

OWNER'S MANUAL MODEL NO. SGT18H46A 18.0 HP 46 Inch Lawn Tractor

- Assembly
 - Operation
 - Customer Responsibilities
 - Service and Adjustments
 - Storage
 - Troubleshooting
 - Repair Parts

For Parts and Service, contact our authorized distributor: call 1-800-849-1297 For Technical Assistance: call 1-800-829-5886

WEED EATER®

A

SAFETY RULES

Safe Operation Practices for Ride-On Mowers



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

I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- 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 blade.
- Be sure the area is clear of other people before mowing.
 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.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow 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.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mowerrelated injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

II. SLOPE OPERATION

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

DO:

- Mow up and down slopes, not across.
- · Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

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 under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

IV. SERVICE

- Use extra care in handling gasoline and other fuels.
 They are flammable and vapors are explosive.
 - Use only an approved container.
 - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - Never refuel the machine indoors.
 - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good 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. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them
- Check brake operation frequently. Adjust and service as required.

SAFETY RULES

Safe Operation Practices for Ride-On Mowers













- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers or children even with the blades off.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the
- 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.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



CAUTION: 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 plua.



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



CAUTION: 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.



WARNING



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



WARNING



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

TABLE OF CONTENTS

SAFETY RULES	2-3
PRODUCT SPECIFICATIONS	4
CUSTOMER RESPONSIBILITIES	4, 16-19
ASSEMBLY	6-9
OPERATION	10-1
MAINTENANCE SCHEDULE	16

SERVICE AND ADJUSTMENTS	20-24
STORAGE	25
TROUBLESHOOTING	26-27
REPAIR PARTS - TRACTOR	
WARRANTY	

PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR			
OIL TYPE (API-SF-SJ):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)			
OIL CAPACITY:	W/FILTER: 5 PINTS W/O FILTER: 4.5 PINTS			
SPARK PLUG: (GAP: .030")	CHAMPION RN4C			
GROUND SPEED (MPH):	FORWARD: 5.5 REVERSE: 2.4			
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI			
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS			
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R			
BLADE BOLT TORQUE:	27-35 FT. LBS.			

CUSTOMER RESPONSIBILITIES

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

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 centre/department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

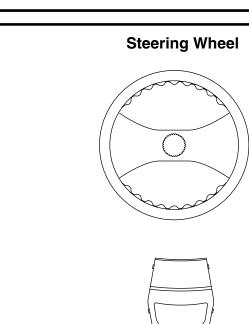
Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

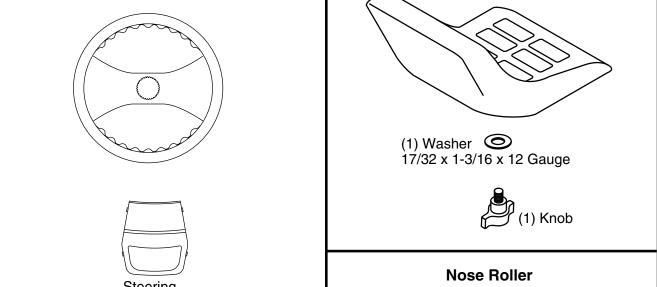
WARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester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

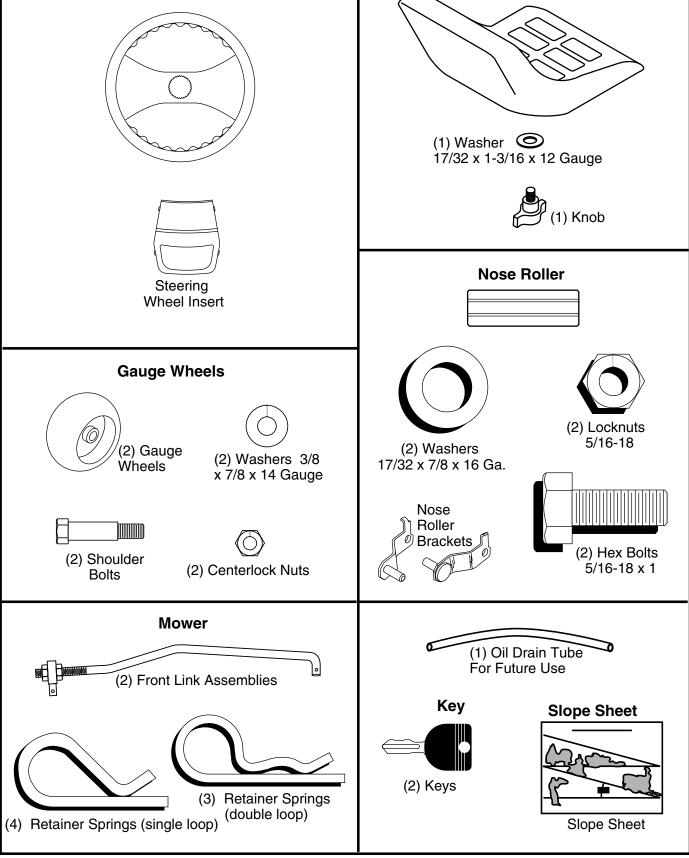
A spark arrester for the muffler is available through your nearest authorized service centre/department (See RE-PAIR PARTS section of this manual).

UNASSEMBLED PARTS

Seat







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) 9/16" wrench Pliers

(2) 7/16" wrenches Tire pressure gauge

(2) 1/2" wrenches Utility knife

(1) 3/4" Socket w/drive ratchet

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, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Remove mower and packing materials.
- Check for any additional loose parts or cartons and remove.

BEFORE REMOVING TRACTOR FROM SKID

ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straightforward.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. 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.

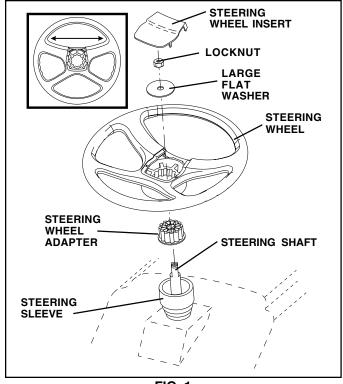


FIG. 1

HOW TO SET UP YOUR TRACTOR

CHECK BATTERY (See Fig. 2)

- Lift hood to raised position.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in CUSTOMER RESPONSIBILITIES section of this manual for charging instructions).

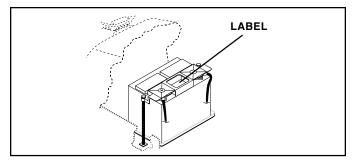


FIG. 2

INSTALL SEAT (See Fig. 3)

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.

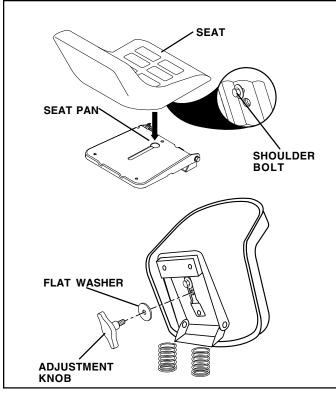


FIG. 3

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

TO ROLL TRACTOR OFF SKID (See Operation section page 11 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 freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor forward off skid.

TO DRIVE TRACTOR OFF SKID (See Operation section page 11 for location and function of controls)

AWARNING: 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.

- Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- Place freewheel control in "transmission engaged" position.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place motion control lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Release parking brake.
- Slowly move the motion control lever forward and slowly drive tractor off skid.
- Apply brake to stop tractor, set parking brake and place motion control lever in neutral position.
- Turn ignition key to "OFF" position.

Continue with the instructions that follow.

TO ATTACH NOSE ROLLER (See Fig. 4)

- Position brackets, 17/32 x 7/8 x 16 gauge washers, and nose roller between deck mounting brackets as shown.
 Be sure to position brackets on correct side, as shown.
- Install hex bolts and lock nuts as shown. Tighten hardware securely.

NOTE: Be sure bracket tabs are positioned in tab holes in deck brackets.

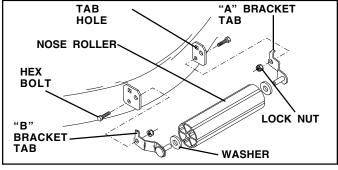


FIG. 4

INSTALL MOWER AND DRIVE BELT (See Figs. 5 and 6)

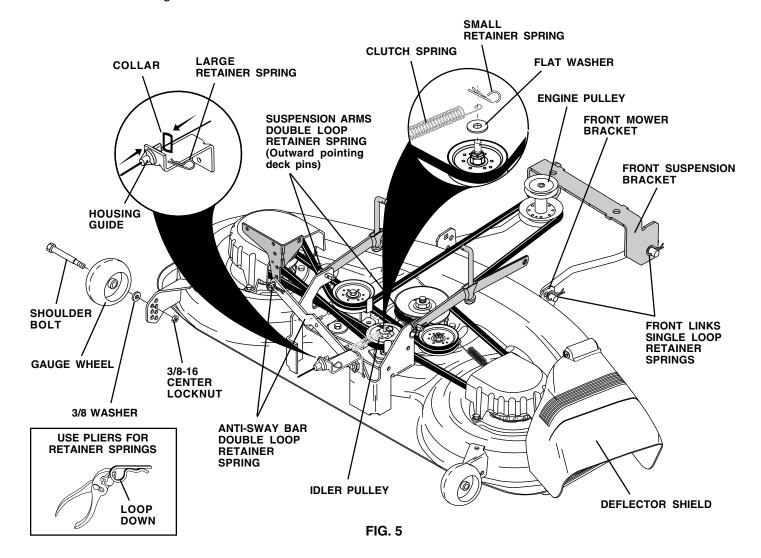
Be sure tractor is on level surface and mower suspension arms are raised with attachment lift control. Engage parking brake.

- Cut and remove ties securing anti-sway bar and belts.
 Swing anti-sway bar to left side of mower deck.
- Slide mower under tractor with deflector shield to right side of tractor.

IMPORTANT: CHECK BELT FOR PROPER ROUTING IN ALL MOWER PULLEY GROOVES. INSTALL BELT INTO ENGINE PULLEY GROOVE.

- Install one front link in top hole of the L.H. front mower bracket and L.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Install second front link in R.H. front suspension bracket only and retain with single loop retainer spring as shown.
- Slide right side of mower back and install the unattached front link in top hole of the R.H. front mower bracket. Retain with single loop retainer spring as shown.
- Lower mower linkage with attachment lift control.

- Place the suspension arms on outward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs with loops down as shown.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Install clutch cable:
 - Slide collar away from cable housing guide.
 - Push housing guide into hole in mounting bracket.
 - Slide collar onto housing guide and secure with large retainer spring.
 - Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- Raise mower to highest position.
- Assemble gauge wheels as shown using long shoulder bolts, 3/8 washers and 3/8-16 center locknuts. Tighten securely.
- Adjust gauge wheels before operating mower as shown in the Operation section of this manual.



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 in "PRODUCT SPECIFICATIONS" section of this manual.

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 properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

✓ CHECKLIST

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

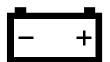
PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ 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.
- Before driving tractor, be sure freewheel control is in drive position.

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.
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGETRANSMISSION" in the Operation section of this manual).

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



BATTERY



CAUTION OR WARNING



REVERSE



FORWARD



FAST



SLOW



ENGINE ON



ENGINE OFF



OIL PRESSURE



LIGHTS ON



OVER TEMP LIGHT



FUEL



CHOKE



MOWER HEIGHT



PARKING BRAKE **LOCKED**



UNLOCKED



MOWER LIFT



ATTACHMENT CLUTCH ENGAGED



REVERSE



NEUTRAL



HIGH



LOW



PARKING BRAKE



ATTACHMENT CLUTCH DISENGAGED



KEEP AREA CLEAR





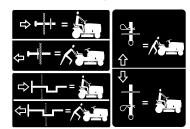




SLOPE HAZARDS (SEE SAFETY RULES SECTION)



DANGER, KEEP HANDS AND FEET AWAY



FREE WHEEL (Automatic Models only)

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.

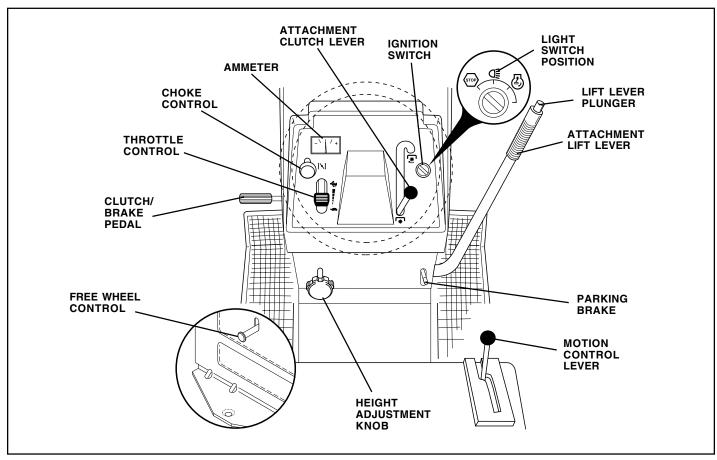


FIG. 6

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

ATTACHMENT CLUTCH LEVER: Used to engage the mower blades, or other attachments mounted to your tractor. LIGHT SWITCH: Turns the headlights on and off. THROTTLE CONTROL: Used to control engine speed.

CHOKE CONTROL: Used when starting a cold engine. **CLUTCH/BRAKE PEDAL**: Used for declutching and braking the tractor and starting the engine.

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

FREEWHEEL CONTROL: Disengages transmission for pushing or slowly towing the tractor with the engine off.

AMMETER: Indicates charging (+) or discharging (-) of battery.

MOTION CONTROL LEVER: Selects the speed and direction of tractor.

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

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

IGNITION SWITCH: Used for starting and stopping the engine.

HEIGHT ADJUSTMENT KNOB: Used to adjust the mower cutting height.



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. 7)

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.

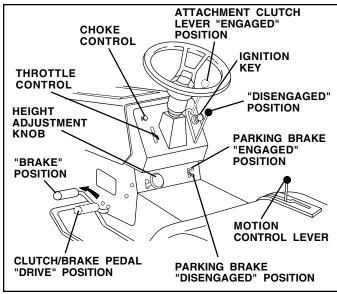


FIG. 7

STOPPING (See Fig. 7)

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 motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED. ENGINE -

• Move throttle control to slow position.

NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to "backfire"

- Turn ignition key to "OFF" 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 "OFF" 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. 7)

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

TO USE CHOKE CONTROL (See Fig. 7)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

 To engage choke control, pull knob out. Slowly push knob in to disengage.

TO MOVE FORWARD AND BACKWARD (See Fig. 7)

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

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- Slowly move motion control lever to desired position.

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 7)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise () to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

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.

12

TO ADJUST GAUGE WHEELS (See Fig. 8)

Gauge wheels are properly adjusted when they are slightly off the ground when mower is at the desired cutting height in operating position. Gauge wheels then keep the deck in proper position to help prevent scalping in most terrain conditions.

- Adjust gauge wheels with tractor on a flat level surface.
- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulderbolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

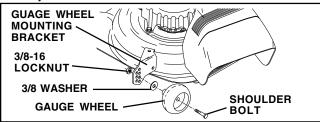


FIG. 8

TO OPERATE MOWER (See Fig. 9)

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.

- Select desired height of cut.
- Lower mower with attachment lift control.
- 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.

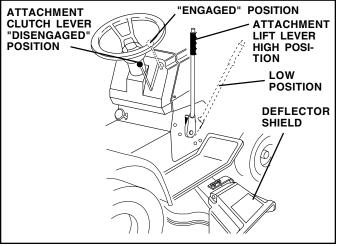


FIG. 9

TO OPERATE ON HILLS



CAUTION: 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 motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

TO TRANSPORT (See Figs. 6 and 10)

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control out and down into the slot and release so it is held in the disengaged position.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

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.).

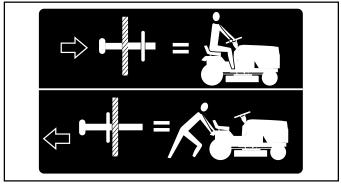


FIG. 10

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 (See Fig. 15)

- 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 Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

ADD GASOLINE

 Fill fuel tank. 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.

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it 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.



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

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.

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to fast position
- Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

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, push choke control in, wait a few minutes and try again. If engine still does not start, pull the choke control out and retry.

WARM WEATHER STARTING (50° F and above)

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- 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, slowly push choke control in until the engine begins to run smoothly. Continue to push the choke control in small steps allowing the engine to accept small changes in speed and load, until the choke control is fully in. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

AUTOMATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
 - Be sure the tractor is on level ground.
 - Place the motion control lever in neutral. Release the parking brake and let the clutch/brake slowly return to operating position.
 - Allow one minute for transmission to warm up. This
 can be done during the engine warm up period.
- The attachments can be used during the engine warmup period after the transmission has been warmed up and may require the choke control be pulled out slightly.

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.

PURGE TRANSMISSION



CAUTION: Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

IMPORTANT: SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

NOTE: During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

- Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- 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 tractor. 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. 11).
- 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.

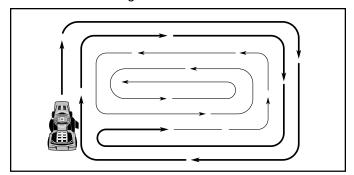


FIG. 11

AS	MAINTENANCE SCHEDUL LIN DATES YOU COMPLETE EGULAR SERVICE	E	EFORE	EACHUS EVERY 8	HOURS HOURS VERY ?	S HOURS	SHOUP VERY	O HOUS	ASON EASONE EFORE	STOR!	GE VICE	Ē DA⁻	ΓES
	Check Brake Operation	V	/										
	Check Tire Pressure	1	1										
_	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	V				1 7		/					
IA	Sharpen/Replace Mower Blades			1 4									
Ι¥	Lubrication Chart			/				V					
Ιċ	Check Battery Level			6									
R	Clean Battery and Terminals			/				/					
	Check Transaxle Cooling			/									
	Adjust Blade Belt(s) Tension					1 5							
	Adjust Motion Drive Belt(s) Tension					1 5							
	Check Engine Oil Level	V	/										
	Change Engine Oil			1,2,3				/					
lε	Clean Air Filter			1 2									
N	Clean Air Screen			1 2									
Ģ	Inspect Muffler/Spark Arrester				1								
ľ	Replace Oil Filter (If equipped)					1,2							
ΙË	Clean Engine Cooling Fins					1 2							
1-	Replace Spark Plug					/	/						
	Replace Air Filter Paper Cartridge					1 2							
	Replace Fuel Filter						/						

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 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.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

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.

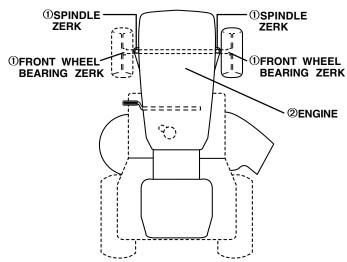
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 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 interlock systems for proper operation.
- · Check for loose fasteners.

LUBRICATION CHART



①GENERAL PURPOSE GREASE ②REFER TO CUSTOMER RESPONSIBILITIES "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 SHORTEN THE 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 six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" section of this manual).
- 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

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

- The engine should not start unless the clutch/brake pedal is fully depressed and attachement clutch control is in the disengaged position.
- 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.

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.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.

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

- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (27-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

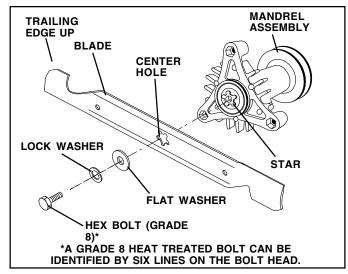


FIG. 12

TO SHARPEN BLADE (See Fig. 13)

NOTE: We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).

NOTE: Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

 Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

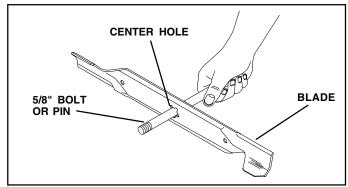


FIG. 13

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.

- Remove terminal guard.
- 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 of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

TRANSAXLE COOLING

The transmission fan and cooling fins should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot. To prevent possible damage to seals, do not use high pressure water or steam to clean transaxle.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

ENGINE

LUBRICATION

Only use high quality detergent oil rated with API service classification SF-SJ. Select the oil's SAE viscosity grade according to your expected operating temperature.

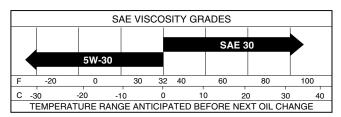


FIG. 14

NOTE: Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 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. 14 and 15)

Determine temperature range expected before oil change. All oil must meet API service classification SF-SJ.

- 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 bottom fitting of drain valve and install the drain tube onto the fitting.

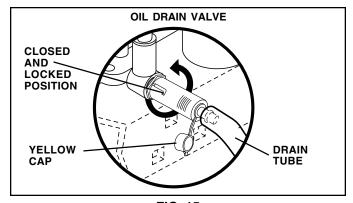


FIG. 15

- 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.

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 FINS

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Air guide covers must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

AIR FILTER

Your engine will not run properly using a dirty air filter. Clean the foam 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. (See engine manual for instructions).

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 operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" section of this manual.

IN-LINE FUEL FILTER (See Fig. 16)

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.

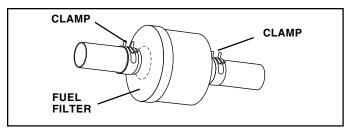


FIG. 16

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 to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.



CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" 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. 17)

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 lift 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

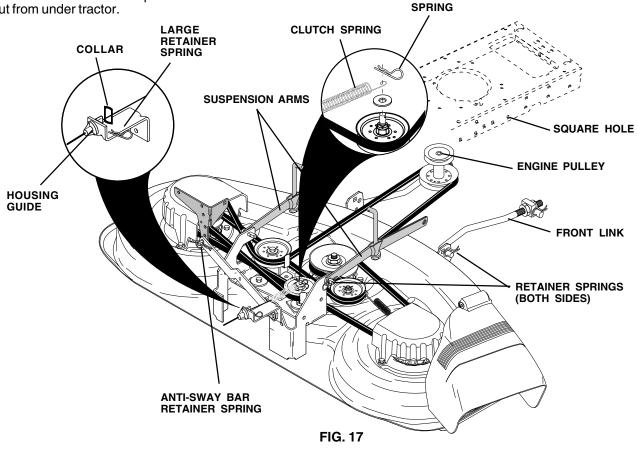
Follow procedure described in "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual.

TO LEVEL MOWER HOUSING

SMALL

RETAINER

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



SIDE-TO-SIDE ADJUSTMENT (See Figs. 18 and 19)

- 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: Three full turns of adjustment nut will change mower height about 1/8".

· Recheck measurements after adjusting.

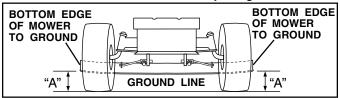


FIG. 18

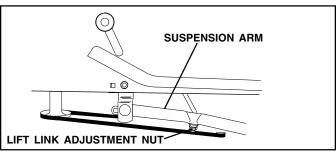


FIG. 19

FRONT-TO-BACK ADJUSTMENT (See Figs. 20 and 21)

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. Both links should be approximately 10-3/8".
- 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.
- 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.

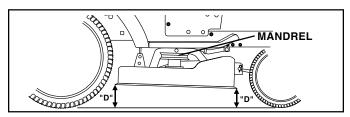


FIG. 20

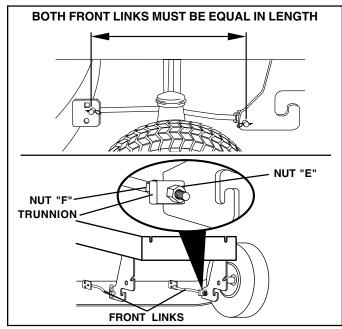


FIG. 21

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 22) -

- Park tractor on a level surface. Engage parking brake.
 Disengage attachment clutch control.
- Remove screws from L.H. mandrel cover and remove cover.
- Remove small retainer spring and lift clutch spring off pulley bolt.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from engine pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.

MOWER DRIVE BELT INSTALLATION (See Fig. 22) -

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto engine pulley.
- Roll belt into upper groove of L.H. mandrel pulley.
- Carefully check belt routing making sure belt is in the grooves correctly and inside belt keepers.
- Reassemble clutch spring to pulley bolt.
- Reassemble L.H. mandrel cover.

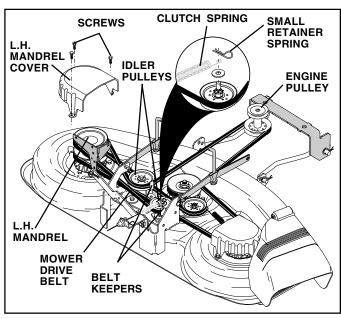


FIG. 22

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

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove screws from R.H. mandrel cover and remove cover.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler to see that they rotate freely.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- · Reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

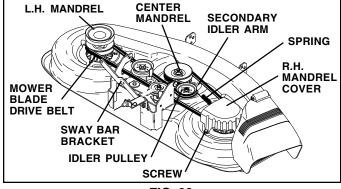


FIG. 23

TO ADJUST BRAKE (See Fig. 24)

Your tractor is equipped with an adjustable brake system which is mounted on the side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear on a level dry concrete or paved surface, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

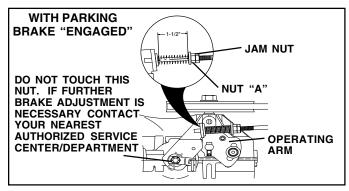
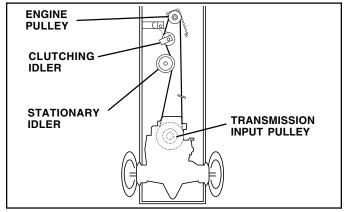


FIG. 24

TO REPLACE MOTION DRIVE BELT (See Fig. 25)

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

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.



22 FIG. 25

TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT(See Fig. 26)

The motion control lever has been preset at the factory and adjustment should not be necessary.

- Loosen adjustment bolt in front of the right rear wheel, and lightly tighten.
- Start engine and move motion control lever until tractor does not move forward or backward.
- Hold motion control lever in that position and turn engine off
- While holding motion control lever in place, loosen the adjustment bolt.
- Move motion control lever to the neutral (N) (lock gate) position.
- Tighten adjustment bolt securely.

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

After above adjustment is made, if the tractor still creeps forward or backward while motion control lever is in neutral position, follow these steps:

- · Loosen the adjustment bolt.
- Move the motion control lever 1/4 to 1/2 inch in the direction it is trying to creep.
- Tighten adjustment bolt securely.
- Start engine and test.
- If tractor still creeps, repeat above steps until satisfied.

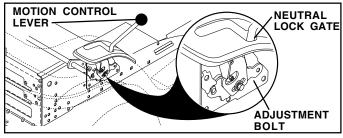


FIG. 26

TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in the Operation section of this manual.

TO ADJUST STEERING WHEEL ALIGNMENT

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. 27)

- 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.

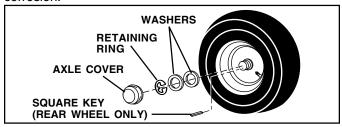


FIG. 27

TO START ENGINE WITH A WEAK BATTERY (See Fig. 28)



CAUTION: 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 Customer Responsibilities section of this manual).

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

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

TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable 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.

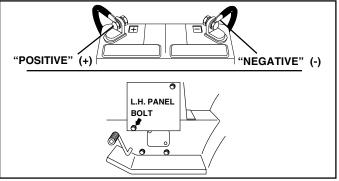


FIG. 28

REPLACING BATTERY (See Fig. 29)



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

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

- · Lift hood to raised position.
- · Remove terminal guard.
- Disconnect BLACK battery cable then RED battery cable and carefully remove battery from tractor.
- Install new battery with terminals in same position as old battery.
- Reinstall terminal guard.
- First connect RED battery cable to positive (+) battery terminal with hex bolt and keps nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and keps nut. Tighten securely
- Close terminal access doors.
- Close hood.

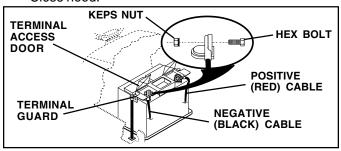


FIG. 29

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. 30)

- · 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.

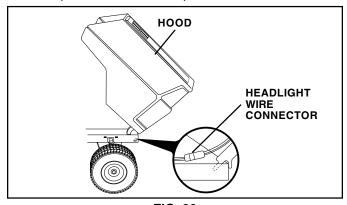


FIG. 30

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

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, see engine manual.

TO ADJUST CHOKE CONTROL

The choke 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, see engine manual.

TO ADJUST CARBURETOR

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, see engine manual.

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.

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.



CAUTION: 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 Customer Responsibilities 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 Customer Responsibilities 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 Customer Responsibilities 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.

- Drain the fuel tank.
- Start 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 drain 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 Customer Responsibilities 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. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Check all wiring. See "To Adjust Carburetor" in Service Adjustment 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. 8. Engine valves out of adjustment.	 Clean/replace air filter. Replace spark plug. Recharge or replace battery. Replace fuel filter. Drain fuel tank and refill with fresh 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. Engine valves out of adjustment. 	 Set in "Higher Cut" position/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. Drain fuel tank and refill with fresh gasoline. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Connect and tighten spark plug wire. Clean engine air screen/fins. 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 continues to run when operator leaves seat with attachment clutch engaged	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)	 Switch is "OFF". Bulb(s) burned out. Faulty light switch. Loose or damaged wiring. Blown fuse. 	 Turn switch "ON". Replace bulb(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. 			
Loss of drive	 Freewheel control in "disengaged" position. Motion drive belt worn, damaged, or broken. Air trapped in transmission during shipment or servicing. 	 Place freewheel control in "engaged" position. Replace motion drive belt. Purge transmission. 			
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.			

SERVICE NOTES

TRACTOR - - MODEL NUMBER SGT18H46A

SCHEMATIC

RUN/LIGHT

RUN

START

B+A1

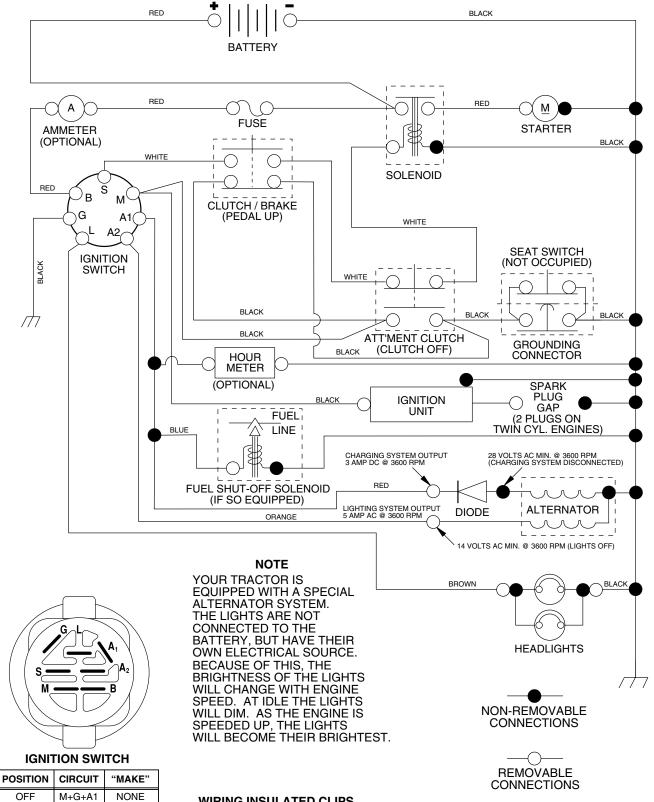
B+A1

B + S + A1

A2+L

NONE

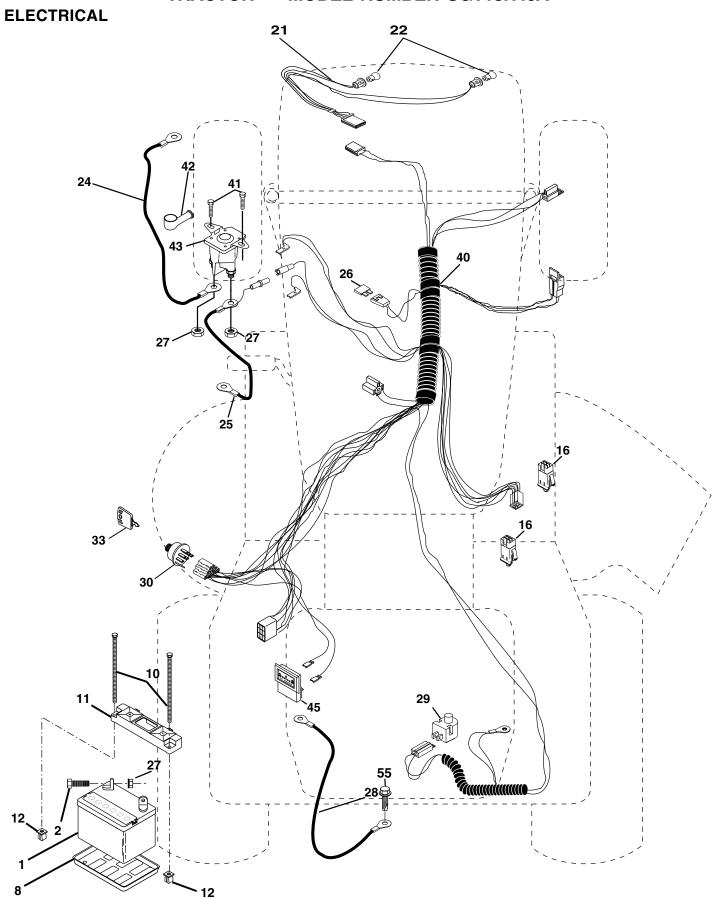
NONE



WIRING INSULATED CLIPS

NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING.

TRACTOR - - MODEL NUMBER SGT18H46A



TRACTOR - - MODEL NUMBER SGT18H46A

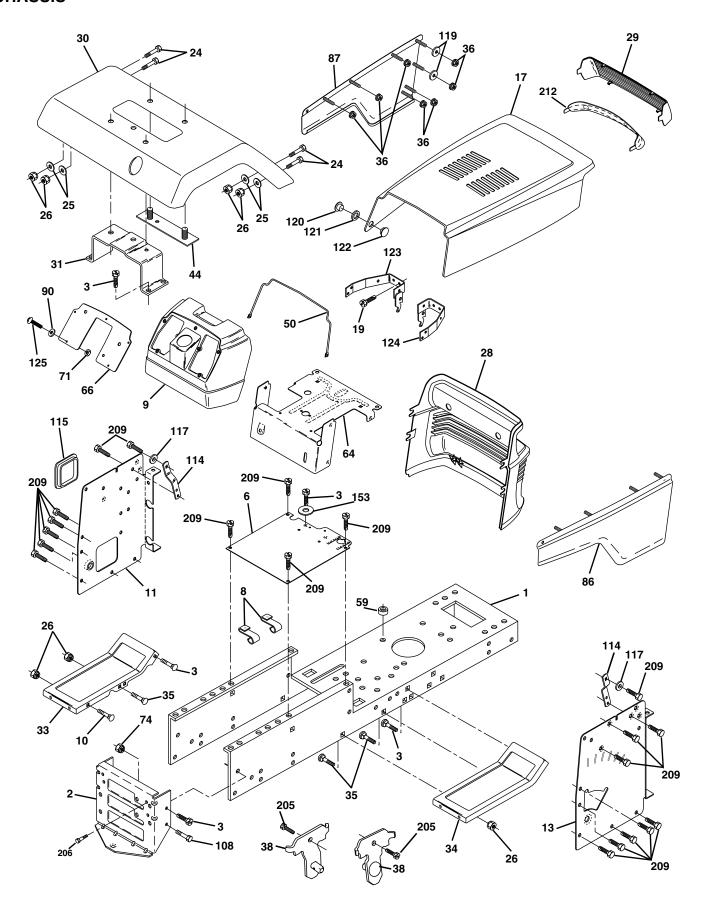
ELECTRICAL

KEY NO.		DESCRIPTION
1	163465	Battery, 12 Volt, 28 Amp
2 8	74760412	Bolt, Hex Head 1/4-20 UNC x 3/4
	7603J	Tray, Battery
10 11	145211 150109	Bolt, Battery Front 1/4-20 x 7.5 Zinc Holddown Battery Dash Mount
12	145769	Nut, Push Nylon 1/4" Battery Front
	153664	Switch Interlock Push-In
21	166181	Harness, Light
22	4152J	Bulb, Light
	108423X	Cable, Battery
25	146148	Cable, Battery
26	175158	Fuse, 20 Amp
27	73510400	Nut, Hex, Keps 1/4-20 UNC
28	145491	Cable, Ground, 6 Gauge, 12", Black
29	121305X	Switch, Plunger
30	175566	Switch, Ignition, Push-In
33	140401	Key, Ignition
40	170223	Harness, Ignition
	71110408	Bolt, Hex, Fin. 1/4-20 x 1/2
42	131563	Cover, Terminal, Red
	175141	Solenoid
_	121433X	Ammeter, Rectangular
55	17490508	Screw, Thdrol 5/16-18 x 1/2 TYT

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

TRACTOR - - MODEL NUMBER SGT18H46A

CHASSIS



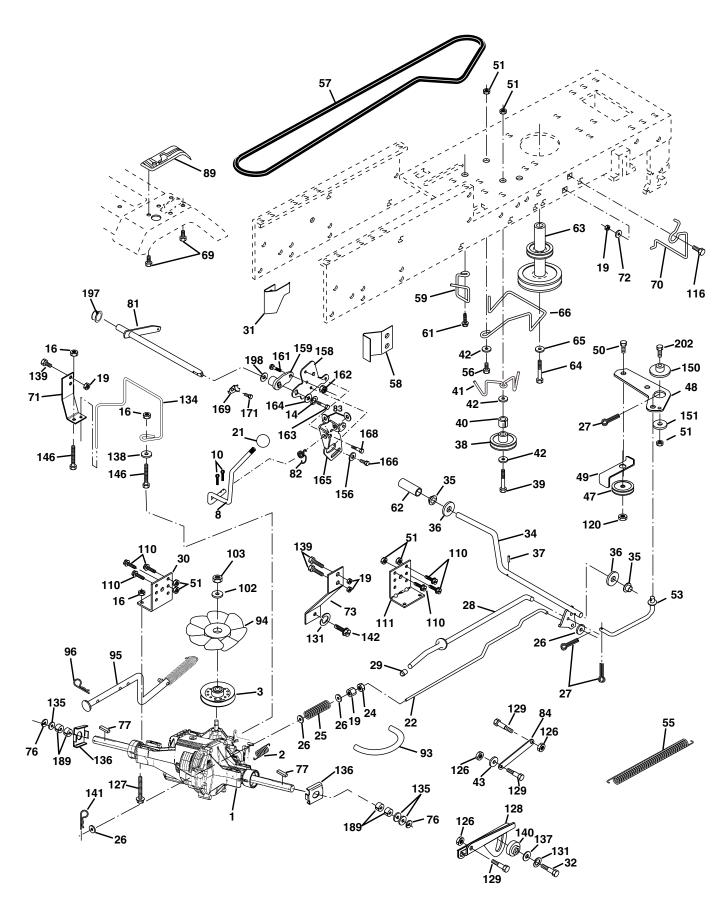
TRACTOR - - MODEL NUMBER SGT18H46A

CHASSIS

KEY NO.	PART NO.	DESCRIPTION
1 2 3 6 8 9 10 11 13 17 19 24 25 26 28 29	169831 169061 17060612 155923 126471X 170119 72140608 159954 159953 136673X550 164863 74780616 19131312 73800600 136375 136374X599	Chassis Wldmt. Drawbar Stretch 94 Screw 3/8-16 x 3/4 Saddle Flat Lt Clip Insulator Dash Bolt RdHd Sqnk. 3/8-16 Unc x 1 Panel Dash Lh Panel Dash Rh Hood Screw Hwhd Hi-Lo #13-16 x 3/4 Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5 Washer 13/32 x 13/16 x 12 Ga. Nut Lock Hex w/Insert 3/8-16 UNC Grill / Lens Asm Lens Grille
30 31 33 34 35 36 37 38 44 50	167270X550 175315 145244X550 145243X550 72110606 108067X 17490508 169834 140675 137304	Fender Asm YTGT Bracket Fender Footrest Pnt. Lh Footrest Pnt. Rh Bolt RdHd Sht. Sqnk. 3/8-16 x 3/4 Nut Pal Screw Thdrol 5/16-18 x 1/2 Tyt Bracket Asm Pivot Mower Rear Strap Asm Fender Rod Support Hood
59 64 66 71 74 86 87 90 108 114	110436X 170259 169261X010 73640400 73680600 136670X550 136671X550 19091216 74760612 145349	Bushing Snap Split Dash Lower Plate Dash Slkscr. Nut Keps Hex 1/4-20 Unc Nut Crownlock 3/8-16 Unc Panel Asm. Pnt. Side Rh Panel Asm. Pnt. Side Lh Washer 9/32 x 3/4 x 16 Ga. Bolt Fin Hex 3/8-16 Unc x 3/4 Bracket Support Dash
115 117 119 120 121 122 123 124 125 153 206 209 212	121749X 144283 19092016 137271 137269 137270 157105 157107 74180412 19132203 170165 17000612 156144	Cover Access Washer Serrated Disc 13/32 x 1 Washer 9/32 x 1-1/4 x 16 Ga. Rivet Ratchet Female Washer Nylon Rivet Ratchet Male Bracket Asm. Pivot Hood Lh Bracket Asm. Pivot Hood Rh Screw Mach Cr. 1/4-20 x 3/4 Washer 13/32 x 1-3/8 x 3 Ga. Bolt Shoulder 5/16-18 Screw Hex wsh Thdrol 3/8-16 x 3/4 Insert Lens Reflector

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

DRIVE



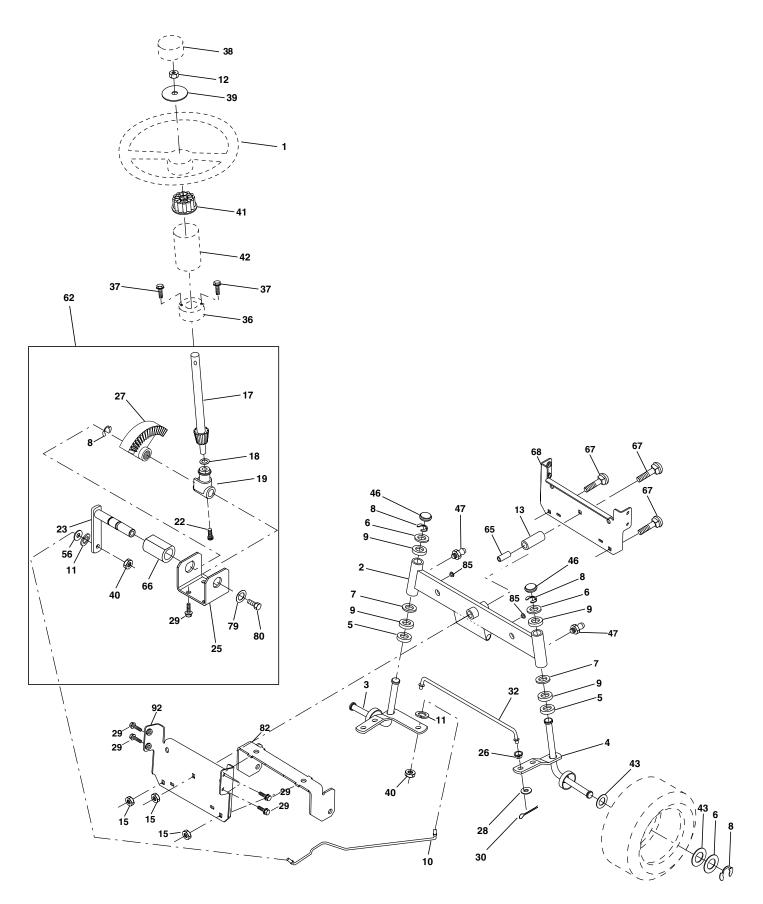
TRACTOR - - MODEL NUMBER SGT18H46A

DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle, Hydro Gear Model 325-	77	9396E	Key Square 1/4 x 2
		3000 (Order Parts From Transaxle	81	165598	Shaft Asm Cross Tapered
2	142431	Manufacturer) Spring, Brake Return	82	123782X	Spring, Torsion
3	143995	Pulley, Hydro	83	19171216	Washer 17/32 x 3/4 x 16 Gauge
8	166020	Rod Shift Fender Adjust Yt	84	165926	Link Transaxle
10	76020416	Pin, Cotter 1/8 x 1	89	164892X428	Console
14	10040400	Washer Lock Hvy Helical	93 94	142564 140462	Line Fuel Hydro Fan Hydro
16	73800500	Nut Lock Hx w/Ins. 5/16-18 Unc	9 4 95	158508	Control Asm Bypass Hydro-3000
19	73800600	Nut, Lock Hex w/Ins. 3/8-16 UNC	96	4497H	Retainer Spring 1" Zinc/cad.
21	140845	Knob_	101	141322	Washer Belliville 1/2 x 1-1/2
22	158274	Rod, Brake	103	73940800	Nut Hex Jam Toplock 1/2-20 Unf
24	73350600	Nut, Hex Jam 3/8-16	110	74760612	Bolt Hex 3/8-16 x 3/4
25 26	106888X 19131316	Spring, Rod, Brake Washer 13/32 x 13/16 x 16 Ga.	111	123776X	Bracket, Transaxle, R.H.
20 27	76020412	Pin, Cotter 1/8 x 3/4	116	72110610	Bolt Rdhd Sq Neck 3/8-16 x 1/25
28	145204	Rod, Brake, Park	120	73900600	Nut Lock Flg. 3/8-16 Unc
29	71673	Cap, Brake Parking Black	126	1685H	Nut Lock 5/16-18 Nc Thd
30	123780X	Bracket, Transaxle, L.H.	127 128	74490548 158284	Bolt Hex Flghd 5/16-18 x 3.0 Gr. 5
31	123791X	Keeper, Belt, Transaxle, L.H.	129	105529X	Bracket Neutral Adjust HG-3000 Bolt Shoulder 5/16-18 Unc
32	74760512	Bolt Hex Hd. 5/16-18 Unc x 3/4	131	10140500	Washer Lock 5/16
34	155071	Shaft, Foot Pedal	134	158278	Keeper, Belt RH
35	120183X	Bearing Nylon	135	123800X	Washer 1-1/32 x 1-5/8 x 16 Gauge
36	19211616	Washer 21/32 x 1 x 16 Gauge	136	163168X	Washer Axle Flange
37	1572H	Pin,Roll 3/16 x 1	137	19111212	Washer 11/32 x 3/4 x 12 Ga.
38 39	131494 74760644	Idler, Flat Bolt Rdhd 3/8-16 Unc x 2-3/4	138	19112016	Washer 11/32 x 1.25 x 16 Ga.
40	4470J	Spacer	139	74760612	Bolt Fin Hex 3/8-16 x 3/4
41	165838	Keeper, Idler	140	4475J	Bushing Pinion Sector
42	19131312	Washer 13/32 x 13/16 x 12 Gauge	141 142	159197	Pin Hitch
43	19111012	Bolt Shoulder 5/16-18 Unc	146	74330516 74490536	Bolt 5/16 x 24 x 1 Bolt Hex Flghd 5/16-18 x 2-1/4
47	127783	Pulley, Idler	150	165850	Bushing Bellcrank
48	154407	Bellcrank Clutch Grnd Drv Stl	151	19133210	Washer 13/32 x 2 x 10 Ga.
49	123205X	Retainer, Belt	156	166002	Washer Srrted 5/16ID x 1.125
50	74760624	Bolt, Hex 3/8-16 x 1-1/2	158	165589	Bracket Shift Mount
51 53	73680600	Nut, Crownlock 3/8-16	159	165494	Hub Tapered Flange Shift Lt
55	105710X 105709X	Link, Clutch Spring, Return, Clutch	161	72140406	Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr 5
56	74760620	Bolt, Hex 3/8-16 x 1-1/4	162	73680400	Nut Crownlock 1/4-20 Unc
57	131264	V-Belt, Drive	163	74780416	Bolt Hex Fin 1/4-20 Unc x 1 Gr 5
58	158278	Keeper, Belt, Transaxle, R.H.	164	19091010	Washer 5/8 x .281 x 10 Ga Bracket Pivot Lever
59	169691	Keeper Belt Centerspan	165 166	165623 166880	Screw 5/16-18 x 5/8
61	17060612	Screw 3/8-16 x 3/4	168	165492	Bolt Shoulder 5/16-18 x .561
62	8883R	Cover, Foot Pedal	169	165581	Plate Fastening Lt
63	140186	Pulley, Engine	171	17490608	Screw Thdrol 3/8-16 x 1/2 Ty-Tt
64 65	71170764	Bolt, Hex 7/16-20 x 4-1/4	189	160849	Washer Spacer Axle
65 66	10040700 161488	Washer, Lock Hvy Hlcl Spr 7/16 Keeper Belt Engine F-proof	197	169613	Nyliner Snap-In 5/8" Id
69	142432	Screw Hex Wsh Hi-Lo 1/4-1/2 Unc	198	169593	Washer Nyl 7/8 ld x .105
70	162848	Keeper Belt Engine	202	72110612	Bolt Carr Sh 3/8-16 x 1-1/2 Gr.5
71	158283	Strap Torque Lh Hydro-3000			
72	19132012	Washer 13/32 x 1-1/4 x 12 Ga.	NOT	E. All compand	ant dimancione given in LLC inches
73	158282	Strap Torque Rh Hydro-3000	NOIL	a: All compone 1 inch = 25	ent dimensions given in U.S. inches
76	12000053	E-Ring		1 111011 – 20	5-T 111111

TRACTOR - - MODEL NUMBER SGT18H46A

STEERING ASSEMBLY



TRACTOR - - MODEL NUMBER SGT18H46A

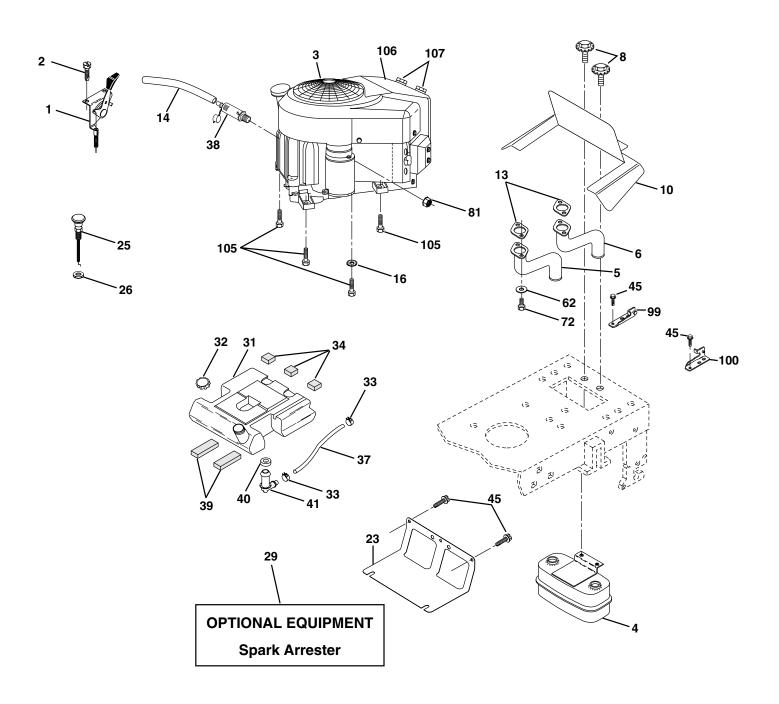
STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	140044X428	Wheel Steering Auto Black
2	154427	Axle Asm Front
3	156486	Spindle Asm Lh
4	157475	Spindle Asm Rh
5 6	6266H 121748X	Bearing Race Thrust Harden Washer 25/32 X 1 5/8 X 16ga
7	19272016	Washer 27/32 X 1 1/4 X 16 Ga
8	12000029	Ring Klip #t5304-75
9	3366R	Bearing Col Strg Blk
10	156438	Link Drag
11	10040600	Lockwasher
12	73940800	Nut Hex Jam Toplock 1/2-20 Unf
13	136518	Spacer Bearing Axle Front
15	145212	Nut Hex Flange Lock
17	156543	Shaft Asm Strg
18 19	57079 160395	Washer Thrust 515x 750x 033 Support Shaft
22	165857	Screw Hex WshHd Torx
23	165851	Shaft Asm Pittman
25	154406	Bracket Steering
26	126847X	Bushing Rod Tie Blk Lt
27	136874	Gear Sector
28	19131416	Washer 13/32 X 7/8 X 16ga
29 30	17060612 76020412	Screw 3/8-16x3/4 Pin
32	130465	Rod Tie Wire Form 19 75 Mech
36	145207	Bushing Strg
37	152927	Screw TT #10-32 x 5 x 3/8 Flange
38	140045X428	Insert Cap Strg
39	100712K	Washer .53 x 2.25 x .160 Zinc
40	7810H	Locknut Center
41 42	100711L 145054X428	Adaptor Wheel Strg 640/635id Boot Dash Steering
43	121749X	Washer 25/32 X 1 1/4 X 16 Ga
46	121232X	Cap Spindle Fr Top Blk
47	6855M	Fitting Grease
56	19131210	Washer 13/32 x 3/4 x 10 Ga.
62	167905	Kit Steering Assembly Service
65 66	160367 154404	Spacer Axle Bearing Arm Pittman
67	72140618	Bolt Rdhd Sq 3/8-16 Unc x 2-1/4
68	169828	Brace Axle Front
79	19132012	Washer 13/32 x 1-1/4 x 12 Ga.
80	74950612	Bolt Hex Nylon 3/8-16 x 3/4
82	169835	Bracket Susp Chassis Front
85	133835	Fastner Christmas Tree
92	169829	Axle Rear 16" Tires GTV

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

TRACTOR - - MODEL NUMBER SGT18H46A

ENGINE



TRACTOR - - MODEL NUMBER SGT18H46A

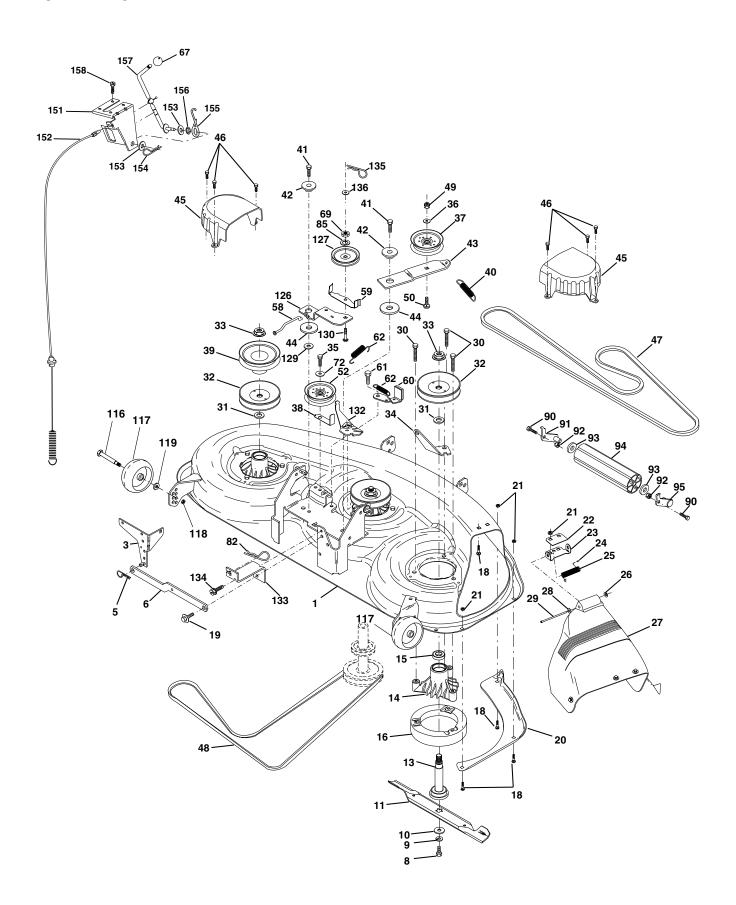
ENGINE

KEY NO.	PART NO.	DESCRIPTION
1 2 3	176174 17720410	Control, Throttle Screw, Hex Head, Thread Cutting 1/4-20 x 5/8 Engine, Tec Model Number TVT691 (Order Parts From Engine Manufacturer)
4 5 6 7 8 10 13 14 16 23 25 26 29 31 32 33 34 37 38 39 40 41 45 62 72	149723 174703 174704 126470X 171877 175563 35-414 148456 11050600 169837 132778 73920600 137180 151346 161493 123487X 106082X 8543R 148315 109227X 3645J 139277 17000612 10040500 71070512	(Order Parts From Engine Manufacturer) Muffler Tube, Exhaust, LH Tube, Exhaust, RH Clip Insulated Bolt 5/16-18 UNC x 3/4 w/Sems Shield, Browning Muffler Gasket Tube Drain Oil Easy Washer, Lock, External Tooth 3/8 Shield, Browning / Debris Guard Choke Control Nut, Keps 3/8-24 UNF Kit, Spark Arrestor Tank Fuel 3 50 Rear Cap Fuel Gauge Clamp, Hose Pad, Spacer Line, Fuel Plug Drain Oil Easy Pad, Idler Bushing Stem, Fuel Tank Screw Hex wsh Thdrol 3/8-16 x 3/4 Washer Lock 5/16 Screw Hex Hd Cap 5/16-18 x 3/4
81 99 100 105 106 107	73510400 160771 160770 17120616 160-82 42-823	Nut Keps Hex 1/4-20 Unc Bracket Asm Pivot Lh Raised Bracket Asm Pivot Rh Raised Screw 3/8-16 x 1 Control Cover Screw

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

TRACTOR - - MODEL NUMBER SGT18H46A

MOWER DECK



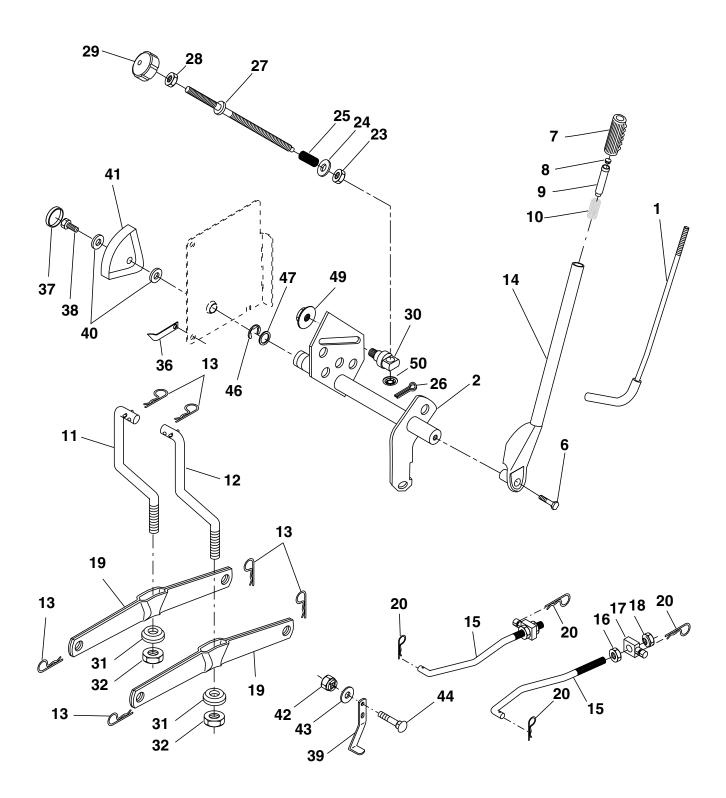
TRACTOR - - MODEL NUMBER SGT18H46A

MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 3 5 6 8 9 10 11 13 14 15 16 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 40 41 42 43 44 44 45 46 47 48 49 50 50 50 50 50 50 50 50 50 50 50 50 50	156948 138457 4939M 130832 850857 10030600 140296 176084 137553 137152 110485X 174493 72140505 132827 145055 73680500 134753 131267 105304X 149287 110452X 166883X428 19111016 131491 157722 129963 153531 137266 144945 17490628 19131316 131494 156085 144917 137273 17060620 165723 144949 133943 145059 137729 144959 139573 73680600 72110612	Deck Asm., Mower 46" Bracket Asm., Sway Bar Retainer Spring Arm, Suspension, Rear (Sway Bar) Bolt, Patched 3/8-24 x 1-1/4 Gr. 8 Washer, Lock Hvy., Unplated 3/8 Washer, Hard Blade, Mower Vented Blade Hi-Perf 46" Shaft Asm. w/Lower Bearing Housing, Mandrel Bearing, Ball, Mandrel Stripper, Mower Round Bolt, Carriage 5/16-18 x 5/8 Bolt, Hex Head, Shoulder 5/16-18 Baffle, Vortex Mower 46" Nut, Crownlock 5/16-18 UNC Stiffiner, Bracket Bracket, Deflector Cap, Sleeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Mower Washer 11/32 x 5/8 x 16 Ga. Rod, Hinge Screw, Thdroll Washer Head Washer, Spacer Mower Vented Pulley, Mandrel Nut, Fig. Top Lock Cntr. 9/16 Anchor, Spring Deck 46" Screw, Thdroll 3/8-16 x 1-3/4 Tytt Washer 13/32 x 1 x 16 Ga. Pulley, Idler, Flat Keeper, Belt, Idler Pulley, Idler, Flat Keeper, Belt, Idler Pulley, Idler, Driven Spring, Secondary 44/46/50 Vent Screw 3/8-16 x 1-1/4 Spacer, Retainer Arm, Idler Secondary Washer, Hardened Cover, Mandrel Deck Screw, Thdroll. 1/4-20 x 5/8 V-Belt, Mower, Primary Nut, Crownlock 3/8-16 UNC Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5	59 60 61 62 67 69 72 82 85 90 91 92 93 94 95 116 117 129 130 131 132 133 134 135 151 152 153 154 155 156 157 158	157034 156722 161315 131870 106932X 73350600 19131316 4497H 10040600 74780516 175746 73800500 19171416 132264 175747 4898H 165746 73930600 19121414 156472 146763 19133808 165891 131870 165890 165904 17490512 165898 19091216 169670 170328 169674 169675 169671 169672 169669 17720410 143651 172497	Guide Bolt 46" Mower Dr Arm Asm Brake 46" Bolt Shld 5/16-18 Spring Return Knob Rd 3/8-16 Plstc Thds Blk Nut Hex Jam 3/8-16 Unc Washer 13/32 x 1 x 16 Ga. Retainer Spring Washer Lock 3/8 Bolt Fin Hex 5/16-18 x 1 Bracket Asm. Noseroller Lh Nut Lock Hex 5/16-18 Washer 17/32 x 7/8 x 16 Ga. Roller Nose Bracket Asm. Noseroller Rh Bolt, Shoulder Gauge Wheel Nut, Centerlock 3/8-16 UNC Washer 3/8 x 7/8 x 14 Ga. Arm, Idler, Primary Deck 46" Pulley, Idler, V-Groove Dim. 4.25 Washer 13/32 x 2-3/8 x 8 Ga Bolt Carriage Idler Spring Return Idler Arm Spring Brake Mower Bracket Anchor Cable 46" Screw Thdrol5/16-18 x 3/4 Retainer Spring Yellow Washer 9/32 x 3/4 x 16 Ga Bracket Clutch Cable Clutch Cable 38"/46" Washer Flat 3/8" Type B Spring Retension Q SPacer Clutch Cable Rod Clutch Cable 3/8" Screw Hex Thd Cut 1/4-20 x 5/8 Mandrel Asm 44"/46"/50" Service Deck Complete (Std. Deck-Order separately mulch plateand gauge wheel components Key Nos. 101- 106 and 116-118)
52 58	156493 165906	Pulley Idler Rod Brake 46"	NOI	1 inch = 25	nent dimensions given in U.S. inches 5.4 mm

TRACTOR - - MODEL NUMBER SGT18H46A

MOWER LIFT



TRACTOR - - MODEL NUMBER SGT18H46A

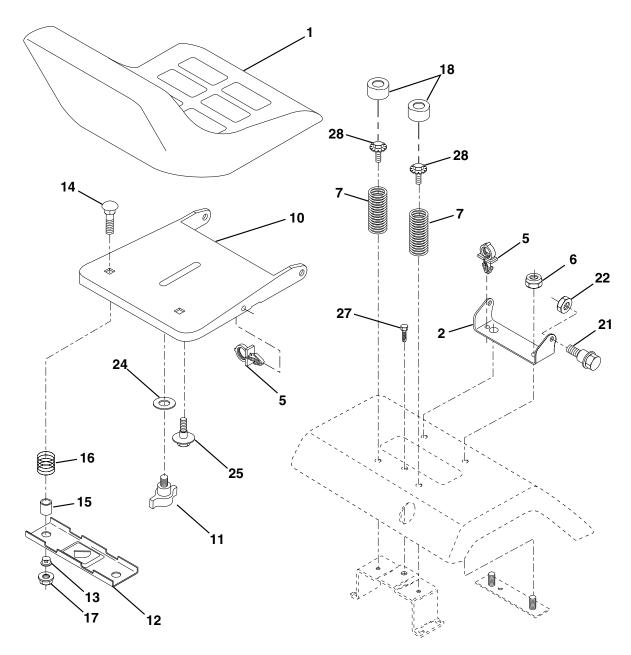
MOWER LIFT

KEY NO.	PART NO.	DESCRIPTION
1	121006X	Rod Assembly, Lever
2	159188	Shaft Assembly, Lift
6 7	74780624	Bolt, Hex Head, Fin. 3/8-16 x 1-1/2
8	109413X 124526X	Grip Handle Button Plunger Black
9	122364X	Plunger Lever Lift
10	2876H	Spring
11	145537	Link, Lift, LH
12	145536	Link, Lift, RH
13	4939M	Retainer Spring
14	159189	Lever Assembly, Lift, RH
15	173288	Link, Front
16	73350800	Nut, Hex, Jam 1/2-13 UNC
17 18	130171 73800800	Trunnion Nut Lock W/Wsh 1/2-13 Unc
19	139868	Arm, Suspension, Rear
20	163552	Retainer Spring
23	110807X	Nut Special
24	19131016	Washer 13/32 x 5/8 x 16 Ga.
25	137150	Spring Compression
26	76020308	Pin Cotter
27	160985	Rod Adj. Lift
28 29	73350600	Nut Hex Jam 3/8-16 Unc
30	138057 150233	Knob Inf. 3/8-16 Unc Trunnion Infin Height
31	169865	Bearing
32	73540600	Nut, Crownlock 3/8-24
36	155097	Pointer Height Indicator
37	123935X	Plug Hole
38	17060516	Screw 5/16-18 x 1
39	142992	Stop Over Center
40 41	19112410 123934X	Washer 11/32 x 1-1/2 10 Ga.
42	73680600	Scale Ind. Height Nut, Crownlock 3/8-16 UNC
43	19131612	Washer 13/32 x 1 x 12 Ga.
44	72240608	Bolt, Carriage 3/8-16 x 1.00
46	12000022	E-Ring
47	19292016	Washer
49	145212	Nut Hex Flange Lock
50	110452X	Nut Push

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

TRACTOR - - MODEL NUMBER SGT18H46A

SEAT ASSEMBLY

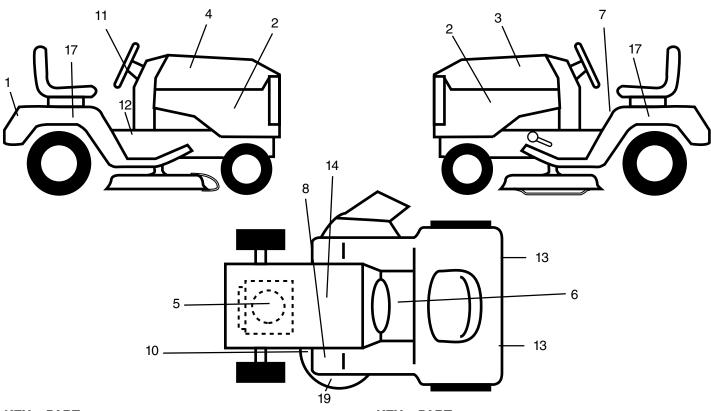


KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 5 6 7 10 11 12 13 14 15	140118 140551 145006 73800600 124181X 174894 166369 121246X 121248X 72050412 121249X	Seat Pivot Bracket, Seat Clip, Push-in Hinged Nut, Lock Hex w/Ins 3/8-16 UNC Spring, Seat Pan, Seat Knob, Seat, Black Bracket, Switch Mounting Bushing, Snap, Black, Nylon Bolt, Carriage 1/4-20 x 1-1/2 Spacer, Split	16 17 18 21 22 24 25 27 28	123740X 123976X 124238X 171852 73800500 19171912 127018X 17490608 171877	Spring Locknut, Flange 1/4 Grade 5 Cap Spring Seat Blk 1.75 x 1.0 Bolt, Shoulder 5/16-18 Unc -2A Nut Lock Hex W/Ins 5/16-18 Unc Washer 17/32 x 1-3/16 x 12 Gauge Bolt, Shoulder 5/16-18 x .62 Screw Thdrol 3/8-16 x 3/4 Bolt 5/16-18 UNC x 3/4 w/Sems nent dimensions given in U.S. inches

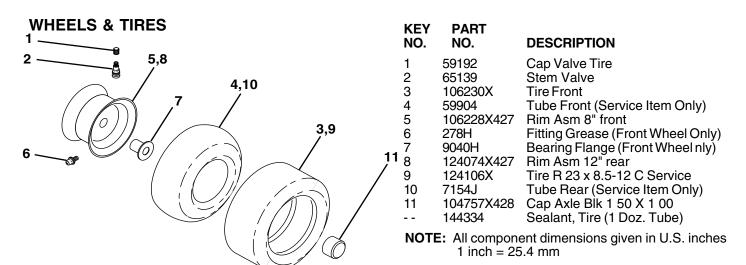
NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

TRACTOR - - MODEL NUMBER SGT18H46A

DECALS



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	171448	Decal Fender Decal Fender	11	162398	Decal Steering
2	164022	Decal Side Panel	12	156835	Decal Oper sDL Eng
3	177174	Decal Hood LH	13	106202X	Reflector Taillight
4	177173	Decal Hood RH	14	145005	Decal, Btry Dngr/Psn
5	173000	Decal HP Engine	17	177512	Decal Fender Side
6	140837	Decal Parking Brake	19	162391	Decal Deck
7	157002	Decal Danger Fender English		142341	Decal Cntrl Movement
8	4900J	Decal Clutch/brake English		157199X428	Pad, Footrest
10	139346	Decal V-Belt Sch		138311	Decal Handle Lft Height Adjust
				177599	Manual, Owner's (English)



LIMITED WARRANTY

The Manufacturer warrants to the original consumer purchaser that this product as manufactured is free from defects in materials and workmanship. For a period of two (2) years from date of purchase by the original consumer purchaser, we will repair or replace, at our option, without charge for parts or labor incurred in replacing parts, any part which we find to be defective due to materials or workmanship. This Warranty is subject to the following limitations and exclusions.

- This warranty does not apply to the engine, other than EHP manufactured transaxle/transmission components, battery (except as noted below) or components parts thereof. Please refer to the applicable manufacturer's warranty on these items.
- Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by Electrolux Home Products.
- 3. Battery Warranty: On products equipped with a Battery, we will replace, without charge to you, any battery which we find to be defective in manufacture, during the first ninety (90) days of ownership. After ninety (90) days, we will exchange the Battery, charging you 1/12 of the price of a new Battery for each full month from the date of the original sale. Battery must be maintained in accordance with the instructions furnished.
- 4. The Warranty period for any products used for rental or commercial purposes is limited to 90 days from the date of original purchase.
- 5. This Warranty applies only to products which have been properly assembled, adjusted, operated, and maintained in accordance with the instructions furnished. This Warranty does not apply to any product which has been subjected to alteration, misuse, abuse, improper assembly or installation, delivery damage, or to normal wear of the product.
- Exclusions: Excluded from this Warranty are belts, blades, blade adapters, normal wear, normal adjustments, standard hardware and normal maintenance.
- 7. In the event you have a claim under this Warranty, you must return the product to an authorized service dealer.

Should you have any unanswered questions concerning this Warranty, please contact:

Electrolux Home Products a division of WCI Outdoor Products, Inc. Outdoor Products Customer Service Dept. 250 Bobby Jones Expressway

250 Bobby Jones Expresswa Augusta, GA 30909 USA In Canada contact:

Electrolux Home Products

a division of WCI Outdoor Products, Inc.

7075 Ordan Drive Mississauga, Ontario

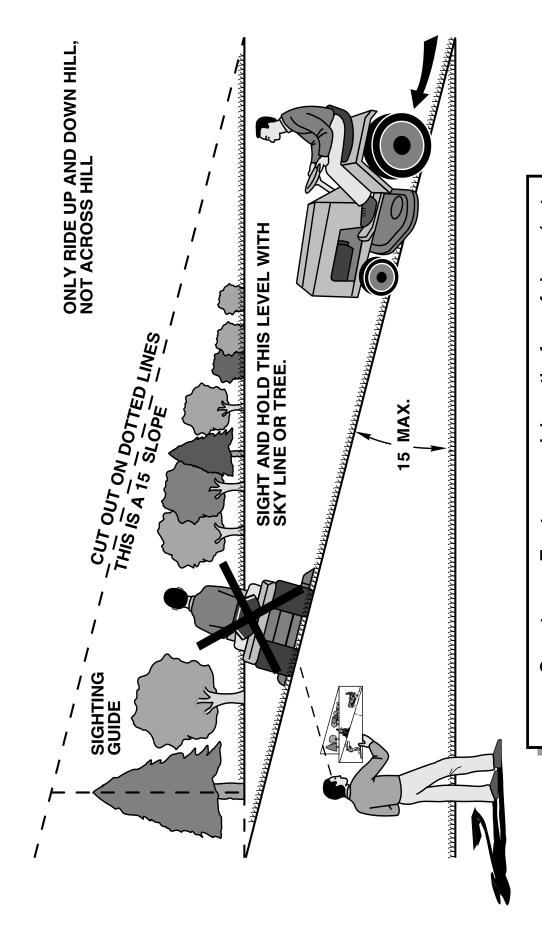
L5T 1K6

giving the model number, serial number and date of purchase of your product and the name and address of the authorized dealer from whom it was purchased.

THIS WARRANTY DOES NOT APPLY TO INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR OUR EXPRESSED WARRANTIES. Some areas do not allow the limitation of consequential damages or limitations of how long an implied Warranty may last, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from locale to locale.

This is a limited Warranty within the meaning of that term as defined in the Magnuson-Moss Act of 1975.

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



Operate your Tractor up and down the face of slopes (not greater than 15), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.



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