

# **Rotary Lawnmower Owners Manual**

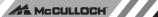
Safety
Operation
Assembly
Maintenance



# **WARNING • PLEASE READ**

For your own safety please read this manual before attempting to operate your new unit. Failure to follow instructions can result in serious personal injury. Spend a few moments to familiarize yourself with your mower before each use.

Model No. M46



# LAWN MOWER WARRANTY

The benefits conferred by this warranty are in addition to all other conditions and warranties in respect of this product which the consumer may have taken under the Competition and Consumer Act 2010 or by any legislation of a State or Territory of Australia. This product is warranted by Husqvarna Australia (ABN 45 115 475619) (the "Company") to be free from defects in material and workmanship for a period of 24 months from the date of original purchase. The Company during the period of the warranty, will at its option, and subject to the conditions stated herein, repair or replace without charge this product or any component part, which upon examination by an Authorised Service Agent or by the Company is found to be defective

#### Warranty conditions

This warranty will not apply:

- (i) where this product has been subjected to misuse, abuse, accident or want of care;
- (ii) where this product has been used for a purpose for which it was not designed or is not suited;
- (iii) where the service of this product has been undertaken by a person not authorised by the Company to carry out such work or where parts that have not been approved by the Company have been used;
- (iv) where this product has been used for industrial or commercial purposes.

Should service become necessary during the warranty period, the purchaser should contact an Authorised Service Agent or the Company. In order to obtain warranty service, the purchaser must present the store receipt showing the name of the retailer and the date of purchase together with a completed Warranty Card. The period of the warranty begins from the original date of purchase, notwithstanding any subsequent repair or parts replacement. No additional warranty or guarantee other than set out in this document, whether written or verbal, is authorised to be made on the Company's behalf. The purchaser shall be responsible for delivery or causing the product to be delivered to the Company or the Authorised Service Agent and the purchaser shall be responsible for all charges in connection with re-delivery of the product and/or the delivery of parts. Damage in transit is not covered by this warranty and purchasers should remove from the product any liquids (if applicable) before sending and pack the product securely to prevent damage.

#### Warranty exclusions

Normal wear parts or components are subject to separate terms as follows: Normal wear parts, components or service required when performing normal and regular maintenance of this product are not covered by warranty unless it is found to be defective by an Authorised Service Agent or by the Company. Normal wear parts include, but are not limited to:

Worn Blades.	Lubricants.
Spark Plugs.	Engine Tune-ups.
Carburetor Tune-ups.	Filters.

Returns based on the above listed normal wear parts will not be accepted under this warranty as they are considered consumable items and are at the expense of the purchaser.

# **WARNING**



Discharge openings must be guarded at all times. Do not remove the mulching plug or hold the safety flap up while mowing.

# **TROUBLE SHOOTING**

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Engine does not start.	Throttle not in CHOKE position.	Move throttle to CHOKE
	Fuel tank is empty.	Fill tank with fuel.
	Air cleaner element is dirty.	Clean air cleaner element.
	Spark-plug loose.	Tighten spark-plug to 25-30 N∙m.
	Spark-plug leads loose or disconnect from plug	Install spark-plug lead on spark plug.
	Spark-plug gap is incorrect.	Set gap between electrodes at 0.6 to 0.7mm.
	Spark-plug is defective.	Install new, correctly gapped plug.
	Carburetor is flooded with fuel.	Remove spark plug lead and remove plug. Switch fuel tap off. Pull starter rope 6 times to clear cylinder of fuel. Clean and dry spark plug,then reinstall.
	Faulty ignition module.	Contact the service agent.
	Dirt, water or stale fuel tank.	Drain fuel and clean tank. Fill tank with clean, fresh fuel.
Engine difficult to start or losses power	Vent hole in fuel tank cap is plugged.	Clean or replace fuel tank cap.
	Air cleaner element is dirty.	Clean air cleaner element.
Engine operates erratically.	Spark-plug is defective.	Install new, correctly gapped plug.
	Spark-plug gap is incorrect.	Set gap between electrodes at 0.6 to 0.7mm.
	Air cleaner element is dirty.	Clean air cleaner element.
Engine idles poorly.	Air cleaner element is dirty.	Clean air cleaner element.
	Air slots in engine shroud are blocked.	Remove debris from shots.
	Cooling fins and air passages under engine fan housing are blocked.	Remove debris from cooling fins and air passages.
Engine skips at speed.	Gap between electrodes or spark-plug is too close.	Set gap between electrodes at high 0.7 to .08mm
Engine overheats.	Cooling air flow is restricted.	Remove any debris from slots in shroud, blower housing, air passages and cooling fins on engine.
	Incorrect spark-plug.	Install correct spark plug.
Mower vibrates abnormally.	Cutting assembly is loose.	Check and tighten blade and cutting plate bolts.
	Cutting assembly is unbalanced.	Check blade and cutting plate for damaged wear. Replace all damaged or worn components.

Congratulations on your purchase of a quality McCulloch product.

This manual covers the operation and maintenance of the McCulloch walk behind mowers. Please read and understand this manual before using your new mower. If assistance is required, please contact McCulloch Australia or any McCulloch mower servicing dealer.

To emphasise special information the WARNING and CAUTION icons are used, please observe these carefully.

# **WARNING**



The safety of user and others involved. Personal injury may result if information is disregarded.

# **CAUTION**

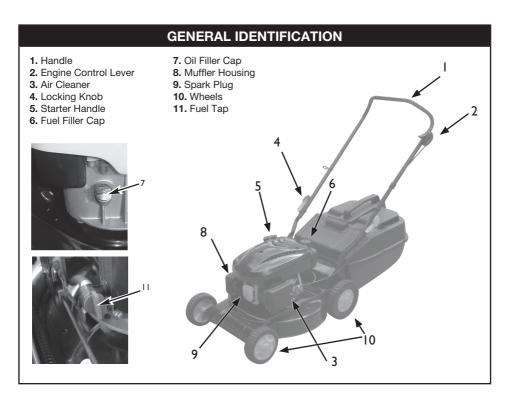


Follow instructions to avoid mower damage and possible loss of warranty.

# **CONTENTS**

Trouble shooting	Pg 2
Specifications	Pg 4
General Identification	Pg 4
Safety Instructions	Pg 5
Assembly instructions	Pg 7
Preparing the engine	Pg 8
Running the engine	Pg 10
Starting the engine	Pg 11
Cut height control	Pg 13
Fitting the mulching plug to the mower	Pg 14
Blade maintenance	Pg 15
Maintenance schedule	Pg 16
Spark plug	Pg 16
Engine air cleaner	Pg 18
Mowing tips	Pg 19

Engine:	McCulloch OHV Four Stroke
Engine Speed	
Fuel Tank Capacity	
Oil Tank Capacity	500ml
Air Filter Element	Paper Cartridge
Air Filter Location	Engine
Cutting Width	
Blades	4 Swing Back
Height Adjustment	12 Position Single Lever
Cutting Heights	15mm to 66mm
Wheel Size (F/Rmm)	165/200mm
Bearing Type	Bush
Tread	Rubber
Grass Catcher	53L Solid Plastic
Mulching Plug	Optional
Under Deck Wash Port	
Weight (Incl. Catcher)	



# **SAFETY INSTRUCTIONS**

#### WARNING



The safety of user and others involved. Personal injury may result if information is disregarded.

- Inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign, hard objects before mowing; they could be thrown by the blade.
- Never mow while barefoot or wearing open toe sandals or thongs.
   Wear long trousers and heavy-duty shoes. It is advisable to wear suitable eye and hearin protection.
- Read the Owner's Manual carefully and know the controls. Learn how to stop the engine quickly in an emergency.
- Stop the engine and disconnect the spark plug lead before attempting to clear blockages, checking or working on the mower.
- Never attempt to adjust cutting height with the engine running.
- Never operate the equipment in wet grass, always be sure of your footings, keep a firm grip on the handles and walk, never run and never walk backwards while cutting grass.
- Check all nuts, bolts and screws before starting. Always be sure your mower is in a safe
  operating condition. Use only replacement parts made or guaranteed by Talon Tools.
- Refuel outdoors only. Do not smoke while refueling engine. Add fuel before starting the engine.
   Never remove fuel cap with engine running or add petrol while the engine is running. If petrol is spilt, do not attempt to start the engine. Clean all spilt fuel and move the mower away from the spilled area. Avoid creating any source of ignition until petrol vapours have dissipated.
- Replace worn or damaged blades, as worn blades and worn bolts are major hazards.
- Mow only in good daylight.
- Do not operate the engine in a confined space where exhaust fumes can collect, as they can be lethal.
- Do not put hands or feet near or under rotating parts. Always keep clear of the blades and discharge opening.
- Stop the engine whenever you leave the mower even for a moment, before cleaning and when making any adjustments or inspections.
- Mow across the face of slope, never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
- Stop the engine when crossing gravel driveways, walks or roads.
- Start the engine carefully with feet well away from the blades.
- Store fuel in a cool place in an approved container specifically designed for the purpose. In general, plastic containers are unsuitable.

- Stop the engine and disconnect the spark plug lead before inspecting the mower if:
  - (a) the mower begins to vibrate abnormally, or
  - (b) after striking a foreign object.
- Check the catcher for wear and tear, and replace any worn or broken parts.
- To reduce fire hazard, keep the engine free of grass, leaves and any spilt fuel.
- Shut the engine off and wait until the blades come to a complete stop before removing the catcher or un-clogging the chute.
- Never pick up or carry a mower when it is operating.
- Replace worn or faulty silencers.
- Before using, always visually inspect to see that blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- Do not mow whilst people, especially children, or pets are in the mowing area.
- Do not allow children or people unfamiliar with these instructions to use the mower.
- Store the mower in a well-ventilated room away from naked flames such as may be found in hot water heaters.
- Do not over-speed the engine or alter governor settings. Excessive speed is dangerous and shortens mower life.
- Turn the fuel off at the conclusion of mowing and reduce the throttle setting during engine run-out.
- Never cut grass while walking backwards.
- · Walk, never run.
- Never use the mower unless the grass catcher, or guards provided, are in position.

# **ASSEMBLY INSTRUCTIONS**

Please refer to the following sections when preparing the mower for it's first use.



Figure, 1A



Figure. 1B



Figure. 1C



Figure. 1D



Figure. 1E

#### **GRASS CATCHER**

1. Position the two catcher halves as shown in (Figure 1A).

Align the locating lugs marked 1 & 2 at the front of the catcher. With the catcher base on the ground, push the top section on each side of locator lug 1 until it clicks into place. (Figure 1B).

Repeat this process for locator lug 2

2. Continue working from the front and push each locator lug into position from number 1 through 8 until completed. i.e. start with locator lug number 1 then 2, 3, 4, 5, 6, 7, and 8. (Figure 1A)

### 3. WARNING:

<u>DO NOT</u> HIT THE CATCHER WITH YOUR HAND OR A MALLET. This will break the plastic.

<u>ALWAYS</u> START AT POSITION 1. Do not try to assemble the catcher from any other starting point as this will make it difficult to assemble the clips.

4. Before use, check that all the lugs are completely clipped. Test the assembly by holding the top handle and pushing down of the base of the catcher. (Figure 1C)

#### **FOLDING HANDLE**

- 1. Lift the locking lever to release the handle bars for folding. (Fig. 1D)
- 2. Push the locking lever closed to lock the handle bars in the operating position.
- 3. Adjust the tension by turning the lock nut with an AF spanner

#### **GRASS CATCHER**

- To fit: Raise FLAP, grasp HANDLE and position catcher against rear of mower.
- 2. To remove: grasp handle, lift FLAP, remove catcher. (Fig.1E)

# PREPARING THE ENGINE

Please read and understand the engine instructions prior to operating the lawnmower. **OIL – SAE30** 

# **CAUTION**



DO NOT START your four-stroke engine before making sure that it has been filled with the right amount of the correct grade of oil.

Four stroke (cycle) engines are shipped without oil. Place the mower on a level position, unscrew the 'OIL FILL' cap and slowly pour oil provided into the sump. Fill to the full mark on the dipstick. The capacity is approximately 500ml. To check engine oil level first unscrew the oil tank cap and wipe excess oil off. Insert cap into oil filler but DO NOT screw in. Remove cap and observe oil level on dip stick. **NOTE: There may be a small amount of oil in the engine after draining. Fill using dip stick to avoid over filling.** 

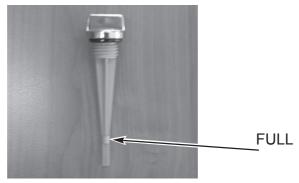


Fig. 2

#### CHANGING THE ENGINE OIL.

FOUR STROKE ENGINES should be checked for oil level every 8 hours running (or daily), and the oil should be drained and replaced after every 50 hours of use. See Engine Lubrication section for oil change information.



Fig. 3

#### **FUEL**

### **WARNING**



Petrol vapour is highly flammable and explosive. Handle with extreme care. Store in an approved container. Do not fill tank when engine is running or is still hot. Do not allow open flame, matches or smoking nearby. Fill tank outdoors in a well-ventilated area. Wipe away any spills and move the mower away from any petrol fumes before starting engine.

# **CAUTION**



When filling the fuel tank, always leave an air space of about 5mm to allow for expansion of the fuel.

USE ONLY CLEAN FRESH PETROL AT ALL TIMES, preferably unleaded, with an octane rating of at least 91. Four stroke (cycle) engines use straight fuel.

#### **FUEL FILLING**

- 1. Position the mower on a level surface in a well-ventilated area.
- 2. Clean around the fuel tank.
- 3. Remove the fuel tank cap.
- 4. Place a clean funnel in the fuel filler.
- 5. Fill the fuel tank with unleaded petrol, allowing room in tank for fuel expansion.
- 6. Replace the fuel tank cap.
- 7. Clean up any spilt fuel.

#### **ENGINE**

Regular attention to a few simple items will ensure long and trouble-free service from your mower. Carry out the regular maintenance described in the manual, and check the engine mounting bolts regularly to be sure they are tight.

#### **WARNING**



Before making any adjustments to your mower make sure that the engine is turned off and that the blade has STOPPED ROTATING. Always disconnect thespark plug wire and make sure it cannot accidentally contact the spark plugbefore touching anything under the mower housing.

# **RUNNING THE ENGINE**

### **ENGINE CONTROL**

This is mounted at the top left side of the handle (most models). It operates the choke, for starting, and allows you to set the governed speed of the engine while cutting or to stop the engine.



Fig. 4

You will not need to change the control setting constantly while mowing because the governor holds the selected speed, even under varying cutting loads. The positions for CHOKE, FAST, SLOW and STOP are marked.





Fig. 5

# STARTING THE ENGINE

Ensure that the engine has been prepared correctly and that the fuel tap is turned ON. We recommend that you check the oil level before every mowing session.

# **WARNING**



Never run the engine indoors or in poorly ventilated areas. engine exhaust contains carbon monoxide, an odourless and deadly gas. keep hands, feet, hair and loose clothing away from moving parts.

#### **COLD STARTING**

- 1. Set the engine control to the CHOKE position.
- 2. Turn the fuel tap to the "ON" position. (Fig. 6)
- Stand to the right of the mower. Hold the top handle firmly with your left hand to hold mower stationary. Grasp the starter rope handle and pull slowly until resistance is felt. Then pull briskly.
  - Do not pull the starter rope with a jerk or release it until fully rewound.
- 4. When engine has warmed up for a short time move the engine control lever to the desired speed position for cutting.

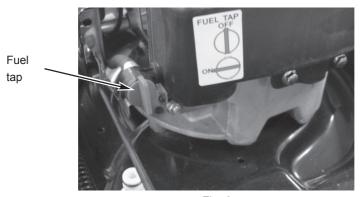


Fig. 6

#### HINTS FOR EASY STARTING

Stand the mower on a paved drive or path where the blade is clear of the grass. If you must start on the lawn, move to an already cut area and/or raise the cutting height. Do not start the mower on a gravel surface.

Start a warm engine with the control in the START position.

Keep the mower clean underneath

#### HARD START CHECKLIST

Look for these faults

Fuel 1. Insufficient fuel in tank

2. Fuel tap shut off

3. Stale fuel

4. Water or dirt in fuel

5. Blocked air vent in fuel tank cap

Ignition 1. Loose spark plug wire

2. Dirty spark plug electrodes

3. Incorrect spark plug gap

4. Incorrect spark plug type

Other

1. Choked air filter (dirt or oil)

2. Incorrect adjustment of engine control cable

3. Cutting blade obstructed

#### **STOPPING**

Move the engine control to STOP.

# **CUTTING HEIGHT CONTROL LEVER**

Turn mower off before adjusting cutting height. The single point cut height control adjusts all four wheels simultaneously. To operate, steady the mower by grasping the handle with one hand, pull the lever outwards from the mower with the other hand, and move it to the desired setting.

For heavy or very long grass it is recommended setting the mower cut height to #4 or more to avoid the possibility of clogging. If clogging becomes persistent because of unfavourable conditions, try walking slower, cutting a narrower strip or raising the cutting height further.





# FITTING THE MULCHING PLUG TO THE MOWER (OPTIONAL)

- 1. Stop the engine.
- 2. Make sure the discharge chute and the underside of the mower are clean. If not, clean themower.
- 3. Raise the flap with left hand, and using the hand-hold on the mulching plug, insert the mulching plug, with the angled section to the mowers right, into the discharge chute. Make sure the back of the plug is sitting on the rear axle, then lower the flap.



Fig. 8A



Fig. 8B

# **BLADES**

Check the blade mounting bolts at frequent intervals for proper tightness.

Check the blade condition frequently, particularly if the mower has hit a foreign object or is vibrating. Sub-standard cutting and catching will result from a neglected blade. Your Authorised Dealer can replace blades as necessary, or if you prefer, supply the parts for you to do yourself.

# **CAUTION**



Always use genuine original equipment parts to ensure safety and proper performance. Substitute parts can be disappointing and dangerous.

#### **BLADE CHANGE**

- 1. Disconnect the spark plug wire.
- 2. Adjust the mower to the high cut position.
- 3. Lift the rear flap and prop open to give full access to the blades.
- 4. Remove the blades, blade retaining bolts, nuts and washers and discard.
- Fit the new blades, blade bolts, washers and nuts in set sequence, refer drawing below (to loosen rotate anti-clockwise, to tighten rotate clockwise).

Blade bolt torque: 14.8-22.0 ft-lb (20-30 N•m)

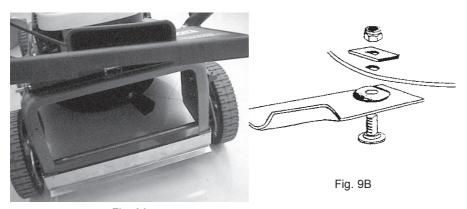


Fig. 9A

# **MAINTENANCE**

# **CAUTION**



Never tip mower sideways. To gain access to blades or cutting disc tilt backwardsso spark plug is up.

#### **ENGINE LUBRICATION**

Check engine oil before every mowing session or every 5 hours or daily.

#### **ENGINE MAINTENANCE SCHEDULE**

# **CAUTION**



Failure to properly service your mower will reduce it's operating performance and could void warranty. Service costs are not covered by warranty.

#### First 5 Hours

Change engine oil - Oil SAE30. 500ml.

#### **Every 25 Hours or Every Season**

Change engine oil if operated under heavy load or in high ambient temperature above 35C. SAE30. 500ml.

Clean air filter foam element or replace high air intake filter cartridge.

### **Every 50 Hours or Every Season**

Change engine oil. Use 500 ml of SAE30 oil.

Clean air filter foam element or replace high air intake filter cartridge.

Clean mower

Mower service should be carried out by an authorised Talon service agent.

#### **STORAGE**

If mower is to be stored for over 60 days, you will need to drain the fuel, if full, to prevent gum from forming in fuel system or on essential carburettor parts. Remove spark plug and pour about 10ml of engine oil into cylinder, replace spark plug and turn engine over (pull cord slowly).

#### **SPARK PLUG**

For best results, replace the spark plug every 100 hours of use.

- 1. Stop the engine and remove the spark plug wire.
- 2. Remove spark plug
- Screw the replacement spark plug into the engine and tighten to 25-30 N•m torque and replace spark plug wire.
- 4. Spark plug gap. 0.6 0.7mm

# **CAUTION**



Do not over-tighten the spark plug as engine damage may occur.

#### **DECK CLEANING**

Wipe deck with a damp cloth.

#### **UNDER DECK CLEANING**

 Hose under deck by tilting the mower backwards so that the spark plug is up. Allow mower to dry before storing.

# **CAUTION**



Do not hose engine. Water can damage engine or contaminate the fuel system.

### **ENGINE AIR CLEANER**

# **CAUTION**



Do not allow dirt or dust to clog the air filter element.

The engine air cleaner element must be replaced after 25 hours normal mowing. The element must be replaced more regularly if the mower is used in dry dusty conditions.

# TO REPLACE PAPER AIR FILTER (FIG. 10)

- 1. Remove air filter housing cover by pushing down on the two lock tabs.
- 2. Remove old paper filter and dispose of properly.
- 3. Insert new filter into housing so that the outer rubber seal is in place and the finned element faces out.
- 4. Replace cover. Ensure cover is locked in place.



Fig. 10A



Fig. 10B

# **MOWING TIPS**

- The best time to mow your lawn is the early afternoon. By this time the grass has had a chance to dry out. Also the sensitive newly cut grass area isn't exposed to the direct sun.
- For healthy growth, grass should not be cut too short. Using the lowest settings can result in destruction of the crown of grass, allowing flat lying weeds to develop.
- Vary your cutting pattern from week to week. One week mow your lawn from north to south, the next week, mow your lawn from east to west. This will help prevent matting and graining of the grass.
- For best performance, always keep the mower blade sharp. A blunt blade tends to tear, not cut, the blades of grass.
- When cutting very long grass, a preliminary cut on a high setting, followed by a lower cut (preferably a day or so later), will minimise the overall time required for the job.
- Do not try to cut too much off the grass at one time. This can cause excessive loads to be put on the engine and also affect the mulching performance.
- It is recommended that the lowest cut height setting when mulching is #4. For best results when mulching, cut off only the top third (or less) of the grass. Cutting lower than this will have a detrimental effect on the mulching performance.
- When mulching, turning the mower at the end of a strip you may notice unmulched grass. The mower deck is naturally tilted upward when turning so that the air-flow which holds the grass in position for re-cutting is momentarily decreased. After mowing the lawn, you can go back and mow only the turns so that the clippings are no longer visible.
- Clean the mowing chamber frequently to remove grass build-up. This will keep mowing
  performance at its best, especially when mulching. Avoid cutting your lawn when it is wet.
  Wet grass tends to form clumps and interferes with the mulching action of the mower.
- If you are not collecting the cut grass, mow in a pattern that deposits the clippings on the
  previously cut path. So, if your mower discharges clippings on the left, the next cut should be to the
  right of the previous one, and vice-versa.
- When cutting close to obstructions such as tree trunks, and when mowing to the edge of a lawn
  where there is no wheel support, use the left side of the mower, giving a useful blade 'overhang' for
  ready access to awkward areas.