

Operator's Manual

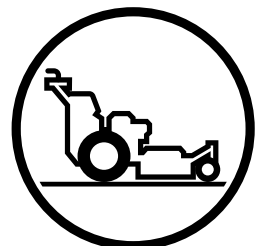
WG4815E/968999120

WG3613E/968999117

WG3613BF/968999365

WG3613EC/968999756

Please read the operator's manual carefully and make sure you understand the instructions before using the machine.



English

CONTENTS

INTRODUCTION.....	5	MAINTENANCE	32
Congratulations.....	5	Maintenance Schedule	32
General	5	Ignition System	34
Driving and Transport on Public Roads	5	Safety System.....	35
Operating.....	5	Function Check.....	35
Good Service.....	6	Engine Cooling Air Intake	36
SYMBOLS AND DECALS	7	Throttle and Choke Cable.....	36
SAFETY	9	Air Filter Maintenance.....	37
General Operation	9	Replacing the Fuel Filter.....	38
Personal Safety Equipment	11	Tire Pressures	38
Slope Operation.....	11	Parking Brake	39
Safe Handling of Gasoline	13	V-belts.....	39
General Maintenance	14	Deck belt.....	39
Transport	15	Cutting Blades	40
CONTROLS	16	Blade replacement.....	40
Control Locations.....	16	Brake Rod Adjustment	41
Recoil Starter Grip	17	Caster Wheels	41
Ignition Switch.....	17	Cleaning.....	41
Motion control levers.....	17	Hardware	41
Operator Presence Levers.....	18	LUBRICATION	42
Gear shift lever	18	Lubricating the Cables	43
Throttle Control and Choke Control	18	Front Wheel Mount	43
Neutral Bail	19	Front Wheel Bearings	43
Parking Brake	19	Throttle and Choke Cable, Lever Bearings.....	43
Blade Engagement Lever	19	Engine Oil	44
Refueling.....	19	Engine Oil Filter	44
Fuel Shut-off Valve	19	Changing the Engine Oil.....	44
Accessories	20	Engine Oil Levels.....	45
Fuel Tank	20	Drive Wheel Idle Arm	46
Before Starting.....	21	Coupling.....	46
Starting the Engine	22	Mower Deck Lever.....	46
OPERATION	23	Rear Wheel.....	47
Gearbox.....	25	Brake Arms	47
Running	25	TROUBLESHOOTING	48
Reverse	26	STORAGE.....	50
Operating on hills.....	26	Winter Storage.....	50
Mowing Tips	27	Service.....	50
Stopping.....	28	SCHEMATICS.....	51
Emergency stop.....	28	TECHNICAL DATA.....	52
Normal operating stop	28	Torque Specifications.....	53
Stopping the Engine	28	Accessories	54
Manual Transport.....	29	Torque Specifications.....	54
Cutting Height Adjustment	30	CONFORMITY CERTIFICATES	55
Cutting Height Table	31	SERVICE JOURNAL.....	56



WARNING!

Failure to follow cautious operating practices can result in serious injury to the operator or other persons. The owner must understand these instructions, and must allow only trained persons who understand these instructions to operate the mower.

Each person operating the mower must be of sound mind and body and must not be under the influence of any mind altering substance.



WARNING!

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

INTRODUCTION

Congratulations

Thank you for purchasing a Husqvarna Walk-Behind mower. This machine is built for superior efficiency to rapidly mow primarily large areas. A control panel easily accessible to the operator and a transmission regulated by steering controls both contribute to the machine's performance.

This manual is a valuable document. Read the contents carefully before using or servicing the machine. Following the instructions (use, service, maintenance, etc.) is important for the safety of the operator and others. It can also considerably increase the life span of the machine and increase its resale value.

If you sell your machine, be sure to give the operator's manual to the new owner.

The final chapter of this operator's manual provides a Service Journal. Ensure that service and repair work are documented. A well-kept service journal reduces service costs for the maintenance and affects the machine's resale value. Take the operator's manual along when the machine is taken to your dealer for service.

General

In this operator's manual, left and right, backward and forward are used in relation to the machine's normal driving direction.

Continuous dedication to improve our products require that specifications and design are subject to change without notice.

Driving and Transport on Public Roads

Check applicable road traffic regulations before transporting on public roads. If the machine is transported, you must always use approved fastening equipment and ensure that the machine is well anchored. DO NOT operate this machine on public roadways.

Operating

This machine is constructed only for mowing grass on lawns and even ground without obstacles such as stones, tree stumps, etc. The machine can also be used for other tasks when equipped with special accessories provided by the manufacturer. Operating instructions for the accessories are provided with delivery. All other types of uses are incorrect. The manufacturer's directions concerning operation, maintenance, and repairs must be carefully followed.

Lawn mowers and all power equipment, can be potentially dangerous if used improperly. Safety requires good judgement, careful use in accordance with these instructions and common sense.

The machine must only be operated, maintained, and repaired by persons familiar with the machine's special characteristics and who are also knowledgeable about the safety instructions. Use only approved repair parts to maintain this machine.

Accident prevention regulations, other general safety regulations, occupational safety rules, and traffic regulations must be followed without fail.

Unauthorized modifications to the design of the machine may absolve the manufacturer from liability for any resulting personal injury or property damage.

INTRODUCTION

Good Service

Husqvarna's products are sold through out the world and only in specialized retail stores with complete service. This ensures that you as a customer receive only the best support and service. Before the product is delivered, the machine has, for example, been inspected and adjusted by your retailer. See the certificate in the Service Journal in this operator's manual.

When you need spare parts or support in service questions, warranty issues, etc., please consult the following professional:

This Operator's Manual belongs to the machine with the manufacturing number:	Engine	Transmission

Manufacturing Number

The machine's manufacturing number can be found on the printed plate affixed to the left in the engine compartment. Stated on the plate, from the top are:

- The machine's type designation (I.D.).
- The manufacturer's type number (Model).
- The machine's serial number (Serial no.)

Please have the type designation and serial number available when ordering spare parts.

The engine's manufacturing number is stamped on a barcode decal. The decal is placed on the left side of the crankcase.


The plate states:

- The engine's serial number (E/NO).
- The engine's type designation (Code)

Please have these available when ordering spare parts.

SYMBOLS AND DECALS







These symbols are found on the machine and in the operator's manual.
Study them carefully so that you know what they mean.

	<p>WARNING!</p> <p>Xxxx xxxxxx xxxxxx xxxx xxxxxxxxxxxx xxxxxx xxxxxxxxxx. xx xxxxxxxxxxx xxxxxx.</p>
---	--

Used in this publication to notify the reader of a risk of **personal injury or death**, particularly if the reader should neglect to follow instructions given in the manual.

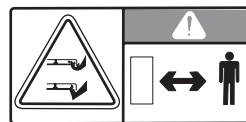
<p>IMPORTANT INFORMATION</p> <p>Xxxx xxxxxx xxxxxx xxxx xxxxxxxxxxxx xxxxxx xxxxxxxxxx. xx xxxxxxxxxxx xxxxxx.</p>

Used in this publication to notify the reader of a risk of **material damage**, particularly if the reader should neglect to follow instructions given in the manual. Used also when there is a potential for misuse or misassembly.

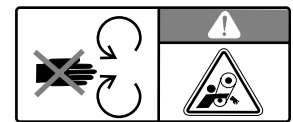
					
Fast	Slow	Choke	Fuel	Warning!	CE conformity marking. Only for European market



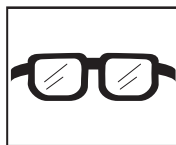
Battery acid is corrosive, explosive and flammable



Warning! Rotating blades, keep away from the discharge deck



Do not touch rotating parts



Use protective glasses



Use protective gloves

SYMBOLS AND DECALS

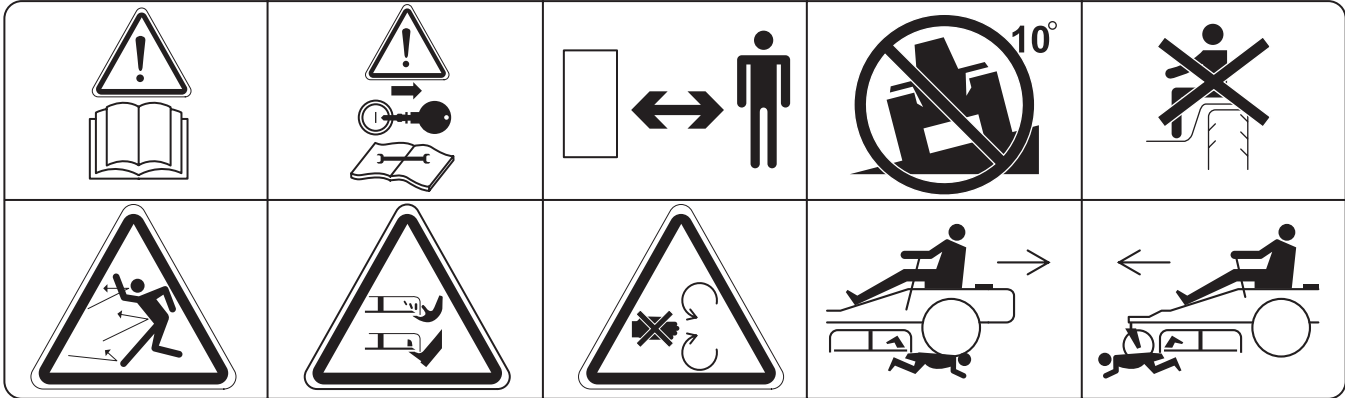
Read
Operator's
Manual

Shut off engine and
remove key before
performing any
maintenance or repair work

Keep a safe
distance from
the machine

Use on slopes
no greater
than 10°

No passengers



Whole body
exposure to
thrown objects

Severing of fingers
and toes

Do not open or
remove safety
shields while
engine is running

Careful backing up,
watch for other
people

Careful going
forward, watch for
other people



Moving sharp blades under cover

SAFETY



WARNING!

THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.



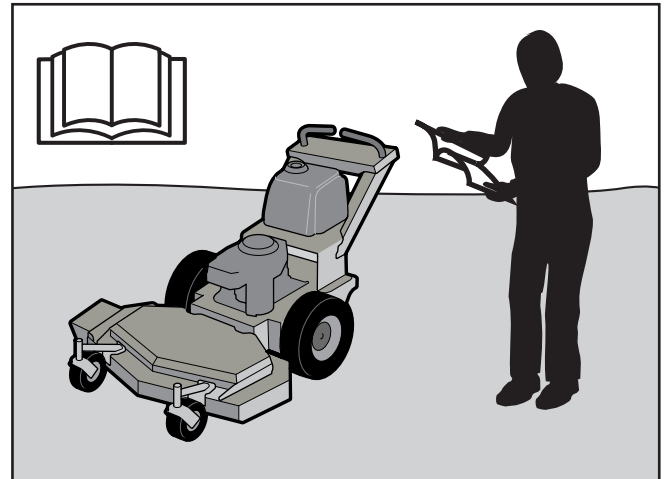
WARNING!

This symbol means that important safety instructions need to be emphasized. It concerns your safety.

These instructions are for your safety. Read them carefully.

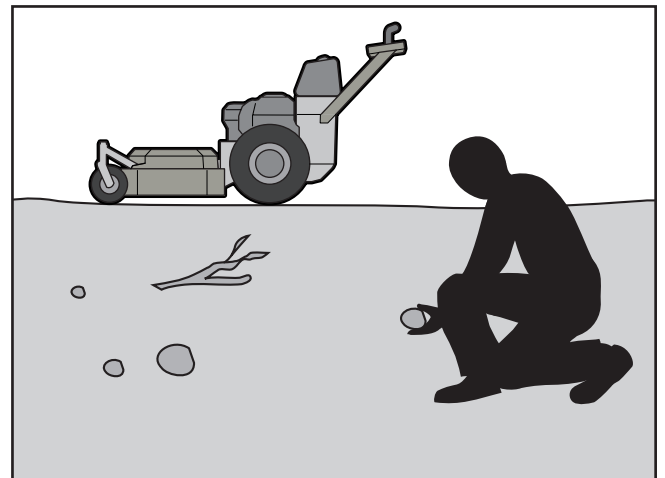
General Operation

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Always look down and behind during reverse maneuvers. Look for both large and small obstacles.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working
- Slow down before turning.
- Never leave a running machine unattended.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge chute.
- Operate machine only in daylight or good artificial light.



8011-630

Read the operator's manual before starting the machine



8011-631

Clear the area of objects before mowing

SAFETY

- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Never take passengers. The machine is only intended for use by one person
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Anyone who operates this machine must first read and understand this Operation Manual. Local laws may regulate the age of the user.
- Keep machine free of grass, leaves or other debris buildup which can touch hot exhaust or engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause buildup to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.



Never take passengers

8011-632



WARNING!

Engine exhaust and certain vehicle components contain or emit chemicals considered to cause cancer, birth defects, or other reproductive system damage. The engine exhaust contains carbon monoxide, which is a odorless, colorless, poisonous gas. Do not use the machine in enclosed spaces.

SAFETY

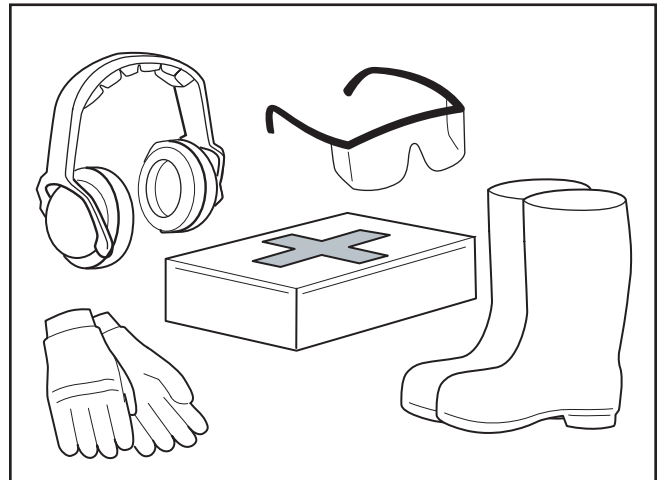
Personal Safety Equipment



WARNING!

When using the machine, approved personal protective equipment (shown in illustrations) shall be used. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your retailer for help in choosing the right equipment.

- Make sure that you have first aid equipment close at hand when using the machine.
- Never use the machine when barefoot. Always wear protective shoes or boots, preferably with steel toe caps.
- Always wear approved protective glasses or a full visor when assembling or driving.
- Always wear gloves when handling the blades.
- Never wear loose clothing that can get caught in moving parts.
- Use ear protectors to avoid damage to hearing.



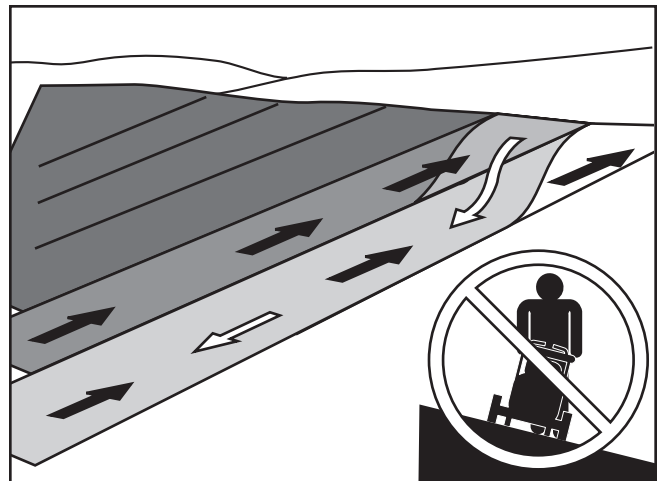
8011-670a

Personal protective equipment

Slope Operation

Slopes are a major factor related to loss of control or machine tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot reverse up the slope or if you feel unsure, do not mow it.

- Mow up and down slopes (10 degrees maximum), not across.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Choose a low ground speed so that you will not have to stop while on the slope.
- Do not mow on wet grass. Tires may lose traction.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.



8011-634

Mow up and down, not side to side

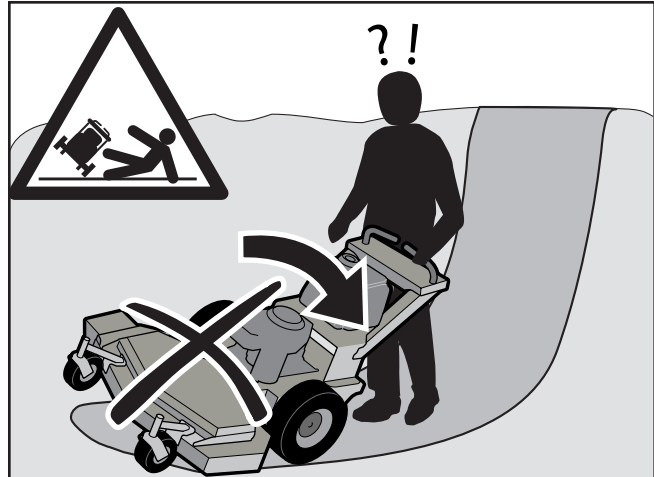


WARNING!

Do not drive up or down hills with slopes greater than 10 degrees. Do not drive across any slopes.

SAFETY

- Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine.
- Do not use on steep slopes.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not mow near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel is over the edge or if the edge caves in.



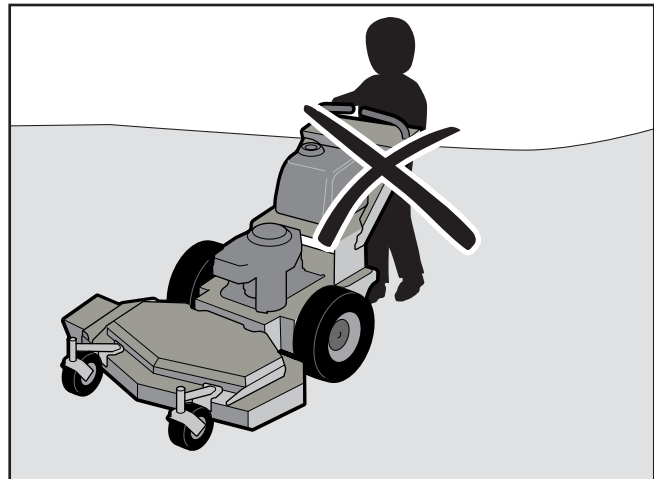
8011-635

Be extra cautious when driving on slopes

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.



8011-636

Never allow children to operate the machine



8011-633

Keep children away from the work area

SAFETY



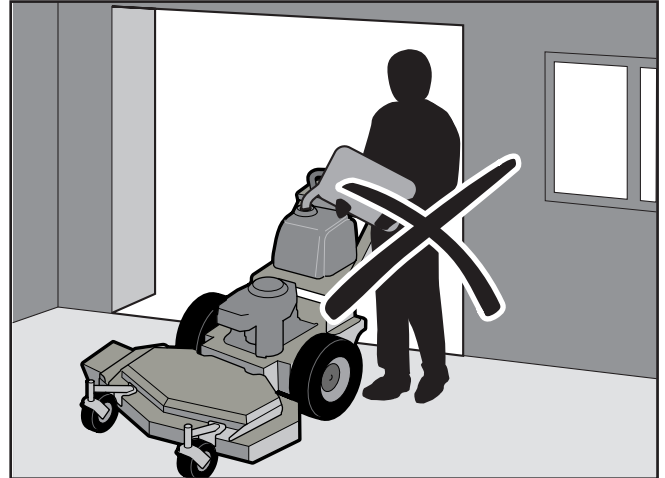
WARNING!

The engine must not be started when the driver's floor plate or any protective plate for the mower deck's drive belt is removed.

Safe Handling of Gasoline

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool at least two (2) minutes before refueling.
- Never fuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliance.
- Before you begin refueling, minimize the risk of static electricity by touching a metal surface.
- Never fill containers inside a vehicle or on a truck or trailer bed with plastic liner. Always place containers on the ground away from the vehicle when filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.
- Do not start the engine near spilled fuel.
- Never use gasoline as a cleaning agent.
- If leaks arise in fuel system, engine must not be started until problem has been resolved.
- Check the fuel level before each use and leave space for the fuel to expand, as the heat from the engine and the sun may otherwise cause the fuel to expand and overflow.



8011-637

Never fill the fuel tank indoors

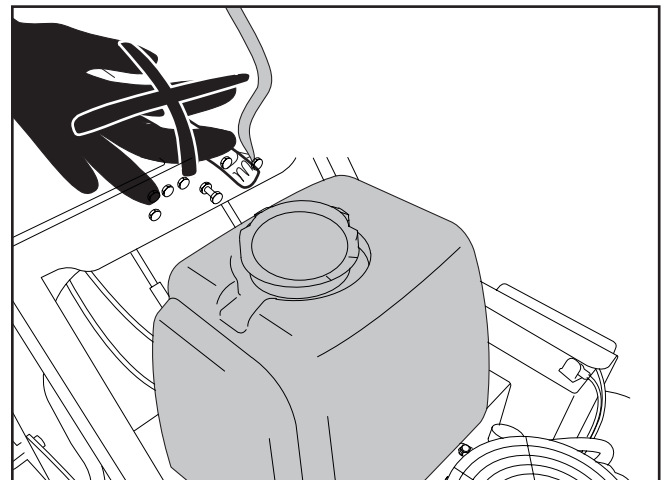


WARNING!

The engine and the exhaust system become very hot during operation.

There is risk for burns if touched.

Allow engine and exhaust system to cool at least two (2) minutes before refueling.



8011-777

Do not smoke when using the machine

SAFETY

General Maintenance

- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris buildup. Clean oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be driven with defective or unmounted protective plates, protective cowlings, safety switches, or other protective devices.
- Do not change the settings of governors and avoid running the engine with overly high engine speeds. If you run the engine too fast, you risk damaging the machine components.
- Ensure that nuts and bolts, especially the fastening bolts for the blade attachments, are properly tightened, torqued and that the equipment is in good condition.
- Do not modify safety equipment. Check regularly to be sure it works properly. The machine must not be driven with defective or unmounted protective plates, protective cowlings, safety switches, or other protective devices.
- Do not change the settings of governors and avoid running the engine with overly high engine speeds. If you run the engine too fast, you risk damaging the machine components.



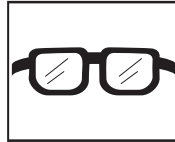
8011-638

Never drive the machine in an enclosed space



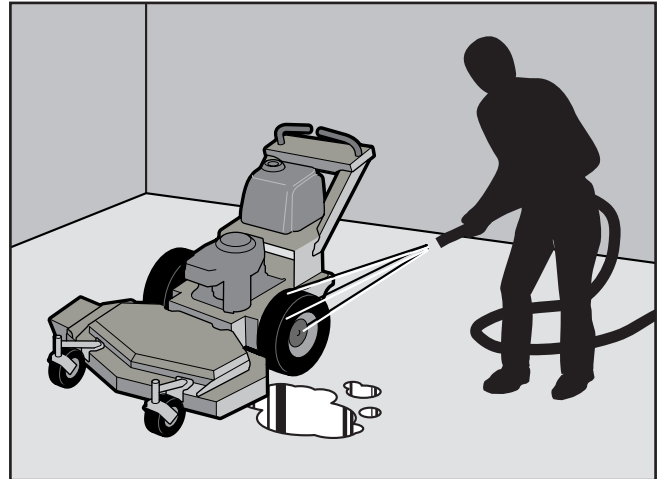
WARNING!

Use protective glasses for maintenance work.



SAFETY

- Use protective goggles.
- Ensure that the fuel filler cap is mounted tightly and no flammable substances are stored in an open vessel.
- Never use the machine indoors or in spaces lacking proper ventilation. The exhaust fumes contain carbon monoxide, an odorless, poisonous, and lethal gas.
- Stop and inspect the equipment if you run over or into anything. If necessary, make repairs before starting.
- Never make adjustments with the engine running.
- The machine is tested and approved only with the equipment originally provided or recommended by the manufacturer. Only use approved repair parts for the machine.
- The blades are sharp and can cause cuts and gashes. Wrap the blades or use protective gloves when handling them.
- The mulch blades should only be used in familiar areas when higher quality mowing is desired.
- Reduce the risk of fire by removing grass, leaves, and other debris that may have accumulated on the machine. Allow the machine to cool before putting it in storage.
- Regularly clean deck and underside of deck, avoid spraying engine and electrical components with water.



Clean the machine regularly

8011-639

Transport

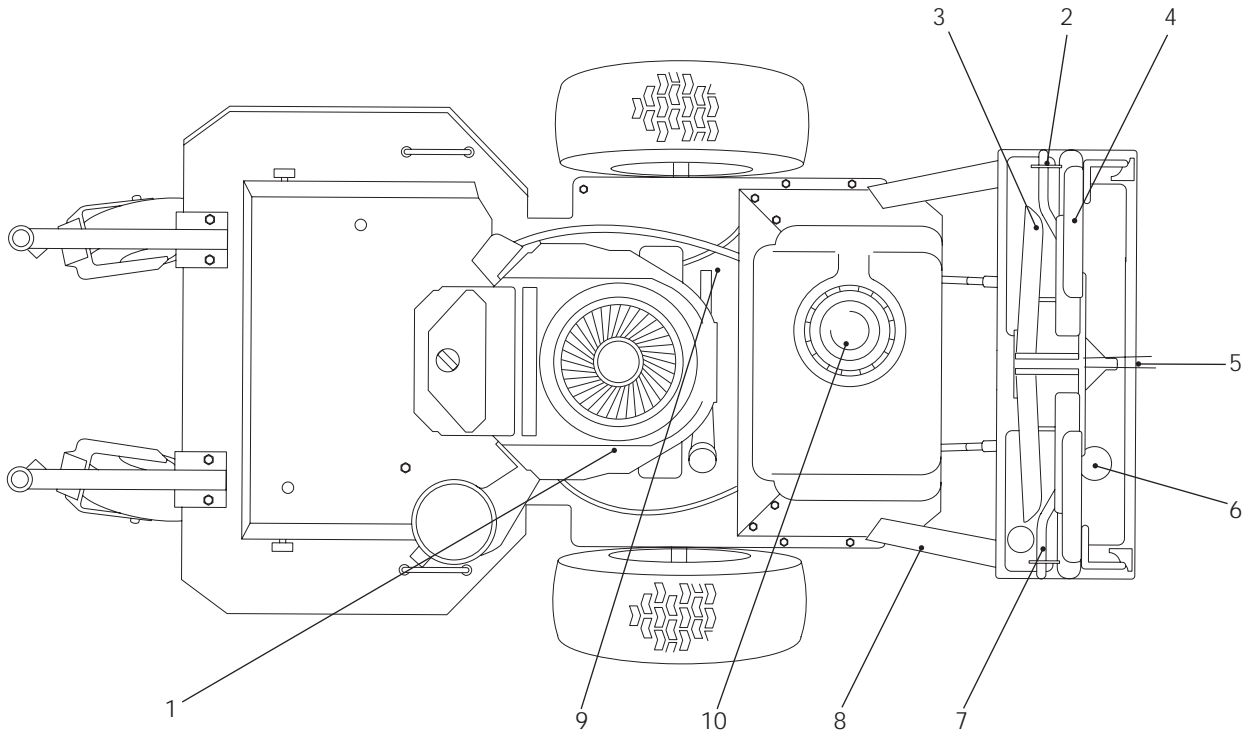
- The machine is heavy and can cause serious crushing injuries. Be extra cautious when it is loaded on or unloaded from a vehicle or trailer.
- Use an approved trailer to transport the machine. Activate the parking brake, turn off the fuel supply, and fasten the machine with approved fastening devices, such as bands, chains, or straps, when transporting.
- Check and abide by local traffic regulations before transporting the machine on any road.
- Do not tow this machine, it may cause damage to the drive system.

CONTROLS

This operator's manual describes the Husqvarna Walk-Behind Mower. The machine is fitted with a Kawasaki four-stroke overhead valve engine.

Transmission from the engine is made via two V-belts, one for each wheel. Using the left and right steering controls, the speed of the rear wheels is regulated for steering the machine.

Control Locations



- | | |
|-----------------------------|---------------------------|
| 1. Recoil Starter Grip | 6. Throttle/Choke Control |
| 2. Ignition Switch | 7. Neutral Bail |
| 3. Motion Control Levers | 8. Blade Engagement Lever |
| 4. Operator Presence Levers | 9. Fuel Shut Off Valve |
| 5. Gear Shift Lever | 10. Fuel Cap/Tank |

CONTROLS

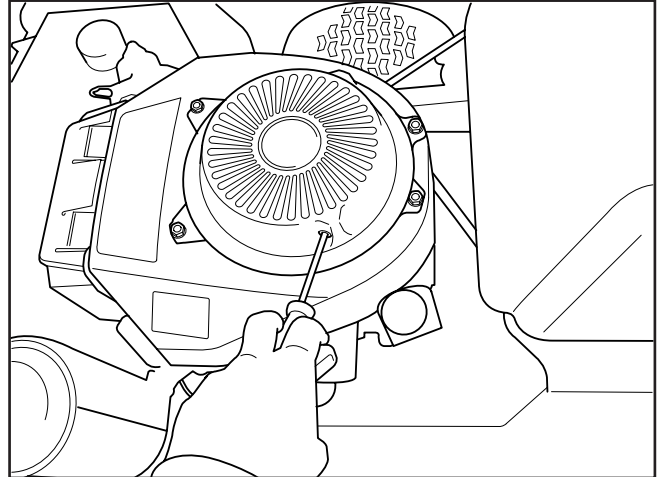
Recoil Starter Grip

IMPORTANT INFORMATION

Do not let recoil cord snap back by itself. This may damage the cord or the recoil starter assembly.

Pull the recoil starter grip slowly until you feel compression, then pull it briskly.

Normally this engine will not backfire. If you get backfires, contact your Husqvarna dealer for service.



8011-476

Recoil starter grip

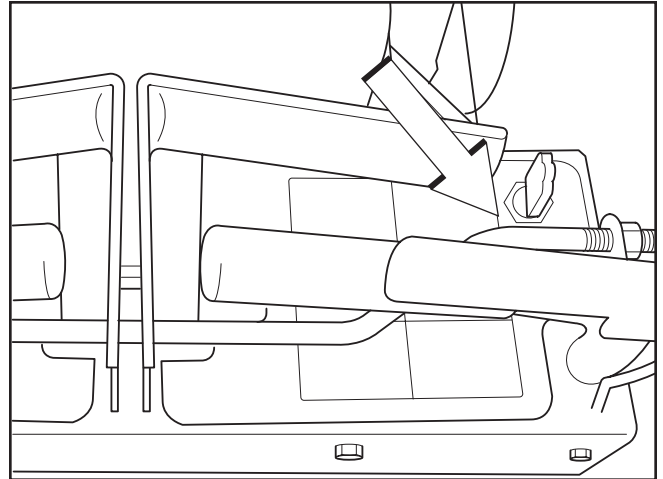
Ignition Switch

The ignition key switch is placed on the control panel.



WARNING!

The machine can turn very rapidly if one steering control is moved much further forward than the other.



8011-475

Ignition key

Motion control levers

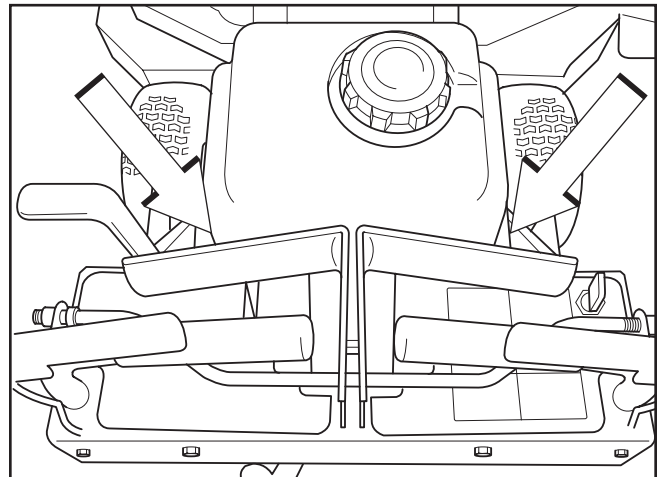
The machine's speed and direction are continuously variable using the two motion control levers.

When both controls are in the neutral position, the machine stands still. The controls can be locked in neutral position by the Neutral bail

By moving both controls an equal amount the machine moves in a straight line forward.

In order, for example, to turn right while moving forward, move the right control towards the handle (neutral position). The rotation of the right wheel is reduced and the machine turns to the right.

To stop forward travel pull levers back.



8011-478

Motion control levers

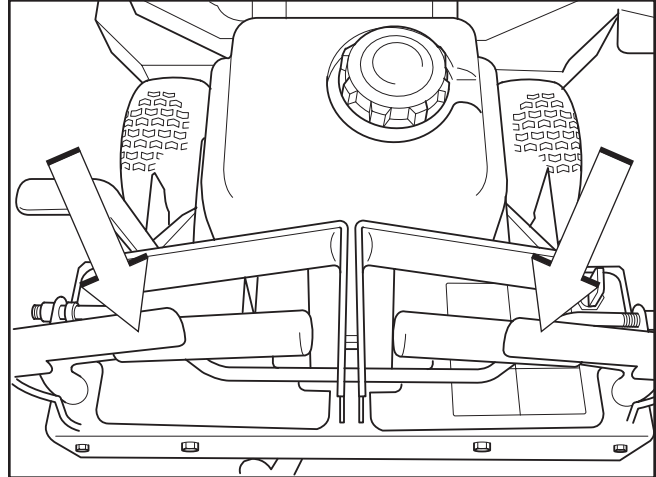
CONTROLS

Operator Presence Levers

Located on the handle, the Operator Presence System levers serve as an additional safety feature. An electrical interlock safety system is activated by depressing either one or both of the Operator Presence Levers at the handle grips.

Releasing both Operators Presence Levers while mowing or transporting will break the electrical circuit and cause the engine and mower to stop. The mower will not stop immediately after releasing the OP levers and some travel occurs.

When the blades are engaged or neutral lock bail has not locked the drive levers, one or both levers must be pressed against the handle for the engine to remain running.



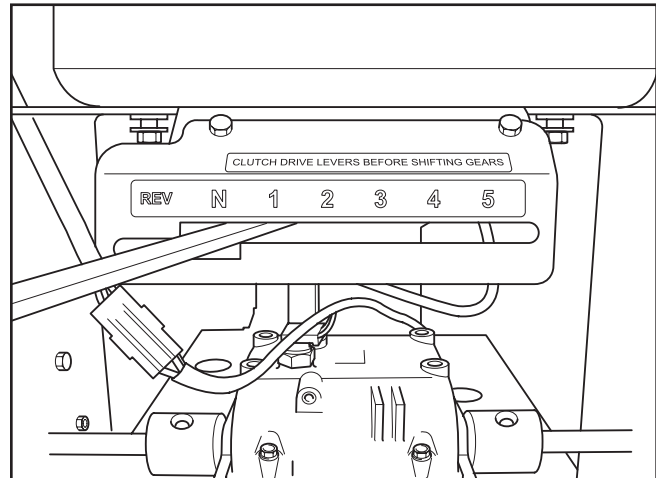
8011-478

Motion control levers

Gear shift lever

Gear shift lever has 5 gear speeds. There are also neutral and reverse gears.

Grip the motion control levers before shifting gears. This will clutch the gearbox.



8011-482

Gear shift lever in the neutral position

Throttle Control and Choke Control

Choke Control

The choke control is used for cold starts to provide the engine with a richer fuel mixture.

The choke control is combined with the throttle control. To engage the choke, the throttle control is moved past the max RPM setting to the choke position.

Do not use the choke when starting a warm engine.

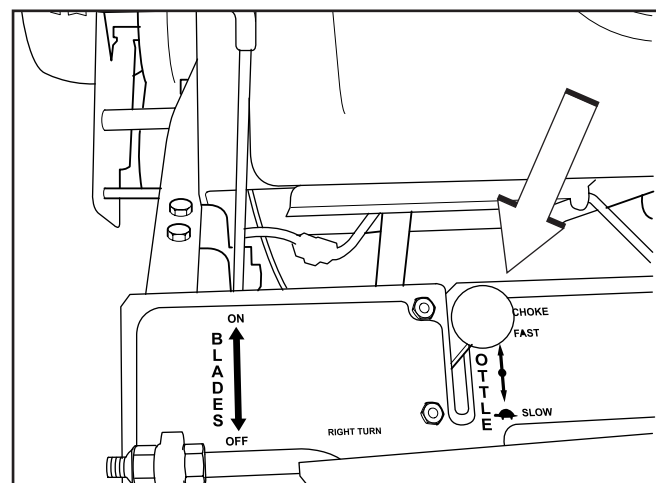
Throttle Control

The throttle control regulates the engine speed and thereby the rate of rotation of the blades, assuming the control for engaging the mower deck is pulled forward.

In order to increase or decrease the engine speed, the control is moved forward or backward respectively.

Avoid idling the engine for long periods, as there is a risk of the spark plugs fouling.

For best mower performance, USE FULL THROTTLE WHEN MOWING.



8061-682

Choke control/throttle control lever

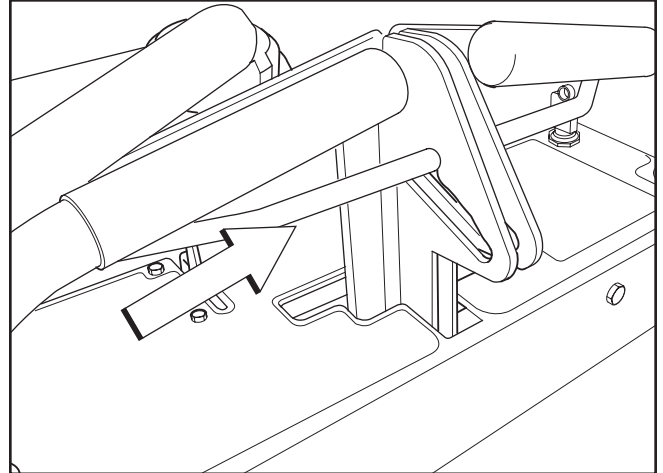
CONTROLS

Neutral Bail

The neutral bail keeps the unit from moving while idling. The bail will lock the drive levers in neutral position and must be activated when starting the engine.

Parking Brake

The parking brake on gear drive machines is applied when neutral bail is in lock position.



8011-477

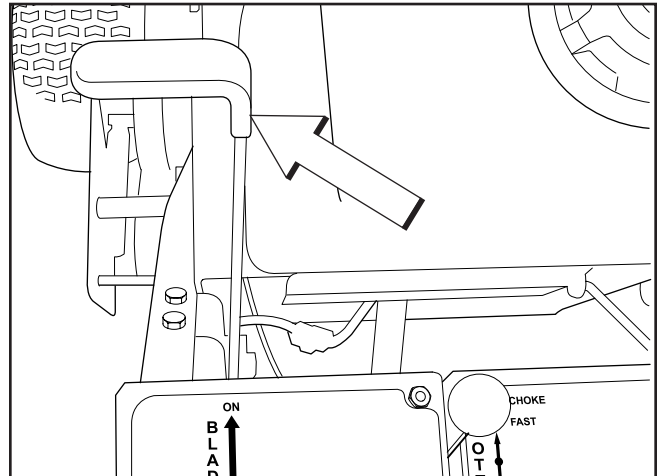
Neutral bail

Blade Engagement Lever

The blade engagement lever is on the left support by the control panel.

In order to engage the blades, push the lever forward. The blades are disengaged when the lever is pulled backward.

The blade engagement lever needs to be adjusted so the lever does not come in contact with control panel when the lever is in the off position.



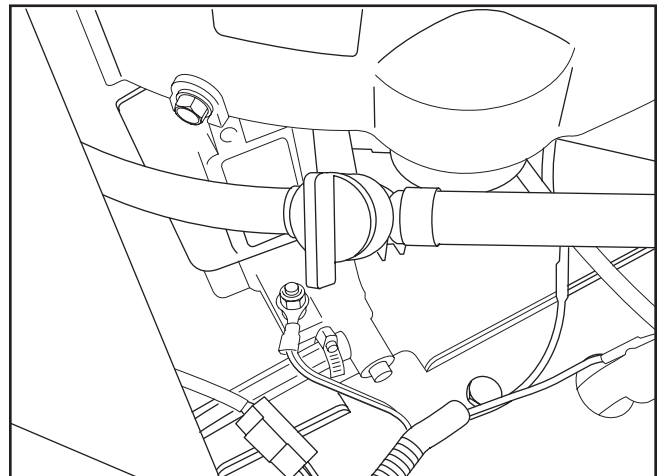
8011-682

Blade engagement lever

Refueling

Fuel Shut-off Valve

The fuel shut off valve is placed on the fuel line below the fuel tank. The valve has two positions; ON and OFF. The illustration shows the valve in the closed (OFF) position.



8011-437

Fuel shut off valve - closed (OFF)

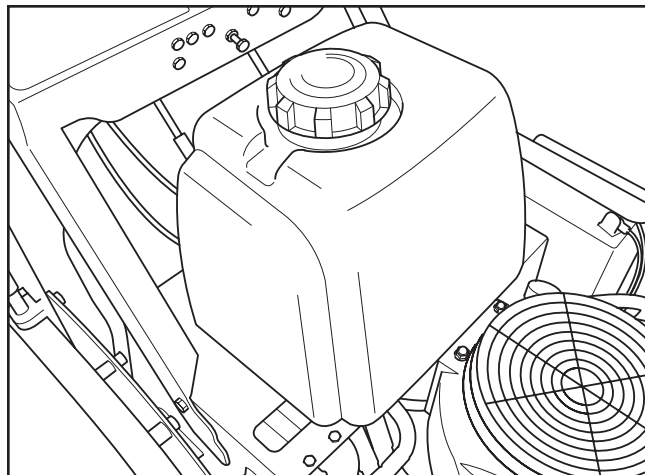
CONTROLS

Fuel Tank

The machine has one fuel tank. The tank volume is 5.3 gallons / 20 liters.

The engine should run on a minimum of 87-octane unleaded gasoline (no oil mix). Also see Technical Data concerning methanol and ethanol fuels.

When operating in temperatures below 32° F. (0° C.), use fresh, clean winter grade gasoline to help insure good cold weather starting.



8011-418

Fuel tank



WARNING!

Gasoline is highly flammable. Observe caution and fill the tank outdoors (see the safety instruction).



WARNING!

The engine and the exhaust system, become very hot during operation.

Risk for burns if touched.

Allow engine and exhaust system to cool at least two (2) minutes before refueling



WARNING!

Fill to bottom of filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

IMPORTANT INFORMATION

Experience indicates that alcohol blended fuels (called gasohol, ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel the next season. See Storage Instructions for additional information. Never use engine or carburetor cleaners in the fuel tank or permanent damage may occur.

Accessories

For mulching, there is a BioClip attachment available. This is mounted underneath the mower deck and consists of control plates and BioClip blades.

OPERATION

Before Starting

- Read the sections on Safety and Controls before starting the machine.
- Perform the daily maintenance before starting (see Maintenance Schedule).
- Check that there is sufficient fuel in the fuel tank.

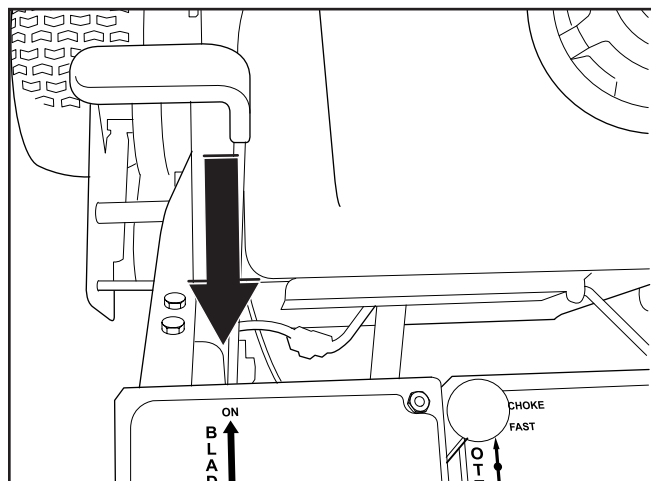
The following conditions must be fulfilled before the engine can be started:

- The control for engaging the blades must be in disengaged position.



WARNING!

Be thoroughly familiar with control operation and function before using the mower.



8011-474

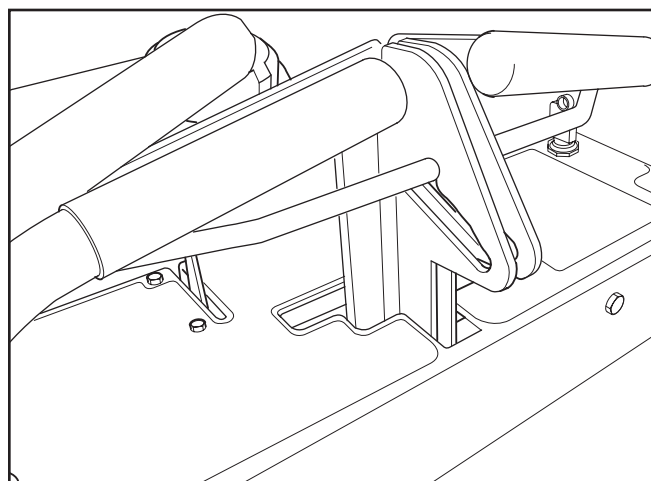
Disengage blades by pulling lever back

- The neutral bail for the motion control levers must be in locked position.



WARNING!

Do not operate the mower if the interlock safety system allows operation or starting in any unsafe condition.



8011-477

Neutral lock bail

OPERATION

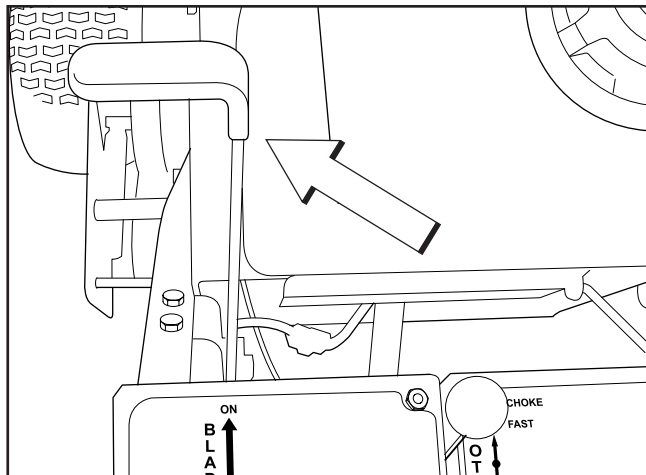
Starting the Engine



WARNING!

Do not run the engine indoors, in enclosed or poorly ventilated spaces. Engine exhaust fumes contain poisonous carbon monoxide.

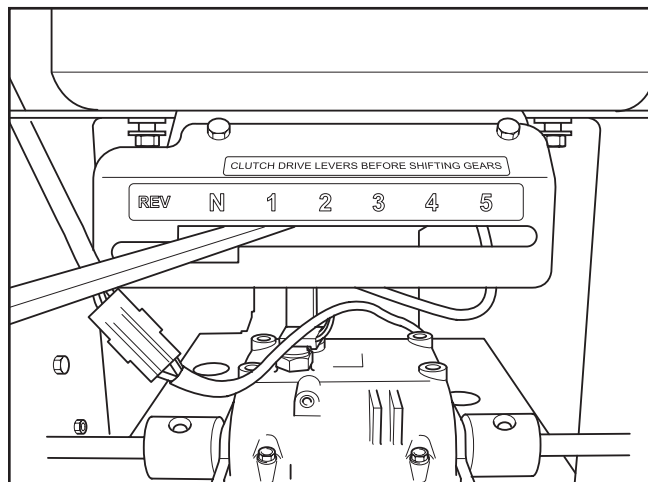
Move blade engagement lever to the OFF position, so the interlock will allow engine to start.



8011-474

Blade engagement lever

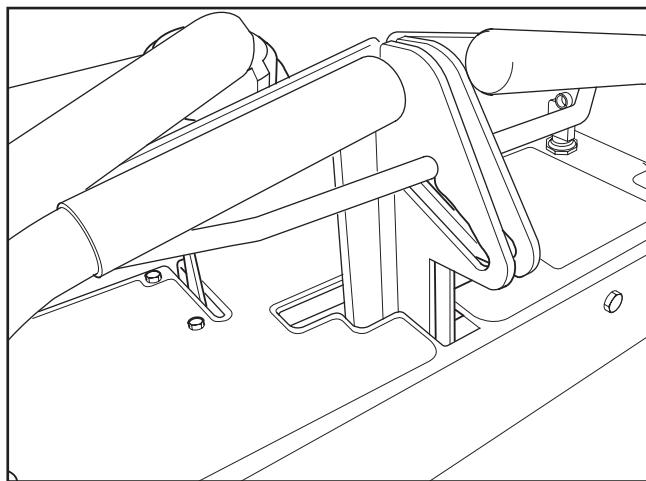
Check gear shift lever to be sure it is in the neutral position.



8011-482

Gear shift lever

While on level terrain, squeeze both motion control levers and lift up on the neutral bail to lock it into the neutral lock position. This will ensure that the mower is braked.

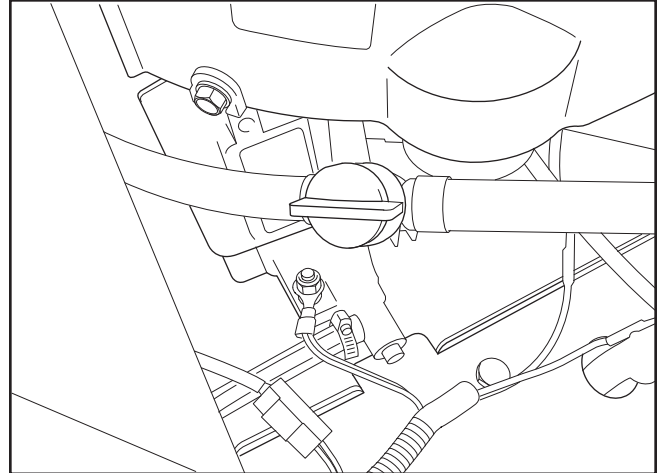


8011-477

Neutral bail in the neutral lock position

OPERATION

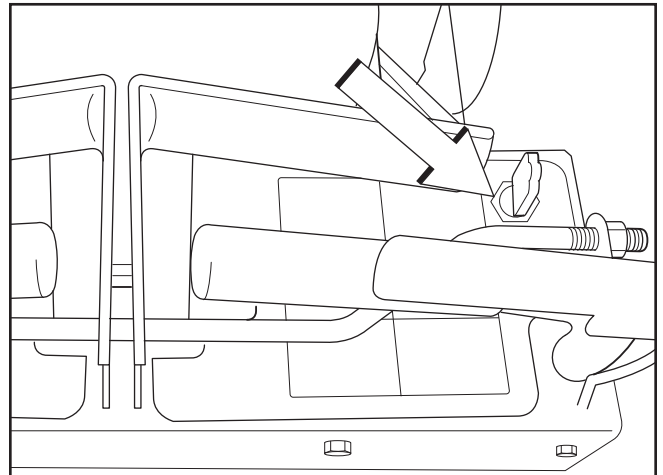
Open fuel shut-off valve.



8011-438

Fuel shut off valve - open

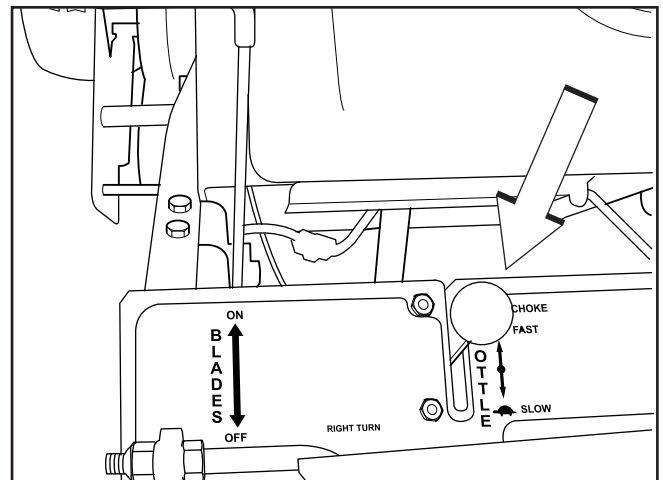
Turn ignition key to ON position.



8011-438

Ignition key

Set throttle control and engage the choke (if needed).
Do not use choke when the engine is warm.



8061-682

Choke control/throttle control lever

OPERATION

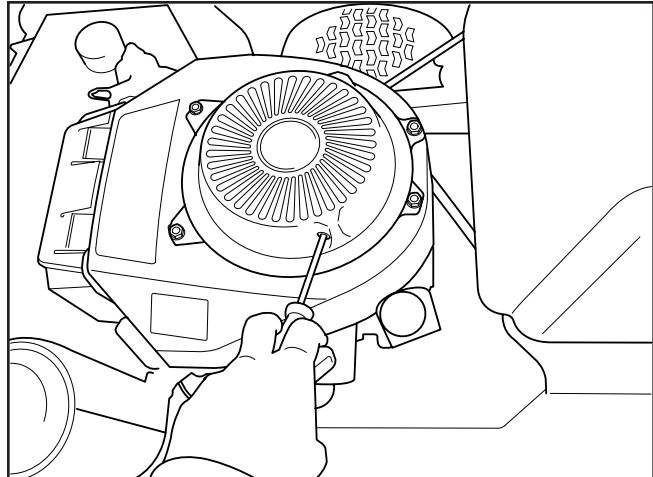
IMPORTANT INFORMATION

Do not let the recoil cord snap back by itself. This may damage the cord or the recoil starter assembly.

Pull the recoil starter grip slowly until you feel compression, then pull it briskly.

If the engine won't start in three pulls, open the choke and try again.

Warm engine momentarily, then disengage the choke until engine runs smoothly, approximately half throttle.



8011-476

Recoil starter grip



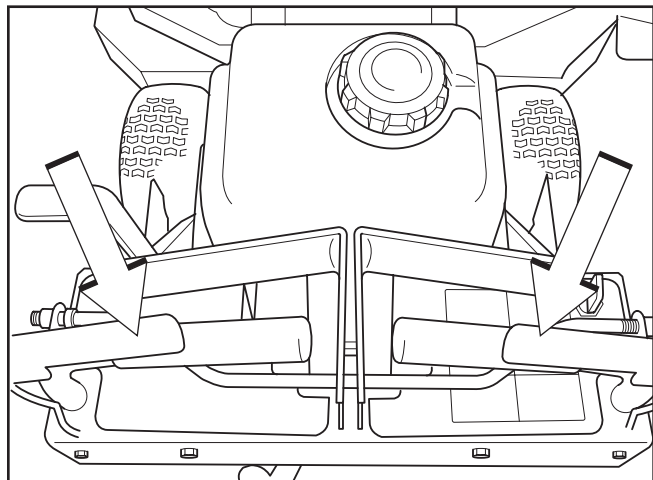
WARNING!

Be sure all persons are clear of area before engaging the blades.

IMPORTANT INFORMATION

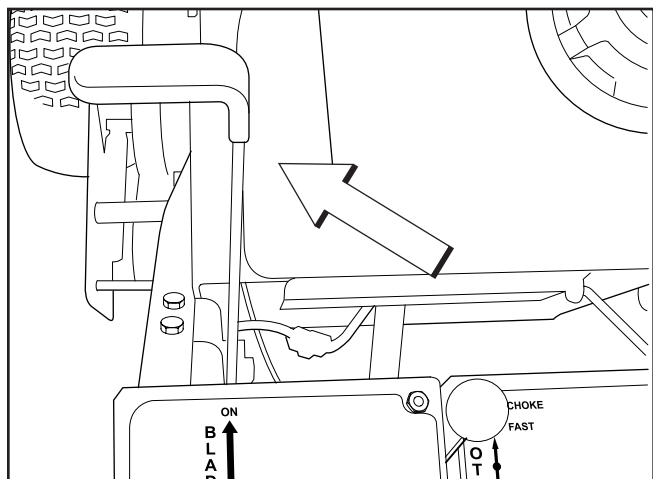
To prolong spindle bearing clutch and belt life, engage and disengage the blades at approximately half throttle.

Depress one operator presence lever. Engage the blades and set the desired rpm. The best cutting and bagging is obtained with engine at top rpm. Grip motion control levers before shifting gears.



8011-478

Motion control levers



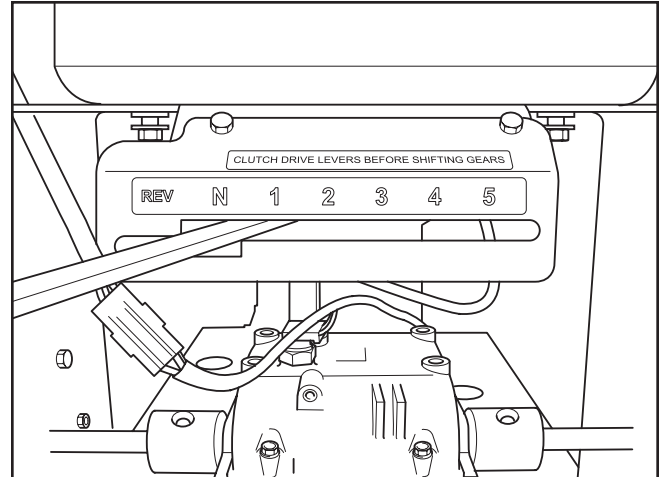
8011-474

Blade engaged

OPERATION

Gearbox

The gear drive machines have a 5-speed gearbox. The gear selector is placed under the control panel. Only shift gear when the machine is standing still and on level ground.

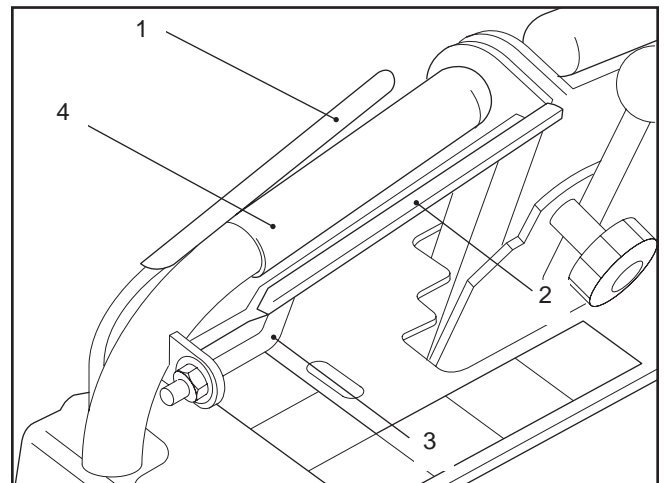


8011-482

Running

1. Depress one operator presence lever and shift transmission to the desired gear.
 2. Unlock the motion control levers by pushing the neutral bail down, out of the neutral slots. Slowly release both levers at the same time to begin forward motion.
- The steering system of this mower uses individual right and left motion control levers on the handle bars. Squeezing the lever will reduce tension on the wheel drive belt, eliminating power to that wheel. With the opposite wheel still under power, a turn is accomplished. If the motion control lever is squeezed even tighter the brake will be applied to that wheel and a tighter more abrupt turn is accomplished. Turn left by squeezing the left hand lever or turn right by squeezing the right hand lever. If you squeeze both levers the mower will stop.

Gear shift lever



8011-482

1. Operator Presence Lever
2. Drive Lever
3. Neutral Bail
4. Handle

Handle with bail in neutral position

OPERATION

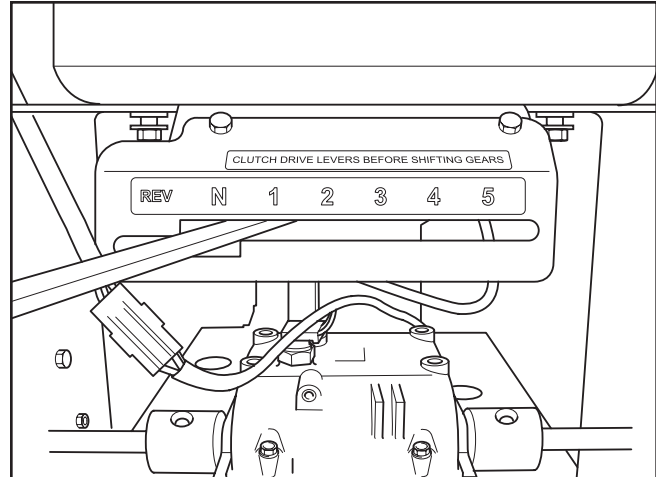
Reverse

Depress one operator presence lever and shift transmission to the reverse gear. Grip motion control levers before shifting gear.



WARNING!

**Do not drive up or down hills with slopes greater than 10 degrees.
Do not drive across slopes.**



Gear shift lever

8011-482

Operating on hills

To operate on slopes is a dangerous mowing job. Read the Safety Instructions section "Driving on Slopes".

- The slowest speed possible should be used before starting up or down hills.
- Avoid stopping or changing speed on hills.
- Make all turns slowly.

OPERATION

Stopping

Emergency stop

Release both hands from the operate presence lever handles. When both operator presence levers return to their outer position, the engine will quit and the mower will stop.

OR

Pull both drive levers firmly against handle grips and hold them securely in place. Use thumbs to lift the neutral bail up into the neutral slot. Stop engine by pulling throttle control back and then shut off the key switch.

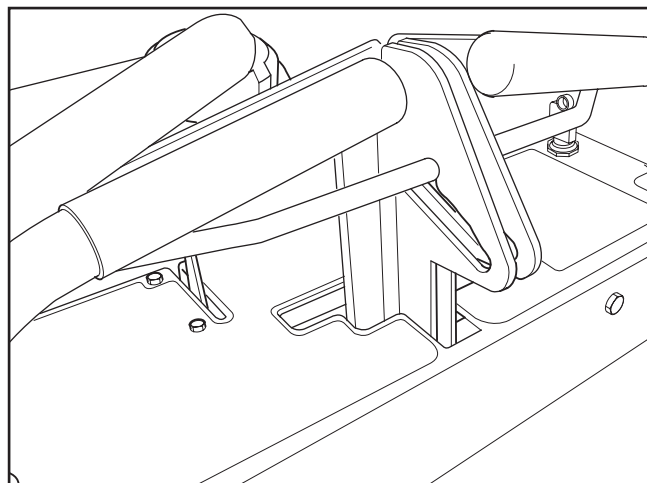
Normal operating stop

- Pull both drive levers (traction levers) firmly toward the handle grips to stop forward motion.
- Use thumbs to lift neutral bail into the neutral slots.
- Move the throttle control to the slow position.
- Move blade engagement control to the off position.
- Move shift lever to the neutral position.
- Stop engine.

Stopping the Engine

If the engine has been worked hard, allow it to idle a minute in order to attain normal operating temperature before stopping it. Avoid idling the engine for longer periods, as there is a risk of the spark plugs fouling.

When the machine is standing still, set the neutral bail in the lock position.

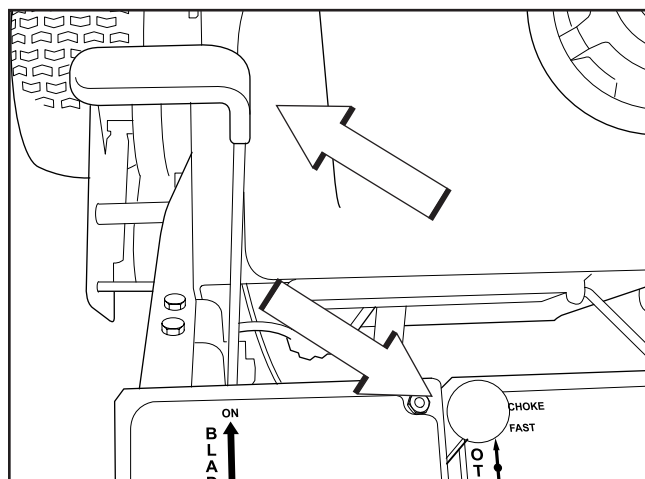


8011-477

Neutral bail in the neutral lock position

Disengage the blades by pulling the blade engagement lever back.

Move the throttle to the minimum position (tortoise symbol). Turn the ignition key to the stop position.



8011-474

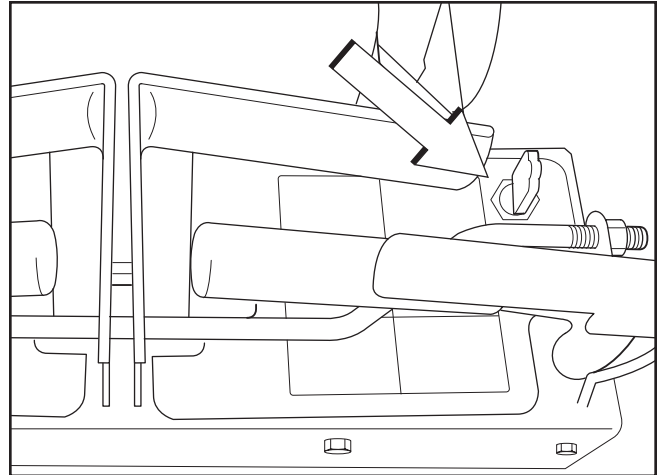
Blade engaged

OPERATION

Remove the ignition key.

IMPORTANT INFORMATION

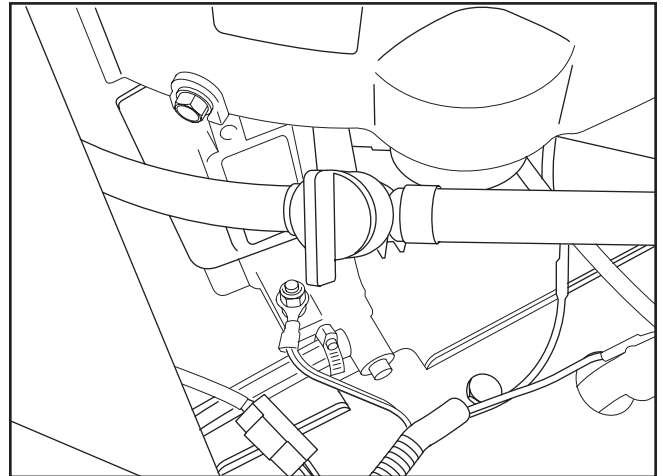
Close fuel valve at the end of each mowing session.



Ignition key

8011-438

Shut OFF the fuel valve.

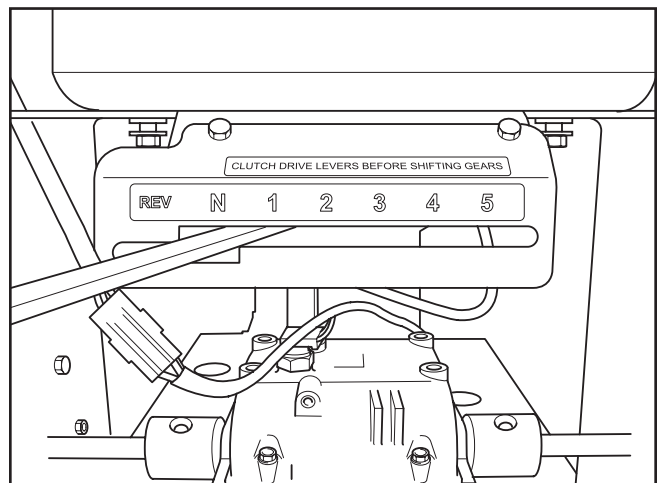


Fuel shut off valve - closed (OFF)

8011-437

Manual Transport

To move the machine with the engine turned off, make sure the gear shift lever is in the neutral position and the motion control levers are not in the locked position. The locked position is used when the machine is parked.



Gear shift lever

8011-482

OPERATION

Cutting Height Adjustment

The cutting height can be adjusted by three methods:

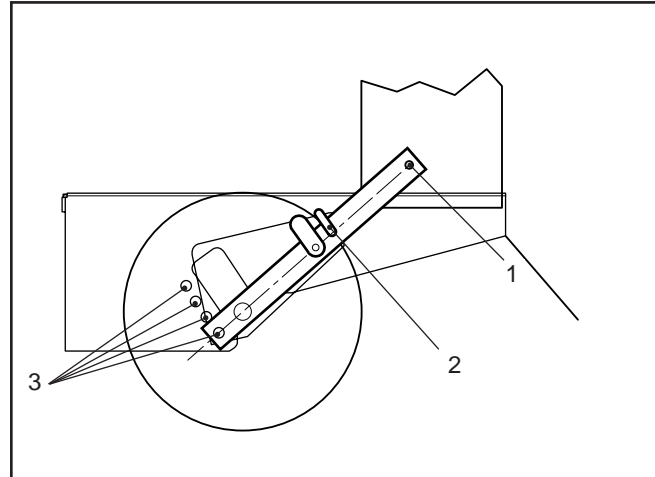
- Moving spacers between the upper side and the lower side of the caster swivel according to "Cutting Height Table". For instruction, see below.
- Moving spacers between the upper side and the lower side of the blades according to "Cutting Height Table". For removing and installing blades, refer to "Blade replacement".
- Rear axle height adjustment according to the following instruction.
 1. Stop engine and place motion control levers in the neutral lock position. Remove spark plug wires.
 2. Remove lower belt shield from underside of rear deck for better access to axle adjustment bolts.
 3. Loosen axle pivot bolts and axle adjustment bolts. See illustration.
 4. Place a jack under center of rear deck. Raise the jack slightly so axle adjustment bolts may be removed.
 5. With the jack, raise or lower the rear deck to the desired position using the chart to ensure proper height.
 6. Reinstall the axle adjustment bolts and tighten. A tapered punch may be used to help align the holes.
 7. Using the "Cutting Height Table", find the correct number of spacers to be placed under the caster swivel.
 8. Remove the lynch pin and washer from the top of the caster and reposition spacers to the desired cutting height from the table. See illustration.

IMPORTANT INFORMATION

It may be necessary to readjust drive and brake linkages.

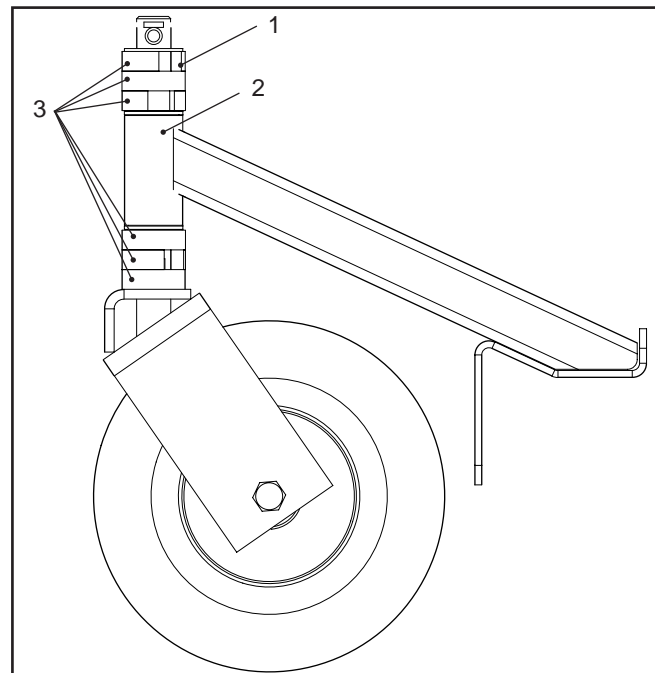
IMPORTANT INFORMATION

To achieve the best quality cut, the blades should be level with the ground or slightly tipped forward.



8011-482

1. Axle pivot bolt
 2. Securing bolts (loosen each side)
 3. Axle adjustment bolts
- Rear axle height adjustment*



8011-405

1. Machinery bushing
 2. Caster swivel
 3. Spacers, 1/2"
- Rear axle height adjustment*

OPERATION

Cutting Height Table

Axle Position	Spacer Below Caster Arm	Blade Spacers Under Cutter Housing	Cutting Height
A	0	4	1½" (38mm)
		3	1¾" (44mm)
		2	2" (51mm)
		1	2¼" (57mm)
		0	2½" (64mm)
	1	4	1¾" (44mm)
		3	2" (51mm)
		2	2¼" (57mm)
		1	2½" (64mm)
		0	2¾" (70mm)
B	2	4	2½" (64mm)
		3	2¾" (70mm)
		2	3" (76mm)
		1	3¼" (83mm)
		0	3½" (89mm)
	3	4	3" (76mm)
		3	3¼" (83mm)
		2	3½" (89mm)
		1	3¾" (95mm)
		0	4" (102mm)
C	3	4	3¼" (83mm)
		3	3½" (89mm)
		2	3¾" (95mm)
		1	4" (102mm)
		0	4¼" (108mm)
	4	4	3½" (89mm)
		3	3¾" (95mm)
		2	4" (102mm)
		1	4¼" (108mm)
		0	4½" (114mm)
D	4	4	3¾" (95mm)
		3	4" (102mm)
		2	4¼" (108mm)
		1	4½" (114mm)
		0	4¾" (121mm)
	5	4	4" (102mm)
		3	4¼" (108mm)
		2	4½" (114mm)
		1	4¾" (121mm)
		0	5" (127mm)

MAINTENANCE

Maintenance Schedule

The following is a list of maintenance procedures that must be performed on the machine. For those points not described in this manual, visit an authorized service workshop. An annual service carried out by an authorized service workshop is recommended to maintain your machine in the best possible condition and to ensure safe operation.

Read "Maintenance" in the Safety Instructions section.

1) First change after 5-8 hours. When operating with a heavy load or at high ambient temperatures, replace every 50 hours. 2) In dusty conditions, cleaning and replacement are required more often. 3) For daily use, the machine should be lubricated twice weekly. 4) Performed by authorized service workshop.

● = Described in this manual

○ = Not described in this manual


Maintenance	Daily		Weekly	At least once each year	Maintenance interval in hours			
	Before	After			25	50	100	300
Check the parking brake	●							
Check the engine's oil level (every refueling)	●							
Check the safety system	●							
Check for fuel and oil leakages	○							
Check/clean the engine's cooling air intake		●						
Check the mower deck		●						
Check for loose hardware (screws, nuts)		●						
Clean under the mower deck		●						
Start the engine and blades, listen for unusual sounds		○						
Check for damage		○						
Thoroughly clean around the engine		○						
Clean around belts, belt pulleys		○						
Check the tire pressures					●			
Check battery					●			
Sharpen/Replace mower blades					●			
Clean the engine's cooling air intake ²⁾				●	●			
Clean the air cleaner's pre-filter ²⁾ (foam)				●	●			
Clean the air cleaner's filter cartridge ²⁾ (paper filter)				●		●		
Check/adjust the parking brake				○		○		
Inspect muffler/Spark arrester				○		○		

MAINTENANCE

Maintenance	Daily		Weekly	At least once each year	Maintenance interval in hours			
	Before	After			25	50	100	300
Check/adjust throttle and choke cables				●			●	
Check the condition of belts, belt pulleys				●			●	
Change the engine oil ¹⁾				●		●		
Replace the engine oil filter				●			●	
Clean/replace the spark plugs				●			●	
Replace the fuel filter				●			●	
Replace the air filter (paper filter) ²⁾				●			●	
Check the caster wheels (every 200 hours)							●	
Replace the air cleaner's pre-filter ²⁾ (foam)				●				
Check/adjust the mower deck				●				●
Check the engine valve clearance ³⁾				○				○
Perform the 300-hour service ³⁾				○				○
Lubricate according to Lubrication Schedule				●	●	●	●	●
Check hydraulic oil at reservoir			●					
Change hydraulic oil & filter (200 hours)				●				
Clean fins of oil cooler				●			●	

¹⁾ First change after 5-8 hours. When operating with a heavy load or at high ambient temperatures, replace every 50 hours. ²⁾ In dusty conditions, cleaning and replacement are required more often. ³⁾ Performed by authorized service workshop.

- = Described in this manual
- = Not described in this manual



WARNING!

Before performing any service or adjustment checklist

- Turn the ignition switch to "OFF" position and remove the key.
- Make sure the blades and all moving parts have completely stopped.

MAINTENANCE

Ignition System

The engine is equipped with an electronic ignition system. Only the spark plugs require maintenance.

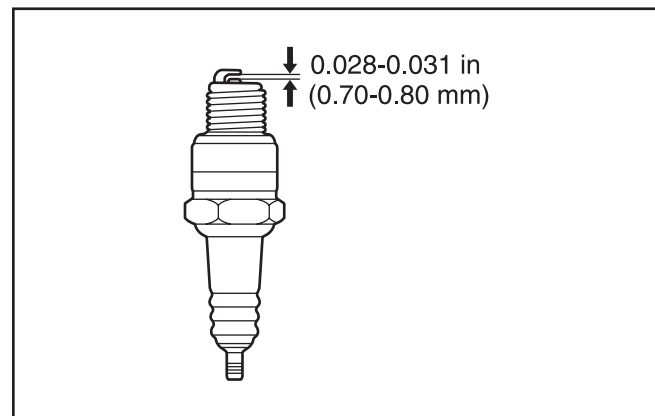
For recommended spark plugs, see Technical Data.

1. Remove the ignition cable boot and clean around the spark plug.
2. Remove the spark plug with a spark plug socket wrench.
3. Check the spark plug. Replace the spark plug if fouled, the electrodes are burned or if the insulation is cracked or damaged. Clean the spark plug with a steel brush if it is to be reused.
4. Measure the electrode gap with a gapping tool. The gap should be .030" (0.75 mm). Adjust as necessary by bending the side electrode.
5. Reinsert the spark plug, turning by hand to avoid damaging the threads.
6. After the spark plug is seated, tighten it using a spark plug wrench so that the washer is compressed. A used spark plug should be turned $\frac{1}{8}$ of a turn from the seated position. A new spark plug should be turned a $\frac{1}{4}$ turn from the seated position.
7. Reconnect the ignition cable.

IMPORTANT INFORMATION

Fitting the wrong spark plug type can damage the engine.

Inadequately tightened spark plugs can cause overheating and damage the engine. Tightening the spark plugs too hard can damage the threads in the cylinder head.



8011-054

Measure the electrode gap

MAINTENANCE

Safety System

The machine is equipped with a safety system that prevents starting or driving under the following conditions.

The engine can only be started when:

1. The blades are disengaged.
2. The neutral bail must be in the locked position.

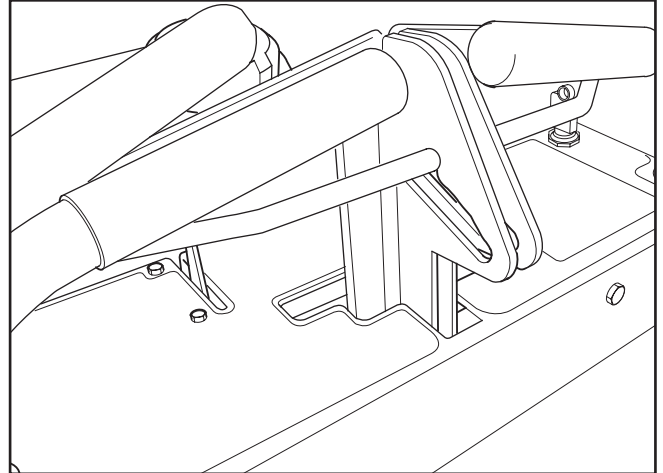
Make daily inspections to ensure that the safety system works by attempting to start the engine when one of the conditions is not met.

If the machine starts when one of these conditions is not met, turn the machine off and repair the safety system before using the machine again.

Function Check

Check the function of the safety electrical system on a regular basis.

1. Engine must stop if blades are engaged without operator presence levers held down.
2. Engine must stop if transmission is taken out of neutral without holding down operator presence levers.
3. Engine must not start unless blades are off and transmission is in the neutral position.



Neutral bail in the neutral lock position

8011-477



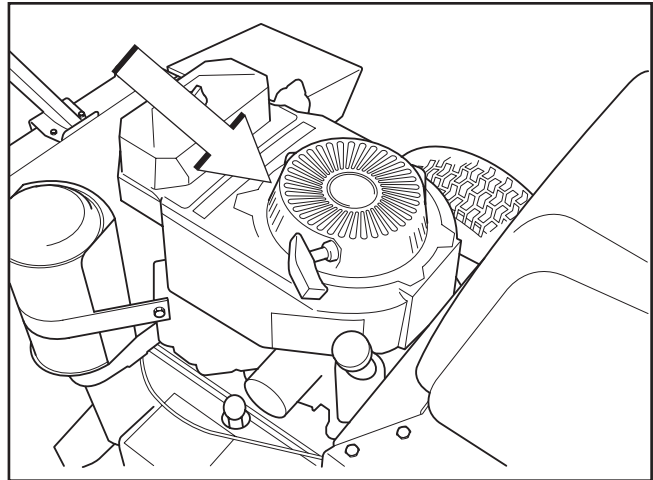
WARNING!

Do not operate the mower if the interlock safety system allows operating or starting in any unsafe condition.

MAINTENANCE

Engine Cooling Air Intake

Check that the engine's cooling air intake is free from leaves, grass, and dirt. If the cooling air intake is clogged, engine cooling deteriorates, which can lead to engine damage.



8011-783

Check and clean the cooling air intake

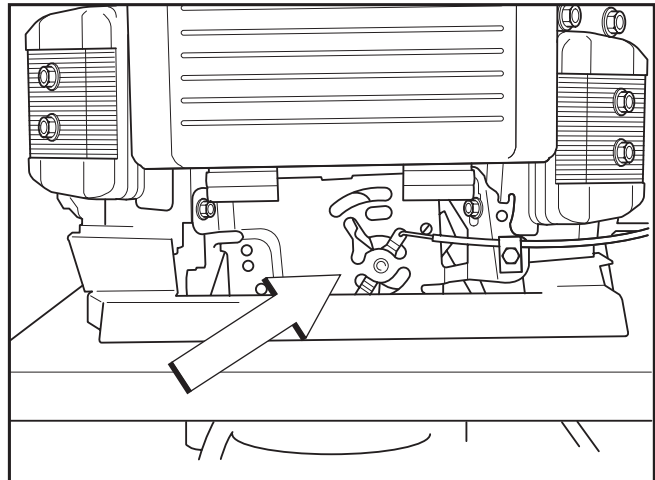
Throttle and Choke Cable

Check that the engine responds to throttle increases and that a good engine speed is attained at full throttle.

If doubts arise, contact the Husqvarna service workshop.

If adjustments are necessary, they can be made as follows for the cable:

1. Loosen the clamping screw for the cable's outer casing.
2. Check that the throttle cable is mounted in the correct hole in the lever.
3. Set the throttle lever at full throttle with no choke.
4. Align the hole in the speed control lever with the hole in the base plate by moving the lever. Insert a 6 mm dia pin (or a screw) through the two holes.
5. Pull up the outer housing of the throttle cable until the inner wire has almost no slack and tighten the clamping screw.
6. Remove the 6 mm pin.
7. Make sure that the carburetor choke valve is closed completely when the throttle lever is moved to choke position.
8. Check engine idle speed.



8011-485

Adjusting the throttle cable

MAINTENANCE

Air Filter Maintenance

If the engine seems weak or runs unevenly, the air filter may be clogged. If run with a dirty air filter, the spark plugs can become fouled and operation is disrupted.

It is important to replace the air filter regularly (see the heading Maintenance Schedule for the proper service interval).



WARNING!

The engine and the exhaust system become very hot during operation. Risk for burns if touched.

Allow engine and exhaust system to cool at least two (2) minutes.

To clean/replace the air filter:

1. Depress the two tabs.
2. Remove the air filter cowl.

IMPORTANT INFORMATION

Do not use compressed air to clean the air filter.

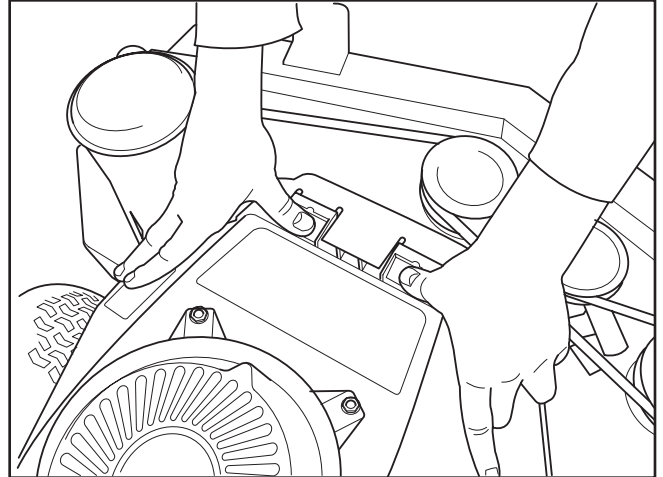
Do not wash the paper filter.

Do not oil the paper filter.

3. Remove the paper filter.
4. Tap the paper filter on a solid surface to remove dust. Replace if dirt cannot be removed.
5. Remove the foam prefilter and clean using a mild detergent.
6. Squeeze it dry with a clean cloth.

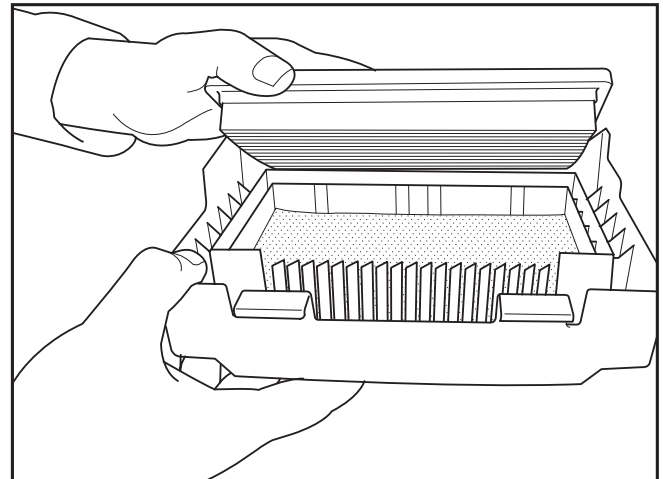
To refit the air filter:

7. Check that the paper filter is whole.
8. Mount the pre-filter under the paper filter. Mount the paper filter in the air filter cowl.
9. Install the filter cowl on the air filter housing.



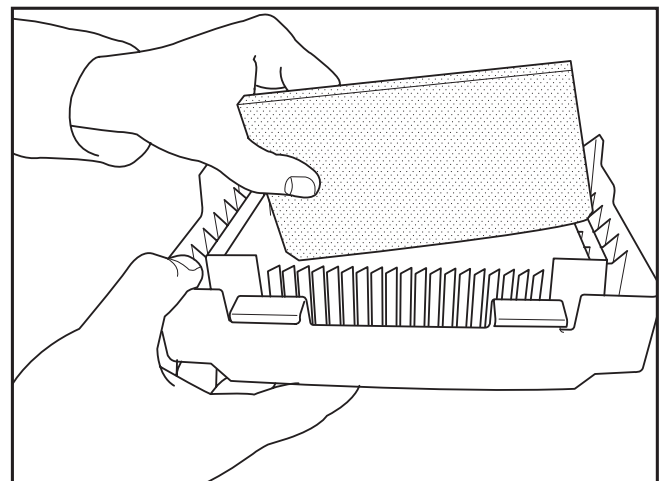
8011-486

Remove the air filter cowl



8011-487

Remove and clean the paper filter



8011-488

Remove and clean the prefilter

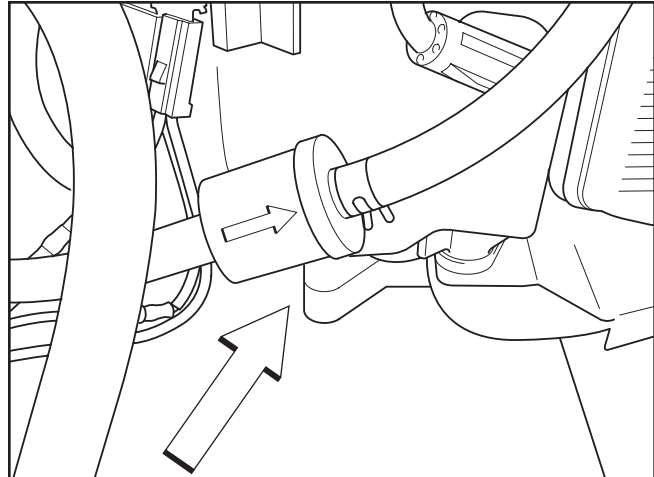
MAINTENANCE

Replacing the Fuel Filter

Replace the line-mounted fuel filter every 100 hours (once per season) or more regularly if it is clogged.

To replace the filter:

1. Move the hose clamps away from the filter. Use flat-nosed pliers.
2. Pull the filter loose from the hose ends.
3. Push the new filter into the hose ends. Position the filter with the "FLOW" arrow pointing up toward the fuel pump. If necessary, a soap solution can be applied to the filter ends to ease mounting.
4. Move the hose clamps back toward the filter.



8011-783

Check and clean the cooling air intake

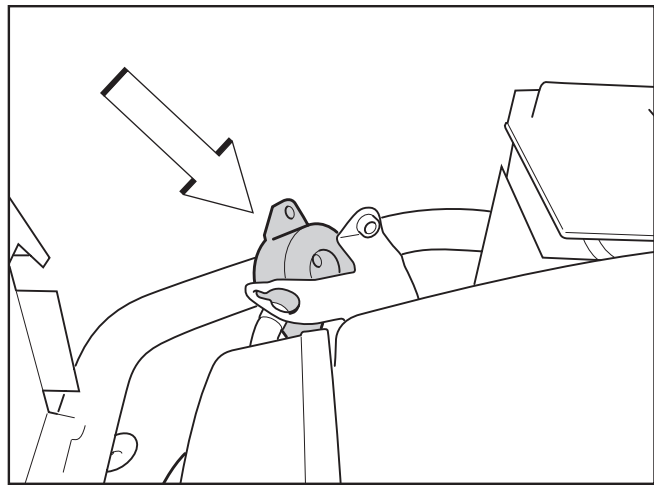
Fuel Pump Air Filter

Regularly check that the fuel pump's air filter is free from dirt.

Remove the screws and open the pump, no hoses need be removed.

The filter can be cleaned with a brush if necessary.

Replace the filter on the console.

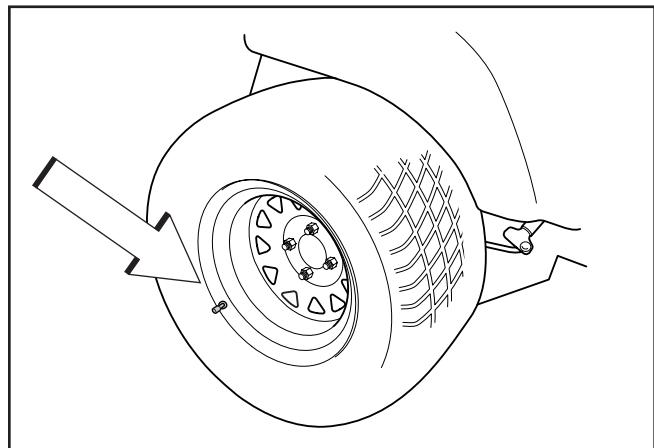


8009-147

Check fuel pump air filter

Tire Pressures

All tires should be at 15 psi / 103 kPa / 1 bar.



8011-564

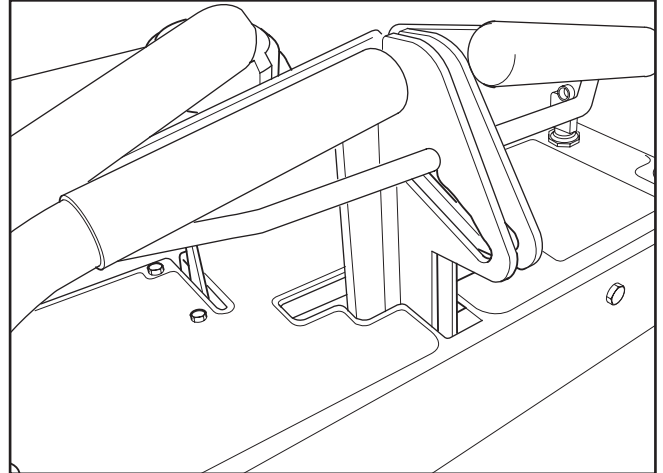
Tire pressures

MAINTENANCE

Parking Brake

Visually check that no damage is found on the neutral bail. Perform a test drive and check that there is sufficient braking action.

To adjust the handbrake, contact the service workshop if you are uncertain. Set the neutral bail in the neutral lock position. Tighten the wing nut. Check if the machine is braked, if not tighten the wing nut again.



8011-477

Neutral bail in the neutral lock position

V-belts

Deck belt

Check every 100 hours of operation. Check for severe cracking and large nicks.

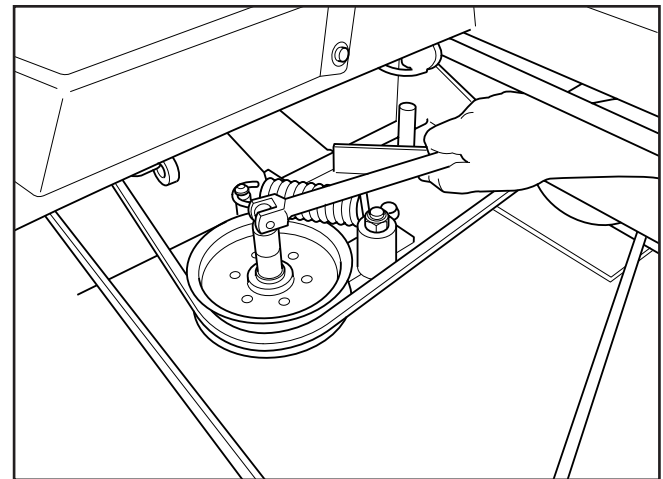
NOTE: The belt will show some small cracks in normal operation.

To replace belt, set deck to its lowest position. Remove the plate and belt shields.

Use a ratchet with a $\frac{9}{16}$ " socket on the spring idler bolt to relieve the tension on the belt. Slide the belt off the pulley and fully remove the belt.

Reverse the procedure for installation. See the decal on the top of deck for belt routing information.

After installation is complete check the belt for twists.



8011-775

Slacken the belt tensioner

MAINTENANCE

Cutting Blades



WARNING!

Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.



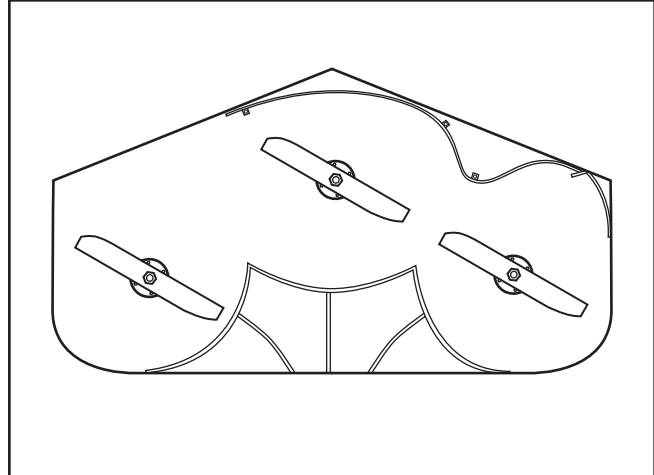
To achieve the best mowing effect, the blades must be well sharpened and not damaged.

Bent or cracked blades or blades with large nicks should be replaced.

Damaged blades should be replaced when hitting obstacles that result in a breakdown. Let the service workshop decide whether the blade can be repaired/ground or must be replaced.

Balance the blades after sharpening.

Check the blade mounts.



8011-604

Check the cutting blades

IMPORTANT INFORMATION

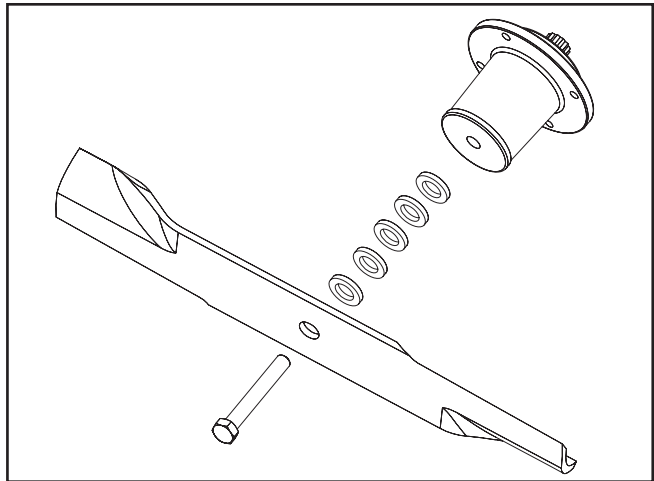
The sharpening of blades should be carried out by an authorized service workshop.

Blade replacement

Remove blade bolt by turning counterclockwise.

Install new or resharpened blade with stamped "GRASS side" facing towards ground/grass (down) or "THIS SIDE UP" facing deck and cutter housing.

Install and tighten blade bolt securely. Tighten torque 90 ft/lb (122 Nm).



8011-671-4

Blade attachment

IMPORTANT INFORMATION

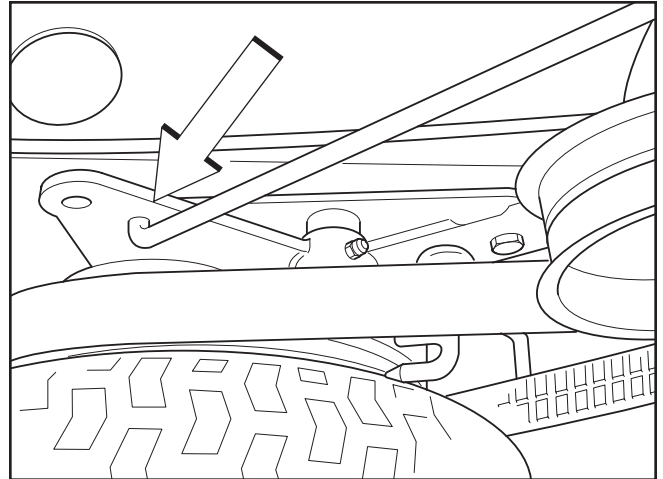
Special blade bolt is heat treated. Replace with a Husqvarna bolt if required. Do not use lower grade hardware than specified.

MAINTENANCE

Brake Rod Adjustment

The brake rod should be in the lower hole on the brake arm. Make sure the rod is properly installed.

To increase braking, turn the wing nut down on the rod. Do not turn the wing nut down too far as this will result in a constant braking action and will excessively wear the brake lining and cause premature failure.



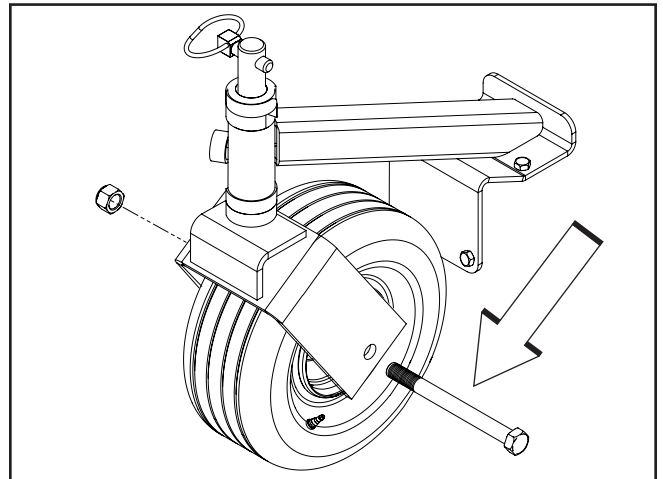
8011-774

Brake rod position

Caster Wheels

Check every 200 hours. Lift front of unit off of ground so caster wheels can rotate freely. Tighten caster bolt then loosen $\frac{1}{2}$ turn. Check that wheel rotates freely. If wheel does not rotate freely, loosen the caster bolt in $\frac{1}{4}$ turn increments until wheel rotates freely.

Foam filled tires or solid tires will void the warranty.



8011-619-2

Caster wheel

Cleaning

Under side of rear deck

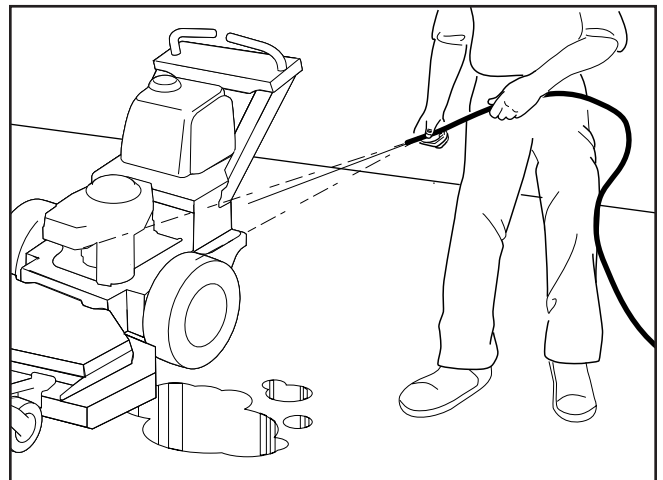
Remove grass and debris.

Washing

Regular cleaning and washing, especially under the mower deck, will increase the machine's lifespan. Make it a habit to clean the machine directly after use, before the dirt sticks. Do not spray high pressure water directly on the top of the deck.

Hardware

Check daily. Inspect the entire machine for loose or missing hardware.



8011-639-01

Regularly clean deck

LUBRICATION

Lubricating the Cables

If possible, grease both ends of the cables and move the controls to end stop positions when lubricating. Refit the rubber covers on the cables after lubrication. Cables with sheaths will bind if they are not lubricated regularly. If a cable binds, it can disrupt operation.

If a cable binds, remove the cable and hang it vertically. Lubricate it with light engine oil until the oil begins to escape from the bottom.

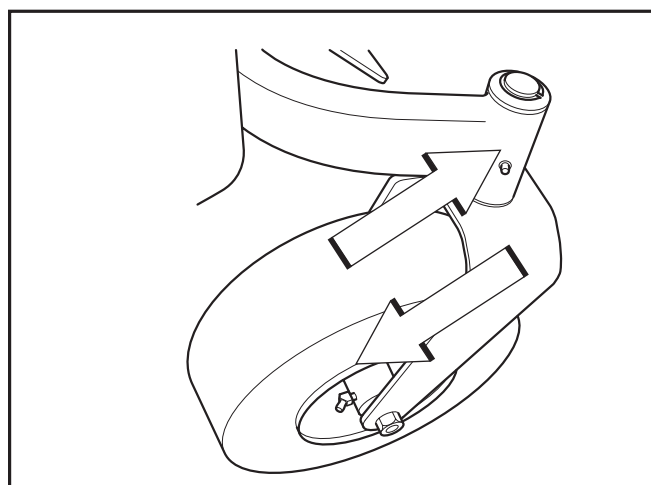
Tip: Fill a small plastic bag with oil and tape it so that it seals against the sheath and allow the cable to hang vertically from the bag overnight. If you do not succeed in lubricating the cable, it must be replaced.

1. Front Wheel Mount

Lubricate with a grease gun, one zerk for each wheel mount, until the grease is forced out. Use only good quality bearing grease. Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

2. Front Wheel Bearings

Lubricate with a grease gun, one zerk for each set of wheel bearings, until the grease is forced out. Use only good quality disulphide grease.



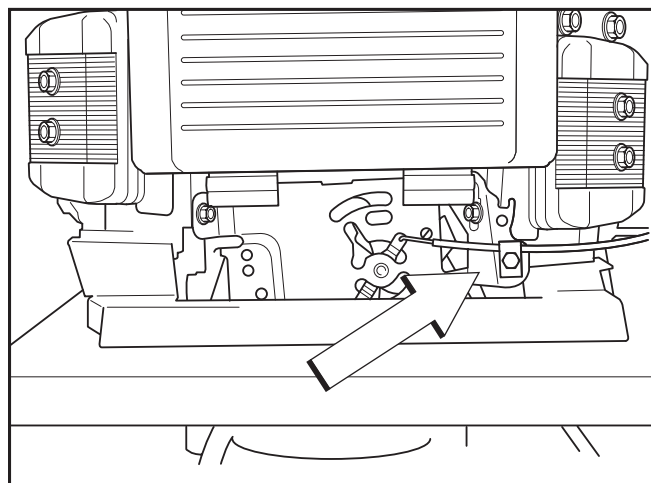
Lubricating the front wheels

8011-731

3. Throttle and Choke Cable, Lever Bearings

Lubricate the cable ends at the carburetor with the oil can. Move the controls to the end points and lubricate again.

The throttle cable is also lubricated at the control when the control console is removed.



Choke and throttle cable

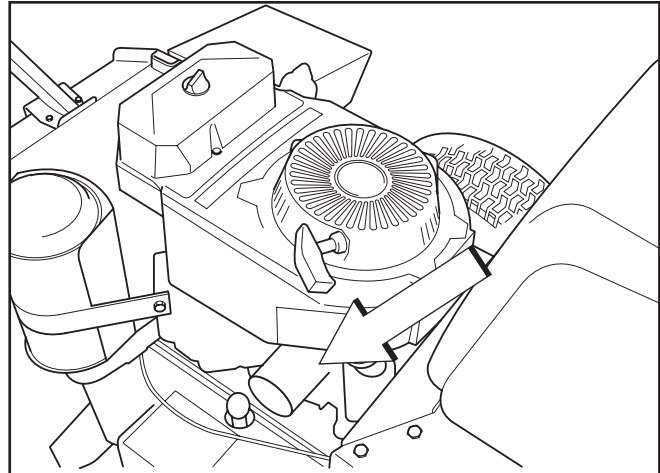
8011-485

LUBRICATION

Engine Oil

4. Engine Oil Filter

- Drain the engine oil in accordance with the work description under the heading Engine Oil/Change Engine Oil.
- Remove the oil filter. If necessary, use a filter remover.
- Wipe new, clean engine oil onto the seal for the new filter.
- Mount the filter by hand with $+\frac{3}{4}$ turn.
- Run the engine warm, then check that there are no leaks around the oil filter seal.
- Check the oil level in the engine, fill if necessary. The oil filter holds 0.1 qt (0.1 liters) of oil.



Changing the oil filter

8011-734



WARNING!

Engine oil can be very hot if it is drained directly after stopping the engine. Allow the engine to cool to a safe temperature first.

IMPORTANT INFORMATION

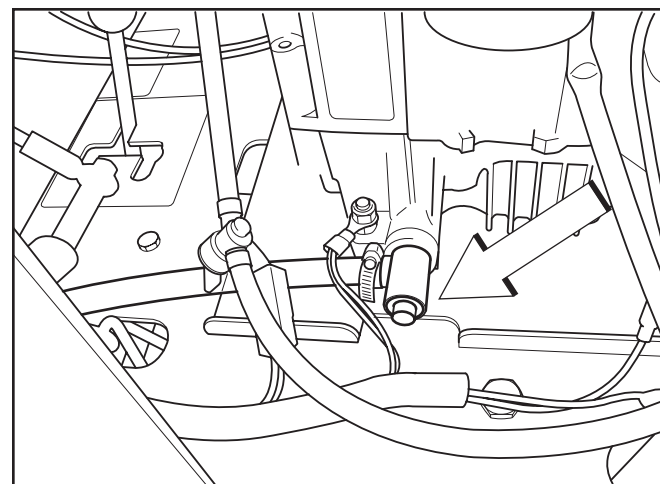
Used engine oil is a health hazard and must not be disposed of on the ground or in nature; it should always be disposed of at a workshop or appropriate disposal location.

Avoid skin contact; wash with soap and water in case of spills.

5. Changing the Engine Oil

The engine oil should be changed for the first time after 8 hours of operation. Thereafter, it should be changed every 100 hours.

- Place the machine on a flat surface.
- Place a container under the engine where the oil drain valve exits.
- Remove the dipstick and open the valve cap.
- Allow the oil to run out into the container.
- Close the oil drain valve cap.
- Replace the oil filter if necessary.
- Fill with new engine oil in accordance with Checking the Oil Level.
- Start the engine. Run it for 3-5 minutes. Stop and recheck the oil level.



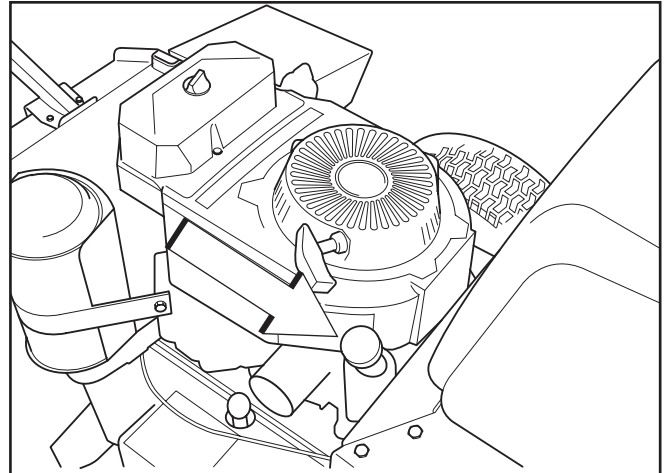
Oil drain valve

8011-451

LUBRICATION

Engine Oil Levels

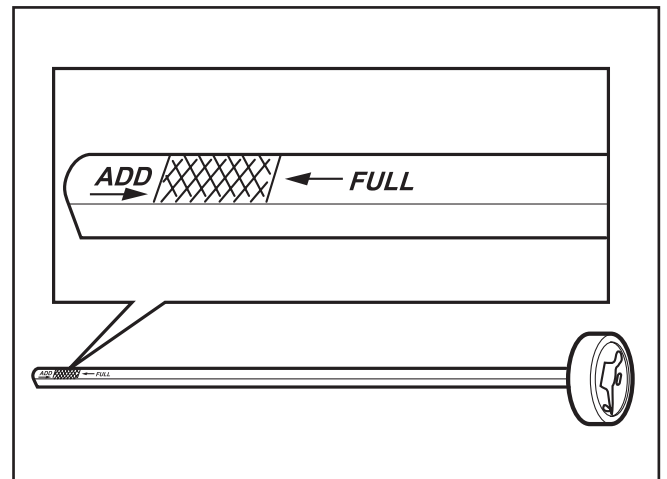
Check the oil level in the engine when the machine is standing level and the engine is stopped.
Remove the dipstick, wipe it clean, and then replace it.
The dipstick should not be screwed into place.
Take the dipstick out again and read the oil level.



8011-734

Remove the dipstick

The oil level should lie between the markings on the dipstick. If the level is approaching the "ADD" mark, fill the oil to the "FULL" mark on the dipstick.
Never fill to above the "FULL" mark.
The oil is filled through the hole for the dipstick.



8009-159

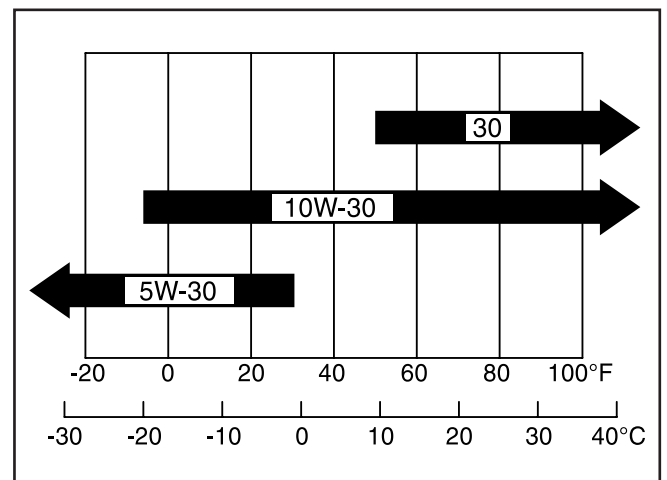
Dipstick markings

Engine oil SAE 30 or SAE10W-30 or alternatively, at 10W-40 class SF-SJ (over +32°F / 0°C).

Over 68°F / +20° SAE 40 can be used.

Use engine oil SAE 5W-20, class SF-SJ (under +32°F / 0°C).

The engine holds 1.6 qt (1.7 liters) of oil excluding the filter, including filter 1.7 qt (1.9 liters).



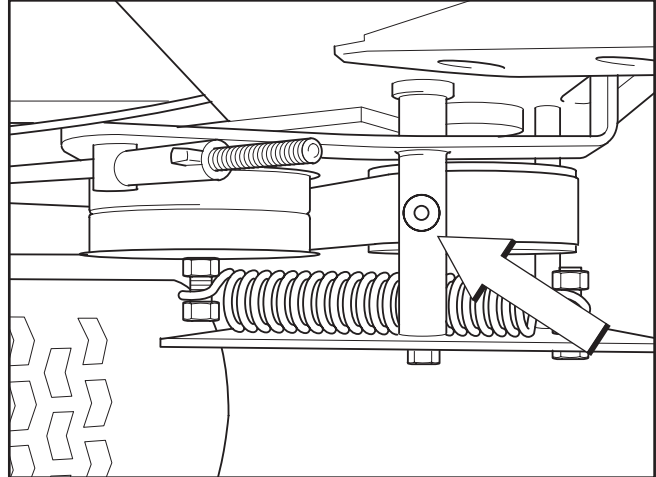
8009-159

Dipstick markings

LUBRICATION

6. Drive Wheel Idle Arm

Lubricate with a grease gun, one zerk for each arm, until the grease is forced out. Use only good quality molybdenum disulphide grease. Grease from well known brand names (petrochemical companies, etc.) usually maintains a good quality.

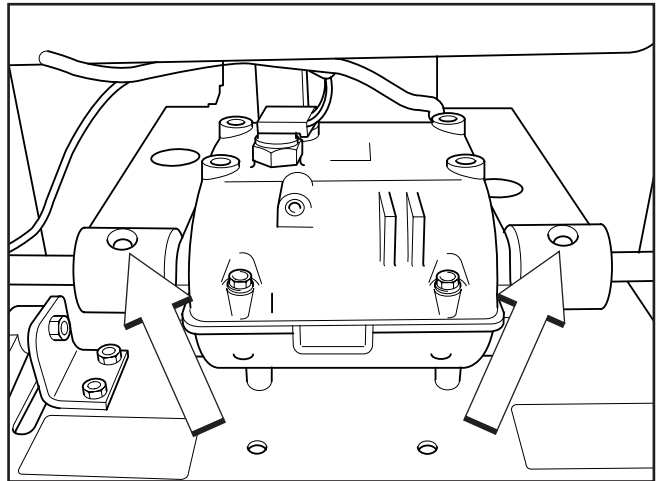


8011-495

Lubricating the drive wheel idler arm

7. Coupling

Lubricate with a grease gun, one zerk for each coupling, until the grease is forced out. Use only good quality molybdenum disulphide grease. Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

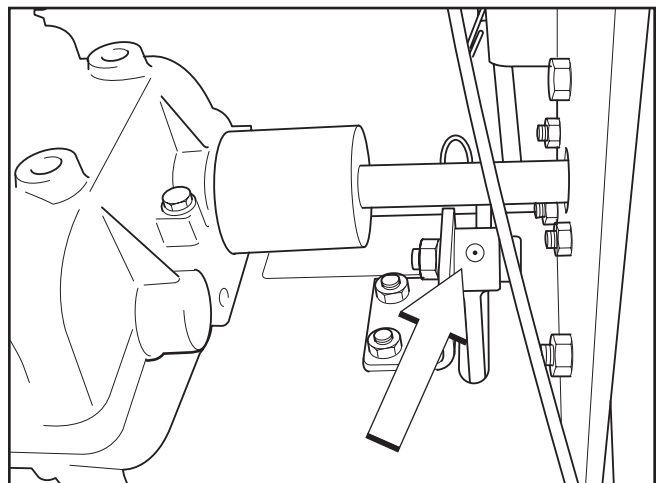


8011-494

Lubricating the coupling

8. Mower Deck Lever

Lubricate with a grease gun, one zerk for each lever, until the grease is forced out. Use only good quality molybdenum disulphide grease. Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-715

Lubricating the deck lever

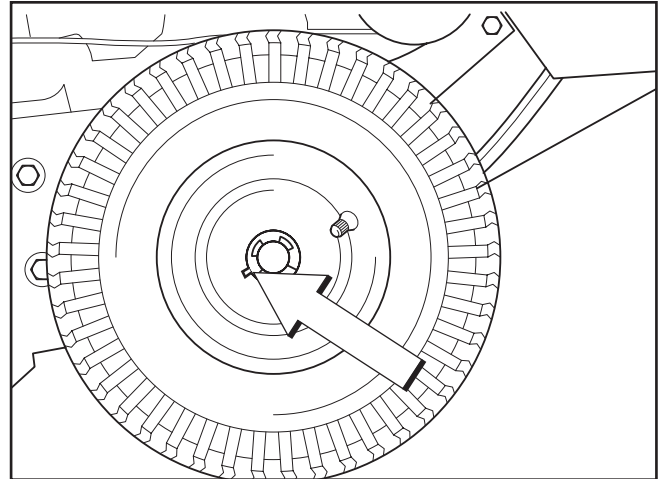
LUBRICATION

9. Rear Wheel

Lubricate with a grease gun, one zerk for each rear wheel, until the grease is forced out.

Use only good quality molybdenum disulphide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-716

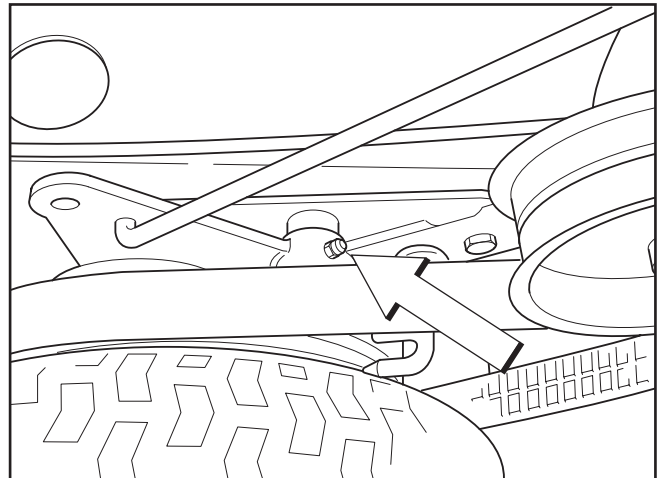
Lubricating the rear wheel

10. Brake Arms

Lubricate with a grease gun, one zerk for each brake arm, until the grease is forced out.

Use only good quality molybdenum disulphide grease.

Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.



8011-495

Lubricating the brake arms

TROUBLESHOOTING

Problem

Cause

The engine will not start.

- Mower deck control is engaged.
 - Steering controls are not locked in the neutral position.
 - Spark plug wire are off.
 - Contamination in the carburetor or fuel line.
 - Fuel shutoff valve is closed.
 - Clogged fuel filter or fuel line.
 - Empty fuel tank.
 - Ignition system faulty.
-

The engine runs rough.

- Faulty carburetor.
 - Choke control is pulled out with a warm engine.
 - Clogged fuel filter or jet.
 - Clogged ventilation valve on the fuel cap.
 - Fuel tank nearly empty.
 - Fouled spark plugs.
 - Spark plugs are loose.
 - Defective ignition cable.
 - Defective spark plug electrode.
 - Defective spark plug connection.
 - Rich fuel mixture or fuel-air mixture.
 - Wrong fuel type.
 - Water in the fuel.
 - Clogged air filter.
-

The engine seems weak.

- Clogged air filter.
 - Fouled spark plugs.
 - Carburetor incorrectly adjusted.
-

The machine vibrates.

- Blades are loose.
- Blades are incorrectly balanced.
- Engine is loose.

TROUBLESHOOTING

Problem

Cause

The engine overheats.

- Clogged air intake.
 - Engine overloaded.
 - Poor ventilation around engine.
 - Defective engine speed regulator.
 - Too little or no oil in the engine.
 - Fouled spark plugs.
-

The machine moves slowly, unevenly.

- Drive belt for the transmission slack or has come off.
-

Mower deck not engaging.

- Drive belt for the mower deck has come loose.
 - Mower deck control is faulty.
-

Uneven mowing results.

- Tire pressures are uneven
 - Blades are bent.
 - Suspension for the mower deck is uneven.
 - Blades are dull.
 - Driving speed too high.
 - Grass is too long.
 - Grass collected under the mower deck.
-

Machine moves when in neutral position.

- Motion control linkage out of adjustment.
-

Machine pulls to left or right.

- Tire pressures are uneven
- Motion control linkage out of adjustment.
- Soft terrain
- Slope is too steep
- Tracking not adjusted.
- Brakes are out of adjustment.

STORAGE

Winter Storage

At the end of the mowing season (or if it will not be in use for longer than 30 days), the machine should be readied for storage. Fuel allowed to stand for long periods of time (30 days or more) can leave sticky residues that can plug the carburetor and disrupt engine function.

Fuel stabilizers are an acceptable option as regards to the sticky residues that can occur during storage.

Add stabilizer to the fuel in the tank or in the storage container. Always use the mixing ratios specified by the manufacturer of the stabilizer. Run the engine for at least 10 minutes after adding the stabilizer so that it reaches the carburetor. Do not empty the fuel tank and the carburetor if you have added stabilizer.



WARNING!

Never store an engine with fuel in the tank indoors or in poorly ventilated spaces where fuel vapor can come in contact with open flames, sparks, or a pilot light such as in a boiler, hot water tank, clothes drier, etc. Handle the fuel with care. It is very flammable and can cause serious personal injury and property damage. Drain the fuel into an approved container outdoors and far away from open flame. Never use gasoline for cleaning. Use a degreaser and warm water instead.

To ready the machine for storage, follow these steps:

1. Thoroughly clean the machine, especially under the mower deck. Touch up damage to the paint and spray a thin layer of oil on the underside of the mower deck to avoid corrosion.
2. Inspect the machine for worn or damaged parts and tighten any nuts or screws that may have become loose.
3. Change the engine oil; dispose of properly.
4. Empty the fuel tanks or add a fuel stabilizer. Start the engine and allow it to run until the carburetor is drained of fuel or the stabilizer has reached the carburetor.
5. Remove the spark plug and pour about a tablespoon of engine oil into the cylinder. Turn over the engine so that the oil is evenly distributed. Refit the spark plug.
6. Lubricate all grease zerks, joints, and axles.
7. Store the machine in a clean, dry place and cover it for extra protection.

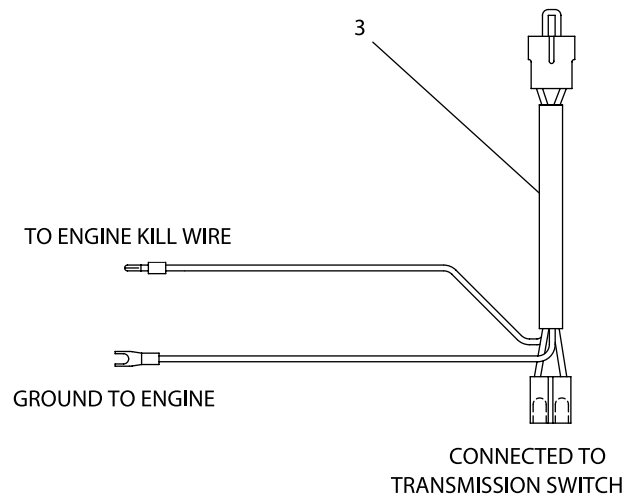
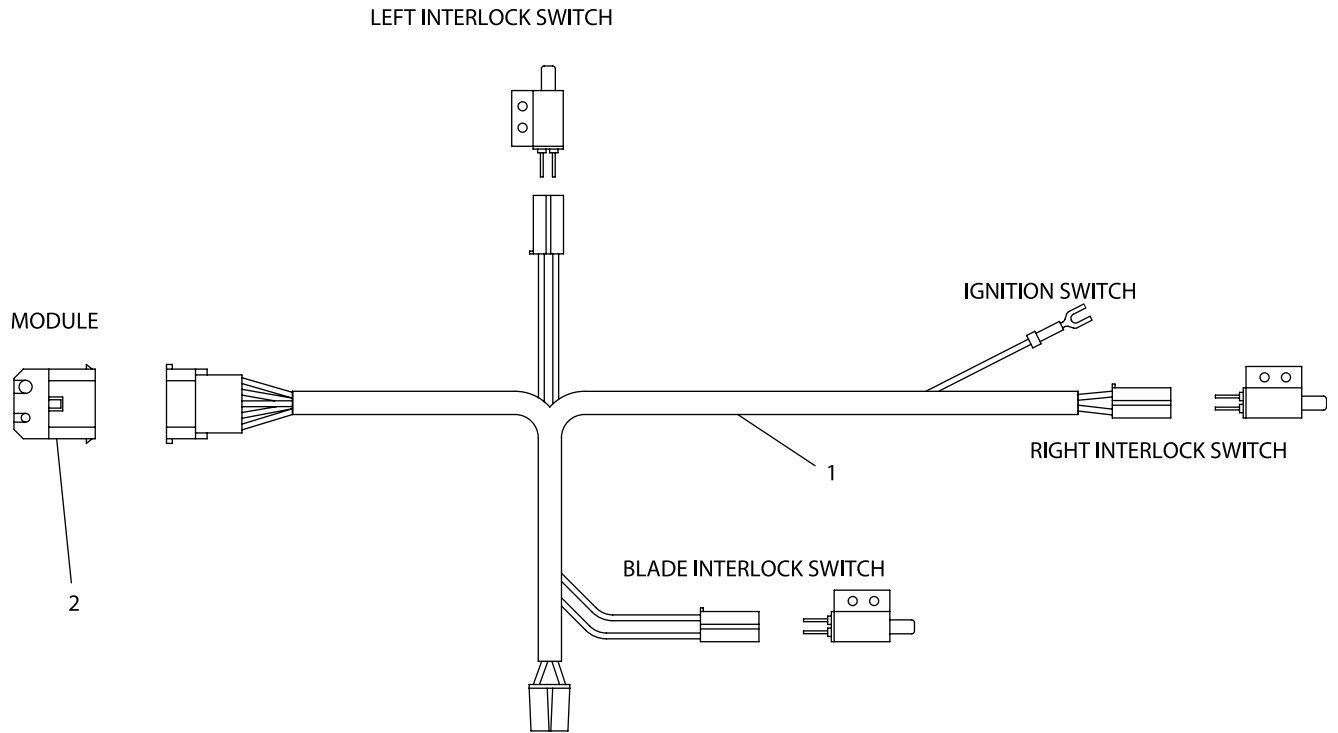
Service

When ordering spare parts, please specify the purchase year, model, type, and serial number.

Always use genuine Husqvarna spare parts.

An annual checkup at an authorized service workshop is a good way to ensure that the machine performs its best the following season.

SCHEMATICS



TECHNICAL DATA

	WG3613E WG3613BF WG3613EC	WG4815E
Engine		
Manufacturer	Kawasaki	Kawasaki
Type	FH381V	FH430V
Power	13 hp* / 9.5 kW	15 hp* / 11 kW
Spark plugs / gap	RCJ8Y .030" / 0.75 mm	RCJ8Y .030" / 0.75 mm
Oil capacity excluding filter	1.6 qt / 1.5 liter	1.6 qt / 1.5 liter
Oil capacity including filter	1.8 qt / 1.7 liter	1.8 qt / 1.7 liter
Engine oil (See viscosity diagram)	SAE 10W30, 10W40 SAE 30, SAE 40 API SF-SJ	SAE 10W30, 10W40 SAE 30, SAE 40 API SF-SJ
Fuel	Min 87 octane unleaded (Max ethanol 10%, Max MTBE 15%)	Min 87 octane unleaded (Max ethanol 10%, Max MTBE 15%)
Fuel tank capacity	5.3 gallons / 20 liters	5.3 gallons / 20 liters
Transmission		
Transmission	Peerless 5 speed, 700 Series	Peerless 5 speed, 700 Series
Speed and direction controls	2.0-6.0 mph / 3.2-9.6 km/h	2.0-6.0 mph / 3.2-9.6 km/h
Speed forward	Assisted only	Assisted only
Speed reverse	Mechanical parking brake	Mechanical parking brake
Front caster tires, smooth tread	9 x 3.50-4, 4 ply	9 x 3.50-4, 4 ply
Rear tires, turf pneumatic	13 x 6.5-6	13 x 6.5-6
Tire pressure, front	15 PSI / 103 kPa / 1 bar	15 PSI / 103 kPa / 1 bar
Equipment		
Cutting Width	36" / 91 cm	48" / 122 cm
Cutting Height	1.5 - 5" / 3.8 - 12.7 cm	1.5 - 5" / 3.8 - 12.7 cm
Productivity		
Productivity	1.8 acres /h 7290 m ² /h	2.4 acres /h 9720 m ² /h

*As rated by the engine manufacturer.

TECHNICAL DATA

	WG3613E WG3613BF WG3613EC	WG4815E
Overall Dimensions	445 lbs / 202 kg	470 lbs / 213 kg
Weight	66" / 168 cm	66" / 168 cm
Base Machine Length	37" / 94 cm	49" / 125 cm
Base Machine Height	42" / 106 cm	42" / 106 cm
Overall Width, Chute Up	37" / 94 cm	49" / 125 cm
Overall Width, Chute Down	47" / 119 cm	59" / 150 cm

Torque Specifications

- Engine crankshaft bolt 50 ft/lb (67 Nm)
- Deck pulley bolts 45 ft/lb (61 Nm)
- Blade bolt 45-55 ft/lb (60-75 Nm)
- Standard ¼" fasteners 9 ft/lb (12 Nm)
- Standard 5/16" fasteners 18 ft/lb (25 Nm)
- Standard 3/8" fasteners 33 ft/lb (44 Nm)
- Standard 7/16" fasteners 52 ft/lb (70 Nm)
- Standard ½" fasteners 80 ft/lb (110 Nm)

When this product is worn out and no longer used, it should be returned to the reseller or other party for recycling.

In order to implement improvements, specifications and designs can be altered without prior notification.

Note that no legal demands can be placed based on the information contained in these instructions.

Use only original parts for repairs. The use of other parts voids the warranty.

Do not modify or install non-standard equipment to the unit without consent from the manufacturer. Modifications to the unit may cause unsafe operations or damage the unit.

TECHNICAL DATA

Accessories

Collection system

Torque Specifications

- Engine crankshaft bolt 50 ft/lb (67 Nm)
- Deck pulley bolts 45 ft/lb (61 Nm)
- Lug nuts 75 ft/lb (100 Nm)
- Blade bolt 45-55 ft/lb (60-75 Nm)
- Standard ¼" fasteners 9 ft/lb (12 Nm)
- Standard 5/16" fasteners 18 ft/lb (25 Nm)
- Standard 3/8" fasteners 33 ft/lb (44 Nm)
- Standard 7/16" fasteners 52 ft/lb (70 Nm)
- Standard ½" fasteners 80 ft/lb (110 Nm)

When this product is worn out and no longer used, it should be returned to the reseller or other party for recycling.

In order to implement improvements, specifications and designs can be altered without prior notification.

Note that no legal demands can be placed based on the information contained in these instructions.

Use only original parts for repairs. The use of other parts voids the warranty.

Do not modify or install non-standard equipment to the unit without consent from the manufacturer. Modifications to the unit may cause unsafe operations or damage the unit.

CONFORMITY CERTIFICATES

USA requirements

Labels are placed on the engine and/or in the engine compartment stating that the machine will fulfill the requirements. This is also applicable to special requirements for any of the states, (California emission rules etc.). Do not remove any of these labels. Certificates can also be supplied with the machine at delivery or written in the Engine manual. Take care of them as they are valuable documents.

CE requirements

Vibration data corresponding to Directive 2002/44/EC is given in the Technical Data Section. The Declaration of Conformity is included in the literature packet.

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>25-Hour Service</p> <ol style="list-style-type: none">1. Check the fuel pump air filter.2. Check the tire pressures.3. Check/clean the engine's cooling air intake.4. Clean the air cleaner's prefilter (foam).5. Check the cutting deck.	
<p>50-Hour Service</p> <ol style="list-style-type: none">1. Perform the 25-hour service.2. Clean/replace the air cleaner filter cartridge (paper filter) (shorter intervals for dusty operating conditions).3. Lubricate front wheel bearings.4. Lubricate throttle/choke cable.5. Check/adjust the parking brake.	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>100-Hour Service</p> <ol style="list-style-type: none">1. Perform the 25-hour service.2. Perform the 50-hour service.3. Change the engine oil.4. Check whether the engine oil filter needs to be changed (every 200 hours).5. Clean/replace the spark plugs.6. Replace the fuel filter.7. Clean the cooling fins on the engine and transmission.8. Check V-belts, pulleys, etc.9. Check tighten caster wheel axle bolts (every 200 hours).10. Clean and check filter paper cartridge (every 200 hours).	
<p>300-Hour Service</p> <ol style="list-style-type: none">1. Inspect the machine. Come to agreement with the customer as to additional work to be carried out.2. Perform the 25-hour service.3. Perform the 50-hour service.4. Perform the 100-hour service.5. Clean the combustion chamber and grind the valve seats.6. Check the engine valve clearance.7. Replace the air cleaner's prefilter (foam).	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>At Least Once Each Year</p> <ol style="list-style-type: none">1. Clean the engine's cooling air intake (25 hours).2. Replace the air cleaner's prefilter (foam) (300 hours).3. Replace the air filter paper cartridge (200 hours).4. Change the engine oil (100 hours).5. Replace the engine oil filter (200 hours).6. Check/adjust the cutting height.7. Check/adjust the parking brake (50 hours).8. Clean/change the spark plugs (100 hours).9. Change the fuel filter (100 hours).10. Clean the cooling fins (100 hours).11. Check the engine valve clearance (300 hours).12. Perform the 300-Hour service at an authorized service workshop.	

Husqvarna WARRANTY STATEMENT

SECTION 1: LIMITED WARRANTY

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defects in material and workmanship from the date of purchase for the "Warranty Period" of the product as set forth below:

Lifetime Warranty (Parts and Labor): All tiller tines and trimmer shafts against breakage. Proof of purchase required.

Lifetime Warranty ("PARTS ONLY" after initial warranty expiration): Ignition coils and modules on handheld product.

Proof of purchase required.

WARRANTY SCHEDULE FOR TURF CARE Equipment - Zero Turn Riders

(New warranty applies to units sold after August 1, 2005. Also applies to units factory-equipped with R.O.P.S.)

EZ Zero Turn Riders: 3 year consumer warranty or 600 hours of use (when used solely at the owner's residence.)

EZ & MZ Zero Turn Riders: 1 year commercial warranty or 600 hours of use.

iZ, LZ & BZ Zero Turn Riders: 5 year consumer warranty or 1,500 hours of use.

iZ, LZ & BZ Zero Turn Riders: 5 year commercial warranty or 1,500 hours of use.

3 Year or 1,500 Hour Commercial Use Warranty: spindles on zero turn riders, hydraulic pumps and wheel motors.

Warranty Schedule for Turf Care Walk Behind Units - W, WG & WH Zero Turn Riders - 3 year consumer and commercial warranty. New warranty applies to units sold after August 1, 2005. Also applies to units factory-equipped with R.O.P.S.

2 Year COMMERCIAL and CONSUMER Warranty: all Husqvarna ground-engaging commercial equipment.

WARRANTY SCHEDULE FOR CONSUMER TURF CARE EQUIPMENT:

2 Year Consumer Warranty: Automatic mower, all Residential Zero Turn Riders, all lawn, yard and garden tractors, all noncommercial walk behind mowers, tillers, snow blowers, electrical products and power-assist collection systems for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated. All consumer product use must have been limited to the owner's residence.

WARRANTY SCHEDULE FOR CONSUMER FOREST & GARDEN EQUIPMENT:

2 Year Consumer Warranty: all consumer chain saws, trimmers, brushcutters, clearing saws, handheld blowers, backpack blowers, hedge trimmers, and electrical products for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated. All consumer product use must have been limited to the owner's residence.

2 Year or 2,000 Hour Powertrain & 1 Year or 1,000 Hour Body Warranty: Husqvarna Utility Vehicles.

1 Year Warranty: Power cutters, stump grinder, pole pruners and pole saws for non-commercial, non-professional, noninstitutional, non-municipality or non-income producing use. All 300 series trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers, power-assist collection systems for commercial, institutional, professional or income producing purposes or use.

1 Year Conditional Component Warranty: Chain saw crankshafts for commercial/professional use (parts and labor). Saw must be operated with Husqvarna XP 2 cycle oil.

90 Day Commercial Warranty: Automatic mower, chain saws, 100 series trimmers, power cutters, stump grinders, pole saws, pole pruners, snow throwers, model series 580 & 600 walk-behind mowers, or any Husqvarna product used for commercial, institutional, professional, municipality or income producing purposes or use except as otherwise provided herein.

Batteries: 1 year prorated limited warranty with 100% replacement during the first 6 months.

Rental Warranty: 90 days on all applicable professional equipment reference warranty time period charts located in the back of the Retailer Warranty Policy & Procedure Manual.

Husqvarna Safety Apparel carries a 90-day warranty from the date of the customer's original purchase for defects in material and workmanship. Normal wear, tear or abuse is not covered under warranty. Product must be returned to Charlotte with a warranty claim form. All care and maintenance instructions must be followed as stated by the manufacturer on the care label. The fit of the protective apparel/boot is not covered under warranty.

30 Day Warranty: Replacement parts, accessories including bars and chains, tools and display items. Emission control system components necessary to comply with CARB-TIER II and EPA regulations, except for those components which are part of engine systems manufactured by third part engine manufacturers for which the purchaser has received a separate warranty with product at time of purchase.

SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

Husqvarna will repair or replace defective components without charge for parts or labor if a component fails because of a defect in material or workmanship during the warranty period.

SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY

The following items are not covered by this warranty:

(1) Normal customer maintenance items which become worn through normal regular use, including, but not limited to, belts, blades, blade adapters, bulbs, clutches, clutch drums, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs,

starter ropes and tiller tines;

(2) Natural discoloration of material due to ultraviolet light;

(3) Engine and drive systems not manufactured by Husqvarna; these items are covered by the respective manufacturer's warranty as provided in writing with the product information supplied at the time of purchase; all claims must be sent to the appropriate manufacturer;

(4) Lawn and garden attachments are covered by a third party which gives a warranty, all claims for warranty should be sent to the manufacturer,

(5) Commercial or consumer mowing decks with sand abrasion damage.

(6) Emission Control System components necessary to comply with CARB-TIER II and EPA regulations which are manufactured by third party engine manufacturer.

SECTION 4: EXCEPTIONS AND LIMITATIONS

This warranty shall be inapplicable to defects resulting from the following:

(1) Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt, abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage or use habits;

(2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna;

(3) Alterations or modifications that change the intended use of the product or affects the product's performance, operation, safety, or durability, or causes the product to fail to comply with any applicable laws; or:

(4) Additional damage to parts or components due to continued use occurring after any of the above.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SECTION 5: CUSTOMER RESPONSIBILITIES

The product must exhibit reasonable care, maintenance, operation, storage and general upkeep as written in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur, the product should not be used, but delivered as is to an authorized Husqvarna retailer for evaluation. Proof of purchase, as explained in section 6, rests solely with the customer.

SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION

It is the Owner's and Retailer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarna Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to confirm the warranty and to facilitate post-sale service.

Proof of purchase must be presented to the authorized Husqvarna retailer in order to obtain warranty service. This proof must include date purchased, model number, serial number, and complete name and address of the selling retailer.

To obtain the benefit of this warranty, the product believed to be defective must be delivered to an authorized Husqvarna retailer in a timely manner, no later than thirty (30) days from date of the operational problem or failure. The product must be delivered at the owner's expense. Downtime, pick-up and delivery charges are not covered by this warranty. An authorized Husqvarna retailer can be normally located through the "Yellow Pages" of the local telephone directory or by calling 1-800-HUSKY62 for a retailer in your area.

HUSQVARNA
7349 Statesville Road
Charlotte, NC 28269

2008

