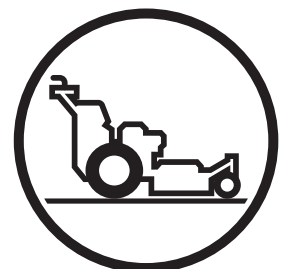


Operator's manual
WH4817E/968999238
WH3615E/968999237

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



English

OPERATOR'S MANUAL

MOWER

WH3615E WH4817E

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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

Introduction

Congratulations

Thank you for purchasing a Husqvarna Walk-Behind Mower. This machine is built for the greatest efficiency and rapid mowing primarily of large areas. Controls in one place and a transmission regulated by steering controls contribute to the machine's performance.

This manual is a valuable document. Following the instructions (use, service, maintenance, etc.) can considerably increase the lifespan of your machine and even increase its resale value.

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

The final chapter of this Operator's manual comprises a Service Journal. Ensure that service and repair work is documented. A well kept service journal reduces service costs for the season-based maintenance and affects the machine's resale value. Take the Operator's manual along when the machine is left to the workshop 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.

Driving and Transport on Public Roads

Check applicable road traffic regulations before driving and transport on public roads. If the machine is transported, you should always use approved fastening equipment and ensure that the machine is well anchored.

Towing

Do not tow this machine, it may cause damage to the drive system.

Do not tow any trailers, etc. with this mower. They may jackknife or overturn causing damage to the mower and possibly serious injury to the operator.

Operating

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

Lawnmowers 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 that are familiar with the machine's special characteristics and who are well versed in the safety instructions.

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 all over 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 manufacturing number:	Engine	Transmission

Manufacturing Number

The machine's manufacturing number can be found on the printed plate of the rear part of the chassi. 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 state the type designation and serial number when ordering spare parts.

The engine's manufacturing number is stated on a barcode decal. This is placed on the left side of the crankcase. The plate states:

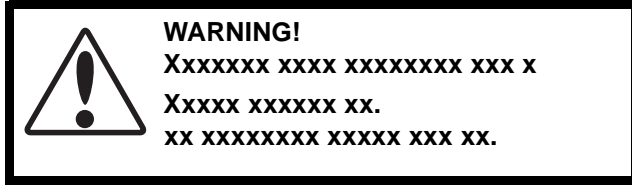
- The engine's serial number (E/NO).
- The engine's type designation (Code).

Please state these when ordering spare parts.

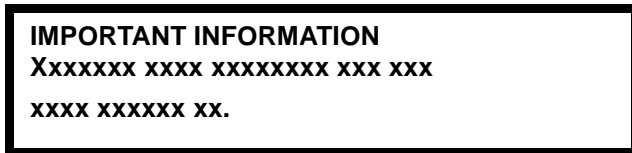
SYMBOLS AND DECALS

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.



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



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.



Warning!



Noise emissions to the surroundings in accordance with the European Union's directive. The machine's emission is stated in the chapter TECHNICAL DATA and on the decals..

Only machines for European market



Fast



Slow



Choke



Fuel



CE conformity marking



Warning! Rotating blades, keep away from the discharge deck



Do not touch rotating parts



Use protective glasses



Use protective gloves



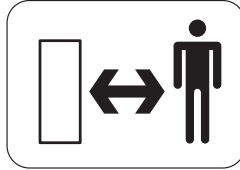
Do not stand here

SYMBOLS AND DECALS



Moving sharp blades under cover.

Keep a safe distance from the machine.



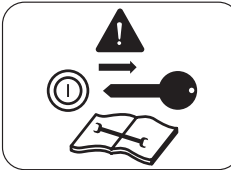
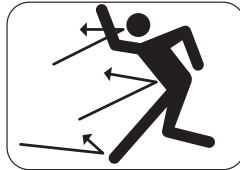
Severing of fingers & toes.

Read Operator's Manual.



Rotating blades.

Whole body exposure to thrown objects.



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

SAFETY INSTRUCTIONS

Safety Instructions

These instructions are for your safety. Read them carefully.

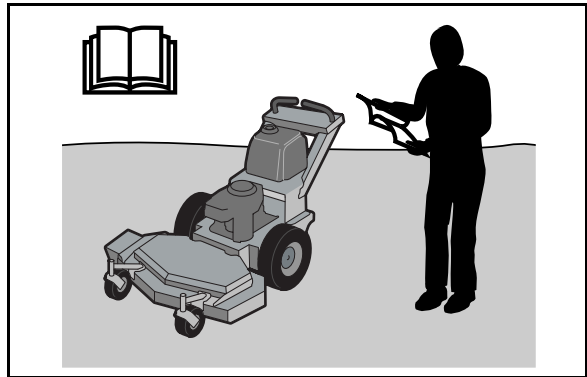


WARNING!

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

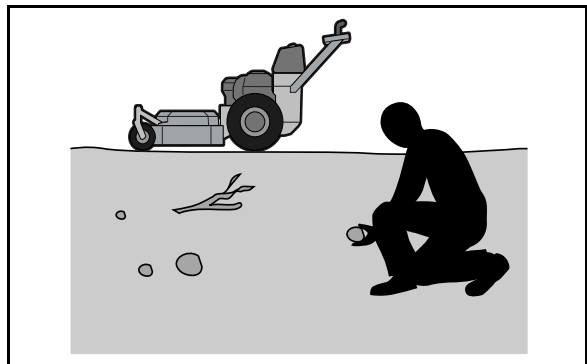
General Use

- Read all instructions in this operator's manual and on the machine before starting it. Ensure that you understand them and then abide by them.
- Learn how to use the machine and its controls safely and learn how to stop quickly. Also learn to recognize the safety decals.
- Only allow the machine to be used by adults who are familiar with its use.
- Make sure nobody else is in the vicinity of the machine when you start the engine, engage the drive, or run the machine.
- Make sure animals and people maintain a safe distance from the machine.
- Stop the machine if someone enters the work area.
- Clear the area of objects such as stones, toys, steel wire, etc. that may become caught in the blades and thrown out before operating the unit.
- Beware of the discharge deck and do not point it at any one. Do not use the machine without the discharge chute in place.
- Stop the engine and prevent it from starting before you clean the discharge deck.
- Remember that the operator is responsible for dangers or accidents.
- Never take passengers. The machine is only intended for use by one person.
- Always look down and behind before and during reversing maneuvers. Look out for both large and small obstacles.
- Slow down before turning.



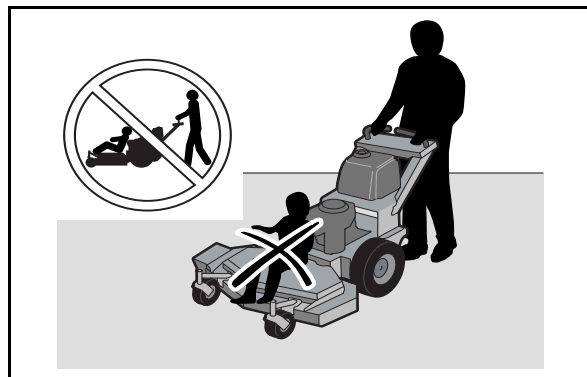
8011-630

Read the operator's manual before starting the machine



8011-631

Clear the area of objects before mowing



8011-632

Never take passengers

SAFETY INSTRUCTIONS

- Shut down the blades when not mowing.
- Be careful when turning around fixed objects, so that the blades do not hit them. Never drive over foreign objects.
- Only use the machine in daylight or in other well-lit conditions. Keep the machine a safe distance from holes or other irregularities. Pay attention to other possible risks.
- Never use the machine if you are tired, if you have consumed alcohol, or if you are taking other drugs or medication that can affect your vision, judgment, or coordination.
- Beware of traffic when working near or crossing a road.
- Never leave the machine unsupervised with the engine running. Always shut down the blades, apply the parking brake, if so equipped, stop the engine, and remove the ignition key before leaving the machine.
- Never allow children or other persons not trained in the use of the machine to use or service it. Local laws may regulate the age of the user.




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 colorless, poisonous gas. Do not use the machine in enclosed spaces.



8011-633

Keep children away from the work area



WARNING!
When using the machine, approved personal protective equipment 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 toecaps.
- 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 impaired hearing.



8011-670

Personal protective equipment

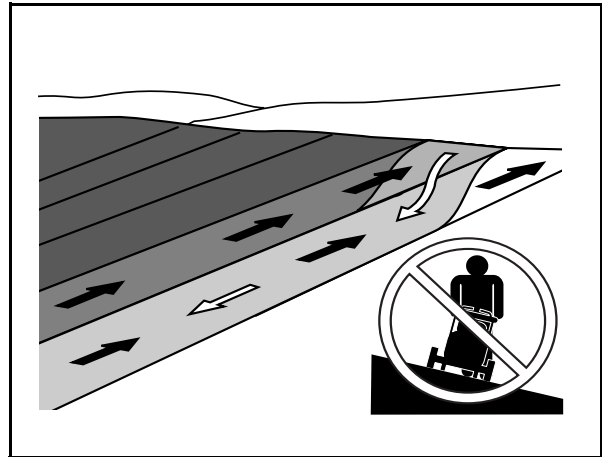
SAFETY INSTRUCTIONS

Driving on Slopes

Driving on slopes is one of the operations where the risk is greatest that the driver will lose control or the machine will tip over, which can result in serious injury or death. All slopes require extra caution. If you cannot reverse up a slope or if you feel unsure, do not mow the slope.

Do as follows

- Remove obstacles such as stones, tree branches, etc.
- Watch out for and avoid driving over furrows, holes, and bumps. On uneven terrain, the machine can tip more easily. Long grass can hide obstacles.
- Mow up and down, not side-to-side.
- If machine stops while going uphill, disengage blades and back down slowly.
- Drive evenly and slowly. Use small movements of the steering controls.
- Be extra cautious with any additional equipment, which can alter the machine's stability.

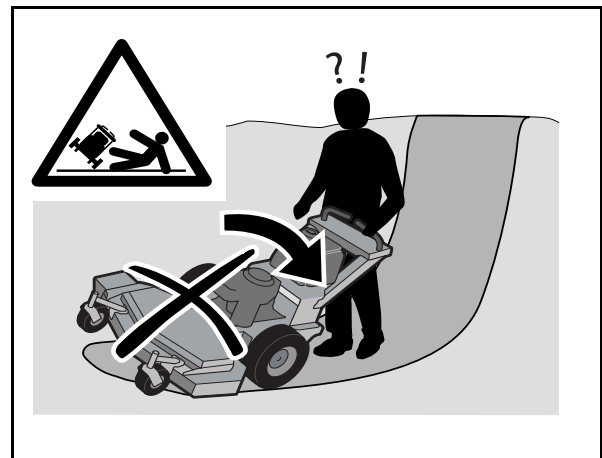


8011-634

Mow up and down, not side-to-side

Do not

- **Do not** make sudden changes in speed or direction.
- **Do not** drive the machine on terrain that slopes more than 10°.
- **Do not** mow near verges, ditches, or banks. The machine can suddenly spin around if a wheel goes over the edge of a drop or ditch, or if an edge gives way.
- **Do not** mow wet grass. It is slippery, and the tires can lose their grip, so that the machine slides.
- **Avoid** unnecessary turns on slopes, and if it proves necessary, turn slowly and gradually downward, if possible.
- **Avoid** starting or stopping on a slope. If the tires begin to slip, shut down the blades and drive slowly straight down the slope.



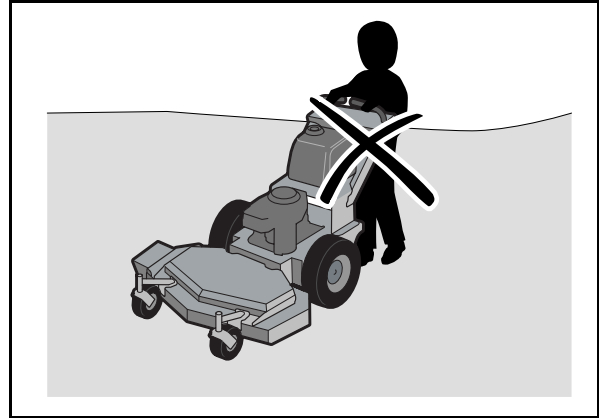
8011-635

Be extra cautious when driving on slopes

SAFETY INSTRUCTIONS

Children

- Serious accidents may occur if you fail to be on guard for children in the vicinity of the machine. Children are often attracted to the machine and mowing work. Never assume that children will stay put where you last saw them.
- Keep children away from the mowing area and under close supervision by another adult.
- Keep an eye out and shut off the machine if children enter the work area.
- Before and during a reversing maneuver, look backward and downward for small children.
- Never allow a child to ride with you. They can fall off and injure themselves seriously or prevent risk-free maneuvering of the machine.
- Never allow children to operate the machine.
- Be particularly cautious near corners, bushes, trees, or other objects that block your view.



8011-636

Never allow children to operate the machine

SAFETY INSTRUCTIONS

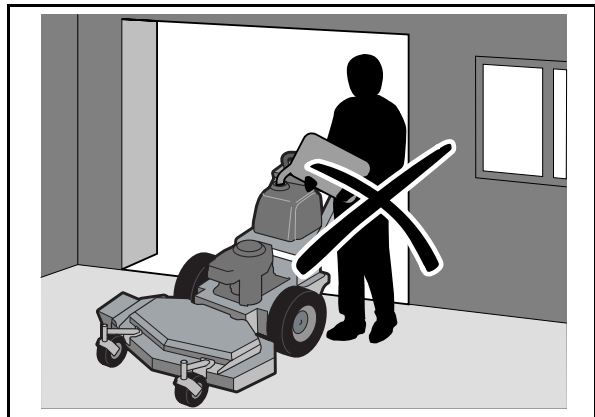
Maintenance



WARNING!

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

- Stop the engine. Prevent the engine from starting by removing the spark plug cables from the spark plugs or by removing the ignition key before making any adjustments or performing maintenance.
- Never fill the fuel tank indoors.
- Fuel and fuel fumes are poisonous and extremely flammable. Be especially cautious when handling fuel, as carelessness can result in personal injury or fire.
- Only store fuel in containers approved for the purpose.
- Never remove the fuel tank cap and never fill the fuel tank while the engine is running.
- Allow the engine to cool before refueling. Do not smoke. Do not fill fuel in the vicinity of sparks or open flames.
- If leaks arise in the fuel system, the engine must not be started until the problem has been resolved.
- Store the machine and fuel in such a way that there is no risk of leaking fuel or fuel vapor leading to damages.
- Check the fuel level before each use and leave space for the fuel to expand, because the heat from the engine and the sun may otherwise cause the fuel to expand and overflow.
- Avoid overfilling. If you spill fuel on the machine, wipe up the spill and wait until it has evaporated before starting the engine. If you have spilled fuel on your clothing, change your clothing.
- Allow the machine to cool before taking any actions in the engine compartment.
- Never smoke or go near open flames or sparks while using the machine.
- Ensure that nuts and bolts, especially the fastening bolts for the blade attachments, are properly tightened and that the equipment is in good condition.



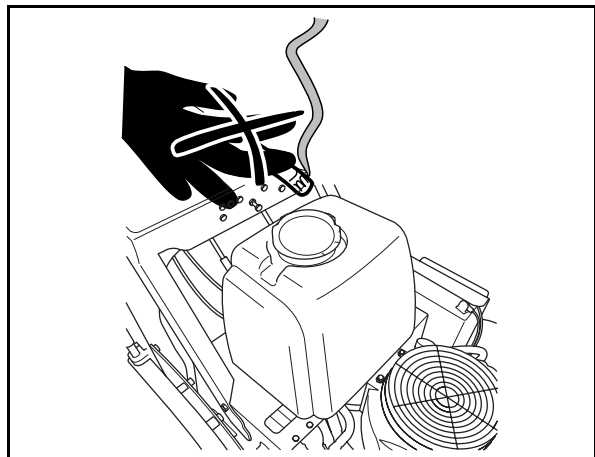
8011-637

Never fill the fuel tank indoors



WARNING!

The engine, the exhaust system's components become very warm during operation. Risk for burns if touched.



8011-777

No smoking

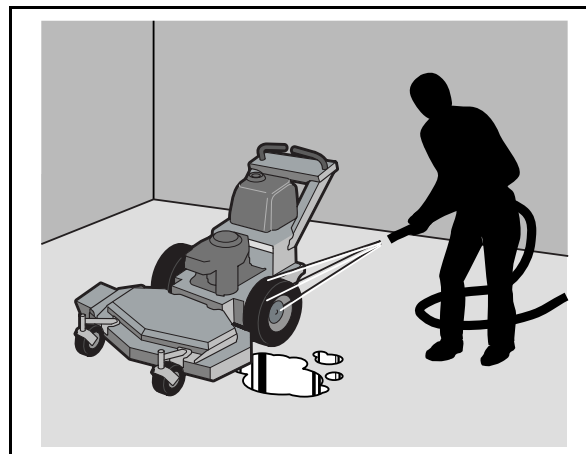
SAFETY INSTRUCTIONS

- 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.
- 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.
- The blades are sharp and can cause cuts and gashes. Wrap the blades or use protective gloves when handling them.
- Check the parking brake's functionality regularly. Adjust and service as necessary.
- When mowing familiar areas use mulch deck.
- 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.
- Have your mower inspected and serviced each year by an authorized Husqvarna dealer.
- Use only authentic Husqvarna replacement parts to insure that the safety and quality of your mower is maintained.
- Safety decals should be replaced if they are missing or illegible. Decals can be purchased from your Husqvarna dealer.



8011-638

Never drive the machine in an enclosed space



8011-639

Clean the machine regularly

SAFETY INSTRUCTIONS

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 ropes, when transporting.
- Check and abide by local traffic regulations before transporting or driving the machine on any road.
- Do not tow this machine, it may cause damage to the drive system.
- Do not tow any trailers, etc. with this mower. They may jackknife or overturn causing damage to the mower and possibly serious injury to the operator.

IMPORTANT INFORMATION

The parking brake is not sufficient to lock the machine in place during transport. Ensure that the machine is well fastened to the transport vehicle. Reverse the machine onto the transport vehicle to avoid tipping it over.

Customer responsibilities

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your mower.
- Follow the instructions under "Maintenance" and "Storage" sections of this owner's manual.



WARNING!

This mower is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, bush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

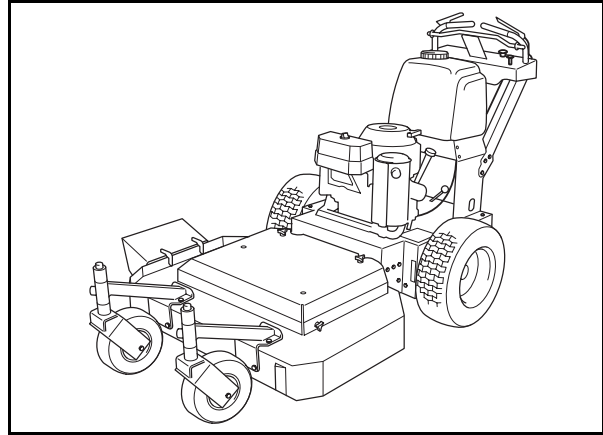
A spark arrester for the muffler is available through your authorized Husqvarna dealer.

CONTROLS

Controls

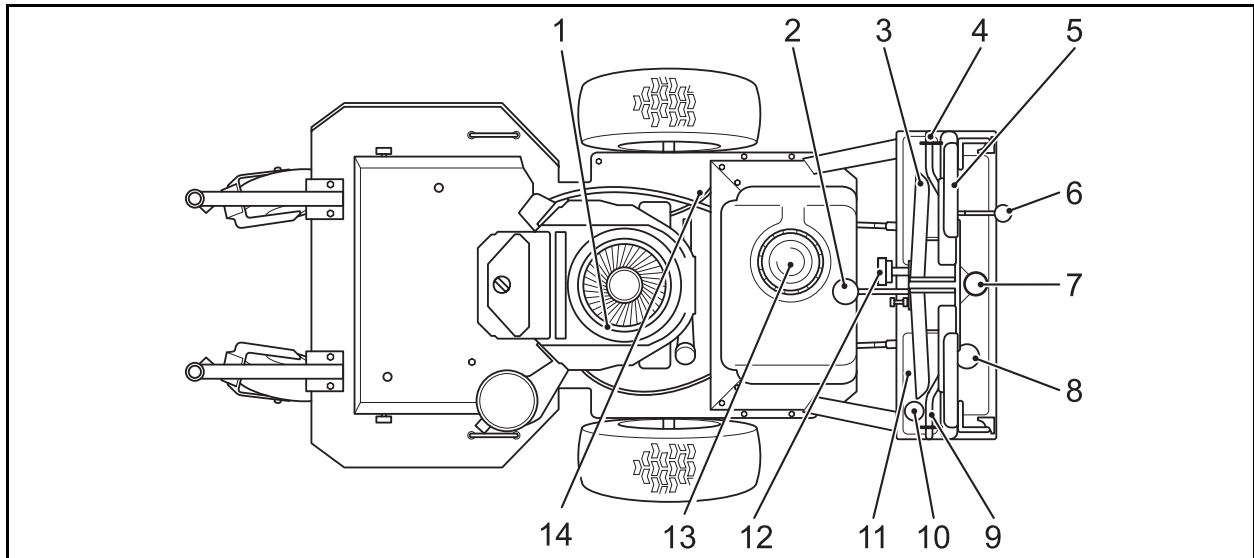
This operator's manual describes the Husqvarna Walk-Behind Mowers WH3615E and WH4817E. The machines are fitted with a Kawasaki four-stroke V-Twin engine, see Technical Data on page 56.

Transmission from the engine is made via two IZT gears, one for each wheel.



8011-433

Walk behind mower



8011-676

Locations of the controls

Control Locations

	Page		Page
1. Recoil starter grip	15.	8. Blade engagement switch	18.
2. Ground speed lever	15.	9. Neutral bail	19.
3. Motion control lever	16.	10. Choke control	19.
4. Ignition switch	16.	11. Hour meter	20.
5. Operator presence lever	17.	12. Tracking knob	20.
6. Throttle control	17.	13. Fuel cap	21.
7. Brake/By pass lever	18.	14. Fuel shut-off valve	22.

CONTROLS

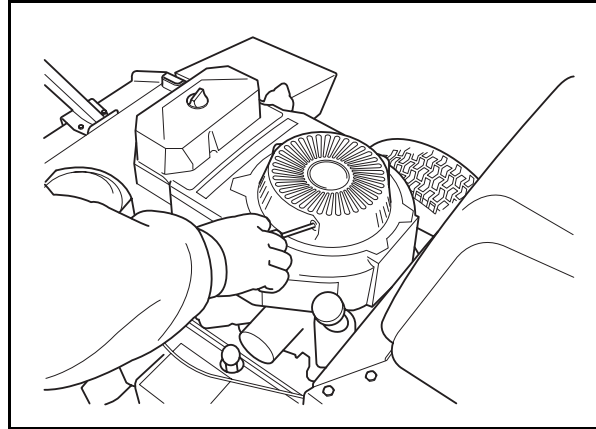
1. Recoil Starter Grip

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.



8011-435

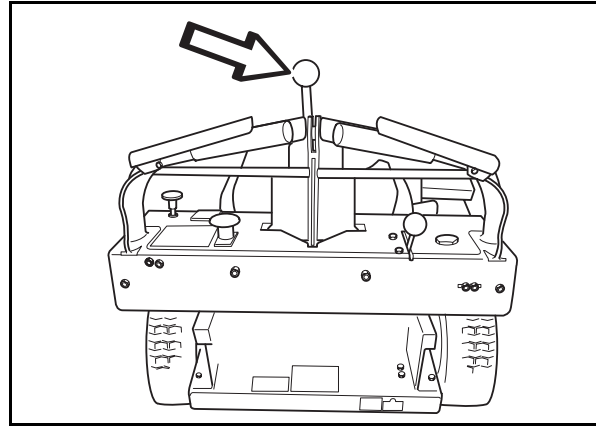
Recoil starter grip

2. Ground Speed Lever

Located in the center of the console. Controls the forward speed of the mower. Push the lever forward if you want to go faster, pull it back to go slower or pull it all the way back to the stop position.

To begin motion, the operator must move the ground speed lever forward before disengaging the neutral lock bail.

Ground Speed Lever Stop is the adjustment screw placed on the front edge of the driver's panel. It is used to insure ground speed lever does not over travel drive levers into reverse.



8011-654

Ground Speed Lever

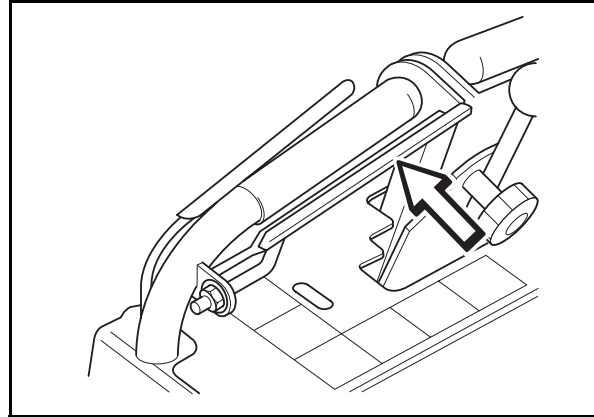
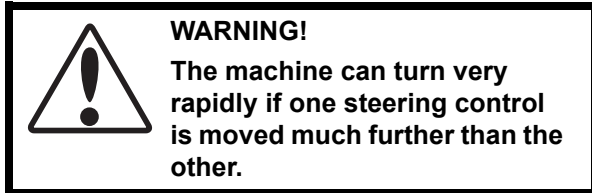
CONTROLS

3. 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.



8011-663

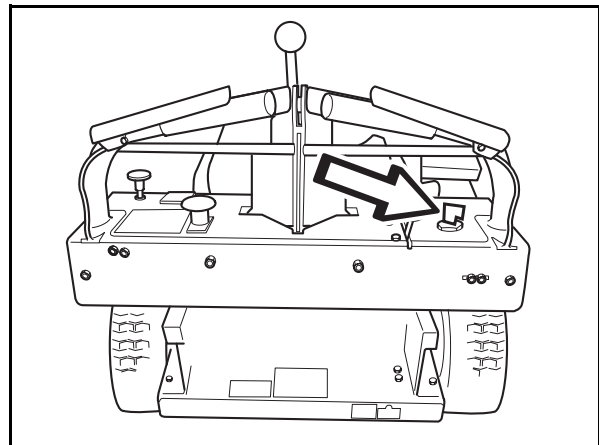
Motion control lever

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 reverse, squeeze the control levers against the handle grip.

4. Ignition Switch

The ignition key switch is placed on the control panel.



8011-656

Ignition key

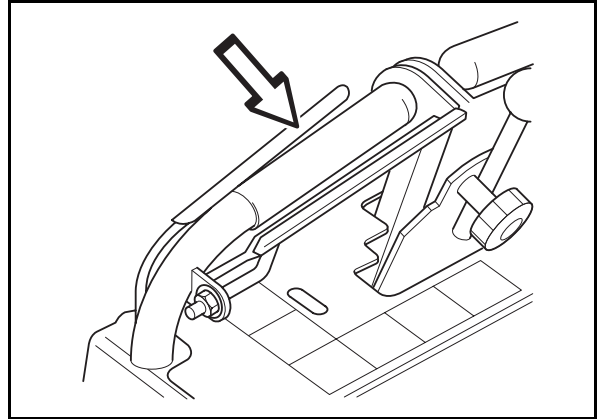
CONTROLS

5. Operator Presence Lever

Located on the handle. As an additional safety feature, these mowers are equipped with an Operator Presence System. This is an electrical interlock safety system which is activated by depressing either one or both of the Operator Presence Levers at the handle grips.

Releasing both Operator 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 O.P. levers, some travel does occur.

One or both levers must be pressed against the handle for the engine to remain running, when the blades are engaged or neutral lock bail is not locked in drive levers.



8011-661

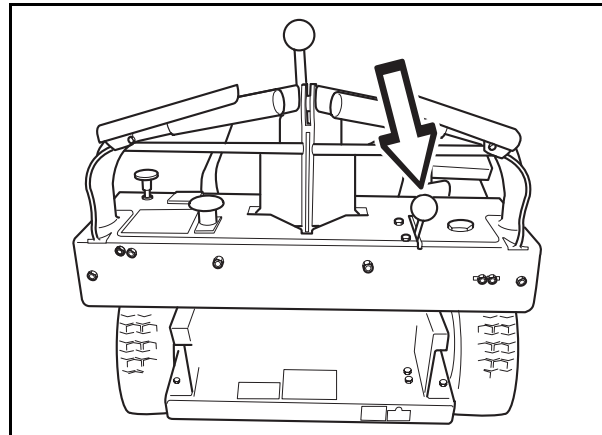
Operator presence lever

6. Throttle Control

The throttle control regulates the engine speed and thereby the rate of rotation of the blades, assuming the control switch for engaging the mower deck is pulled out, see Engaging the Mower Deck.

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

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



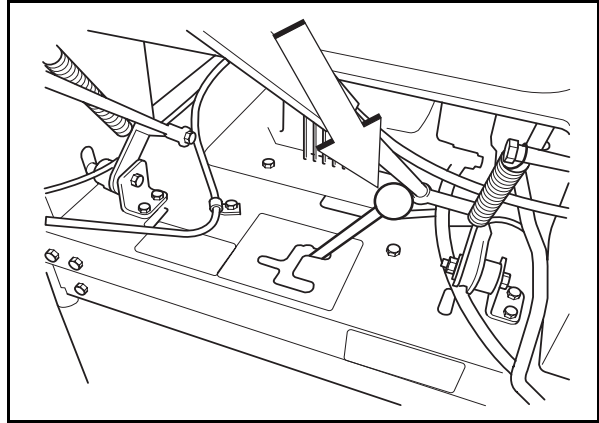
8011-653

Throttle control

CONTROLS

7. Brake/Bypass Lever

Located at the back of the rear deck. Used to apply park brake or bypass the IZT gears for free wheel (neutral) condition.



8011-411

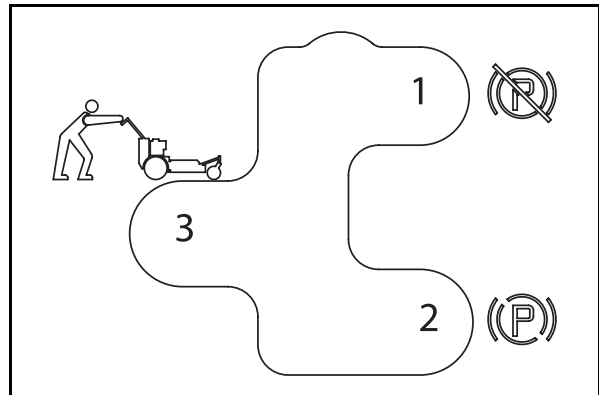
Brake/Bypass lever

The functions for the lever is:

1. Drive, used when operating the machine.
2. Parking, parking brake applied.
3. Bypass, used when moving the machine by hand.

Parking Brake

The parking brake on IZT machines is applied when the Brake/Bypass lever is set in position 2. The parking brake must only be used to brake a machine which is standing still. Be careful if you release the parking brake on sloping ground. The machine is heavy and can move uncontrolled, especially if the lever is set to the bypass position (3).



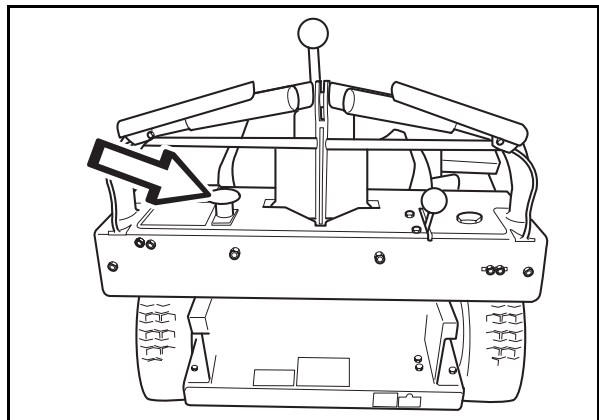
8011-643

Brake/Bypass lever positions

8. Blade Engagement Switch

In order to engage the blades, pull the knob out. The blades are disengaged when the knob is depressed.

The switch energizes the clutch for the V-belt pulley, placed on the crankshaft, to drive the blades.



8011-655

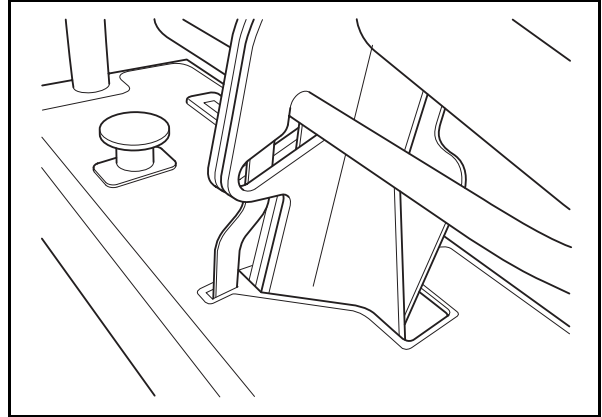
Engaging the mower deck

CONTROLS

9. Neutral Bail

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

To engage the neutral bail, pull the Ground Speed Lever fully back and press up the bail into position, see illustration.



8011-416

Neutral bail

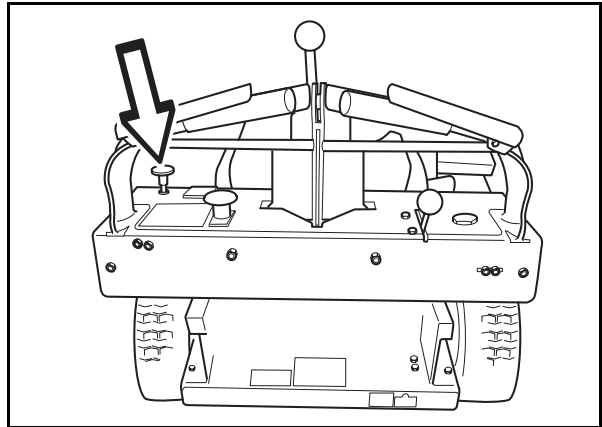
10. Choke Control

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

For cold starts the control should be pulled out.

Push the choke control gradually in when the engine is started, to get the engine running smooth.

Do not use the choke when starting a warm engine.



8011-652

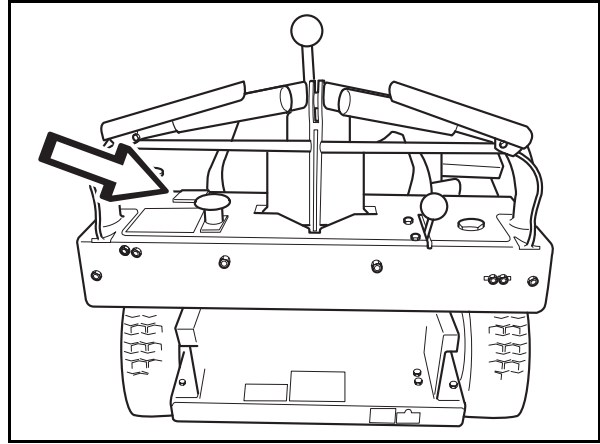
Choke control

CONTROLS

11. Hour Meter

The hour meter displays the total operating time.

It will flash CHG OIL (Change Oil) at 50 hour intervals. The flash duration is one hour before and one hour after the interval. The CHG OIL icon will come on and shut off automatically. The hour meter can not be manually reset.



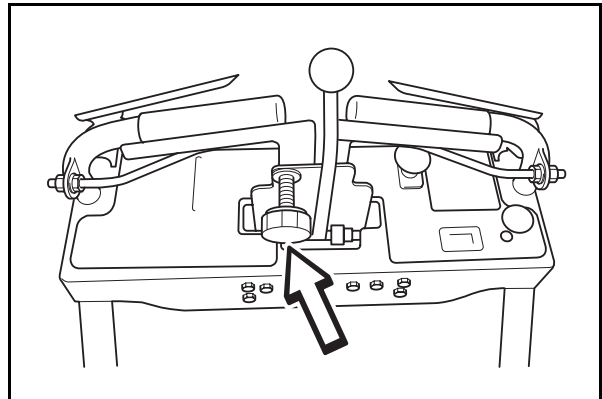
8011-657

Hour meter

12. Tracking Knob

Located on the right side of the ground speed lever. If the mower will not travel in a straight line on a smooth surface, turn the tracking knob the proper direction until it straightens out.

The tracking bolt is used for adjustment, if the tracking knob adjustment range is inadequate.



8011-412


Tracking knob

CONTROLS

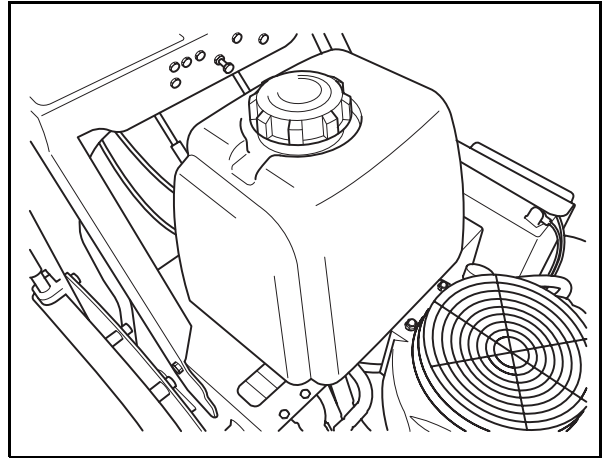
13. Refueling

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


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



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



Fuel tank



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.

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

IMPORTANT INFORMATION

Experience indicates that alcohol blended fuels (called gasohol or using 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 the 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.

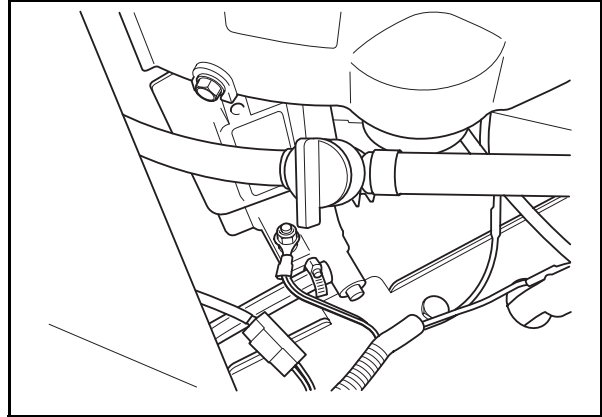
CONTROLS

14. 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.

IMPORTANT INFORMATION

Close fuel valve at the end of each mowing job.



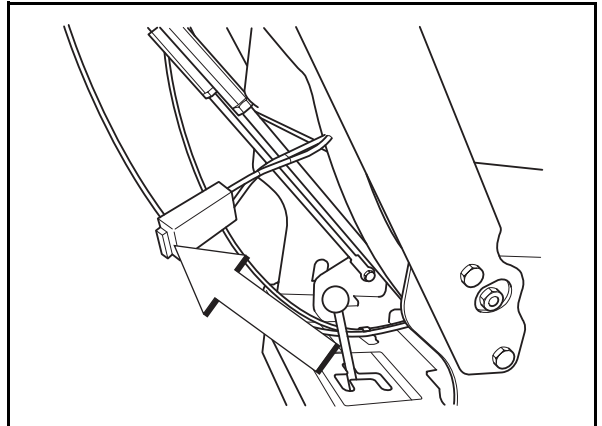
8011-437

Fuel shut off valve, closed

Fuse

The fuse is located by the lower handle. It is flat a pin fuse of the same type used in automobiles.

There is one fuse at 7.5 A for Mower deck coupling.

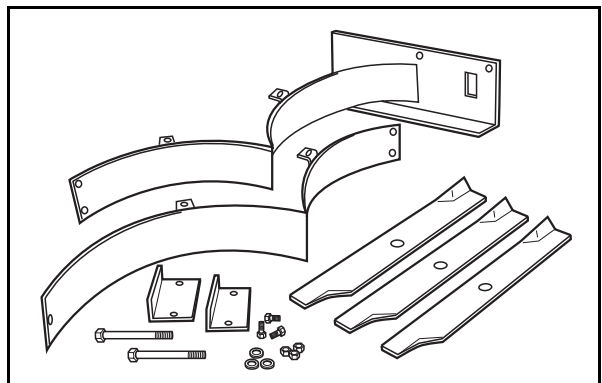


8011-439

Fuse

Accessories

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



8011-566

BioClip attachment

OPERATION

Operation



WARNING!

Be thoroughly familiar with all controls their function and how to operate them before operating the mower.

Before Starting

- Read the sections Safety Instructions, page 6, and Presentation, page 14, before starting the machine.
- Perform the daily maintenance before starting (see “Maintenance Schedule” on page 34).
- Check that there is sufficient fuel in the fuel tanks.

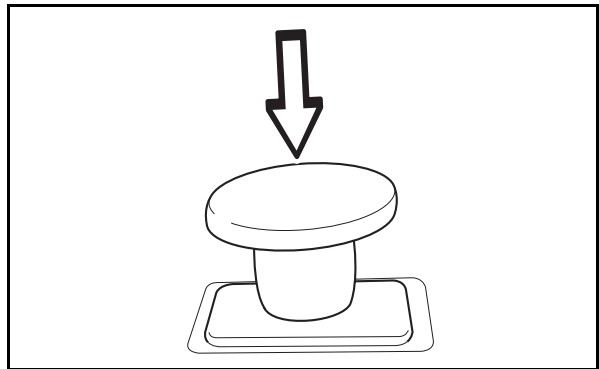
The following conditions must be fulfilled before the engine can be started:

- The control for engaging the blades must be in the disengaged position.
- The neutral bail for the drive levers must be in the locked position.



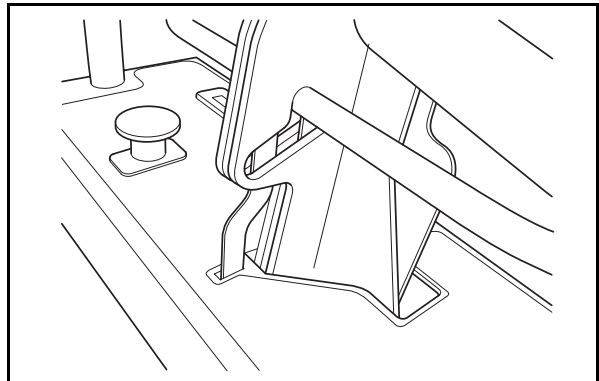
WARNING!

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



8011-668

Disengaged blades



8011-416

Neutral lock bail

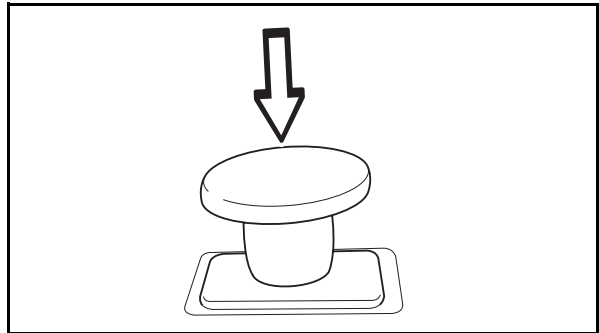
OPERATION

Starting the Engine



WARNING!
Never run the engine indoors,
in enclosed or poorly
ventilated spaces. Engine
exhaust fumes contain
poisonous carbon monoxide.

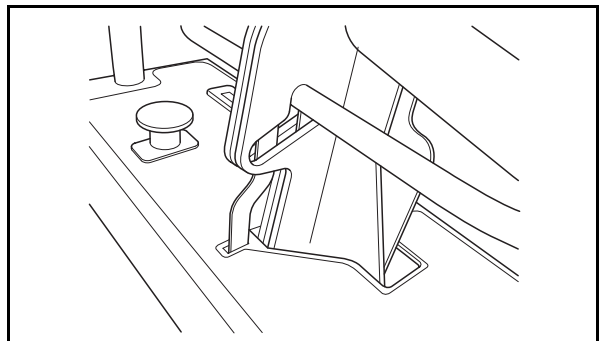
1. Make sure that the blades are disengaged.



8011-668

Blades disengaged

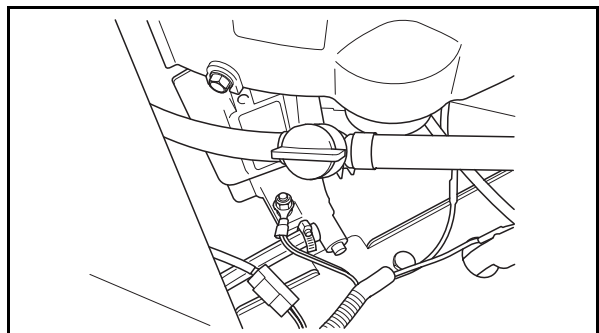
2. Check that the neutral bail is locked.



8011-416

Neutral lock bail

3. Set the fuel valve to the ON position.

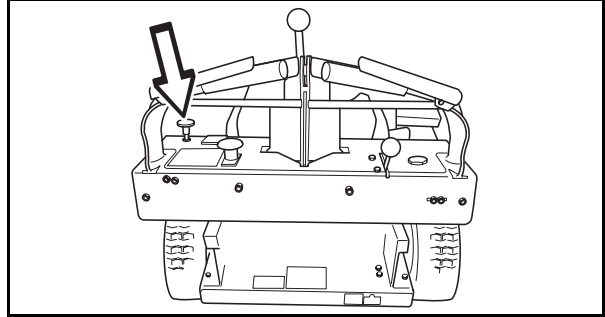


8011-438

Fuel valve in ON position

OPERATION

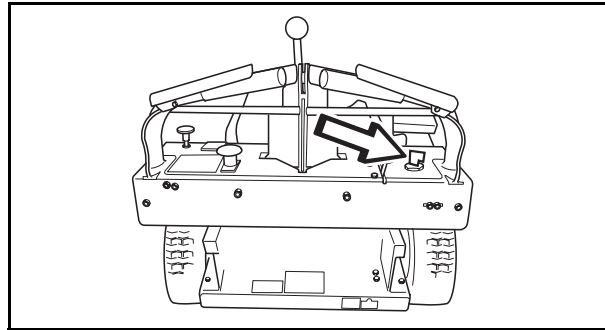
4. Adjust choke (if needed)
Do not use choke when the engine is warm.



8011-652

Choke control

5. Turn ignition key to ON position.



8011-656

Ignition key

IMPORTANT INFORMATION

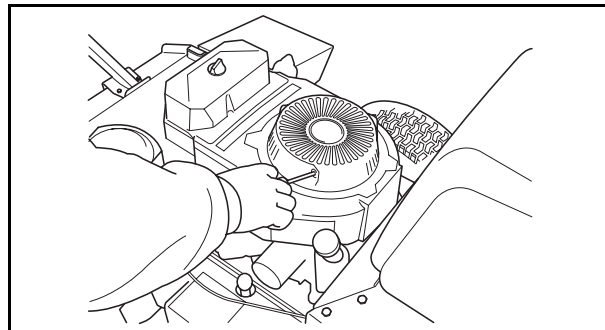
Do not let recoil cord snap back by itself. This may damage the cord or the recoil starter assembly.

6. 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.



WARNING!

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



8011-435

Pull the starter grip

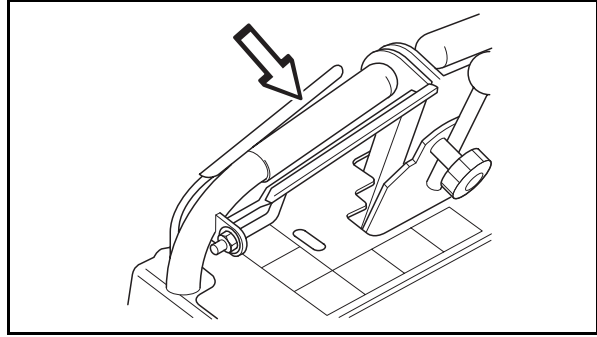
IMPORTANT INFORMATION

To prolong spindle bearing, clutch and belt life, engage and disengage blades at approximately ½ throttle.

7. Pull the ground speed lever fully back.

OPERATION

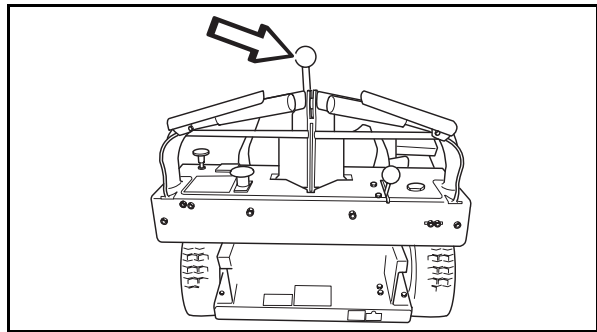
8. Holding down at least one of the operator presence levers, engage blades and **set RPM to maximum.**



8011-661

Presence lever

9. Release the neutral bail.
10. Set the ground speed lever to the desired position.

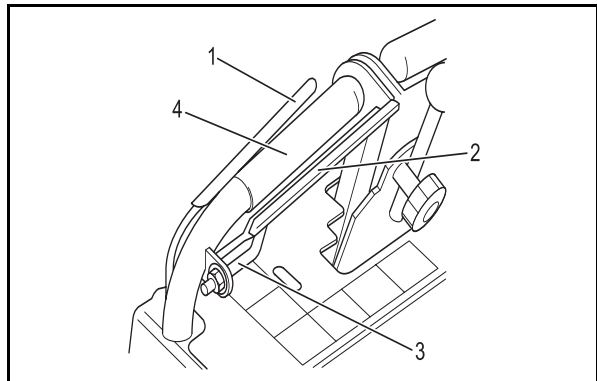


8011-654

Ground speed lever

Driving forward

1. Pull the ground speed lever fully back.
2. Depress one operator presence lever.
3. Unlock the motion control levers by pushing the neutral bail down out of the neutral slots.
4. Slowly set the ground speed lever to the desired position and release both motion control levers at the same time to begin a straight line forward motion.
5. The steering system of this mower uses individual right and left motion control levers on the handle bars. Squeezing one motion control lever will reduce the flow of oil from the hydro pump to its wheel motor. The speed of the wheel is reduced. With the both wheels still under power, a turn is accomplished.
6. To stop forward travel, pull both levers back into their stop positions or pull the ground speed lever fully back.



8011-403

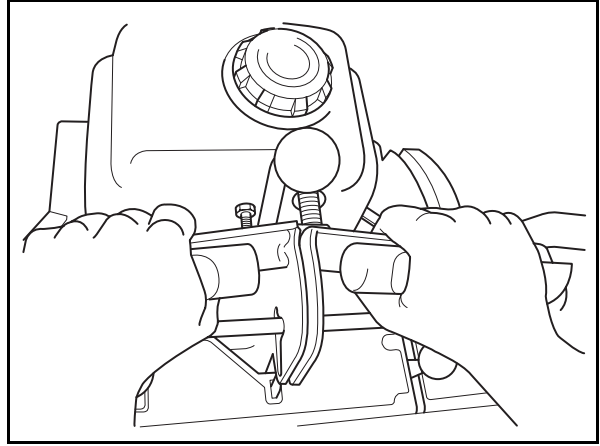
1. Operator Presence Lever
2. Motion Control Lever
3. Neutral Bail
4. Handle

E-handle with bail in neutral position

OPERATION

Reversing

1. Depress one operator presence lever and pull the ground speed lever fully back.
2. Unlock the motion control levers by pushing the neutral bail down out of the neutral slots. Slowly push both motion control levers towards the handle at the same time to begin a straight line backward motion.
3. The steering system of this mower uses individual right and left motion control levers on the handle bars. Squeezing one motion control lever more than the other will reduce the flow of oil from the hydro pump to its wheel motor. The speed of the wheel is reduced. With the both wheels still under power, a turn is accomplished.
4. To stop backward travel, set both levers back into their stop positions and lock the position with neutral bail.



8011-422

ETS-handle with bail in neutral position

To operate on hills

To operate on slopes is a dangerous mowing job. Read the Safety Instructions section "Driving on Slopes" on page 8.



WARNING!

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

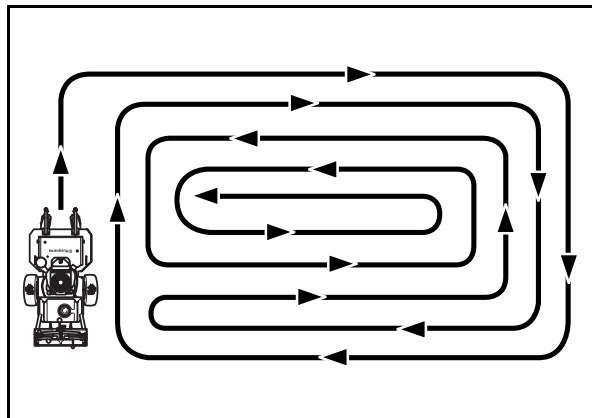
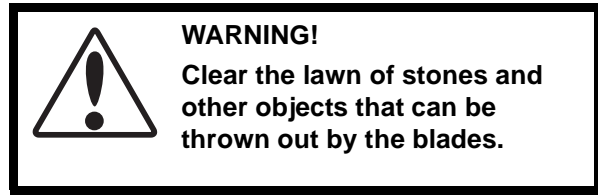
Mowing Tips

- Observe and mark rocks and other fixed objects in order to avoid collisions.
- The cutting deck should be properly leveled for best mowing performance. The blades should be parallel to the ground or slightly tipped down in the front.
- Only use sharp blades.
- Check tire pressure. Different pressure can cause uneven mowing results.
- The left hand side of the deck should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the mower. This will result in more even distribution of clippings and a more uniform cut. To avoid clippings spraying on roads etc, mow the first two patterns in opposite direction.
- Begin with a high cutting height and reduce it until the desired mowing result is attained.

The average lawn should be cut to 2 1/2" (64 mm) during the cool season and to over 3" (76 mm) during the hot months. For healthier and better looking lawns, mow often after moderate growth.

For best cutting performance, grass over 6" (15 cm) in height should be mowed twice. Make the first cut relatively high; the second to the desired height.

- The mowing result will be best with a high engine speed (the blades rotate rapidly) and low speed (the machine moves slowly). If the grass is not too long and dense, the driving speed can be increased without noticeably depreciating the mowing result.
- The finest lawns are obtained by mowing often. The mowing becomes more even and the grass clippings more evenly distributed over the mown area. The total time taken is not increased as a higher driving speed can be used without poorer mowing results.

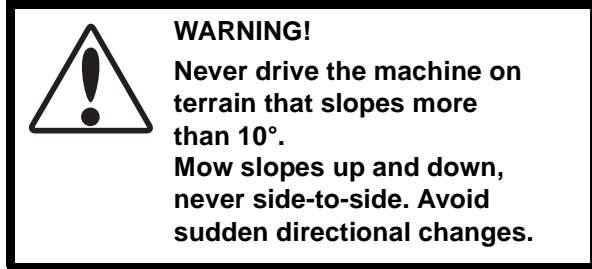


8011-409

Mowing patterns

OPERATION

- Avoid mowing wet lawns. The mowing result is poorer because the wheels sink into the soft lawn, clumps build, and the grass clippings fasten under the cowling.
- Hose the mower deck with water after each use. Hose especially underneath.
- Do not spray high pressure spray directly on top of spindles.
- Avoid getting engine too wet.



8011-514

Clean mower deck after each use

Stopping

Emergency stop

Release both hands from the operator 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 motion control levers firmly against handle grips and hold them securely in place. Use thumbs to lift the neutral bail up into the neutral slot. Then stop engine by pulling throttle control back and shut off the key switch.

Normal operating stop

1. Pull both motion control levers firmly toward the handle grips to stop forward motion or pull the ground speed lever fully back.
2. Use thumbs to lift neutral bail into the neutral slots.
3. Push the throttle control to the low rpm position.
4. Push blade switch to the off position.
5. Stop engine, refer to "Stopping the Engine" on page 30.

IMPORTANT INFORMATION

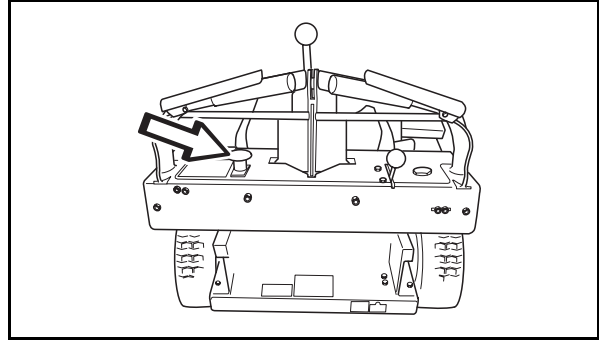
Close fuel valve at the end of each mowing job.

OPERATION

Stopping the Engine

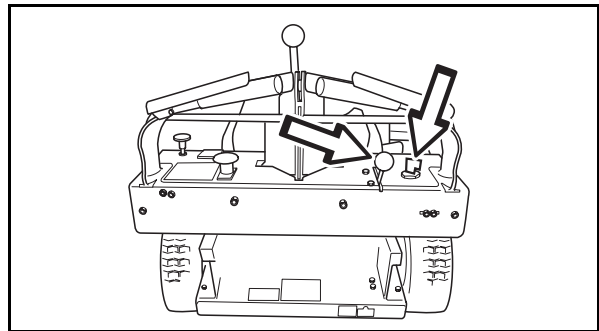
Allow the engine to idle a minute in order to attain normal operating temperature before stopping it, if it has been worked hard. Avoid idling the engine for longer periods, as there is a risk of the spark plugs fouling.

1. Disengage the blades by depressing the blade switch.
2. Move the throttle to the minimum position (tortoise symbol). Turn the ignition key to the stop position.
3. Remove the ignition key.
4. When the machine is standing still, activate the parking brake by moving the lever to the park brake position.



8011-655

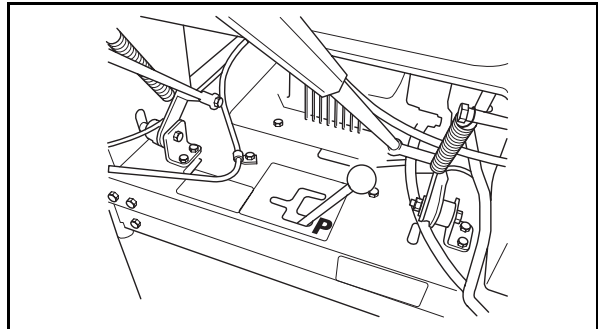
Disengage the blades



8011-664

Throttle and ignition key

4. When the machine is standing still, activate the parking brake by moving the lever to the park brake position.



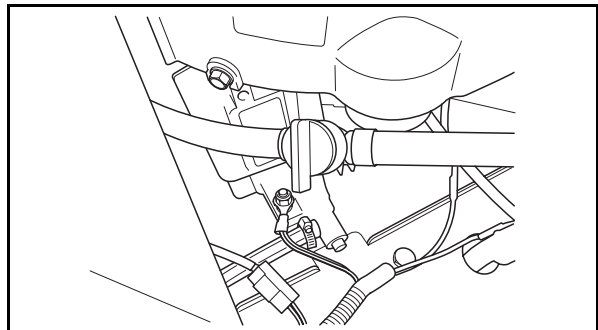
8011-665

Parking brake

5. Shut OFF the fuel valve.

IMPORTANT INFORMATION

Close fuel valve at the end of each mowing job.



8011-437

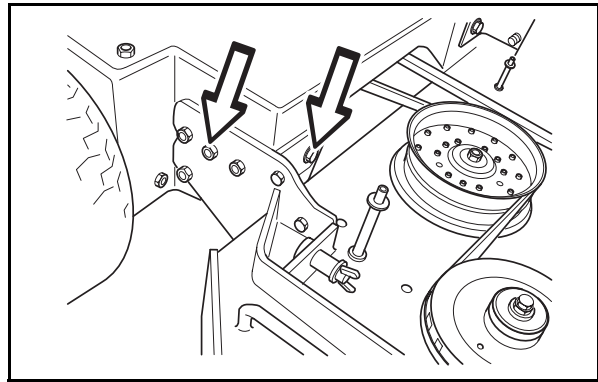
Fuel valve closed

OPERATION

Cutting height adjustment

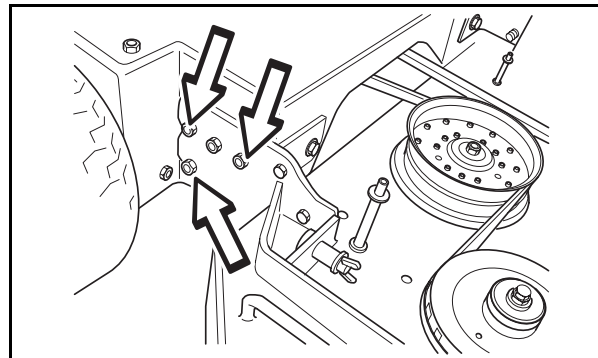
The cutting height can be adjusted by three methods:

- 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 installation of blades, contact your Husqvarna dealer.
- Cutting deck height adjustment according to the following instruction.
 1. Before changing cutting heights make sure the blades are off, key switch is off, and remove spark plug wires.
 2. Cutting height ranges from 1 1/2" to 5" in 1/4" increments. Factory setting is 3".
 3. Cutting height can be changed three ways. Move one "C" spacer on the front casters, change the blade spacers, or change rear deck position.
 4. a. To change heights on the rear deck loosen, but **do not** remove the middle bolt on each side of the rear deck, and the two bolts on the front side of the rear deck. See illustration "Loosen these screws".
b. Push down on the handles and lift the rear of the cutting deck up off of the ground. Block the rear of the cutting deck off of the ground the following distances (boards work well).
 - Deck Position A: 3 1/4"
 - Deck Position B: 2"
 - Deck Position C: 3/4"Lower the deck down onto the blocks. Now remove the outer three bolts on each side of the rear deck. See illustration "Remove these screws".



8011-406

Loosen these screws



8011-407

Remove these screws

OPERATION

c.
Tip the handles up or down until the correct position is achieved. See "Cutting height table", or reference the height decal located on the muffler side of the rear deck.

d.
Reinstall and tighten the outer three bolts on each side. A tapered punch may be needed to help align the holes.

e.
Retighten the center bolts on each side and the two bolts on the front of the rear deck.

CUTTING HEIGHT	REAR DECK POSITION	BLADE SPACERS	CASTER SPACERS ON BOTTOM
1 1/2	C	2	0
1 3/4	C	1	0
2	C	2	1
2 1/4	C	1	1
2 1/2	C	0	1
2 3/4	B	1	2
3	B	2	3
3 1/4	B	1	3
3 1/2	B	0	3
3 3/4	B	1	4
4	A	2	5
4 1/4	A	1	5
4 1/2	A	0	5
4 3/4	A	1	6
5	A	0	6

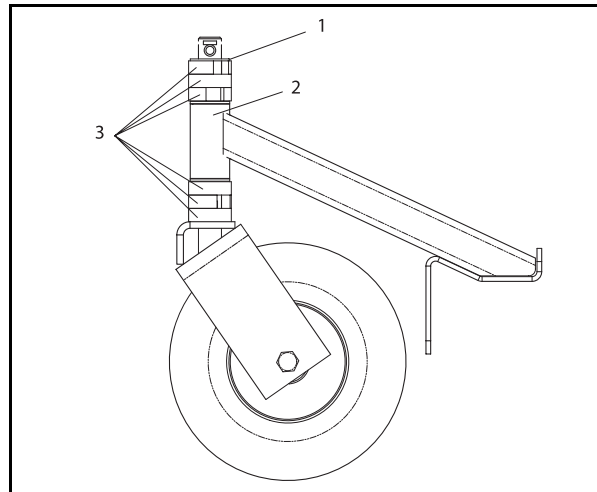
8011-404

Cutting height table

- Using the "Cutting height table", find the correct number of spacers to be placed under the caster swivel
- Remove the lynch pin and washer from the top of caster and reposition spacers to the desired cutting height from the table. See illustration "Caster height adjustment"

IMPORTANT INFORMATION

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



8011-405

- Machinery bushing
- Caster swivel
- 1/2" "C" Spacers

Caster height adjustment

OPERATION

Moving by hand

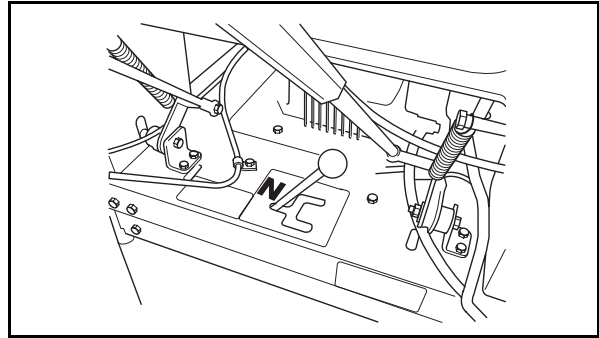
IMPORTANT INFORMATION

Do not tow this machine, it may cause damage to the drive system.

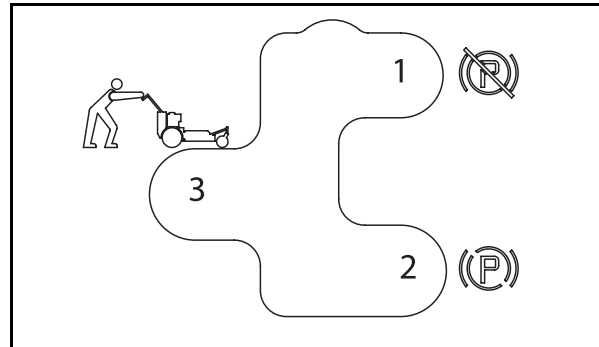
When pushing or pulling the mower, be sure to move brake/bypass lever to the bypass position.

Brake/bypass lever is located on the back of the rear deck.

- Move the brake/bypass lever to the bypass position.
- To reengage the IZT's move the brake/bypass lever into the drive position.



Brake/Bypass lever



1. Drive position
2. Brake position
3. Push / Bypass position

Brake/Bypass lever positions

MAINTENANCE

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 in order to maintain your machine in the best possible condition and to ensure safe operation.

Read Safety Instructions section “Maintenance” on page 10.

● = Described in this manual

○ = Not described in this manual

Maintenance	Page	Daily maintenance		Weekly maintenance	At least once each year	Maintenance interval in hours			
		Before	After			25	50	100	300
Check for fuel and oil leakages	-	○							
Check the parking brake	41						●		
Check the engine's oil level (every refueling)	48	●							
Front and rear tires	40	●							
Check the fuel pump's air filter	40					●			
Check the safety system	37	●							
Check/clean the engine's cooling air intake	37	●							
Check the cutting deck	43					●			
Check underside of rear deck	43		●						
Check hardware (screws, nuts, etc.)	43		●						
Start the engine and blades, listen for unusual sounds	-		○						
Clean under the mower deck	43		●						
Inspect/Replace blades ²⁾	44					●			
Check the condition of belts, belt pulleys, etc.	41							●	
Check for damage	-		○						
Check the tire pressures	40					●			
Thoroughly clean around the engine	-		○						
Thoroughly clean around the hydraulic system	-		○						
Clean around belts, belt pulleys, etc.	-		○						
Clean the engine's cooling air intake	37							●	

MAINTENANCE

Maintenance	Page	Daily maintenance		Weekly maintenance	At least once each year	Maintenance interval in hours			
		Before	After			25	50	100	300
Check/adjust the cutting height	-				○				
Check throttle and choke cables	38							●	
Clean the air cleaner's pre-filter (foam)	39				●	●			
Clean the air cleaner's filter cartridge ²⁾ (paper filter)	39				●		●		
Change the engine oil ¹⁾ (every 200 hours)	48				●			●	
Replace the engine oil filter (every 200 hours)	48				●			●	
Clean/Replace the spark plugs	36				●			●	
Replace the fuel filter	40				●			●	
Clean the cooling fins	-				○			○	
Check the engine valve clearance ⁴⁾	-				○				○
Replace the air cleaner's pre-filter (foam) (every 200 hours)	39				●			●	
Replace the air filter (paper filter) ²⁾ (every 200 hours)	39				●			●	
Check the caster wheel axle bolts (every 200 h)	43							●	
Lubricate according to Lubrication Schedule	45		●	●	●	●	●	●	●
Perform the 300-hour service ⁴⁾	63				○				○
Check/adjust the parking brake	-				○		○		

¹⁾ First change after 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 shall be lubricated twice weekly. ⁴⁾ Performed by authorized service workshop.

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

WARNING!

No adjustments or maintenance to be carried out unless:

- The engine is stopped.
- The ignition key has been removed.
- The parking brake is on.

MAINTENANCE

Ignition System

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

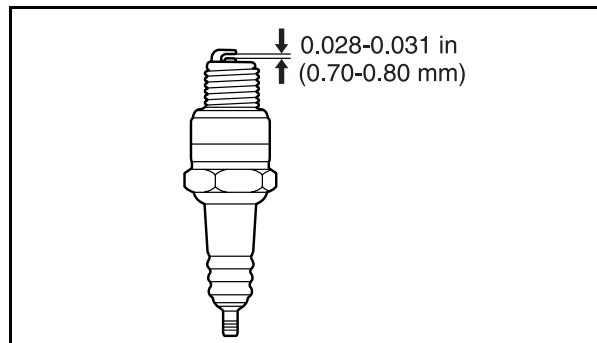
For recommended spark plugs, see Technical Data.

1. Remove the ignition cable boot and clean around the spark plug.
2. Remove the spark plugs with a spark plug socket wrench.
3. Check the spark plugs. Replace the spark plug if 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 0.030" (0.75 mm). Adjust as necessary by bending the side electrode.
5. Reinsert the spark plugs, turning by hand to avoid damaging the threads.
6. After the spark plugs are seated, tighten it using a spark plug wrench so that the washer is compressed. Used spark plugs should be turned 1/8 of a turn from the seated position. New spark plugs should be turned 1/4 of a turn from the seated position.
7. Connect 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

Checking the 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.

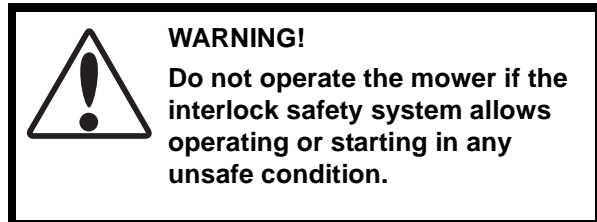
Make daily inspections to ensure that the safety system works by attempting to start the engine when one of the conditions is not met.

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.

Functional check

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

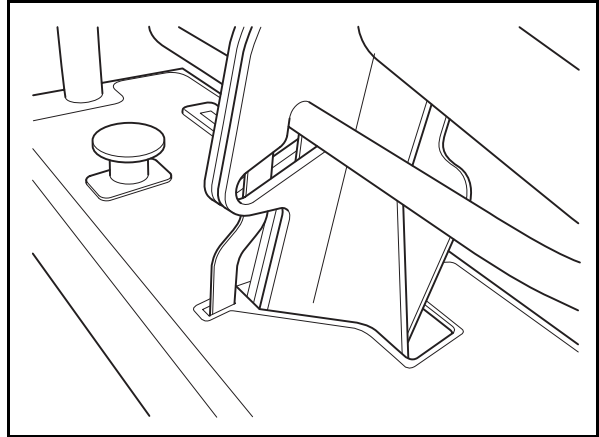
1. Engine must stop if blades are engaged without operator presence levers held down.
2. Engine must stop if neutral bail is taken out of neutral without holding down operator presence levers.
3. Engine must not start unless blades are off and neutral bail is in the neutral position.



Checking the Engine's Cooling Air Intake

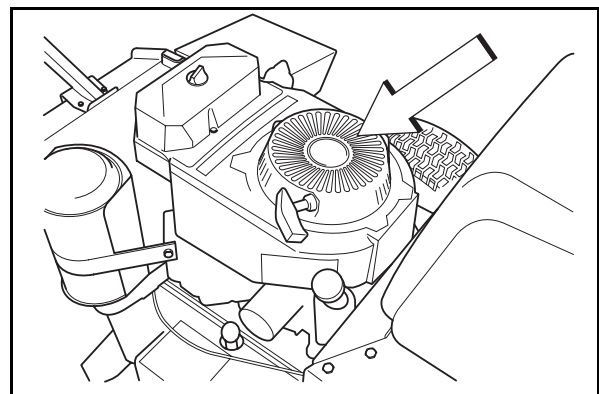
Check that the engine's cooling air intake is free from leaves, grass, and dirt.

If the cooling air intake is clogged, engine cooling deteriorates, which can lead to engine damage.



8011-416

Conditions for starting



8011-783

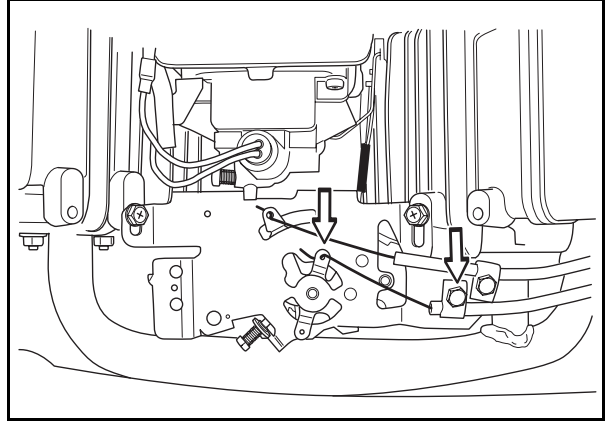
Check and clean the cooling air intake

MAINTENANCE

Checking and Adjusting the Throttle 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 service workshop. If adjustments are necessary, they can be made as follows for the lower cable:

1. Loosen the clamping screw for the cable's outer casing and move the throttle to the full throttle position.
2. Check that the throttle cable is mounted in the correct hole in the lower lever, see illustration.
3. Push the throttle cable's outer casing as far to the left as possible and tighten the clamping screw.



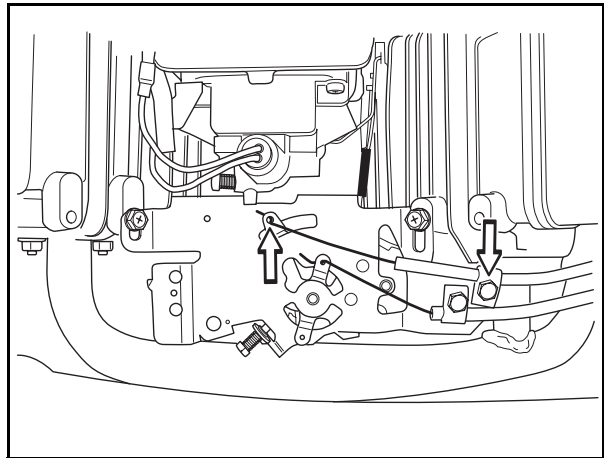
8011-554

Adjusting the throttle cable

Checking and Adjusting the Choke Cable

If the engine produces black smoke or is difficult to start, this can be because the choke cable is incorrectly adjusted (upper cable). If doubts arise, contact the service workshop. If adjustments are necessary, they can be made as follows:

1. Loosen the clamping screw for the cable's outer casing and move the choke lever to the full choke position.
2. Check that the choke cable is mounted in the upper lever, see illustration. Push the choke cable's outer casing as far to the right as possible and tighten the clamping screw.



8011-555

Adjusting the choke cable

MAINTENANCE

Replacing the Air Filter

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, disrupting operation.

For this reason, it is important to replace the air filter regularly (see the heading Maintenance Schedule for the proper service interval).

Cleaning/replacing the air filter is carried out as follows:



WARNING!

Allow the exhaust system to cool before performing service. Risk for burns.

1. Remove the plastic fastener on top of the air filter cowl and remove the air filter cowl.
2. Remove the foam pre-filter and clean using a mild detergent.
Squeeze it dry with a clean cloth.
3. Remove the wing nuts for the air filter and remove the paper filter. Tap the paper filter against a fixed surface to remove dust. If the paper filter is still dirty, it must be replaced.

IMPORTANT INFORMATION

Do not use compressed air to clean the air filter.

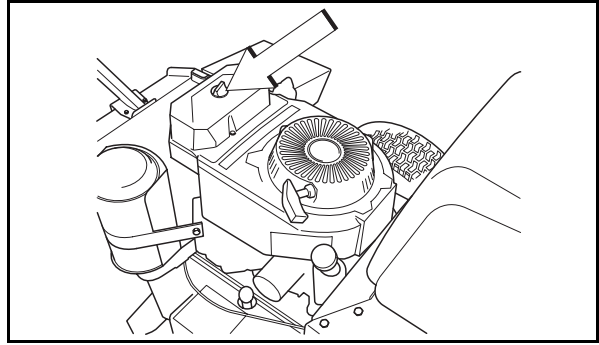
Do not wash the paper filter.

Do not oil the paper filter.

4. Refit the air filter as follows: Check that the seal on the bottom of the paper filter is whole.

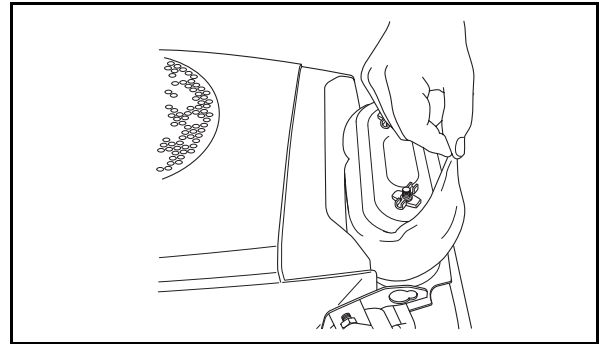
Mount the paper filter in the air filter housing and tighten the wing nuts.

5. Refit the pre-filter on the paper filter.
6. Replace the cowl over the air filter housing. Do not over tighten the plastic fastener.



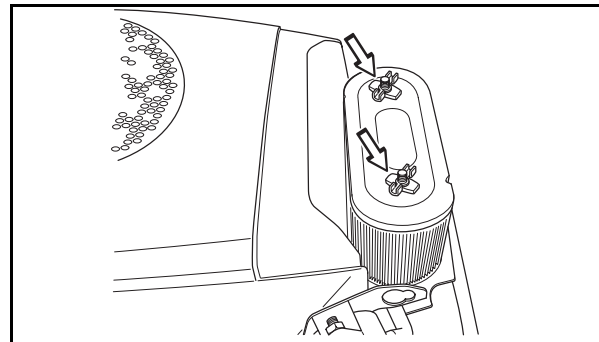
8011-784

Remove the air filter cowl



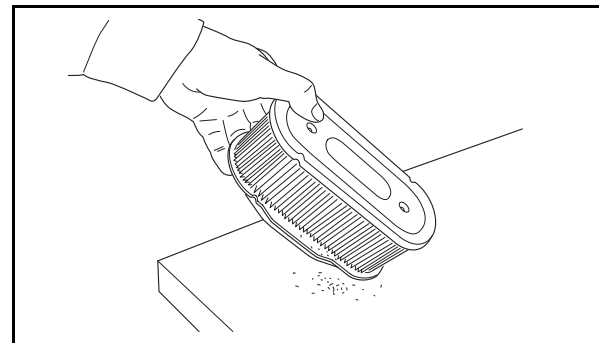
8011-557

Remove the pre-filter



8011-558

Remove the paper filter



8009-181

Remove dust

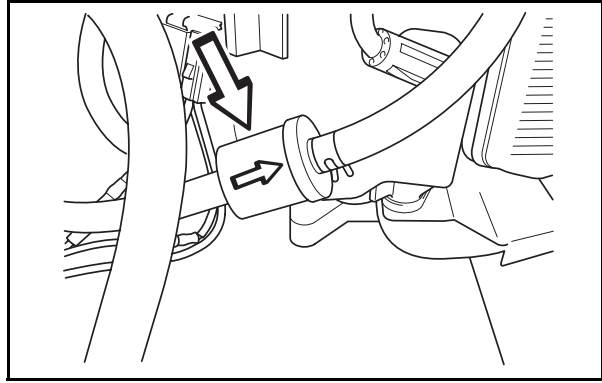
MAINTENANCE

Replacing the Fuel Filter

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

Replace the filter as follows:

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.



8011-425

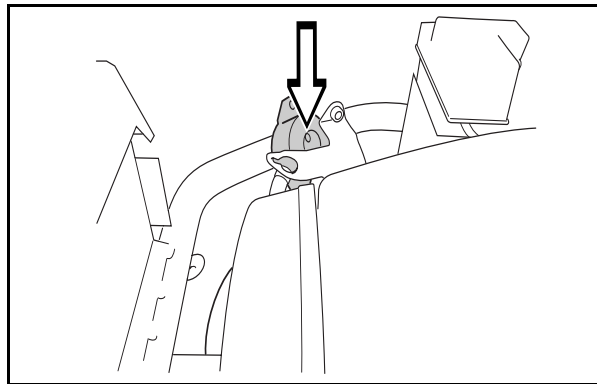
Fuel filter

Checking the Fuel Pump's 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.

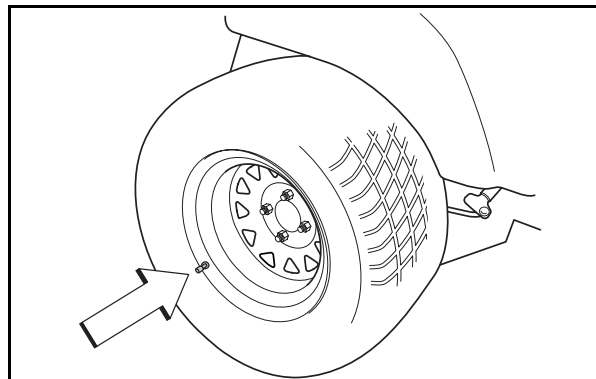


8009-147

The fuel pump's air filter

Checking Tire Pressures

All four tires shall have a pressure of 15 PSI (1 bar).



8011-564

Tire pressures

MAINTENANCE

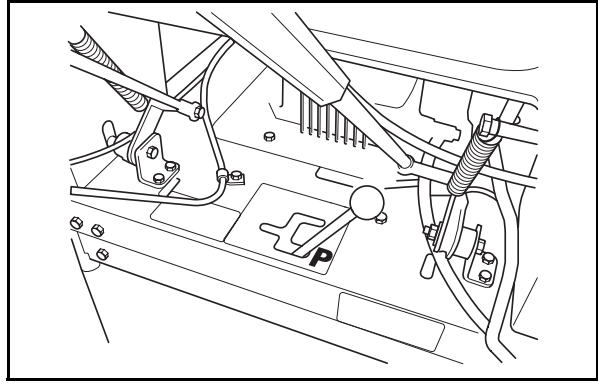
Checking the Parking Brake

IMPORTANT INFORMATION

The parking brake is a mechanical latch brake and must not be applied when the mower is moving.

Visually check that no damage is found on the lever, links, or switch belonging to the parking brake. Perform a stand still test and check that there is sufficient braking action.

To adjust the handbrake, contact the Husqvarna service workshop.



8011-665

The parking brake in the engaged position

Checking the V-belts

Deck belt

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

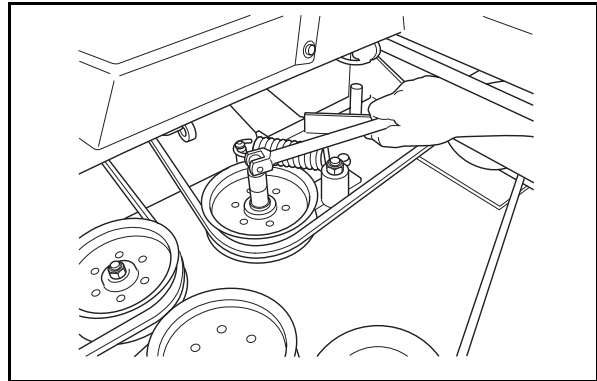
NOTE: The belt will show some small cracks in normal operation.

To replace belt, remove the plate and belt shields.

Use a ratchet with a 9/16" socket on the spring idler bolt to relieve the tension on the belt. Slide the belt off of pulley and remove the belt.

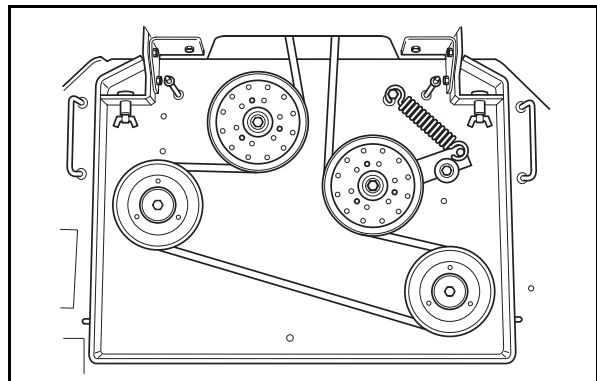
Reverse the procedure for installation. See the decal on the top of deck for belt routing information.

After installation is complete check the belt for twists.



8011-622

Slackening the belt tensioner



8011-446

Belt routing, deck belt

MAINTENANCE

Checking the Blades

In order to attain the best mowing effect, it is important that the blades are well sharpened and not damaged.

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

Check the blade mounts.

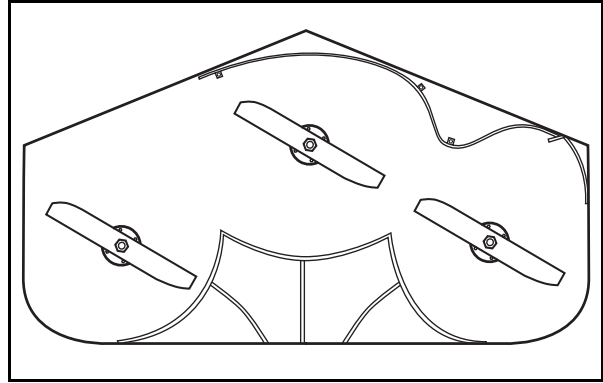
IMPORTANT INFORMATION

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

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.

Adjustment of the handle

Loosen the lower screw, don't remove it. Remove the upper screw and put it into the next hole. Tighten all screws.



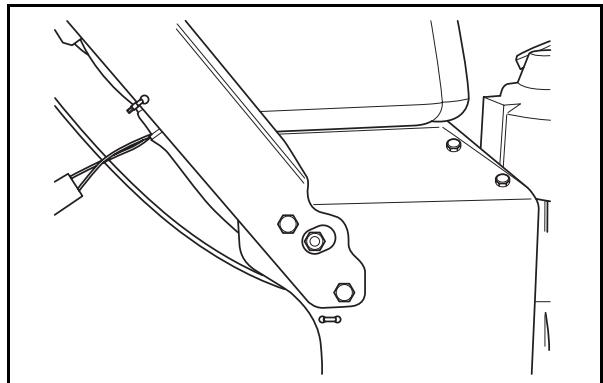
8011-604

Check the blades



WARNING!

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



8011-469

Adjusting the handle.

MAINTENANCE

Cleaning and 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 deck spindles.



8011-639

Cleaning

Caster Wheels

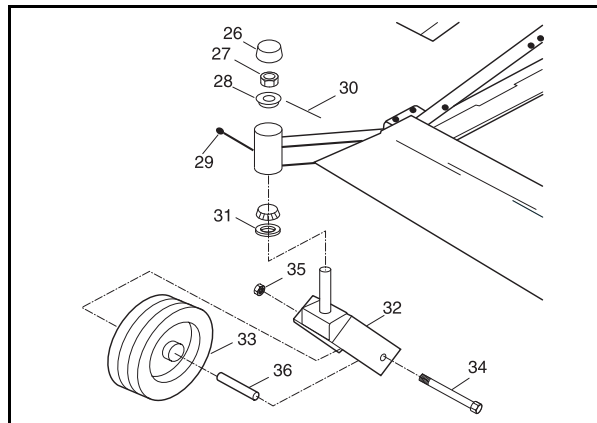
Check every 200 hours. Lift front of unit off of ground so caster wheels can rotate freely. Tighten caster bolt (34) then back off 1/2 turn. Check that wheel rotates freely. If wheel does not rotate freely back the caster bolt off in 1/4 turn increments until wheel rotates freely.

IMPORTANT INFORMATION

DO NOT add any type of tire liner or foam fill material to the tires. Excessive loads created by foam filled tires will cause premature failures.

Only use O.E.M. specified tires.

Foam filled tires or solid tires will void the warranty.



8011-619

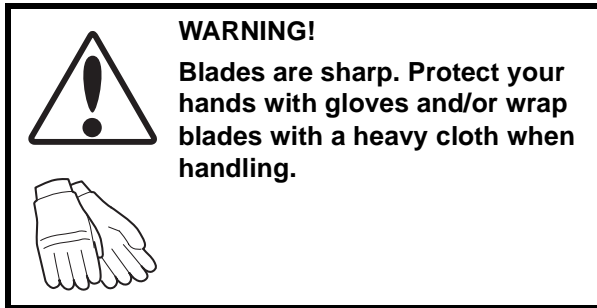
Caster wheels

Hardware

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

MAINTENANCE

Blade replacement



- Remove blade bolt by turning counterclockwise.

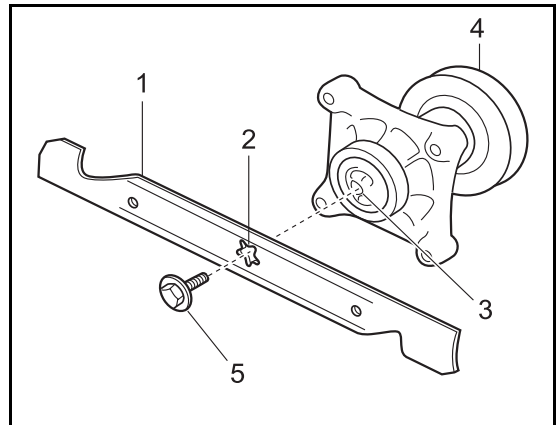
IMPORTANT INFORMATION

To ensure proper assembly, center hole in blade must align with star on cutter housing,

- Install new or re-sharpened 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. Tightening torque 90 ft/lb (122 Nm).

IMPORTANT INFORMATION

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



8011-671

1. Blade
2. Center hole
3. Star
4. Cutter housing
5. Blade bolt (special)

Blade attachment

LUBRICATION

Lubricating the Cables

If possible, lubricate 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 thin engine oil until the oil begins to escape from the bottom.

Hint!: 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.

Lubricating in Accordance with the Lubrication Schedule

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 molybdenum disulphide 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 molybdenum disulphide grease.

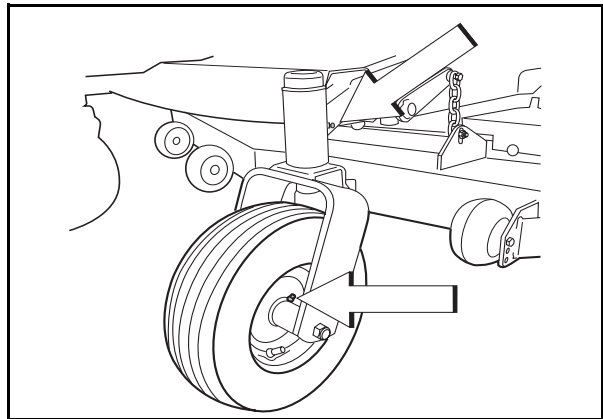
Grease from well-known brand names (petrochemical companies, etc.) usually maintains a good quality.

3. Outer belt wheels

Lubricate using a grease gun, one zerk, until the grease squeezes out.

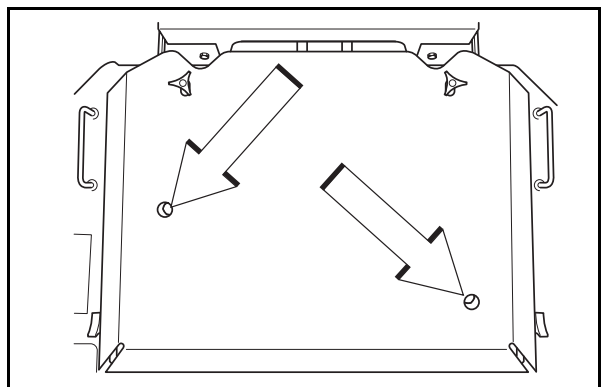
Use only good quality molybdenum disulphide grease.

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



8011-573

Lubricating the front wheels



8011-454

Lubricating the outer belt wheels

IMPORTANT INFORMATION

Be spartan and remove excess lubricant so that it does not come into contact with belts or belt pulley drive surfaces.

LUBRICATION

4. Belt Adjuster, Mower Deck

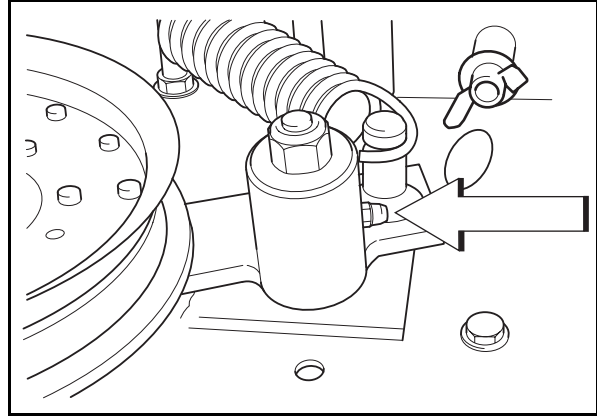
Remove the plate (four screws) and lubricate with a grease gun, one zerk, until grease is forced out.

Use only good quality molybdenum disulphide grease.

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

IMPORTANT INFORMATION

Be spartan and remove excess lubricant so that it does not come into contact with belts or belt pulley drive surfaces.



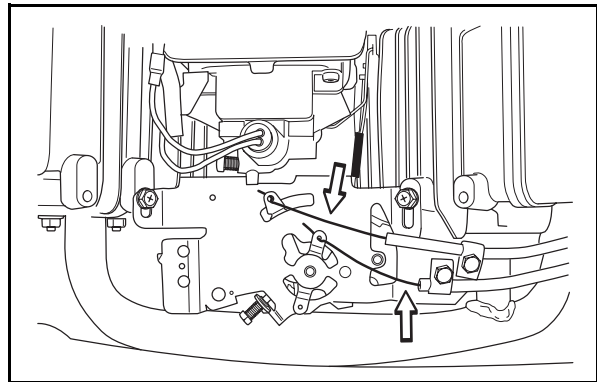
8011-453

The belt adjuster grease zerk

5. Throttle and Choke Cables, Lever Bearings

Lubricate the cable ends by 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.



8011-605

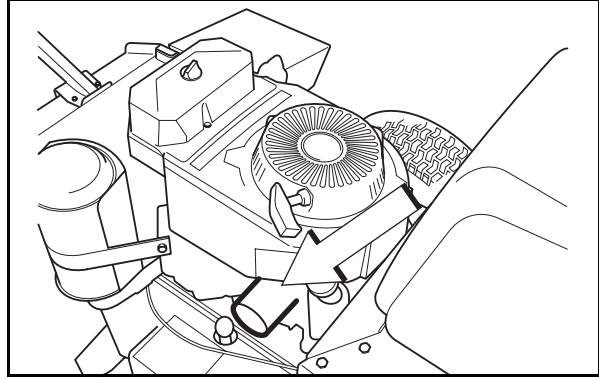
Throttle and choke cables by the carburetor

LUBRICATION

6. Changing the Oil Filter

1. Drain the engine oil in accordance with the description under the heading Engine Oil/Change Engine Oil.
2. Disassemble the oil filter. If necessary, use a filter remover.
3. Wipe new, clean engine oil onto the seal of the new filter.
4. Mount the filter by hand with + 3/4 turn.
5. 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 0.2 qt (0.2 liters) of oil.



8011-785

Changing the oil filter

7. Engine Oil

Changing the Engine Oil

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



WARNING!

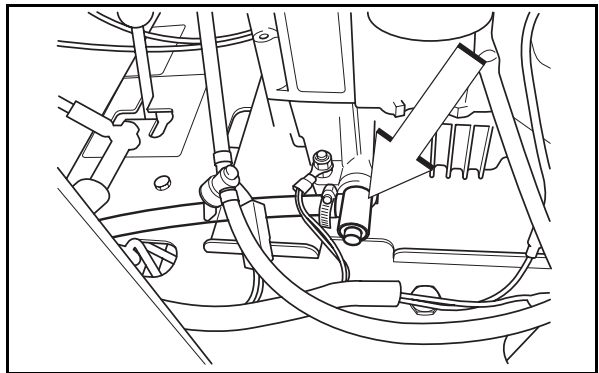
Engine oil can be very hot if it is drained directly after stopping the engine. Allow the engine to cool somewhat first.

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.

1. Place the machine on a flat surface.
2. Place a container behind the machine where the hose from the oil drain valve exits.
3. Remove the dipstick and open the oil drain valve.
4. Allow the oil to run out into the container.
5. Then close the oil drain valve.
6. Replace the oil filter if necessary.
7. Fill with new engine oil, refer to "Checking the oil level".
8. Start the engine. Run it for a few seconds and re-check the oil level.



8011-451

Oil drain valve

LUBRICATION

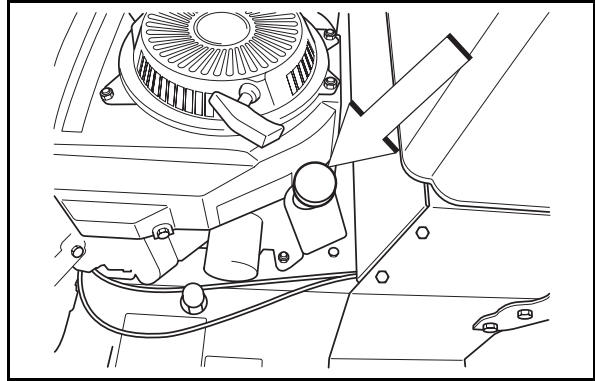
Checking the Oil Level

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.



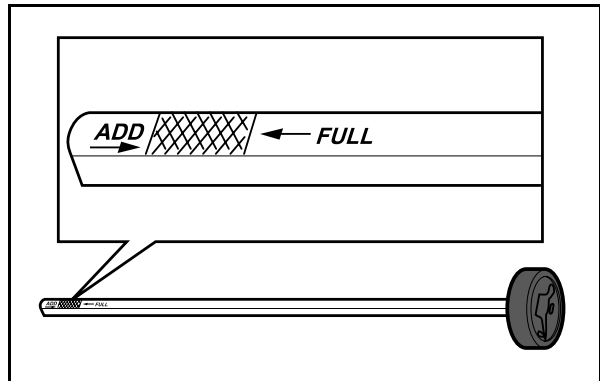
8011-452

Remove the dipstick

The oil level should lie between the markings on the dipstick. If the level is approaching the "ADD" mark, fill with oil to the "FULL" mark on the dipstick.

Never fill above the "FULL" mark.

The oil is filled through the hole the dipstick sits in.



8009-159

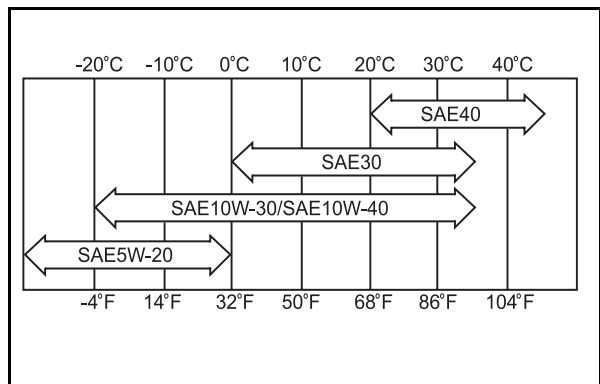
The dipstick markings

Use engine oil SAE 30 or SAE 10W-30 or, alternately, 10W/40, class SF-SJ (over +32°F / 0°C).

Over +68°F / +20°C 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 (1.5 liters) of oil excluding the filter (including filter 1.8 qt, 1.7 liters).



8009-140

Engine oils

Transmission Gears

The gears are maintenance free. There is no need to check the level or change the oil. If a leak occurs, replace the unit or contact your Husqvarna dealer.

TROUBLE SHOOTING GUIDE

Trouble Shooting Guide

Problem	Cause
The engine will not start.	<ul style="list-style-type: none">• The control for engaging the mower deck is in engaged position.• The motion control are not locked in the neutral position by the neutral bail.• Spark plug wires off.• Contamination in the carburetor or fuel line.• The fuel supply is closed or the fuel valve closed.• Clogged fuel filter or fuel line.• Fuel tank empty.
The engine runs unevenly.	<ul style="list-style-type: none">• Faulty carburetor.• The choke control is pulled out with a warm engine.• Defective valves.• Defective piston, cylinder, piston ring, or cylinder head seal.• The cylinder head bolts are loose.• Clogged fuel filter or jet.• Clogged ventilation valve on the fuel cap.• Fuel tank near empty.• Defective spark plugs.• The 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.	<ul style="list-style-type: none">• Clogged air filter.• Defective spark plugs.• Carburetor incorrectly adjusted.• Worn engine.

TROUBLE SHOOTING GUIDE

The engine overheats.

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

The machine moves slowly, unevenly,
or not at all.

- Parking brake on.
- Drive belt for the IZT slack or has come off.
- IZT failure.
- Brake/Bypass lever misadjusted.

Mower deck not engaging.

- Drive belt for the mower deck has come loose.
- Contact for the electromagnetic coupling has loosened.
- The control for engaging the mower deck is faulty or has come loose from the cable contact.
- The fuse has blown.

Uneven mowing results.

- Different air pressure in the tires on the left and right sides.
- Bent blades.
- Spacers for height adjustment faulty placed.
- The blades are blunt.
- Driving speed too high.
- The grass is too long.
- Grass collected under the mower deck.

The machine vibrates.

- The blades are loose.
- The blades are incorrectly balanced.
- The engine is loose.

The machine moves when in neutral position. • The motion control linkage out of adjustment.

TROUBLE SHOOTING GUIDE

The machine pulls left or right. • The tire pressure uneven.

- The motion control linkage incorrectly adjusted.
 - Soft terrain.
 - Slope too steep.
 - The tracking not adjusted.
 - The bypass misadjusted on one side.
-

STORAGE

Storage

Winter Storage

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

Fuel stabilizers are an acceptable option as regards sticky residues 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 careless use 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 in order 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 even the carburetor is drained of fuel or the stabilizer has reached the carburetor.
5. Remove the spark plugs and pour about a tablespoon of engine oil into each cylinder. Turn over the engine so that the oil is evenly distributed and then refit the spark plugs.
6. Lubricate all grease zerks, joints, and axles.
7. Store the machine in a clean, dry place and cover it for extra protection.

Service

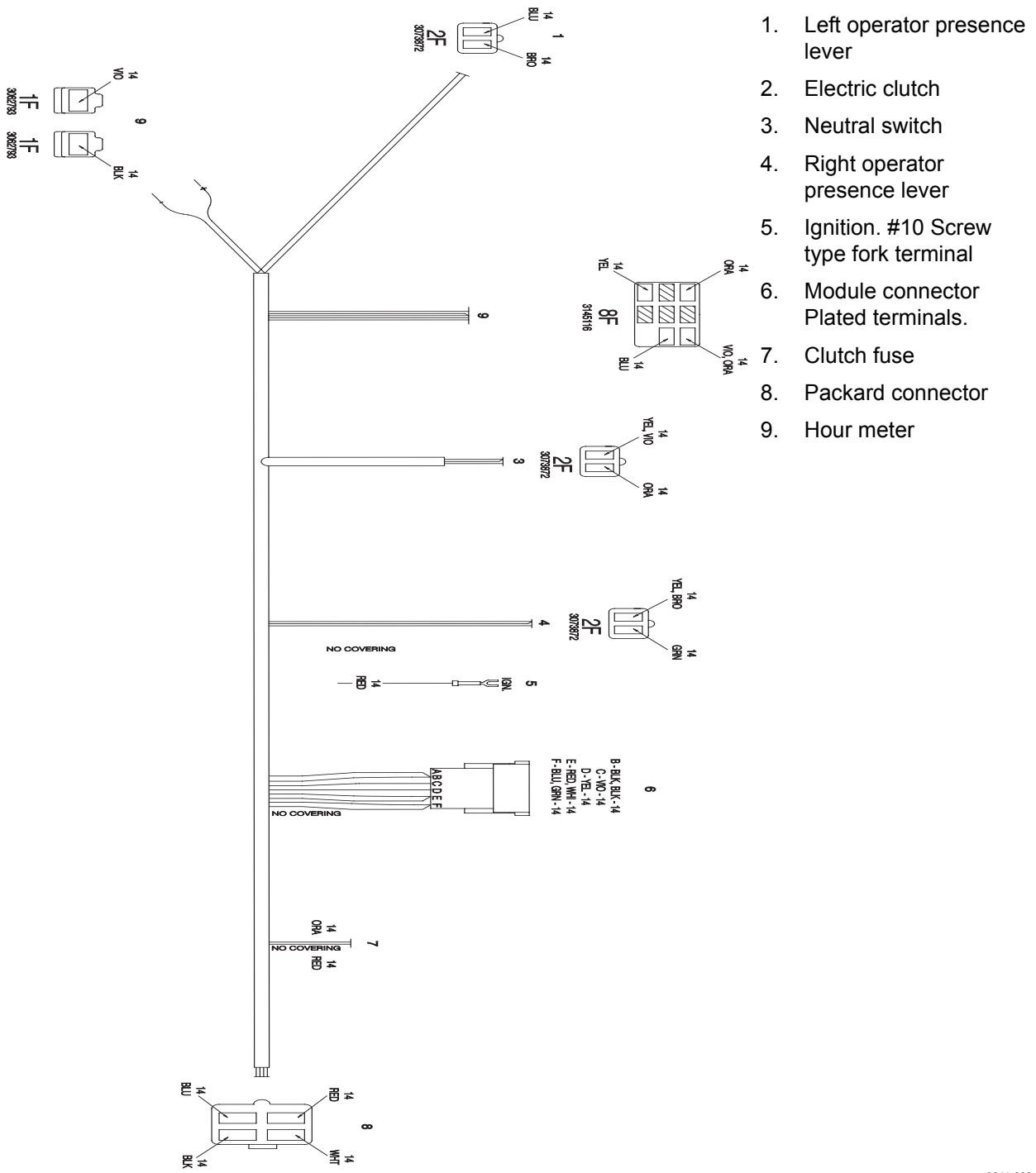
When ordering spare parts, please specify the purchase year, model, type, and serial number.

Always use genuine Husqvarna spare parts.

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

WIRING DIAGRAM

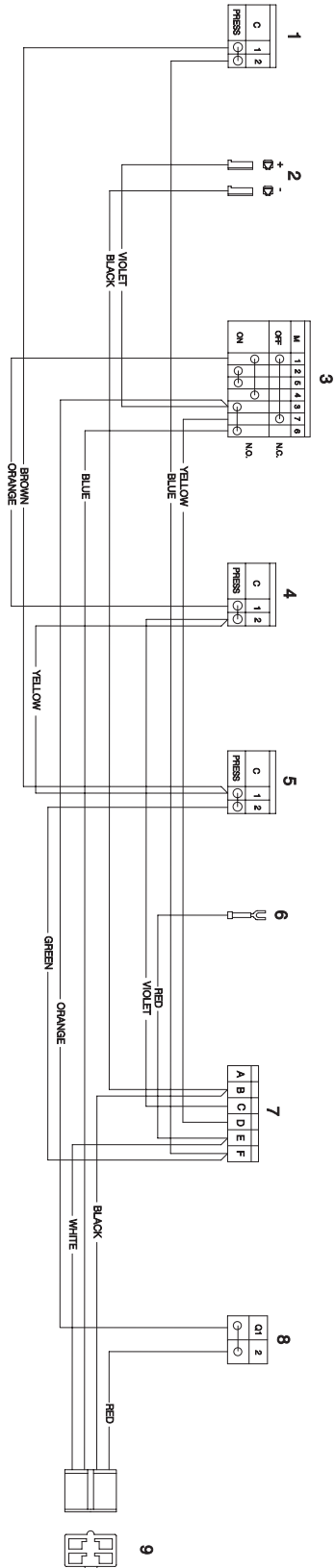
Wiring diagrams



1. Left operator presence lever
2. Electric clutch
3. Neutral switch
4. Right operator presence lever
5. Ignition. #10 Screw type fork terminal
6. Module connector Plated terminals.
7. Clutch fuse
8. Packard connector
9. Hour meter

8011-696

WIRING DIAGRAMS



1. Left operator presence switch
2. Hour meter
3. Electric clutch switch
4. Neutral
5. Right operator switch
6. #10 screw type fork terminal
7. Module connector
8. Clutch
9. Connector

TECHNICAL DATA

Technical Data

	WH3615E	WH4817E
Engine		
Manufacturer	Kawasaki	Kawasaki
Type	FH430V	FH541V
Power	15 hp / 12.5 kW	17 hp / 11 kW
Spark plugs / gap	RCJ8Y/ .030" / 0.75 mm	RCJ8Y/ .030" / 0.75 mm
Oil capacity excl filter	1.6 qt / 1.5 liters	1.6 qt / 1.5 liters
Oil capacity incl filter	1.8 qt / 1.7 litres	1.8 qt / 1.7 litres
Engine oil (See viscosity digram)	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 methanol 5%, max ethanol 10%, Max MTBE 15%)	Min 87 octane unleaded (Max methanol 5%, max ethanol 10%, Max MTBE 15%)
Fuel tank capacity	5.3 gallon / 20 liters	5.3 gallon / 20 liters
Transmission		
Transmission	Dual Hydro Gear IZT	Dual Hydro Gear IZT
Speed forward	0-6 mph / 0-9.7 km/h	0-6.5 mph / 0-10.4 km/h
Speed reverse	0-3 mph / 0-4.8 km/h	0-3 mph / 0-4.8 km/h
Front caster tires, Smooth tread	9x3.50-5, 4 ply	9x3.50-5, 4 ply
Rear tires, Turf pneumatic	16x5.5-8	16x6.5-8
Tire pressure front and rear	15 PSI / 103 kPa / 1 bar	15 PSI / 103 kPa / 1 bar
Equipment		
Cutting width	36" / 914 mm	48" / 122 cm
Cutting height	1.5" - 5" / 38 - 127 mm	1.5" - 5" / 38 - 127 mm
Productivity		
Productivity	2 acres/h / 8100 m ² /h	2.5 acres/h / 10125 m ² /h

TECHNICAL DATA

	WH3615E	WH4817E
Overall dimensions		
Weight	460 lbs / 209 kg	485 lbs / 220 kg
Base machine length	75" / 191 cm	72" / 183 cm
Base machine width	47" / 119 cm	59" / 150 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)
Hydraulic tube nuts	30 ft/lb (41 Nm)
Wheel motor hub nut	90 ft/lb (122 Nm)
Lug nuts	75 ft/lb (100 Nm)
Blade bolt	90 ft/lb (122 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 dealer 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 operation or damage the unit.

CONFORMITY CERTIFICATES

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, (Californian 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 valuable documents.

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>25-Hour Service</p> <ol style="list-style-type: none">1. Check the fuel pump's air filter.2. Check the tire pressures.3. Lubricate the belt adjuster, mower deck.4. Check/clean the engine's cooling air intake.5. Clean the air cleaner's pre-filter (foam).6. Inspect/Replace blades.	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>50-Hour Service</p> <ol style="list-style-type: none">1. Perform the 25-hour service.2. Clean/replace the air cleaner's filter cartridge (paper filter) (shorter intervals for dusty operating conditions).3. Check/adjust the parking brake.4. Lubricate the front wheel bearings.5. Lubricate outer belt wheels.6. Lubricate throttle and choke cables.	

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 engine oil.4. Check whether the engine oil filter needs changing (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 the need to change the air filter's paper cartridge and pre-filter (every 200 hours).11. Clean the engine cooling air intake.12. Check/adjust throttle and choke cables.13. Lubricate front wheel mounts.	

SERVICE JOURNAL

Action	Date, mtr reading, stamp, sign
<p>300-Hour Service</p> <ol style="list-style-type: none">1. Inspect the machine. Come to agreement with the customer as to which additional work is 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.	

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 pre-filter (foam) (200 hours).3. Replace the air filter's 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.	

