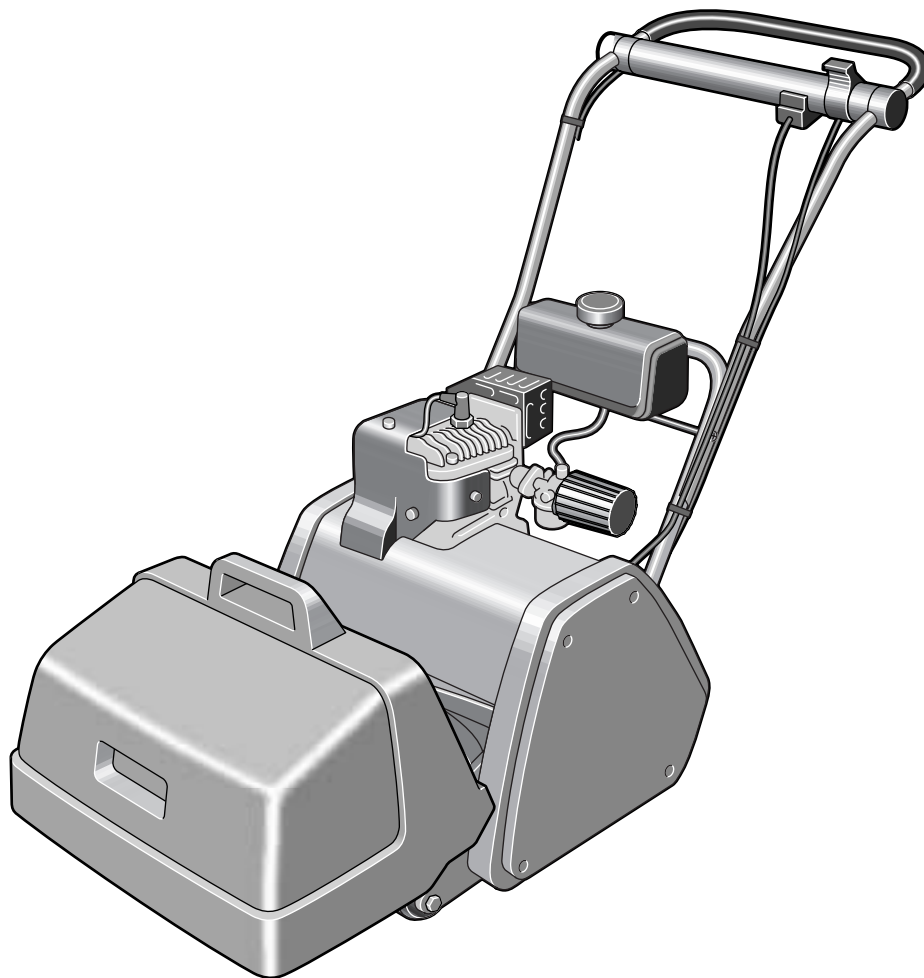
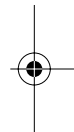
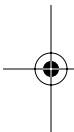
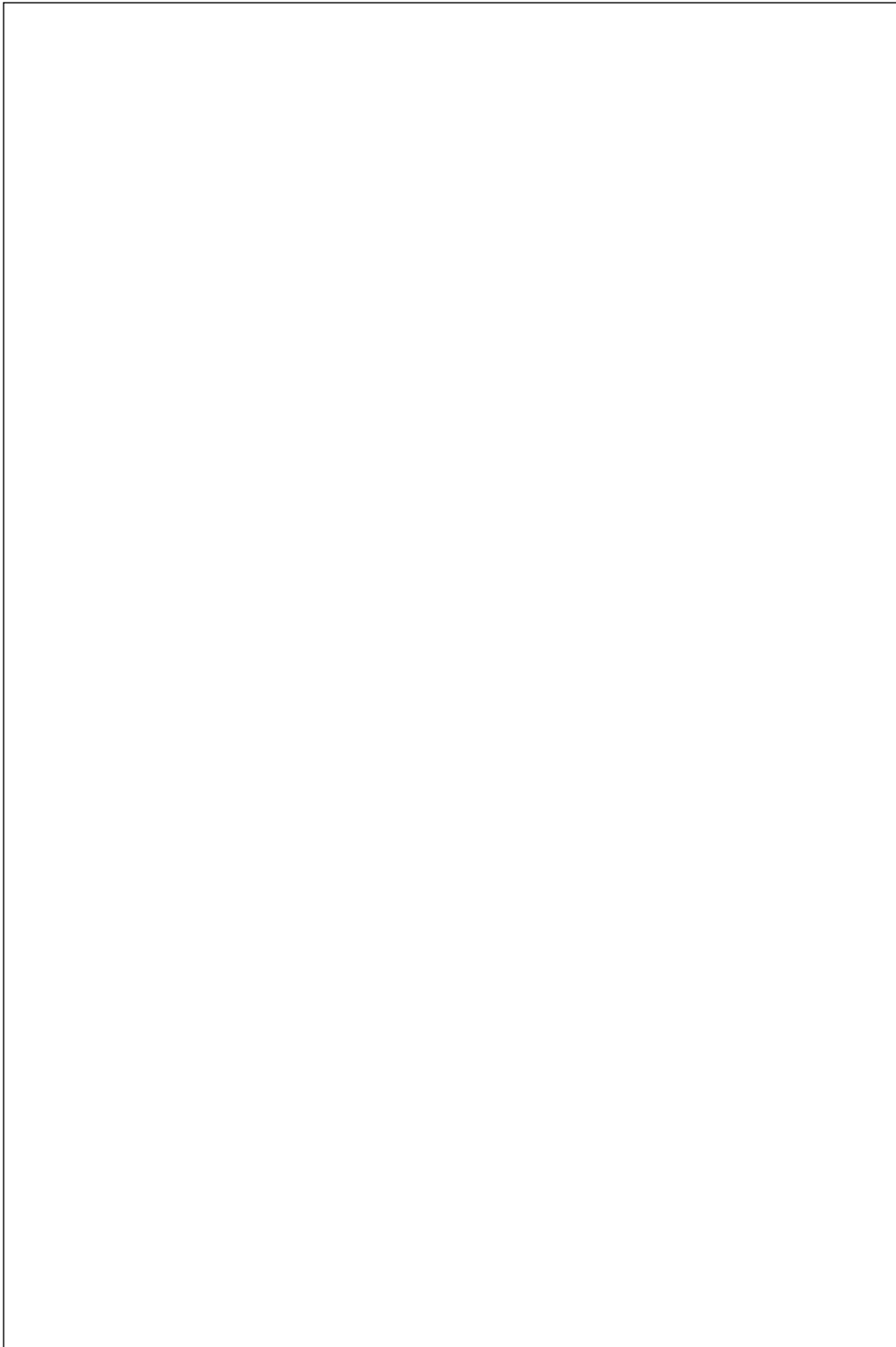
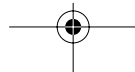
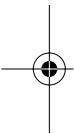
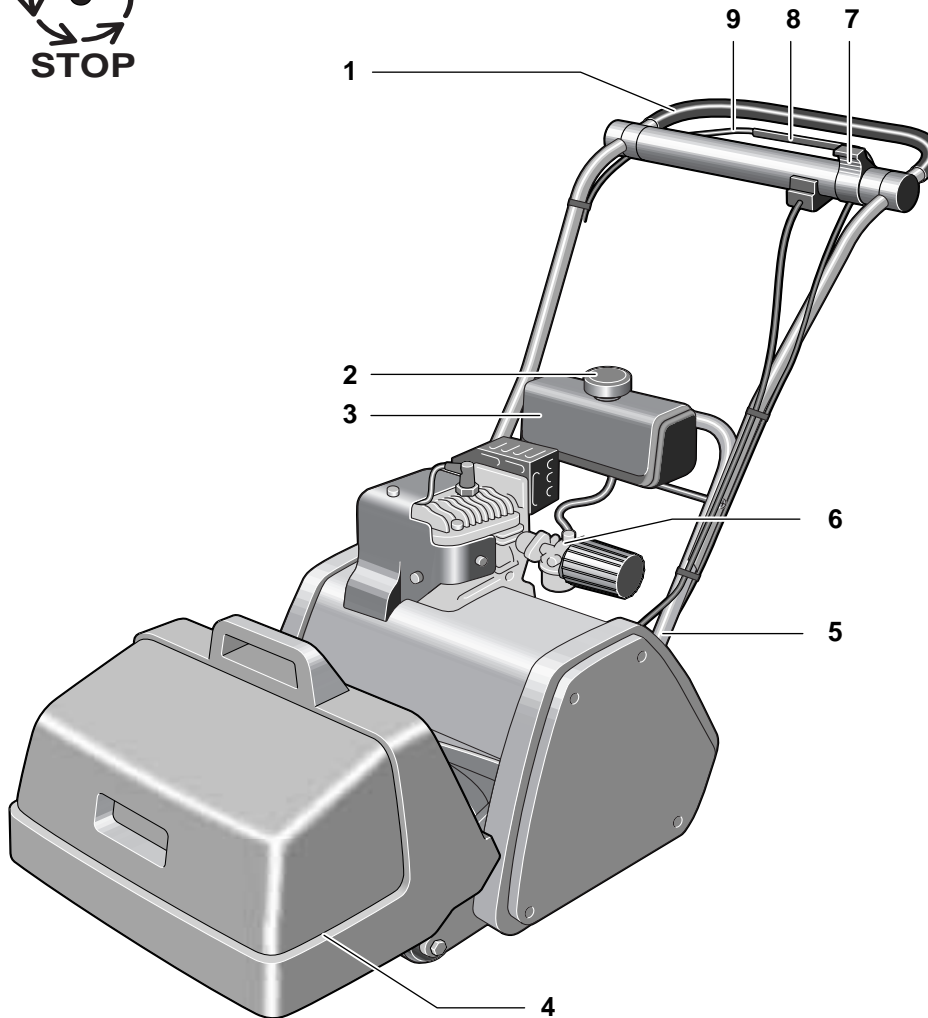


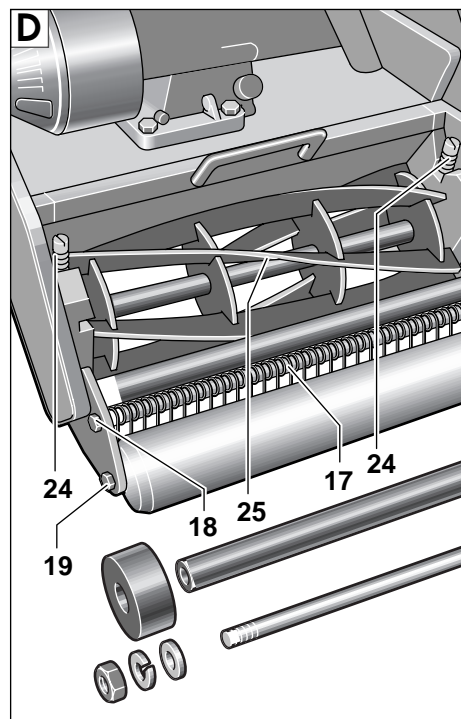
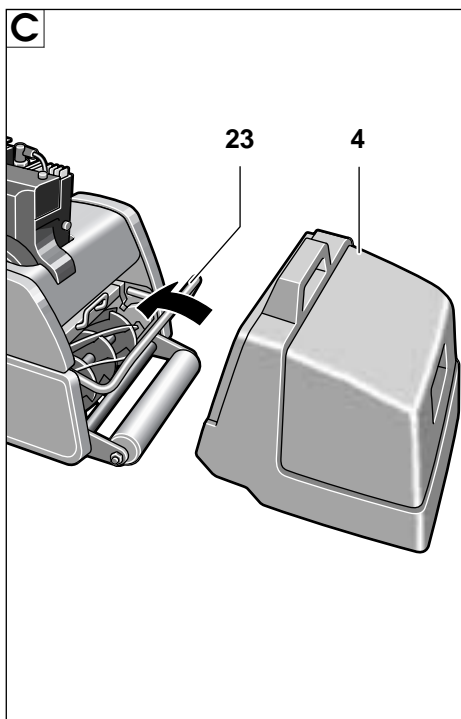
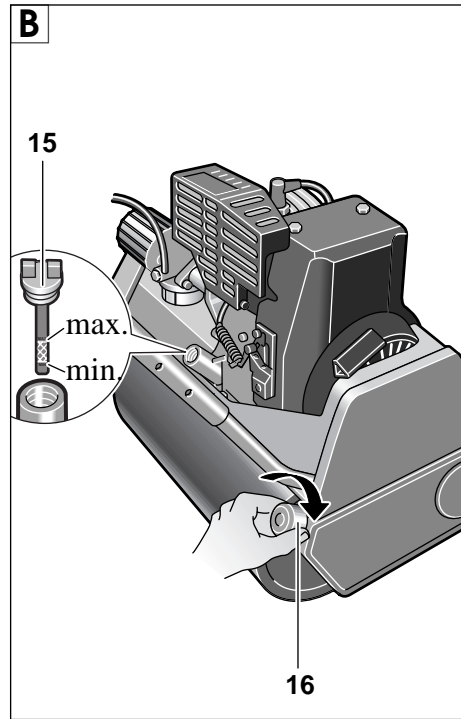
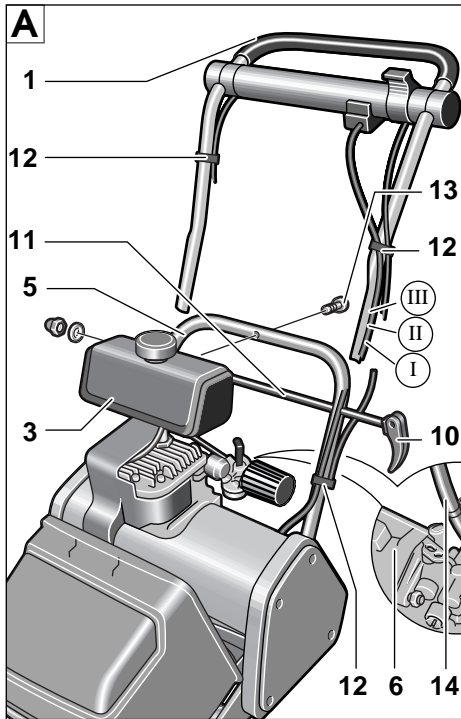
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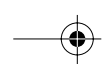
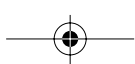
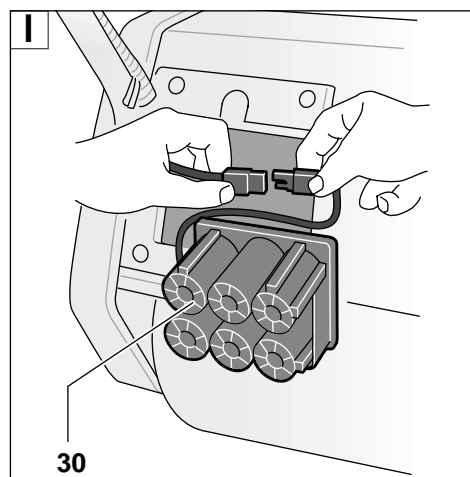
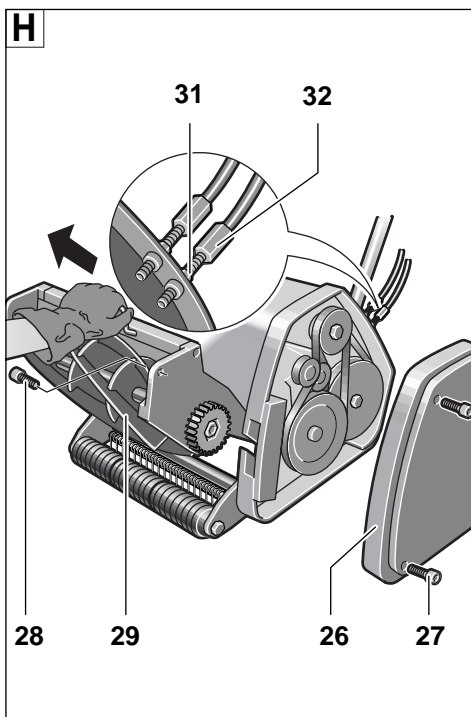
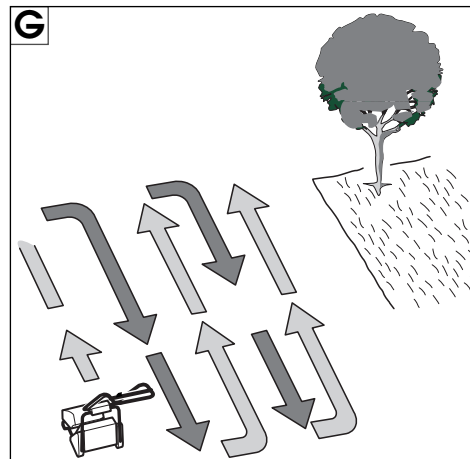
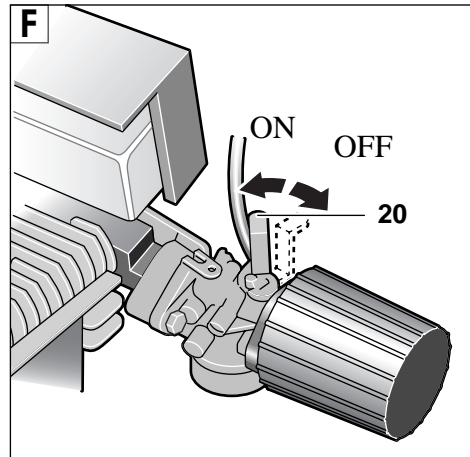
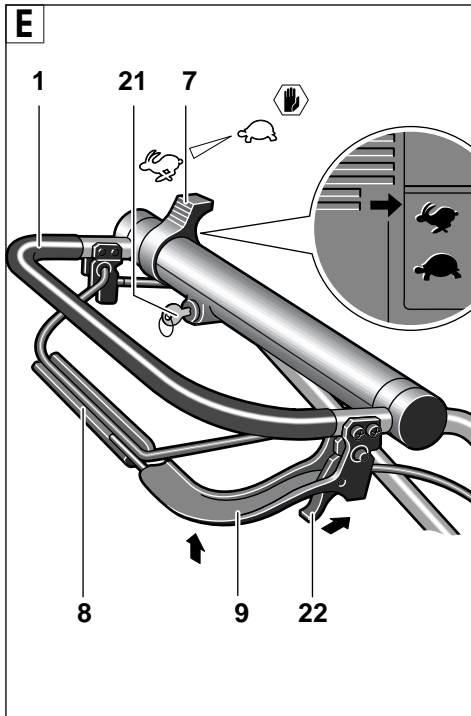


BALMORAL OPERATING INSTRUCTIONS











Safety Notes

Warning! Read these instructions carefully, be familiar with the controls and the proper use of the lawnmower. Learn how to stop the lawnmower quickly in any emergency.

Explanation of symbols on the lawnmower



General hazard safety alert.



Read instruction manual.



Beware of thrown or flying objects to bystanders.



Keep bystanders a safe distance away from the machine.



Remove spark plug lead before maintenance.



Sharp blade(s). Beware of severing toes or fingers.



STOP

Wait until all machine components have completely stopped before touching them. The blades continue to rotate after the machine is switched off, a rotating blade can cause injury.

Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations may restrict the age of the operator.

Never mow while people, especially children or pets, are nearby.

Never pick up or carry the lawnmower while the motor is running.

Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Whilst mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.

Thoroughly inspect the area where the lawnmower is to be used and remove all objects that may be thrown by the machine.

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 of the fuel tank or add petrol whilst the engine is running or when the engine is hot.
- 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.
- Replace the fuel tank and container caps securely.
- Replace faulty silencers.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. On multi-bladed lawnmower, take care as rotating one blade may cause other blades to rotate.

Mow only in daylight or in good artificial light.

Avoid operating the lawnmower in wet grass, where feasible.

Always be sure of your footing on slopes.

Walk, never run.

Mowing on banks can be dangerous:

- Mow across the face of slopes - never up and down.
- Be particularly careful of your footing on slopes or wet grass.

Exercise extreme caution when changing direction on slopes.

Do not mow excessively steep slopes.

- Use extreme caution when stepping back or pulling the lawnmower towards you. Never cut grass by pulling the mower towards you.

Stop the blades if the lawnmower has to be tilted for transportation when crossing surfaces other than grass and when transporting the lawnmower to and from the area to be mowed.

Do not tilt the lawnmower when starting or switching on the motor, except if the lawnmower has to be tilted for starting in long grass. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator. Always ensure that both hands are in the operating position before returning the mower to the ground.

Never operate the lawnmower with defective guards, or without the grassbox in place.

Do not change the engine governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.

Disengage all blade and clutches before starting the engine.

Start the engine or switch on the motor carefully according to instructions and with feet well away from the blade(s). Do not tilt the mower when starting.

Do not put hands or feet near, or under, rotating parts while the lawnmower is being operated.

Stop the engine and disconnect the spark plug cap:

- before checking, cleaning or working on the lawnmower.
- after striking a foreign object. Inspect the lawnmower for damage and make repairs before restarting and operating the lawnmower.
- if the lawnmower starts to vibrate abnormally (check immediately).
- before making height of cut adjustment.

Stop the engine:

- whenever you leave the machine
- before refuelling
- before clearing blockage
- before making height of cut adjustment

Reduce the throttle setting during engine shut-down.

Keep all nuts, bolts and screws tight to be sure that the lawnmower is in safe working condition.

Replace worn or damaged blades and bolts in sets to preserve balance.

Never store the lawnmower with petrol in the tank inside a building where fumes may reach open flame or spark.

Allow the engine to cool before storing in any enclosure.

To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves or excessive grease.

Check the grassbox/bag frequently for wear or deterioration.

Replace worn or damaged parts for safety.

Go slow when using a trailing seat.

If the fuel tank has been drained, this should be done outdoors.

Be careful during adjustment of the lawnmower to prevent entrapment of the feet and hands between moving blades and fixed parts of the lawnmower.

Ensure replacement parts fitted are Atco-Qualcast approved.



Product Specification

Cylinder Mower	Balmoral 14 S	BALMORAL 14 SE	BALMORAL 17 S	Balmoral 17 SE	BALMORAL 20 S	BALMORAL 20 SE
Part number	F016 307 542	F016 307 642	F016 308 542	F016 308 642	F016 309 542	F016 309 642
Engine size (cc)	148	148	148	148	148	148
Fuel tank capacity (l)	1.7	1.7	1.7	1.7	1.7	1.7
Rated power (kW)	2.15 (3.5 HP)	2.15 (3.5 HP)	2.15 (3.5 HP)	2.15 (3.5 HP)	2.15 (3.5 HP)	2.15 (3.5 HP)
Blade width (cm)	35	35	43	43	50	50
Height of cut (mm)	6-35	6-35	6-35	6-35	6-35	6-35
Cuts per metre	79	79	79	79	79	79
Grassbox capacity (l)	52	52	62	62	70	70
Weight (kg)	40	42	48	50	57.5	59.5
Max. overall width (mm)	51	51	60	60	68	68
Serial number	See rating details on machine					

Intended Use

This product is intended for domestic lawn mowing.

Introduction

This manual gives instructions on the correct assembly and safe use of your machine. It is important that you read these instructions carefully.

When fully assembled the machine weighs approximately 40-59.5 kg. Obtain assistance to remove from packaging.

Take care when transporting the mower to the lawn, as the blades are sharp.

Delivered Items

Carefully remove the machine from its packaging and check that you have the all the following items:

- Lawnmower with handle assembly
- Operating instructions
- Spare parts list
- Machine registration card
- Engine Maintenance manual
- Petrol tank
- Petrol tank screw
- Allen key
- Handle spindle
- Grassbox
- Grassbox cradle
- side wheel spindle (incl. of nuts) x 2 side wheel

When parts are missing or damaged, please contact the consumer hotline on (0 14 49) 74 21 30 for assistance. We have also a network of approved Atco-Qualcast service agents who you can also contact for service and advice both within and outside the period of guarantee.

Operating Controls

- 1 Top handle
- 2 Petrol filler cap
- 3 Petrol tank
- 4 Grassbox
- 5 Bottom handle
- 6 Carburettor
- 7 Throttle lever
- 8 Drive control lever
- 9 Cutter control lever

Not all of the accessories illustrated or described are included as standard delivery.

Assembly

A Handles

Unfold the handle top **1** and secure with the handle clamping lever **10**. Make sure the cables do not become trapped between the handles.

The handle top is height adjustable. The cam lock spindle **11** can be repositioned in desired position **I**, **II** or **III**.

Use cable clips **12** to attach cables to bottom handle **5** and top handle **1**.

Fit petrol tank **3** to mower using screw **13** and attach petrol pipe **14** to the carburettor **6** using petrol pipe clip.

For convenience when storing, the handle can be folded by lifting the handle clamping lever **11**.

Petrol

Petrol deteriorates over time. Engine starting may be difficult if you use petrol kept for more than 30 days. Always run the fuel tank dry when storing over 30 days.

1. Remove the petrol filler cap **2**, add unleaded petrol to the tank **3**, leaving approximately 25 mm of tank **3** space for fuel expansion.
2. Replace the petrol filler cap **2**.
3. Wipe up any spilt petrol from the engine before starting the mower.

B Engine Oil

The mower is not supplied with oil in the engine, however it is possible that there is a small quantity in the engine. It is essential to fill with oil before starting the engine to avoid damage to your engine. It is important to use the recommended oil to avoid damage to your engine.

1. With the mower standing on level ground, unscrew and remove the oil filler dip stick **15**.
2. Wipe the oil filler dip stick clean; refit and tighten the oil filler dip stick **15**, then remove it again. Check the oil level.
3. Add a good-quality SAE 30 API SF in small quantities at a time, allowing it to settle. Repeatedly add oil and check the level until it reaches the max position on the dip stick **15**. The engine may require up to 0.6 litres of oil.
4. Refit and tighten the oil filler dip stick **15**.

C Grassbox/bag

Attach/remove the grassbox **4**.

B C Height Of Cut Adjustment

Your mower has an infinitely adjustable height of cut between 6–36 mm with four markings between these (numbered 1-4) as a guide to adjustment. A fifth position labelled 'S'? should only be used with the scarifier cassette accessory or to achieve a particularly short cut if the lawn is very flat. The height of cut is adjusted by turning the knob **16** at the right hand rear of the machine. The comb will also require adjustment, See "Comb Adjustment".

D Comb Adjustment

Your mower is fitted with an adjustable comb **17** which can be brought into use on the lower heights of cut. It is set by loosening the screws **18** and rotating the comb until the tines just touch the ground. You may need to re-adjust after changing the height of cut. Take care not to set the comb too deep, as this could cause damage to either your mower or lawn.

D Cutting Long Grass Using Side Wheel Kit (appropriate models only)

Your mower is fitted with a full width front roller which is suitable for normal smooth lawns. For cutting longer, coarse grass a side wheel kit can be fitted. To fit this kit proceed as follows:

1. Tilt the mower back and wedge securely.
2. Remove the front roller/comb assembly by removing screw **18** and slackening nut **19** on both sides.
3. Fit the side wheel, space tube on to the side wheels spindle.
4. Fit side wheel assembly by placing a washer either side of the roller brackets and tighten the nut securely.

Refit the full width roller by following steps 1-3 in reverse.


Using Your Mower

Starting and Stopping

Starting from Cold


E F

Recoil start models

1. Move the throttle lever **7** to position .
2. Move the choke lever **20** to On.
3. Pull the recoil cord handle. Allow the recoil handle to return slowly after each pull.
4. Once the engine has run for a few minutes move the choke lever to "OFF".

E F

Electric start models


1. Move the throttle lever **7** to position .
2. Move the choke lever **20** to On.
3. Turn the key **21** clockwise to start. If the engine does not start use the recoil start method and charge the battery (see maintenance and fault finding)
4. Once the engine has run for a few minutes move the choke lever to "OFF"

Starting from Hot



Follow "Starting from Cold" using steps 1 & 3 only.

If the engine does not start or will not continue to run follow the "Starting from Cold" procedure with choke lever **20** between the "On" and "Off" position.



Stopping

- E** Move the throttle lever **7** to position .

E Engaging Cylinder cutter and rear roller

1. Start engine.
2. Push the red safety latch **22** forward and gradually squeeze the cutter control lever **9** towards the top handle **1**.
3. Gradually squeeze the drive control lever **8** towards the top handle **1**.
4. Release the red safety latch **22**.
5. Adjust the speed as required by moving the throttle lever **7** between  and .
6. To stop, release both control levers **8** and **9**.

Engaging rear roller only

1. Start engine.
2. Gradually squeeze the drive control lever **8** towards the top handle **1**.
3. Adjust the speed as required by moving the throttle lever **7** between  and .
4. To stop, release the drive control lever **8**.

Engaging Cutters only

1. Start engine.
2. Push the red safety latch **22** forward and gradually squeeze the cutter control lever **9** towards the top handle **1**.
3. To stop, release the cutter lever **9**.

Mowing

Before mowing, check the engine oil level and fill the petrol tank.

Toward the end of season, it is advisable to put only as much fuel in the tank as you need for each cut, since it should be completely used before storing the mower.

G For best results, place the lawnmower on the edge of lawn, mow in a forward direction. Then at right angles at the end of each turn, slightly overlapping the previously cut strip.

The next time you mow the lawn, try to work at right angles to the previous cut as this will help prevent unevenness in the surface soil which can build up if you always mow in the same direction.

Maintenance



Stop and remove spark plug cap.

Note: To ensure long and reliable service, carry out the following maintenance regularly!

Check for obvious defects such as loose, dislodged or damaged blades, loose fixings, and worn or damaged components.

Check that covers and guards are undamaged and correctly fitted. Carry out necessary maintenance or repairs before using.

Clean the exterior of the machine thoroughly using a soft brush and cloth. Do not use water, solvents or polishes. Remove all debris, especially from the air filter and engine fins.

If the mower should happen to fail despite the care taken in manufacture and testing, repair should be carried out by an Approved Service Agent for Atco-Qualcast garden products.

For all correspondence and spare parts orders, always include the 10-digit part number from the nameplate of the machine!

Adjusting the Blade

C D

The cutters should be adjusted if the grass is not cut cleanly and evenly.

1. Tilt the mower back and wedge securely.
2. Remove grassbox cradle **23**.
3. Turn adjusting nuts **24** clockwise a little at a time.

Note: The blades are correctly adjusted when the cutting cylinder **25** lightly brushes the bottom blade across the full width as the cylinder **25** is turned.

The blades act like a pair of shears, as a test, correctly adjusted blades will cut a piece of good quality writing paper across the width of the blade.

Once correctly adjusted refit grassbox cradle **23**.

Removing/replacing QX Cylinder Cassette

C H

The mower is fitted with a QX (quick exchange) cassette which can be removed and taken to Approved Service Agent for sharpening. To move the cassette:

- It is advisable to wear a pair of gardening gloves (not supplied).
- Remove grassbox cradle **23**.
- Remove the drive cover **26** by removing screws **27**.
- Remove cassette retaining screws **28** on both sides.
- Pull the cutting cassette unit **29** out using the handle. Obtain assistance if required.
- Refit cassette **29** following the above in reverse.

This method is the same for fitting or removing cassette accessories.

I Battery Charging (electric start models only)

The battery is trickle charged continuously when the mower is running, however it will require charging before initial use, once a month during the mowing season and once during winter storage. Use the battery charger supplied as follows:

1. Remove the battery **30**.
2. Connect the battery to the charger.
3. Connect the charger to a 230 V 50 Hz mains supply. Switch on and charge for between 16 – 24 hours. If necessary the battery can be left on charge for up to 72 hours. Any longer may damage the battery. The charger must not be used outdoors.
4. Switch off the mains supply before disconnecting the battery charger or battery.
5. Refit the battery **30**.

Adjusting Drive Cable

H If the mower does not drive adequately it may be necessary to adjust the drive cable as follows:

- Slacken nut **31**, turn adjuster **32** a few turns anti-clockwise.
- Retighten nut **31**.

When correctly adjusted, drive to the rear roller is engaged when the drive control lever **8** is squeezed against the handle top **1** or disengaged when released.

Engine Maintenance

Changing oil:

Change the oil after 2 hours of use. The oil should then be changed every 25 hours or at the end of each season before storage, whichever is sooner.

(see engine manual for details)

Note: It is important that you use the recommended oil to avoid damage to your engine.

Replacing Air filter (See engine manual for details).
General maintenance and Adjustments (See engine manual for details).

Accessories

- Scarifier unit - BALMORAL 14S/SE UK F016 800 092
- Scarifier unit - BALMORAL 14S/SE EURO F016 800 093
- Scarifier unit - BALMORAL 17S/SE UK F016 800 094
- Scarifier unit - BALMORAL 17S/SE EURO F016 800 095
- Scarifier unit - BALMORAL 20S/SE UK F016 800 096
- Scarifier unit - BALMORAL 20S/SE EURO F016 800 097

Winter Storage/Storage over 30 days

Regular maintenance at the recommended service intervals, replacing worn or damaged parts as necessary and having the mower serviced by an ATCO-QUALCAST Approved Service Agent before winter storage will maximize the life and reliability of the mower. Observe the following before storage:

1. Clean the mower down thoroughly. Remove any grass debris especially around the engine cooling fins (also see engine manual).
2. Check the cutting action (see "Adjusting the Blades") and lightly oil the cutting edges.
3. Check that all nuts and bolts are tight.
4. Drain off any fuel in the petrol tank by:
 - Removing the pipe from the carburettor and emptying the fuel into a can.
 - Run the engine for a few minutes until the engine stops.
 - Remove the carburettor bowl by removing nut, and drain off any fuel in the carburettor. This will prevent gum (fuel deposits) forming on essential carburettor parts.
5. Change the oil and replace the air filter. (Winter storage only. See engine manual for details).



Fault Finding

The following table gives checks and actions that you can perform if your machine does not operate correctly. If these do not identify/remedy the problem, contact an ATCO-QUALCAST Approved Service Agent.

Warning: Switch off, remove spark plug cap before investigating fault.

Symptom	Possible Cause	Remedy
Mower leaves a ragged finish	Cutter not correctly adjusted	Adjust the cutter
Engine will not start	Engine is flooded Spark plug lead not connected Spark plug dirty	Leave for 10–15 minutes Reconnect See engine maintenance manual
Engine stops	No petrol Engine speed too low for conditions Cutting cylinder obstructed	Refill tank Move throttle Turn off engine and clear obstruction
Engine does not stop	Throttle cable not correctly adjusted.	Stop engine by removing spark plug lead and refer to the engine maintenance manual.
Cutting cylinder does not rotate	Incorrect adjustment	Contact an ATCO-QUALCAST Approved Service Agent
Land drive does not engage	Incorrect adjustment/cable damaged	Adjust cable Contact an ATCO-QUALCAST Approved Service Agent
Excessive vibration/noise	Blade(s) or/and cylinder bearing damaged Engine fault	Contact an ATCO-QUALCAST Approved Service Agent See engine maintenance manual



Guarantee

ATCO-QUALCAST guarantees this product against manufacturing defects. We will repair (or replace at our option) if a manufacturing defect occurs within the guarantee period as long as it has not been subjected to rental/hire use. The engine fitted to this mower is covered by the engine manufacturer. See engine manual for details

The guarantee period for domestic use is 3 years for parts (2 years engine + extend guarantee option of one further year, see engine manual for details) and 2 years for labour costs from date of purchase.

For the purpose of this guarantee:

Domestic use means any use of the product on the property belonging to the purchaser forming part of the garden area of his/her dwelling.

To obtain a repair under this guarantee:

- Take your lawnmower to a ATCO-QUALCAST Approved Service Agent.
- Show your dated proof of purchase.
- Show the guarantee page.

This guarantee does not apply if:

- the product has been resold by original purchaser (this does not apply in the Republic of Ireland), or has been used under hire.
- the product has been modified to change the manufacturer's specification, or if non-genuine spares have been fitted.
- if any previous repair was undertaken by anyone other than an ATCO-QUALCAST Approved Service Agent.
- the fault is due to maladjustment, abuse, neglect or accidental damage.
- the fault is due to lack of lubrication or maintenance.

Blades, drive chains, bearings, belts, rubber on the rear roller and cables.

The cost of routine maintenance of the product is not covered by the guarantee.

It is in your best interest to follow the Operating Instructions for your mower/scarifier, as a properly cared for product should give many years of excellent service.

Should you require spares always insist on genuine ATCO-QUALCAST spares. Any damage caused to the product through the fitting of parts not made or approved by ATCO-QUALCAST is not covered by the Guarantee.

Your statutory rights are not affected by this guarantee.

Your product has been manufactured under an environmental management system using where possible the most environmentally responsible material and processes, and with the potential for recycling at the end of its life.

When the time comes to dispose of this product please consider the environmental and take it to recognised recycling facility.

(Please contact your Local Authority for location information.)

Declaration of Conformity

Measured values determined according to 2000/14/EC (1.60 m height, 1 m distance away) and EN 25 349.

Typically the A-weighted noise level of the product is: sound pressure level 81 dB (A) 14 S, 82 dB (A) 14 SE, 81 dB (A) 17 S, 82 dB (A) 17 SE, 83 dB (A) 20 S, 82 dB (A) 20 SE; sound power level: 92 dB (A) 14 S, 93 dB (A) 14 SE, 92 dB (A) 17 S, 93 dB (A) 17 SE, 94 dB (A) 20 S, 93 dB (A) 20 SE.

The typical weighted acceleration is 4 m/s².

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents: EN 60 335, EN 836 according to the provisions of the directives 89/336/EEC, 98/37/EC, 2000/14/EC.

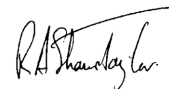
2000/14/EC: The guaranteed sound power level L_{Wg} is lower than 95 dB (A) 14 S, 95 dB (A) 14 SE, 93 dB (A) 17 S, 95 dB (A) 17 SE, 95 dB (A) 20 S, 95 dB (A) 20 SE. Conformity assessment procedure according to Annex VIII.

Notified body: SRL, Sudbury England

PLACE: Stowmarket, Juli 2001

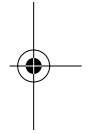
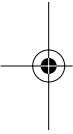
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Position: Director





Rückseite • Printed in England • BA F 016 L69 830 • Balmoral • OSW 09/01
F016 L69 830 - Buch Seite 1 Freitag, 21. September 2001 2:04 14



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Printed in England Tel: (01449) 742130 Fax: (01449) 674243 F016L69 830 (01.09) O

