# Operator's Manual

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



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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.



#### **WARNING!**

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

# INTRODUCTION

#### Congratulations

Thank you for purchasing a Husqvarna ride-on mower. This machine is built for superior efficiency to rapidly mow primarily large areas. A control panel easily accessible to the operator and a hydrostatic 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. The following of instructions (use, service, maintenance, etc.) by all who operate this machine 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. Please contact your dealer for more information. 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.

#### **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 possible serious injury to the operator.

#### 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 iudgement, 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 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:

	En aire a	Transmissism
This Operator's Manual belongs to the machine with	Engine	Transmission
the manufacturing number:		

### **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 one of the valve covers.

The plate states:

- The engine's model.
- The engine's type.
- Code

Please have these available when ordering spare parts.

The wheel motors and hydrostatic pumps have a barcode decal affixed at the rear.

### 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.



#### WARNING!

XXXX XXXXXX XXXXX XXXX XXXXXXXX XXXXXX XXXXXXXX. XX XXXXXXX XXXX XXXXX.

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.

#### **IMPORTANT INFORMATION**

XXXX XXXXXX XXXXX XXXX XXXXXXXX XXXXXX XXXXXXXXX XX XXXXXXXX XXXX XXXXXX.

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.









Choke



Fuel

Neutral



Fast

CE conformity

Slow





Warning!

Parking Brake

marking. Only for European market

Warning! Rotating blades, keep away from the discharge deck

Do not touch parts









Do not stand here



Battery acid is corrosive, explosive and flammable



Use protective glasses



Use protective gloves

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

# 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



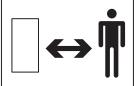








Severing of fingers and toes





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 Instructions**

These instructions are for your safety. Read them carefully.



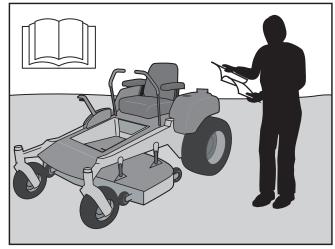
#### **WARNING!**

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

**IMPORTANT:** 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.

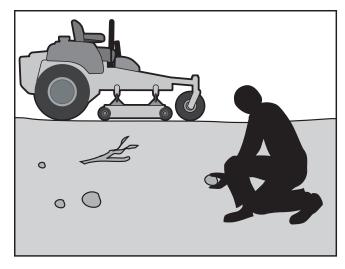
#### **General Operation**

- 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.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- 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.
- Never carry passengers. The machine is only intended for use by one person.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- 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. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.



9011 513

Read the operator's manual before starting the machine



Clear the area of objects before mowing

- 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 guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60
  years and above, are involved in a large
  percentage of riding mower-related injuries.
  These operators should evaluate their ability
  to operate the riding mower safely enough to
  protect themselves and others from serious
  injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- 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 / engine part 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.



8011-520

Never take passengers



#### **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.

### SAFFTY

#### **Personal Safety Equipment**



#### WARNING!

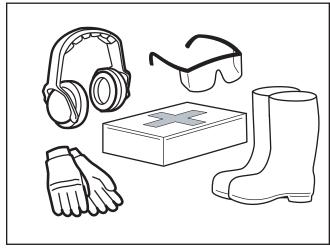
When using the machine, approved personal protective equipment (shown in illustrations) shall be used. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your retailer for help in choosing the right equipment.

- 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.

#### Slope Operation

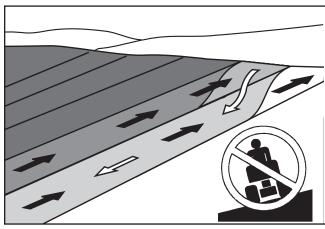
Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

- 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 tires lose traction, disengage 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.



8011-670a

Personal protective equipment



Mow up and down, not side to side



#### **WARNING!**

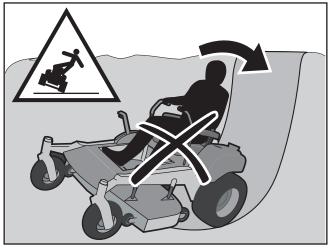
Do not drive up or down hills with slopes greater than 10 degrees. And do not drive across any slopes.

- 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.

#### Children

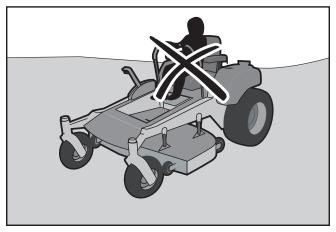
Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- 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. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- 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.



8011-509

Be extra cautious when driving on slopes



8011-517

Never allow children to operate the machine



8011-518

Keep children away from work area

# A

#### 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 appliances.
- 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 your vehicle when filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground.
   If this is not possible, then 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, because the heat from the engine and the sun may otherwise cause the fuel to expand and overflow.



8011-516

Never fill the fuel tank indoors



#### **WARNING!**

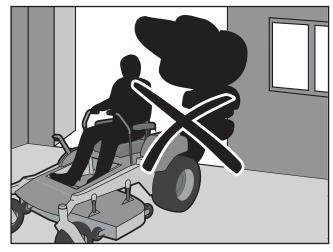
The engine and the exhaust system, become very hot during operation.

Risk for burns if touched.

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

#### **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.
- Be very careful when handling battery acid.
   Acid on skin can cause serious corrosive burns. If you spill battery acid on your skin, rinse immediately with water.
- Acid in the eyes can cause blindness, contact a doctor immediately.
- Be careful when servicing the battery.
   Explosive gases form in the battery. Never perform maintenance on the battery when smoking or near open flames or sparks.
- The battery can explode and cause serious injury/damage.



8011-515

Never drive the machine in an enclosed space



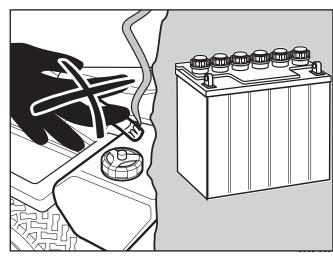
Use protective glasses for maintenance work.



#### WARNING!

The battery contains lead and lead compounds, chemicals that are considered to cause cancer, birth defects, and other reproductive system damage. Wash your hands after handling the battery.

- 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.
- Sparking can occur when working with the battery and the heavy cables of the starter circuit. This can cause battery explosion, fire or eye injury. Sparking in this circuit can not occur after the chassis cable (normally negative, black) is removed from the battery.



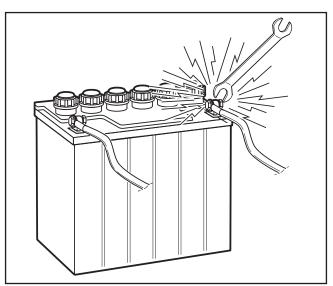
Do not smoke when performing maintenance on the battery. The battery can explode and cause serious injury/damage.



#### WARNING!

Avoid electrical sparking and its consequences by the following routines:

- Use protective goggles.
- Ensure that the fuel filler cap is mounted tightly and no flammable substances is stored in an open vessel.
- Never work with the starter circuit if there is spilled fuel.
- Disconnect the chassis cable from the battery first and reconnect it last.
- Do not make a bridge short circuit across the starter relay to run the starter.
- 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.



Risk of sparking

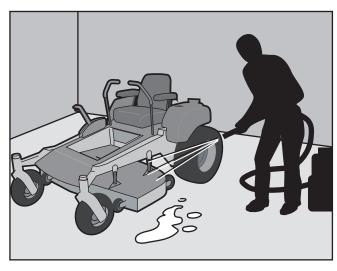
- The blades are sharp and can cause cuts and gashes. Wrap the blades or use protective gloves when handling them.
- Check the parking brake's functionality regularly. Adjust and service as necessary.
- The mulch blades should only be used in familiar areas when higher quality mowing is desired.
- Reduce 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.

#### **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.
- Do not operate this machine on public roadways.
- 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.
- 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.
- Load the unit onto truck or trailer by driving up ramps of suitable strength using a slow speed. Do not lift! The machine is not intended to be lifted by hand.

#### **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.



8011-515

Clean the machine regularly

#### **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. Always reverse the machine onto the transport vehicle to avoid tipping it over.

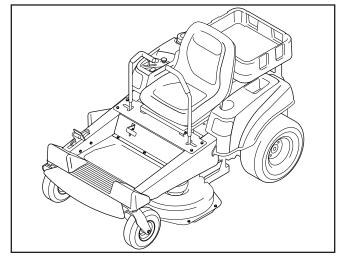


#### **WARNING!**

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.

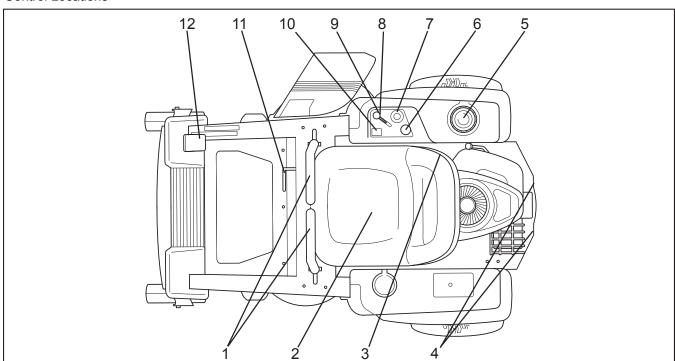
This operator's manual describes the Husqvarna Zero Turn Rider. The rider is fitted with either a Kohler or Briggs & Stratton four-stroke overhead valve engine. Transmission from the engine is made via two belt-driven hydraulic pumps, which in turn drive a hydraulic motor for each drive wheel. Using the left and right steering controls, the flow is regulated and thereby the



Zero Turn Rider

#### **Control Locations**

direction and speed.



- 1. Motion control levers
- 2. Seat adjustment lever
- 3. Fuses
- 4. Bypass Linkages
- 5. Fuel tank cap
- 6. Blade switch

- 7. Ignition switch
- 8. Choke control
- 9. Throttle control
- 10. Hour meter
- 11. Parking brake
- 12. Cutting height adjuster

#### **Steering Control Levers**

The machine's speed and direction are continuously variable using the two steering controls. The steering controls can be moved forward or backward about a neutral position. Furthermore, there is a neutral position, which is locked if the steering controls are moved outward.

When both controls are in the neutral position (N), the machine stands still.

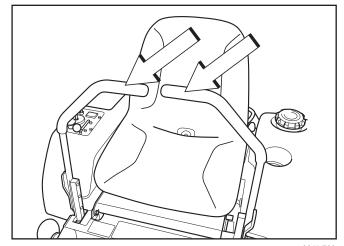
By moving both controls an equal amount forward or backward, the machine moves in a straight line forward or backward respectively.

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

Zero turn can be achieved by moving one control backward (behind the neutral position) and carefully moving the other steering control forward from its neutral position. The rotation direction when zero turning is determined by which steering control is moved backward behind the neutral position. If the left steering control is pulled backward, the machine turns to the left. Use extra care when using this maneuver.



If the mower is not tracking straight, check the air pressure in both rear tires. Recommended air pressure is 15 psi. (1 bar) Tracking must be checked on a flat and level concrete or blacktop surface. If the unit still does not track straight contact your Husqvarna workshop for adjustments.



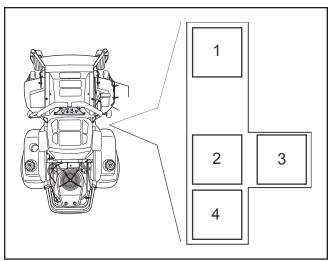
Steering controls

8011-789



#### WARNING!

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



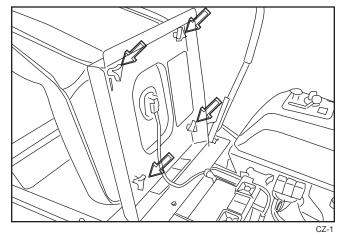
8011-7912

- 1. Forward
- 2. Neutral
- 3. Neutral slot, Neutral lock
- 4. Reverse

Motion control lever pattern (right side)

### **Seat Adjustment Knobs**

The seat can be adjusted lengthways. When making adjustments, loosen the four knobs under the seat pan, after which the seat can be moved backward or forward. Retighten the knobs at the desired setting.



Lengthwise adjustment

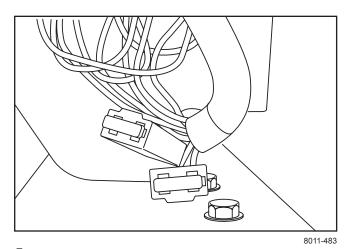
#### **Fuses**

The fuses are located in a holder at the right hand side of the battery compartment. They are flat pin fuses of the same type used in automobiles.

There are three fuses as well as a socket for one spare fuse.

Fuse ratings and functions:

- 20 A, Primary fuse.
- 7.5 A, Mower deck coupling.
- 7.5 A, Accessory outlet.
- · Socket for spare fuse.

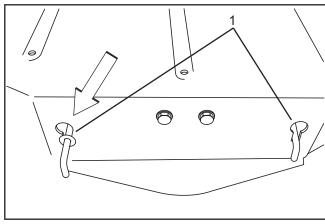


Fuses

#### **Bypass Linkages**

When pushing or pulling the mower, engage the IZT (Integrated Zero Turn Transaxle) bypass linkages. The IZT bypass linkages are located on the rear of the frame, below the rear engine guard.

- Raise the deck into the highest cutting position
- Pull the IZT bypass linkages out and into the slots. Release the linkages so they are held into the bypass position
- To reengage the IZT's into drive, reverse the above procedure



8011-722

1. IZT Bypass Linkages Bypass position with linkage head outside rear deck

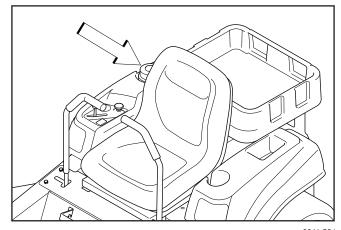
### Refueling

Read the safety instructions before refueling. The machine has one fuel tank, just behind the seat. The tank capacity is 3 gallons (11.4 liters).

Regularly check the gas cap gasket for damage and keep the cap properly tightened.

The engine will run on a minimum of 85-octane unleaded gasoline (no oil mix). Environmentally adapted alkylate gasoline can be used. See Technical Data concerning ethanol fuel. Methanol fuel is not allowed. Do not use E85 alcohol based fuel. Damage to the engine and components may occur.

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



Fuel tanks

8011-524



#### 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

#### 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.

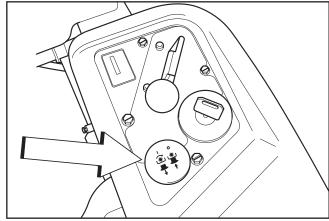


#### **WARNING!**

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.

#### Blade switch

To engage the mower deck, pull the blade switch knob out. The mower blades are disengaged when the knob is pressed down fully.



Blade Switch

8011-750

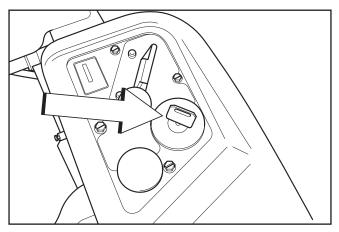
### **Ignition Switch**

The ignition key is placed on the control panel and is used to start and stop the engine.



#### WARNING!

Do not run the starter for more than five seconds each time. If the engine does not start, wait 10 seconds before retrying.



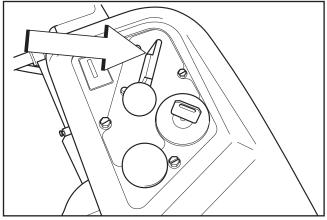
8011-748

Ignition Switch

#### **Choke Control**

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

The throttle control is equipped with a choke detent. Pressing the throttle control all of the way forward will choke the engine. For full throttle, press the throttle control forward until you feel the detent.



8011-480

Choke control

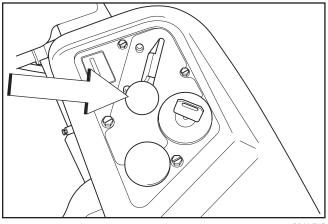
#### **Throttle Control**

The throttle control regulates the engine speed and thereby the rate of rotation of the blades, assuming the blade switch is pulled out (see Engaging the Mower Deck).

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

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

**USE FULL THROTTLE WHEN MOWING**, for best mower performance and battery charging.

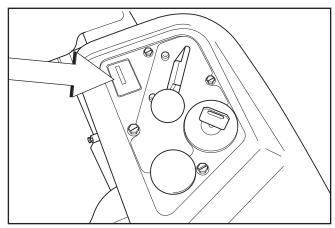


Throttle control

8011-747

#### **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 cannot be manually reset.



8011-749

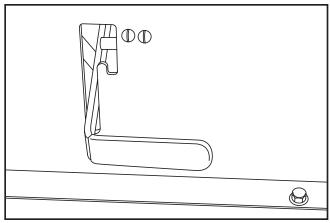
Hour meter

### **Parking Brake**

#### IMPORTANT INFORMATION

The machine must stand absolutely still when applying the parking brake. Always set the parking brake before dismounting. Release the parking brake before moving the mower.

The parking brake is found below the front seat. Pull the lever upward to activate the brake and push downward to release it.

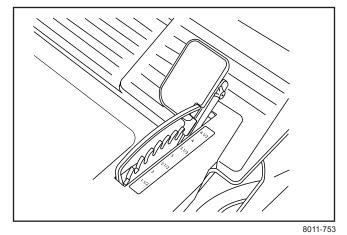


8011-481

Parking brake not activated

### **Lifting Lever for the Mower Deck**

The deck cutting height is achieved with the foot pedal. To lift the deck, press the foot pedal forward. To lower the deck, apply pressure to the top side of the foot pedal and allow the pedal to pivot while allowing the lift arm to rotate to the rear of the unit. To stop at the desired cutting position, rotate the pedal down into the notch in the height plate. The cutting height range is from 1½" (38mm) to 5" (127mm) in ½" (13mm) increments. The heights are measured from the ground up to the blade tip with the engine not running.



Cutting height pedal

#### IMPORTANT INFORMATION

In order to obtain an even cutting height it is important that the air pressure in all four tires is the same 15 psi (1 bar).

#### Accessories

For mulching, there is a BioClip attachment available. The BioClip is mounted underneath the mower deck and includes a discharge cover and blades.

Read the "Safety Instructions" section and the following pages if you are unfamiliar with the machine.

#### **Training**

Zero turn mowers are far more maneuverable than typical riding mowers due to their unique steering capabilities.

We suggest that this section be reviewed in its entirety prior to attempting to move the mower under its own power. Additionally, we suggest when first operating the mower, use a reduced throttle speed and reduced ground speed by NOT moving control levers to the furthest forward or reverse positions during initial operation, or until operator becomes comfortable with controls. We also suggest first time users, or new users to Zero Turn mowers to become familiar with the mower's movement on a hard surface, such as concrete or blacktop PRIOR to attempting to operate on turf. Until operator becomes comfortable with mower controls and zero turning capability, they may damage turf due to overly aggressive maneuvers.

#### To move forward and backward

The direction and speed of the mower's movements is effected by the movement of the control lever(s) on each side of mower. The left control lever controls the left wheel. The right control lever controls the right wheel.

#### IMPORTANT INFORMATION

When control levers are in the reverse position they return to neutral when released. This may cause the mower to suddenly stop.

First time users should push mower (see "Moving by Hand" in the "Operation" section) to an open, flat area, without other people or vehicles/obstacles nearby. In order to move unit under its own power, the operator must be in the seat, start engine (see "Before Starting" in "Operation" section), adjust engine speed to idle, disengage parking brake, do not engage blades at this time, rotate control levers inward. As long as the control levers have not been moved forward or backwards, mower will not move. Slowly move both control levers forward slightly. This will allow mower to start moving forward in a straight line. Pull back on control levers to the neutral position and mower should stop moving. Pull back slightly on control levers, this will allow mower to start moving backwards. Push forward on control levers to the neutral position and mower should stop moving.

#### Steering

#### To turn to the right

While moving in a forward direction, pull the right lever back towards the neutral position while maintaining the position of the left lever, this will slow the rotation of the right wheel and cause the machine to turn in that direction.

#### To turn to the left

While moving in a forward direction pull the left lever back towards the neutral position while maintaining the position of the right lever, this will slow the rotation of the left wheel and cause the machine to turn in that direction.

#### To zero turn

While moving in a forward direction, first pull both control levers back until the mower stops or slows dramatically.

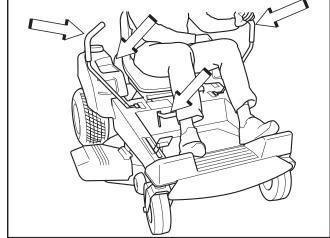
Then by alternating one lever slightly to the forward position and the other in the reverse position.

#### **Before Starting**

- Read the sections "Safety Instructions" and "Controls" before starting the machine.
- Perform the daily maintenance before starting (see Maintenance Schedule in the Maintenance section).
- Check that there is sufficient fuel in the fuel tank.
- Adjust the seat to the desired position.

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

- · The driver must be seated on the seat.
- The blade switch for engaging the mower blades must be depressed.
- The parking brake must be on.
- Both steering controls must be in the locked (outer) neutral position.

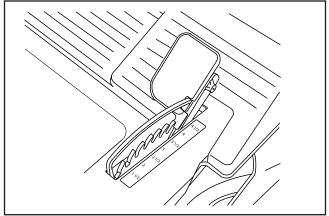


Start conditions

#### 8011-484

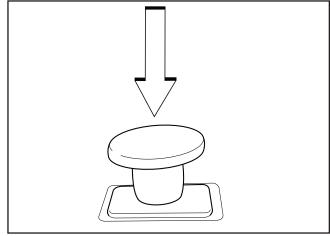
#### Starting the Engine

- 1. Sit on the seat.
- 2. Raise the mower deck by depressing the pedal forward to the locked position (transport position).
- 3. Activate the parking brake.



Raise the mower deck

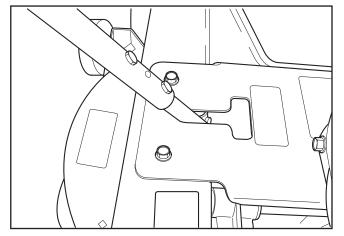
4. Disengage the mower blades by depressing the blade switch.



8011-668

Depress the control for disengaging the mower deck

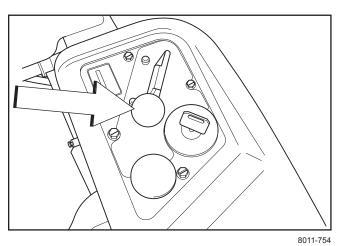
5. Move the steering controls outward to the locked (outer) neutral position.



8011-526

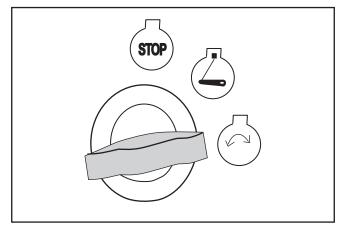
Steering controls in the outward, locked neutral position

- 6. Move the throttle to the middle position.
- 7. If the engine is cold, the choke control should be pushed forward to the choke position.



Set the throttle

8. Press in and turn the ignition key to the start position.



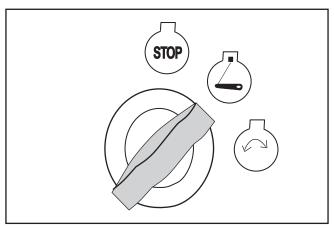
Turn to the start position

8011-742

9. When the engine starts, immediately release the ignition key back to the run position.

#### IMPORTANT INFORMATION

Do not run the starter for more than 5 seconds each time. If the engine does not start, wait about 10 seconds before retrying.



8011-743

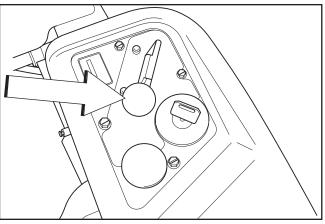
Return to run position

10. Set the desired engine speed with the throttle. Allow the engine to run at a moderate speed, "half throttle", for 3-5 minutes before loading it too heavily. USE FULL THROTTLE WHEN MOWING (no choke).



#### 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.



Set the engine speed

#### **Weak Battery**



#### **WARNING!**



Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eve protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. (See "Battery" in the Maintenance Section.)

If "jumper cables" are used for emergency starting, follow this procedure:

#### IMPORTANT INFORMATION

Your mower is equipped with a 12-volt negative grounded system. The other vehicle must also be a 12-volt negative grounded system. Do not use your mower to start other vehicles.

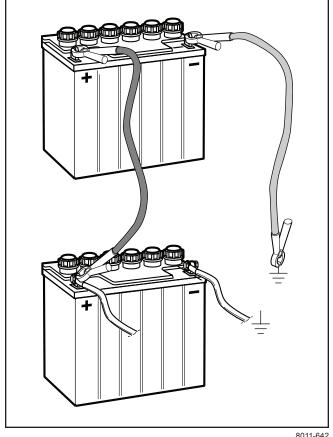
#### **Jumper Cables**

#### To attach jumper cables

- Connect each end of the RED cable to the POSITIVE (+) terminal on each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of the fully charged battery.
- Connect the other end of the BLACK cable to a good CHASSIS GROUND on the mower with the discharged battery, away from the fuel tank and battery.

#### To remove cables, reverse order

- Remove BLACK cable first from chassis and then from the fully charged battery.
- Remove RED cable last from both batteries.



Jumper cable connection

### Running

- 1. Release the parking brake by moving the lever downward.
  - Your mower is equipped with an operator presence system. When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.
- 2. Move the steering controls to the neutral position (N).



The mower deck's gauge wheels should be evenly adjusted.

 Select the cutting height by adjusting the cutting height pin. Release latch and lower deck to set cutting height.



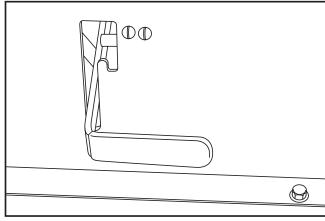
#### **WARNING!**

Ensure that no one is near mower when engaging blade switch.

- 4. Make sure the work area is free from objects that could be thrown by the rotating blades.
- Engage the mower deck by pulling out the blade switch.
- 6. Move throttle control to full throttle.
- 7. The machine's speed and direction are continuously variable using the two steering controls. When both controls are in the neutral position, the machine stands still. By moving both controls an equal amount forward or backward, the machine moves in a straight line forward or backward respectively.

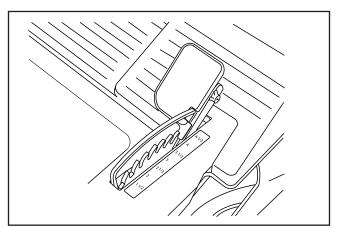
In order, for example, to turn right while moving forward, move the right control towards the neutral position. The rotation of the right wheel is reduced and the machine turns to the right.

Turning on the spot (zero turn) can be achieved by moving one control backward (behind the neutral position) and carefully moving the other steering control forward from its neutral position.



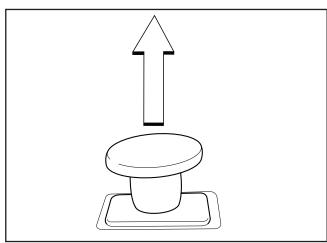
Parking brake not activated

8011-481



Select the cutting height

8011-753



Engage the mower deck

#### **Operating on Hills**

Read the Safety Instructions "Driving on Slopes" in the "Safety Instructions".



#### **WARNING!**

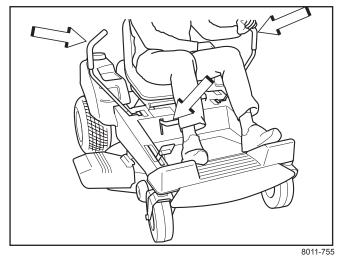
Do not drive up or down hills with slopes greater than 10 degrees. Do not drive across slopes.

- The slowest speed possible should be used before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If stopping is absolutely necessary, pull drive levers into the neutral position and push to the outside of the unit and engage the parking brake.

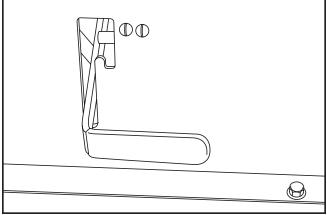
#### IMPORTANT INFORMATION

Control levers return to neutral when released. This may cause the mower to suddenly stop.

- To restart movement, release the parking brake.
- Pull the control levers back to the center of the mower and press forward to regain forward motion.
- Make all turns slowly.



Stopping conditions



Parking brake not activated

#### **Mowing Tips**

- Observe and flag rocks and other fixed objects to avoid collisions.
- Begin with a high cutting height and reduce it until the desired mowing result is attained.
  The average lawn should be cut to 2½"
  (64 mm) during the cool season and over 3"
  (76 mm) during the hot months. For healthier and better looking lawns, mow often after moderate growth.

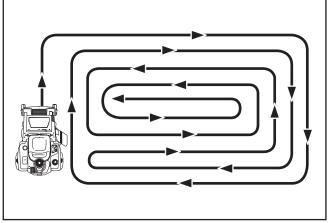
For best cutting performance, grass over 6" (15 cm) in height should be mowed twice. Make the first cut relatively high; the second to the desired height.

- The mowing result will be best with a high engine speed (the blades rotate rapidly) and low speed (the rider moves slowly). If the grass is not too long and dense, the driving speed can be increased without negatively affecting the mowing result.
- The finest lawns are obtained by mowing often. The lawn becomes more even and the grass clippings more evenly distributed over the mown area. The total time taken is not increased as a higher operating speed can be used without poor mowing results.
- 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 underside with water after each use. When cleaning, the mower deck shall be raised into the transport position. Make sure the mower is cooled and the engine is off.
- Use compressed air to clean top surface of the deck. Avoid flooding water on top surface, engine and electrical components.
- When the mulching kit is used, it is important that the mowing interval is frequent.



#### **WARNING!**

Clear the lawn of stones and other objects that can be thrown out by the blades.



8011-603a

Mowing pattern



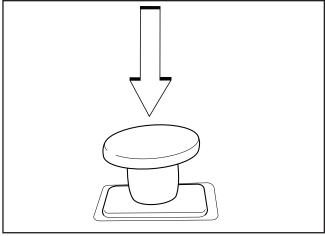
#### WARNING!

Never drive the rider on terrain that slopes more than 10 degrees. Mow slopes up and down, never side to side. Avoid sudden directional changes.

### 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.

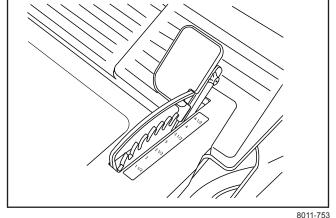
1. Disengage the mower deck by depressing the blade switch.



Disengaging the mower deck

8011-668

- 2. Raise the mower deck by depressing the pedal forward to the transport position.
- 3. When the machine is standing still, activate the parking brake by pulling the lever upward.
- 4. Move the throttle to the minimum position (tortoise symbol). Turn the ignition key to the stop position.
- 5. Move the steering controls outward.
- 6. Remove the key when leaving the mower to prevent unauthorized use.



Raise the mower deck

#### IMPORTANT INFORMATION

Leaving the ignition switch in any other position than "OFF" will cause the battery to be discharged and the hour meter to accumulate hours.

### **Manual Transport**

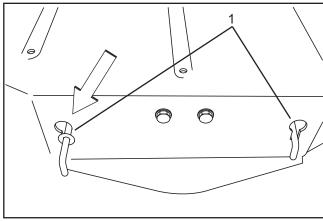
When pushing or pulling the mower, be sure to engage the IZT (Integrated Zero Turn Transaxle) bypass linkages. The IZT bypass linkages are located on the rear of the frame.



#### **WARNING!**

No adjustments or maintenance to be carried out unless:

- the engine stopped
- the ignition key removed
- the parking brake activated
- Raise the deck into the highest cutting position.
- Pull the IZT bypass linkages out and into the slots and release so that it is held in the bypass position.
- To reengage the IZT's to drive, reverse the above procedure.



1. IZT Bypass Linkages Bypass position with linkage head outside rear deck

# **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.

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

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

		Daily		At least once	Maintenance interval in hours			
Maintenance	Before	After		each- year	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 hardware (screws, nuts, etc.)		•						
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, etc.		•						
Check the tire pressures					•			
Check battery					•			
Sharpen/Replace mower blades					•			
Check the fuel pump's air filter 2)					•			
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				•		<b>♦</b>		
Inspect muffler/Spark arrester				•		<b>•</b>		

# **MAINTENANCE**

	Daily		Weekly		Maintenance interval in hours			
Maintenance	Before	After		each year	25	50	100	300
Check/adjust throttle and choke cables							•	
Check the condition of belts, belt pulleys, etc.				•			•	
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)							•	
Clean the cooling fins 2)				•			•	
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				•	•	•	•	•

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

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



#### **WARNING!**

Before performing any service or adjustment checklist:

- Engage the parking brake.
- Place the Blade-switch in the disengaged position.
- Turn the ignition switch to "OFF" position and remove the key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect the spark plug wire from all spark plugs and place the wire where it cannot come in contact with the plug.

### **MAINTENANCE**

#### **Battery**

Your mower is equipped with a maintenance free battery and does not need servicing. However, periodic charging of the battery with an automotive type battery charger will extend its life.

- Keep battery and terminals clean.
- · Keep battery bolts tight.
- Recharge at 6-10 amperes for 1 hour

#### To clean battery and terminals

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- 1. Open the terminal access doors.
- 2. Disconnect BLACK battery cable first, then the RED battery cable and remove the battery from the machine.
- 3. Rinse the battery with plain water and dry.
- 4. Clean terminals and battery cable ends with wire brush until shiny.
- 5. Coat terminals with grease or petroleum jelly
- 6. Reinstall battery.

#### Replacing battery

- 1. Lift seat and rotate forward.
- 2. Remove the red terminal guard.
- 3. Using two ½" wrenches disconnect BLACK battery cable then RED battery cable.
- 4. Using a <sup>7</sup>/<sub>16</sub>" wrench, remove the terminal guard.
- 5. Carefully remove the battery from the mower.
- 6. Install new battery with terminals in the same position as the old battery.
- 7. Reinstall the terminal guard.
- 8. First connect RED battery cable to positive (+) battery terminal with hex bolt and hex nut.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and hex nut.
- 10. Tighten securely.
- 11. Close terminal access door.
- 12. Lower seat.



Always use protective glasses when handling the battery.

#### IMPORTANT INFORMATION

Do not attempt to open or remove caps or covers. Adding or checking level of electrolyte is not necessary.

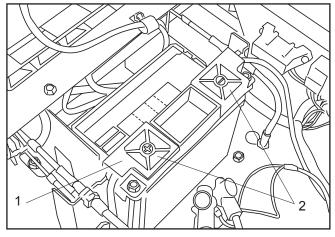
Always use two wrenches for the terminal screws.



#### **WARNING!**

Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparks from accidental grounding.



CZ-22

- 1. Terminal quard
- 2. Terminal access doors

Battery installation

#### **Ignition System**

The engine is equipped with an electronic ignition system. Only the spark plug requires 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.
- Check the spark plug. Replace the spark plug
  if fouled, the electrodes are burned and 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 ¹/8 of a turn from the seated position. A new spark plug should be turned ¼ a turn from the seated position.
- 7. Replace the ignition cable.

### Safety System

This 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 mower deck is disengaged.
- 2. The steering controls are in the outer, locked neutral position.
- 3. The driver is sitting in the driver's seat.
- 4. The parking brake is on.

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

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.

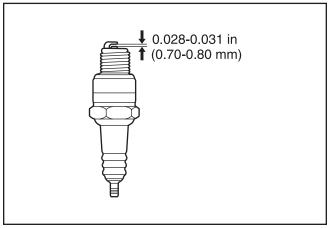
Make sure the engine stops when the park brake is not engaged and the operator leaves the seated position.

Check that the engine stops if the mower blades are engaged and the driver temporarily moves off the drivers seat.

#### IMPORTANT INFORMATION

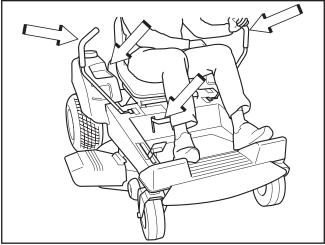
Fitting the wrong spark plug type can damage the engine.

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



Start conditions

8011-484

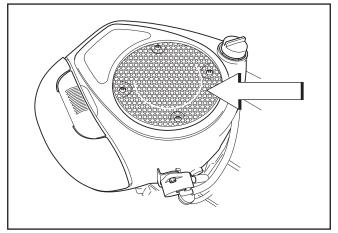
#### IMPORTANT INFORMATION

In order to be able to drive, the driver must sit in the seat and release the parking brake before the steering controls can be moved into the neutral position, otherwise the engine will stop.

### **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.



8011-491

Check and clean the cooling air intake

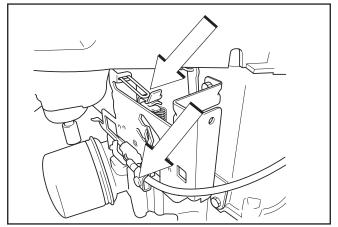
#### **Throttle Cable**

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.

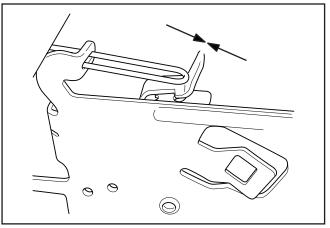
If adjustments are necessary, they can be made as follows for the lower cable:

- Loosen the clamping screw for the cable's outer casing and move the throttle to the full throttle position (no choke).
- 2. Push the throttle cable's outer casing as far to the right as possible and tighten the clamping screw.
- 3. Set the throttle control to the choke position and check that full choke is achieved.



8011-492

Adjusting the throttle cable



8011-404

Choke start position

#### Replacing the Air Filter

If the engine seems weak or runs unevenly, the air filter may be clogged. If the machine is run with a dirty air filter, the spark plug can become fouled. It is important to replace the air filter regularly (see "Maintenance Schedule" for proper service intervals).

#### **Kohler Engine**

The standard engine is not equipped with a prefilter. As an option, a prefilter can be installed on the inside of the air filter cover.

- Loosen the two retaining knobs and remove the cover. If the engine has a prefilter, it is mounted on the inside of the cover.
- 2. Clean the area around the filter element to prevent debris from getting into the engine when the element is removed.
- Remove the filter element. Replace a dirty, bent or damaged element with a new one. Handle the new element carefully and do not use if the sealing surfaces are bent or damaged. If the element can be reused, tap it against a solid surface to remove dust.
- 4. Check the air cleaner base. Make sure it is secured and not bent or damaged. Also check the air filter cover for damage or improper fit. Replace all damaged air cleaner components.
- 5. Install the filter element. Check that it fits properly and that no air leaks occur.
- 6. Install the cover and tighten knobs by hand.

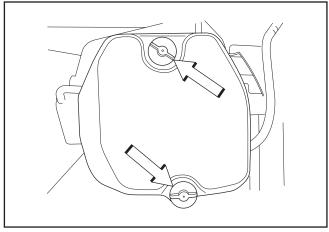
#### IMPORTANT INFORMATION

Operating the engine with loose or damaged air cleaner components could allow unfiltered air into the engine causing premature wear and failure.

#### IMPORTANT INFORMATION

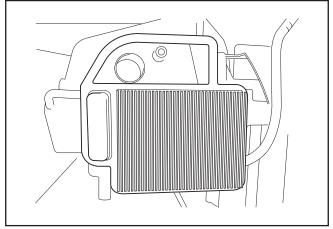
Do not use compressed air to clean the air filter.

Filter should be assembled dry and not be oiled.



8011-736

Air filter cover

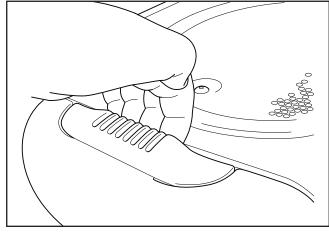


8011-737

Air filter cover

#### **Briggs & Stratton Engine**

- 1. Pull up the handle on the air filter cover. Unhook and turn towards the engine to remove.
- Clean the area around the filter element to prevent debris from getting into the engine when the element is removed.



Pull up on handle

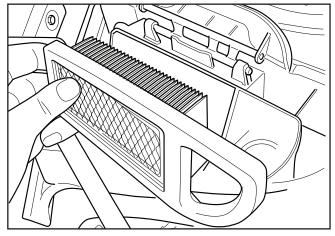
8009-406

3. Lift out the filter element. Replace a dirty, bent or damaged element with a new one. Handle the new element carefully and do not use if the sealing surfaces are bent or damaged. If the element can be reused, tap it against a solid surface to remove dust.

#### IMPORTANT INFORMATION

Do not use compressed air to clean the air filter.

Filter should be assembled dry and not be oiled. .



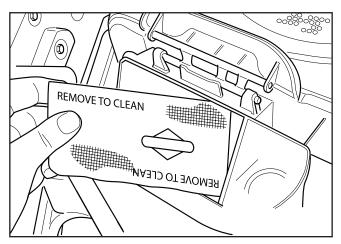
8009-409

Remove air filter element

- 4. Carefully lift out the precleaner from the fan housing. Clean the fan housing so debris does not fall into the carburetor.
- 5. Install a new precleaner and the new or cleaned air filter element into the fan housing.

### **IMPORTANT INFORMATION**

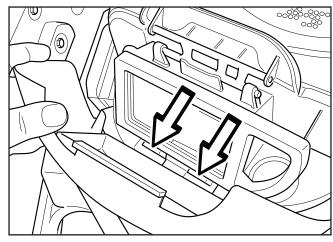
Operating the engine with loose or damaged air cleaner components could allow unfiltered air into the engine causing premature wear and failure.



8009-408

Remove precleaner

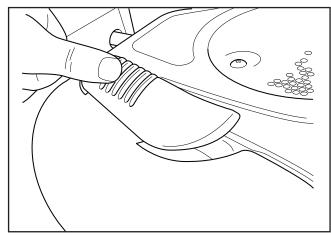
6. Align the tabs on the cover with the slots in the housing and replace air filter cover.



Align the tabs

8009-407

7. Pull the handle outwards. Secure the handle in the air filter cover and press inwards to close.



8009-410

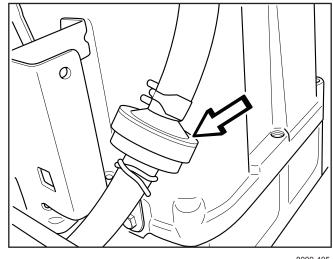
Close the cover

#### **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 using a flat-nosed pliers.
- 2. Pull the filter loose from the hose ends.
- 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.

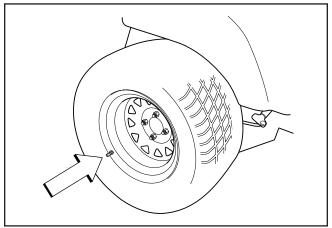


Fuel filter

#### 8009-405

#### **Tire Pressures**

All four tires shall have a pressure of 15 psi / 103 kPa /1 bar.



8011-564

#### IMPORTANT INFORMATION

The machine must be absolutely standing still when applying the parking brake.

#### **Parking Brake**

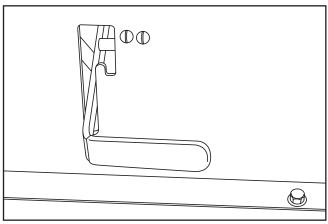
Visually check that no damage is found on the lever, links, or switch belonging to the parking brake. Perform a standstill test and check that there is sufficient braking action.

To adjust the parking brake, contact the Husqvarna service workshop.



#### **WARNING!**

Faulty adjustment results in reduced braking ability and can cause an accident.



8011-481

Parking brake

Tire pressures

#### V-belts

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

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

The belts are not adjustable. Replace belts if they begin to slip from wear.

#### Deck belt

#### To replace deck belt

Remove deck belt.

- Park on a level surface. Apply park brake.
- Lower the deck to the lowest cutting position.
- Use a ratchet with a 9/16" socket on the spring idler bolt to relieve the tension on the belt.
- Remove foot plate
- Remove screws from both the left and right belt shields, and remove shields.
- Remove any dirt or grass that may have accumulated around the cutter housings and entire deck surface.
- Carefully roll the belt over the top of the cutter housing pulleys.
- Remove the belt from around the electric clutch on the engine shaft.
- The belt can now be removed

#### **Deck belt installation**

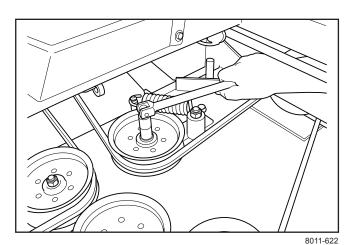
NOTE: For ease in installing the deck belt, refer to the routing decal on bottom of seat.

- Wrap the deck belt around the electric clutch pulley located on the engine shaft.
- Route the belt forward between the EZT (E-Series Zero Turn Transaxles) and up onto deck.
- Place belt around spring loaded idler pulley, between the pulley and guide. Secure bolt and nut.
- Starting on the right hand side of the deck, wrap the belt around the stationary idler pulley, right mandrel housing, then around to the left mandrel housing.
- Push inward on the idler arm. Carefully route belt over stationary idler pulley. Once belt is properly routed, slowly release idler arm to tension belt.
- Check belt routing to match the routing decal, and assure the belt does not have any twist.
- Replace belt shields on both mandrel housings and secure with fasteners.

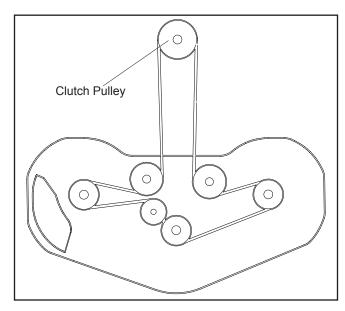
# A

#### WARNING!

The idler is spring loaded. Grip the idler arm or ratchet firmly and release slowly.



Slackening the belt tensioner



Belt routing, deck belt

#### **EZT** belt

To replace EZT (E-Series Zero Turn Transaxle) belt Park the mower on a level surface. Engage the parking brake.

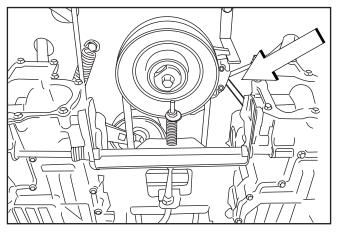
#### **EZT** belt removal

NOTE: Be careful not to damage the fan blades on the EZT's as this can affect cooling or damage the EZT's

- Remove the deck belt (see to replace deck belt in this section of the manual).
- Unplug clutch from wiring harness. Remove bolt from center of clutch and slide clutch off of engine shaft.
- Create slack in the belt by removing the spring on the pump idler arm.
- The belt should now be able to be removed from the engine pulley and EZT pulleys.

#### **Belt installation**

- · Wrap the EZT belt around the EZT pulleys
- Route the belt around the inside of the idler pulley.
- Now you can wrap the belt around the engine pulley.
- · Reattach the spring on the pump idler arm.
- Install clutch on to engine shaft (pulley side down)
  make sure key is installed and align the clutch
  anti-rotation tab into slot on clutch. Secure clutch,
  install wire.
- Reinstall the deck belt onto the electric clutch belt (see to replace deck belt in this section of the manual).



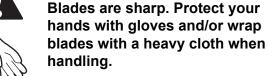
Transaxle belt

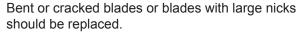
### **Checking the Blades**

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



#### **WARNING!**





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.



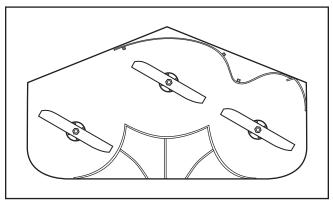
The sharpening of blades should be carried out by an authorized service workshop.

#### Blade replacement

- · Remove blade bolt by turning counterclockwise.
- 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.
- Torque blade bolt to 45-55 ft/lbs (60-75 Nm).

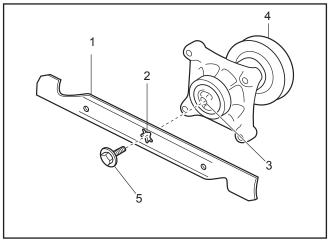
#### IMPORTANT INFORMATION

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



8011-604

Check the blades



8011-604

- 1. Blade
- 2. Center hole
- 3. Star
- 4. Cutter housing
- 5. Blade bolt, special Blade attachment

### Adjusting the Mower Deck



#### WARNING!

Before performing any service or adjustment checklist:

- 1. Engage the parking brake.
- 2. Place the Blade switch in the disengaged position.
- 3. Turn ignition switch to "OFF" position and remove the key.
- 4. Make sure the blades and all moving parts have completely stopped.
- 5. Disconnect the spark plug wire from all spark plugs and place the wire where it cannot come in contact with the plug.

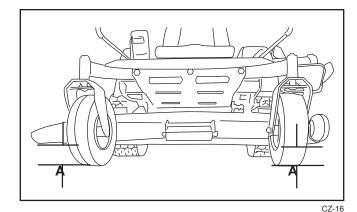
#### Leveling

Adjust the deck while the mower is on a level surface. Make sure the tires are inflated to the correct pressure. See "Technical Data" under Transmission. If tires are under or over inflated, you can not properly adjust your deck.

NOTE: It may be easier to adjust the front lift linkages by removing the floor pan before any adjustments are made.

#### Side-to-side adjustment

- 1. Raise the deck into the four inch 4" (102 mm) cutting position.
- 2. Measure height from the bottom edge of the deck to the ground at both front corners. Distance "A" should be the same, or within 3/16" (5 mm) of an inch.
- 3. If adjustment is necessary, make adjustment to one side of the deck only.
- 4. Remove the securing ring from the top pin and the bottom clevis pin. Push bottom clevis pin through deck lift connector while supporting deck. Adjust by moving the deck lift connector to a new hole to lower or raise that specific corner of the deck. The round hole closest to the long slot is the shorter length and will raise the deck, the round hole farthest away from the long slot is the longer of the two and would lower the deck when used.
- 5. Recheck measurements after adjustment.



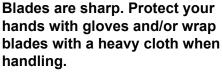
Distances A

8011-604

- 1. Front lift linkage
  - 2. Hex nut Adjustment A



#### WARNING!



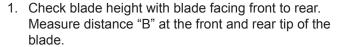
#### Front-to-back adjustment

To obtain the best cutting performance, the deck should be adjusted so the front tip of the blades are approximately  $^{1}/_{8}$ " (3.2 mm) to  $^{1}/_{4}$ " (6.5 mm) lower than the rear tip. If the front tip is higher, this will create a poor quality of cut.

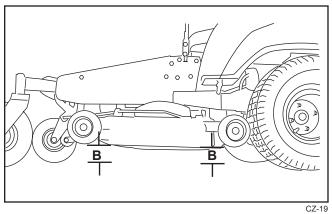


#### **WARNING!**

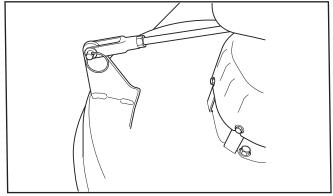
Blades are sharp. Protect your hands with gloves and/or wrap blades with a heavy cloth when handling.



- Before making any necessary adjustments, check to make sure that the deck is level side-to-side.
   See "Side to Side Adjustment" in Maintenance section
- 3. With the deck in the 4" (100 mm) cutting position, measure the front and rear tip of each blade while facing front to rear.
- 4. To adjust, loosen the jam nut on the yoke, remove the securing ring and push the clevis pin out while supporting the deck. To lower that specific corner, lengthen the rod assembly by turning the yoke counter clockwise. To raise that specific corner, shorten the rod assembly by turning the yoke clockwise.
- 5. Reinstall clevis pin and recheck dimension.
- 6. Once front to back adjustment is correct, reinstall securing rings and secure jam nuts.



Distances B



8011-497

Rear lift linkage

#### **Gauge Wheels**

Anti-scalp rollers are properly adjusted when they are just slightly off of the ground when the deck is at the desired cutting height in the operating position. Anti-scalp rollers then keep the deck in the proper position to help prevent scalping in most terrain conditions.

#### IMPORTANT INFORMATION

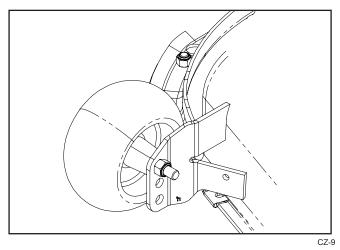
Adjust Anti-scalp rollers with the mower on a flat level surface.

The gauge wheels can be set in three positions:

- Upper position 1½ to 3" (38 to 76 mm) grass.
- Middle position 3" to 4½" (76 to 114 mm) grass.
- Lower position 4½" to 6" (114 to 152 mm) grass.

The rollers should be approximately ¼" (6.5 mm) from ground. Do not adjust the rollers to support the deck.

- Adjust the deck to the desired cutting height (see "TO ADJUST DECK CUTTING HEIGHT" in the operation section of this manual).
- 2. Using a ¾" wrench and a  $\frac{9}{16}$ " wrench, remove the nut and shoulder bolt from the gauge wheel.
- 3. Lower the gauge wheel to the ground, and raise it up to the next highest hole.
- 4. Replace and tighten the nut and shoulder bolt.
- 5. All of the gauge wheels should be adjusted to the same position.
- 6. Readjust the gauge wheels if the cutting height is changed.



Anti-scalp roller

### Cleaning

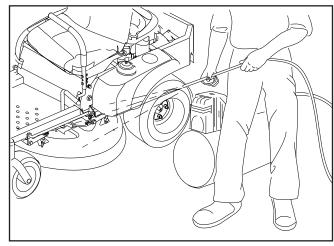
Regular cleaning and washing, especially under the mower deck, will increase the machine's life-span. Make it a habit to clean the machine directly after use (after it is cooled), before the dirt sticks.

Do not spray water on the top of the mower deck. Use compressed air to clean the top side of mower deck. Regularly clean deck and underside of the deck with normal water pressure. Do not use a high pressure washer or steam cleaner. Avoid spraying engine and electrical components with water.

Do not rinse hot surfaces with cold water. Let unit cool before washing.



Use protective glasses when cleaning and washing.



Cleaning

8050-092

#### **Caster Wheels**

Check every 200 hours. Check that wheels rotate freely. If not, take the unit to your dealer for service. Foam filled tires or solid tires will void the warranty.

#### **Removal and Reinstallation**

Remove nut and caster bolt.

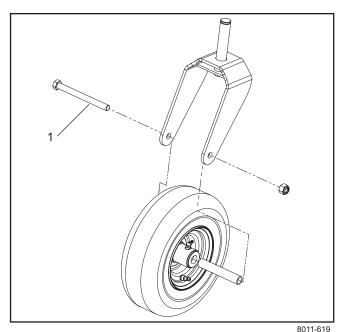
Pull the wheel out of the fork and take care of the sleeve.

Install in reverse order. Tighten caster bolt.

#### 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.



8011-619

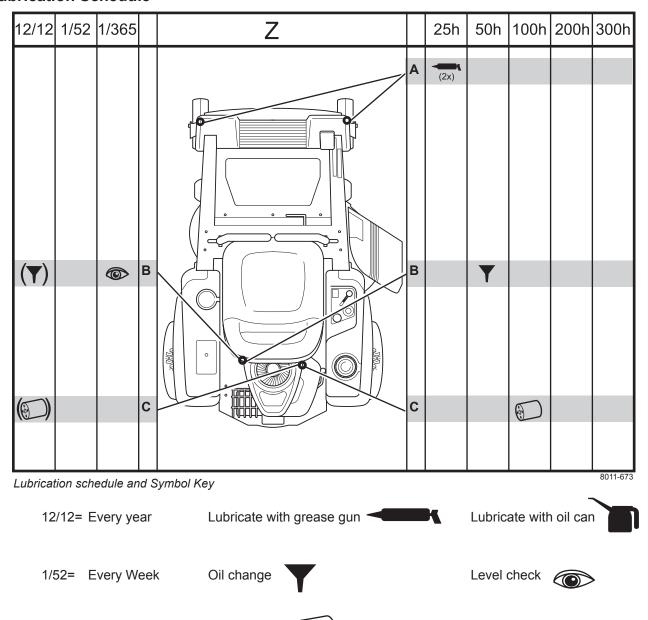
1. Caster bolt Caster wheel

#### **Hardware**

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

## **LUBRICATION**

### **Lubrication Schedule**



#### General

Remove the ignition key to prevent unintentional movements during lubrication.

Filter change

When lubricating with an oil can, it must be filled with engine oil.

When lubricating with grease, unless otherwise stated, use a high grade molybdenum disulphide grease.

For daily use, the machine shall be lubricated twice weekly.

Wipe away excess grease after lubrication.

1/365= Every day

It is important to avoid getting lubricant on the belts or the drive surfaces on the belt pulleys. Should this happen, attempt to clean them with spirits. If the belt continues to slip after cleaning, it must be replaced. Gasoline or other petroleum products must not be used to clean belts.

### **LUBRICATION**

#### **Lubricating With The Schedule**

#### Caster wheels

Lubricate with a grease gun. One zerk for each bearing, two strokes. Use only good quality grease. See General in Lubrication.

#### **Engine Oil**

Changing the Engine Oil

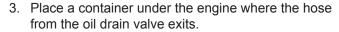
The engine oil should be changed for the first time after 5-8 hours of operation. Thereafter, it shall be changed every 50 hours.

- 1. Place the machine on a flat surface.
- Remove the yellow cap and fit a hose to the drain valve.

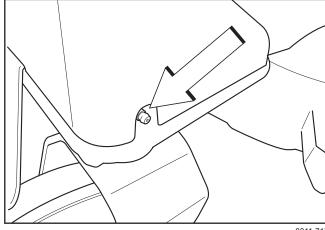


#### **WARNING!**

Engine oil can be very hot if it is drained directly after stopping the engine. Allow the engine to cool for a 2-3 minutes before maintenance.

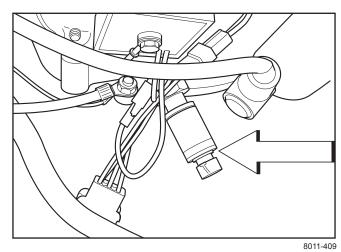


- 4. Remove the dipstick and open the drain valve by turning and pulling out the black sleeve.
- 5. Allow the oil to run out into the container.
- 6. Then close the oil drain valve.
- 7. Remove hose and install the yellow cap. The cap must be installed to stop flow if the valve is opened by mistake.
- 8. Replace the oil filter if necessary.
- 9. Fill with new engine oil in accordance with Checking the Oil Level.
- 10. Start the engine. Run it for a few seconds. Stop and recheck the oil level.



Caster wheel zerk

8011-717



Oil drain valve

#### 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.

## **LUBRICATION**

#### Oil Level

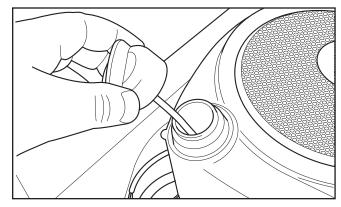
Check the oil level in the engine when the machine is standing level and the engine is stopped.

Remove the dipstick, wipe it clean, and screw it back into place.

Take the dipstick out again and read the oil level. The oil level shall 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 above the "FULL" mark.

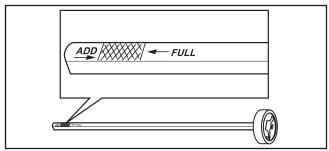
The oil is filled through the hole for the dipstick. API class SF, SG, SH, SJ or higher must be used Synthetic oil SAE 5W-30 or 10W30 is recommended at all temperatures. Mineral oil SAE 5W-30, 10W30 can be used between 0 °F/-18 °C and 40 °F/+5 °C. At temperature above 40 °F/+5 °C single grade SAE 30 must be used.

The engine holds 1.5 quarts (1.4 liters) of oil excluding the filter; including the filter 1.6 quarts (1.5 liters).



Remove the dipstick

8011-500



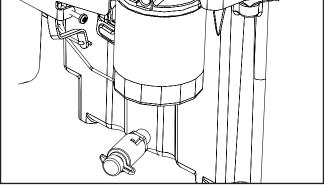
8009-159

**Changing the Oil Filter** 

- Drain the engine oil following the procedure described in Engine Oil/ Change Engine Oil section.
- Remove the oil filter. If necessary, use a filter remover.
- Wipe new, clean engine oil on the seal of the new filter
- 4. Mount the filter by hand with + 3/4 turn.
- 5. Run the engine warm, to check that there are no leaks around the oil filter seal.

## Dipstick markings



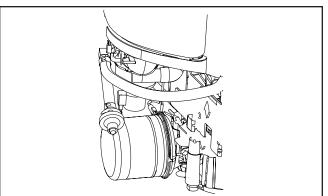


Kohler oil filter

8011-739-1

#### **Transmission**

The transmission is maintenance free and there is no need for level checks or oil changes. If a leak occurs, replace the unit or contact your Husqvarna dealer.



8011-739-1

Briggs & Stratton oil filter

## TROUBLESHOOTING GUIDE

Problem	Cause
The engine will not start.	<ul> <li>The blade switch is engaged.</li> <li>The steering controls are not locked in the neutral position.</li> <li>The driver is not sitting in the driver's seat.</li> <li>The parking brake is not activated.</li> <li>The battery is dead.</li> <li>Contamination in the carburetor or fuel line.</li> <li>The fuel supply is closed or the tap for the fuel tank is in the wrong position.</li> <li>Clogged fuel filter or fuel line.</li> </ul>
The starter does not turn the engine over.	<ul> <li>Dead battery.</li> <li>Poor contacts on the battery terminal cable connections.</li> <li>Fuse blown.</li> <li>Ignition system faulty.</li> <li>Fault in the starter safety circuit. See Checking the Safety System in the "Maintenance Section,"</li> </ul>
The engine runs rough.	<ul> <li>Faulty carburetor.</li> <li>The choke control is pulled out with warm engine.</li> <li>Defective valves.</li> <li>Defective piston, cylinder, piston ring, or cylinder head seal.</li> <li>The cylinder head bolts are loose.</li> <li>Clogged fuel filter or jet.</li> <li>Clogged ventilation valve on the fuel cap.</li> <li>Fuel tank nearly empty.</li> <li>Defective spark plug.</li> <li>The spark plug is loose.</li> <li>Defective ignition cable.</li> <li>Defective spark plug electrode.</li> <li>Defective spark plug connection.</li> <li>Rich fuel mixture or fuel-air mixture.</li> <li>Wrong fuel type.</li> <li>Water in the fuel.</li> <li>Clogged air filter.</li> <li>Air trapped in hydraulic system.</li> </ul>

## TROUBLESHOOTING GUIDE

roblem Cause	
The engine seems weak.	<ul><li>Clogged air filter.</li><li>Defective spark plugs.</li><li>Carburetor incorrectly adjusted.</li></ul>
The engine overheats.	<ul> <li>Clogged air intake or cooling fins.</li> <li>Engine overloaded.</li> <li>Poor ventilation around engine.</li> <li>Defective engine speed regulator.</li> <li>Soot in the combustion chamber.</li> <li>Too little or no oil in the engine.</li> <li>Defective spark plug.</li> <li>Pre-ignition incorrect.</li> </ul>
Battery not charging.	Poor contact with battery terminal cable connectors.
The machine moves slowly, unevenly, or not at all.	<ul> <li>Parking brake on.</li> <li>Bypass valve on pump open.</li> <li>Drive belt for the transmission gears slack or has come off.</li> </ul>
Mower deck not engaging.	<ul> <li>Drive belt for the mower deck has come loose.</li> <li>Contact for the electromagnetic coupling has loosened.</li> <li>The blade switch is faulty or has come loose, from the cable contact.</li> <li>The fuse has blown.</li> </ul>
Transaxle leaks oil.	<ul><li>Damaged seals, housing, or gaskets.</li><li>Air trapped in hydraulic system.</li></ul>
Uneven mowing results.	<ul> <li>Different air pressure in the tires on the left and right sides.</li> <li>Bent blades.</li> <li>The suspension for the mower deck is uneven.</li> <li>The blades are dull.</li> <li>Driving speed too high.</li> <li>The grass is too long.</li> <li>Grass collected under the mower deck.</li> </ul>
The machine vibrates.	<ul><li>The blades are loose.</li><li>The blades are incorrectly balanced.</li><li>The engine is loose.</li></ul>

### **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 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

A

#### **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:

- 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.
- 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.
- 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.
- 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 and then refit the spark plug.
- 6. Lubricate all grease zerks, joints, and axles.
- Remove the battery. Clean, charge, and store the battery in a cool place, but protect it from direct cold.
- 8. Store the machine in a clean, dry place and cover it for extra protection.

#### Service

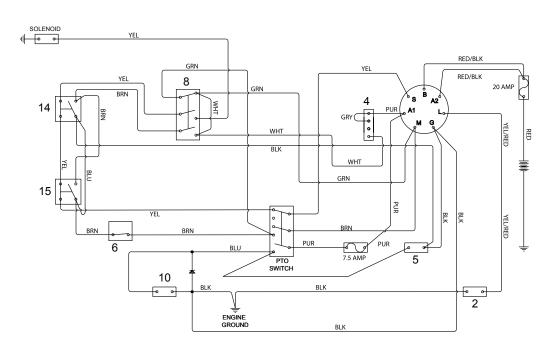
When ordering spare parts, please specify the purchase year, model, type, and serial number.

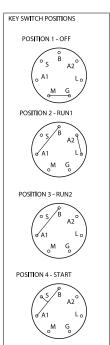
Always use genuine Husqvarna spare parts.

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 DIAGRAMS

#### For units produced after to Serial Number 0752XXXXX



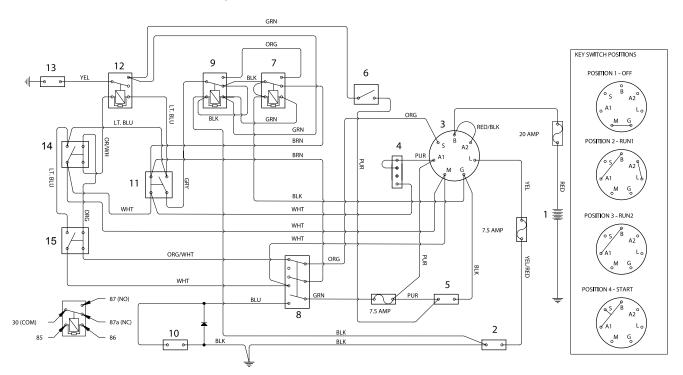


- 1. Battery
- 2. Accessory outlet
- 3. Key switch
- 4. To engine pigtail
- 5. Hour meter
- 6. Seat switch
- 7. Run relay
- 8. Blade switch
- 9. Brake relay
- 10. Electric clutch
- 11. Brake switch
- 12. Start relay
- 13. Starter solenoid
- 14. Left motion control lever
- 15. Right motion control lever
- 16. Starter

- BLK = Black
- BLU = Blue
- BRN = Brown
- GRN = Green
- GRY = Grey
- LT.BLU = Light Blue
- ORG = Orange
- PUR = Purple
- RED = Red
- WHT = White
- YEL = Yellow
- NO = Normally Open
- NC = Normally Closed
- COM = Common

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	Z4219	Z4220
Engine		
Manufacturer	Briggs & Stratton	Kohler
Туре	Intek	Courage
Power	19 hp / 14.2kW	20 hp / 14.9kW
Lubrication	Pressure with oil filter	Pressure with oil filter
Oil capacity excluding filter	1.6 qt / 1.5 liter	1.6 qt / 1.5 liter
Oil capacity including filter	1.7 qt / 1.6 liter	1.7 qt / 1.6 liter
Engine oil (See viscosity diagram)	SAE 30, 10W30, 5W30 SF, SG, SH, SJ	SAE 10W30, 5W20, 5W30 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	3 gallon / 11.4 liters	3 gallon / 11.4 liters
Spark plugs / gap	Champion RC12YC .030" / 0.75 mm	Champion RC12YC .030" / 0.75 mm
Cooling	Air cooled	Air cooled
Air filter	Standard	Standard
Alternator	12V	12V
Starter	Electric	Electric
Transmission		
Transmission	Hydrostatic transaxles	Hydrostatic transaxles
Speed and direction controls	Dual levers, foam gripped	Dual levers, foam gripped
Speed forward	0-6 mph / 0-9.7 km/h	0-6 mph / 0-9.7 km/h
Speed reverse	0-3.5 mph / 0-5.6 km/h	0-3.5 mph / 0-5.6 km/h
Brakes	Mechanical parking brake	Mechanical parking brake
Front caster tires, smooth tread	11 x 3.5-5, 4 ply	11x3.5-5, 4 ply
Rear tires, turf pneumatic	18 x 7.5-8	18 x 8.5-8
Tire pressure, front and rear	15 PSI / 103 kPa / 1 bar	15 PSI / 103 kPa / 1 bar

	Z4219	Z4220
Cutting Width	42" / 107cm	42" / 107cm
Cutting Height	1.5 - 4" / 3.8 - 10.2 cm	1.5 - 4" / 3.8 - 10.2 cm
Uncut Circle	0	0
Number of Blades	2	2
Blade Length	21" / 533 mm	21" / 533 mm
Nose Rollers	No	No
Sprung Seat	Standard	Standard
Hinged Arm Rests	No	No
Hour Meter	Standard	Standard
Blade Engagement	90 ft/lb Ogura	90 ft/lb Ogura
Deck Construction	12 gauge, stamped steel	12 gauge, stamped steel
Productivity		
Productivity	2.6 acres /h 1.530 m²/h	2.6 acres /h 1.530 m²/h
Overall Dimensions		
Weight	485 lbs / 220 kg	485 lbs / 220 kg
Base Machine Length	72" / 183 cm	72" / 183 cm
Base Machine Width	43" / 109 cm	43" / 109 cm
Base Machine Height	41" / 104 cm	41" / 104 cm
Overall Width, Chute Up	43" / 109 cm	43" / 109 cm
Overall Width, Chute Down	52" / 132 cm	52" / 132 cm

	Z4619	Z4824
Engine		
Manufacturer	Briggs & Stratton	Kohler
Туре	Intek	Courage
Power	19 hp / 14.2kW	20 hp / 14.9kW
Lubrication	Pressure with oil filter	Pressure with oil filter
Oil capacity excluding filter	1.6 qt / 1.5 liter	1.6 qt / 1.5 liter
Oil capacity including filter	1.7 qt / 1.6 liter	1.7 qt / 1.6 liter
Engine oil (See viscosity diagram)	SAE 30, 10W30, 5W30 SF, SG, SH, SJ	SAE 10W30, 5W20, 5W30 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	3 gallon / 11.4 liters	3 gallon / 11.4 liters
Spark plugs / gap	Champion RC12YC .030" / 0.75 mm	Champion RC12YC .030" / 0.75 mm
Cooling	Air cooled	Air cooled
Air filter	Standard	Standard
Alternator	12V	12V
Starter	Electric	Electric
Transmission		
Transmission	Hydrostatic transaxles	Hydrostatic transaxles
Speed and direction controls	Dual levers, foam gripped	Dual levers, foam gripped
Speed forward	0-6 mph / 0-9.7 km/h	0-6 mph / 0-9.7 km/h
Speed reverse	0-3.5 mph / 0-5.6 km/h	0-3.5 mph / 0-5.6 km/h
Brakes	Mechanical parking brake	Mechanical parking brake
Front caster tires, smooth tread	11 x 3.5-5, 4 ply	11x3.5-5, 4 ply
Rear tires, turf pneumatic	18 x 8.5-8	18 x 9.5-8
Tire pressure, front and rear	15 PSI / 103 kPa / 1 bar	15 PSI / 103 kPa / 1 bar

	Z4619	Z4824
Cutting Width	46" / 107cm	48" / 122cm
Cutting Height	1.5 - 4" / 3.8 - 10.2 cm	1.5 - 4" / 3.8 - 10.2 cm
Uncut Circle	0	0
Number of Blades	2	3
Blade Length	22¾" / 58 cm	16½" / 42 cm
Nose Rollers	No	No
Sprung Seat	Standard	Standard
Hinged Arm Rests	No	No
Hour Meter	Standard	Standard
Blade Engagement	90 ft/lb Ogura	90 ft/lb Ogura
Deck Construction	12 gauge, stamped steel	12 gauge, stamped steel
Productivity		
Productivity	2.79 acres /h 11290 m²/h	2.9 acres /h 11770 m²/h
Overall Dimensions		
Weight	525 lbs / 238 kg	580 lbs / 263 kg
Base Machine Length	72" / 183 cm	72" / 183 cm
Base Machine Width	43.5" / 111 cm	50" / 127 cm
Base Machine Height	41" / 104 cm	41" / 104 cm
Overall Width, Chute Up	48" / 122 cm	50" / 127 cm
Overall Width, Chute Down	56" / 142 cm	59" / 150 cm

	Z5426
Engine	
Manufacturer	Briggs & Stratton
Туре	ELS Twin
Power	26 hp / 19.4kW
Lubrication	Pressure with oil filter
Oil capacity excluding filter	1.5 qt / 1.4 liter
Oil capacity including filter	1.6 qt / 15 liter
Engine oil (See viscosity diagram)	SAE 30, 10W30, 5W30 SF, SG, SH, SJ
Fuel	Min 87 octane unleaded (Max ethanol 10%, Max MTBE 15%)
Fuel tank capacity	3 gallon / 11.4 liters
Spark plugs / gap	Champion RC12YC .030" / 0.75 mm
Cooling	Air cooled
Air filter	Standard
Alternator	12V
Starter	Electric
Transmission	
Transmission	Hydrostatic transaxles
Speed and direction controls	Dual levers, foam gripped
Speed forward	0-6 mph / 0-9.7 km/h
Speed reverse	0-3.5 mph / 0-5.6 km/h
Brakes	Mechanical parking brake
Front caster tires, smooth tread	11 x 3.5-5, 4 ply
Rear tires, turf pneumatic	18 x 9.5-8
Tire pressure, front and rear	15 PSI / 103 kPa / 1 bar

	Z5426
Cutting Width	54" / 137cm
Cutting Height	1.5 - 4" / 3.8 - 10.2 cm
Uncut Circle	0
Number of Blades	3
Blade Length	18¼" / 46 cm
Nose Rollers	No
Sprung Seat	Standard
Hinged Arm Rests	No
Hour Meter	Standard
Blade Engagement	85 ft/lb Warner
Deck Construction	10 gauge, stamped steel
Productivity	
Productivity	2.79 acres /h 11290 m²/h
Overall Dimensions	
Weight	605 lbs / 274 kg
Base Machine Length	72" / 183 cm
Base Machine Width	50" / 127 cm
Base Machine Height	41" / 104 cm
Overall Width, Chute Up	56" / 142 cm
Overall Width, Chute Down	69" / 175 cm

#### **Accessories**

Head lights BioClip attachment (Mulch clip) 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 27-35 ft/lb (35-45 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 shall 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 operation 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 valuable documents.

Acti	on	Date, mtr reading, stamp, sign
De	livery Service	
1.	Charge the battery.	
2.	Adjust the tire pressure of all wheels to 15 PSI (1 bar).	
3.	Mount the steering controls in the normal position.	
4.	Connect the contact box to the cable for the seat's safety switch.	
5.	Check that the right amount of oil is in the engine.	
6.	Adjust the position of the steering controls.	
7.	Fill with fuel and open the fuel shut off valve.	
8.	Start the engine.	
9.	Check that there is drive to both wheels.	
10.	Check the mower deck adjustment.	
11.	Check:	
	The safety switch for the parking brake.	
	The safety switch for the mower deck.	
	The safety switch in the seat.	
	The safety switch in the steering controls.	
	Parking brake functionality.	
	Driving forward.	
	Driving backward.	
	Engaging the blades.	
12.	Check the idle speed	
13.	Check the engine high idle speed	
14.	Inform the customer about:	Delivery service has been carried out.
	The need and advantages of following the service schedule.	No remaining notes.
	The need and advantages of leaving the machine for service every 300 hours.	Certified:
	The effects of service and maintaining a service journal on the machine's resale value.	
	Application areas for Mulching.	
15.	Fill in the sales papers, etc.	

SERVICE JOURNAL		
After the First 5-8 Hours  1. Change engine oil.		

Action	Date, mtr reading, stamp, sign
25-Hour Service	
Check the fuel pump's air filter.	
2. Sharpen/Replace mower blades if required.	
3. Check the tire pressures.	
4. Check battery with cables.	
5. Lubricate according to lubrication chart.	
6. Check/clean the engine's cooling air intake.	
7. Clean the air cleaner's pre-filter (foam).	

Action	Date, mtr reading, stamp, sign
50-Hour Service	
Perform the 25-hour service.	
2. Clean/replace the air cleaner's filter cartridge (paper filter)	
(shorter intervals for dusty operating conditions).	
3. Change engine oil.	
Lubricate according to lubrication chart.	
5. Check/adjust the parking brake.	

Act	ion	Date, mtr reading, stamp, sign
10	0-Hour Service	
1.	Perform the 25-hour service.	
2.	Perform the 50-hour service.	
3.	Change the engine oil filter.	
4.	Clean/replace the spark plugs.	
5.	Replace the fuel filter.	
6.	Clean the cooling fins on the engine and transmission.	
7.	Check V-belts.	
8.	Check tighten caster wheel axle bolts (every 200 hours).	
9.	Change the air filter's paper cartridge.	

Action	Date, mtr reading, stamp, sign
300-Hour Service	
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. Check/adjust the mower deck.	
6. Clean the combustion chamber and grind the valve seats.	
7. Check the engine valve clearance.	
8. Replace the air cleaner's pre-filter (foam).	
	1

Clean the engine's cooling air intake (25 hours).	<ol> <li>Clean the engine's cooling air intake (25 hours).</li> <li>Replace the air cleaner's pre-filter (foam) (300 hours).</li> <li>Replace the air filter's paper cartridge.</li> <li>Change the engine oil (50 hours).</li> <li>Replace the engine oil filter (100 hours).</li> <li>Check/adjust the cutting height.</li> <li>Check/adjust the parking brake (50 hours).</li> <li>Clean/Change the spark plugs (100 hours).</li> <li>Change the fuel filter (100 hours).</li> <li>Clean the cooling fins (100 hours).</li> <li>Check the engine valve clearance.</li> </ol>	Action	Date, mtr reading, stamp, sign
2. Replace the air cleaner's pre-filter (foam) (300 hours).  3. Replace the air filter's paper cartridge.  4. Change the engine oil (50 hours).  5. Replace the engine oil filter (100 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.	2. Replace the air cleaner's pre-filter (foam) (300 hours).  3. Replace the air filter's paper cartridge.  4. Change the engine oil (50 hours).  5. Replace the engine oil filter (100 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.	At Least Once Each Year	
3. Replace the air filter's paper cartridge. 4. Change the engine oil (50 hours). 5. Replace the engine oil filter (100 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.	3. Replace the air filter's paper cartridge. 4. Change the engine oil (50 hours). 5. Replace the engine oil filter (100 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.	Clean the engine's cooling air intake (25 hours).	
4. Change the engine oil (50 hours).  5. Replace the engine oil filter (100 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.	4. Change the engine oil (50 hours). 5. Replace the engine oil filter (100 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.	2. Replace the air cleaner's pre-filter (foam) (300 hours).	
5. Replace the engine oil filter (100 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.	5. Replace the engine oil filter (100 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.	3. Replace the air filter's paper cartridge.	
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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.	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.	5. Replace the engine oil filter (100 hours).	
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O. Change the fuel filter (100 hours).  10. Clean the cooling fins (100 hours).  11. Check the engine valve clearance.	O. Change the fuel filter (100 hours).  10. Clean the cooling fins (100 hours).  11. Check the engine valve clearance.	7. Check/adjust the parking brake (50 hours).	
10. Clean the cooling fins (100 hours).  11. Check the engine valve clearance.	10. Clean the cooling fins (100 hours).  11. Check the engine valve clearance.	3. Clean/Change the spark plugs (100 hours).	
11. Check the engine valve clearance.	11. Check the engine valve clearance.	O. Change the fuel filter (100 hours).	
		0. Clean the cooling fins (100 hours).	
12. Perform the 300-hour service at an authorized service workshop.	12. Perform the 300-hour service at an authorized service workshop.	11. Check the engine valve clearance.	
		12. Perform the 300-hour service at an authorized service workshop.	

Action	Date, mtr reading, stamp, sign
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Action	Date, mtr reading, stamp, sign

P/N 539 130936R1 12/13/07