

*As rated by the engine manufacturer

Sears Canada, Inc., Toronto, Ontario M5B 2B8

426921 Rev. 1



SAFETY RULES



Safe Operation Practices for Ride-On Mowers

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



WARNING: In order to prevent accidental starting when setting up, transporting, adjusting or making repairs, always disconnect spark plug wire and place wire where it cannot contact spark plug.



WARNING: Do not coast down a hill in neutral, you may lose control of the tractor.



WARNING: Tow only the attachments that are recommended by and comply with specifications of the manufacturer of your tractor. Use common sense when towing. Operate only at the lowest possible speed when on a slope. Too heavy of a load, while on a slope, is dangerous. Tires can lose traction with the ground and cause you to lose control of your tractor.

I. 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.
- 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.
- 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.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

II. 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, 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 or shift while on the slope.
- Do not mow on wet grass. Tires may lose traction. Always keep the machine in gear when going down slopes. Do not shift to neutral and coast downhill.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.
- Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine. Do no 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.

III. 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.







Safe Operation Practices for Ride-On Mowers

IV. TOWING

- Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
- Follow the manufacturer's recommendation for weight limits for towed equipment and towing on slopes.
- Never allow children or others in or on towed equipment.
- On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
- Travel slowly and allow extra distance to stop.

V. SERVICE

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 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.
- 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.

GENERAL SERVICE

- 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 build-up. Clean oil or fuel spillage and remove any fuelsoaked 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.



- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- 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.
- 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.
- Mow up and down slopes (15° Max), not across.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

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PRODUCT SPECIFICATIONS

PRODUCT SPE	
Gasoline Capacity and type:	1.25 Gallons Unleaded Regular
Oil Type (API-SG-SL):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F) Synthetic (below 0°F)
Your tractor was shipped SAE 10W30 motor oil	from the factory with non-synthetic
Oil Capacity:	48 oz.
Spark Plug:	Champion RC12YC (Gap: .030")
Ground Speed (MPH):	Forward: 1st 1.0 2nd 1.4 3rd 2.1 4th 3.1 5th 4.0 6th 5.1 Reverse: 1.6
Charging System:	3 Amps Battery 5 Amps Headlights
Battery:	AMP/HR: 28 Min. CCA: 230 Case Size: U1R
Blade Bolt Torque:	45-55 FT. LBS.

CONGRATULATIONS on your purchase of a new Tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance. Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center/department. We have competent, well-trained representatives and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MAINTENANCE AGREEMENT

A Maintenance Agreement is available on this product. Contact your nearest Sears store for details.

CUSTOMER RESPONSIBILITIES

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

WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-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 nearest authorized service center/department (See REPAIR PARTS section of this manual).

LIMITED TWO (2) YEAR WARRANTY ON CRAFTSMAN TRACTOR (RIDING EQUIPMENT)

For two (2) years from date of purchase Sears Canada, Inc. will repair or replace at Sears option free of charge parts which are defective as a result of material or workmanship.

FULL ONE (1) YEAR WARRANTY ON BATTERY

For one (1) year from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

COMMERCIAL OR RENTAL USE

Warranty on Riding Equipment used for commercial or rental purposes is limited to ninety (90) days.

This Warranty does NOT cover:

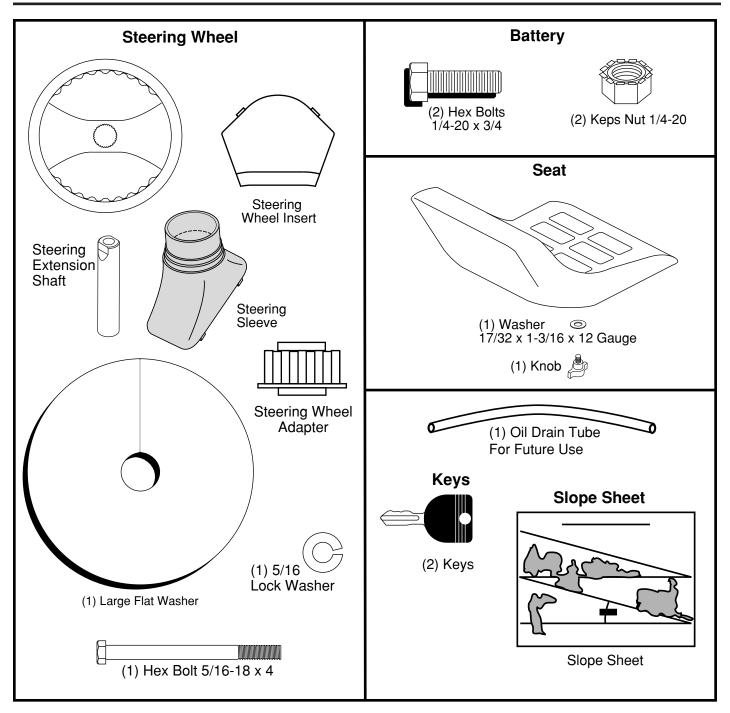
- 1. Pre-delivery set-up.
- 2. Tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass).
- 3. Expendable items which become worn during normal use, such as blades, spark plug, air cleaners and belts.
- 4. Repairs necessary because of operator abuse or negligence, including damaged jackshaft or mandrel and the failure to operate and maintain the equipment according to the instructions contained in the Owner's Manual.

Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

This warranty is in addition to any statutory warranty and does not exclude or limit legal rights you may have but shall run concurrently with applicable provincial legislation. Furthermore, some provinces do NOT allow limitation on how long an implied warranty will last so the above limitations may not apply to you.

SEARS CANADA, INC., TORONTO, ONTARIO M5B 2B8

CONTENTS OF HARDWARE PACK



ASSEMBLY

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

- (1) 5/16" wrench
- Utility knife
- (2) 7/16" wrenches(2) 1/2" wrenches
- Tire pressure gauge Pliers
- (1) 9/16" wrench

When right or left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

TO REMOVE TRACTOR FROM CARTON

UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton.
- Cut along dashed lines on all four panels of carton. Remove end panels and lay side panels flat.
- Check for any additional loose parts or cartons and remove.

BEFORE REMOVING TRACTOR FROM SKID

ATTACH STEERING WHEEL (See Fig. 1)

ASSEMBLE EXTENSION SHAFT AND BOOT

- Slide extension shaft onto lower steering shaft.
- Place tabs of steering boot over tab slots in dash and push down to secure.

INSTALL STEERING WHEEL

- Position front wheels of the tractor so they are pointing straight forward.
- Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 5/16 lock washer, 5/16 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

IMPORTANT: CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

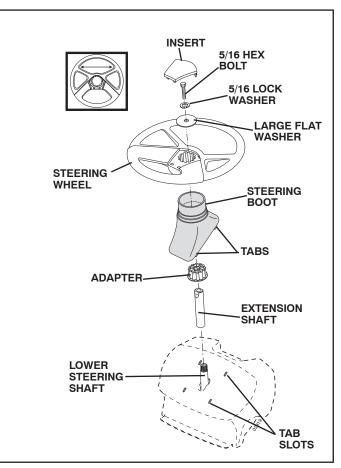


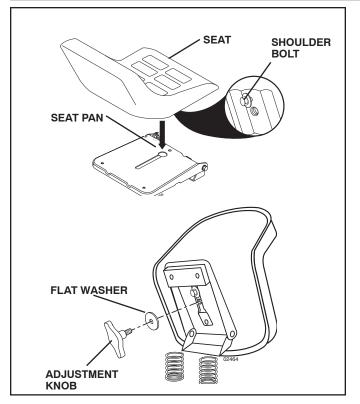
Fig. 1

INSTALL SEAT (See Fig.2)

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.
 Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- · Get off seat without moving its adjusted position.
- · Raise seat and tighten adjustment knob securely.

ASSEMBLY





TO CHECK BATTERY (See Fig. 3)

• Lift seat to raised position.

NOTE: If this battery is put into service after month and year indicated on label (label is located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in Maintenance section of this manual for charging instructions).

• For battery and battery cable installation see "RE-PLACING BATTERY" in the "Service and Adjustments" section in this manual.

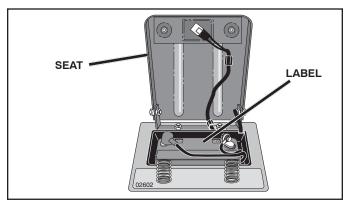


Fig. 3

NOTE: You may now roll your tractor off the skid. Follow the appropriate instruction below to remove the tractor from the skid.

WARNING: Before starting, read, understand and follow all instructions in the Operation section of this manual. Be sure tractor is in a well-ventilated area. Be sure the area in front of tractor is clear of other people and objects.

TO ROLL TRACTOR OFF SKID (See Operation section for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in neutral (N) position.
- Roll tractor forward off skid.
- Remove banding holding the deflector shield up against tractor.

INSTALL MULCHER PLATE (See Fig. 4)

(If previously removed)

- Raise and hold deflector shield in upright position.
- Place slot in mulcher plate over tab on mower and position plate over mower opening as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.

CAUTION: Do not remove deflector shield from mower.

from mower.

TO CONVERT TO BAGGING OR DISCHARGING

Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

NOTE: It is not necessary to change blades. The mulcher blades are designed for discharging and bagging also.

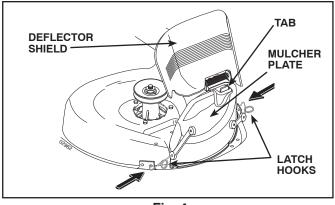


Fig. 4

CHECK TIRE PRESSURE

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

• Reduce tire pressure to PSI shown on tires.

CHECK DECK LEVELNESS

For best cutting results, mower housing should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is operating properly. See "TO CHECK BRAKE" in the Service and Adjustments section of this manual.

√CHECKLIST

BEFORE YOU OPERATE YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

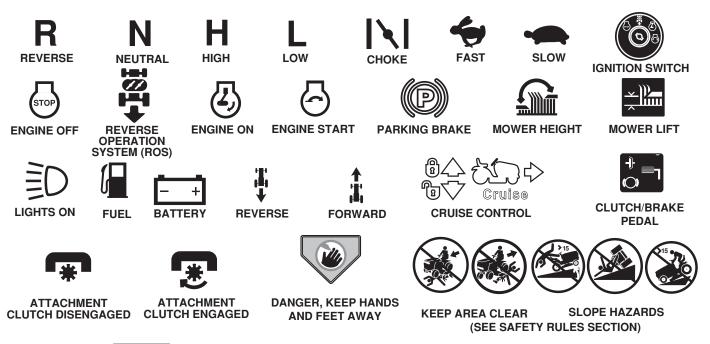
PLEASE REVIEW THE FOLLOWING CHECKLIST:

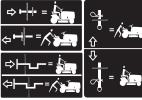
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged.
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ Be sure mower deck is properly leveled side-to-side/ front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- ✓ Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- ✓ Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls, their location and function. Operate them before you start the engine.
- ✓ Be sure brake system is in safe operating condition.
- ✓ Be sure Operator Presence System and Reverse Operation System (ROS) are working properly (See the Operation and Maintenance sections in this manual).

These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.





FREE WHEEL (Automatic Models only)



Failure to follow instructions could result in serious injury or death. The safety alert symbol is used to identify safety information about hazards which can result in death, serious injury and/or property damage. **DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.



WARNING indicates a hazard which, if not avoided, could result in death or serious injury.



CAUTION indicates a hazard which, if not avoided, **might result in minor or moderate injury.**

CAUTION when used **without** the alert symbol, indicates a situation that **could result in damage** to the tractor and/or engine.



HOT SURFACES indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

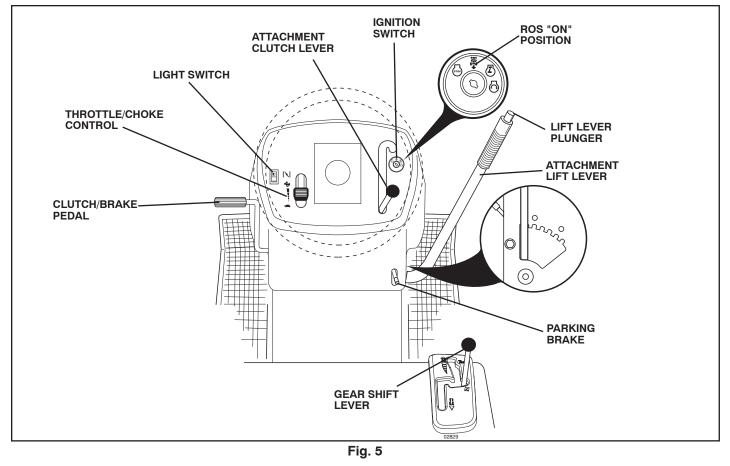


FIRE indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

KNOW YOUR TRACTOR

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



Our tractors conform to the applicable standards of the American National Standards Institute.

ATTACHMENT CLUTCH LEVER - Used to engage the mower blades, or other attachments mounted to your tractor.

ATTACHMENT LIFT LEVER - Used to raise, lower, and adjust the mower deck or other attachments mounted to your tractor.

CLUTCH/BRAKE PEDAL - Used for declutching and braking the tractor and starting the engine.

GEARSHIFT LEVER - Selects the speed and direction of the tractor.

 $\ensuremath{\textbf{IGNITION}}$ $\ensuremath{\textbf{SWITCH}}$ - Used for starting and stopping the engine.

LIFT LEVER PLUNGER - Used to release attachment lift lever when changing its position.

LIGHT SWITCH - Turns the headlights on and off.

PARKING BRAKE - Locks clutch/brake pedal into the brake position.

REVERSE OPERATION SYSTEM (ROS) "ON" POSI-TION - Allows operation of mower deck or other powered attachment while in reverse.

THROTTLE/CHOKE CONTROL - Used for starting and controlling engine speed.

WEAR YOUR
SAFETY GLASSES
THAN NO SIGHT

The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR

TO SET PARKING BRAKE (See Fig. 6)

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "ENGAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold tractor secure.

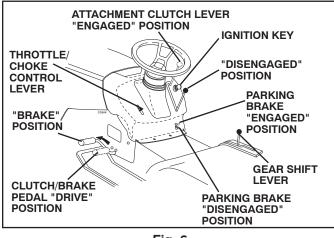


Fig. 6 STOPPING (See Fig. 6)

MOWER BLADES -

 To stop mower blades,move attachment clutch lever to "DISENGAGED" position.

GROUND DRIVE -

- To stop ground drive, depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

ENGINE -

Move throttle control between half and full speed (fast) position.

NOTE: Failure to move throttle control between half and full speed (fast) position, before stopping may cause engine to "backfire".

- Turn ignition key to "STOP" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

IMPORTANT: LEAVING THE IGNITION SWITCH IN ANY POSITION OTHER THAN "STOP" WILL CAUSE THE BATTERY TO BE DISCHARGED, (DEAD).

NOTE: Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

TO USE THROTTLE CONTROL (See Fig. 6)

Always operate engine at full speed (fast).

- Operating engine at less than full speed (fast) reducesthe engine's operating efficiency.
- Full speed (fast) offers the best mower performance.

TO MOVE FORWARD AND BACKWARD (See Fig. 7)

The direction and speed of movement is controlled by the gearshift lever.

- Start tractor with clutch/brake pedal depressed and gearshift lever in neutral (N) position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement.

IMPORTANT: BRING TRACTOR TO A COMPLETE STOP BEFORE SHIFTING OR CHANGING GEARS. FAILURE TO DO SO WILL SHORTEN THE USEFUL LIFE OF YOUR TRANSAXLE.

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 6)

The position of the attachment lift lever determines the cutting height.

- Grasp lift lever.
- Press plunger with thumb and move lever to desired position.

The cutting height range is approximately 1-1/2 to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

TO OPERATE MOWER (See Fig. 7)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine. You must remain fully and centrally positioned in the seat to prevent the engine from hesitating or cutting off when operating your equipment on rough, rolling terrain or hills.

• Select desired height of cut.

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- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the deflector shield in place.

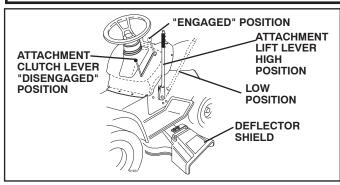


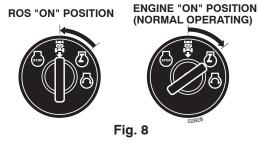
Fig. 7 REVERSE OPERATION SYSTEM (ROS) (See Fig. 8)

Your tractor is equipped with a Reverse Operation System (ROS). Any attempt by the operator to travel in the reverse direction with the attachment clutch engaged will shut off the engine unless ignition key is placed in the ROS "ON" position.

AWARNING: Backing up with the attachment clutch engaged while mowing is strongly discouraged. Turning the ROS "ON", to allow reverse operation with the attachment clutch engaged, should only be done when the operator decides it is necessary to reposition the machine with the attachment engaged. **Do not mow in reverse unless absolutely necessary**.

USING THE REVERSE OPERATION SYSTEM -

- Depress clutch/brake pedal all the way down and hold.
- With engine running, turn ignition key counterclockwise to ROS "ON" position.
- Look down and behind before backing.
- Move gear shift lever to reverse (R) position and slowly release clutch/brake pedal to start movement.
- When use of the ROS is no longer needed, turn the ignition key clockwise to engine "ON" position.



TO OPERATE ON HILLS



WARNING: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.

- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1 st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH.

NOTE: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

TOWING CARTS AND OTHER ATTACHMENTS

Tow only the attachments that are recommended by and comply with specifications of the manufacturer of your tractor. Use common sense when towing. Too heavy of a load, while on a slope, is dangerous. Tires can lose traction with the ground and cause you to lose control of your tractor.

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and screw cap tight, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Maintenance section of this manual).
- To change engine oil, see the Maintenance section in this manual.

ADD GASOLINE

Fill fuel tank to bottom of filler neck. Do not overfill. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life). Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.



CAUTION: Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

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

TO START ENGINE (See Fig. 6)

When starting the engine for the first time or if the engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- Place gear shift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to choke (\) position.

NOTE: Before starting, read the warm and cold starting procedures below.

Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, move throttle control to fast position, wait a few minutes and try again. If engine still does not start, move the throttle control back to the choke (N) position and retry.

WARM WEATHER STARTING (50° F and above)

- When engine starts, move the throttle control to the fast position.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

COLD WEATHER STARTING (50° F AND BELOW)

- When engine starts, allow engine to run with the throttle control in the choke (N) position until the engine runs roughly, then move throttle control to fast position. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.
- The attachments can also be used during the engine warm-up period.

NOTE: If at a high altitude (above 3000 feet) or in cold temperatures (below 32° F) the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

MOWING TIPS

- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 9).

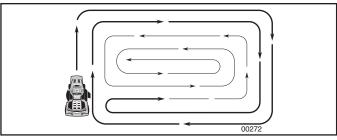


Fig. 9

- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

MULCHING MOWING TIPS

IMPORTANT: FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried, yet the newly cut area will not be exposed to direct sunlight.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 10). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.

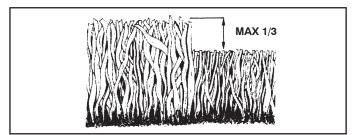


Fig. 10

- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across (perpendicular) to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

AS	MAINTENANCE SCHEDUL L IN DATES YOU COMPLETE GULAR SERVICE	.E	SEFORE	EACHUS EVERY 8	SE HOURS	SHOUR SHOUR SEVERY S	SHOUF	AS HOUT	AS EASON EFORE	STOR	RVICE	E DA	TES
	Check Brake Operation	~	V										
	Check Tire Pressure	V	V										
Т	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	V				17		/					
A	Sharpen/Replace Mower Blades			4									
C T	Lubrication Chart			/				V					
l o	Check Battery Level			6									
Ř	Clean Battery and Terminals			/				/					
	Check Transaxle Cooling			~									
	Adjust Blade Belt(s) Tension					V ₅							
	Adjust Motion Drive Belt(s) Tension					V 5							
	Check Engine Oil Level	~	V										
	Change Engine Oil			1,2,3				V					
Ε	Clean Air Filter			V 2									
N	Clean Air Screen			V ₂									
G	Inspect Muffler/Spark Arrester				~								
N	Replace Oil Filter (If equipped)					1,2							
Ē	Clean Engine Cooling Fins					V ₂							
	Replace Spark Plug					V	1						
	Replace Air Filter Paper Cartridge					V 2							
	Replace Fuel Filter						1						

1 - Change more often when operating under a heavy load or in high ambient temperatures. 5 - If equipped with adjustable system.

2 - Service more often when operating in dirty or dusty conditions.

3 - If equipped with oil filter, change oil every 50 hours.

4 - Replace blades more often when mowing in sandy soil.

GENERAL RECOMMENDATIONS

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual.

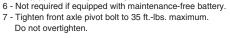
Some adjustments will need to be made periodically to properly maintain your tractor.

At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

• At least once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

BEFORE EACH USE

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check operator presence and ROS systems for proper operation.
- Check for loose fasteners.



LUBRICATION CHART **② SPINDLE** 2 SPINDLE ZERK ZERK FRONT WHEEL П Д **BEARING ZERK ② FRONT WHEEL BEARING ZERK** C **③ ENGINE** Ð GEAR SHIFT 01961 PIVOTS 1 SAE 30 OR 10W30 MOTOR OIL

2 GENERAL PURPOSE GREASE

③ REFER TO MAINTENANCE "ENGINE" SECTION

IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTENTHE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be checked and adjusted. (See "TO CHECK BRAKE" in the Service and Adjustments section of this manual).

TIRES

- Maintain proper air pressure in all tires (See the sides of tires for proper PSI).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

OPERATOR PRESENCE SYSTEM AND REVERSE OPERATION SYSTEM (ROS) (See Fig. 11)

Be sure operator presence and reverse operation systems are working properly. If your tractor does not function as described, repair the problem immediately.

• The engine should not start unless the brake pedal is fully depressed, and the attachment clutch control is in the disengaged position.

CHECK OPERATOR PRESENCE SYSTEM

- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

CHECK REVERSE OPERATION (ROS) SYSTEM

- When the engine is running with the ignition switch in the engine "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should shut off the engine.
- When the engine is running with the ignition switch in the ROS "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should NOT shut off the engine.

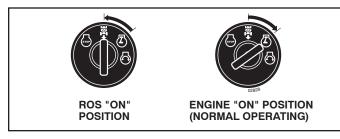


Fig. 11

BLADE CARE

For best results mower blades must be kept sharp. Replace bent or damaged blades.



BLADE REMOVAL (See Fig. 12)

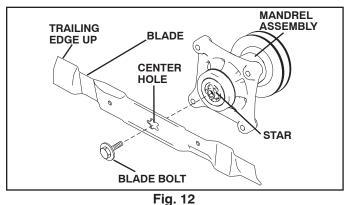
• Raise mower to highest position to allow access to blades. **NOTE:** Protect your hands with gloves and/or wrap blade with heavy cloth.

- Remove blade bolt by turning counterclockwise.
- Install new or resharpened blade with stamped "THIS SIDE UP" facing deck and mandrel assembly.

IMPORTANT: TO ENSURE PROPER ASSEMBLY, CENTER HOLE IN BLADE MUST ALIGN WITH STAR ON MANDREL ASSEMBLY.

• Install and tighten blade bolt securely (45-55 Ft. Lbs. torque).

IMPORTANT: SPECIAL BLADE BOLT HEAT TREATED.



BATTERY

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour.

NOTE: The original equipment battery on your tractor is maintenance free. Do not attempt to open or remove caps or covers. Adding or checking level of electrolyte is not necessary.

TO CLEAN BATTERY AND TERMINALS

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

- Raise seat/hood.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "REPLACING BATTERY" in the SERVICE AND ADJUSTMENTS section of this manual).

V-BELTS

Check V-belts for deterioration and wear after 100 hours and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

TRANSAXLE COOLING

Keep transaxle free from build-up of dirt and chaff which can restrict cooling.

ENGINE

LUBRICATION

Only use high quality detergent oil rated with API service classification SG-SL. Select the oil's SAE viscosity grade according to your expected operating temperature. When operating in temperatures below 0° F (-18° C) synthetic oil must be used.

* **CAUTION:** Air cooled engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W30, 10W30 etc.) in temperatures above 40° F (4° C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently.

**** CAUTION:** SAE 30 oil, if used below 40° F (4° C), will result in hard starting and possible engine bore damage due to inadequate lubrication.

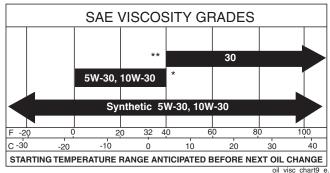


Fig. 13



NOTE: Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol (shown at left) with "SJ/CF ENERGY CONSERVING" or higher, is an acceptable oil at all temperatures. Use of synthetic oil does not alter required oil change intervals.

Change the oil after every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/ dipstick securely each time you check the oil level.

TO CHANGE ENGINE OIL (See Figs. 13 and 14)

Determine temperature range expected before oil change. All oil must meet API service classification SG-SL.

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove yellow cap from end of drain valve and install the drain tube onto the fitting.

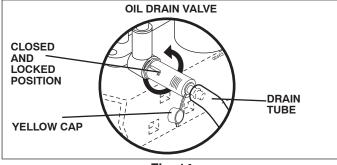


Fig. 14

- Unlock drain valve by pushing inward and turning counterclockwise.
- To open, pull out on the drain valve.
- After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
- Remove the drain tube and replace the cap onto to the bottom fitting of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

CLEAN AIR SCREEN

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

ENGINE COOLING SYSTEM (See Fig. 15)

Debris may clog the engine's air cooling system. Remove blower housing and clean the area shown to prevent overheating and engine damage.

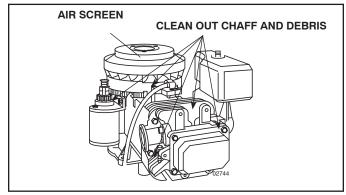


Fig. 15

AIR FILTER (See Fig. 16)

Your engine will not run properly using a dirty air filter. Replace pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

- Pull up on air filter cover handle and rotate towards engine.
- Remove cover.
- Carefully remove air filter cartridge and pre-cleaner from base.
- Clean base carefully to prevent debris from falling into carburetor.

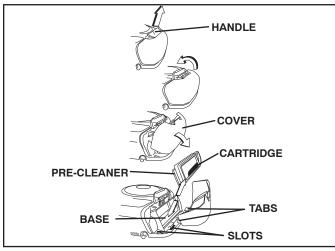


Fig. 16

NOTE: If very dirty or damaged, replace cartridge.

- Place new pre-cleaner and cartridge firmly in base.
- Align tabs on cover with slots in blower housing and replace cover.
- Hook handle on cover and push down on handle to close.

IMPORTANT: Petroleum solvents, such as kerosene, are not to be used to clean the cartridge. They may cause deterioration of the cartridge. Do not oil cartridge. Do not use pressurized air to clean cartridge.

MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of use, whichever comes first. Spark plug type and gap setting is shown in "PRODUCT SPECIFICATIONS" section of this manual.

IN-LINE FUEL FILTER (See Fig. 17)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

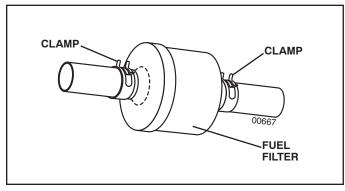


Fig. 17

CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose or pressure washer to clean your tractor unless the engine and transmission are covered to keep water out. Water in engine or transmission will shorten the useful life of your tractor. Use compressed air or a leaf blower to remove grass, leaves and trash from tractor and mower.



WARNING: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUST-MENTS:

- Depress clutch/brake pedal fully and set parking brake.
- Place gearshift lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key to "STOP" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

TRACTOR

TO REMOVE MOWER (See Fig. 18)

Mower will be easier to remove from the right side of tractor.

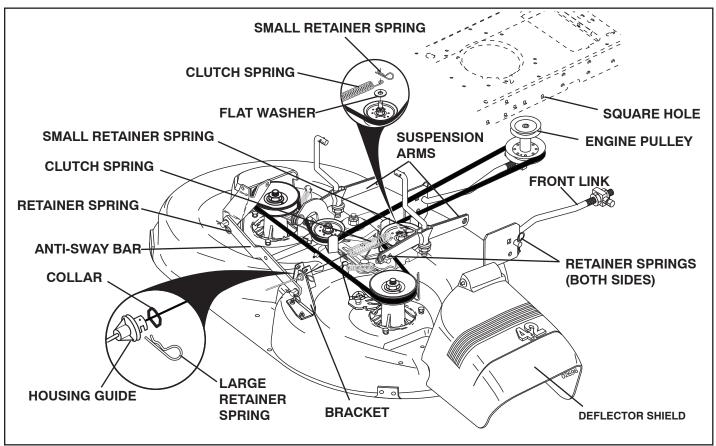
- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Remove small retainer spring, and remove clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing guide out of bracket.
- Disconnect anti-swaybar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.

- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS AND HOOK THE CLUTCH SPRING INTO SQUARE HOLE IN FRAME.

TO INSTALL MOWER (See Fig. 18)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with deflector shield to right side of tractor.
- Lower lift lever to its lowest position.
- Connect front links to mower deck and secure with retainer springs..



- Connect suspension arms to rear deck brackets and secure with retainer springs.
- Connect anti-swaybar to chassis bracket and secure with retainer spring.
- Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- Install belt onto engine pulley.

TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" section of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 19 and 20)

- Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

NOTE: Each full turn of adjustment nut will change mower height about 1/8".

• Recheck measurements after adjusting.

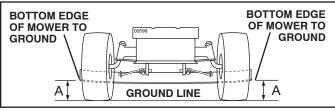


Fig. 19

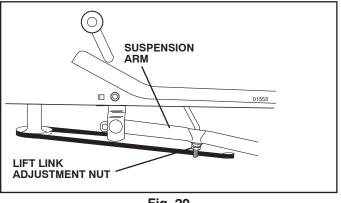


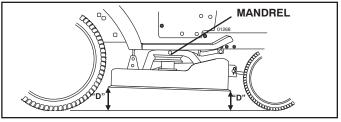
Fig. 20

FRONT-TO-BACK ADJUSTMENT (See Figs. 21 and 22) IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length.
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns. The two front links must remain equal in length.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.





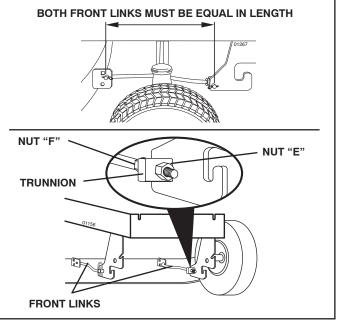


Fig. 22

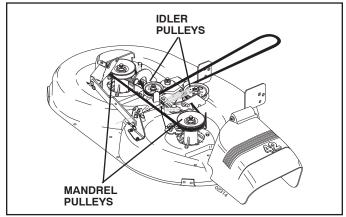
TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 23)

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake. BELT REMOVAL -

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

BELT INSTALLATION -

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower in reverse order of removal instructions.





TO CHECK BRAKE

If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be serviced.

You may also check brake by:

- 1. Park tractor on a level, dry concrete or paved surface, depress clutch/brake pedal all the way down and engage parking brake.
- 2. Place gear shift lever in neutral (N) position.

The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, then the brake needs to be serviced. Contact a Sears or other qualified service center.

TO REPLACE MOTION DRIVE BELT (See Fig. 24)

Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

BELT REMOVAL -

• Remove mower (See "TO REMOVE MOWER" in this section of manual).

NOTE: Observe entire motion drive belt and position of all belt guides and keepers.

- Remove belt from stationary idler and clutching idler.
- Remove belt downward from around engine pulley.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Remove belt from center span keeper and pull belt away from tractor.

BELT INSTALLATION -

- Carefully work new belt down between transaxle belt keepers and onto the input pulley.
- Slide belt into the center span keeper.
- Pull belt toward front of tractor and roll around the top groove of engine pulley.
- Install belt through stationary idler and clutching idler.
- Make sure belt is in all pulley grooves and inside all belt guides and keepers.
- Install mower (See "TO INSTALL MOWER" in this section of manual).

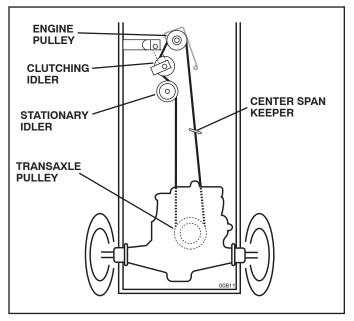


Fig. 24

TRANSAXLE GEAR SHIFT LEVER NEUTRAL ADJUSTMENT (See Fig. 25)

The transaxle should be in neutral when the gear shift lever is in neutral (N) (lock gate) position. The adjustment is preset at the factory; however, if adjustment is needed, proceed as follows:

Make sure transaxle is in neutral (N).

NOTE: When the tractor rear wheels move freely, the transaxle is in neutral.

- Loosen adjustment bolt in front of the right rear wheel.
- Position the gear shift lever in the neutral (N) position.
- Tighten adjustment bolt securely.

NOTE: If additional clearance is needed to get to adjustment bolt, move mower deck height to the lowest position.

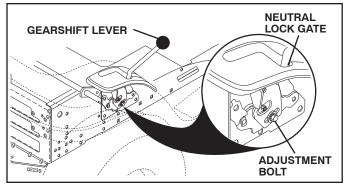


Fig. 25

TO ADJUST STEERING WHEEL ALIGN-MENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center/department.

TO REMOVE WHEEL FOR REPAIRS (See Fig. 26)

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

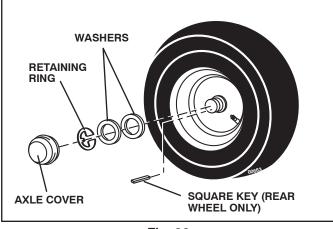


Fig. 26

TO START ENGINE WITH A WEAK BATTERY (See Fig. 27)



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

If your battery is too weak to start the engine, it should be recharged. (See "BATTERY" in the Maintenance section of this manual).

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

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

TO ATTACH JUMPER CABLES -

- Connect one end of the RED cable to the POSITIVE (+) terminal of each battery(A-B), taking care not to short against tractor chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal (C) of fully charged battery.
- Connect the other end of the BLACK cable (D) to good chassis ground, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

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

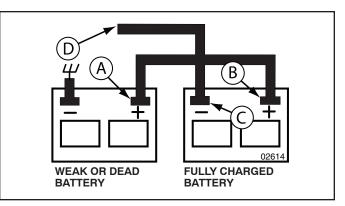


Fig. 27

TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- Close hood.

INTERLOCKS AND RELAYS

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

• Check wiring. See electrical wiring diagram in the Repair Parts section.

TO REPLACE FUSE

Replace with 20 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 28)

- Raise hood.
- Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- To replace, reverse above procedure.

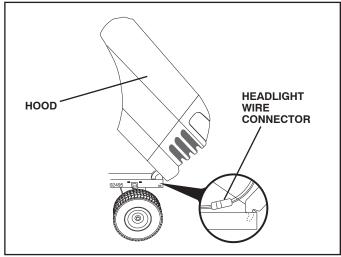


Fig. 28

ENGINE

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the customers expense, may be performed by any non-road engine repair establishment or individual. Warranty repairs must be performed by an authorized engine manufacturer's service outlet.

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 29)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever from slow to choke position. Slowly move lever from choke to fast position.
- Check that holes "A" in governor control lever and hole in governor plate line-up. If holes "A" are not aligned, loosen clamp screw and move throttle cable until holes are aligned. Tighten clamp screw securely.
- TO ADJUST CARBURETOR (See Fig. 30)

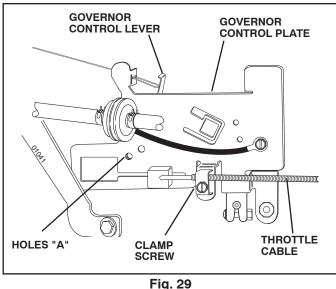


Fig. 29

NOTE: The carburetor on this engine is low emission. It is equipped with an idle fuel adjusting needle with a limiter cap, which allows some adjustment within the limits allowed by the cap. Do not attempt to remove the limiter cap. The limiter cap cannot be removed without breaking the adjusting needle.

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning idle mixture valve **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the idle mixture valve **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: DAMAGE TO THE NEEDLE VALVE AND THE SEAT IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Air cleaner assembly must be assembled to the carburetor when making carburetor adjustments.
- Be sure the throttle control cable is adjusted properly (see above).

FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (**N**) position.
- Move throttle control lever to slow position. With finger, rotate and hold throttle lever against idle speed screw. Turn idle speed screw to attain 1750 RPM.
- While still holding throttle lever against idle speed screw, turn idle mixture valve full travel clockwise then counterclockwise until engine runs rough. Turn valve to a point midway between those two positions. Release throttle lever.

ACCELERATION TEST -

 Move throttle control lever from slow to fast position. If engine hesitates or dies, turn idle mixture valve out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust - damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/ DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

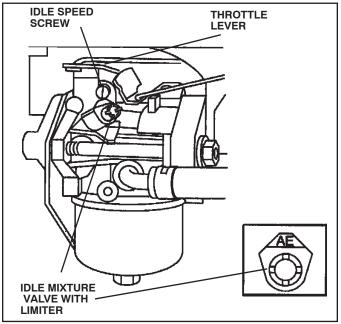


Fig. 30

STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



WARNING: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

TRACTOR

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Maintenance section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Maintenance section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

BATTERY

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Maintenance section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

ENGINE

FUEL SYSTEM

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Empty the fuel tank by starting the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not empty the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Maintenance section of this manual).

CYLINDER(S)

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION			
Will not start	 Out of fuel. Engine not "CHOKED" properly. Engine flooded. Bad spark plug. Dirty air filter. Dirty fuel filter. Water in fuel. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Fill fuel tank. See "TO START ENGINE" in Operation section. Wait several minutes before attempting to start. Replace spark plug. Clean/replace air filter. Replace fuel filter. Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Check all wiring. See "To Adjust Carburetor" in Service Adjustments section. Contact an authorized service center/department. 			
Hard to start	 Dirty air filter. Bad spark plug. Weak or dead battery. Dirty fuel filter. Stale or dirty fuel. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Clean/replace air filter. Replace spark plug. Recharge or replace battery. Replace fuel filter. Empty fuel tank and refill tank with fresh, clean gasoline Check all wiring. See "To Adjust Carburetor" in Service Adjustments section. Contact an authorized service center/department. 			
Engine will not turn over	 Clutch/brake pedal not depressed. Attachment clutch is engaged. Weak or dead battery. Blown fuse. Corroded battery terminals. Loose or damaged wiring. Faulty ignition switch. Faulty solenoid or starter. Faulty operator presence switch(es). 	 Depress clutch/brake pedal. Disengage attachment clutch. Recharge or replace battery. Replace fuse. Clean battery terminals. Check all wiring. Check/replace ignition switch. Check/replace solenoid or starter. Contact an authorized service center/department. 			
Engine clicks but will not start	 Weak or dead battery. Corroded battery terminals. Loose or damaged wiring. Faulty solenoid or starter. 	 Recharge or replace battery. Clean battery terminals. Check all wiring. Check/replace solenoid or starter. 			
Loss of power	 Cutting too much grass/too fast. Throttle in "CHOKE" position. Build-up of grass, leaves and trash under mower. Dirty air filter. Low oil level/dirty oil. Faulty spark plug. Dirty fuel filter. Stale or dirty fuel. Water in fuel. Spark plug wire loose. Dirty engine air screen/fins. Dirty/clogged muffler. Loose or damaged wiring. Carburetor out of adjustment. 	 Raise cutting height/reduce speed. Adjust throttle control. Clean underside of mower housing. Clean/replace air filter. Check oil level/change oil. Clean and regap or change spark plug. Replace fuel filter. Empty fuel tank and refill tank with fresh, clean gasoline Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Connect and tighten spark plug wire. Clean/replace muffler. Clean/replace muffler. Check all wiring. See "To Adjust Carburetor" in Service Adjustments section. Contact an authorized service center/department. 			
Excessive vibration	 Worn, bent or loose blade. Bent blade mandrel. Loose/damaged part(s). 	 Replace blade. Tighten blade bolt. Replace blade mandrel. Tighten loose part(s). Replace damaged parts. 			

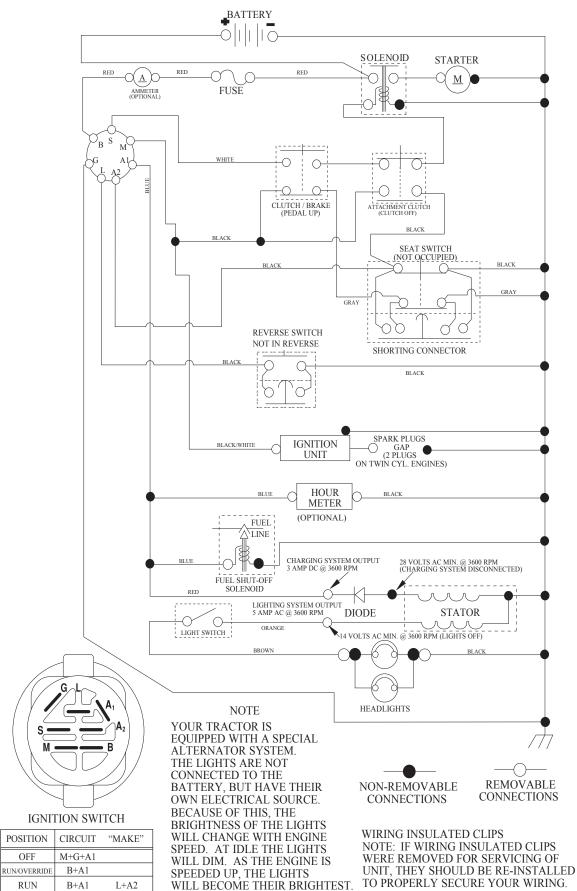
TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine dies when tractor is shifted into reverse	 Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged. 	 Turn ignition key to ROS "ON" position. See Operation section.
Engine continues to run when operator leaves seat with attachment clutch engaged	1. Faulty operator-safety presence control system.	 Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.
Poor cut - uneven	 Worn, bent or loose blade. Mower deck not level. Buildup of grass, leaves, and trash under mower. Bent blade mandrel. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	 Replace blade. Tighten blade bolt. Level mower deck. Clean underside of mower housing. Replace blade mandrel. Clean around mandrels to open vent holes.
Mower blades will not rotate	 Obstruction in clutch mechanism. Worn/damaged mower drive belt. Frozen idler pulley. Frozen blade mandrel. 	 Remove obstruction. Replace mower drive belt. Replace idler pulley. Replace blade mandrel.
Poor grass discharge	 Engine speed too slow. Travel speed too fast. Wet grass. Mower deck not level. Low/uneven tire air pressure. Worn, bent or loose blade. Buildup of grass, leaves and trash under mower. Mower drive belt worn. Blades improperly installed. Improper blades used. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	 Place throttle control in "FAST" position. Shift to slower speed. Allow grass to dry before mowing. Level mower deck. Check tires for proper air pressure. Replace/sharpen blade. Tighten blade bolt. Clean underside of mower housing. Replace mower drive belt. Reinstall blades sharp edge down. Replace with blades listed in this manual. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	 Light switch is "OFF". Bulb(s) or lamp(s) burned out. Faulty light switch. Loose or damaged wiring. Blown fuse. 	 Turn light switch "ON". Replace bulb(s) or lamp(s). Check/replace light switch. Check wiring and connections. Replace fuse.
Battery will not charge	 Bad battery cell(s). Poor cable connections. Faulty regulator (if so equipped). Faulty alternator. 	 Replace battery. Check/clean all connections. Replace regulator. Replace alternator.
Engine "backfires" when turning engine "OFF"	 Engine throttle control not set between half and full speed (fast) position before stopping engine. 	 Move throttle control between half and full speed (fast) position before stopping engine.

TRACTOR - - MODEL NUMBER 944.609161

SCHEMATIC

SCH03

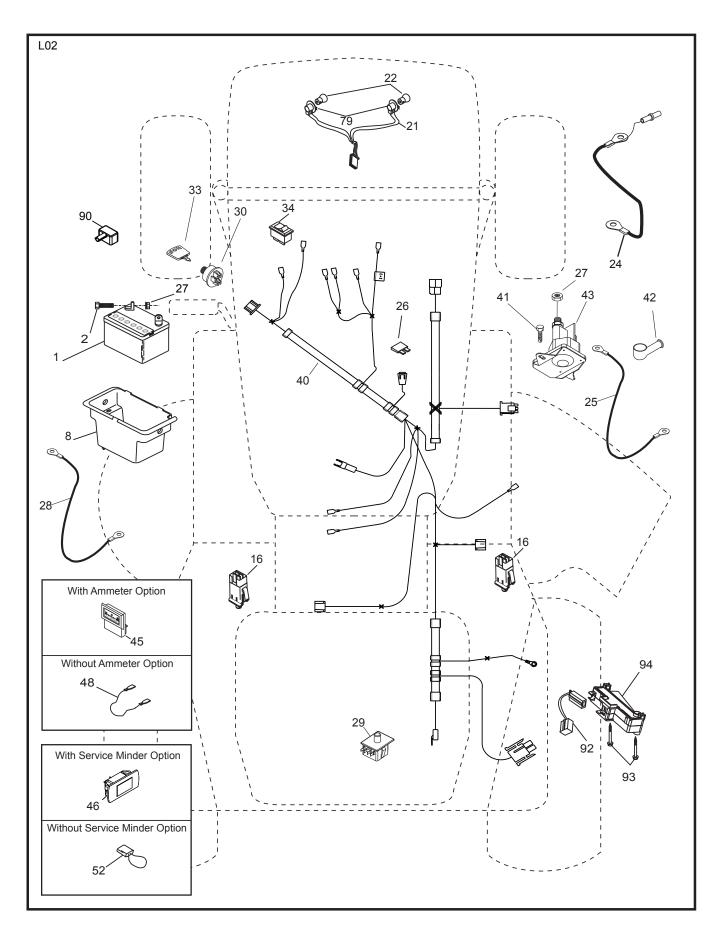


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START

TRACTOR - - MODEL NUMBER 944.609161

ELECTRICAL



KEY NO.		DESCRIPTION
1 2 8 16 21 22 24 25 26 27 28 29 30 33 40 41 42 43 79 90 92 93	163465 74760412 176689 176138 183759 4152J 421299 421297 175158 73510400 421298 192749 193350 411934 110712X 197428 71110408 131563 192507 175242 180449 196615 192540	Battery 12 Volt 28 Amp Bolt Hex Hd 1/4-20 unc x 3/4 Case Battery Switch Interlock Push-In Harness Asm Light W/4152J Bulb Light #1156 Cable Battery 6 Ga. 11"red Cable Battery 6 Ga. w/16 wire,red Fuse 20 AMP Nut Kep Hex 1/4-20 Cable Ground 6 Ga. 12" black Switch Seat Switch Ign Key/Chain Switch Light/Reset Harness Ign Bolt Blk Fin Hex 1/4-20 unc x 1/2 Cover Terminal Red Solenoid Socket Asm. Bulb Twistlock Cover Terminal Battery Harness Pigtail Console ROS Screw Plastite 10-14 x 2.0
94 NOTE	191834 : All compon	Module Reverse ROS ent dimensions give in U.S. inches

NOTE: All component dimensions give in U.S. inches 1 inch = 25.4 mm.

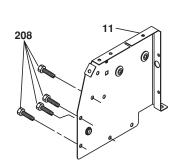
TRACTOR - - MODEL NUMBER 944.609161

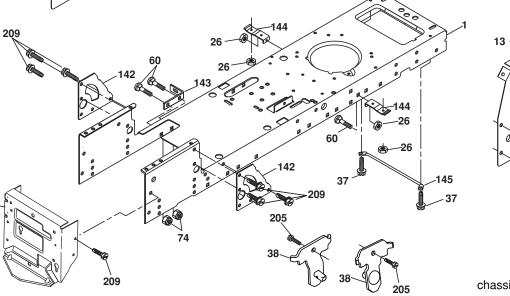
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CHASSIS AND ENCLOSURES





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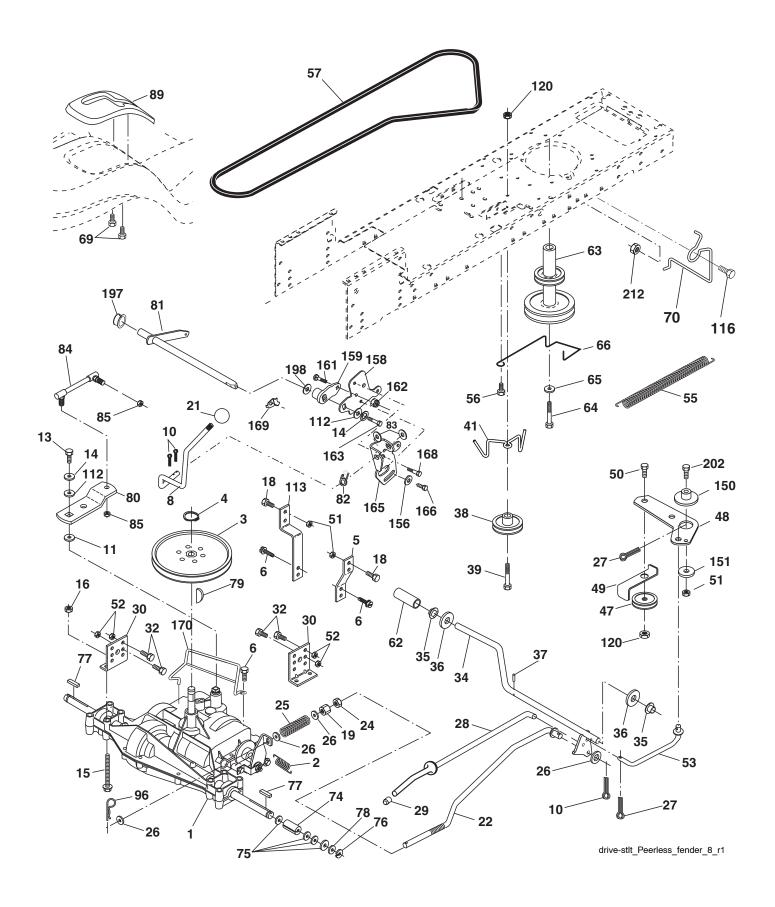
chassis-stlt_LASER _LT_2

TRACTOR - - MODEL NUMBER 944.609161 CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
1 2 5 9 10 11 13 17 18 26 28 29 30 31 37 38 39 58 60 64 74 142 143 144 145 159 205 207 208 209 212 272 273 278 278 -	184472X613 184921 STD541437 188461X428 174332X599 192393X613 139976 17490508 175710 407807 184270 STD533707 154798 STD541437 175702 186689 175582 409167 155123X428 17490608 17670508 17670508 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608 17670608	

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

DRIVE



DRIVE

TRACTOR - - MODEL NUMBER 944.609161

KEY PART NO. NO.

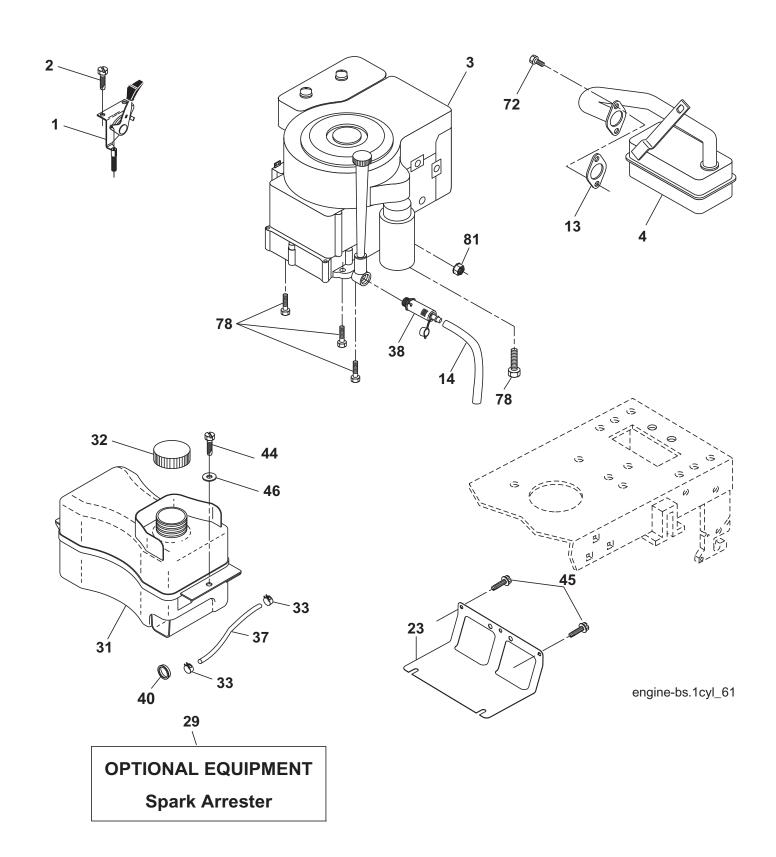
DESCRIPTION

64173937Bolt Hex65STD551143Washer Lock Hvy Hlcl Spr 7/1666154778Keeper Belt Engine Foolproof69142432Screw70134683Guide Belt Mower Drive RH74137057Spacer75121749XWasher 25/32 x 1 1/4 x 16 Ga.76STD581075E-ring #5133-7577123583XKey Square 2 0 x 1845/ 186578121748XWasher 25/32 x 1-5/8 x 16 Ga.792228MKey Woodruff80131486Arm Shift81165594Shaft Asm Cross82165711Spring Torsion T/a8319171216Washer 17/32 x 3/4 x 16 Ga.84166228Link Transaxle85150360Nut Lock Center 1/4 - 28 FNTHD89192388X428Console Shift STLT964497HRetainer Spring11219091210Washer 9/32 x 3/4 x 10 Ga.113127285XStrap Torque LH11672140608Bolt Rdhd Sq Neck 3/8-16 x 112073900600Nut Lock Flg 3/8-16 unc150175456Bushing Retainer1511913210Washer Strted 5/16 ID x 1 x .125158165589Bracket Shift Mount159183900Hub Tapered Flange Shift LT16172140406Bolt Rdhd Sqnk 1/4-20 unc x 1 Gr. 516273680400Nut Crownlock 1/4-20 unc x 1 Gr. 5163165623Bracket Pivot Lever16417490510Screw 5/16-	KEY PART NO. NO.	DESCRIPTION
198 169593 Washer Nyliner 202 72110614 Bolt 3/8-16 x 1-3/4 Gr. 5 212 145212 Nut Hexflange Lock	65STD5511436615477869142432701346837413705775121749X76STD58107577123583X78121748X792228M8013148681165594821657118319171216841662288515036089192388X428964497H11219091210113127285X1167214060812073900600150175456151191332101561660021581655891591839001617214040616273680400163747804161651656231661749051016816549216916558017018741419716961319816959320272110614	Washer Lock Hvy Hicl Spr 7/16 Keeper Belt Engine Foolproof Screw Guide Belt Mower Drive RH Spacer Washer 25/32 x 1 1/4 x 16 Ga. E-ring #5133-75 Key Square 2 0 x 1845/ 1865 Washer 25/32 x 1-5/8 x 16 Ga. Key Woodruff Arm Shift Shaft Asm Cross Spring Torsion T/a Washer 17/32 x 3/4 x 16 Ga. Link Transaxle Nut Lock Center 1/4 - 28 FNTHD Console Shift STLT Retainer Spring Washer 9/32 x 3/4 x 10 Ga. Strap Torque LH Bolt Rdhd Sq Neck 3/8-16 x 1 Nut Lock Flg 3/8-16 unc Bushing Retainer Washer 13/32 x 2 x 10 Washer Strted 5/16 ID x 1 x .125 Bracket Shift Mount Hub Tapered Flange Shift LT Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr. 5 Nut Crownlock 1/4-20 unc Bolt Hex Fin 1/4-20 unc x 1 Gr. 5 Bracket Pivot Lever Screw 5/16-18 x 5/8 Bolt Shoulder 5/16-18 x .561 Plate Fastening LT Keeper Belt Transaxle Nyliner Snap-In Washer Nyliner Bolt 3/8-16 x 1-3/4 Gr. 5

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

TRACTOR - - MODEL NUMBER 944.609161

ENGINE



KEY NO.	PART NO.	DESCRIPTION
1	170545	Control Throttle/Choke
2	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
3		Engine B&S, Model 31A707-0525- B1 (See Breakdown)
4	137352	Muffler Exhaust B&s Lt
13	165291	Gasket
14	148456	Tube Drain Oil Easy
23	169837	Shield Browning
29	137180	Arrestor Spark
31	407516	Tank Fuel 1 25 Fr
32	425162	Cap Asm Fuel Top
33	123487X	Clamp Hose Blk
37	137040	Line Fuel 20"
38	181654	Plug Drain Oil Easy
40	124028X	Bushing Snap Nyl Blk Fuel Line
44	17670412	Screw Hexwsh Thdrol 1/4-20 x 3/4
45	17000612	Screw Hex Wsh Thdrol 3/8-16 x 3/4
46	19091416	Washer 9/32 x 7/8 x 16 Ga.
72	192334	Screw Socket HD 5/16-18 x 3/4
78	17060620	Screw 3/8-16 x 1-1/4
81	73510400	Nut Keps Hex 1/4-20 unc

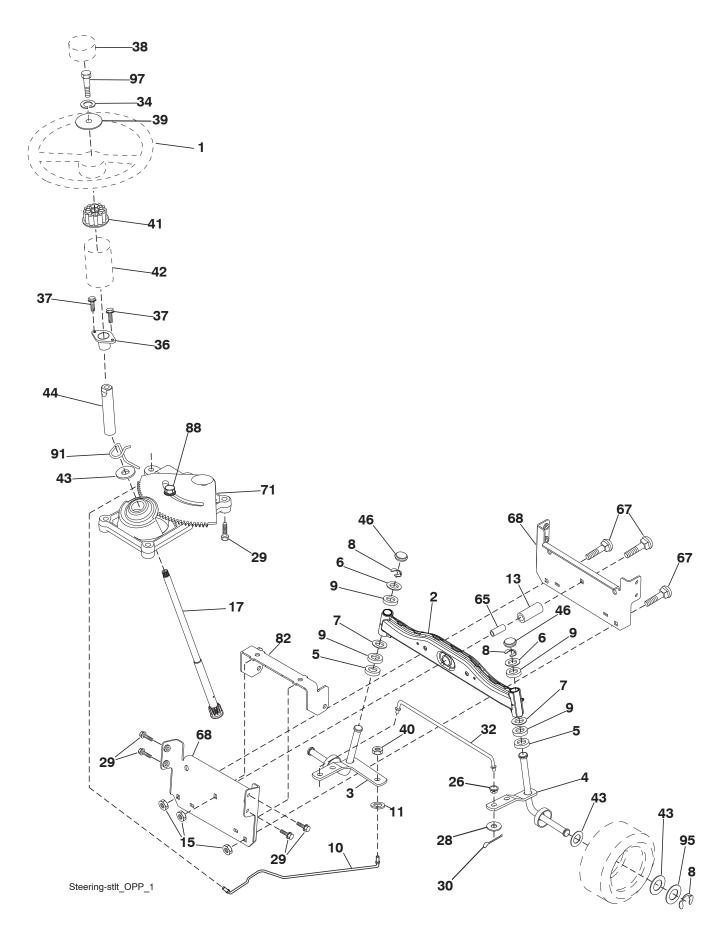
NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

For engine service and replacement parts, call the toll free number for your engine manufacturer listed below: Briggs & Stratton 1-800-233-3723

Engine Power Rating Information

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J11940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-5). Actual gross engine power will be lower and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not develop the rated gross power when used in a given piece of power equipment (actual "on-site" or net horsepower). This difference is due to a variety of factors including, but not limited to, accessories (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series engine. TRACTOR - - MODEL NUMBER 944.609161

STEERING ASSEMBLY

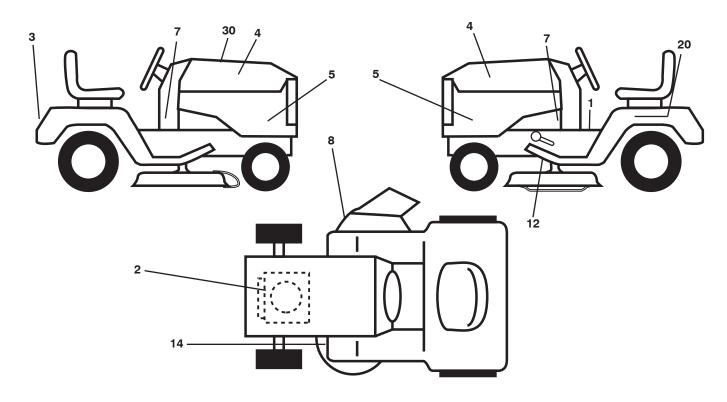


TRACTOR - - MODEL NUMBER 944.609161

STEERING ASSEMBLY

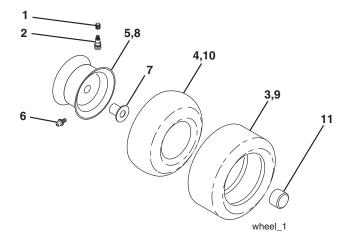
KEY NO.	PART NO.	DESCRIPTION
1	186780	Wheel Steering
2	418168	Axle Asm Welded LT/STL
3	169840	Spindle Asm LH
4	169839	Spindle Asm RH
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
7	19272016	Washer 27/32 x 1-1/4 x 16 Ga.
8	12000029	Ring Klip #t5304-75
9 10	3366R 175121	Bearing Col Strg Blk
11	STD551137	Link Drag Extended Stamp Washer Lock Hvy HIcl Spr 3/8
13	136518	Spacer Bearing Axle
15	145212	Nut Hex Flange Lock
17	411386	Shaft Asm Strg
26	126847X	Bushing Link Drag Blk LR
28	19131416	Washer 13/32 x 7/8 x 16 Ga.
29	17000612	Screw 3/8-16 x 3/4
30	STD561210	Pin Cotter 1/8 x 3/4 Cad
32	192757	Rod Tie Wire Form 19 75 Mech
34	10040500	Washer Lock 5/16
36	155099	Bushing Strg
37	152927	Screw
38	186781	Insert Cap Strg Wh Au
39	19113812	Washer 11/32 ID x 2-3/8 OD x 12 Ga.
40 41	73540600	Lock nut
41	186737 145054X428	Adaptor Wheel Strg Boot Steering Shaft
42 43	121749X	Washer $25/32 \times 1 1/4 \times 16$ Ga.
44	190752	Extension Steering Shaft LR/LT
46	121232X	Cap Spindle Fr Top Blk
65	414736	Spacer Brace Axle
67	72110618	Bolt Rdhd Sq 3/8-16 x 2-1/4
68	169827	Axle, Brace
71	175146	Steering Asm
82	199978	Bracket
88	175118	Bolt Shoulder 7/16-20 unc
91	175553	Clip Steering
95	188967	Washer Hardened
97	74780564	Bolt 5/16-18 unc x 4"L Gr. 5

DECALS



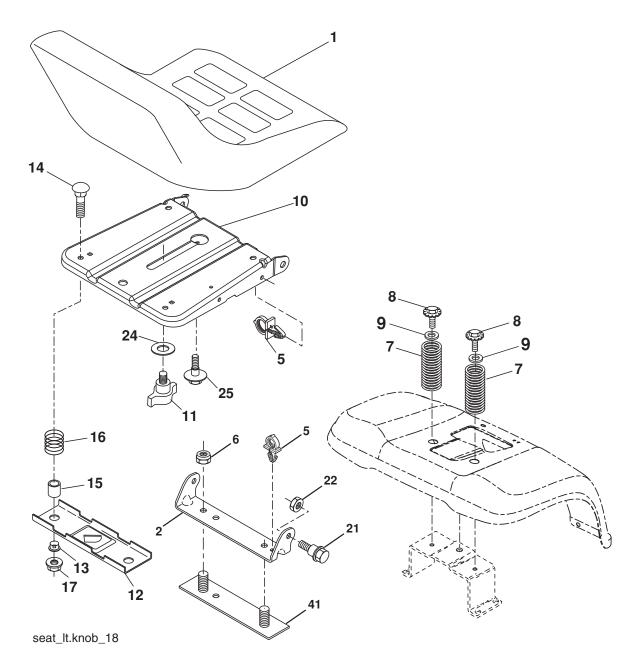
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	411658	Decal Fend STLT Oper	14	160396	Decal V-Belt Schematic
2	426845	Decal Engine	20	149517	Decal Bat Dan/Psn
3	425123	Decal Hood	30	420327	Decal Replacement Parts
4	427599	Decal Hood Vent		138311	Decal Handle Lft Height Adjust
5	433082	Decal Side Panel RH/LH		184310X428	Pad Footrest LH
7	425199	Decal Lower Dash		184311X428	Pad Footrest RH
8	170563	Decal Warning		426921	Manual Owner's (English)
12	146046	Decal Mower "B" "42"		426922	Manual Owner's (French)

WHEELS & TIRES



KEY NO.	Part No.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F
4	59904	Tube Front (Service Item Only)
5	106732X613	Rim Asm 6" Front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X613	Rim Asm 8" Rear Service
9	420531	Tire R
10	7152J	Tube Rear (Service Item Only)
11	104757X428	Cap Axle Blk 1 50 x 1 00
	144334	Sealant, Tire (10 oz. Tube)

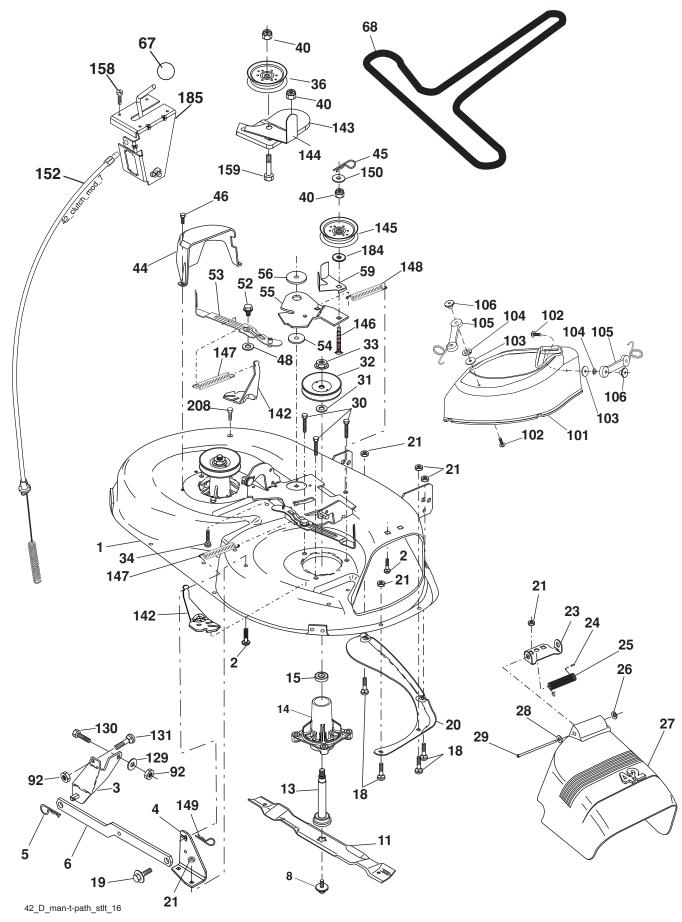
SEAT ASSEMBLY



KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	188709	Seat	15	134300	Spacer Split 28 x 96 Yel Zinc
2	140551	Bracket Pivot Seat	16	121250X	Spring Cprsn 1 27 Blk Pnt
5	145006	Clip Push-In	17	123976X	Nut Lock 1/4 Lge Flg Gr. 5 Zinc
6	STD541437	Nut Hex w/Ins. 3/8-16 unc	21	171852	Bolt Shoulder 5/16-18 unc
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	22	STD541431	Nut Hex Lock w/Ins 5/16-18
8	17000616	Screw 3/8-16 x 1.5	25	127018X	Bolt Shoulder 5/16-18 x .62
9	19131614	Washer 13/32 x 1 x 14 Ga.	24	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
10	195530	Pan Seat	41	140675	Strap Asm.
11	166369	Knob Seat			
12	174648	Bracket Mounting Switch			
13	121248X	Bushing Snap Blk Nyl 50 Id	NOTE	E: All compon	ent dimensions given in U.S. inches
14	72050412	Bolt Rdhd Sqnk 1/4-20 x 1-1/2		1 inch = 25.4	4 mm

TRACTOR - - MODEL NUMBER 944.609161

MOWER DECK



TRACTOR - - MODEL NUMBER 944.609161

MOWER DECK

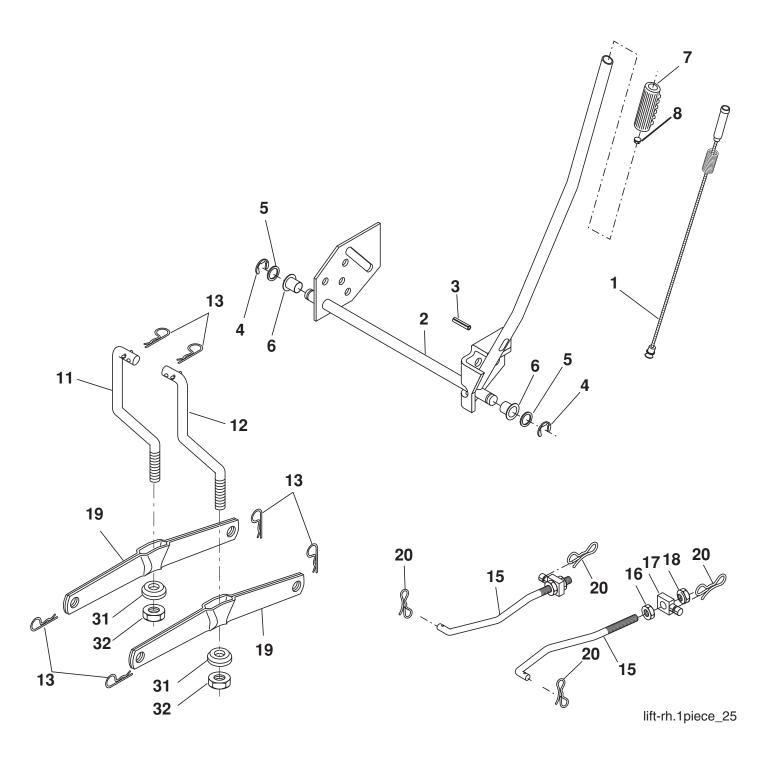
KEY PART NO. NO.

NO.	no.	
1 2	165892 STD533107	Mower Deck Assembly, 42" Bolt RDHD SQNK 5/16-18 unc x 3/4
3	138017	Bracket Assembly,Sway Bar, Front
4	165460	Bracket Sway Bar 38/42" Deck
5	STD624008	Retainer Spring
6	178024	Bar, Sway Deck
8	193003	Bolt/Washer Asm. 7/16-20 unf
11	134149	(The following blades are available) Blade, 42" Mulching Std
	139775	(For mulching mowers only) Blade, 42" Mulching Premium (For better wear when mulching)
	138971	Blade, 42" Hi-Lift
10	400070	(For bagging or discharging)
13	192872	Shaft Asm. Mandrel
14	187281	Housing, Mandrel
15 18	110485X 72140505	Bearing, Ball, Mandrel Bolt, Carriage 5/16-18 x 5/8
19	132827	Bolt, Shoulder
20	159770	Baffle, Vortex
21	STD541431	Nut Crownlock 5/16-18 unc
23	177563	Bracket, Deflector
24	105304X	Cap, Sleeve
25	123713X	Spring, Torsion, Deflector
26	110452X	Nut, Push
27	130968X428	Shield, Deflector
28	19111016	Washer 11/32 x 5/8 x 16 Ga.
29	131491	Rod, Hinge
30	173984	Screw Thdrol DOD PT Hex
31	187690	Washer, Spacer
32	153535	Pulley, Mandrel
33	400234	Nut, Toplock, Flanged
34 36	STD533717 131494	Bolt RDHD 3/8-16 x 1-1/2 Gr. 5
40	73900600	Pulley, Idler, Flat Nut Lock 3/8-16 unc
44	140088	Guard, Mandrel, L.H.
45	STD624003	Retainer
46	137729	Screw, Thd. Roll 1/4-20 x 5/8
48	133944	Washer, Hardened
52	139888	Bolt, Shoulder 5/16-18 unc
53	184907	Arm Assembly, Pad, Brake
		-

DESCRIPTION

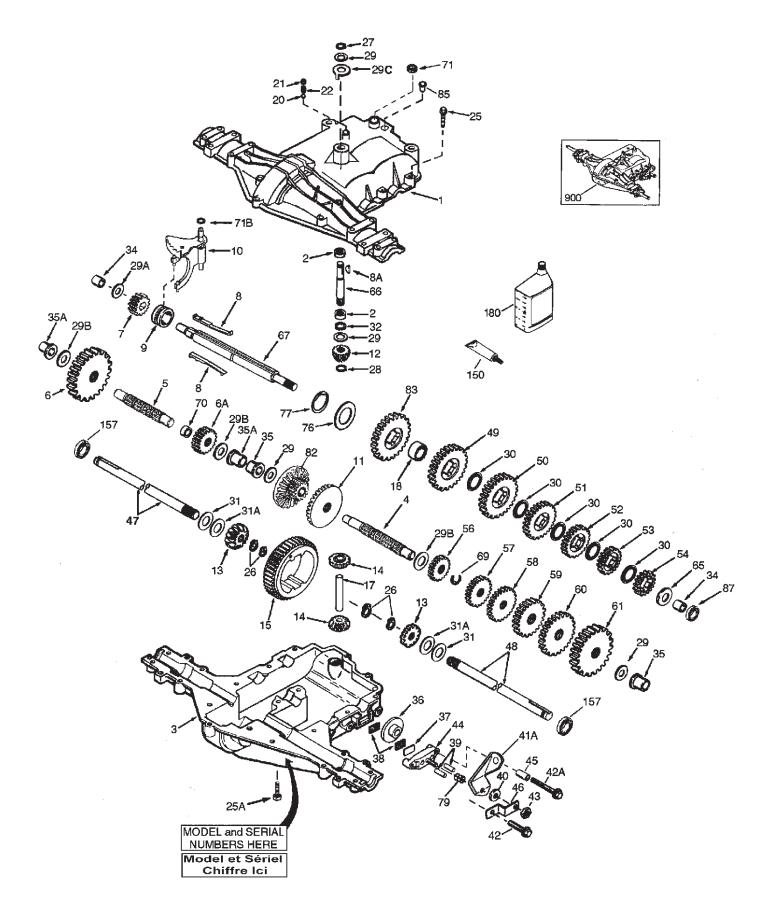
KEY NO.	PART NO.	DESCRIPTION
NO. 54 55 56 59 67 68 92 101 102 103 104 105 106 129 130 131 142 143 144 145	NO. 178515 155046 165723 141043 149846 144959 STD541437 193107 71081010 19061216 10071000 160793 2029J 19131312 STD523710 STD533710 195784 157109 158634 165888	Washer, Hardened Arm, Idler Spacer, Retainer Guard, TUV Idler Knob Custom Oval V-Belt Nut Cover Mulching Screw 10-24 x 5/8 Washer #10 Washer Lock #10 Latch Asm. Nut Weld Washer 13/32 x 13/16 x 12 Ga. Bolt, Fin Hex 3/8-16 unc x 1 Gr. 5 Bolt, Rdhd Sqnk 3/8-16 unc x 1 Arm Spring Brake Mower Bracket Arm Idler 42" Keeper Belt 42" Clutch Cable Pulley Idler Flat
146 147 148 149 150 152 158 159 184 185 208	171977 131335 169022 165898 19091210 169676 17720408 72140614 19131410 188234 17670608 192870 419884	Bolt Čarriage Idler Spring Extension Spring Return Idler Retainer Spring Yellow Zinc Washer 9/32 x 3/4 x 10 Ga. Cable Clutch 42 In Screw Hex Thd Cut 1/4-20 x 1/2 Bolt Rdhd Sqn 3/8-16 unc x 1-3/4 Washer 13/32 x 7/8 x 10 Ga. Head Asm Cable Clutch Screw THDROL 3/8-16 x 1/2 Mandrel Assembly (Includes housing, shaft assembly, and bearing only - pulley/nut/washer and blade bolt/ washers not included) Replacement Mower, Complete

MOWER LIFT



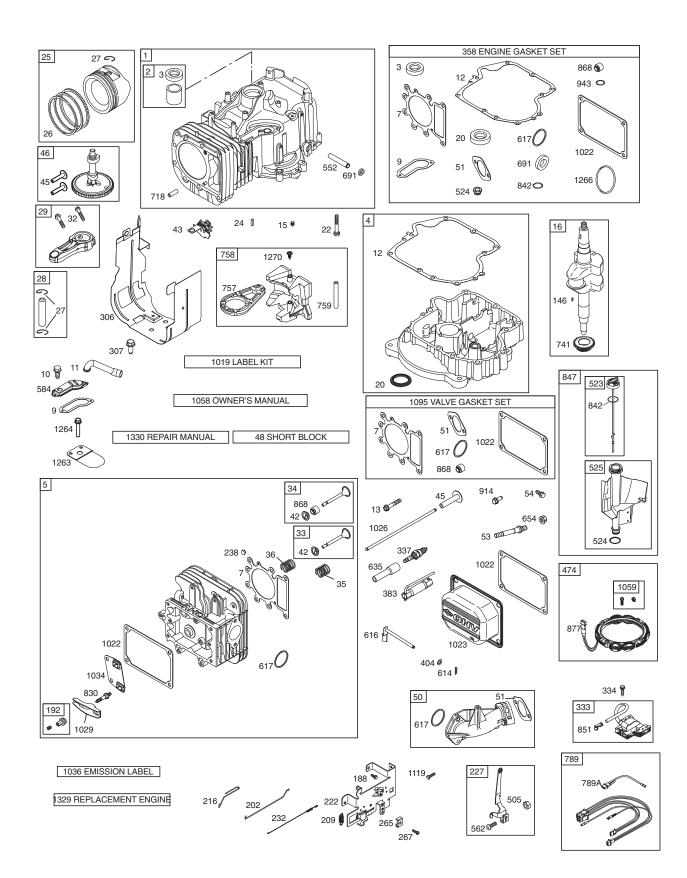
KEY NO.	PART NO.	DESCRIPTION
NO. 1 2 3 4 5 6 7 8 11 12 13 15 16 17 18 19 20 31 32	404981 159471 105767X STD581062 19211621 120183X 125631X 122365X 139865 139866 STD624008 173288 73350800 175689 73800800 139868 194209	Plunger Asm. Lift LVR Shaft Asm Lift Pin Groove E Ring Washer 29/32 x 1-1/4 x 21 Ga. Bearing Nylon Blk .629 ID Grip Handle Fluted Button, Plunger Link Lift LH Fixed Length Link Lift RH Fixed Length
01	, 00 10000	

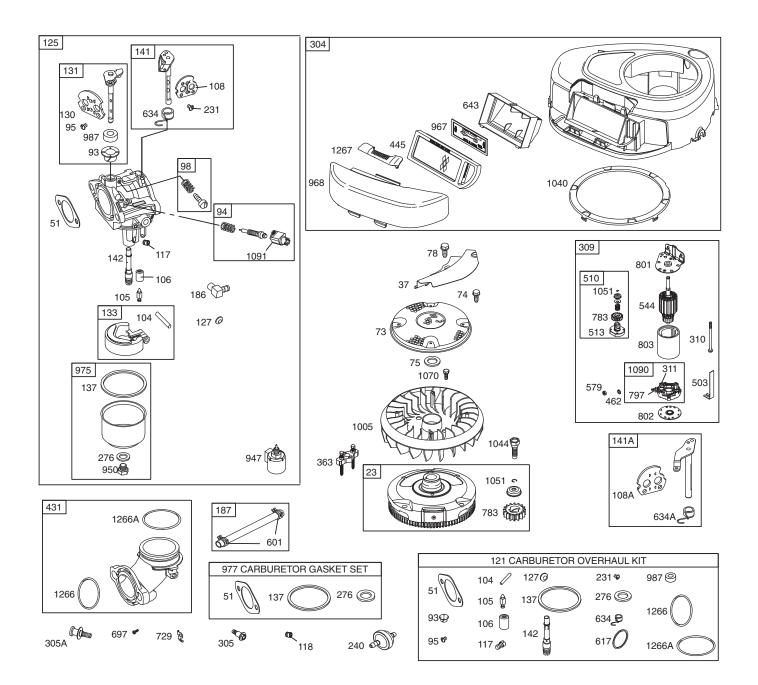
TRACTOR - - MODEL NUMBER 944.609161 PEERLESS TRANSAXLE - MODEL NUMBER 206-545C



TRACTOR - - MODEL NUMBER 944.609161 PEERLESS TRANSAXLE - MODEL NUMBER 206-545C

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 6 7 8 8 9 9 11 12 3 4 5 6 6 7 8 8 9 9 11 12 3 4 5 6 6 7 8 8 9 9 11 12 3 4 5 25 25 6 27 29 29 8 29 29 30 31 31 4 5 6 6 37 8 35 35 35 35 35 35 35 35 35 35 35 35 35	772147 780086A 770128 776395 776409 778364 778369 778330 792180 792047 784352 784352 784358 778370 786188 778368 778370 786188 786102 792077A 792078 792077A 792078 792073A 792079 792073A 792177 792125 792035 788040 780072 780106 780051 780195 788083 780194 780195 788083 780194 780195 780007 790075 790007 799021	Transaxle Cover Needle Bearing 5/8" Transaxle Case Countershaft Output Shaft Spur Gear (38 teeth) Spur Gear (15 teeth) Spur Gear (11 teeth) Shift Key Woodruff Key #9 Shift Collar Shift Rod & Fork Bevel Gear (30 teeth) Input Bevel Pinion (13 teeth) Bevel Gear (13 teeth) (Include. 14) Bevel Pinion (13 teeth) (Include. 13) Ring Gear (43 teeth) (Include. 13) Ring Gear (43 teeth) Drive Pin Spacer 1.130 X .695 Ball 5/16" dia Set Screw 3/8 - 16 x 3/8" Spring .310 OD x .625 L Screw 1/4 - 20 x 1-1/4" Screw 1/4 - 20 x 1-1/4" Screw 1/4 - 20 x 1-3/8" Retaining Ring Retaining Ring Retaining Ring Thrust Washer .627 ID x .031W Thrust Washer .762 ID x .031W Thrust Washer .762 ID x .031W Thrust Washer .750 ID x .056W (Use As Needed) Flat Washer .750 ID x .062W Oil Seal 5/8" Bushing .563 Flanged Bushing 5 / 8" ID Flanged Bushing .751 Brake Disk Brake Pad Plate Brake Pad (pkg of 2)	42 42A 43 44 45 46 47 48 49 50 51 52 53 54 57 58 59 60 61 55 66 67 69 70 71 71B 76 77 982 83 85 87 150 157 180 900	792073A 792085A 792075 790025 786066 786086 774690 774691 778356 778358 778354 778350 778350 778350 778355 778357 778353 778353 778353 778353 778353 778353 778355 778346 778355 778357 778355 778357 778357 778346 778357 778358 77837 778369 780990 788078A 792170 786187 788069 788092 780090 788078A 792144 778333 778338 792154 788089A 788088A 730229A 794712	Screw 1/4 - 20 x 1-1 /4" Screw 1/4 - 20 x 2 1/4" Locknut 5 / 16 - 24 Brake Pad Holder Spacer .2625 x 1.0 Brake Lever Bracket Axle (11-15 / 16" Long) Axle (16 - 1 / 2" long) Spur Gear (29 teeth) Spur Gear (29 teeth) Spur Gear (19 teeth) Spur Gear (19 teeth) Spur Gear (16 teeth) Spur Gear (15 teeth) Spur Gear (15 teeth) Spur Gear (17 teeth) Spur Gear (17 teeth) Spur Gear (21 teeth) Spur Gear (22 teeth) Flat Washer .563 ID x .062W Input Shaft Shifter & Brake Shaft Retaining Ring Spacer .890 Square Cut Ring "O" Ring Flat Washer 1.128 ID x .058W Inverted Retaining Ring Spring .430 OD x .5000 L Bevel & Spur Gear (30 & 13 teeth) Spur Gear (27 teeth) Oil Fill Plug Oil Seal 9 / 16" Liquid Gasket RTV Silicone Oil Seal 3 /4" Gear Oil 80W90 Replacement MST - 206-545C Transaxle
39 40 41A	786026 792076A 790079	Dowel Pin Flat Washer .312 ID x .059W Brake Lever	NOT	E: All compon 1 inch = 25	ent dimensions given in U.S. inches .4 mm

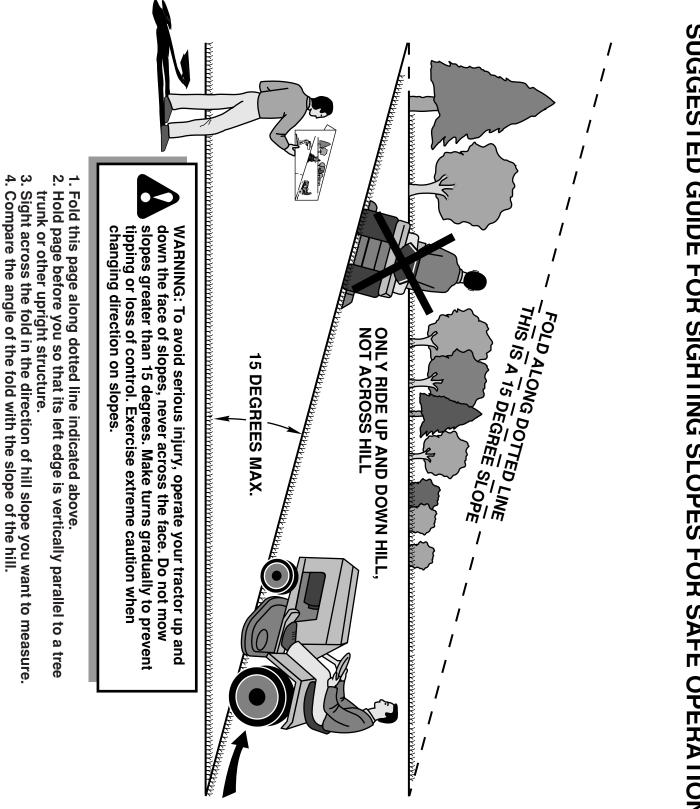




KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	697174	Cylinder Assembly	108	690464	Valve-Choke (Manual Choke)
2	399265	Kit-Bushing/Seal (Magneto Side)	108A	692344	Valve-Choke (Choke A Matic)
3	391086	Seal-Oil (Magneto Side)	117	694352	Ø Jet-Main (Standard)
4	697106	Sump-Engine	118	697492	Jet-Main (High Altitude)
5	698148	Head-Cylinder	121	697241	Kit-Carburetor Overhaul
7		•+ Gasket-Cylinder Head	125	697190	Carburetor
9	697109	Gasket-Breather	127	695005	Plug-Welch
10	697157	Screw (Breather Assembly)	130	691750	Valve-Throttle
11	697113	Tube-Breather	131	494379	Kit-Throttle Shaft
12	697110	Gasket-Crankcase	133	494381	Float-Carburetor
13	690360	Screw (Cylinder Head)	137	281165	؇ Gasket-Float Bowl
15	690946	Plug-Oil Drain	141	495097	Kit-Choke Shaft (Manual Choke)
16	697127	Crankshaft	141A	495931	Kit-Choke Shaft (Choke A Matic)
20	690947	Seal-Oil (PTO Side)	142	697140	Ø Nozzle-Carburetor
22	692125	Screw (Crankcase Cover/Sump)	146	691639	Key-Timing
23	693557	Flywheel	186	698174	Connector-Hose
24	222698	Key-Flywheel	187	699331	Line-Fuel (Cut to Required Length)
25	699025	Piston Assembly (Standard)	188	691693	Screw (Control Bracket)
	699041	Piston Assembly (.020" Ovérsize)	192	691986	Adjuster-Rocker Arm
26	697164	Ring Set (Standard)	202	691841	Link-Mechanical Governor
	697171	Ring Set (.020" Ovérsize)	209	692208	Spring-Governor
27	697100	Lock-Piston Pin	216	691840	Link-Čhoke
28	697099	Pin-Piston	222	694042	Bracket-Control
29	697126	Rod-Connecting (Standard)	227	691374	Lever-Governor Control
32	692852	Screw (Connecting Rod)	231	691636	Screw (Choke Valve)
33	695760	Valve-Èxhaust	232	691842	Spring-Governor
34	695761	Valve-Intake	238	691843	Cap-Valve
35	691279	Spring-Valve (Intake)	240	394358	Filter-Fuel
36	691279	Spring-Valve (Exhaust)	265	691024	Clamp-Casing
37	697352	Guard-Flywheel	267	695134	Screw (Casing Clamp)
42	691752	Keeper-Valve	276	692255	؇ Washer-Sealing
43	691968	Slinger-Governor/Oil	304	698402	Housing-Blower
45	690564	Tappet-Valve	305	697102	Screw (Blower Housing)
46	790400	Camshaft	305A	697103	Screw (Blower Housing)
48	697761	Short Block	306	697107	Shield-Cylinder
50	690193	Manifold-Intake	307	691003	Screw (Cylinder Shield)
51	692137 •Ø:	+ Gasket-Intake	309	693551	Motor-Starter
53	690227	Stud (Carburetor)	310	690323	Bolt (Starter Motor)
54	691148	Screw (Intake Mánifold)	311	497608	Brush Set
73	697133	Screen-Rotating	333	492341	Armature-Magneto
74	697897	Screw (Rotating Screen)			
78	691003	Screw (Flywheel Guard)	•	Included i	n Engine Gasket Set, Key. No. 358
93		Ø Bushing-Throttle Shaft	Ø		n Carburetor Overhaul Kit, Key. No. 121
94	498030	Kit-Idle Mixture	‡		n Carburetor Gasket Set, Key. No. 977
95	691636	Screw (Throttle Valve)	+	Included i	n Valve Gasket Set, Key. No. 1095
98	495800	Kit-Idle Speed			
104		Ø Pin-Float Hinge	NOTE	: All compo	onent dimensions given in U.S. inches 1 inch
105	231855	Ø Valve-Float Needle			= 25.4 mm
106	690577	Ø Seat-Inlet			

KEY NO.	Part No.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
334	691061	Screw (Magneto Armature)	851	692424	Terminal-Spark Plug
337	491055	Plug-Spark	868	690968 •+	Seal-Valve
358	697191	Gasket Set-Engine	877	393456	Wire-Connector/Alternator
363	19203	Flywheel Puller	914	691108	Screw (Rocker Cover)
383	89838	Wrench-Spark Plug	947	694393	Solenoid-Fuel
404	691691	Washer (Governor Crank)	950	691657	Screw (Float Bowl)
431	697122	Elbow-Intake	967	697015	Filter-Pre Cleaner
445	698083	Filter-Air Cleaner Cartridge	968	698403	Cover-Air Cleaner
462	691261		975	495933	Bowl-Float
402	696459	Washer (Starter Cable) Alternator	977	690192	Gasket Set-Carburetor
503	691532	Strap-Starter	987		Seal-Throttle Shaft
503 505	691251	Nut (Governor Control Lever)	1005	699043	Fan-Flywheel
505 510	693699	Drive-Starter	1019	697143	Kit-Label
513	692024	Clutch-Drive	1022		Gasket-Rocker Cover
523	699908		1023	791079	Cover-Rocker Arm
523 524	691032	Dipstick	1026	692003	Rod-Push (Intake)
		Seal-Dipstick Tube Tube Dipstick		692011	Rod-Push (Exhaust)
525	697184	Tube-Dipstick	1029	691751	Arm-Rocker
544	692034	Starter-Armature	1023	690822	Guide-Push Rod
552	697144	Bushing-Governor Crank	1036	790464	Label-Emission
562	691119	Bolt (Governor Control Lever)	1040	698368	Plate-Trim
579	691029	Nut (Starter Cable)	1040	691658	Screw (Flywheel)
584	697112	Cover-Breather Passage	1051	691265	Ring-Retaining
601	95162	Clamp-Hose	1051	275038	Owner's Manual
614	691620	Pin-Cotter	1059	698516	Kit-Screw/Washer
616	692012	Crank-Governor	1070	690372	Screw (Flywheel Fan)
617	692138	Ø • Seal-O Ring (Intake Manifold)	1090	691293	Retainer-Brush
634 634A	690801 690802	Ø Spring/Seal Assembly (Manual Choke) Ø Spring/Seal Assembly (Choke A Matic)	1091	691333	Cap-Limiter
635	691909	Boot-Spark Plug	1095	690190	Gasket Set-Valve
643	698401	Retainer-Air Filter	1119	691183	Screw (Alternator)
654	690958	Nut (Carburetor)	1263	697124	Reed-Breather
691	692407	Seal-Governor Shaft	1264	697104	Screw (Breather Reed)
697	690372	Screw (Drive Cap)	1266		Seal-O Ring (Intake Elbow)
718	690959	Pin-Locating		697123 Ø	Seal-O Ring (Intake Elbow)
729	691224	Clip-Wire	1267	697419	Latch-Blower Housing
741	697128	Gear-Timing	1270	697156	Plug-AVS Counterweight
757	697607	Link-Counterweight	1329		6Replacement Engine (If the original
758	697134	Counterweight			engine is equipped with a six pin wiring
759	697392	Pin-Counterweight			harness transfer to the replacement
783	693713	Gear-Pinion			engine. Transfer muffler and/or spark ar-
789	698329	Harness-Wiring			rester assembly from the original engine
		0			if suitable for additional service or
797 801	693167 691283	Nut (Brush Retainer)			add new parts as required. Add 790544.)
801		Cap-Drive Cap End	1330	272147	Repair Manual
	691286 603757	Cap-End Housing Startor	1000		Topan manual
803	693757 601005	Housing-Starter Stud (Booker Arm)	•	Included in F	ngine Gasket Set, Key. No. 358
830	691095	Stud (Rocker Arm)	Ø		arburetor Overhaul Kit, Key. No. 121
842	691031	Seal-O Ring (Dipstick Tube)	‡		arburetor Gasket Set, Key. No. 977
847	790442	Dipstick/Tube Assembly	++		alve Gasket Set, Key. No. 1095

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