

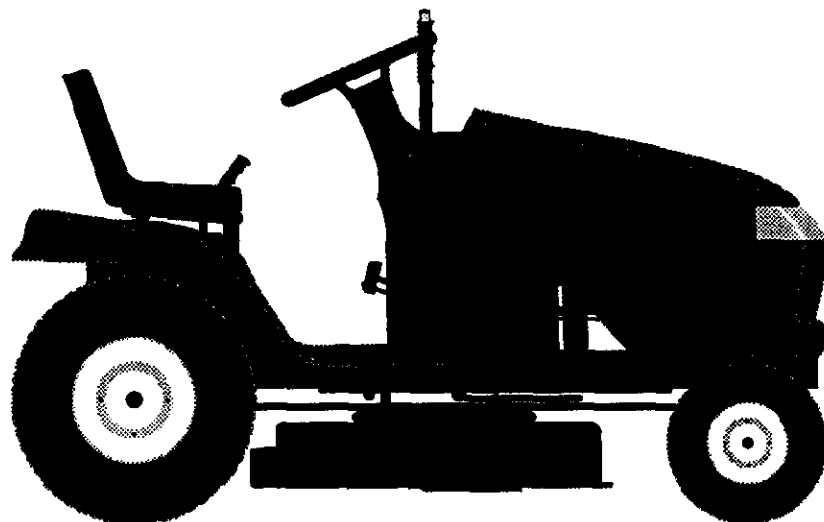
SEARS

**OWNER'S
MANUAL**

**MODEL NO.
944.609810**

**Caution:
Read and follow
all Safety Rules
and Instructions
Before Operating
This Equipment**

EZ³



CRAFTSMAN[®]

**20 HP
ELECTRIC START
46" MOWER
AUTOMATIC
LAWN TRACTOR**

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

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



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.

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.



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



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

CONGRATULATIONS on your purchase of a Sears 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 Sears 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".

MODEL NUMBER	944.609810
SERIAL NUMBER	_____
DATE OF PURCHASE	_____
THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.	
YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.	

MAINTENANCE AGREEMENT

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

CUSTOMER RESPONSIBILITIES

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

PRODUCT SPECIFICATIONS

HORSEPOWER:	20
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG/SH):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 3.5 PINTS W/O FILTER: 3.0 PINTS
SPARK PLUG: (GAP: .025")	CHAMPION RC12YC
VALVE CLEARANCE:	INTAKE: .004-.006 EXHAUST: .004-.006
GROUND SPEED (MPH):	FORWARD: 0 - 5.5 REVERSE: 0 - 2.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @ 3600 RPM
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R
BLADE BOLT TORQUE:	27-35 FT. LBS.

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 Sears Authorized Service Centre/Department (See REPAIR PARTS section of this manual).

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WARRANTY

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

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

FULL ONE (1) YEAR WARRANTY ON BATTERY

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

COMMERCIAL OR RENTAL USE

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

This Warranty does **NOT** cover:

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

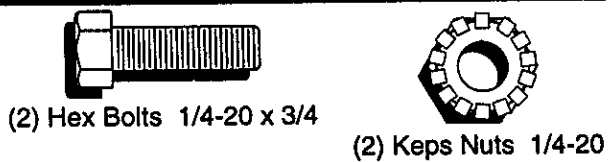
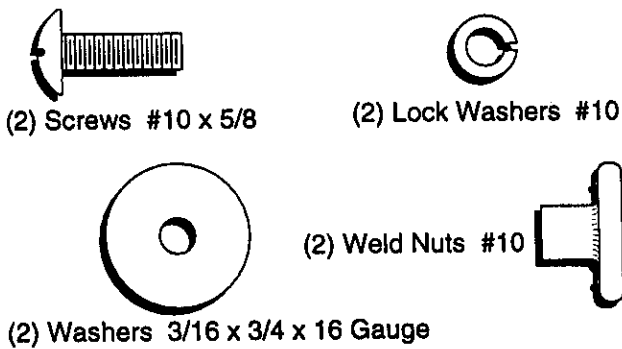
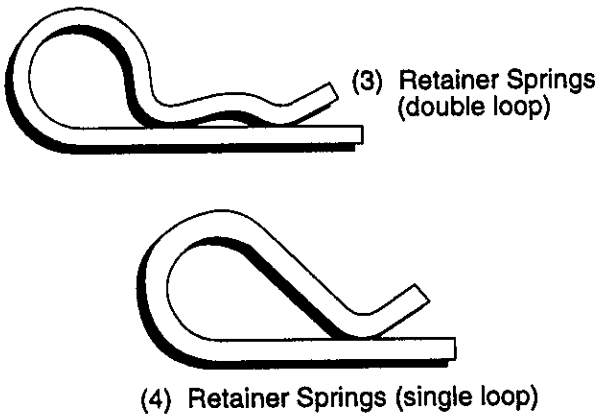
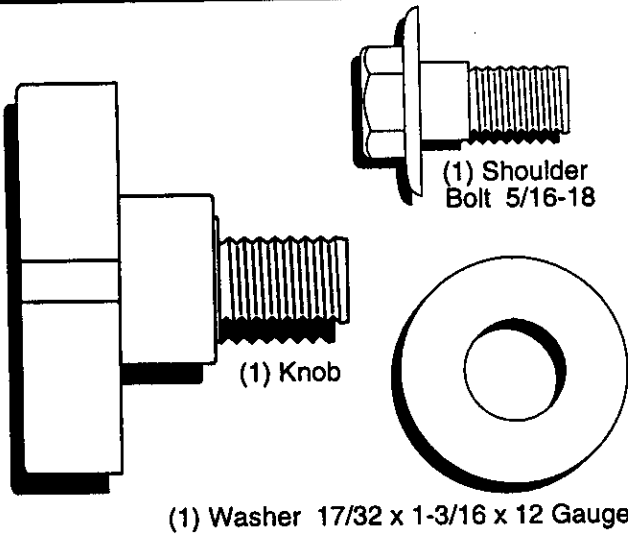
Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

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

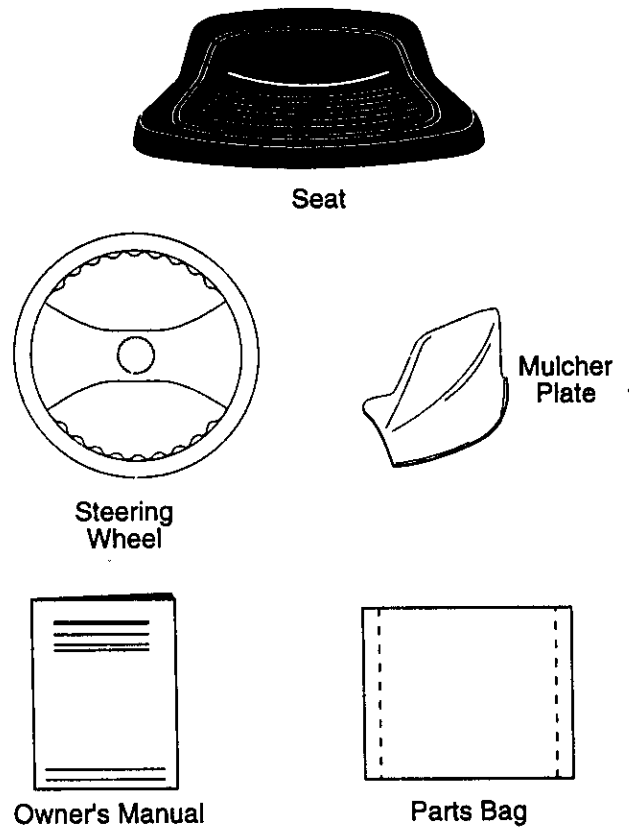
SEARS CANADA, INC., TORONTO, ONTARIO M5B 2B8

CONTENTS OF HARDWARE PACK

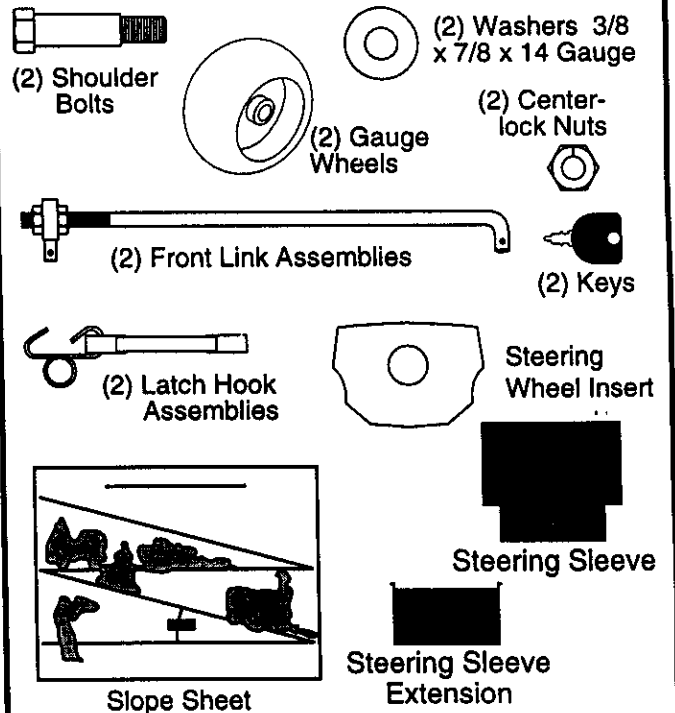
Parts Bag contents shown full size



Parts packed separately in carton



Parts bag contents not shown full size



ASSEMBLY

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

TOOLS REQUIRED FOR ASSEMBLY

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

- | | |
|--------------------|---------------------------------|
| (2) 7/16" wrenches | (1) Tire pressure gauge |
| (1) 9/16" wrench | (1) Utility knife |
| (1) 1/2" wrench | (1) 3/4" socket w/drive ratchet |
| (1) Pliers | (1) 3/4" wrench |

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

TO REMOVE TRACTOR FROM CARTON

UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 5).
- 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 ROLLING TRACTOR OFF 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 straight forward.
- Slide the steering sleeve over the steering shaft.
- Align tabs and press steering sleeve extension into bottom of steering wheel.
- 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.

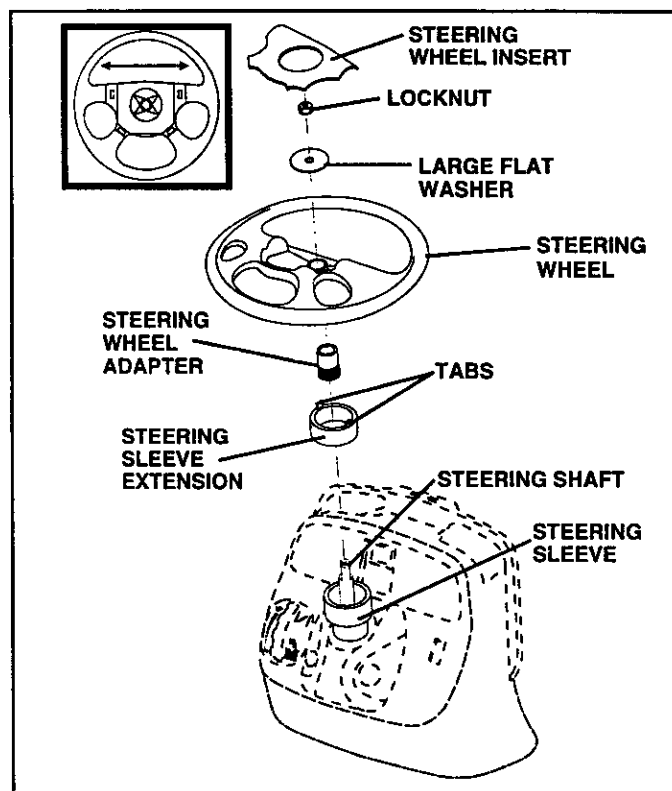


FIG. 1

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

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor forward off skid.

ASSEMBLY

HOW TO SET UP YOUR TRACTOR

CONNECT BATTERY (See Fig. 2)



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.
- Open terminal access doors, remove terminal protective caps and discard.
- 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.
- 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.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

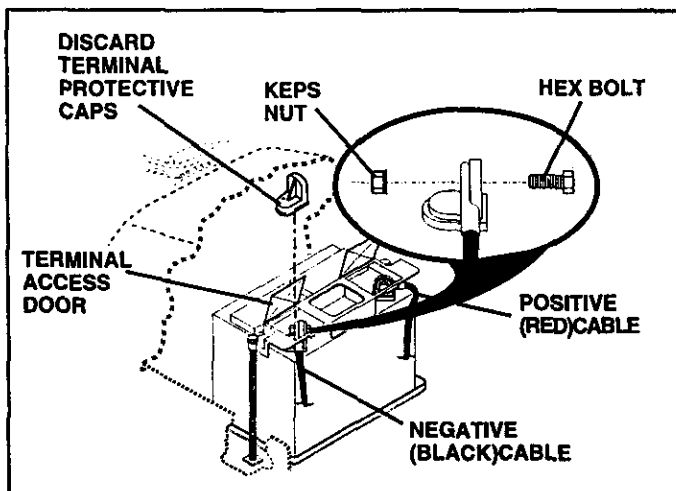


FIG. 2

INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt. Tighten shoulder bolt securely.
- 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.

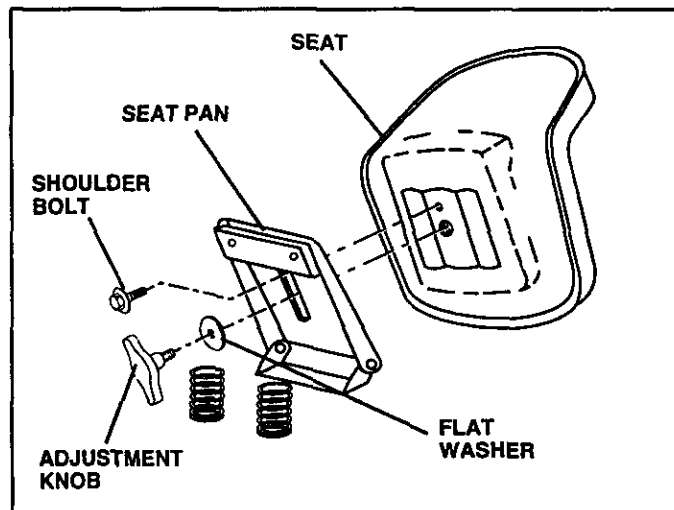


FIG. 3

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" on page 3 of this manual.

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.

ASSEMBLY

INSTALL MOWER AND DRIVE BELT

(See Figs. 4 and 7)

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 discharge guard to right side of tractor.

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

- Install one front link in top hole of the R.H. front mower bracket and R.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Install second front link in L.H. front suspension bracket only and retain with single loop retainer spring as shown.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift control.
- Place the L.H. suspension arm on outward pointing deck pin. If necessary, rock and raise front of mower to align deck pin with the hole in suspension arm. Retain with double loop retainer spring with loops down as shown.
- Slide left side of mower back and install the unattached front link in top hole of the L.H. front mower bracket. Retain with single loop retainer spring as shown.

- Place the R.H. suspension arm on outward pointing deck pin. If necessary, rock and raise front of mower to align deck pin with the hole in suspension arm. Retain with double loop retainer spring with loops down as shown.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise mower to highest position.
- Assemble gauge wheels (See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual).

CHECK MOWER LEVELNESS

For best cutting results, mower 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, mower drive, and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

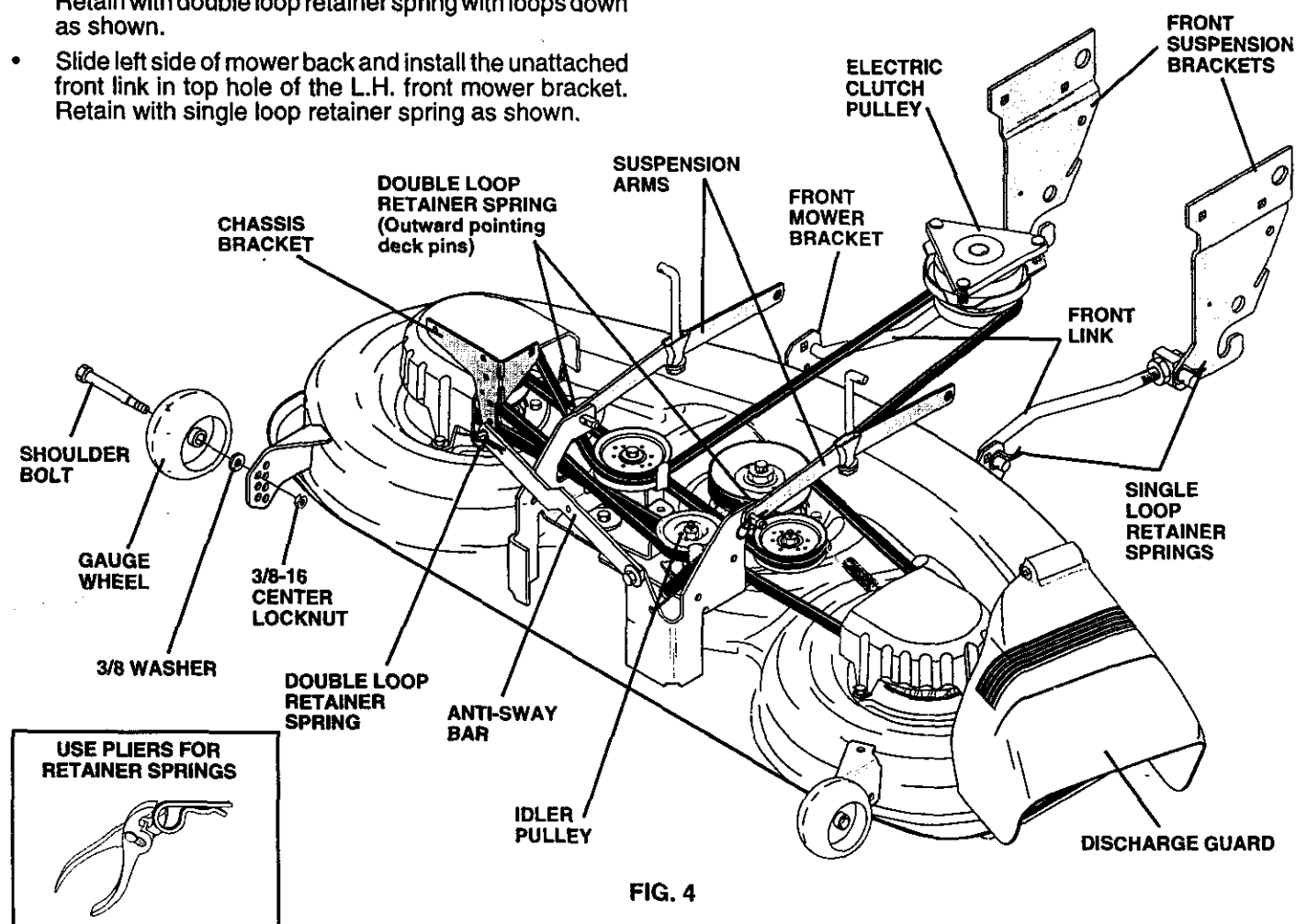


FIG. 4

ASSEMBLY

INSTALL MULCHER PLATE (See Figs. 5 and 6)

- Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

NOTE: Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

- Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation.

TO CONVERT TO BAGGING OR DISCHARGING

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

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

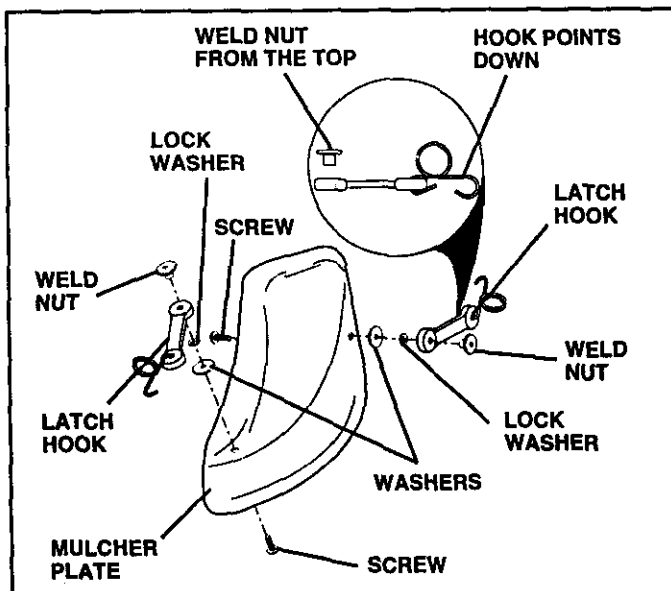


FIG. 5

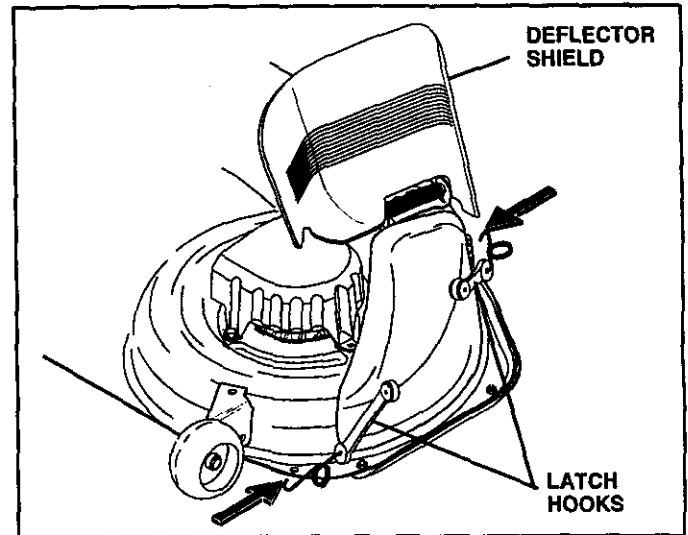


FIG. 6

✓ 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:

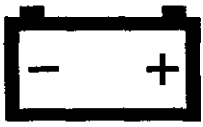
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated 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 "PURGE TRANSMISSION" in Operation section of this manual).

OPERATION

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



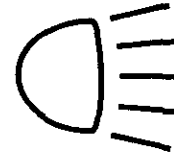
ENGINE OFF



OIL PRESSURE



CLUTCH



LIGHTS ON



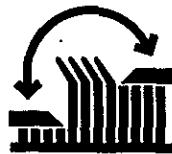
OVER TEMP LIGHT



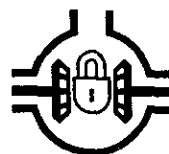
FUEL



CHOKE



MOWER HEIGHT



DIFFERENTIAL LOCK



PARKING BRAKE LOCKED



UNLOCKED



MOWER LIFT

R

REVERSE

N

NEUTRAL

H

HIGH

L

LOW



PARKING BRAKE



ATTACHMENT CLUTCH ENGAGED



ATTACHMENT CLUTCH DISENGAGED



KEEP AREA CLEAR

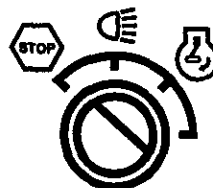


SLOPE HAZARDS

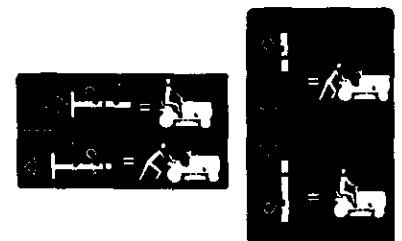
(SEE SAFETY RULES SECTION)



DANGER, KEEP HANDS AND FEET AWAY



IGNITION



FREE WHEEL (Automatic Models only)

OPERATION

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 location of various controls and adjustments. Save this manual for future reference.

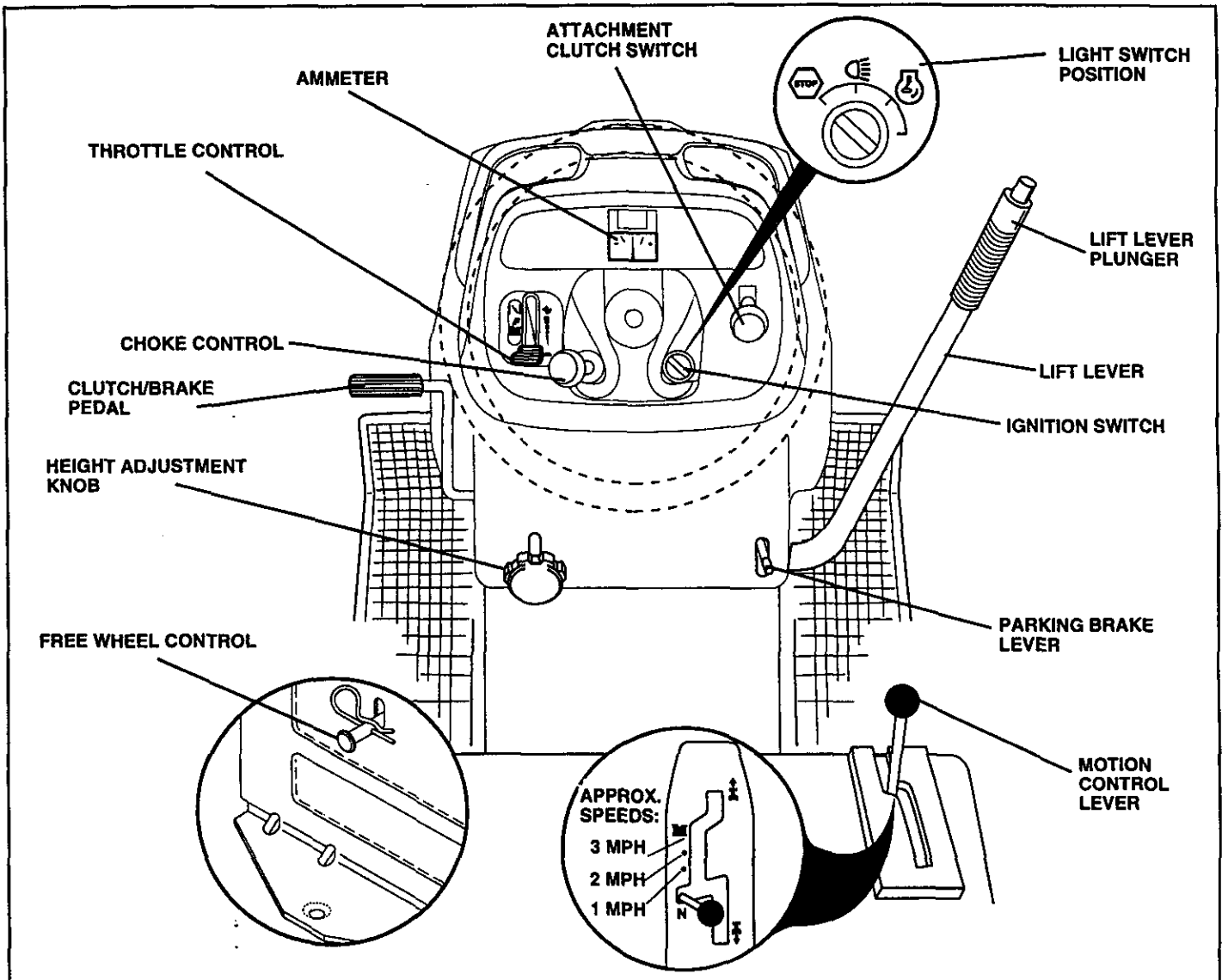


FIG. 7

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

ATTACHMENT CLUTCH SWITCH - Used to engage mower blades or other attachments mounted to your tractor.

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

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

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

CHOKE CONTROL - Used when starting a cold engine.

THROTTLE CONTROL - Used to control engine speed.

LIGHT SWITCH - Turns the headlights on and off.

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

IGNITION SWITCH - Used to start and stop the engine.

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

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

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

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

OPERATION



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. 8)

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.

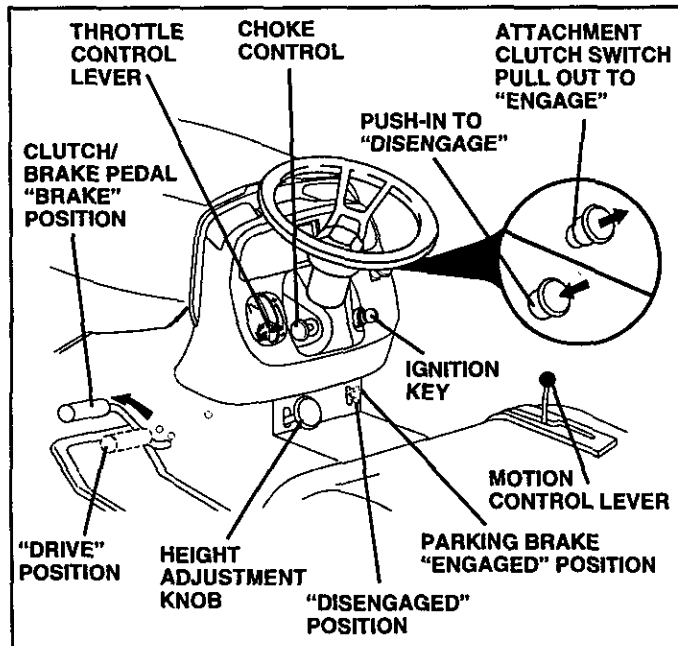


FIG. 8

STOPPING (See Fig. 8)

MOWER BLADES -

- To stop mower blades, move attachment clutch switch 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. 8)

Always operate engine at full throttle.

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

TO USE CHOKE CONTROL (See Fig. 8)

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. 8)

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. 8)

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.

OPERATION

- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

TO ADJUST GAUGE WHEELS (See Fig. 9)

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 ADJUST 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 shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

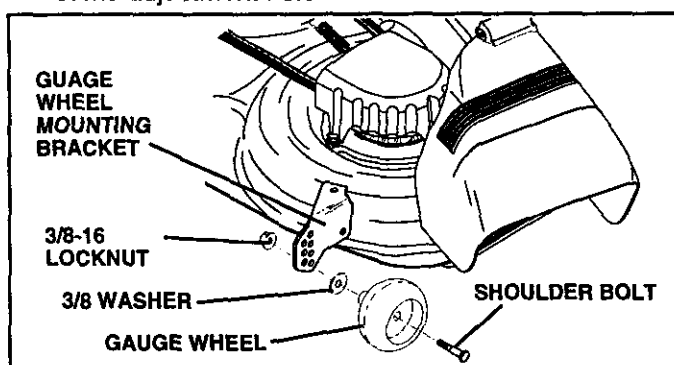


FIG. 9

TO OPERATE MOWER (See Figs. 7 and 10)

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 discharge guard in place.

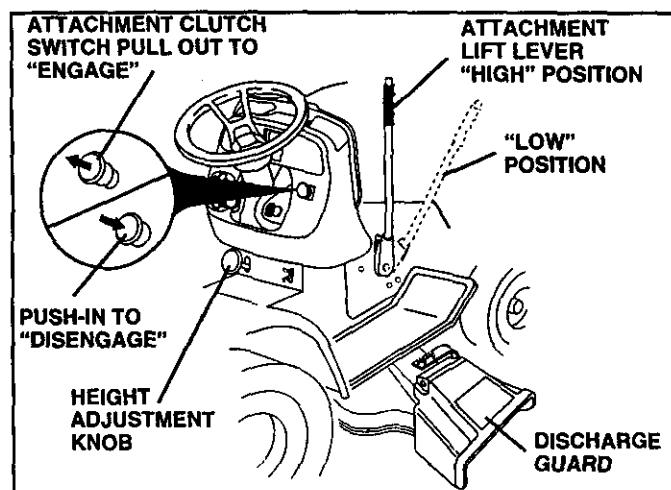


FIG. 10

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. 7 and 11)

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 knob out and hold in position by inserting retainer spring into forward hole of control rod.
- 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.).

OPERATION

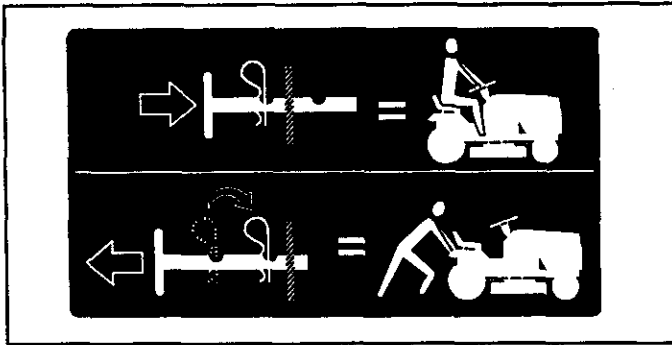


FIG. 11

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL (See Fig. 16)

- 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.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. 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. 8)

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 warm-up 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.

OPERATION

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. Shut-off 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. 12).

- 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.

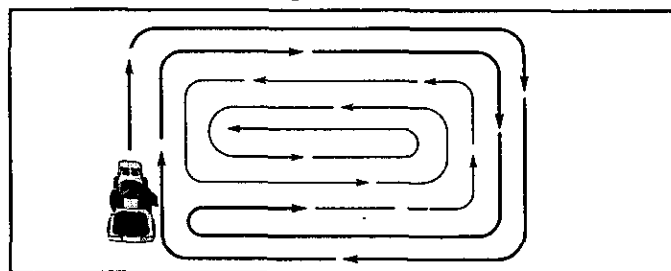


FIG. 12

MULCHING MOWING TIPS

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

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 13). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

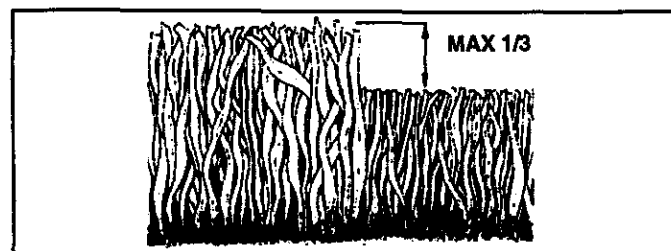


FIG. 13

CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE		SERVICE DATES						
*FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE
TRACTOR	Check Brake Operation	✓	✓					
	Check Tire Pressure	✓	✓					
	Check Operator Presence and Interlock Systems	✓						
	Check for Loose Fasteners	✓			✓ ₇	✓		
	Sharpen/Replace Mower Blades			✓ ₄				
	Lubrication Chart			✓		✓		
	Check Battery Level			✓ ₆				
	Clean Battery and Terminals			✓		✓		
	Check Transaxle Cooling			✓				
	Adjust Blade Belt(s) Tension				✓ ₅			
Adjust Motion Drive Belt(s) Tension				✓ ₅				
ENGINE	Check Engine Oil Level	✓	✓					
	Change Engine Oil			✓ _{1,2,3}		✓		
	Clean Air Filter			✓ ₂				
	Clean Air Screen			✓ ₂				
	Inspect Muffler/Spark Arrester				✓			
	Replace Oil Filter (If equipped)					✓ _{1,2}		
	Clean Engine Cooling Fins					✓ ₂		
	Replace Spark Plug					✓	✓	
Replace Air Filter Paper Cartridge					✓ 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.

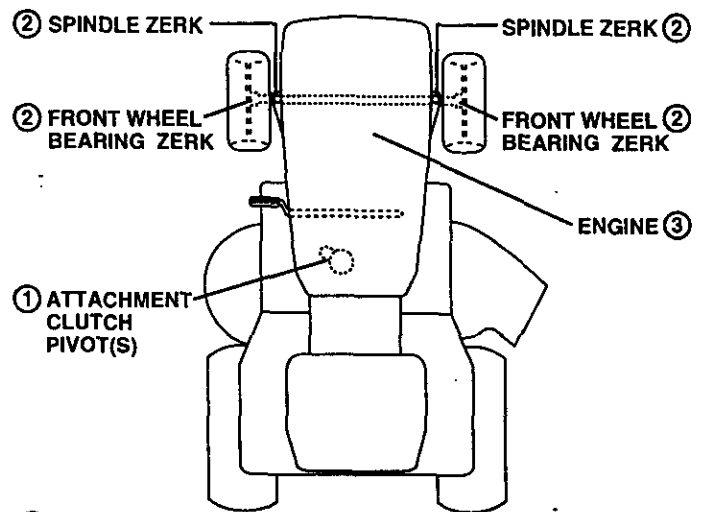
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- 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



- ① SAE 30 OR 10W30 MOTOR OIL
- ② GENERAL PURPOSE GREASE
- ③ REFER 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.

CUSTOMER RESPONSIBILITIES

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" on page 3 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 attachment 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. 14)

- 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.

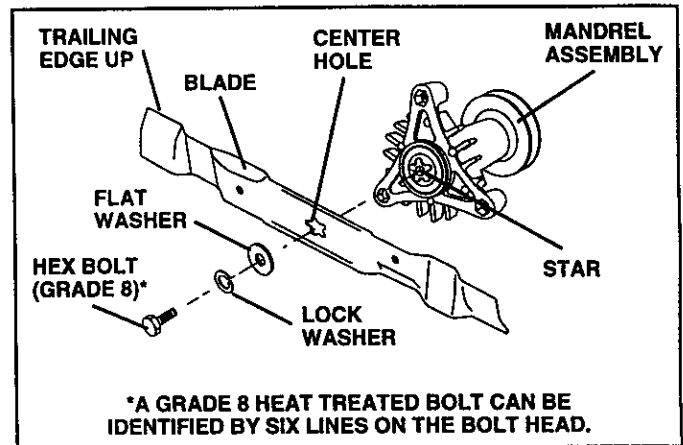


FIG. 14

TO SHARPEN BLADE (See Fig. 15)

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.

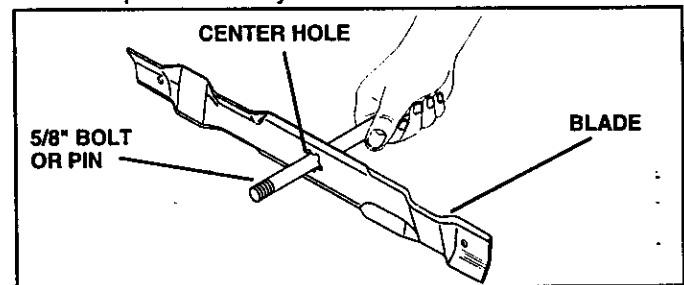


FIG. 15

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.

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.

CUSTOMER RESPONSIBILITIES

- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "CONNECT BATTERY" in the Assembly section of this manual).

TRANSAXLE COOLING

The fan and cooling fins of transmission 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, no 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.

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.

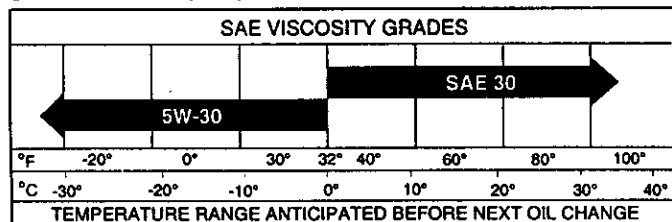
V-BELTS

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.

ENGINE

LUBRICATION

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



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 Fig. 16)

Determine temperature range expected before oil change. All oil must meet API service classification SF, SG or SH.

- 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 drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- 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.

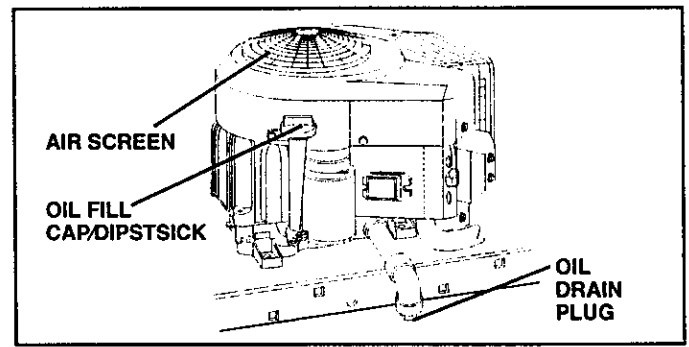


FIG. 16

CLEAN AIR SCREEN (See Fig. 16)

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.

CLEAN AIR INTAKE/COOLING AREAS

To insure proper cooling, make sure the grass screen, cooling fins, and other external surfaces of the engine are kept clean at all times.

Every 100 hours of operation (more often under extremely dusty, dirty conditions), remove the blower housing and other cooling shrouds. Clean the cooling fins and external surfaces as necessary. Make sure the cooling shrouds are reinstalled.

NOTE: Operating the engine with a blocked grass screen, dirty or plugged cooling fins, and/or cooling shrouds removed will cause engine damage due to overheating.

CUSTOMER RESPONSIBILITIES

AIR FILTER (See Fig. 17)

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.

- Remove knobs and cover.

TO SERVICE PRE-CLEANER

- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.

TO SERVICE CARTRIDGE

- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall precleaner cartridge, cover and secure with knobs.

IMPORTANT: PETROLEUM SOLVENTS, SUCH AS KEROSENE, ARE NOT TO BE USED TO CLEAN THE CARTRIDGE. THEY MAY CAUSE DETERIORATION OF THE CARTRIDGE. DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.

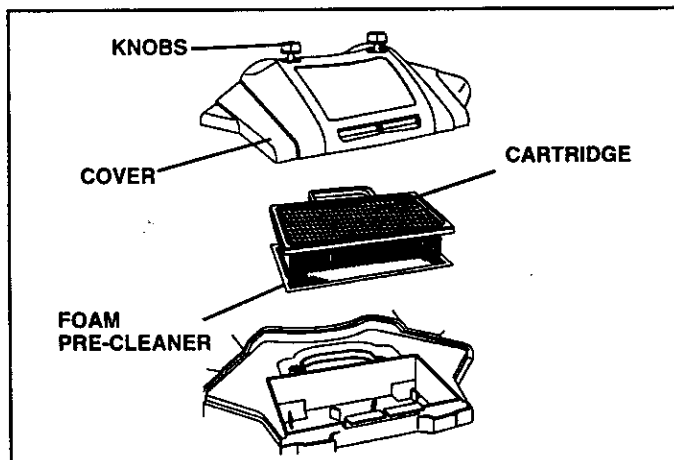


FIG. 17

ENGINE OIL FILTER (See Fig. 18)

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

- Unscrew old filter by turning counterclockwise. Use a suitable container to catch oil.
- Apply a thin coating of new engine oil to rubber gasket on replacement oil filter.
- Install replacement oil filter by turning clockwise until rubber gasket contacts mounting surface, then tighten filter an additional 1/2 to 3/4 turn.
- Fill crankcase with new oil (See "TO CHANGE ENGINE OIL" in this section of this manual). For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- Start engine and check for oil leaks. Correct any leaks before placing engine into full operation.

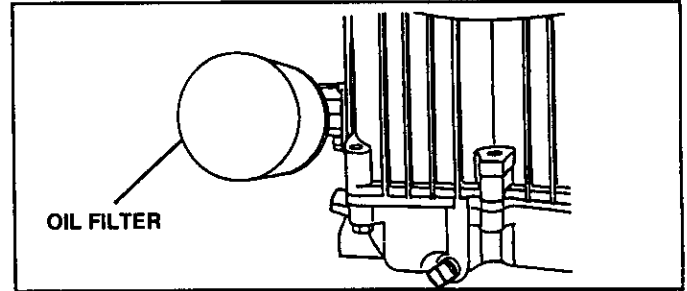


FIG. 18

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" on page 3 of this manual.

IN-LINE FUEL FILTER (See Fig. 19)

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.

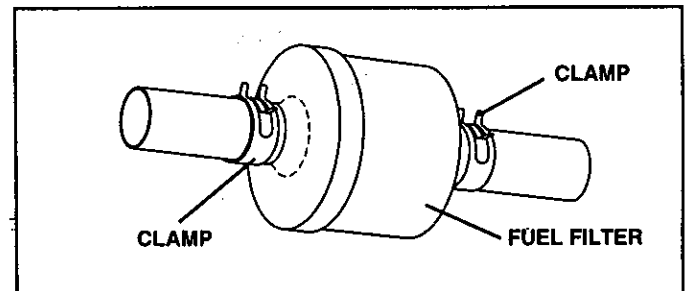


FIG. 19

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.

SERVICE AND ADJUSTMENTS

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.

TO REMOVE MOWER (See Fig. 20)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Remove two retainer springs from each front link and remove links.
- Slide mower forward and remove belt from electric clutch pulley.
- Slide mower out from under right side of tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

TO INSTALL MOWER

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

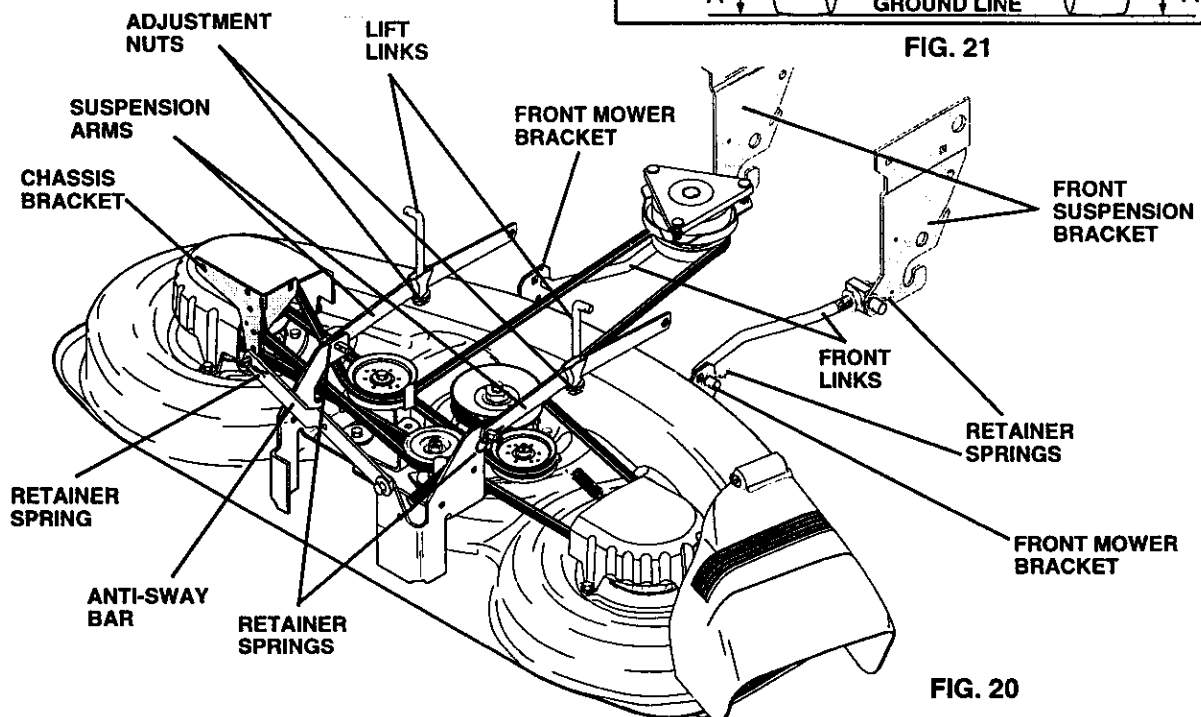


FIG. 20

TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 21 and 22)

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

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

- Recheck measurements after adjusting.

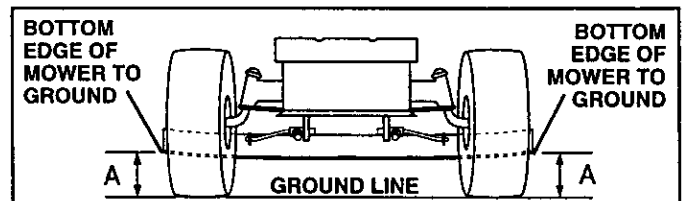


FIG. 21

SERVICE AND ADJUSTMENTS

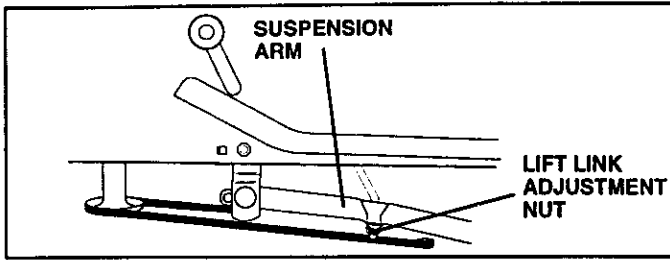


FIG. 22

FRONT-TO-BACK ADJUSTMENT (See Figs. 23 and 24)
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.

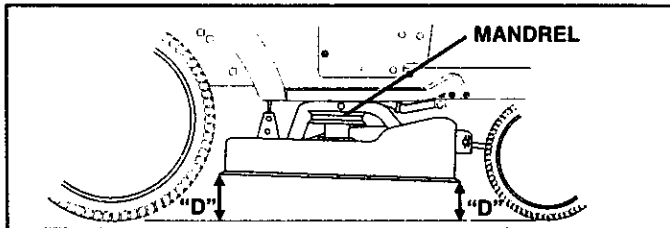


FIG. 23

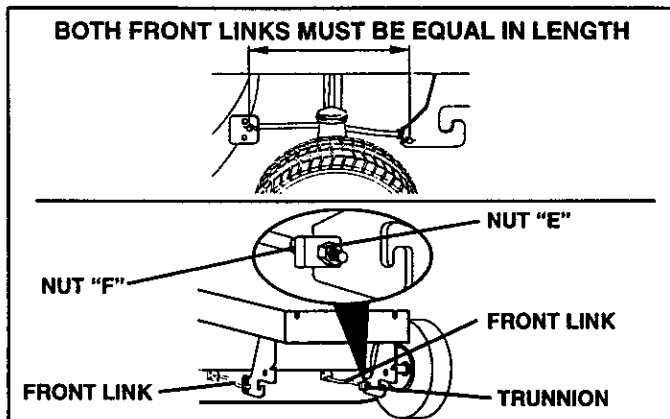


FIG. 24

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 25) -

- Park tractor on a level surface. Engage parking brake.
- Remove screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from electric clutch 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.
- Be sure spring is securely hooked to primary idler arm and bolt in mower housing.

MOWER DRIVE BELT INSTALLATION (See Fig. 25) -

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto electric clutch 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 L.H. mandrel cover.

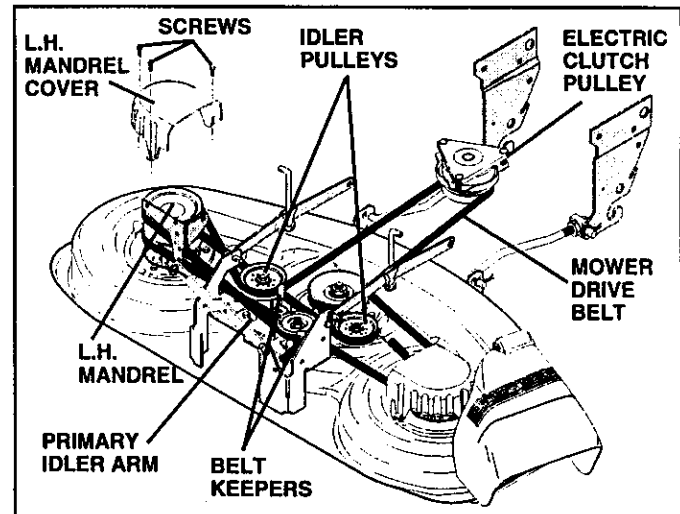


FIG. 25

SERVICE AND ADJUSTMENTS

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

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. Unhook spring from bolt on mower housing.
- 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.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- 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.
- Reconnect spring to bolt in mower housing and 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).

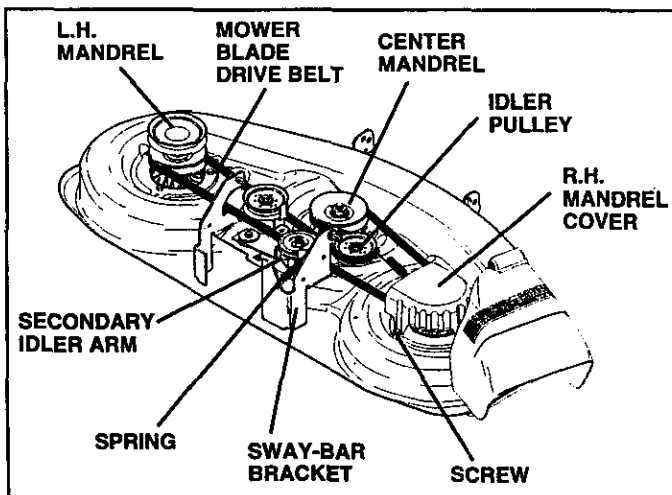


FIG. 26

TO ADJUST BRAKE (See Fig. 27)

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, 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 1-9/16", loosen jam nut and turn nut "A" until distance becomes 1-9/16". 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.

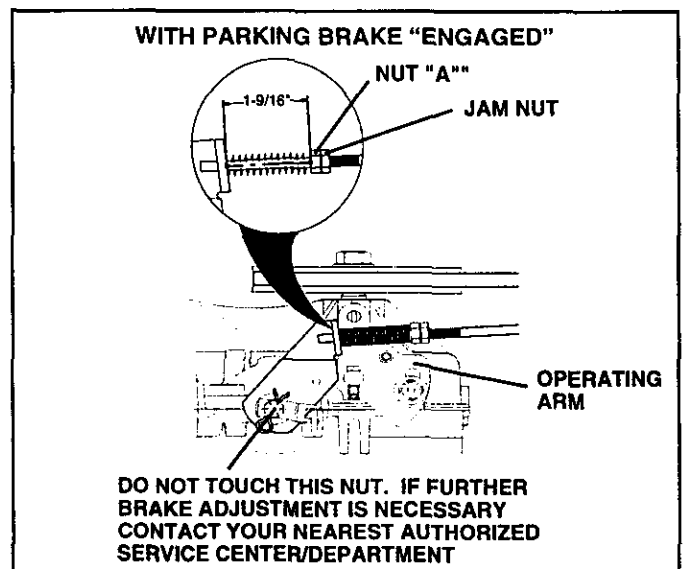


FIG. 27

SERVICE AND ADJUSTMENTS

TO REPLACE MOTION DRIVE BELT (See Fig. 28)

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.)
- Disconnect clutch wire harness.
- Remove clutch locator.
- 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 downwards from around electric clutch.
- Install new belt by reversing above procedure.

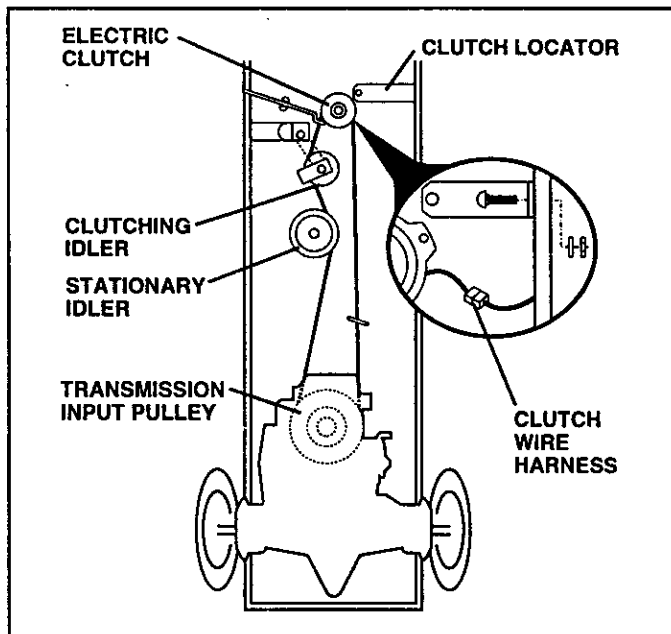


FIG. 28

TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT(See Fig. 29)

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.

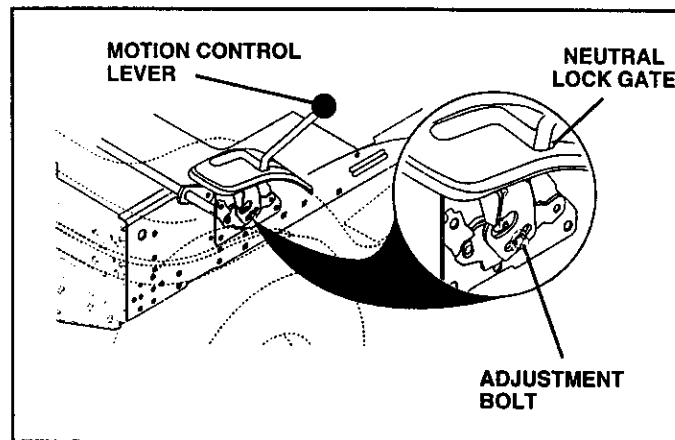


FIG. 29

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.

SERVICE AND ADJUSTMENTS

TO REMOVE WHEEL FOR REPAIRS (See Fig. 30)

- 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.

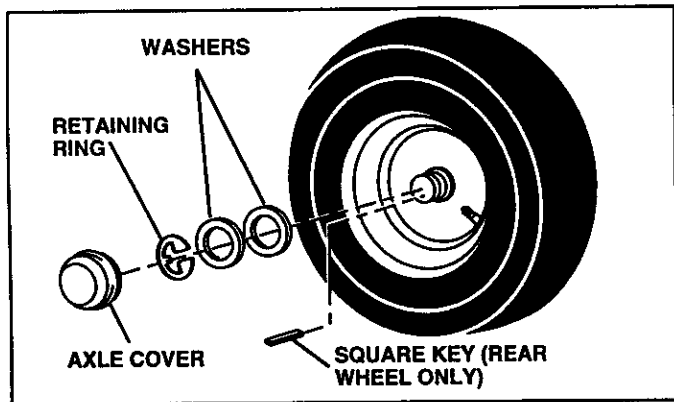


FIG. 30

TO START ENGINE WITH A WEAK BATTERY (See Fig. 31)



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. 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.

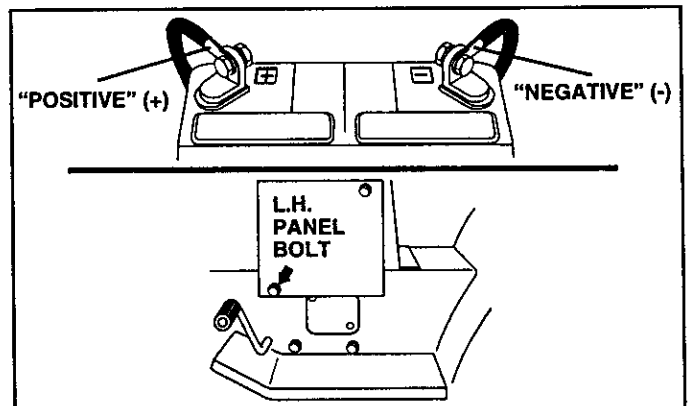


FIG. 31

SERVICE AND ADJUSTMENTS

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 of this manual.

TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 32)

- 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 procedures.

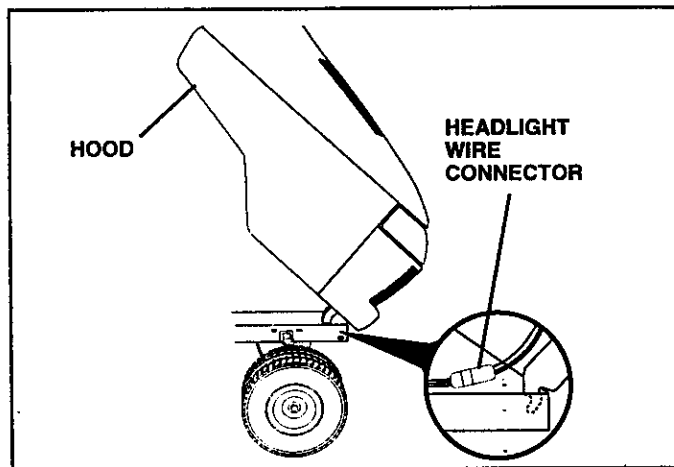


FIG. 32

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 33)

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

- With engine not running, move throttle control lever to fast position.
- Check that swivel is against stop. If it is not, loosen cable clamp screw and pull cable back until swivel is against stop. Tighten cable clamp screw securely.

TO ADJUST CHOKE CONTROL (See Fig. 34)

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, proceed as follows:

- With engine not running, move choke control (located on dash panel) to full choke position.
- Loosen knob and remove cover assembly from air cleaner.
- Choke should be closed. If it is not, loosen casing clamp screw and move choke cable until choke is completely closed. Tighten casing clamp screw securely.
- Replace air cleaner cover assembly and tighten knob.

TO ADJUST CARBURETOR

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your tractor to an authorized service center for repair and/or adjustment.

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

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

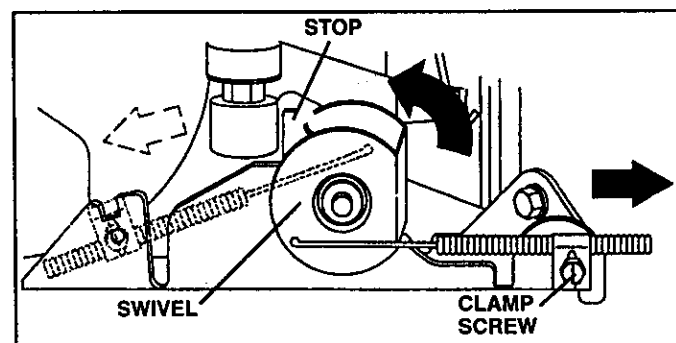


FIG. 33

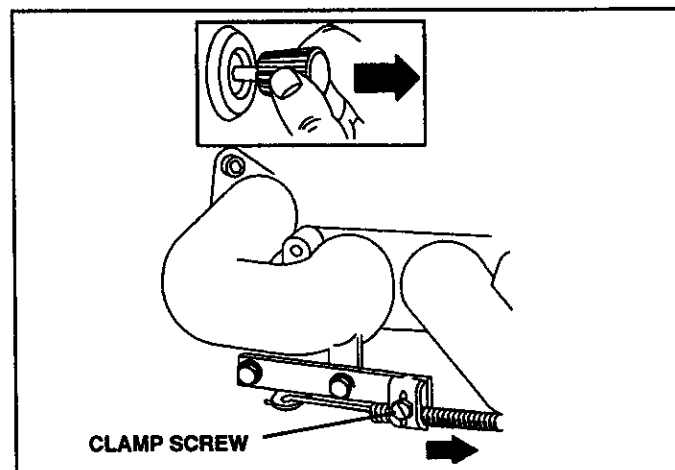


FIG. 34

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 ARE STILL WARM.

TROUBLESHOOTING POINTS

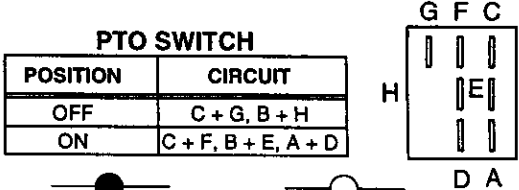
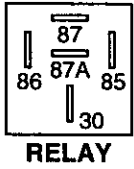
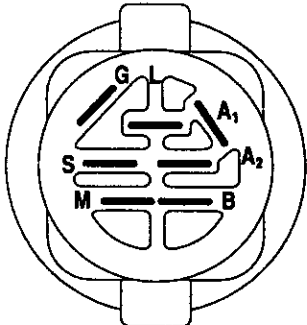
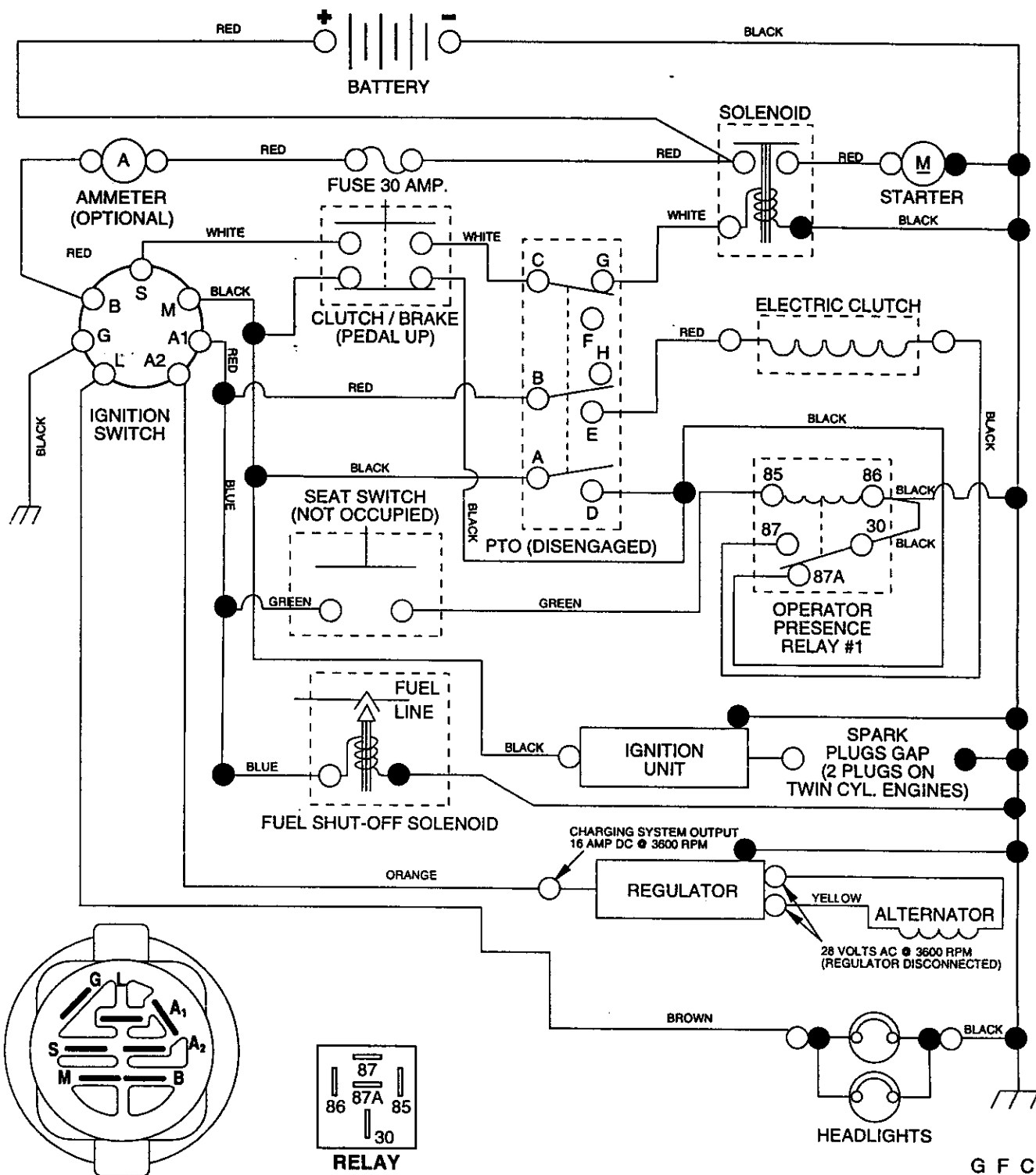
PROBLEM	CAUSE	CORRECTION
Will not start	<ol style="list-style-type: none"> 1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. See "To Adjust Carburetor" in Service Adjustments section. 10. Contact an authorized service center/department.
Hard to start	<ol style="list-style-type: none"> 1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery. 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring. 7. Carburetor out of adjustment. 8. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Clean/replace air filter. 2. Replace spark plug. 3. Recharge or replace battery. 4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline. 6. Check all wiring. 7. See "To Adjust Carburetor" in Service Adjustments section. 8. Contact an authorized service center/department.
Engine will not turn over	<ol style="list-style-type: none"> 1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Weak or dead battery. 4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch. 8. Faulty solenoid or starter. 9. Faulty operator presence switch(es). 	<ol style="list-style-type: none"> 1. Depress clutch/brake pedal. 2. Disengage attachment clutch. 3. Recharge or replace battery. 4. Replace fuse. 5. Clean battery terminals. 6. Check all wiring. 7. Check/replace ignition switch. 8. Check/replace solenoid or starter. 9. Contact an authorized service center/department.
Engine clicks but will not start	<ol style="list-style-type: none"> 1. Weak or dead battery. 2. Corroded battery terminals. 3. Loose or damaged wiring. 4. Faulty solenoid or starter. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. 2. Clean battery terminals. 3. Check all wiring. 4. Check/replace solenoid or starter.
Loss of power	<ol style="list-style-type: none"> 1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oil level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Set in "Higher Cut" position/reduce speed. 2. Adjust throttle control. 3. Clean underside of mower housing. 4. Clean/replace air filter. 5. Check oil level/change oil. 6. Clean and regap or change spark plug. 7. Replace fuel filter. 8. Drain fuel tank and refill with fresh gasoline. 9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 10. Connect and tighten spark plug wire. 11. Clean engine air screen/fins. 12. Clean/replace muffler. 13. Check all wiring. 14. See "To Adjust Carburetor" in Service Adjustments section. 15. Contact an authorized service center/department.
Excessive vibration	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Bent blade mandrel. 3. Loose/damaged part(s). 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged parts.

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	<ol style="list-style-type: none"> 1. Faulty operator-safety presence control system. 	<ol style="list-style-type: none"> 1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes.
Mower blades will not rotate	<ol style="list-style-type: none"> 1. Obstruction in clutch mechanism. 2. Worn/damaged mower drive belt. 3. Frozen idler pulley. 4. Frozen blade mandrel. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.
Poor grass discharge	<ol style="list-style-type: none"> 1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure. 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 9. Blades improperly installed. 10. Improper blades used. 11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	<ol style="list-style-type: none"> 1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	<ol style="list-style-type: none"> 1. Switch is "OFF". 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse. 	<ol style="list-style-type: none"> 1. Turn switch "ON". 2. Replace bulb(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.
Battery will not charge	<ol style="list-style-type: none"> 1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator. 	<ol style="list-style-type: none"> 1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.
Loss of drive	<ol style="list-style-type: none"> 1. Freewheel control in "disengaged" position. 2. Motion drive belt worn, damaged, or broken. 3. Air trapped in transmission during shipment or servicing. 	<ol style="list-style-type: none"> 1. Place freewheel control in "engaged" position. 2. Replace motion drive belt. 3. Purge transmission.
Engine "backfires" when turning engine "OFF"	<ol style="list-style-type: none"> 1. Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine. 	<ol style="list-style-type: none"> 1. Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

TRACTOR -- MODEL NUMBER 944.609810

SCHEMATIC



IGNITION SWITCH

POSITION	CIRCUIT	"MAKE"
OFF	M + G + A1	NONE
RUN/LIGHT	B + A1	A2 + L
RUN	B + A1	NONE
START	B + S + A1	NONE

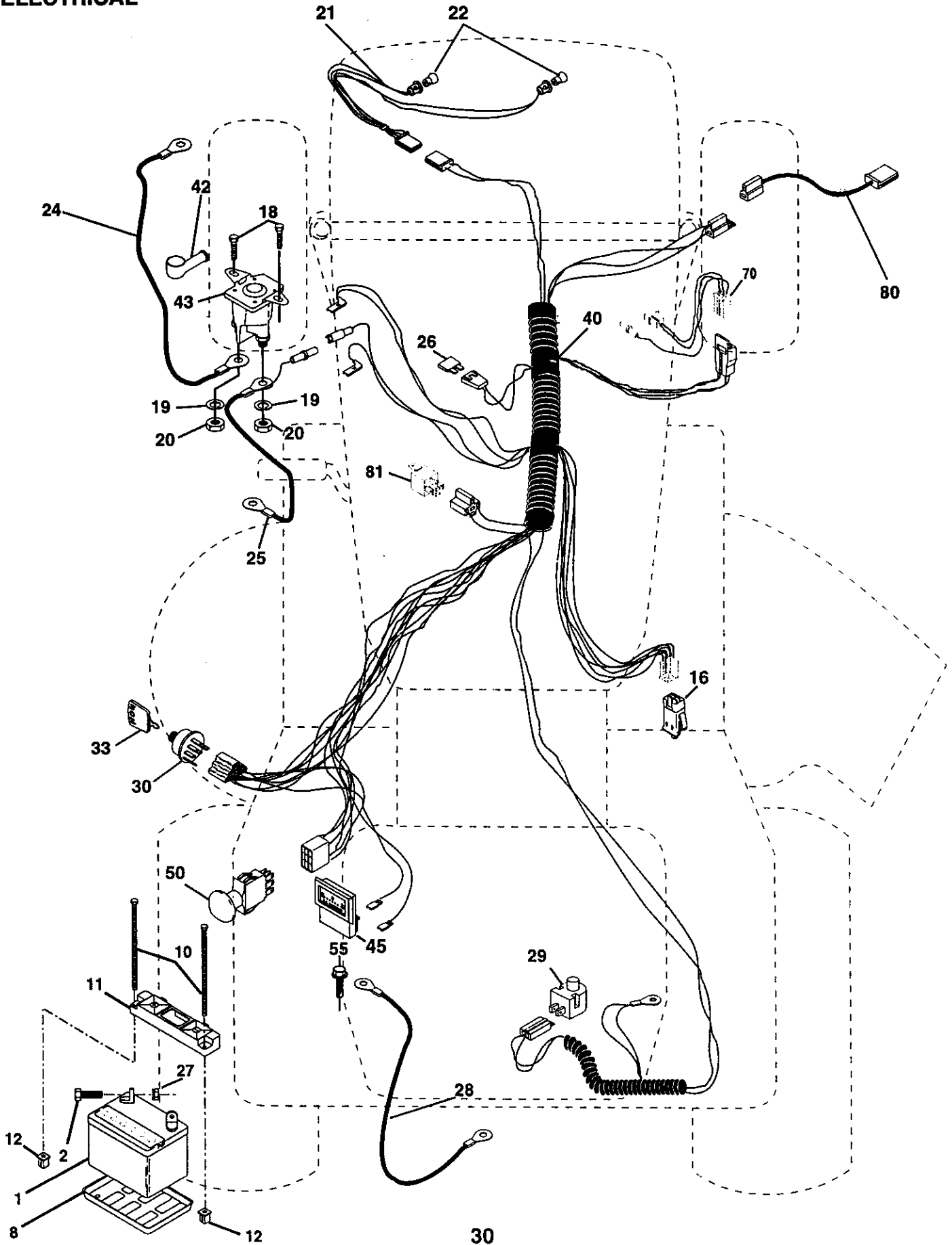
WIRING INSULATED CLIPS
NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING.

● NON-REMOVABLE CONNECTIONS
○ REMOVABLE CONNECTIONS

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

ELECTRICAL



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

ELECTRICAL

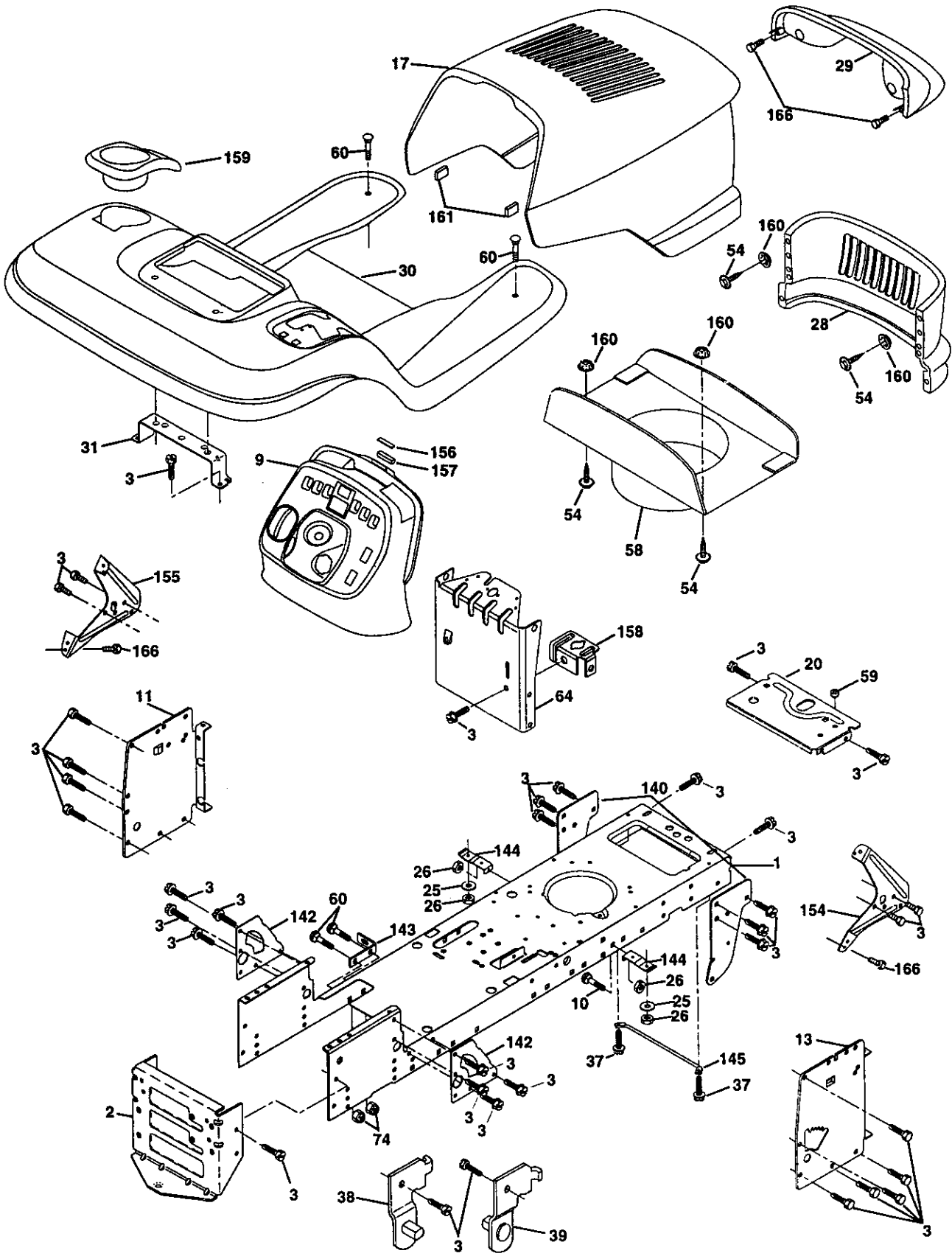
KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery 12 Volt 28 Amp
2	74760412	Bolt Hex Hd 1/4-20unc X 3/4
8	7603J	Tray Battery
10	145211	Bolt Btr Frt 1/4-20 x 7.5
11	150109	Holddown Battery Front Mount
12	145769	Nut Push Nylon 1/4" Battery
16	153664	Switch Interlock
18	17720408	Screw Thd Cut 1/4-20 x 1/2
19	STD551125	Washer Lock 1/4
20	73350400	Nut Jam Hex 1/4-20 Unc
21	166184	Harness Asm Light W/4152J
22	4152J	Bulb Light #1156
24	8860R	Cable Battery 6 Ga 17"red
25	146148	Cable Battery 6 Ga w/16 wire,red
26	166180	Fuse 15 Amp
27	73510400	Nut Keps Hex 1/4-20 Unc
28	145491	Cable Ground
29	160784	Switch Plunger OP Olive
30	163968	Switch Ign
33	140403	Key Ign
40	166166	Harness Ign
42	131563	Cover Terminal Red
43	145673	Solenoid
45	122822X	Ammeter
50	154963	Switch PTO 3PDT Red Delta
55	17490508	Screw Thdro 1 5/16-18 x 1/2
70	166668	Harness Eng
79	163996	Bulbholder Asm Incandescent SV
80	146685	Harness Clutch Evx
81	109748X	Relay Asm.

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

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

CHASSIS AND ENCLOSURES



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

CHASSIS AND ENCLOSURES

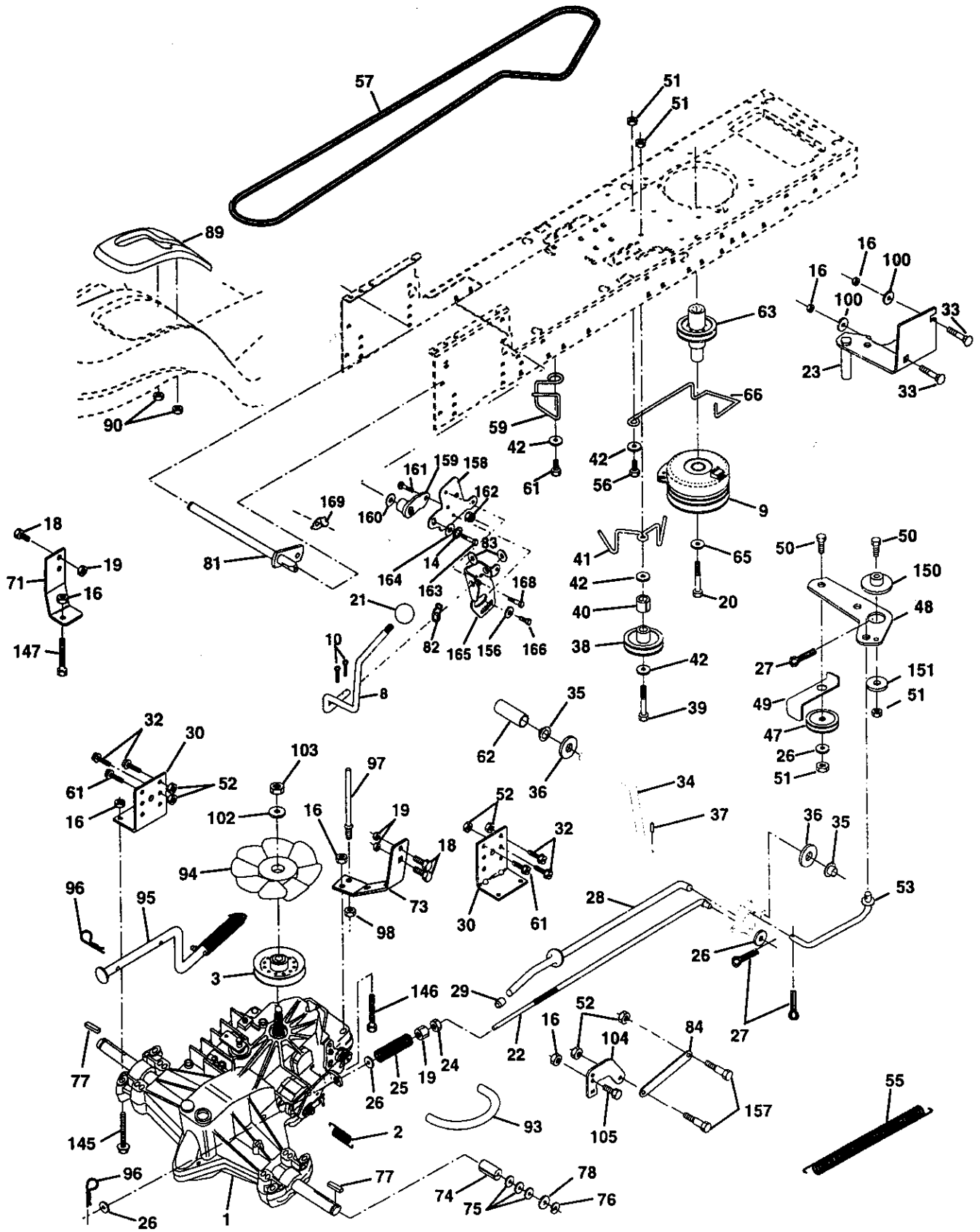
KEY PART NO.	PART NO.	DESCRIPTION
	1 165583	Chassis Stamping
	2 140356	Drawbar, Stretch
	3 17490612	Screw Thdrol 3/8-16x3/4 Ty-tt
	9 163976	Dash Stealth YTGT 2cyl
	10 STD533710	Bolt Carriage 3/8-16 x 1
	11 163455	Panel Dash Lh
	13 163456	Panel Dash Rh
	17 161023X558	Hood Asm Pnt YTGT
	19 164863	Screw Hwhd Hi-Lo #13-16 x 3/4
	20 162026	Plate Battery STYT
	25 19131312	Washer 13/32 X 13/16 X 12 Ga
	26 STD541437	Nut Lock Hex W/Ins 3/8-16 Unc
	28 160564X558	Grille
	29 161235	Lens
	30 154791X558	Fender Footrest STYT Pnt
	31 139976	Bracket Support Fender
	37 17490508	Screw Thdrol 6/16-18 x 1/2 TYT
	38 139886	Bracket, Asm. Pivot, L.H., Mower Rear
	39 139887	Bracket, Asm. Pivot, R.H., Mower Rear
	54 161464	Screw Hex Wshd 8-18 x 7/8
	58 161236	Duct Hood
	59 110436X	Bushing Snap Split Blk
	60 STD533707	Bolt Rdhd Sqnk 3/8-16unc x 3/4
	64 162025	Dash Lower STYT
	74 STD541437	Nut Crownlock 3/8-16 UNC
	140 158418	Bracket, Front Suspension
	142 165867	Plate Reinforcement STLT
	143 154966	Bracket Swaybar Chassis
	144 154207	Bracket Pnt Footrest STLT
	145 156524	Rod Pivot Chassis/Hood
	154 161897	Bracket Dash Rh
	155 161900	Bracket Dash Lh
	156 163805	Striker Plate YTGT
	157 163806	Magnet YTGT
	158 162037	Bracet Parking Brake
	159 155123X428	Cupholder Stil Black
	160 162967	Fastener Nut pal
	161 164655	Extrusion Bumper

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

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

DRIVE



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

DRIVE

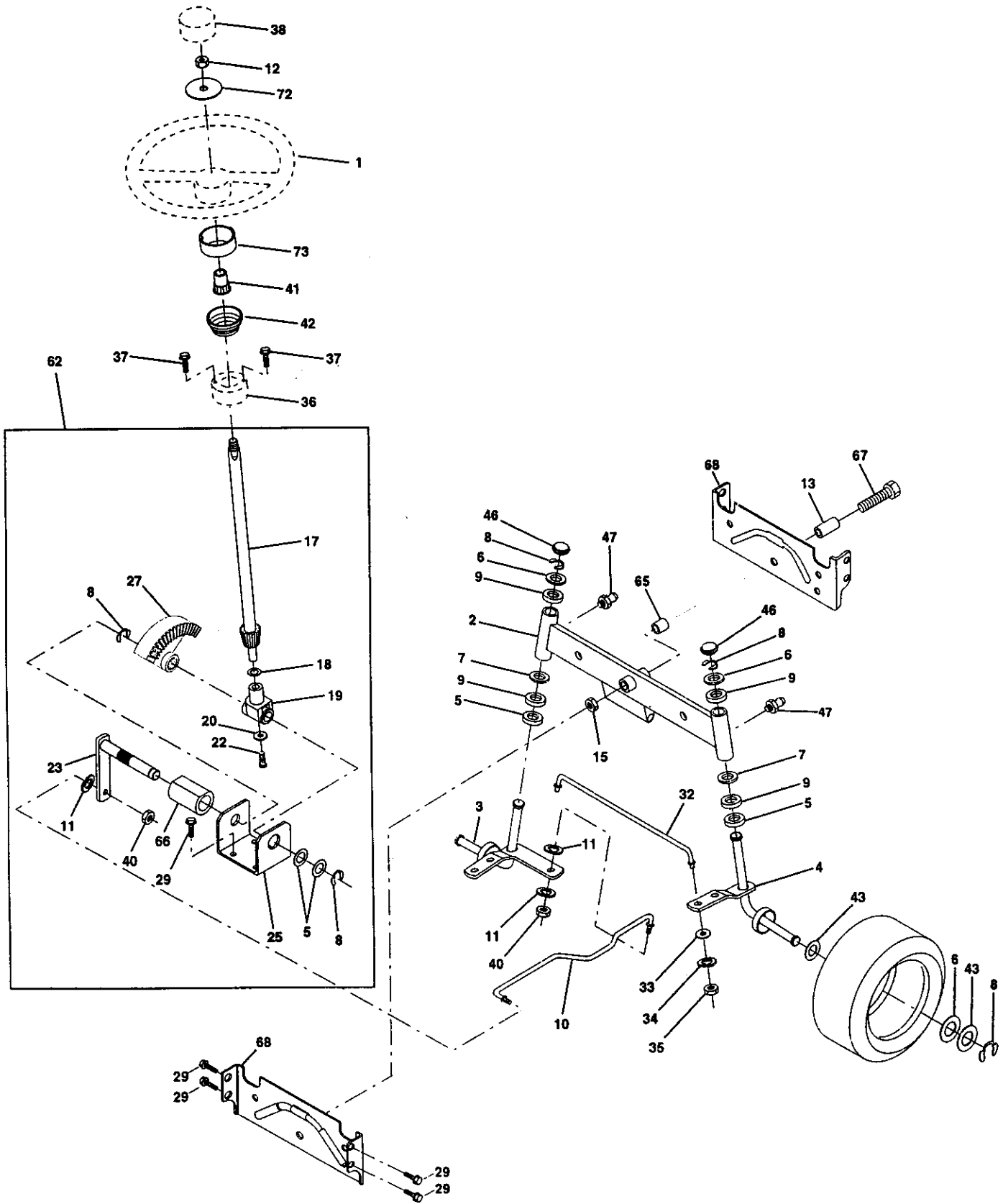
KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION		
1	150071	66	154778	Transaxle Hydro	Keeper Belt Engine
2	142431	71	140158	Spring, Return, Brake	Strap Torque Lh Hydro
3	143995	73	156347	Pulley, Transaxle	Strap Torque Rh Hydro
8	165866	74	121199X	Rod Shift Fender Adjust Stlt	Spacer, Split
9	160889	75	121749X	Clutch Elect Evx 80lb	Washer 25/32 x 1-1/4 x 16 Gauge
10	STD561210	76	STD581075	Pin Cotter 1/8 x 1 CAD	E-Ring
14	10040400	77	123583X	Washer Lock Hvy Helical	Key, Square
16	STD541431	78	121748X	Nut Lock Hex W/Ins 5/16-18 Unc P	Washer 25/32 x 1-5/8 x 16 Gauge
18	STD523710	81	165591	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	Shaft Asm. Cross Tapered 650 20
19	STD541437	82	165711	Nut Lock Hex W/Wsh 3/8-16 Unc	Spring Torsion
20	150280	83	19171216	Bolt, Hex 7/16-20 x 4-1/4	Washer 17/32 x 3/4 x 16 Ga.
21	130564	84	165815	Knob, Deluxe 1/2-13	Link Transaxle
22	145627	89	164890X428	Rod, Brake Hydro	Console, Shift
23	154978	90	124346X	Bracket Asm Clutch Mtg Evx	Nut Self Thd Wsh-Hd 1/4 Zinc
24	STD541273	93	142564	Nut Hex Jam 3/8-16	Line Fuel Hydro 4"
25	106888X	94	140462	Spring, Brake Rod	Fan, Hydro 7"
26	STD551037	95	144643	Washer 13/32 x 13/16 x 16 Ga.	Control Asm Bypass Hydro
27	STD561210	96	STD624003	Pin Cotter 1/8 x 3/4 CAD.	Retainer Spring 1" Zinc/Cad
28	145204	97	140469	Rod, Parking Brake	Keeper Belt Rh Hydro 0750. 18/20"
29	124236X	98	73510600	Cap, Parking Brake	Nut Keps Hex 3/8-16 Unc
30	130807	100	19111216	Bracket, Transaxle	Washer 11/32 x 3/4 x 16 Ga.
32	STD523107	102	141322	Bolt Hex Hd 5/16-18 Unc x 3/4	Washer Belleville .501D x 1.50D
33	72140506	103	STD541350	Bolt Rdhd Sqnk 5/16-18 unc x 3/4	Nut, Hex, Jam Toplock 1/2-20 UNF
34	155071	104	140156	Shaft, Foot Pedal	Arm, Control Hydro
35	120183X	105	71070516	Bearing, Nylon	Screw Cap Hex 5/16 x 18 x 1
36	STD551062	145	74490540	Washer 21/32 x 1 x 16 Ga	Bolt Hex Flghd 5/16-18 Gr.5
37	STD571810	146	74490536	Pin, Roll	Bolt Hex Flghd 5/16-18 x 2-1/4
38	131494	147	74490524	Pulley, Idler, Flat	Bolt Hex Flghd 5/16-18 x 1-1/2
39	STD523727	150	165850	Bolt Fin Hex 3/8-16 x 2 3/4	Bushing Bellcrank
40	4470J	151	19133210	Spacer, Split	Washer 13/32 x 2 x 10 Ga.
41	165838	156	166002	Keeper, Belt Idler Flat	Washer Srrted 5/16ID x 1.125
42	19131312	157	153236	Washer 13/32 x 13/16 x 12 Gauge	Bolt Shoulder 5/16-18 Unc - 2A
47	127783	158	165589	Pulley, Idler, V-Groove	Bracket Shift Mount
48	154407	159	165494	Bellcrank Assembly	Hub Tapered Flange Shift Lt
49	123205X	160	19292016	Retainer, Belt	Washer 29/32 x 1-1/4 x 16 Ga
50	STD523715	161	72140406	Bolt Hex Hd 3/8-16 x 1 1/2	Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr. 5
51	STD541437	162	73680400	Nut Crownlock 3/8-16 UNC	Nut Crownlock 1/4-20 Unc
52	STD541431	163	74780416	Nut Crownlock 5/16-18 UNC	Bolt Hex Fin 1/4-20 Unc x 1 Gr 5
53	105710X	164	19091010	Link, Clutch	Washer 5/8 x .281 x 10 Ga
55	105709X	165	165623	Spring, Return, Clutch	Bracket Pivot Lever
56	STD523712	166	166880	Bolt Fin Hex 3/8-16 UNC x 1-1/4	Screw 5/16-18 x 5/8
57	140294	168	165492	V-Belt, Ground Drive	Bolt Shoulder 5/16-18 x .561
59	140312	169	165580	Keeper, Center Span	Plate Fastening Cross Shf. Stlt/ CRD
61	17490612			Screw Thdrol. 3/8-16 x 3/4 Ty. TT	
62	8883R			Cover, Pedal	
63	145868			Pulley, Engine	
65	STD551143			Washer	

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

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

STEERING ASSEMBLY



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

STEERING ASSEMBLY

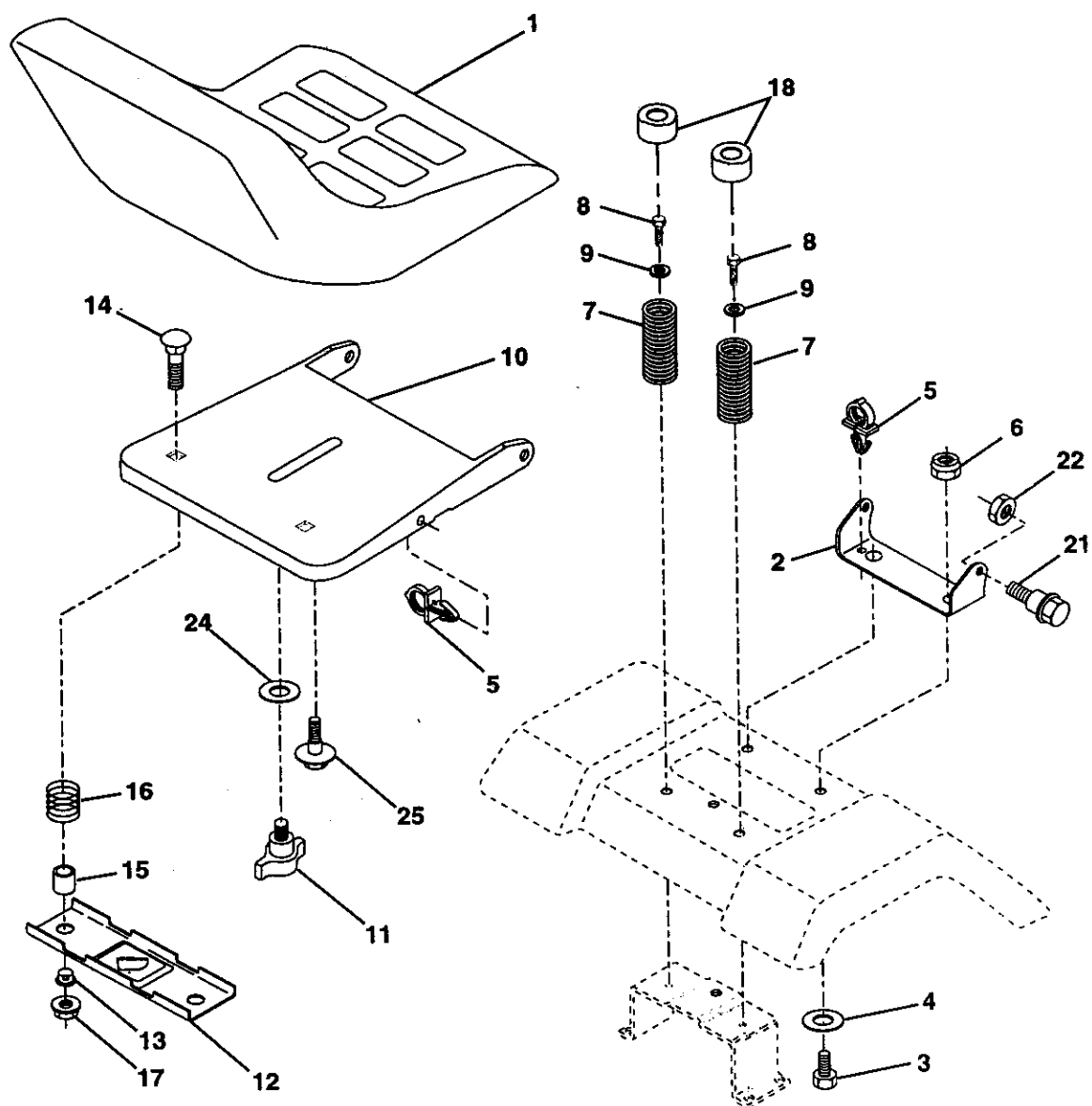
KEY PART NO. NO.	DESCRIPTION
1 159944X428	Wheel Steering
2 154427	Axle Asm STMP Dropped STL
3 156483	Spindle Asm LH
4 157473	Spindle Asm RH
5 6266H	Bearing Race Thrust Harden
6 121748X	Washer 25/32 X 1-5/8 X 16 Ga
7 19272016	Washer 27/32 X 1-1/4 X 16 Ga
8 12000029	Ring Klip #t5304-75
9 3366R	Bearing Col Strg Blk
10 156438	Link Drag Extended Stamp
11 STD551137	Washer Lock Hvy Hlcl Spr 3/8
12 73940800	Nut Hex Jam Toplock 1/2-20 Unf
13 154779	Bearing Axle STLT/GT
15 73901000	Nut Lock Flange 5/8-11 Unc
17 156543	Shaft Asm Strg
18 57079	Washer Thrust 515x 750x 033
19 160395	Support Shaft
22 165857	Screw Hex Wshhd Torx
23 165851	Shaft Asm Pittman
25 154406	Bracket Steering
27 136874	Gear Sector
29 17490612	Screw Thdrol 3/8-16x3/4 Ty-tt
32 139929	Rod Tie BJ Solid 19 75 Mech
33 19111216	Washer 11/32 x 3/4 x 16 Ga.
34 10040500	Washer Lock Hlcl Spr 5/16
35 73810500	Locknut 5/16-24 Unf
36 155105	Bushing Strg
37 152927	Screw
38 159946X428	Insert Cap Strg Wh
40 STD541537	Lock nut
41 159945	Adaptor Wheel Strg
42 163888	Boot Steering
43 121749X	Washer 25/32 X 1 1/4 X 16 Ga
46 121232X	Cap Spindle Fr Top Blk
47 6855M	Fitting Grease
62 167905	Kit, Steering Assembly Svc
65 154780	Spacer Axle
66 154404	Bearing Arm Pittman
67 74781044	Bolt, Fin Hex 5/8-11 UNC x 2-3/4
68 154429	Axle, Brace
72 19182411	Washer 9/16 ID x 1-1/2 OD 11Ga.
73 160135	Extension Steering Premuim
79 19132012	Washer 13/32 x 1 1/4 x 12 Ga
80 74950612	Bolt Hex Nylon 3/8-16 x 3/4

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	140124	Seat
2	140551	Bracket Pivot Seat 8 720
3	STD523710	Bolt Fin Hex 3/8-16unc X 1
4	19131610	Washer 13/32 X 1 X 10 Ga
5	145006	Clip Push-In
6	STD541437	Nut Hex w/Ins. 3/8-16 Unc
7	124181X	Spring Seat Cprsn 2 250 Blk Zi
8	17490616	Screw Thdrol 3/8-16 X 1 Ty-tt
9	19131614	Washer 13/32 X 1 X 14 Ga.
10	155925	Pan Seat
11	166369	Knob Seat Adj. Wingnut
12	121246X	Bracket Mounting Switch

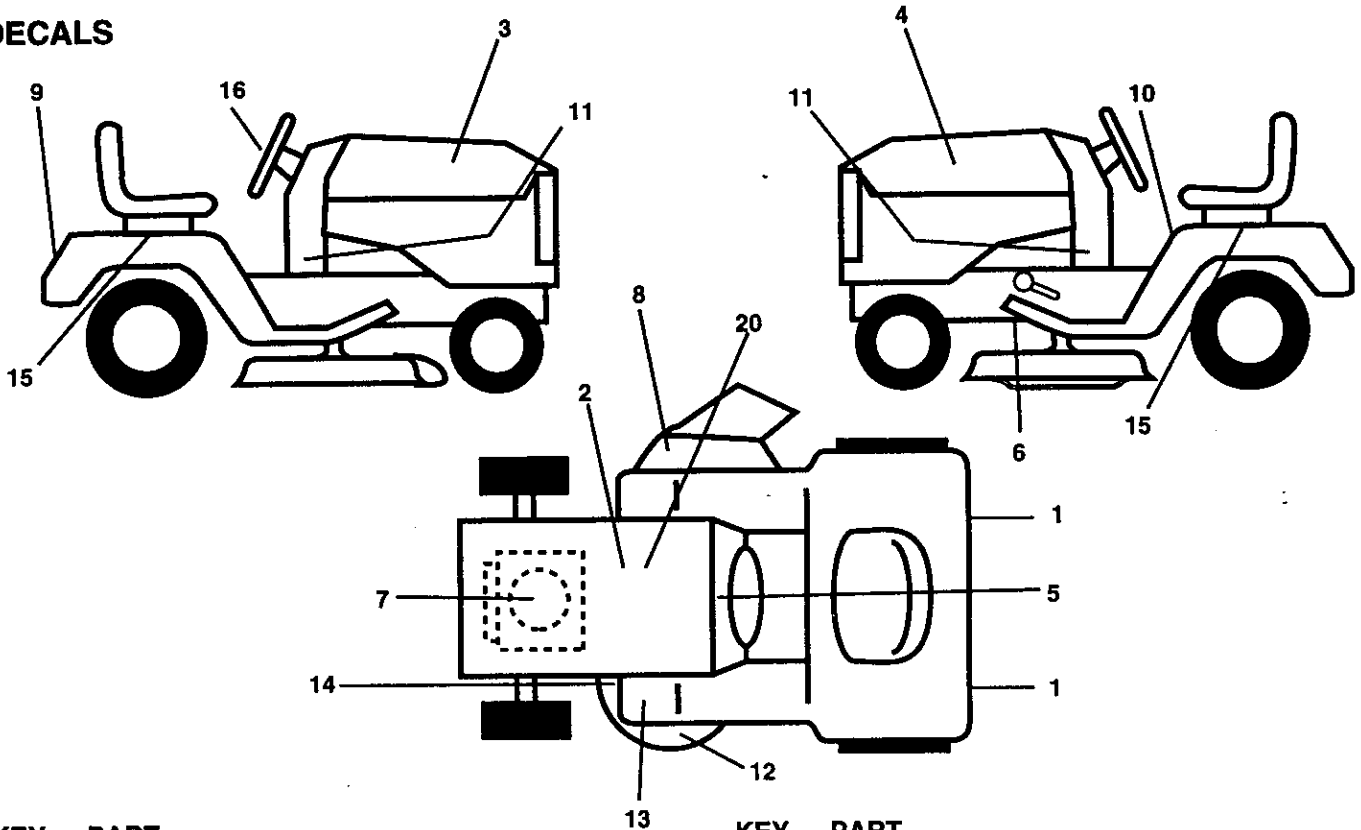
KEY NO.	PART NO.	DESCRIPTION
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050412	Bolt Rdhd Sqnk 1/4-20x1-1/2
15	121249X	Spacer Split 28x .88 Zinc
16	123740X	Spring Cprsn Plate 1.310 Ga
17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
18	124238X	Cap Spring Seat
21	153236	Bolt Shoulder 5/16-18 Unc
22	STD541431	Nut Hex Lock W/Ins 5/16-18
24	19171912	Washer 17/32 X 1-3/16 X 12 Ga.
25	127018X	Bolt Shoulder 5/16-18 X 62

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

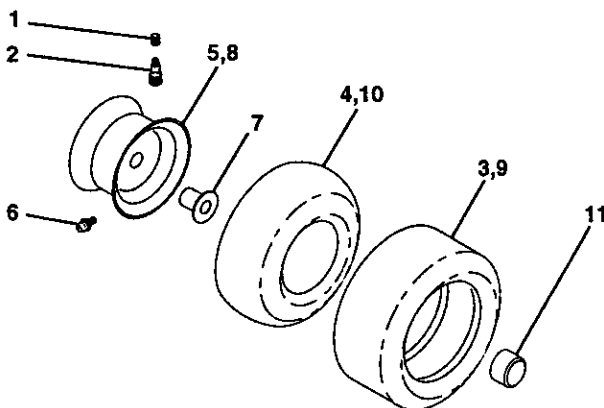
DECALS



KEY NO.	PART NO.	DESCRIPTION
1	106202X	Reflector Tail Light Red/Amber
2	138047	Decal Battery Diehard Sears
3	163916	Decal Hood RH
4	163917	Decal Hood LH
5	164095	Decal Dash Hyd
6	146046	Decal V Belt Drive Sch
7	165399	Decal Hp Engine
8	137259	Decal Warning Mult-Language
9	163204	Decal Fender Husq
10	157140	Decal Fender Danger Eng/Fr
11	167330	Decal Pnl Dash Intek 20 V-Twin

KEY NO.	PART NO.	DESCRIPTION
12	166887	Decal Mower EZ3
13	164657	Decal Brake/Clutch Stlth EF
14	160397	Decal V-Belt Schematic
15	163206	Decal Fender Auto
16	164065	Decal Strng Whl Domed Prem Srs.
20	149517	Decal Bat Dan/Psn
--	142341	Decal Drawbar Cntrl Mvt. Hyd.
--	154515	Pad Footrest LH STLT
--	154516	Pad Footrest RH STLT
--	138311	Decal Handle Lft Height Adjust
--	168529	Manual Owner's (English)
--	168530	Manual Owner's (French)

WHEELS & TIRES



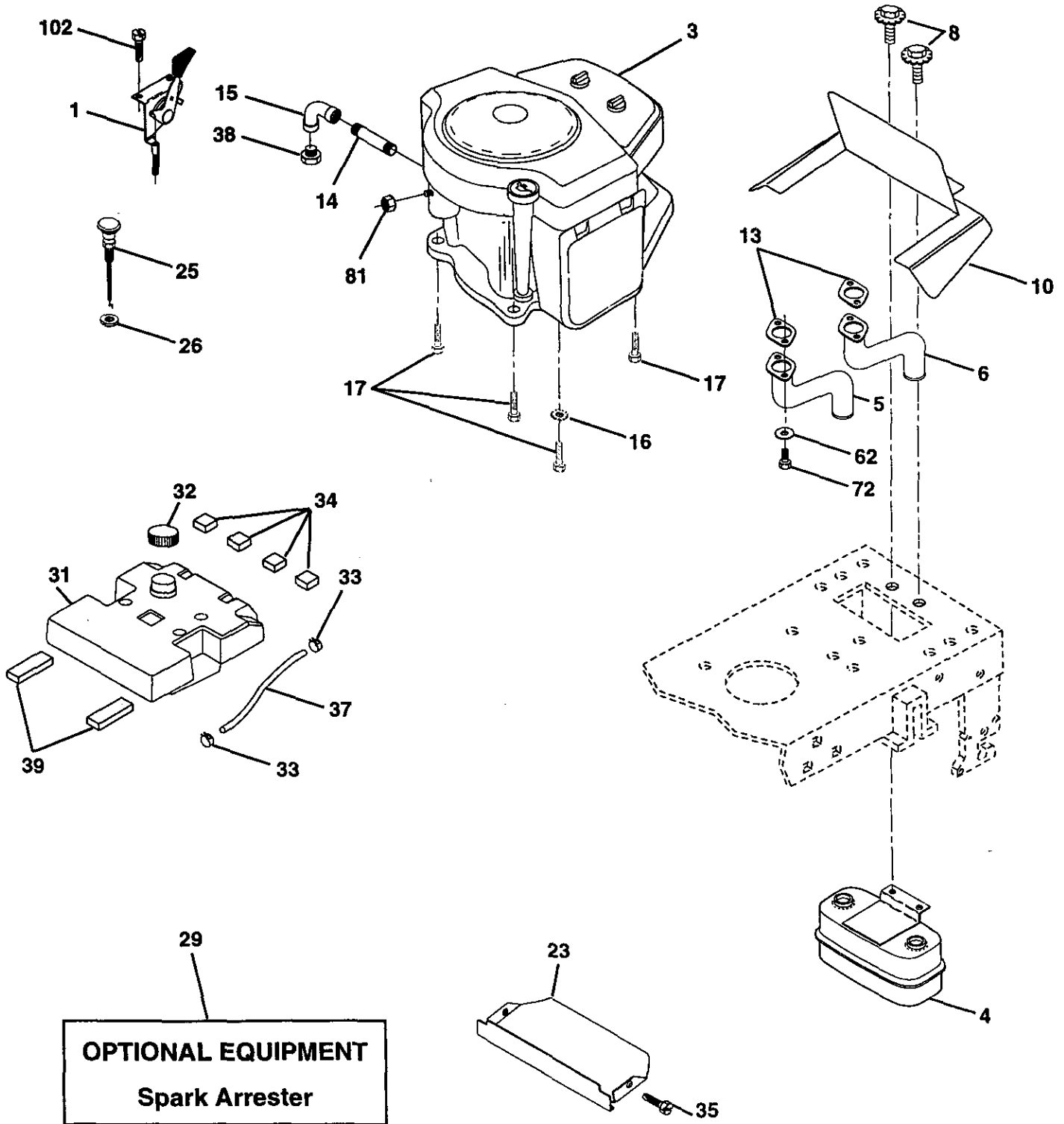
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F Ts 15 X 6 0 - 6 Service
4	59904	Tube Front (Service Item Only)
5	106732X427	Rim Asm 6"front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X427	Rim Asm 8"rear Service
9	122082X	Tire R Ts 20x10-8 C Service
10	7152J	Tube Rear (Service Item Only)
11	104757X	Cap Axle Blk 1 50 X 1 00
--	144334	Sealant, Tire (10 oz. Tube)

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

ENGINE



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

ENGINE

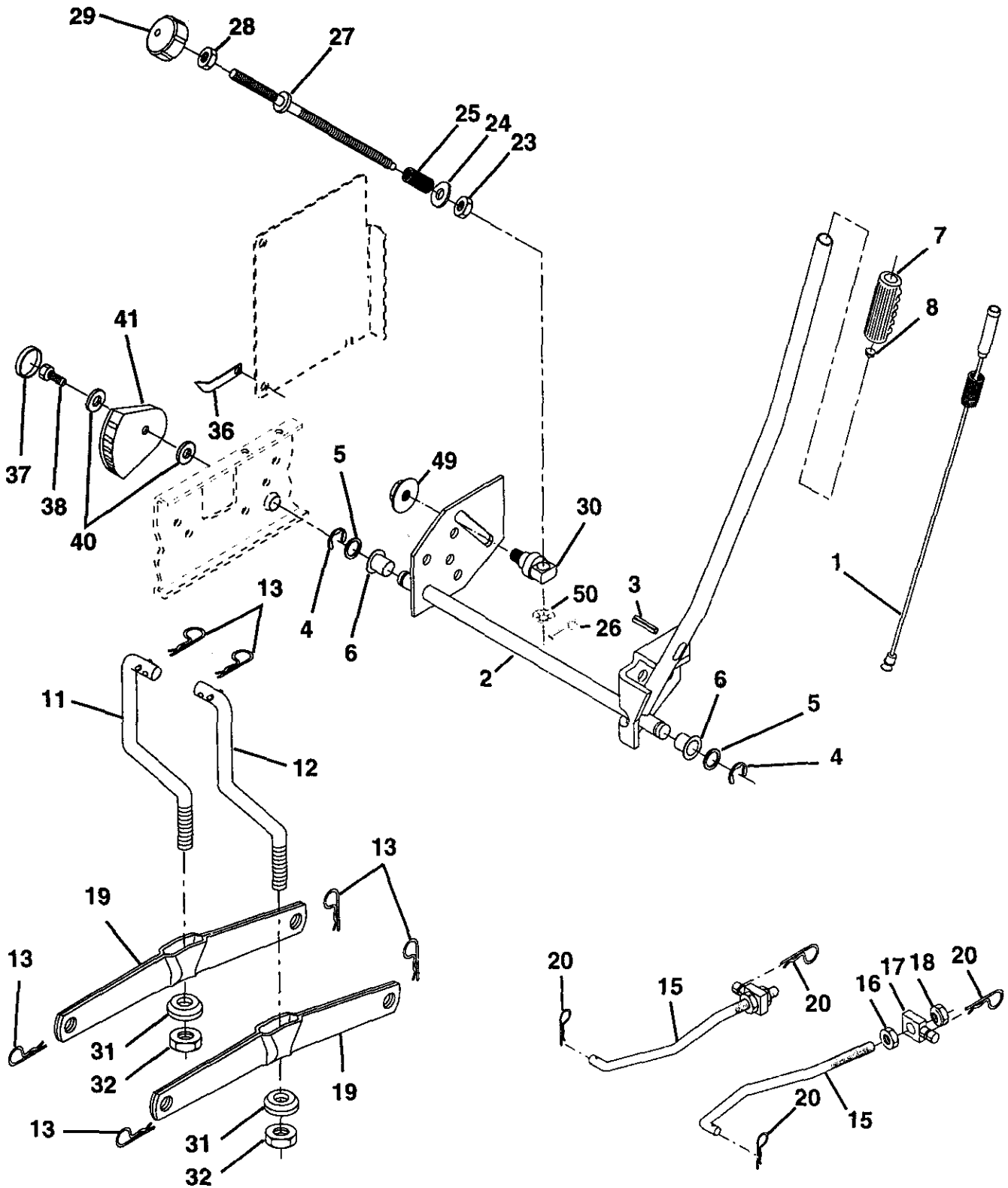
KEY NO.	PART NO.	DESCRIPTION
1	164067	Control, Throttle
3	-----	Engine (See Breakdown) B&S 407777-0121-E1
4	149723	Muffler, Asm. Twin Lo-Tone
5	159955	Pipe Exhaust Intek 20 LH
6	160589	Pipe Exhaust Intek 20 RH
8	150176	Bolt 5/16-18 UNC x 3/4
10	162797	Shield Browing B&S Intek II
13	165391	Muffler Gasket
14	13280336	Nipple, Pipe
15	13200300	Elbow, Standard 90°, 3/8-18 NPT
16	STD551237	Washer, Lock Ext tooth 3/8
17	17490624	Screw Thdrol 3/8-16 x 1-1/2
23	159880	Shield, Browning/Debris Guard
25	164068	Control Choke
26	73920600	Nut Keps 3/8-24 UNF
29	137180	Arrester, Spark
31	157103	Tank, Fuel
32	161696	Cap Gauge, Fuel
33	123487X	Clamp, Hose Blk
34	106082X	Spacer, Pad
35	17490512	Screw Thdrol 5/16-18 x 3/4
37	8543R	Line, Fuel 7.5
38	-----	Plug, Oil Drain (Order From Engine Manufacturer)
39	109227X	Pad, Idler
62	10040500	Washer Lock Hvy Hlcl Spr 5/16
72	71070512	Screw Hex Hd Cap 5/16-18 x 3/4
81	128861	Nut Flange 1/4-20 Starter Nut
102	164863	Screw Hw Hd Hi-Lo #13-16 x 3/4

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

MOWER LIFT



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

MOWER LIFT

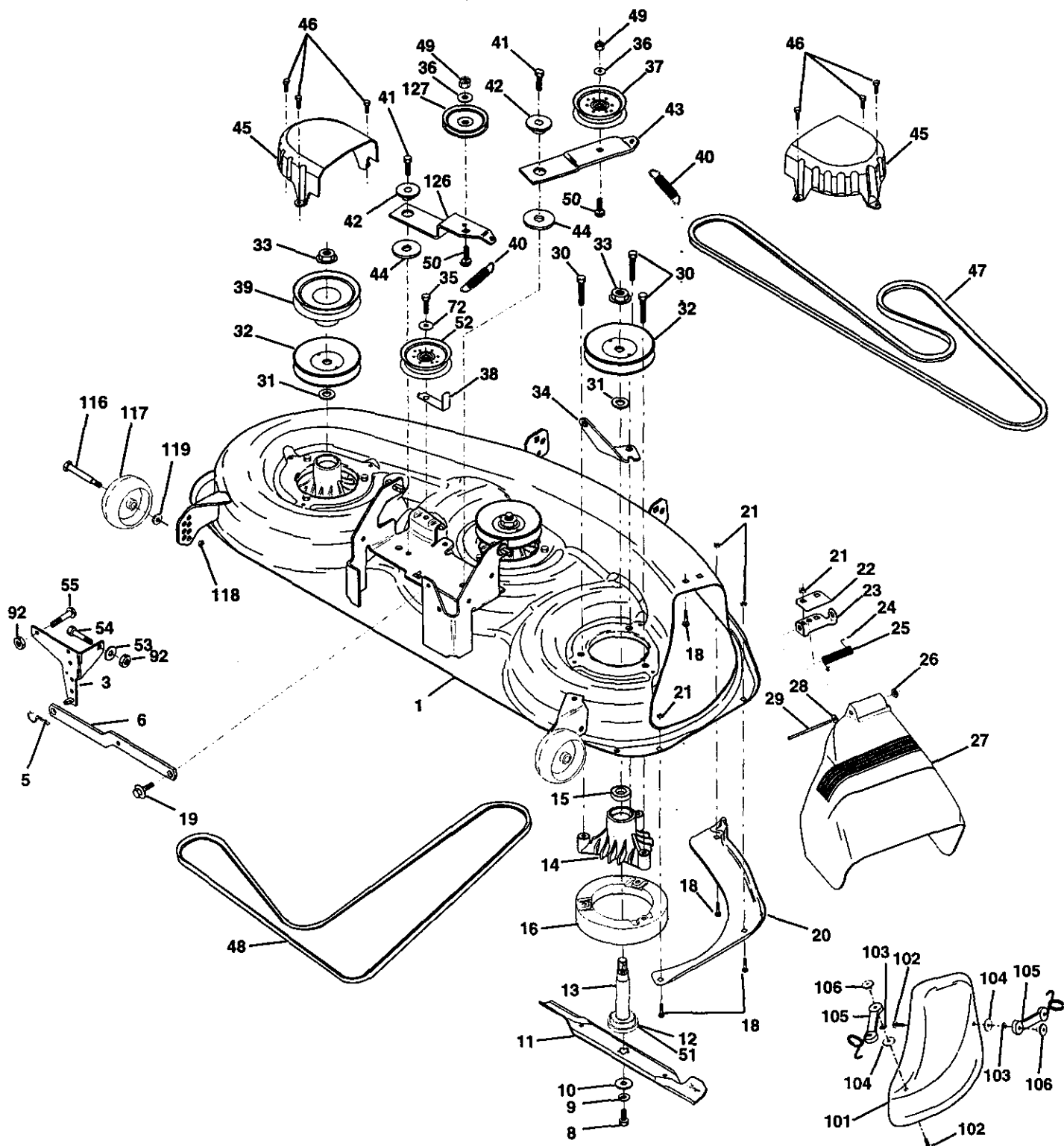
KEY NO.	PART NO.	DESCRIPTION
1	159461	Wire Asm Inner W/Plunge5r
2	159476	Shaft Asm Lift
3	138284	Pin Groove
4	STD581062	E Ring #5133-62
5	19211621	Washer 29/32 x 1-1/4 x 21 Ga.
6	120183X	Bearing Nylon Blk .629 ID
7	125631X	Grip Handle Fluted
8	122365X	Button, Plunger
11	139865	Link Lift Lh Fixed Length
12	139866	Link Lift Rh Fixed Length
13	STD624008	Retainer Spring
15	127218	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc
18	73680800	Nut Crownlock 1/2-13 Unc
19	139868	Arm Suspension Rear
20	163552	Spring Retainer
23	110807X	Nut Special
24	19131016	Washer 13/32 X 5/8 X 16 Ga
25	164024	Spring
26	STD560907	Pin Cotter 3/32 x 1/2
27	164543	Rod Adjust Lift STYT
28	73350600	Nut Hex Jam 3/8-16 Unc
29	138057	Knob Infinite 3/8-16 Unc Black
30	150233	Trunnion Infinite Height
31	140302	Bearing Pvt. Lift Spherical
32	73540600	Nut Lock 3/8-24
36	155097	Pointer Height Indicator
37	123935X	Plug Hole
38	17490512	Screw Thdrol 5/16-18 x 3/4
40	19112410	Washer 11/32 x 1-1/2
41	155098	Indicator Height STLT
49	145212	Nut Hex Flange Lock
50	110452X	Nut Push Phos & Oil

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

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

MOWER DECK



REPAIR PARTS REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

MOWER DECK

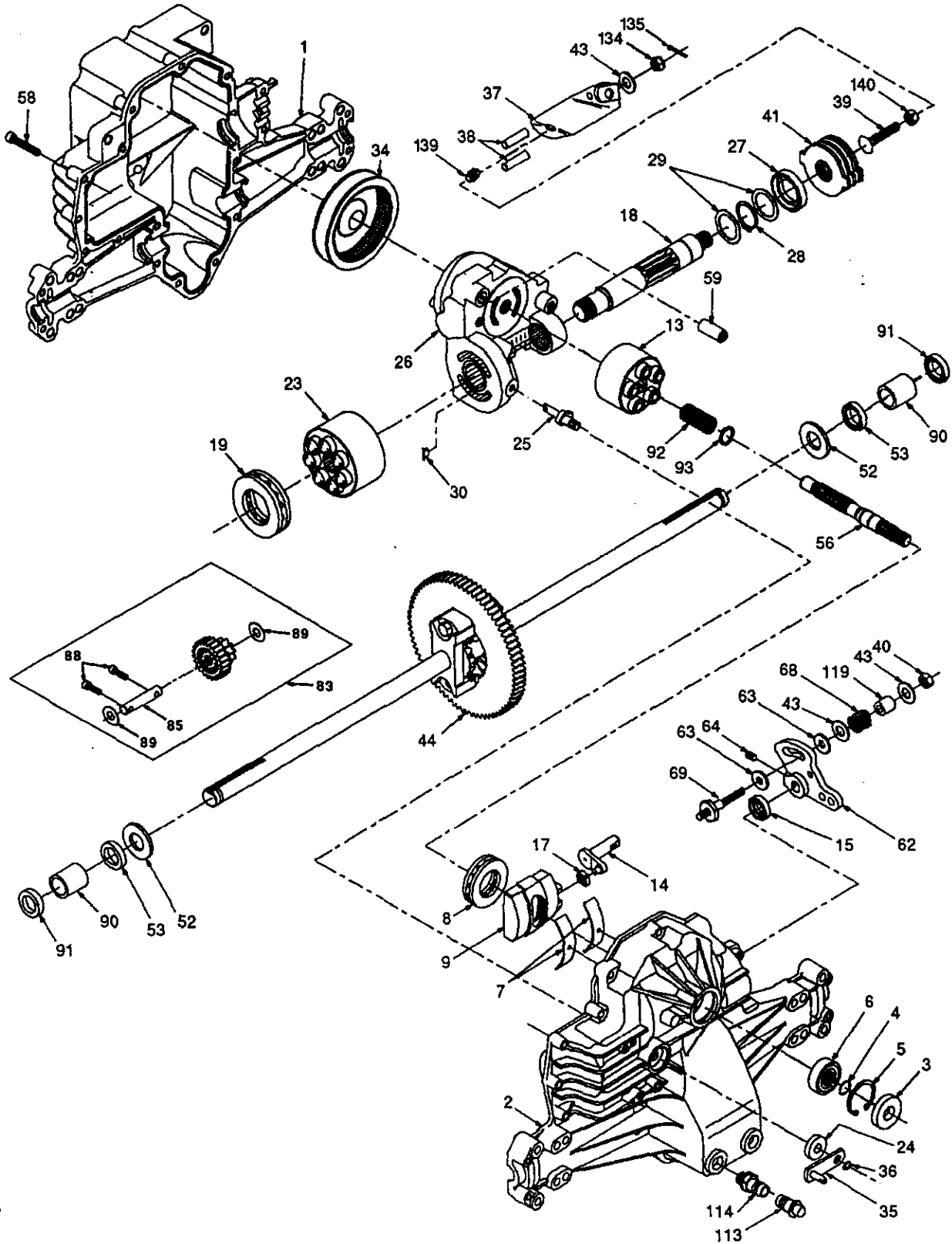
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	164210	Deck Weldment Mower 46	37	131494	Pulley, Idler, Flat
3	138457	Bracket Asm., Sway Bar	38	156086	Keeper, Belt, Idler
5	STD624008	Retainer Spring	39	144917	Pulley, Idler, Driven
6	130832	Arm, Suspension, Rear (Sway Bar)	40	137273	Spring, Secondary 44/46/50 Vent
8	850857	Bolt, Patched 3/8-24 x 1-1/4 Gr. 8	41	17490620	Screw, Thdroll 3/8-16 x 1-1/4 Tytt
9	STD551137	Washer, Lock Hvy., Unplated 3/8	42	122052X	Spacer, Retainer
10	140296	Washer, Hard Blade, Mower Vented	43	144949	Arm, Idler Secondary
11	163819	Blade, 46" Mulching (Following Blades are Optional)	44	133943	Washer, Hardened
	157033	Blade Hi-Lift Premium 46" (For better bagging, especially in wet conditions)	45	145059	Cover, Mandrel Deck
	159705	Blade 46" Hi-Lift Bahia (For better quality of cut in trash, pasture or bahia grass) Note: This blade does not work well in good quality grasses!	46	137729	Screw, Thdroll. 1/4-20 x 5/8
12	129895	Bearing, Ball, Mandrel #6204	47	144959	V-Belt, Mower, Secondary
13	137553	Shaft Asm. w/Lower Bearing (Includes Key No. 12)	48	148763	V-Belt, Mower, Primary
14	137152	Housing, Mandrel	49	STD541437	Nut, Crownlock 3/8-16 UNC
15	110485X	Bearing, Ball, Mandrel	50	72110612	Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5
16	140329	Stripper, Mower Round	51	153390	Washer, Felt
18	STD533106	Bolt, Carriage 5/16-18 x 5/8	52	156493	Pulley Idler 46 Pri Drive 97
19	132827	Bolt, Hex Head, Shoulder 5/16-18	53	19131312	Washer 13/32 x 13/16 x 12 Ga.
20	145055	Baffle, Vortex Mower 46"	54	74780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr.5
21	STD541431	Nut, Crownlock 5/16-18 UNC	55	72140608	Bolt Rdhd Sqnc 3/8-16 x 1
22	134753	Stiffener, Bracket	72	19131616	Washer
23	131267	Bracket, Deflector	92	73800600	Nut Lock Hex w/Ins 3/8-16 Unc.
24	105304X	Cap, Sleeve	101	145579	Cover, Mulching
25	149287	Spring, Torsion, Deflector	102	71161010	Screw
26	110452X	Nut, Push	103	STD551110	Washer, Lock #10
27	157788	Shield, Deflector Mower	104	19061216	Washer
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	105	160793	Latch Asm. Bagger
29	131491	Rod, Hinge	106	2029J	Nut, Weld
30	157722	Screw Thd Rolling Washer Head	116	137644	Bolt, Shoulder
31	129963	Washer, Spacer Mower Vented	117	133957	Gauge Wheel, Wide
32	153531	Pulley, Mandrel	118	73930600	Nut, Centerlock 3/8-16 UNC
33	137266	Nut, Flg. Top Lock Cntr. 9/16	119	19121414	Washer 3/8 x 7/8 x 14 Ga.
34	144945	Anchor, Spring Deck 46"	126	144948	Arm, Idler, Primary Deck 46"
35	17490628	Screw, Thdroll 3/8-16 x 1-3/4 Tytt	127	146763	Pulley, Idler, V-Groove Dim. 4.25
36	STD551037	Washer 13/32 x 13/16 x 16 Ga.	--	166222	Deck Complete (Std. Deck-Order separately mulcher plate and gauge wheel components Key Nos. 101-106 and 116-118)
			--	143651	Mandrel Asm. Service (Includes Key Nos. 8-10, 12-15, 31 and 33)

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

HYDRO GEAR TRANSAXLE - MODEL NUMBER 319-0650



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

HYDRO GEAR TRANSAXLE - MODEL NUMBER 319-0650

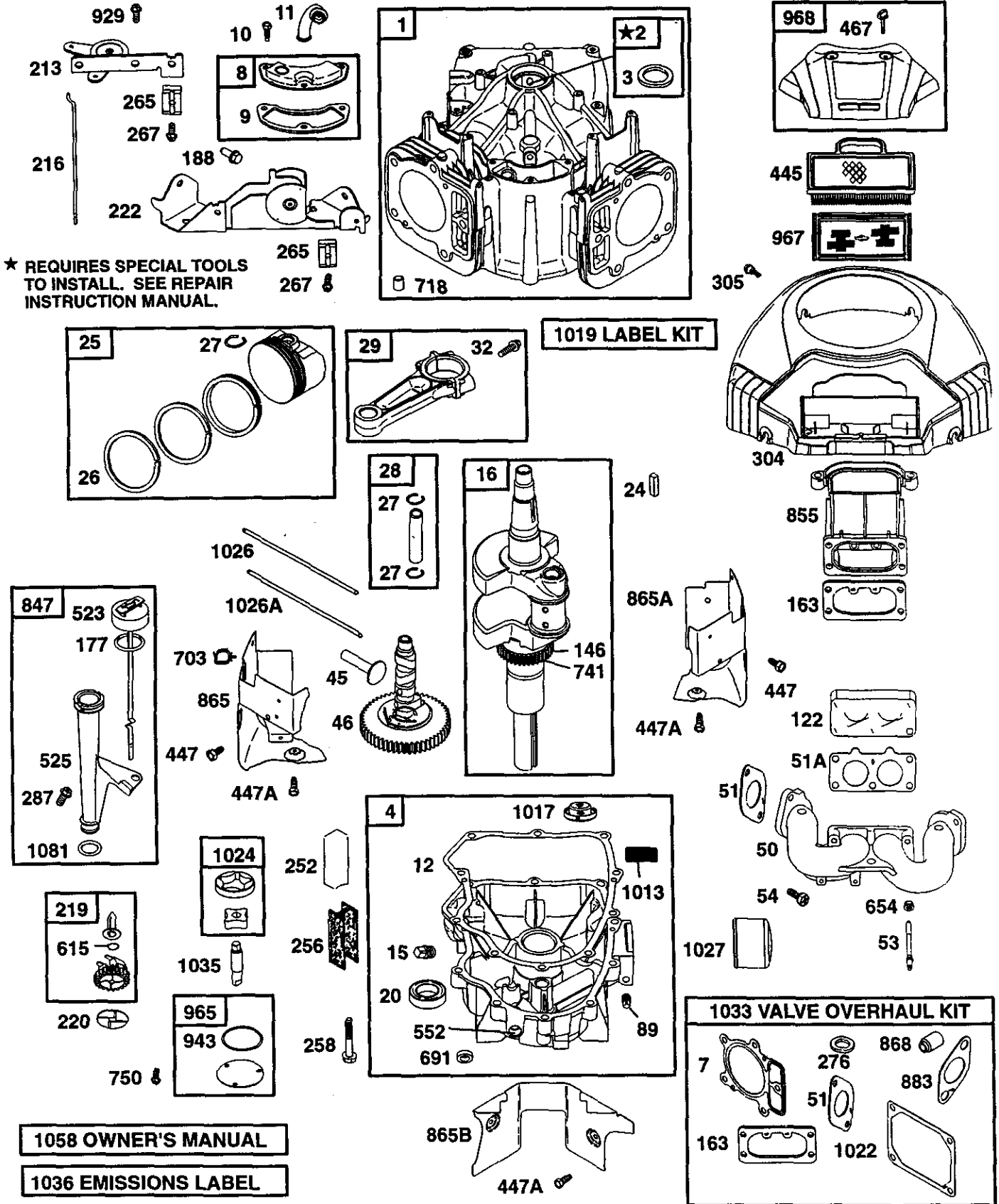
KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 142930	Housing, Lower	43 142884	Washer 7/16 x 7/8 x .060
2 142931	Assembly, Upper Housing	44 150829	Differential Assembly
3 142932	Seal, Lip	52 142991	Washer 3/4 x 1.5 x .13
4 142928	Ring, Wire Retaining	53 142961	Seal .75 x 1.25 x .250
5 142933	Ring, Retaining	56 142963	Shaft, Input
6 142934	Bearing, Shaft Ball	58 142964	Bolt 1/4-20 x 1.38
7 142935	Bearing, Cradle	59 142965	Pin .5 OD x .43 ID x .750
8 150771	Bearing, Thrust 30 x 52 x 13	62 142966	Arm, Control
9 142937	Swashplate, Variable	63 142967	Puck, Dampener
13 142938	Block, Cylinder Assembly	64 142920	Set Screw
14 142939	Arm, Trunnion	68 142969	Spring
15 142940	Seal, Lip	69 144610	Stud 5/16-24
17 142941	Guide, Slot	83 142971	Jackshaft Assembly
18 150772	Shaft, Motor	85 150806	Jackshaft
19 150773	Bearing, Thrust 42 x 68 x 16	88 142973	Screw, Cap
23 142944	Block, Cylinder Assembly	89 142974	Washer 7/16 x 1 x 1/2
24 142945	Seal, Lip 10 x 25 x 7	90 142975	Sleeve Bearing
25 142946	Actuator, Bypass	91 142976	Seal, Wiper
26 150774	Center Section Assembly Kit	92 142977	Spring, Block
27 142948	Seal, Lip 26 x 42 x 8	93 142978	Washer, Block Thrust
28 142949	Ring, Retaining	113 142917	Cap, Vent Assembly
29 142950	Washer 26 x 35 x 1	114 142918	Fitting, O-Ring Assembly
30 150787	Plate, Bypass	119 142980	Spacer
34 142951	Oil Filter Element	134 144607	Nut, Castle 5/16-24
35 142952	Arm, Bypass	135 144608	Pin, Cotter
36 142953	Ring, Retaining	139 150775	Spring, Compression
37 142954	Arm, Actuating	140 150776	Nut, Hex 5/16-24
38 142955	Pin, Actuating		
39 150777	Bolt 5/16-24 x 1-3/4		
40 150778	Locknut, Hex 5/16-24 UNJC		
41 142958	Brake Rotor/Stator Kit		

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

REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

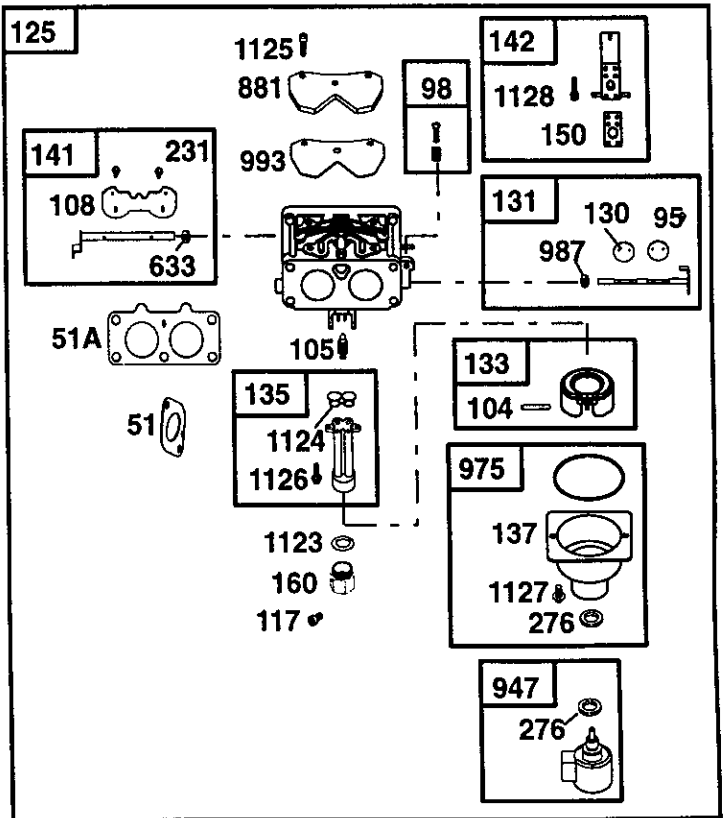
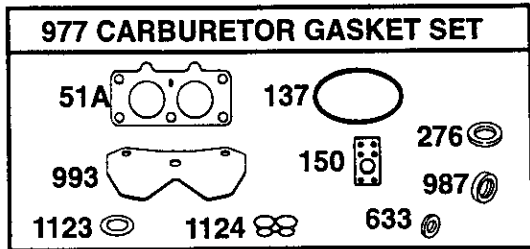
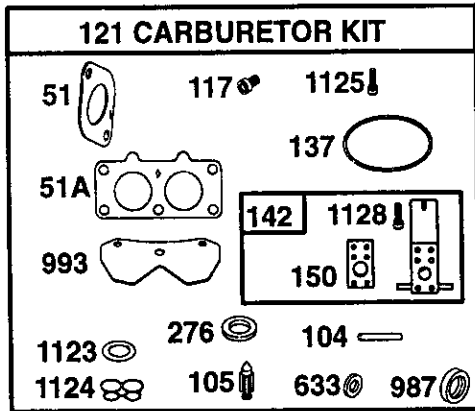
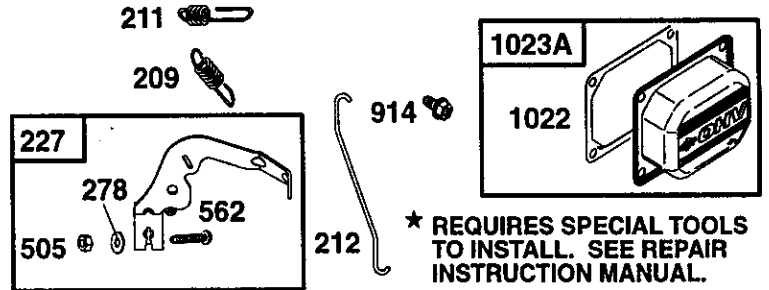
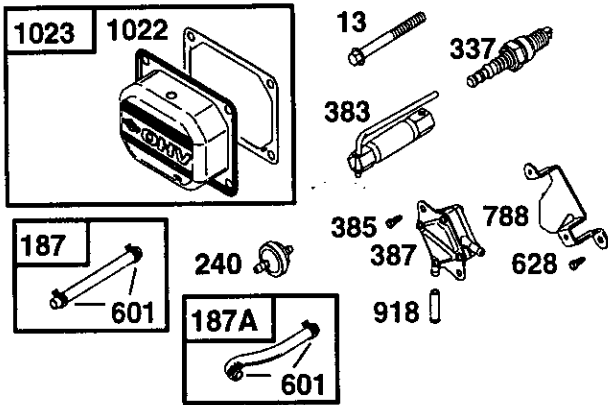
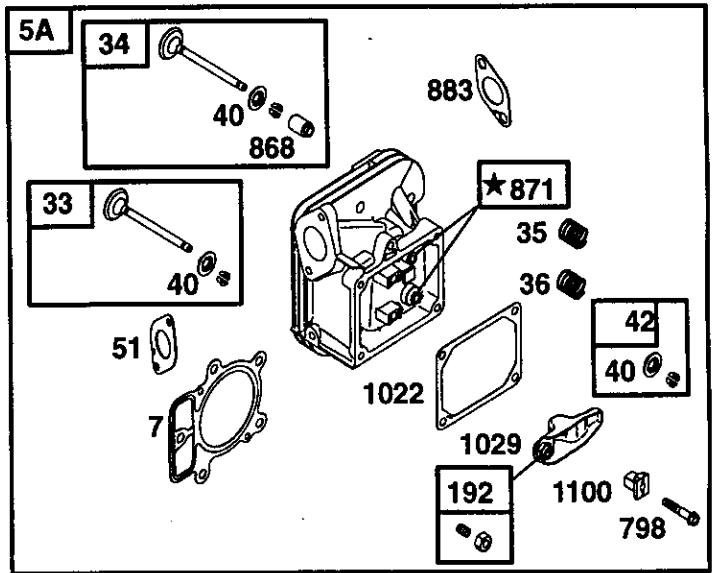
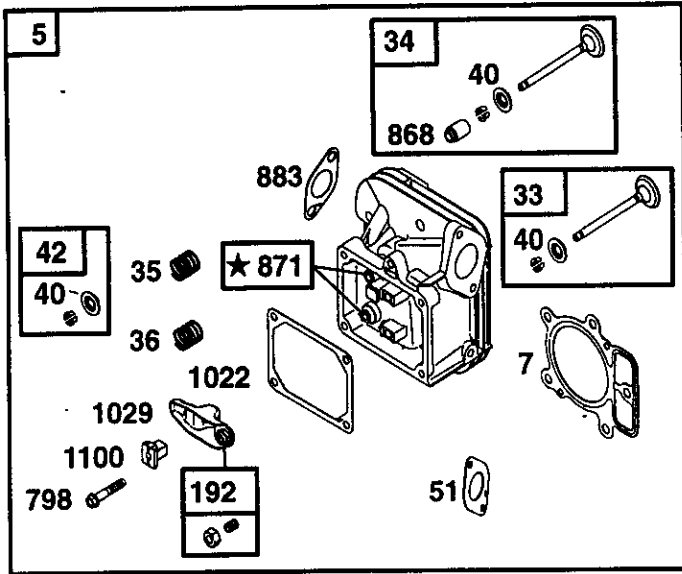
BRIGGS ENGINE - MODEL NUMBER 407777, TYPE NUMBER 0121-E1



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

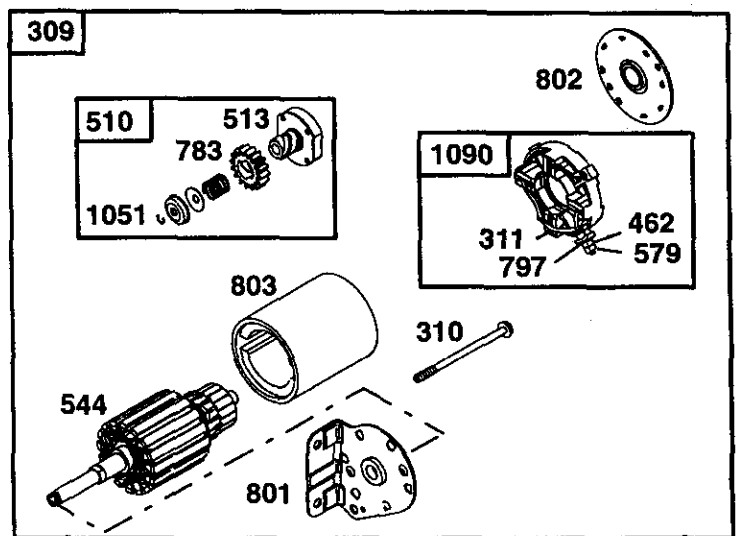
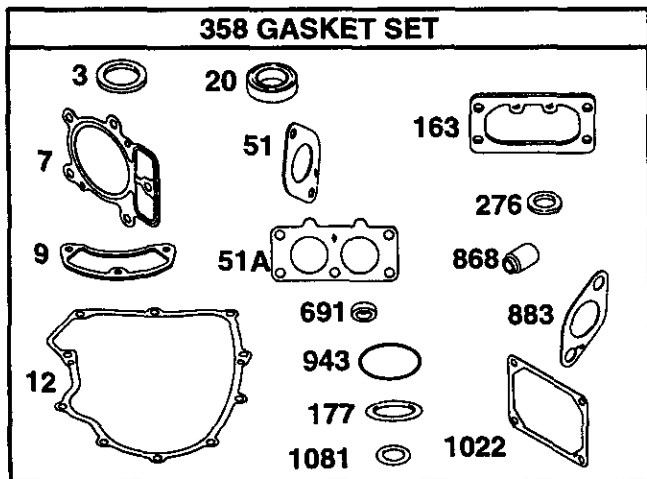
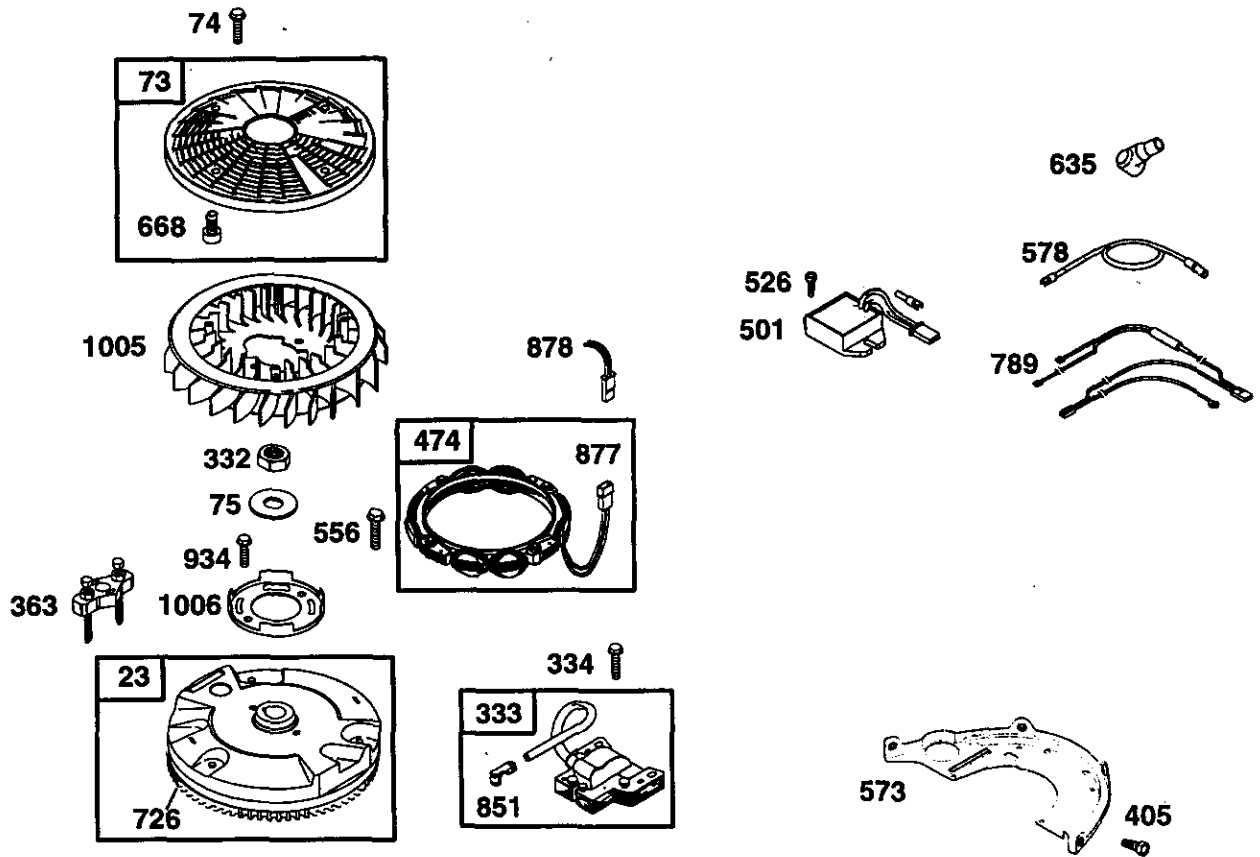
BRIGGS ENGINE - MODEL NUMBER 407777, TYPE NUMBER 0121-E1



REPAIR PARTS

TRACTOR -- MODEL NUMBER 944.609810

BRIGGS ENGINE - MODEL NUMBER 407777, TYPE NUMBER 0121-E1



697

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

BRIGGS ENGINE - MODEL NUMBER 407777, TYPE NUMBER 0121-E1

KEY PART NO.	PART NO.	DESCRIPTION	KEY PART NO.	PART NO.	DESCRIPTION
1	690231	Cylinder Assembly	163	691001	+* Gasket-Air Cleaner
2	499585	Bushing-Cylinder	177	691031	+ O-Ring Seal (Dipstick)
3	690926	+ Seal-Oil	187	691050	Line-Fuel (Cut to Required Length)
4	690069	Sump-Engine	187A	691049	Line-Fuel
5	499587	Head-Cylinder No. 1	188	690960	Screw (Control Bracket)
5A	499595	Head-Cylinder No. 2	192	690083	Adjuster-Rocker Arm
7	690962	+* Gasket-Cylinder Head	209	690018	Spring-Governor
8	499601	Breather Assembly	211	690019	Spring-Governed Idle
9	690937	+ Gasket-Breather	212	691020	Link-Throttle
10	690960	Screw (Breather Assy.)	213	691021	Bracket-Choke Control
11	690942	Tube-Breather	216	691022	Link-Choke
12	690945	+ Gasket-Crankcase	219	394348	Gear-Governor
13	690360	Screw (Cylinder Head)	220	690412	Washer (Governor Lever)
15	690946	Plug-Oil Drain	222	691023	Bracket-Control
16	691046	Crankshaft	227	691048	Control Lever-Governor
20	690947	+ Seal-Oil (PTO Side)	231	690718	Screw (Choke Valve)
23	691053	Flywheel	240	691035	Filter-Fuel
24	690974	Key-Flywheel	252	690956	Element-Breather
25	499588	Piston Assembly (Std.)	256	690957	Retainer-Element
	499589	Piston Assembly (.010" O.S.)	258	690308	Screw (Engine Sump)
	499590	Piston Assembly (.020" O.S.)	265	691024	Clamp-Casing
	499591	Piston Assembly (.030" O.S.)	267	691044	Screw (Casing Clamp)
26	499604	Ring Set-Piston (Std.)	276	690997	+●* Sealing Washer
	499605	Ring Set-Piston (.010" O.S.)	278	690097	Washer (Gov. Control Lever)
	499606	Ring Set-Piston (.020" O.S.)	287	690960	Screw (Dipstick Tube)
	499607	Ring Set-Piston (.030" O.S.)	304	691004	Housing-Blower
27	690975	Lock-Piston Pin	305	691005	Screw (Blower Housing)
28	499582	Pin-Piston	309	691262	Motor-Starter
29	499583	Rod-Connecting	310	691263	Bolt-Starter Motor
32	690976	Screw (Connecting Rod)	311	691264	Brush Set
33	499596	Valve-Exhaust	332	690059	Nut (Flywheel)
34	499597	Valve-Intake	333	691060	Armature-Magneto
35	690963	Spring-Valve (Intake)	334	691061	Screw (Armature)
36	690963	Spring-Valve (Exhaust)	337	691043	Spark Plug
40	690964	Retainer-Valve	358	499889	Gasket Set
42	499586	Keeper-Valve	363	691062	Flywheel Puller
45	690977	Valve Tappet	383	690966	Wrench-Spark Plug
46	690978	Cam Shaft	385	690960	Screw (Fuel Pump)
48	692714	ShortBlock	387	691034	Pump-Fuel
50	690948	Manifold-Intake	404	690442	Washer (Governor Crank)
51	690949	+●* Gasket-Intake	405	690960	Screw (Back Plate)
51A	690950	+●◆ Gasket-Intake	445	691007	Filter-Air Cleaner Cartridge
53	690951	Stud (Carburetor)	447	691003	Screw (Air Guide Cover)
54	690953	Screw (Intake Manifold)	447A	690960	Screw (Air Guide Cover)
73	691055	Screen-Rotating	462	691261	Washer (Starter Cable)
74	691057	Screw (Rotating Screen)	467	691008	Knob-Air Cleaner
75	691056	Washer (Flywheel)	474	691064	Alternator
89	690238	Plug-Oil	501	691185	Regulator
95	690718	Screw (Throttle Valve)	505	691029	Nut (Gov. Control Lever)
98	499802	Idle Speed Kit	510	497606	Drive-Starter
104	690984	● Pin-Float Hinge	513	692024	Clutch-Drive
105	690985	● Valve-Float Needle	523	691036	Dipstick
108	690986	● Valve-Choke	525	691037	Dipstick Tube
117	690232	● Jet-Main (Standard)	526	690960	Screw (Regulator)
117	690989	● Jet-Main High Altitude)	544		Armature-Starter (Service with 691262)
121	499811	Carburetor Overhaul Kit			Starter Motor)
122	690952	Spacer-Carburetor	552	690552	Bushing-Governor Crank
125	499804	Carburetor	552A	690553	Bushing-Governor Crank
130	690993	Valve-Throttle	556	691183	Screw (Alternator)
131	499805	Throttle Shaft Kit	562	690311	Bolt (Gov. Control Lever)
133	499806	Float-Carburetor	573	691009	Plate-Back
135	499803	Fuel Transfer Tube	578	691208	Wire Assembly
137	690994	●◆ Gasket-Float Bowl	579	691029	Nut (Starter Cable)
141	499807	Choke Shaft Kit	601	691038	Clamp-Hose
142	499808	● Nozzle-Carburetor	615	690317	Retainer-Governor Shaft
146	94388	● Key-Timing	616	691045	Crank-Governor
150	281767	●◆ Gasket-Nozzle	628	690960	Screw (Fuel Pump Bracket)
160	690996	● Retainer-Solenoid	633	690998	●◆ Seal-Choke Shaft
			635	691210	● Boot-Spark Plug

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.609810

BRIGGS ENGINE - MODEL NUMBER 407777, TYPE NUMBER 0121-E1

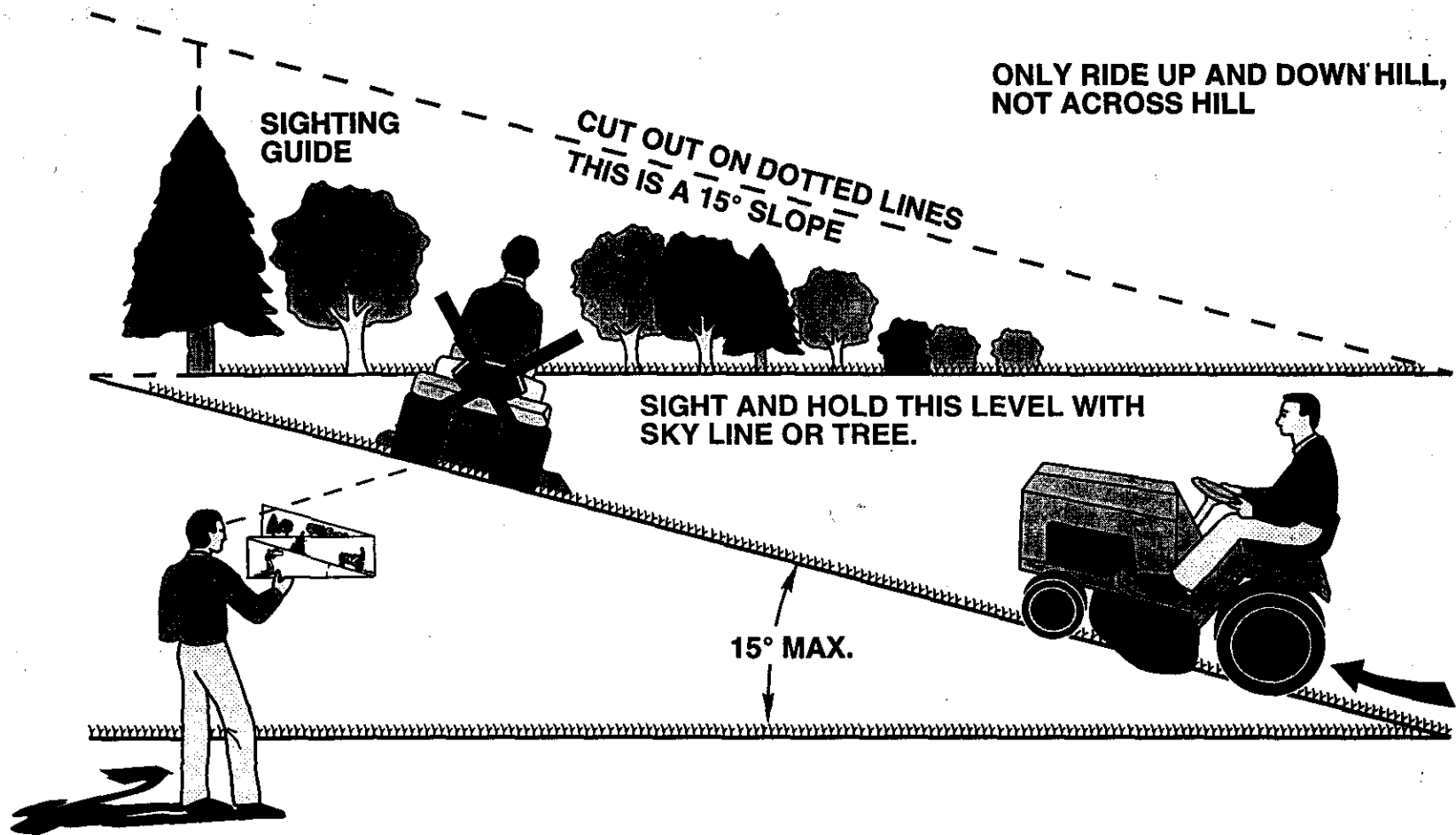
KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
691 690657	+ Governor Shaft Seal	1023 499599	Cover-Rocker (Cyl. No. 1)
697 690372	Screw (Drive Cap)	1023A 499600	Cover-Rocker (Cyl. No. 2)
703 690010	Clip	1024 499054	Pump-Oil
718 690959	Pin-Locator	1026 690981	Rod-Push (Steel)
726 499612	Gear-Ring	1026A 690982	Rod-Push (Aluminum)
741 690980	Gear-Timing	1027 690041	Filter-Oil
742 690328	E-Ring Retainer	1029 690972	Rocker Arm
750 691033	Screw (Oil Pump Cover)	1033 499890	Valve Overhaul Kit
783 693058	Gear-Pinion	1035 691042	Shaft-Pump
788 691039	Fuel Pump Bracket	1036 499783	Emissions Label
789 691220	Harness-Wiring	1051 691265	Ring-Retaining
797 693167	Screw (Brush Retainer)	1058 273694	Owner's Manual
798 690967	Screw (Rocker Arm)	1081 691032	+ O-Ring Seal (Dipstick Tube)
801 691283	Cap-Drive	1090 691293	Retainer-Brush
802 691286	Cap-End	1100 690973	Rocker Arm Pivot
803	Housing-Starter (Service with 691262 Starter Motor)	1123 690987	◆◆ O-Ring Seal (Solenoid Retainer)
847 499602	Dipstick/Tube Assembly	1124 690988	◆◆ O-Ring Seal-Fuel Transfer Tube
851 691234	Terminal-Cable	1125 690990	● Screw (Cover Plate)
855 691011	Adapter-Air	1126 690991	● Screw (Fuel Transfer Tube)
865 691012	Cover-Air Guide	1127 690992	● Screw (Float Bowl)
865A 691014	Cover-Air Guide	1128 690990	● Screw (Carburetor Nozzle)
865B 691015	Cover-Air Guide	— 407777-027-E1	Replacement Engine
868 690968	+* Seal-Valve		
871 690969	Bushing-Guide	+ Included in Gasket Set, Ref. No. 358	
877 399916	Alternator Connector/Wire	● Included in Gasket Set, Ref. No. 121	
878 691237	Harness-Alternator	◆ Included in Gasket Set, Ref. No. 977	
881 690999	Plate-Cover	* Included in Gasket Set, Ref. No. 1033	
883 690970	+* Gasket-Exhaust		
914 690960	Screw (Rocker Cover)		
918 691040	Hose-Vacuum		
929 691003	Screw (Choke Control Bracket)		
934 691058	Screw (Fan Retainer)		
943 690589	+ O-Ring Seal (Oil Pump Cover)		
947 499809	Solenoid-Fuel		
965 499613	Oil Pump Cover		
967 691016	Filter-Pre-Cleaner		
968 499788	Cover-Air Cleaner		
975 499810	Bowl-Float		
977 499812	Gasket Set-Carburetor		
987 691000	◆◆ Seal-Throttle Shaft		
993 690234	◆◆ Gasket-Plate		
1005 691243	Fan-Flywheel		
1006 691247	Retainer-Fan		
1013 690954	Nipple-Oil Filter		
1017 690770	Oil Pump Screen		
1019 690103	Label Kit		
1022 690971	+* Gasket-Rocker Cover		


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

SERVICE NOTES

SERVICE NOTES

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.

SEARS

OWNER'S MANUAL

MODEL NO. 944.609810

HOW TO ORDER REPAIR PARTS

CRAFTSMAN®

20 HP ELECTRIC START 46" MOWER AUTOMATIC LAWN TRACTOR

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The model number for your engine will be found on the blower housing of the engine.

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- **ENGINE MODEL NUMBER - 407777-0121-E1**
- **PART NUMBER**
- **PART DESCRIPTION**

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