure that the entire lawn mower is in a safe operating condition).
  - d. if the lawn mower starts to vibrate abnormally, check it immediately.
23. Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off valve turn the fuel off at the conclusion of mowing.
24. Always keep the lawn mower on the ground when mowing....tilting or lifting the lawn mower may cause stones to be thrown out.
25. Keep bystanders away....do not mow whilst people especially children or pets are in the mowing area.
26. Beware of severing toes or hands....**DO NOT** put hands or feet near a rotating blade



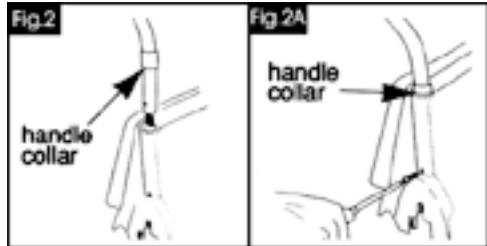
## E. Maintenance and storage

1. ALWAYS disconnect the spark plug before attempting any maintenance, cleaning or adjustment, or if you are going to leave the lawn mower unattended for any period.
2. Keep all nuts, bolts and screws tight to ensure the lawn mower is in safe working condition.
3. Check the grass box frequently for wear or deterioration.
4. Replace worn or damaged parts for safety (consult your Clarke dealer).
5. Only use the replacement blade, blade bolt, and spacer specified for this product (consult your Clarke dealer).
6. Never store the lawn mower with fuel in the tank inside a building where fumes can reach an open flame or spark.
7. Allow the engine to cool before storing in any enclosure.
8. To reduce fire hazard, keep the engine, silencer and fuel storage area free of grass, leaves or excessive grease.
9. If the fuel tank has to be drained, this should be done outdoors.
10. Be careful during adjustment of the machine to prevent entrapment of the fingers between a moving blade and fixed parts of the machine.

# ASSEMBLY

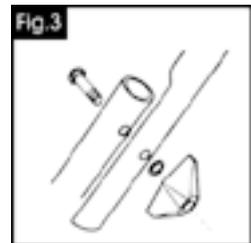
## Lower Handles

1. Insert lower handles into holes provided in the body (Fig.2)
2. Push the handle firmly down until the handle collars locate securely into the holes in the body (Fig.2A)...push home firmly.



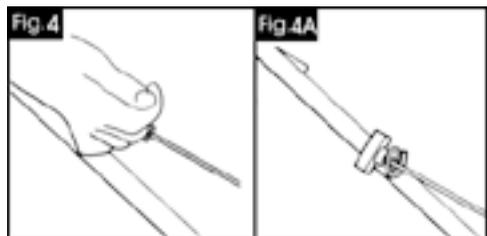
## Upper Handles

The upper handle should be fixed to the lower handle using the kit provided (Fig.3).



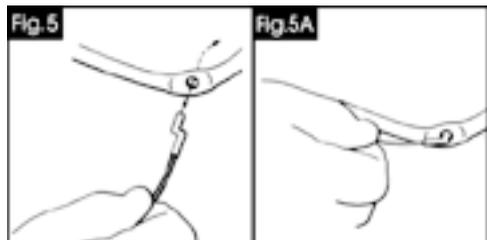
## Recoil Starter Pull Cord

With the spark plug lead disconnected, pull the 'Dead Mans' lever to the handle to release the brake on the engine, then gently pull the starter 'Pull Cord' fully (Fig.4), and locate it in the pull cord guide, positioned on the handle (Fig.4A).



## The Brake Cable and Drive Cable (Where fitted)

1. Insert cable connected to the engine, into hole in the 'Dead Mans' lever (Fig.5).
- 1a. Insert cable connected to the rear axle, into hole in the Powerdrive lever (CLM490SR)
2. Lock into position. (Fig.5A)
3. Attach the cable bracket to the handle using the locknut, bolt and washer supplied.



## Grass Box

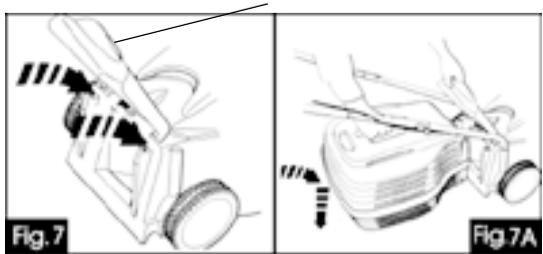
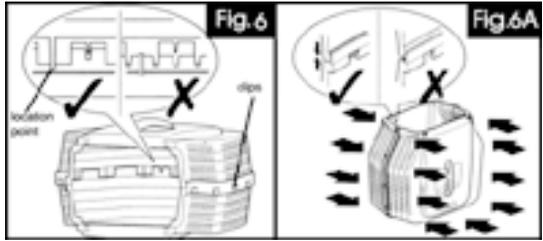
1. Position the two grass box halves together and press each location point (Fig.6) into position without fully connecting the clips.

When the location points are matched correctly

firmly press the grass box together until all clips are securely connected. (Fig.6A)

2. To attach the grass box to your lawn mower, lift the safety flap (Fig.7) and make sure the discharge chute is clean and free from debris.
3. Locate fully assembled grass box onto 2 location points at the rear of the deck (Fig.7).

4. Locate safety flap onto the top of the grass box. Ensure the grass box is securely located (Fig.7A).



Removal is the reverse procedure.

### NOTE

1. **Ensure no gap remains between the safety flap and the grass box.**
2. **Where grass collection is not required you can use the lawn mower without the grass box, but you MUST ENSURE THE SAFETY FLAP IS FULLY CLOSED.**

**Assembly is now complete, but before using the lawn mower, certain important checks MUST be made which are described in the following pages.**

# PREPARING FOR USE

When starting the engine for the first time, it is necessary to fill with oil and petrol.

To fill with oil, remove the oil filler cap and fill to the FULL mark on the dipstick, using a good quality SAE30, 4 stroke oil (not supplied), available from your Clarke dealer.

Fill the fuel tank with regular grade LEAD FREE petrol. NEVER USE LEADED PETROL.

## A. Oil

1. Get into the habit of checking the oil level before each use.
2. Add oil as necessary to keep the level to the FULL mark on the dipstick.
3. Use a good quality SAE 30 four stroke oil.
4. Change the oil after the first five hours operation (see Maintenance), and thereafter every 25 working hours.
5. Always change the oil while the engine is warm - but not hot - never attempt any maintenance on a hot engine.

To check the oil level, always clean around the dipstick before unscrewing it.

Once removed, wipe it with a clean cloth then replace, screwing down fully. Remove once more and check the level.

## B. Petrol

1. DO NOT fill the fuel tank when the engine is hot.
2. DO NOT fill the fuel tank whilst smoking.
3. DO NOT remove the filler cap whilst the engine is hot or running. ALWAYS allow the engine to cool for at least 2 minutes before refuelling.
4. To avoid introducing dirt into the fuel system, wipe all grass and dirt from the petrol filler cap before unscrewing it.
5. It is recommended that you fill the tank through a funnel with a filter.
6. Wipe away spillages before starting.
7. Use fresh petrol....stale fuel can cause the carburettor to gum up.
8. DO NOT refuel indoors or in an unventilated area.
9. DO NOT operate engine if petrol has been spilled. Move lawn mower well away from the scene before starting.

### IMPORTANT.

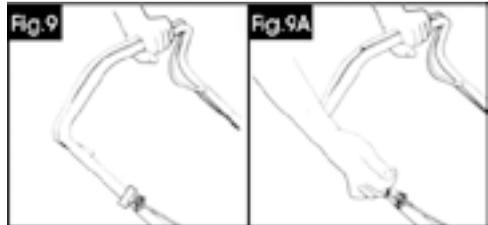
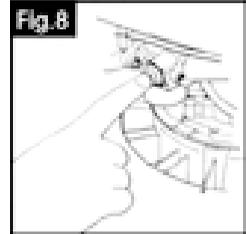
We strongly recommend the use of Briggs and Stratton Gasoline Additive, available from your Clarke dealer.

# STARTING & OPERATING

1. Connect the spark plug lead.
2. If starting from cold, push primer bulb (Fig.8), firmly three times. DO NOT push the primer bulb if the engine is hot.

**Note: Priming is usually unnecessary when restarting a warm engine. However, cool weather may require priming to be repeated.**

2. Pull the 'DEAD MANS' handle to the main handle (Fig.9), this releases the brake.
3. Pull the recoil starter slowly towards you (Fig.9A) until you feel the full resistance. Return the handle slowly then pull the handle firmly towards you to its full extent
4. After the engine has started, allow to run for 30 seconds before commencing to use.



To stop your lawn mower - release the 'DEAD MANS' handle

**Model CLM420PR** does not incorporate a drive to its wheels, the machine must therefore be pushed along across the lawn.

**MODEL CLM420SR** incorporates a Powerdrive, operated by the lever shown in Fig.10.

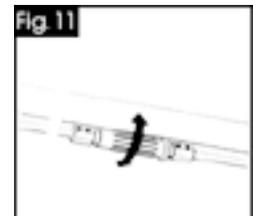
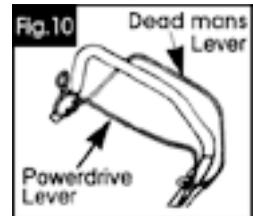
To operate the Powerdrive, follow the above procedure to start the machine, then, once started, gently pull the Powerdrive lever towards the handle, thereby engaging the drive.

Releasing the Powerdrive Lever stops the drive automatically.

If the drive does not engage when the powerdrive lever is pulled towards the handle, screw the adjuster anticlockwise (Fig.11).

Screw adjuster in opposite direction if the powerdrive does not disengage with the powerdrive lever free (Fig.11).

To stop your lawn mower - release the Power drive lever, then the 'Dead Mans' lever.

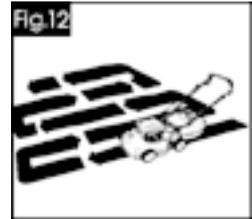


## How To Mow

Do not overload your Lawn mower

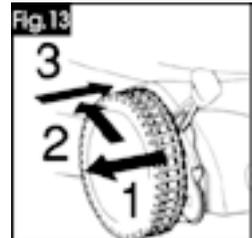
When mowing in long thick grass a first cut with the cutting height adjusted to its highest setting (see below), will help reduce motor overload and will help prevent damage to your lawn mower.

1. Start mowing from the outside edge of the lawn, mowing in strips in alternate directions (Fig.12).
2. Mow twice a week in the growing season, your lawn will suffer if more than one third of its length is cut at one time and this may also result in poor collection.



## Setting the height of cut levers

**Model CLM420PR** is fitted with four independent Height of Cut levers (Fig.13), one at each wheel. The height of cut is altered by pulling the adjustment lever away from the location slots and moving to the selected position. Ensure the levers are all adjusted to the same position before proceeding.



**Model CLM420SR** is fitted with a single lever, which adjusts the height for all four wheels.

# MAINTENANCE

## After Use

ALWAYS allow a period of time for the engine to cool before cleaning.

NEVER use solvents, or chemical cleaners to clean your lawn mower, as these products can destroy critical components

Once the engine is cool, remove grass from under the machine with a brush.

Using a soft brush - remove grass clippings from all air intakes, the discharge chute and the grass box.

Finally, wipe over the surface of your lawn mower with a dry cloth.

Store your lawn mower in a cool, dry place where it will be protected from damage.

## At the End of the Mowing Season

1. Replace the blade, bolts, nuts or screws, if necessary.
2. Clean your lawn mower thoroughly.
3. Clean the air filter (see Air Filter Removal, page 13)
4. Drain the petrol. (see Changing Oil, page 13)

## Maintenance Schedule

Follow the hourly or calendar intervals, whichever occurs first. More frequent service is required when operating in adverse conditions.

### After first 5 hours -

Change engine oil.

### Every 5 hours or daily -

Check oil level. Clean around silencer.

### Every 25 hours or every season -

Change the oil, and clean the air filter (see page 13).

### Every 50 hours or every other season -

Renew the metal blade after 50 hours mowing or 2 years whichever is sooner - regardless of condition.

### Every 100 hours or every season -

1. Clean cooling fins. (Clean more often under dusty conditions, or after prolonged operation cutting tall, dry grass).
2. Replace spark plug.

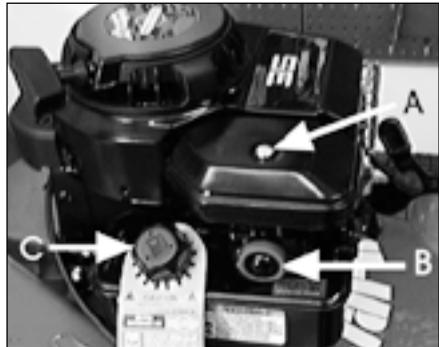
## Cleaning the Air Filter

At the end of every season, remove the air filter, as follows:

Using a suitable screwdriver, remove the single screw, securing the air filter assembly to the carburettor - shown at A, Fig. 14.

Remove the lid from the filter box and withdraw the filter. Wash it thoroughly in warm soapy water, rinse thoroughly and allow to dry before reassembling in reverse order.

Fig. 14



## Changing the oil

**IMPORTANT:** Before changing the oil, ensure the fuel tank is pumped dry.

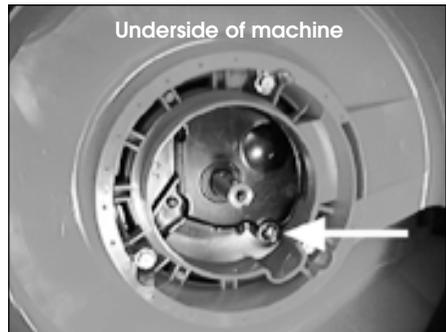
Turn the mower on to its side, and remove the drain plug (arrowed in Fig. 15), using a 10mm square Key. Use gloves for this operation, to prevent injury from the cutting blade.

Turn the mower back on to its wheels, allowing the oil to drain into a suitably placed container. Removing the oil filler will allow the oil to drain more freely.

When completely drained, replace the drain plug and fill with Clarke SAE30 oil, to the 'Max' level on the dipstick.

Replace and secure the oil filler cap.

Fig. 15



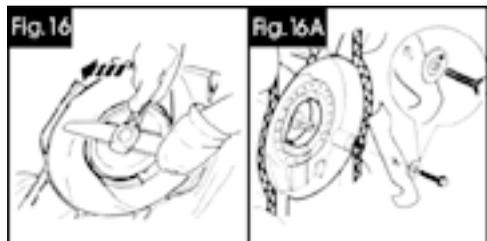
Shown with blade removed

## Replacing the blade

**IMPORTANT:** Before replacing the blade, ensure the fuel tank is pumped dry.

Turn the mower on to its side, and remove the single bolt, with washers, securing the blade, using a good pair of industrial gloves to prevent injury from the blade.

Replace in reverse order ensuring the 'O' on the large flat washer faces towards you.



## Adjustments

All carburettor adjustments are factory set and should not need attention. You will note that the idling speed is higher than expected - only 300 to 600 RPM slower than top speed. This is quite normal.

## Storage

If the lawn mower is stored for longer than 30 days, the fuel tank and carburettor should be drained to avoid the possibility of gumming up. Ensure the engine is run until it stops for lack of fuel.

If Briggs and Stratton Gasoline Additive is used, ensure the engine is run in order to distribute the additive to all parts of the fuel system, before storage. The lawn mower may then be stored for up to 24 months. (Additive available from your Clarke dealer).

## FAULT FINDING

### Engine Will Not Start

1. Ensure 'DEAD MANS' Lever is in the start position.
2. Check that there is sufficient fuel in the tank and the cap air vent is clear.
4. Remove and dry the spark plug.
5. Petrol may be stale.... Replace.
6. Check that the blade bolt is tight. A loose bolt could cause difficult starting.

### Lack of Engine Power and/or Overheating

1. Check that the control lever is in the normal position.
2. Disconnect the spark plug lead and allow the engine to cool down.
3. Clean grass clippings and debris from around the engine and air inlets and the underside of the machine including the chute and the fan.
4. Clean the engine air filter thoroughly
5. Petrol may be stale....replace

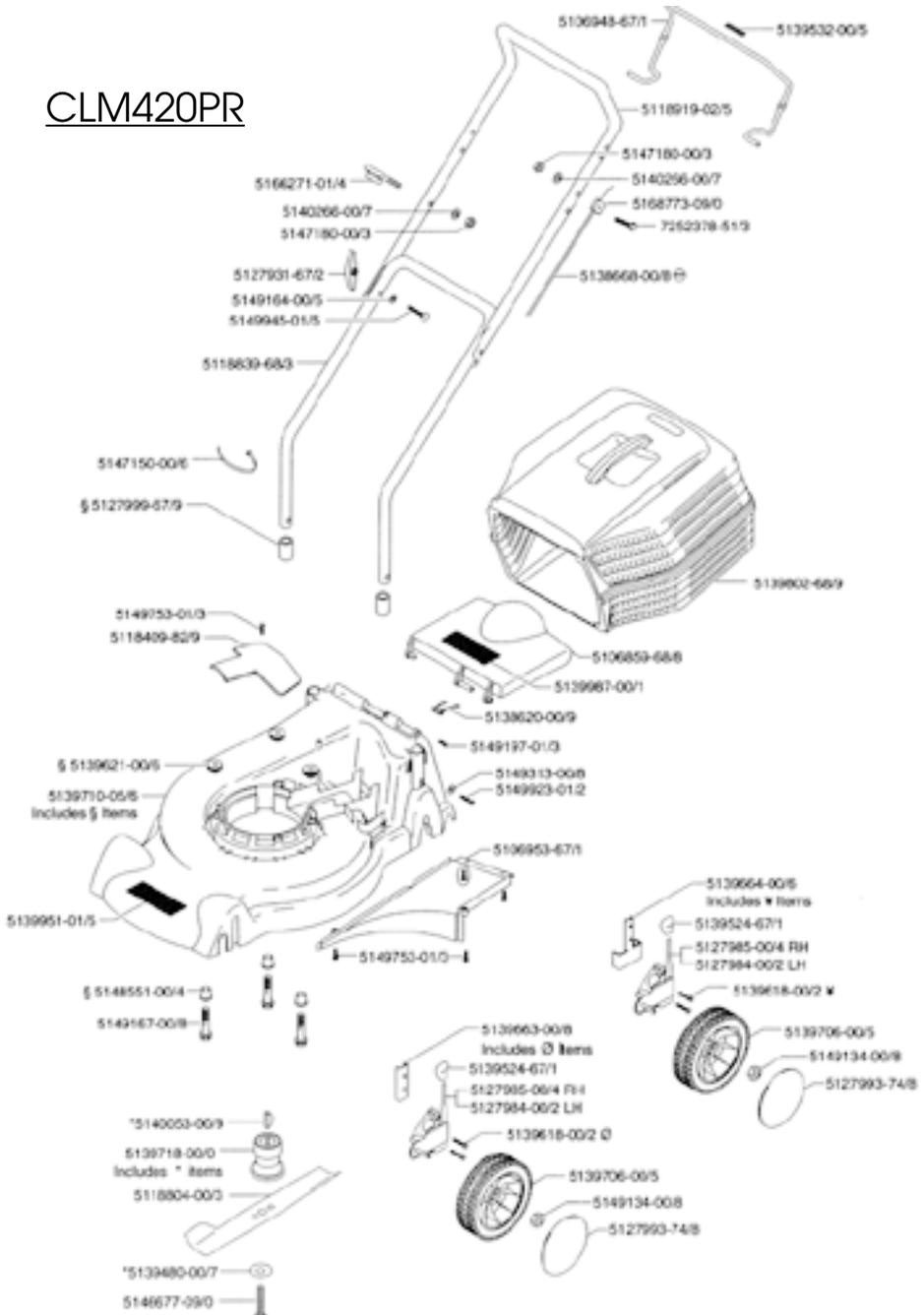
### Excessive Vibration

1. Disconnect the spark plug lead.
2. Check that the blade is correctly fitted see page 13. If the blade is damaged or worn replace it with a new one.
4. If vibration persists, immediately disconnect the spark plug lead and consult your local Clarke dealer, or contact the Clarke Service department.

**If any of the the above fails to cure the problem...disconnect the spark plug lead and consult your local Clarke dealer, or the Clarke International Service Department.**

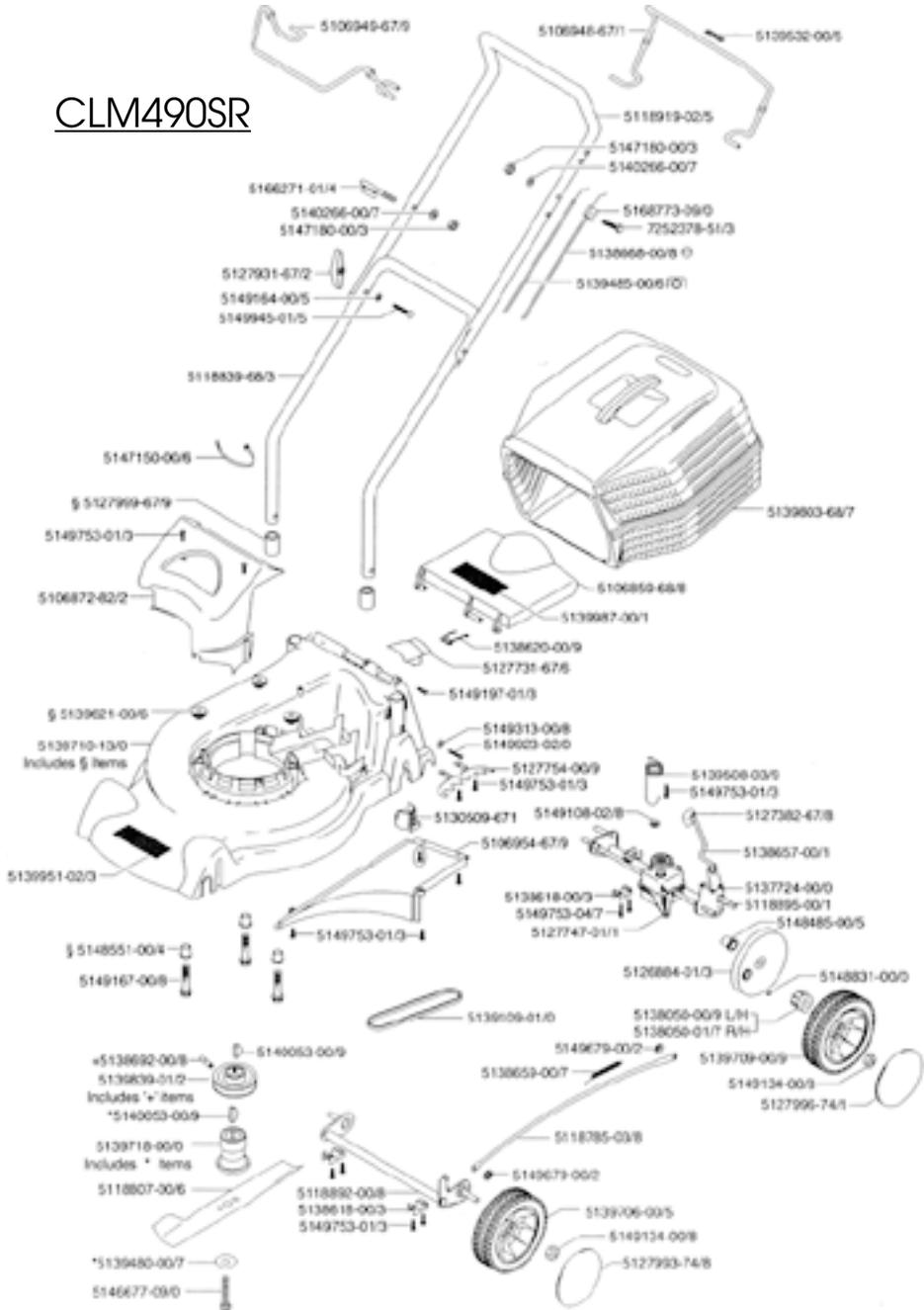
# PARTS DIAGRAM

## CLM420PR



# PARTS DIAGRAM

## CLM490SR



## SPECIFICATIONS

	CLM420PR	CLM490SR
Engine	Briggs & Stratton Classic35	Briggs & Stratton Quattro40
Power	1.8kW	2.1kW
Width of cut	42cm	48cm
Guaranteed Sound Power Level	96LWA	96LWA
Speed of Rotation	2800RPM	2800RPM
Weight	22.52kg	31kg
Part No.	3400035	3400040

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate

## SPARE PARTS & SERVICING

Please contact your nearest dealer, or  
CLARKE International, on one of the following numbers.

**PARTS & SERVICE TEL: 020 8988 7400**

**PARTS & SERVICE FAX: 020 8558 3622**

**or e-mail as follows:**

**PARTS: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)**

**SERVICE: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)**



**Clarke**<sup>™</sup>  
INTERNATIONAL



## DECLARATION OF CONFORMITY

We declare that this product complies to the following standards/directives:

■ **84/538/EEC**

Product Description: **ROTARY LAWNMOWER**

Model Number: **CLM420PR & CLM490R**

Serial Number: **See product data plate**

Signed 

**Clarke**<sup>™</sup> INTERNATIONAL  
Hemnal Street, Epping, Essex CM16 4JG

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*Drills, grinders and saws for DIY and professional use.*

### **WOODWORKING**

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*Submersible, electric and engine driven for DIY, agriculture and industry.*

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## **Clarke** INTERNATIONAL

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

**020 - 8988 - 7400**

e-mail: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com) e-mail: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)