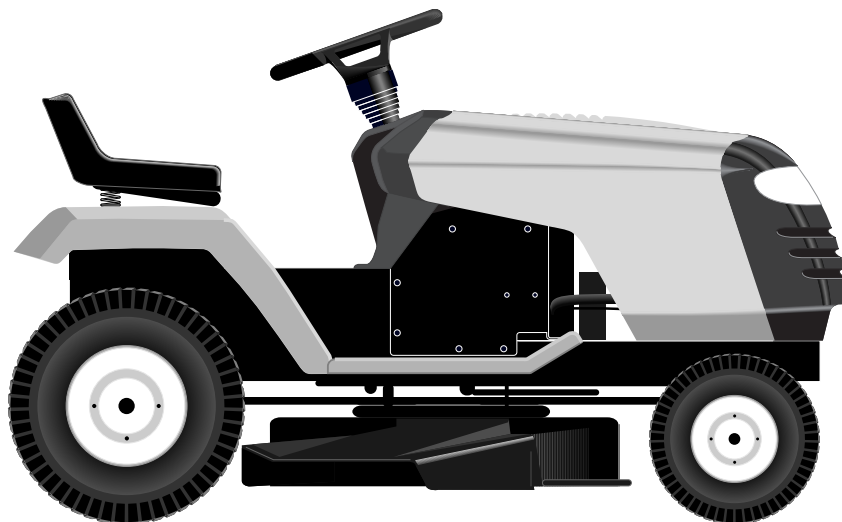


**SEARS**  
OWNER'S  
MANUAL

MODEL NO.  
944.602131

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



**CRAFTSMAN®**

**13.5 HP IC  
ELECTRIC START  
38" MOWER  
5 SPEED TRANSAXLE  
LAWN TRACTOR**

- Assembly
- Operation
- Maintenance
- Service and Adjustments
- Repair Parts



# SAFETY RULES



## SAFE OPERATION PRACTICES FOR RIDE-ON MOWERS

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

### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

### II. SLOPE OPERATION

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

#### DO:

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

#### DO NOT:

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

### III. CHILDREN

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

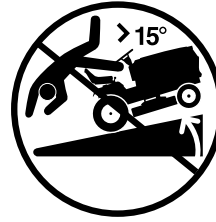
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and *down* for small children.
- Never carry children. They may fall off and be seriously injured or interfere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

### IV. SERVICE


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


# SAFETY RULES


## SAFE OPERATION PRACTICES FOR RIDE-ON MOWERS



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

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

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

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

## TABLE OF CONTENTS

**SAFETY RULES** ..... 2-3  
**PRODUCT SPECIFICATIONS** ..... 4  
**WARRANTY** ..... 4  
**CUSTOMER RESPONSIBILITIES** ..... 4  
**ASSEMBLY** ..... 6-8  
**OPERATION** ..... 9-13  
**MAINTENANCE SCHEDULE** ..... 14

**MAINTENANCE** ..... 14-18  
**SERVICE AND ADJUSTMENTS** ..... 19-23  
**STORAGE** ..... 24  
**TROUBLESHOOTING** ..... 25-26  
**REPAIR PARTS - TRACTOR** ..... 28-43  
**REPAIR PARTS - ENGINE** ..... 44-49  
**PARTS ORDERING/SERVICE** ..... BACK COVER

## PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	1.25 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF-SJ):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F) SYNTHETIC (below 0°F)
Your tractor was shipped from the factory with non-synthetic SAE 10W-30 motor oil.	
OIL CAPACITY:	3 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RJ19LM
GROUND SPEED (MPH):	FORWARD: 1st 1.1 2nd 2.2 3rd 3.4 4th 4.3 5th 5.5 REVERSE: 1.7
TIRE PRESSURE:	FRONT: 14 PSI REAR: 12 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 28 MIN. CCA: 230 CASE SIZE: U1R
BLADE BOLT TORQUE:	27-35 FT. LBS.

**CONGRATULATIONS** on your purchase of a new tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center/department. We have competent, well-trained 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".

## MAINTENANCE AGREEMENT

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

## CUSTOMER RESPONSIBILITIES

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

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

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

# 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.

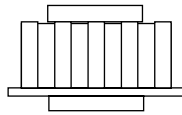
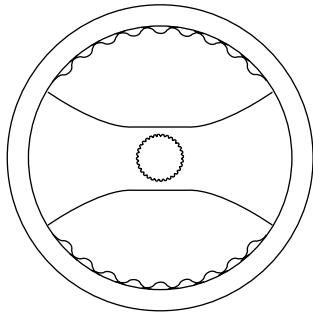
Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

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**

# UNASSEMBLED PARTS

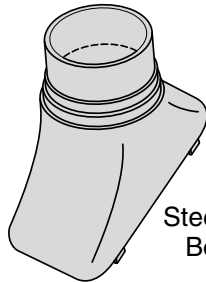
## Steering Wheel



Steering Wheel Adapter



Steering Extension Shaft

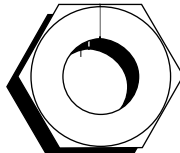
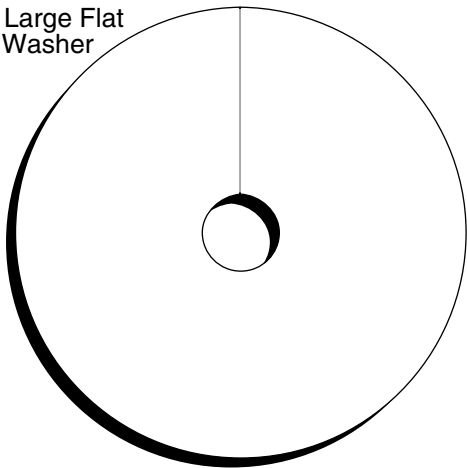


Steering Boot



Steering Wheel Insert

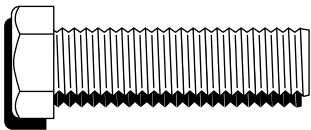
(1) Large Flat Washer



(1) Locknut 1/2-20

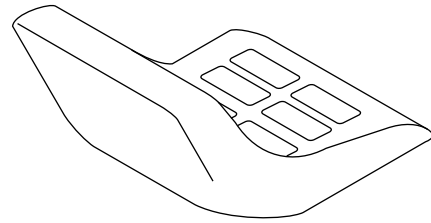


(1) Locknut 1/4-28



(1) Hex Bolt 1/4-28 x 1-1/4

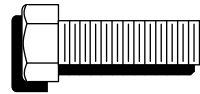
## Seat



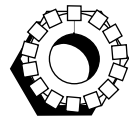
(1) Washer 17/32 x 1-3/16 x 12 Gauge

(1) Knob

## Battery

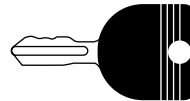


(2) Hex Bolts 1/4-20 x 3/4



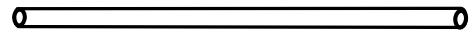
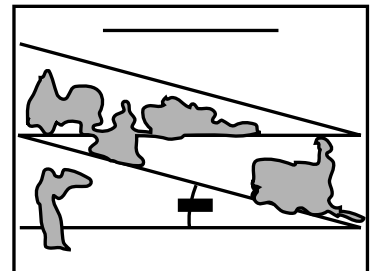
(2) Keps Nuts 1/4-20

## Keys



(2) Keys

## Slope Sheet



(1) Oil Drain Tube

# ASSEMBLY

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

## TOOLS REQUIRED FOR ASSEMBLY

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

- (1) 3/4" wrench           Pliers
  - (2) 7/16" wrenches      Tire pressure gauge
- Utility knife

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

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

## BEFORE REMOVING TRACTOR FROM SKID

### ATTACH STEERING WHEEL (See Fig. 1)

#### ASSEMBLE EXTENSION SHAFT AND BOOT

- Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 1/4 hex bolt and locknut. Tighten securely.

**IMPORTANT:** TIGHTEN BOLT AND NUT SECURELY TO 10-12 FT. LBS TORQUE.

- Place tabs of steering boot over tab slots in dash and push down to secure.

#### INSTALL STEERING WHEEL

- Position front wheels of the tractor so they are pointing straight forward.
- Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 1/2 hex nut and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

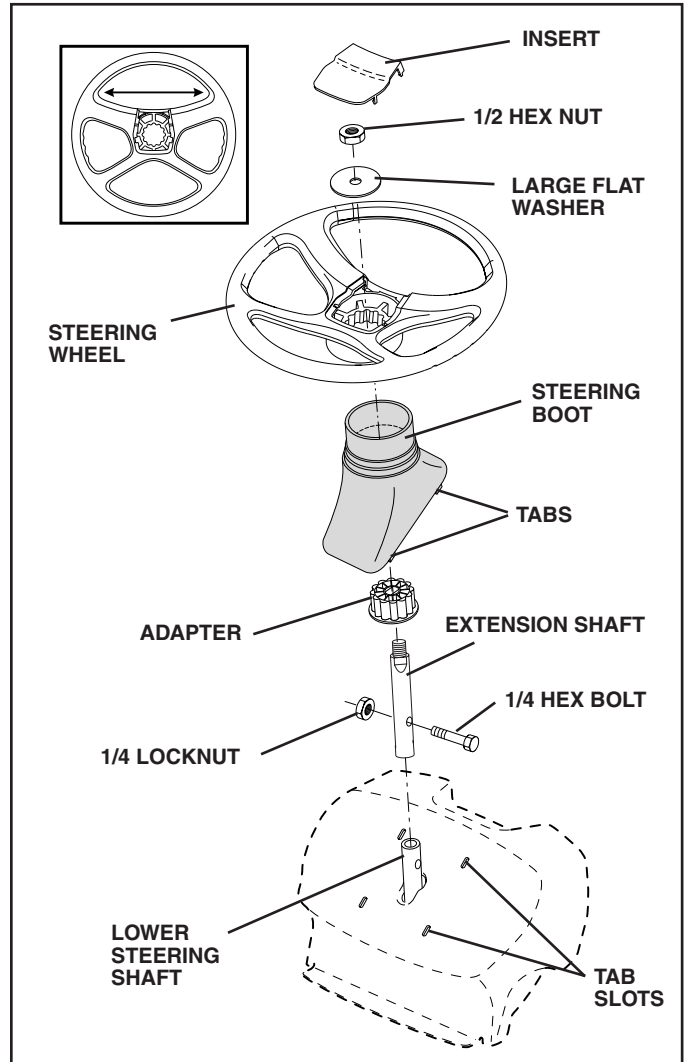


FIG. 1

## HOW TO SET UP YOUR TRACTOR

### CONNECT BATTERY (See Figs. 2 and 3)



**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, wrist-watch bands, rings, etc.

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

- Lift seat pan to raised position.
- 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.

# ASSEMBLY

- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

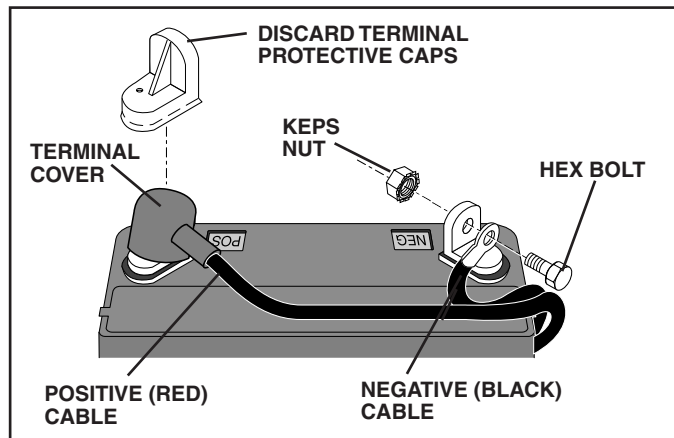


FIG. 2

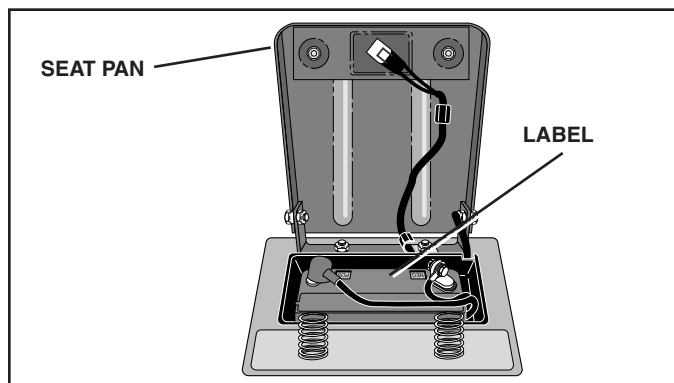


FIG. 3

## INSTALL SEAT (See Fig. 4)

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.

- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

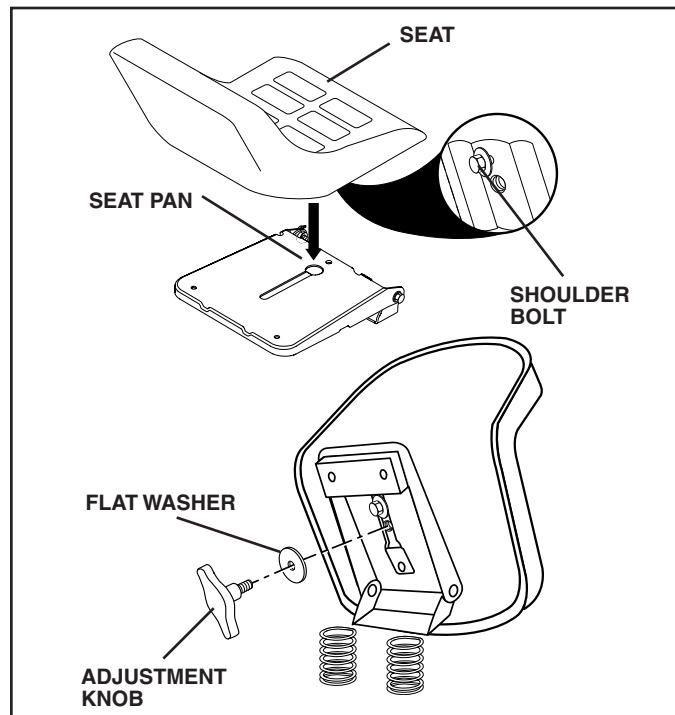


FIG. 4

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

## TO ROLL TRACTOR OFF SKID (See Operation section, page 10, for location and function of controls)

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

---

# ASSEMBLY

---

## TO DRIVETRACTOR OFF SKID (See Operation section, page 10, for location and function of controls)

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

- Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place gear shift lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Depress clutch/brake pedal into full "BRAKE" position and hold. Move gearshift lever to 1st gear.
- Slowly release clutch/brake pedal and slowly drive tractor off skid.
- Apply brake to stop tractor, set parking brake and place gearshift lever in neutral position.
- Turn ignition key to "OFF" position.

Continue with the instructions that follow.

## CHECK TIRE PRESSURE

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

- Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" section of this manual.

## CHECK DECK LEVELNESS

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

## CHECK FOR PROPER POSITION OF ALL BELTS

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

## CHECK BRAKE SYSTEM

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

## ✓ CHECKLIST

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

*PLEASE REVIEW THE FOLLOWING CHECKLIST:*

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ Be sure mower deck is properly leveled side-to-side/front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- ✓ Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped.

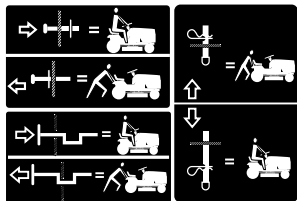
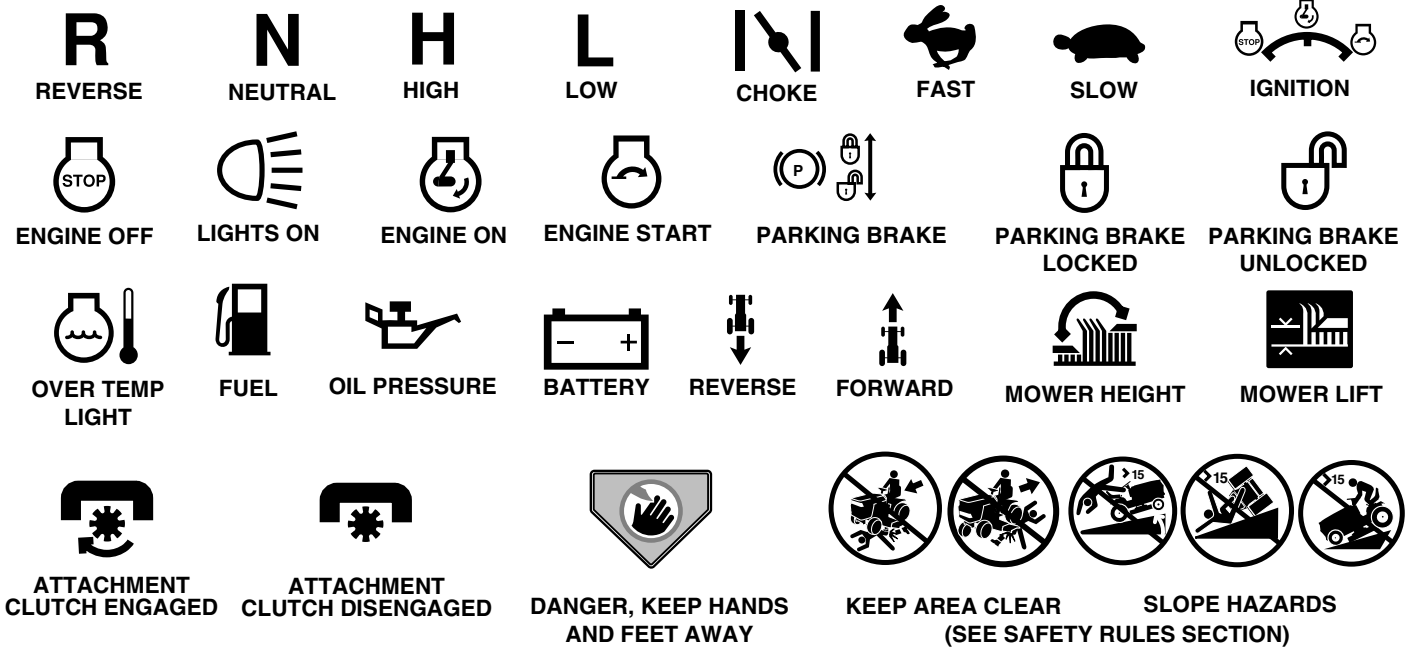
*WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:*

- ✓ 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.



# OPERATION

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



**FREE WHEEL**  
(Automatic Models only)



Failure to follow instructions could result in serious injury or death. The safety alert symbol is used to identify safety information about hazards which can result in death, serious injury and/or property damage.



**DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.



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



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

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



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



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

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

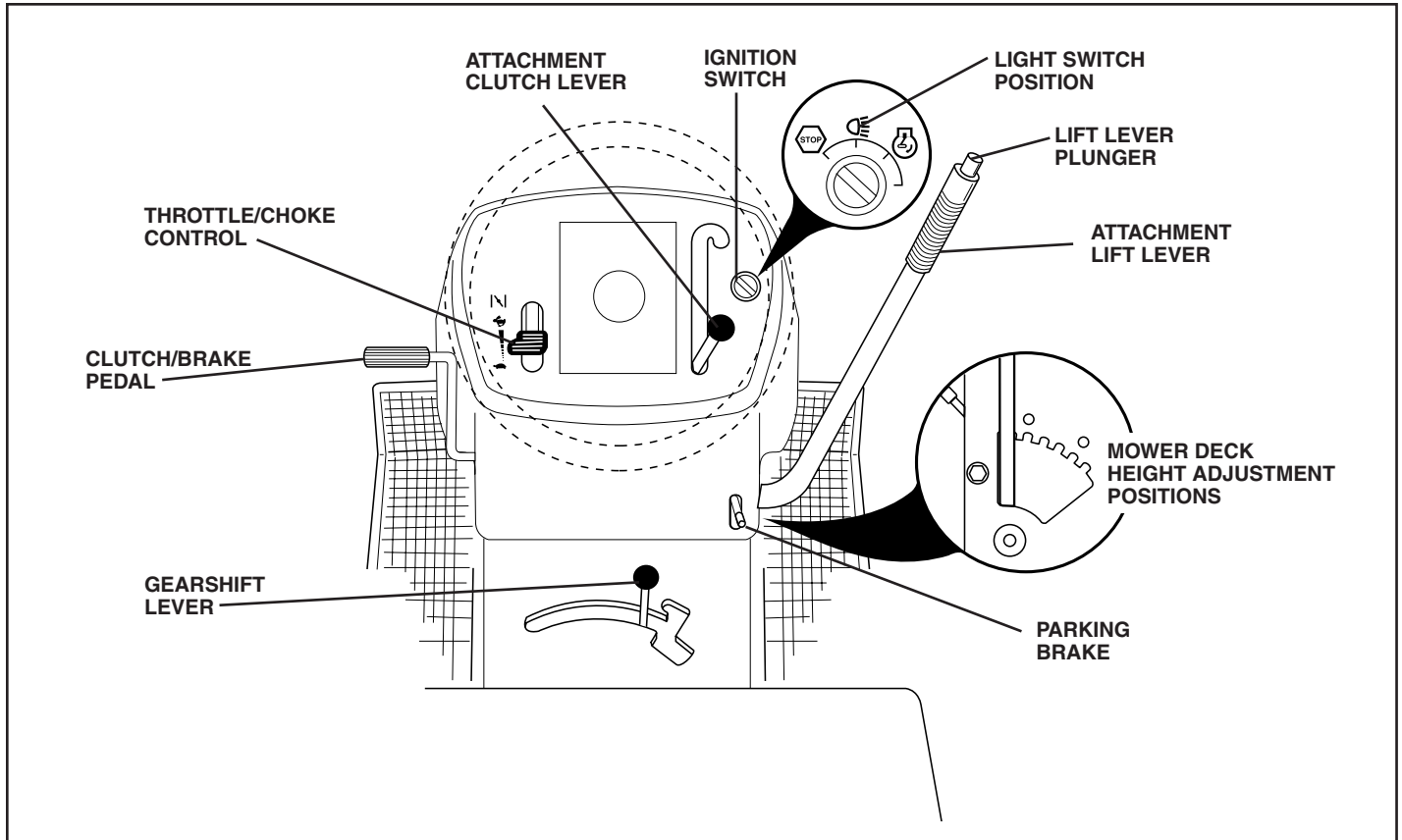


FIG. 5

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

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

**LIGHT SWITCH POSITION:** Turns the headlights on and off.

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

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

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

**GEARSHIFT LEVER:** Selects the speed and direction of tractor.

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

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

**IGNITION SWITCH:** Used for starting and stopping the engine.

# 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. 6)

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

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

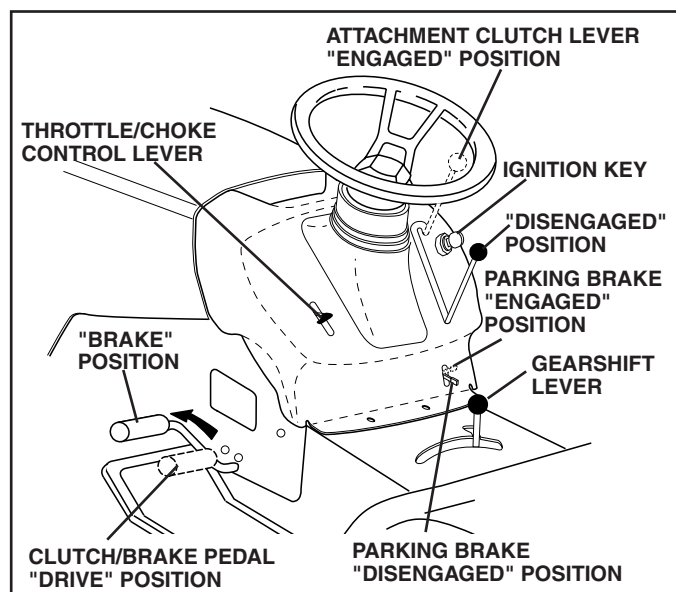


FIG. 6

### STOPPING (See Fig. 6)

#### MOWER BLADES -

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

#### GROUND DRIVE -

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

#### ENGINE -

- Move throttle control 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. 6)

Always operate engine at full throttle.

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

### TO MOVE FORWARD AND BACKWARD (See Fig. 6)

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

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

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

### TO ADJUST MOWER CUTTING HEIGHT (See Fig. 6)

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

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

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

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

# OPERATION

## TO OPERATE MOWER (See Fig. 7)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- Select desired height of cut.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES - disengage attachment clutch control.



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

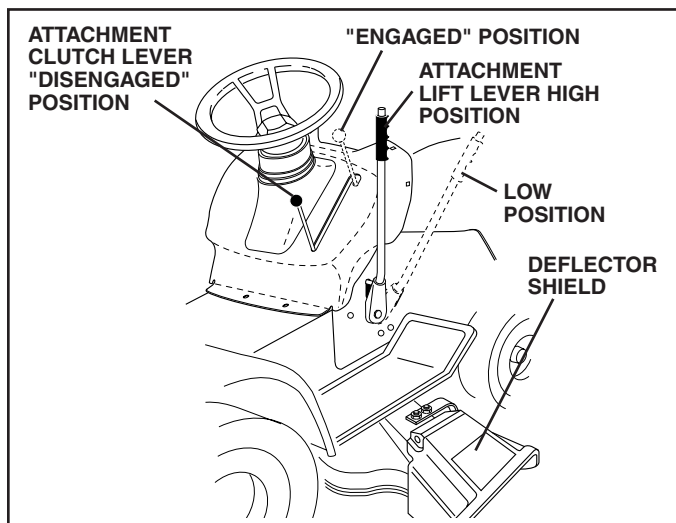


FIG. 7

## TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

## TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.

- Do not push or tow tractor at more than five (5) MPH.

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

## TOWING CARTS AND OTHER ATTACHMENTS

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

## BEFORE STARTING THE ENGINE

### CHECK ENGINE OIL LEVEL

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

### ADD GASOLINE

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



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

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

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

# OPERATION

## TO START ENGINE (See Fig. 6)

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

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

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

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

### WARM WEATHER STARTING (50° F and above)

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

### COLD WEATHER STARTING ( 50° F and below)

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

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

## MOWING TIPS

- 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 machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 8 ).
- 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.

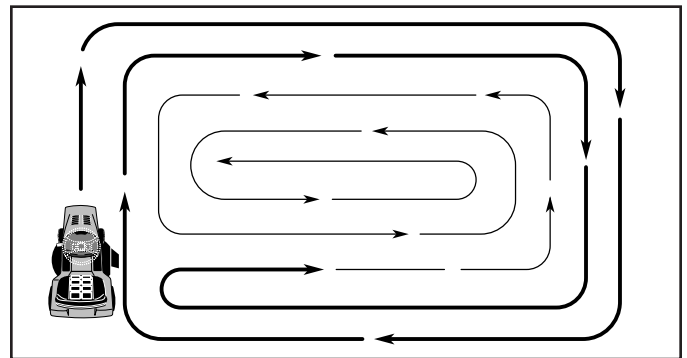


FIG. 8

# MAINTENANCE

MAINTENANCE SCHEDULE		SERVICE INTERVALS							SERVICE DATES		
		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	✓				✓ <sub>5</sub>		✓			
	Sharpen/Replace Mower Blades			✓ <sub>3</sub>							
	Lubrication Chart			✓				✓			
	Check Battery Level			✓ <sub>4</sub>							
	Clean Battery and Terminals			✓				✓			
	Check Transaxle Cooling			✓							
	Check V-Belts					✓					
ENGINE	Check Engine Oil Level	✓	✓								
	Change Engine Oil (with oil filter)				✓ <sub>1,2</sub>			✓			
	Change Engine Oil (without oil filter)			✓ <sub>1,2</sub>				✓			
	Clean Air Filter			✓ <sub>2</sub>							
	Clean Air Screen			✓ <sub>2</sub>							
	Inspect Muffler/Spark Arrester				✓						
	Replace Oil Filter (If equipped)					✓ <sub>1,2</sub>					
	Clean Engine Cooling Fins					✓ <sub>2</sub>					
	Replace Spark Plug					✓	✓				
	Replace Air Filter Paper Cartridge					✓ <sub>2</sub>					
	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 - Replace blades more often when mowing in sandy soil.  
 4 - Not required if equipped with maintenance-free battery.  
 5 - 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.

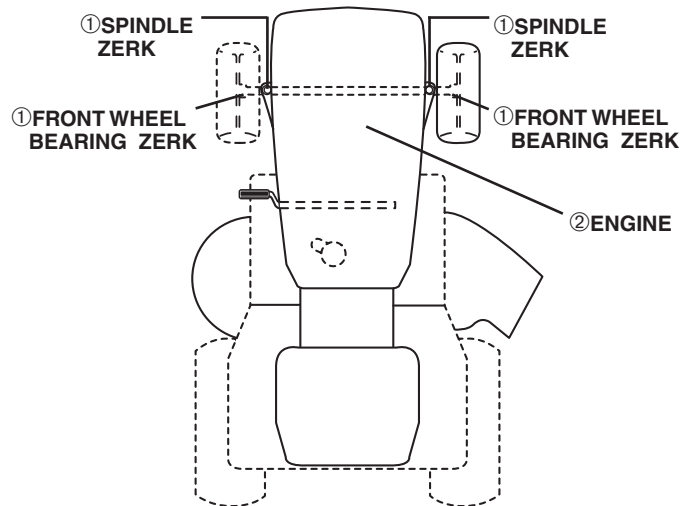
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- 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 GENERAL PURPOSE GREASE  
 ② REFER TO MAINTENANCE "ENGINE" SECTION

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

# MAINTENANCE

## TRACTOR

Always observe safety rules when performing any maintenance.

## BRAKE OPERATION

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

## TIRES

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

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

## OPERATOR PRESENCE SYSTEM

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

- The engine should not start unless the clutch/brake pedal is fully depressed and 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. 9)

- Raise mower to highest position to allow access to blades.
- Remove blade 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 blade bolt, lock washer and flat washer in exact order as shown.
- Tighten blade bolt securely (27-35 Ft. Lbs. torque).

**IMPORTANT:** BLADE BOLT IS GRADE 8 HEAT TREATED.

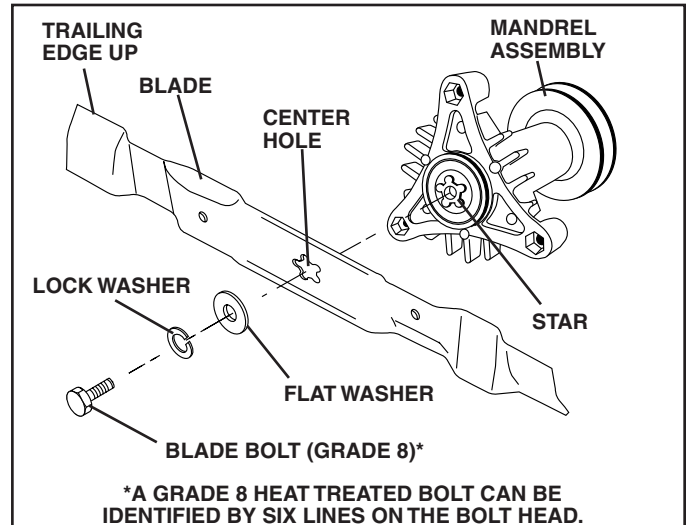


FIG. 9

## TO SHARPEN BLADE (See Fig. 10)

**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.

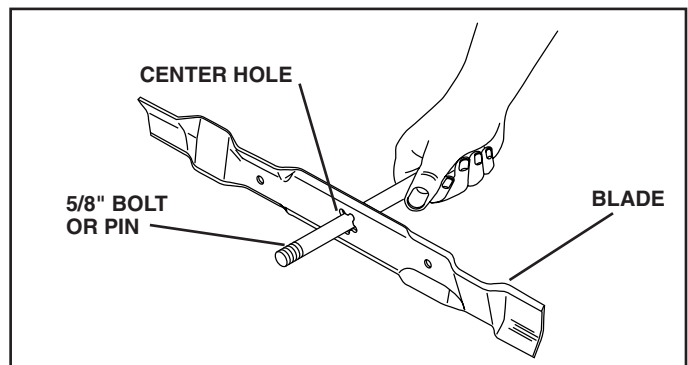


FIG. 10

# MAINTENANCE

## BATTERY

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

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

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

### TO CLEAN BATTERY AND TERMINALS

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

- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See “CONNECT BATTERY” in the Assembly section of this manual).

## V-BELTS

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

## TRANSAXLE COOLING

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

## ENGINE

### LUBRICATION

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

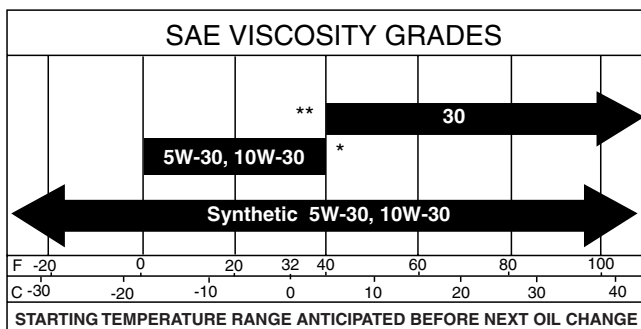


FIG. 11

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

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



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

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

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

### TO CHANGE ENGINE OIL (See Figs. 11 and 12)

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

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.

Remove yellow cap from bottom fitting of drain valve and install the drain tube onto the fitting.

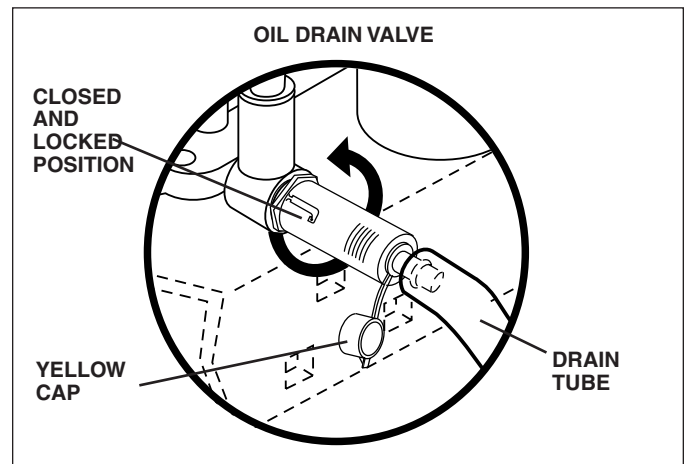


FIG. 12

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



# MAINTENANCE

## CLEAN AIR SCREEN

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

## ENGINE COOLING FINS (See Fig. 13)

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating.

- Remove screws from blower housing and lift housing and dipstick tube assembly off engine.
- Cover oil fill opening to prevent entry of dirt.
- Use compressed air or stiff bristle brush to thoroughly clean engine cooling fins.
- To reassemble, reverse above procedure.

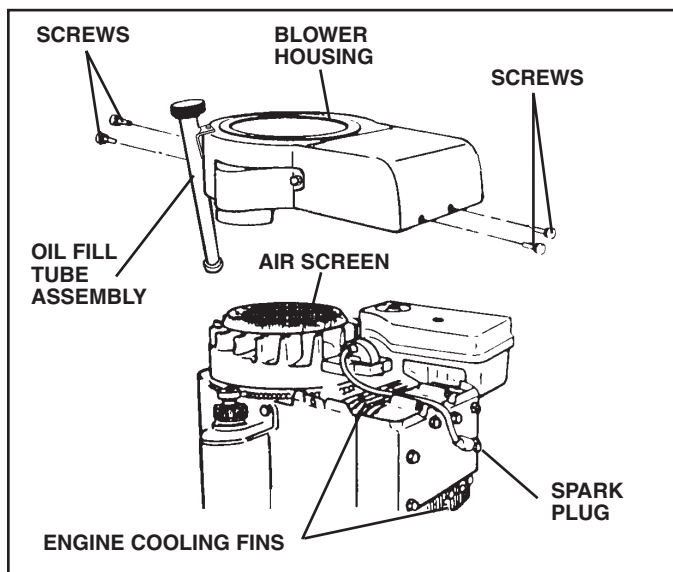


FIG. 13

## AIR FILTER (See Fig. 14)

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 knob(s) and cover.

### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- 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.
- Reinstall pre-cleaner over cartridge.
- Reinstall cover and secure with knob(s).

### TO SERVICE CARTRIDGE

- Remove cartridge nut.
- Carefully remove cartridge to prevent debris from entering carburetor. Clean base carefully to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge, nut, pre-cleaner, cover and secure with knob(s).

**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.**

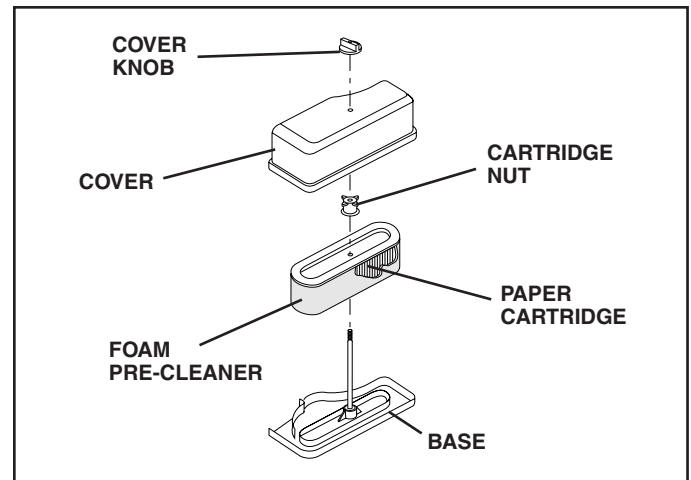


FIG. 14

# MAINTENANCE

## MUFFLER

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

## SPARK PLUGS

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

## IN-LINE FUEL FILTER (See Fig. 15)

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.

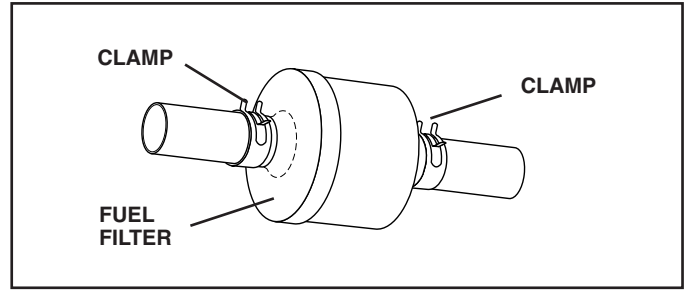


FIG. 15

## 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



**WARNING: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:**

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

## TRACTOR

### TO REMOVE MOWER (See Fig. 16)

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

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

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

### TO INSTALL MOWER (See Fig. 16)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with deflector shield to right side of tractor.
- Lower lift lever to its lowest position.
- Connect front links to mower deck and secure with retainer springs.
- Connect suspension arms to rear deck brackets and secure with retainer springs.
- Connect anti-swaybar to chassis bracket and secure with retainer spring.
- Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- Install belt onto engine pulley.

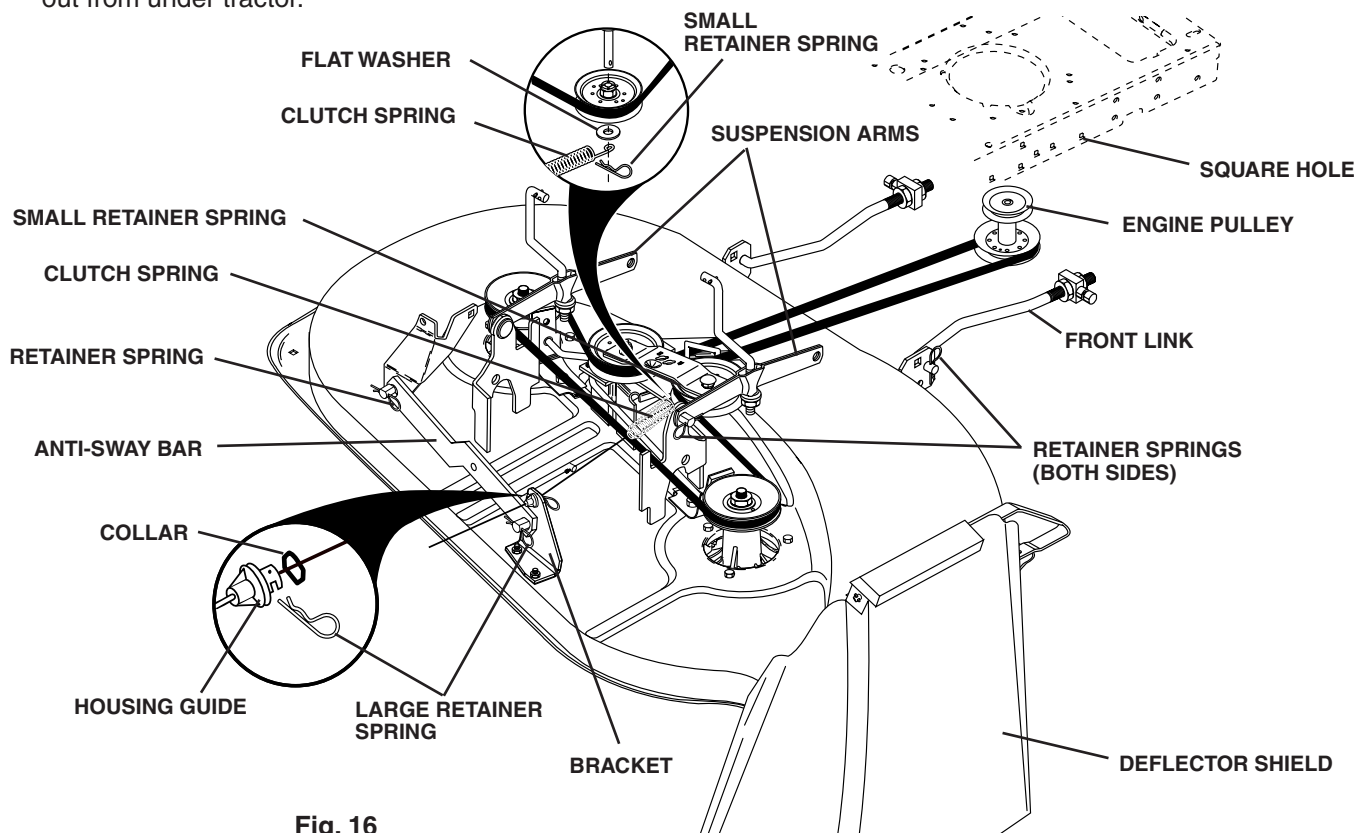


Fig. 16

# SERVICE AND ADJUSTMENTS

## TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 17 and 18)

- 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.

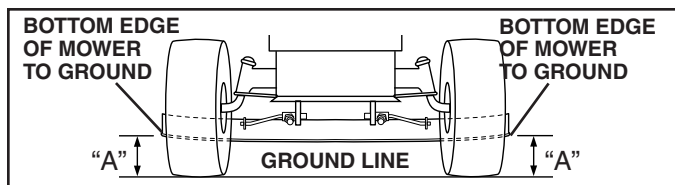


FIG. 17

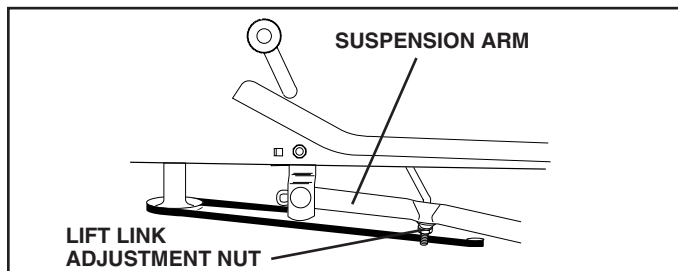


FIG. 18

FRONT-TO-BACK ADJUSTMENT (See Figs. 19 and 20)

**IMPORTANT:** DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

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

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

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

- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns. The two front links must remain equal in length.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

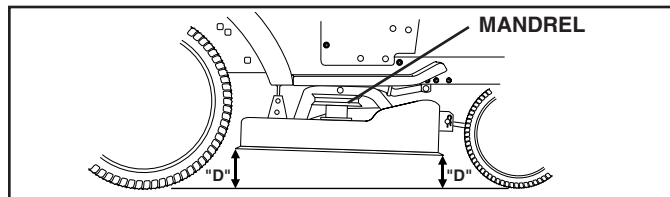


FIG. 19

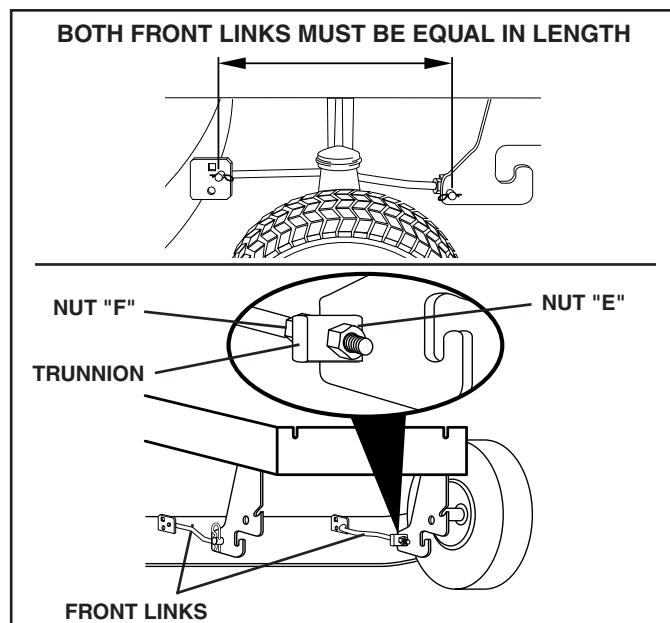


FIG. 20

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 21)

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

**BELT REMOVAL -**

- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Disconnect R.H. suspension arm from rear deck bracket by removing retainer spring.
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

**BELT INSTALLATION -**

- Work new belt around both mandrel pulleys and idler pulleys.
- Install new belt into engine pulley groove. Reconnect R.H. suspension arm and secure with retainer spring.
- Make sure belt is in all pulley grooves and inside all belt guides.

# SERVICE AND ADJUSTMENTS

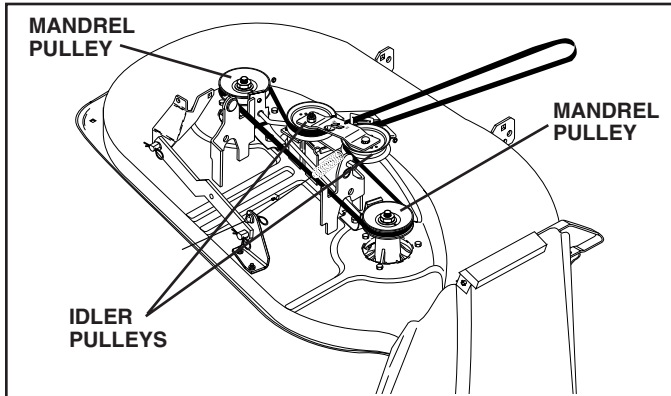


FIG. 21

## TO CHECK AND ADJUST BRAKE (See Fig. 22)

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

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

### TO CHECK BRAKE

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

The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, the brake needs to be adjusted or the pads need to be replaced.

### TO ADJUST BRAKE

- Depress clutch/brake pedal all the way down and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than five (5) feet in highest gear, further maintenance is necessary. Replace brake pads or contact a qualified service center.

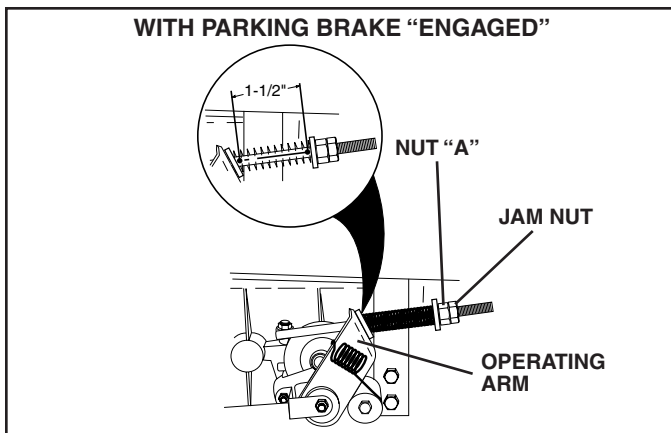


FIG. 22

## TO REPLACE MOTION DRIVE BELT (See Fig. 23)

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

### BELT REMOVAL -

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

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

Remove belt from stationary idler and clutching idler. Remove belt downward from around engine pulley.

Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.

Remove belt from center span keeper and pull belt away from tractor.

### BELT INSTALLATION -

Carefully work new belt down between transaxle belt keepers and onto the input pulley.

Slide belt into the center span keeper.

Pull belt toward front of tractor and roll around the top groove of engine pulley.

Install belt through stationary idler and clutching idler.

Make sure belt is in all pulley grooves and inside all belt guides and keepers.

Install mower (See "TO INSTALL MOWER" in this section of manual).

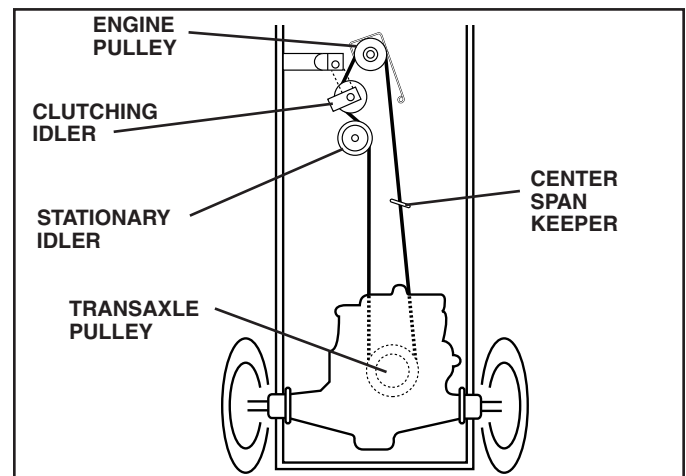


FIG. 23

## 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. 24)

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

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

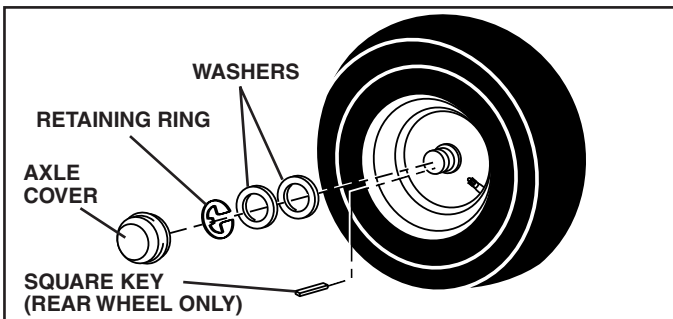


FIG. 24

## TO START ENGINE WITH A WEAK BATTERY

(See Fig. 25)



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

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

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

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

### TO ATTACH JUMPER CABLES -

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

### TO REMOVE CABLES, REVERSE ORDER -

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

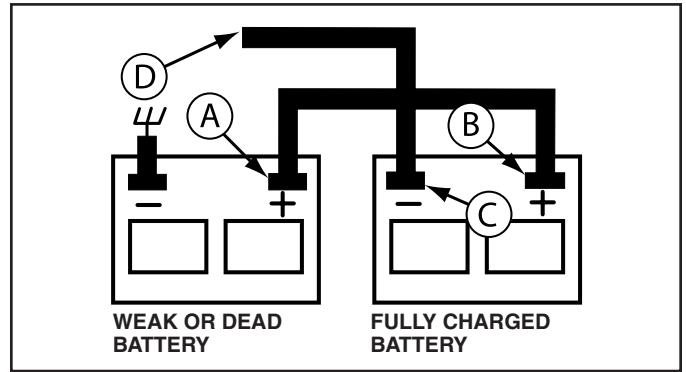


FIG. 25

## TO REPLACE HEADLIGHT BULB

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

## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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

## TO REMOVE HOOD AND GRILL ASSEMBLY

(See Fig. 26)

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

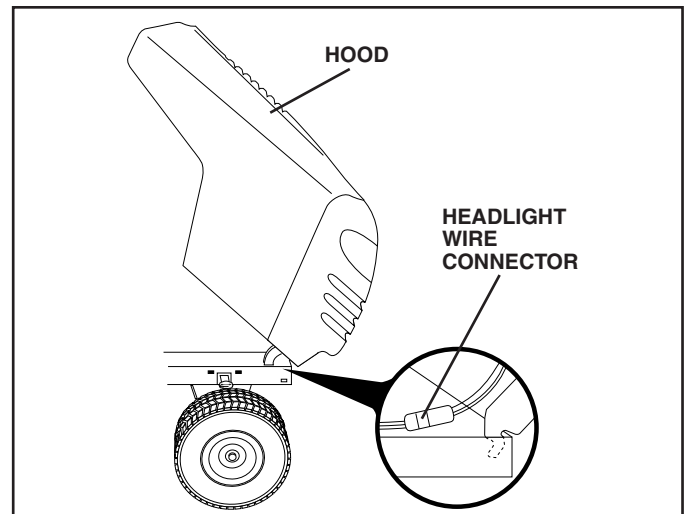


FIG. 26

# SERVICE AND ADJUSTMENTS

## ENGINE

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

### TO ADJUST THROTTLE CONTROL CABLE (See Fig. 27)

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

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

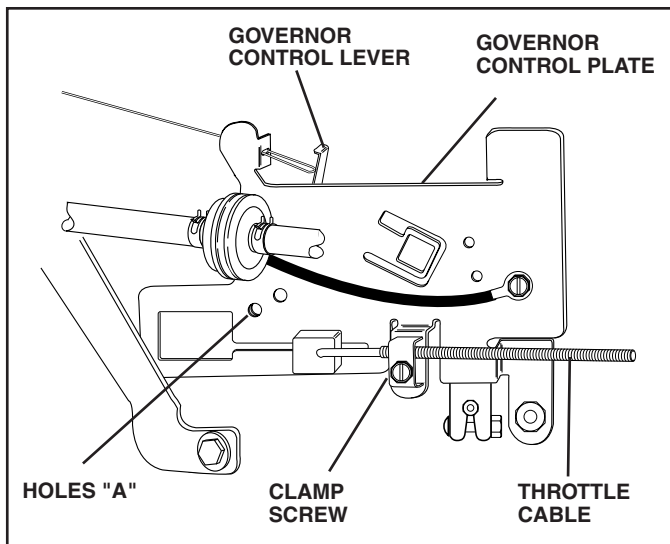


FIG. 27

### TO ADJUST CARBURETOR (See Fig. 28)

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

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

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

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

#### PRELIMINARY SETTING -

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

#### FINAL SETTING -

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

#### ACCELERATION TEST -

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

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

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

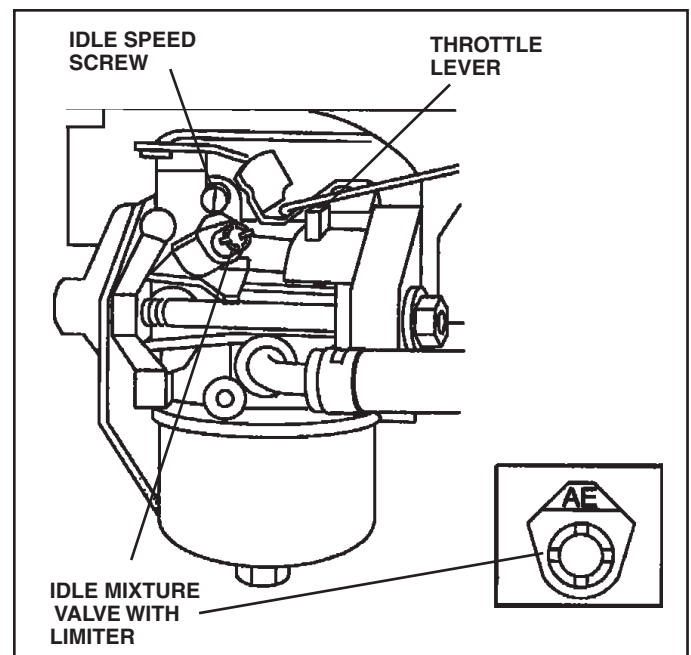


FIG. 28

---

# STORAGE

---

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



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

## TRACTOR

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

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

## BATTERY

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

## ENGINE

### FUEL SYSTEM

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

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

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

### ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See “ENGINE” in the Customer Responsibilities section of this manual).

### CYLINDER(S)

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

## OTHER

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

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



# TROUBLESHOOTING POINTS

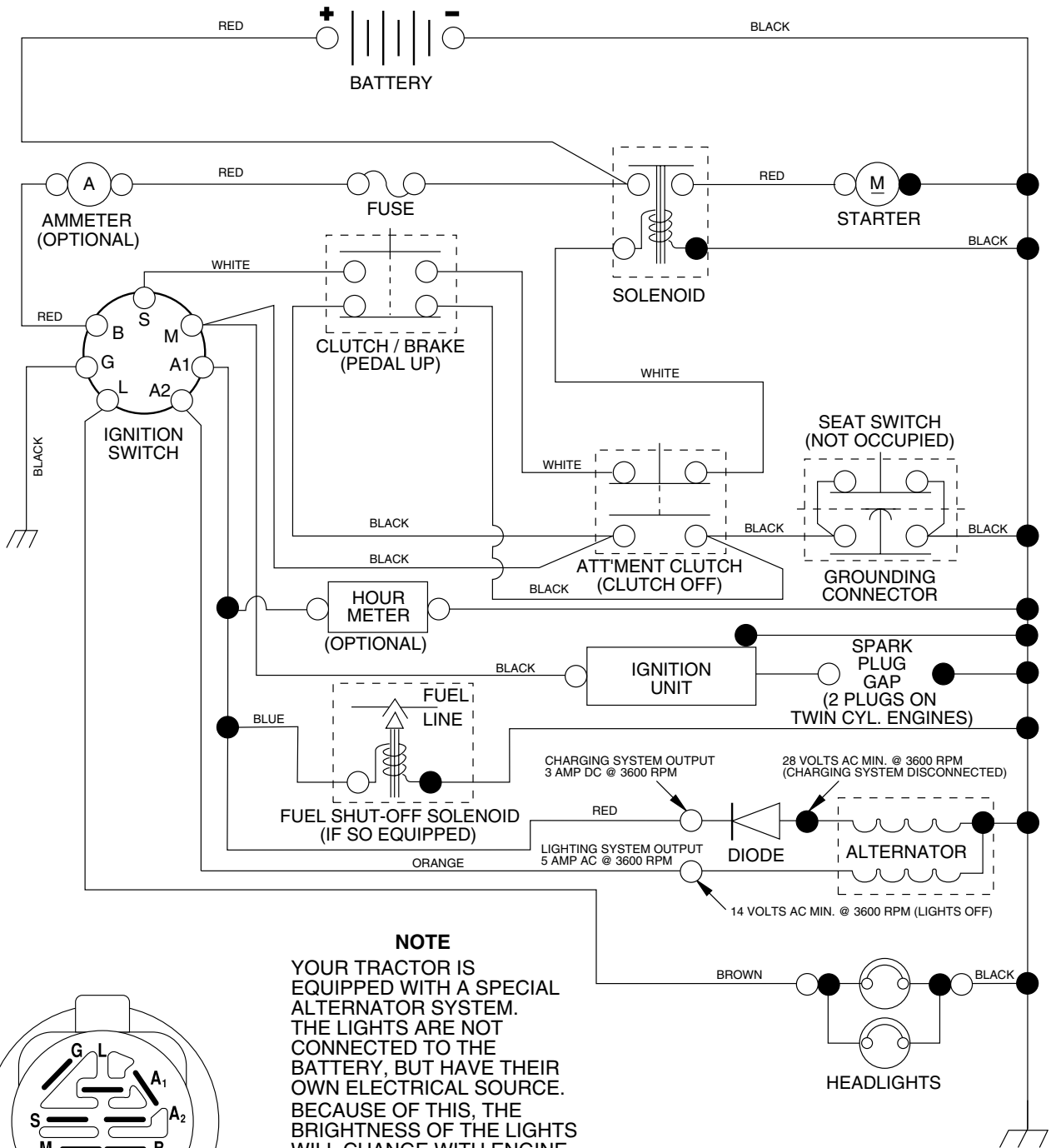
PROBLEM	CAUSE	CORRECTION
<b>Will not start</b>	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Engine not "CHOKED" properly.</li> <li>3. Engine flooded.</li> <li>4. Bad spark plug.</li> <li>5. Dirty air filter.</li> <li>6. Dirty fuel filter.</li> <li>7. Water in fuel.</li>   <li>8.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

# TROUBLESHOOTING POINTS

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

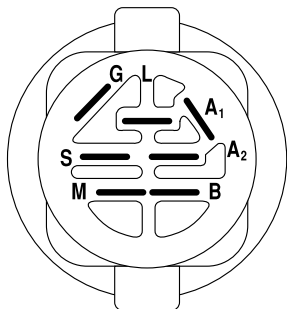
# TRACTOR - - MODEL NUMBER 944.602131

## SCHEMATIC



### NOTE

YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.



**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.

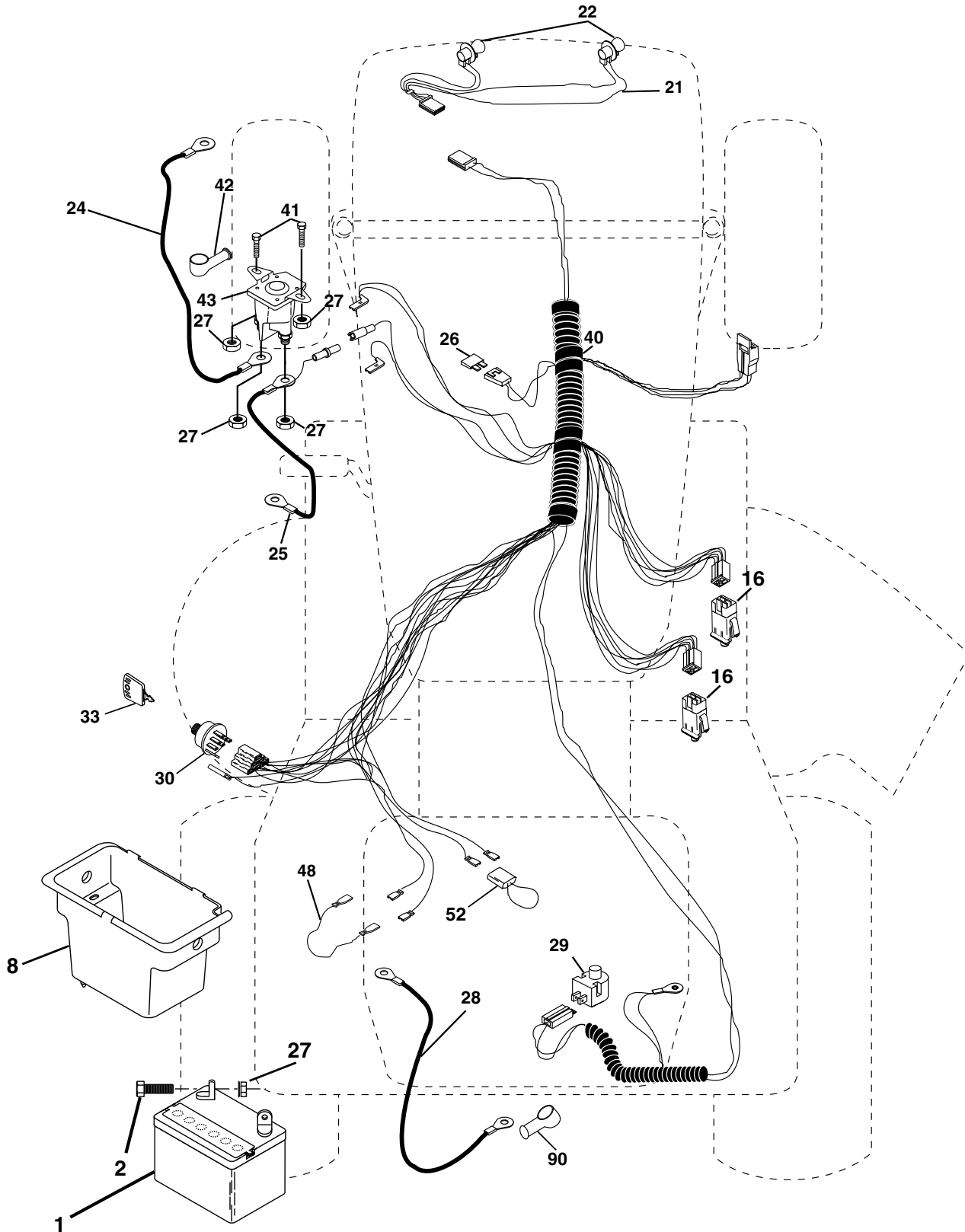
NON-REMOVABLE CONNECTIONS

REMOVABLE CONNECTIONS

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## ELECTRICAL



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### ELECTRICAL

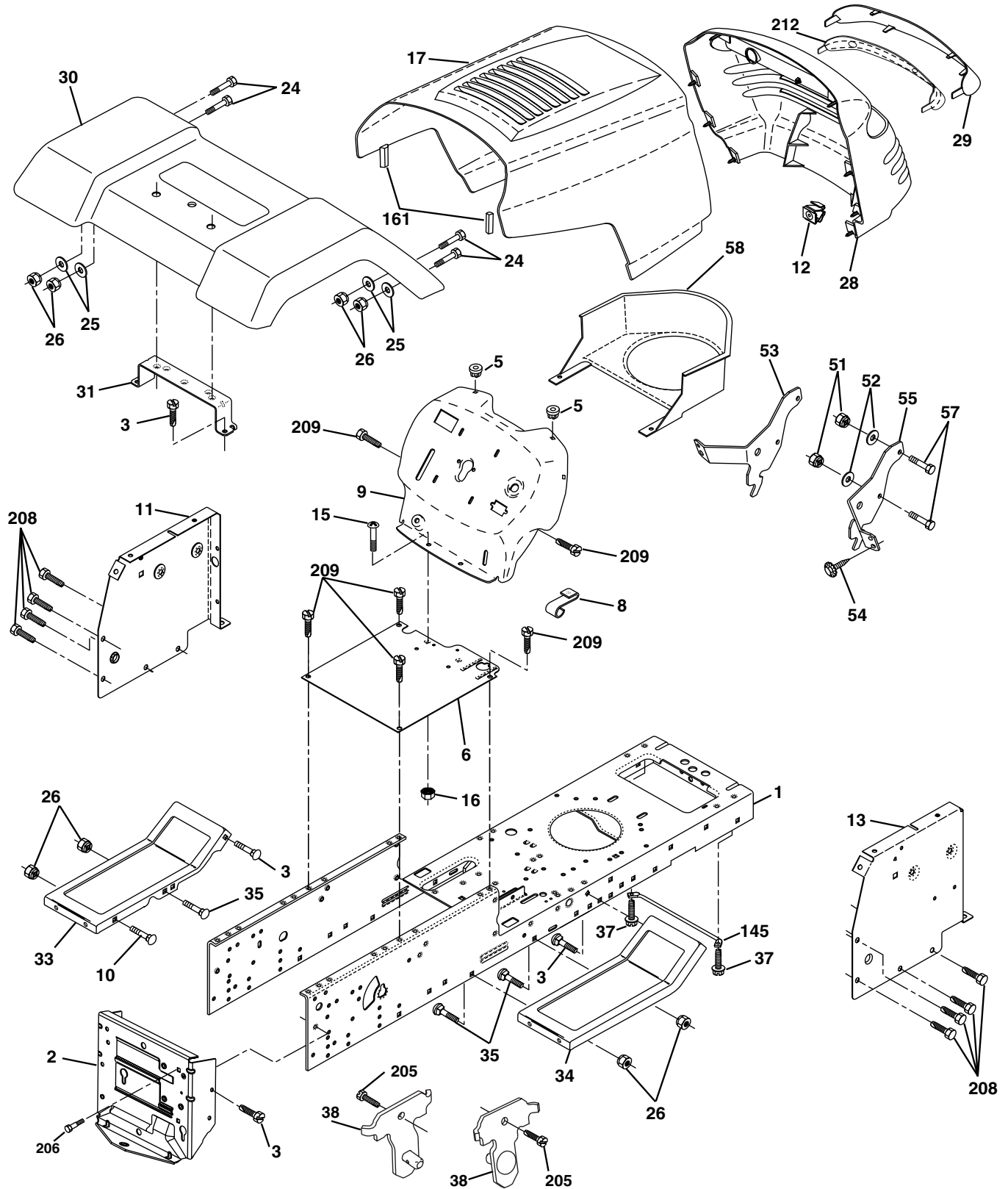
KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20unc X 3/4
8	176689	Box Battery Fender
16	176138	Switch Interlock
21	175685	Harness Asm Light W/4152J
22	4152J	Bulb Light #1156
24	4799J	Cable Battery 6 Ga 11"red
25	146147	Cable Battery 6 Ga w/16 wire,red
26	175158	Fuse 20 AMP
27	73510400	Nut Keps Hex 1/4-20 Unc
28	4207J	Cable Ground 6 Ga 12" black
29	121305X	Switch Plunger Nc Gray
30	175566	Switch Ign Delta Push-In
33	140403	Key Ign
40	179720	Harness Ign
41	71110408	Bolt Blk Fin Hex 1/4-20 X 1/2
42	131563	Cover Terminal Red
43	178861	Solenoid
48	140844	Adapter Ammeter
52	141940	Protection Wire Loop
90	180449	Cover Terminal Battery

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## CHASSIS AND ENCLOSURES



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### CHASSIS AND ENCLOSURES

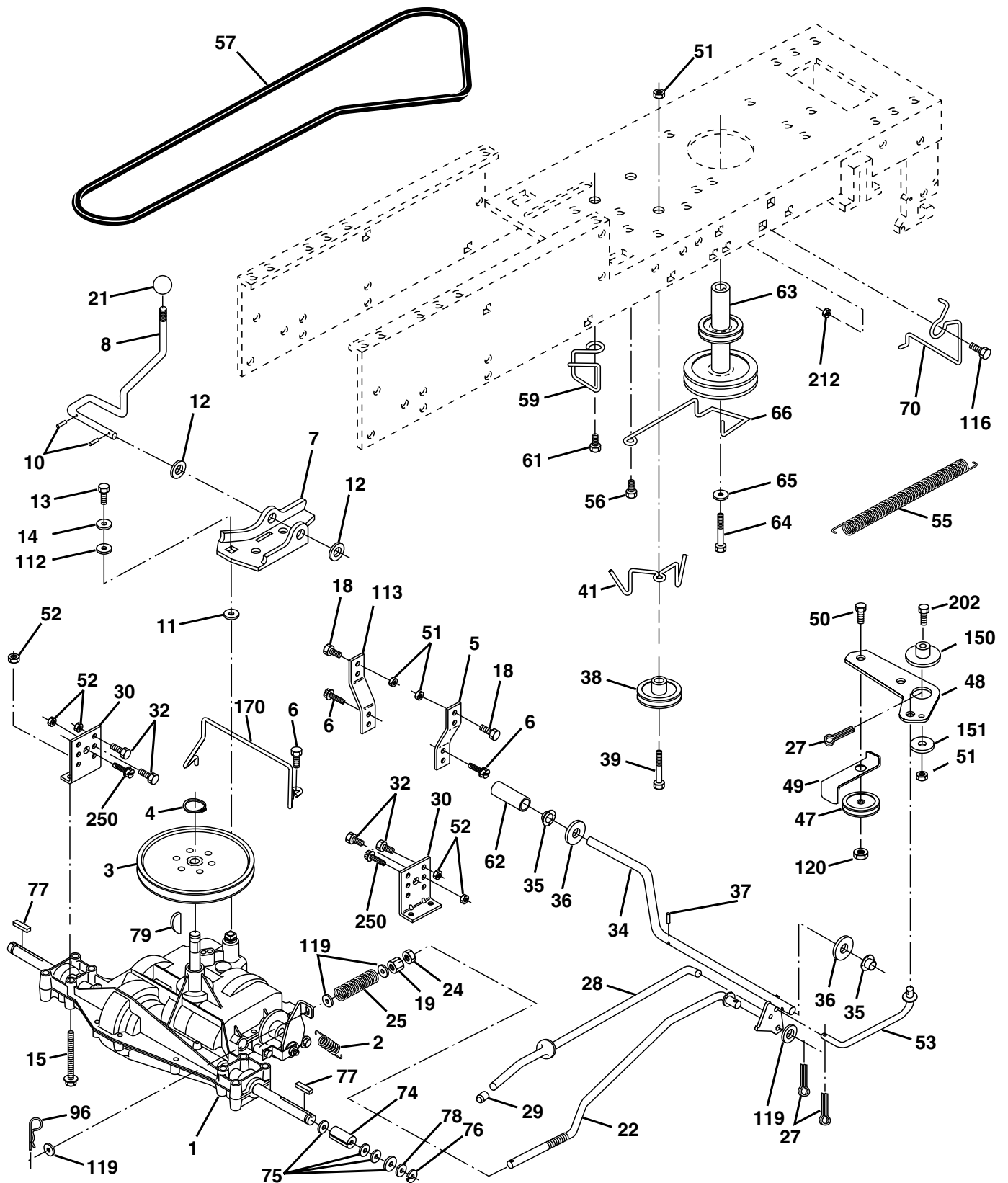
KEY NO.	PART NO.	DESCRIPTION
1	174620	Chassis
2	176554	Drawbar
3	17060612	Screw 3/8-16 x 3/4
5	155272	Bumper Hood/Dash
6	174643X014	Saddle Slkscr Flat Lt 6Sp
8	155138	Clip Retainer Slide-On
9	168347X012	Dash Private Label
10	72140608	Bolt RdHd Sqnk. 3/8-16 Unc x 1
11	174996	Panel Asm. Dash Lh
12	145660	Clip Tinnerman Grille P/L
13	172105X010	Panel Dash Rh
15	74180512	Screw Mach Trhd 5/16-18 Unc x 3/4
16	73510500	Nut Keps 5/16-18 Unc
17	159639X558	Hood Pnt STL P/L w/trim
18	126938X	Bumper Hood
24	74780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5
25	19131312	Washer 13/32 x 13/16 x 12 Ga.
26	73800600	Nut Lock Hex w/Insert 3/8-16 UNC
28	179777	Grille/Lens Asm
29	150209X599	Lens Grille Private label
30	169465X558	Fender Asm LT w/o Shift
31	136619	Bracket Fender
33	179716X558	Footrest Pnt LH
34	179717X558	Footrest Pnt RH
35	72110606	Bolt RdHd Sht. Sqnk. 3/8-16 x 3/4
37	17490508	Screw Thdrol 5/16-18 x 1/2 Tyt
38	175710	Bracket Asm Pivot Mower Rear
51	73800400	Nut Lock Hex W/Ins. 1/4-20
52	19091416	Washer 9/32 x 7/8 x 16 Ga.
53	144697	Bracket Grille LH
54	161464	Screw Hex Wshd 8-18 x 7/8
55	144696	Bracket, Grille RH
57	74780412	Bolt Fin Hex 1/4-20 x .75
58	150127	Air Duct Private Label
145	156524	Rod Pivot Chassis/Hood
205	17490608	Screw Thdrol 3/8-16 x 1/2
206	170165	Bolt Shoulder 5/16-18 TT
208	17670608	Screw Thdrol 3/8-16 x 1/2
209	17000612	Screw Hex Wsh Thdrol 3/8-16
212	156494	Insert lens Rerlective
--	5479J	Plug Btn Blk

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## DRIVE





# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### DRIVE

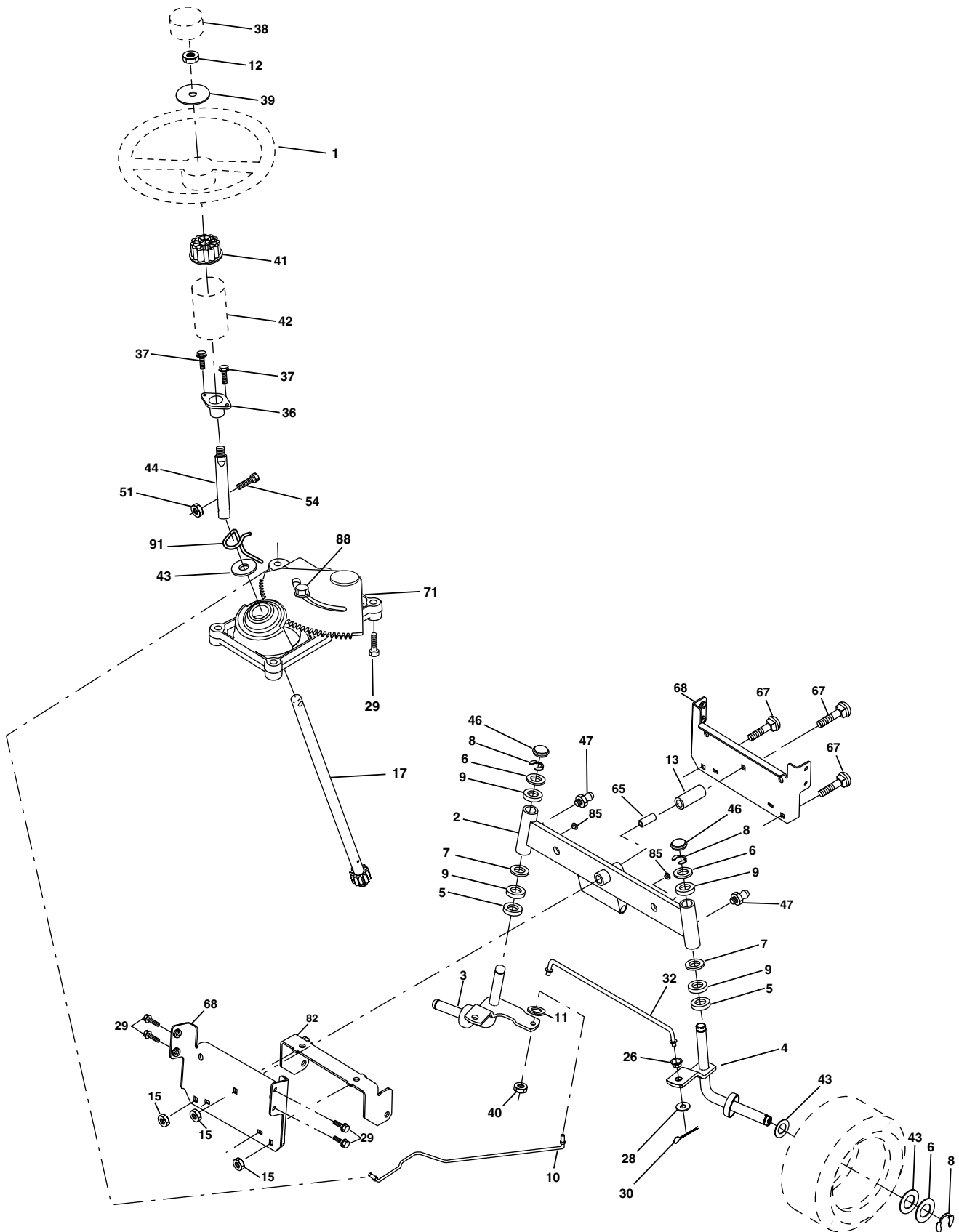
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	-----	Transaxle (See Breakdown) Dana Model 4360-139	49	123205X	Retainer Belt Style Spring
2	146682	Spring Extension Brake	50	STD523715	Bolt Hex Hd 3/8-16 x 1 1/2
3	123666X	Pulley Transaxle 18" tires	51	STD541437	Nut Crown Lock 3/8-16
4	12000028	Ring Retainer # 5100-62	52	STD541431	Nut Crown Lock 5/16-18
5	121520X	Strap Torque Rh Pnt Blk	53	105710X	Link Clutch 7 66
6	17000512	Screw 5/16-18 X 3/4	55	105709X	Spring Return Clutch 6 75
7	162240	Plate Pnt Rod Shift T/a (blk )	56	17060620	Screw 3/8-16 x 1
8	131679	Rod Shifter Black(dana)	57	160855	V-belt Ground Drive 95 30
10	STD561210	Pin Cotter 1/8 x 1	59	169691	Keeper Belt Span Ctr.
11	105701X	Washer Plate Shf 388 Sq Hole	61	17120614	Screw 3/8-16x3/4
12	19151216	Washer 15/32 X 3/4 X 16ga	62	8883R	Cover Pedal Blk Round
13	74550412	Bolt 1/4-28 UNF Gr. 8 W/Patch	63	175410	Pulley Engine
14	STD551125	Washer Lock Hvy Helical 1/4	64	71170764	Bolt, Hex 7/16-20 x 4 Grade 5
15	74490544	Bolt Hex Flghd 5/16-18 x Gr. 5	65	STD551143	Washer, Lock, Hvy Hlcl Spring 7/16
18	STD523710	Bolt Fin Hex 3/8-16 UNC x 1 Gr. 5	66	154778	Keeper Belt Engine Flproof
19	STD541437	Nut Lock Hex 3/8-16	70	134683	Guide Belt Dr Mower Rh
21	106933X	Knob Rd 1/2-13 Plstc Thds Blk	74	109502X	Spacer Split
22	130804	Rod Brake Lt	75	121749X	Washer 25/32 X 1 1/4 X 16 Ga
24	STD541237	Nut Hex Jam 3/8-16	76	STD581075	E Ring
25	106888X	Spring Rod Brake 2 00 Zinc	77	123583X	Key Square 2 0 X 1845/ 1865
27	STD561210	Pin Cotter	78	121748X	Washer 25/32 X 1 5/8 X 16 Ga
28	175765	Rod Brake Parking Lt/Yt	79	2228M	Key Woodruff #9 3/16 x 3/4
29	71673	Cap Parking Brake	96	4497H	Spring Retainer
30	174973	Bracket Transmission	112	19091210	Washer 9/32 X 3/4 X 10 Ga
32	STD523107	Bolt Hex Hd.5/16-18 x 3/4	113	127285X	Strap Torque LH
34	175578	Shaft Asm Pedal Foot Nibbed	116	72140608	Bolt 3/8-16 x 1
35	120183X	Bearing Nylon Blk 629 Id	119	STD551037	Washer 13/32 x 5/8 x 16 Ga.
36	STD551062	Washer 21/32 x 1 x 16 Ga.	120	73900600	Nut Lock 3/8-16
37	STD571810	Roll Pin 3/16 x 1"	150	175456	Spacer Retainer
38	179114	Pulley Composite Flat	151	19133210	Washer 13/32 x 2 x 10 Ga.
39	74760648	Bolt Fin Hex 3/8-16 Unc x 2-3/4	170	178394	Keeper Belt Transaxle
40	175461	Spacer Split 395 X 59 Bzp	202	72110614	Bolt Car Sh 3/8-16 x 1-3/4 Gr. 5
41	175556	Keeper Belt Idler	212	145212	Nut Hexflange Lock
42	19131312	Washer 13/32 X 13/16 X 12 Ga	250	17060612	Screw 3/8-16 x .75
47	127783	Pulley Idler V Groove Plastic			
48	154407	Bellcrank Clutch Grnd Drv Stl			

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## STEERING ASSEMBLY



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### STEERING ASSEMBLY

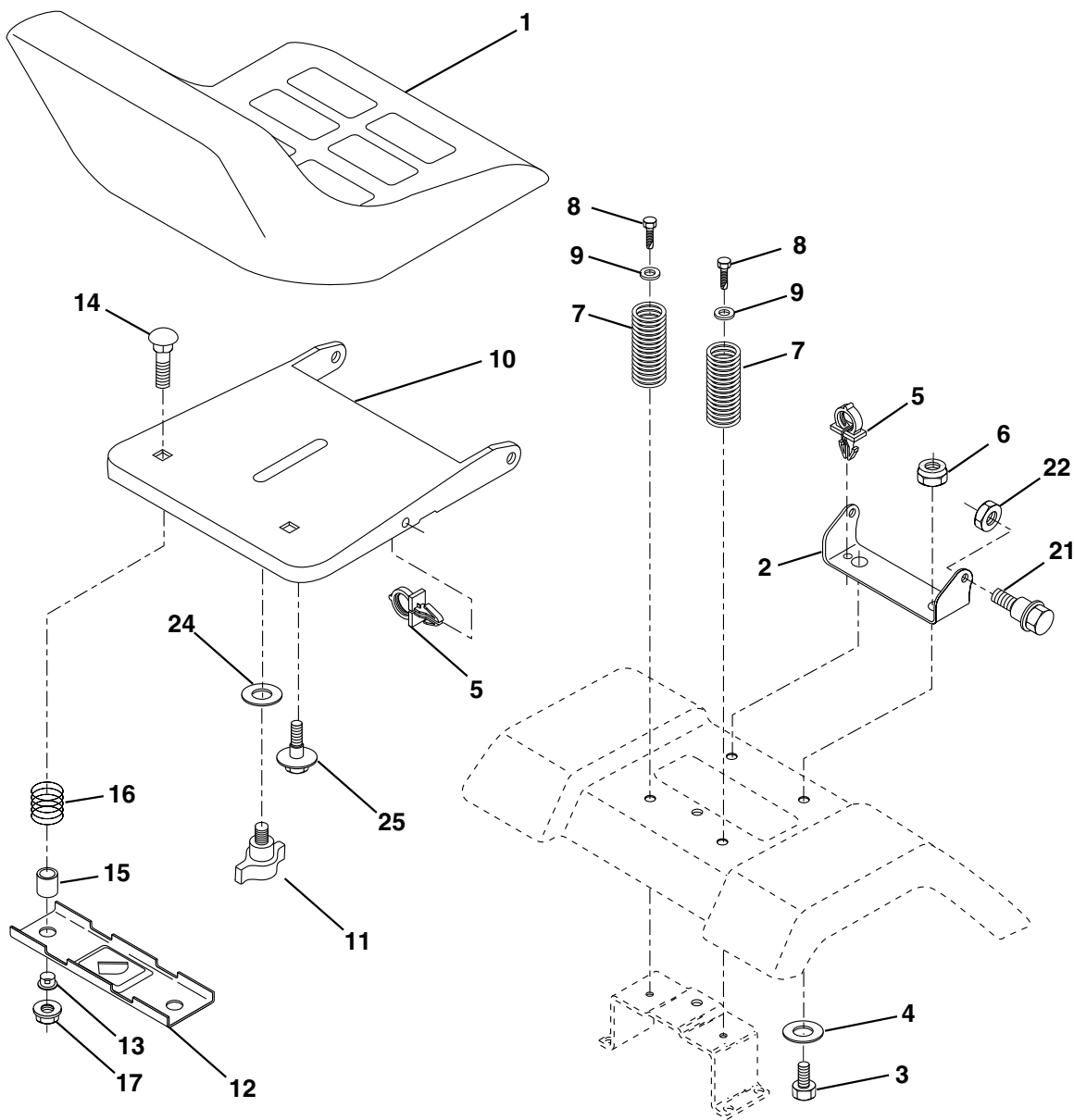
KEY NO.	PART NO.	DESCRIPTION
1	140044X428	Wheel Steering
2	175131	Axle Asm Front
3	169840	Spindle Asm Lh
4	169839	Spindle Asm Rh
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 X 1 5/8 X 16ga
7	19272016	Washer 27/32 X 1 1/4 X 16 Ga
8	12000029	Ring Klip #t5304-75
9	3366R	Bearing Col Strg Blk
10	175121	Link Drag
11	10040600	Lockwasher
12	73940800	Nut Hex Jam Toplock 1/2-20 Unf
13	136518	Spacer Bearing Axle Front
15	145212	Nut Hex Flange Lock
17	180641	Shaft Asm Strg
26	126847X	Bushing Rod Tie Blk Lt
28	19131416	Washer 13/32 X 7/8 X 16ga
29	17060612	Screw 3/8-16x3/4
30	76020412	Pin
32	130465	Rod Tie Wire Form 19 75 Mech
36	155099	Bushing Strg 5/8 Id Dash
37	152927	Screw TT #10-32 x 5 x 3/8 Flange
38	140045X428	Insert Cap Strg
39	19183812	Washer 9/16 ID x 2-3/8 OD 12 Ga.
40	7810H	Locknut Center
41	100711L	Adaptor Wheel Strg 640/ 635id
42	145054X428	Boot Dash Steering
43	121749X	Washer 25/32 X 1 1/4 X 16 Ga
44	180640	Extension Steering
46	121232X	Cap Spindle Fr Top Blk
47	6855M	Fitting Grease
51	73540400	Nut Crownlock 1/4-28
54	71130420	Bolt Hex 1/4-28 Unf x 1-1/4 Gr. 8
65	160367	Spacer Brace Axle
67	72140618	Bolt RdHd Sq 3/8-16 Unc x 2-1/4
68	169827	Brace Axle
71	175146	Steering Asm.
82	169835	Bracket Susp Chassis Front
85	133835	Fastner Christmas Tree
88	175118	Screw 7/16-20
91	175553	Steering Clip

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	127427	Seat
2	140551	Bracket Pnt Pivot Seat (blk )
3	71110616	Bolt Fin Hex 3/8-16 x 1
4	19131610	Washer 13/32 X 1 X 10 Ga
5	145006	Clip Push-In Hinged
6	73800600	Nut Lock Hex 3/8-16
7	124181X	Spring Seat Cprsn 2 250 Blk Zi
8	17000616	Screw 3/8-16 X 1-1/2
9	19131614	Washer 13/32 X 1 X 14 Ga
10	182493	Pan Pnt Seat (blk )
11	166369	Knob Seat Adj Wingnut
12	121246X	Bracket Pnt Mounting Switch

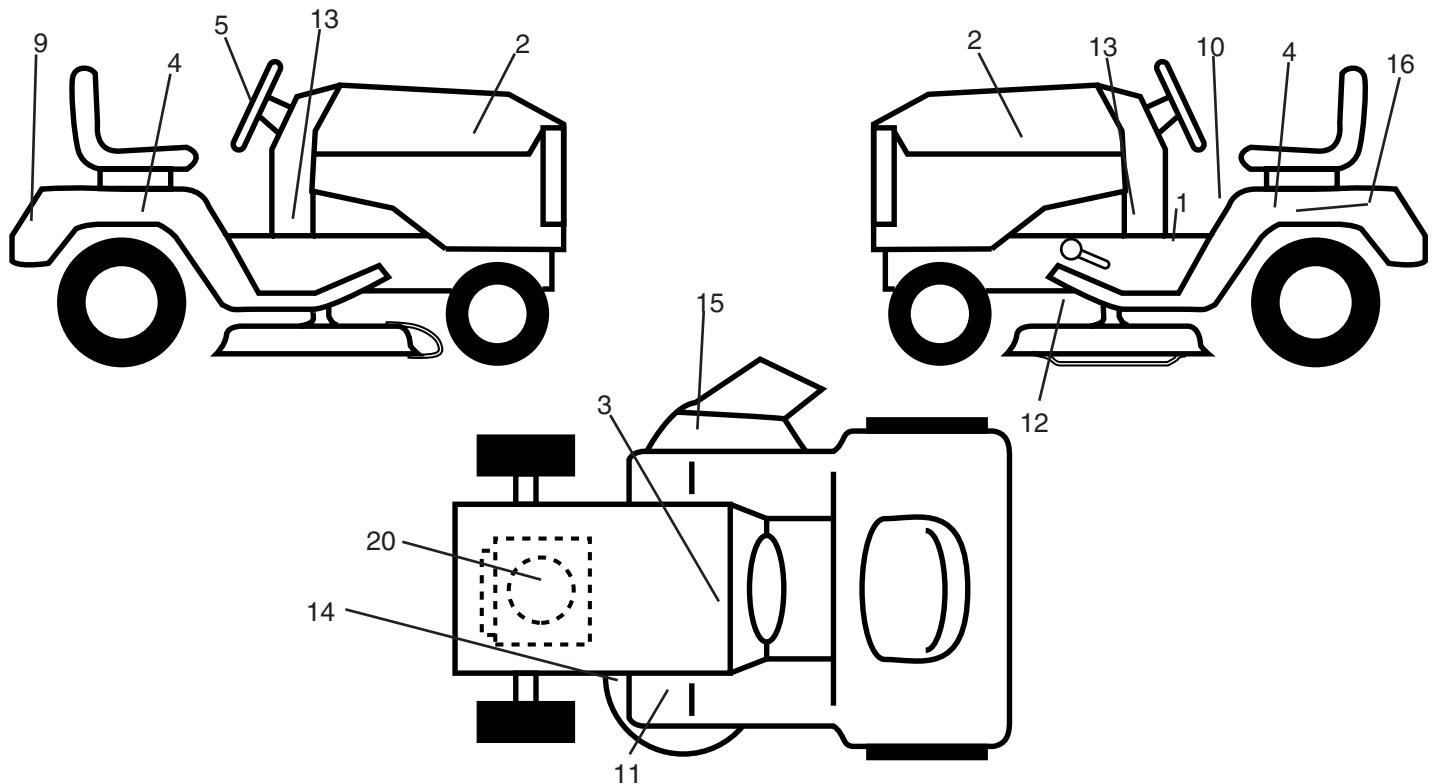
KEY NO.	PART NO.	DESCRIPTION
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050412	Bolt Rdhd Sht Nk 1/4-20x1-1/2
15	134300	Spacer Split 28 X96 Yel Zinc
16	121250X	Spring Cprsn 1 27 Blk Pnt
17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
21	171852	Bolt Shoulder 5/16-18 Unc Blkz-2A
22	STD541431	Nut Lock 5/16-18
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  
1 inch = 25.4 mm

# REPAIR PARTS

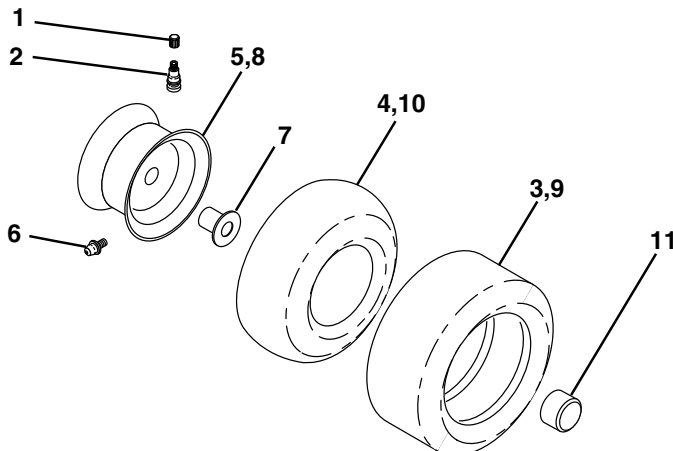
## TRACTOR - - MODEL NUMBER 944.602131

### DECALS



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	157163	Decal Oper Sdl P/L Gear Dr E/F	12	146046	Decal V-belt Dr Sch Tractor E
2	171704	Decal Hood Logo	13	177109	Decal Panel Dash
3	177610	Decal, Hood, Replacement Parts	14	136832	Decal V-belt Schematic 42"eng
4	172276	Decal Fender Sd White	15	170563	Decal Warning Mower
5	172275	Decal Steering Wh	16	149517	Decal Battery Danger/Poison
9	163204	Decal Craftsman	20	176450	Decal HP Engine
10	157140	Decal Caution English/French	--	138311	Decal Lift Handle
11	181251	Decal Clutch/brake English/ French.	--	183185	Manual Owners English
			--	183186	Manual Owners French

### WHEELS & TIRES



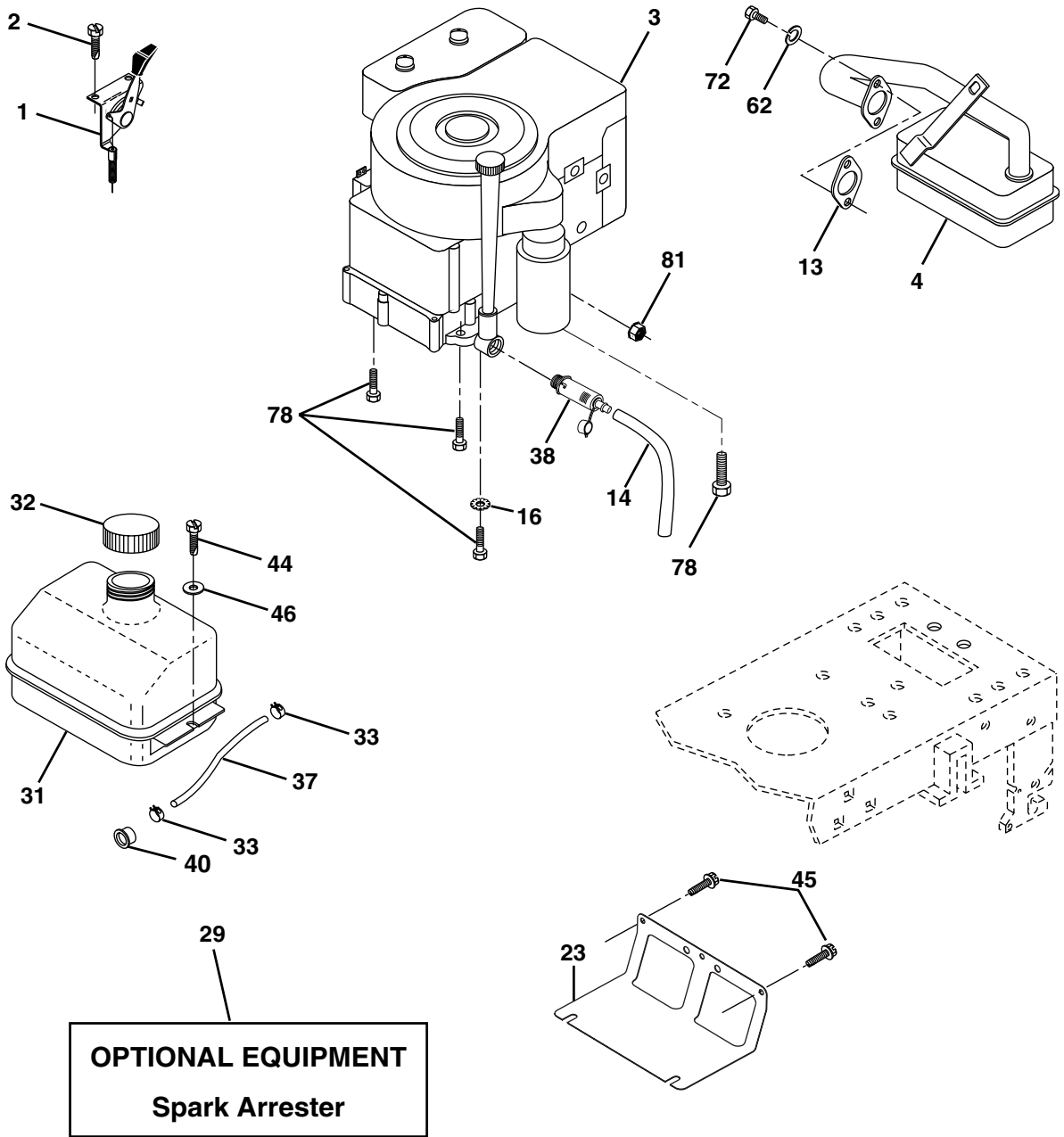
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F Ts 15 X 6 0 - 6 Service
4	59904	Tube Front (Service Item Only)
5	106732X427	Rim Asm 6"front White Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X427	Rim Asm 8"rear White Service
9	124635X	Tire R Ts 18x8.5-8 C Service
10	7152J	Tube Rear (Service Item Only)
11	104757X428	Cap Axle Blk 1 50 X 1 00
--	144334	Sealant, Tire (10 oz. Tube)

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### ENGINE



**OPTIONAL EQUIPMENT**  
**Spark Arrester**

KEY NO.	PART NO.	DESCRIPTION
1	170551	Control Throt /Choke
2	17720408	Screw Hex Thd Cut 1/4-20x5/8 T
3	-----	Engine (See Breakdown) Briggs Model 28R707-1147-E1
4	137348	Muffler Exhaust B&S Lt
13	165291	Gasket 1 313 Id Tin Plated
14	148456	Tube Drain Oil Easy
16	11050600	Washer Lock Ext Tooth 3/8
23	169837	Shield Browning/Debris Guard
29	137180	Arrestor Spark
31	109202X	Tank Fuel 1 25 Fr
32	158990	Cap Asm Fuel
33	123487X	Clamp Hose Blk

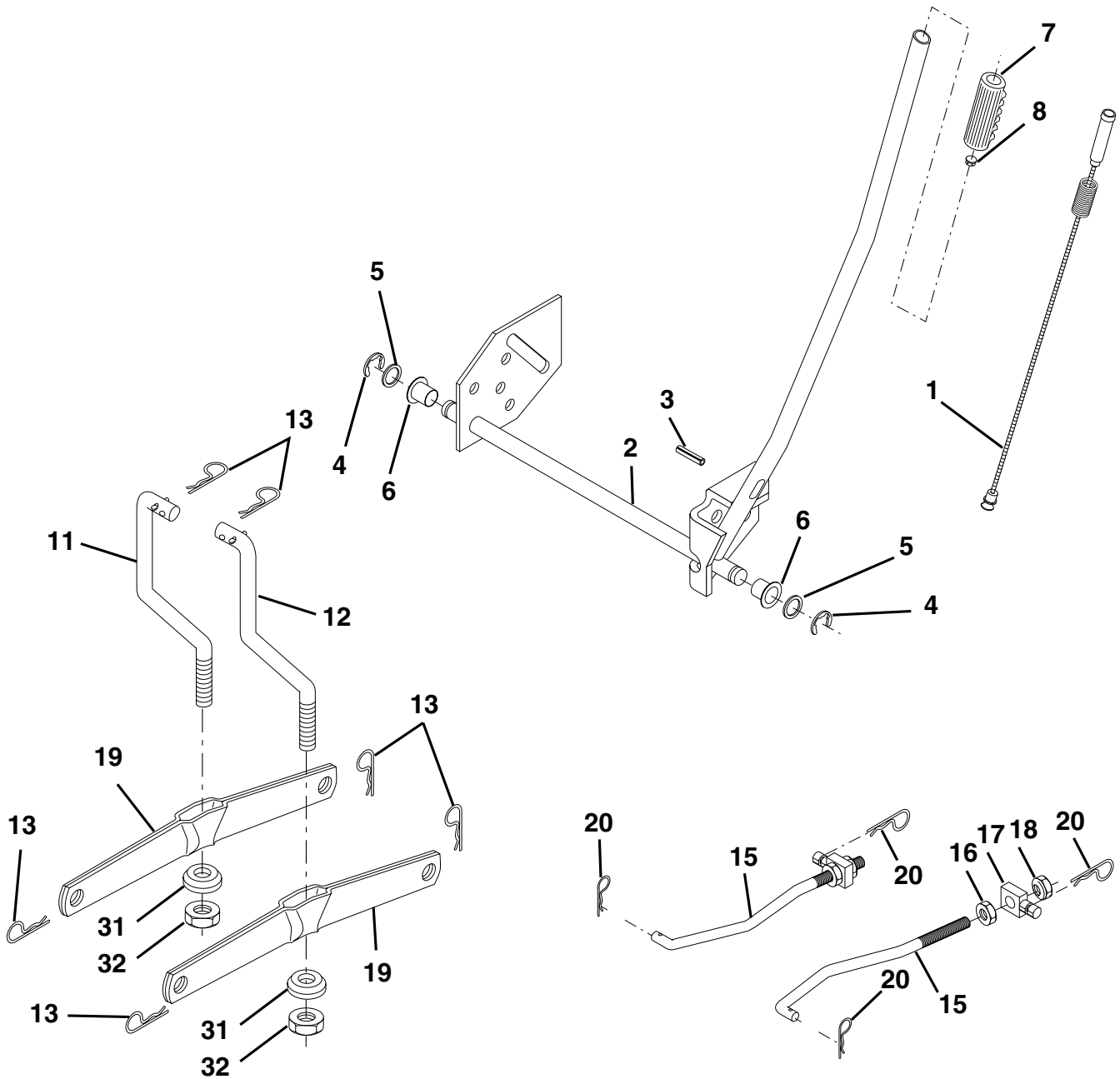
KEY NO.	PART NO.	DESCRIPTION
37	137040	Line Fuel 20"
38	148315	Plug Drain Oil Easy
40	124028X	Bushing Snap Nyl Blk Fuel Line
44	17670412	Screw Hexwsh Thdrol 1/4-20x3/4
45	17000612	Screw Hex Thdrol 3/8-16
46	19091416	Washer 9/32 X 7/8 X 16ga
62	10040500	Washer Lock Hvy Hlcl Spr 5/16
72	71070512	Screw Hexhd Cap 5/16-18x3/4
78	17060620	Screw 3/8-16x1-1/4
81	73510400	Nut Keps Hex 1/4-20 Unc

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## MOWER LIFT



KEY NO.	PART NO.	DESCRIPTION
1	159460	Wire Asm Inner/Sprg W/Plngr LT
2	159471	Shaft Asm Lift
3	105767X	Pin Groove
4	STD581062	E Ring #5133-62
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylon
7	125631X	Grip Handle Fluted
8	122365X	Button Plunger Red
11	139865	Link Lift Lh
12	139866	Link Lift Rh
13	STD624008	Retainer Spring

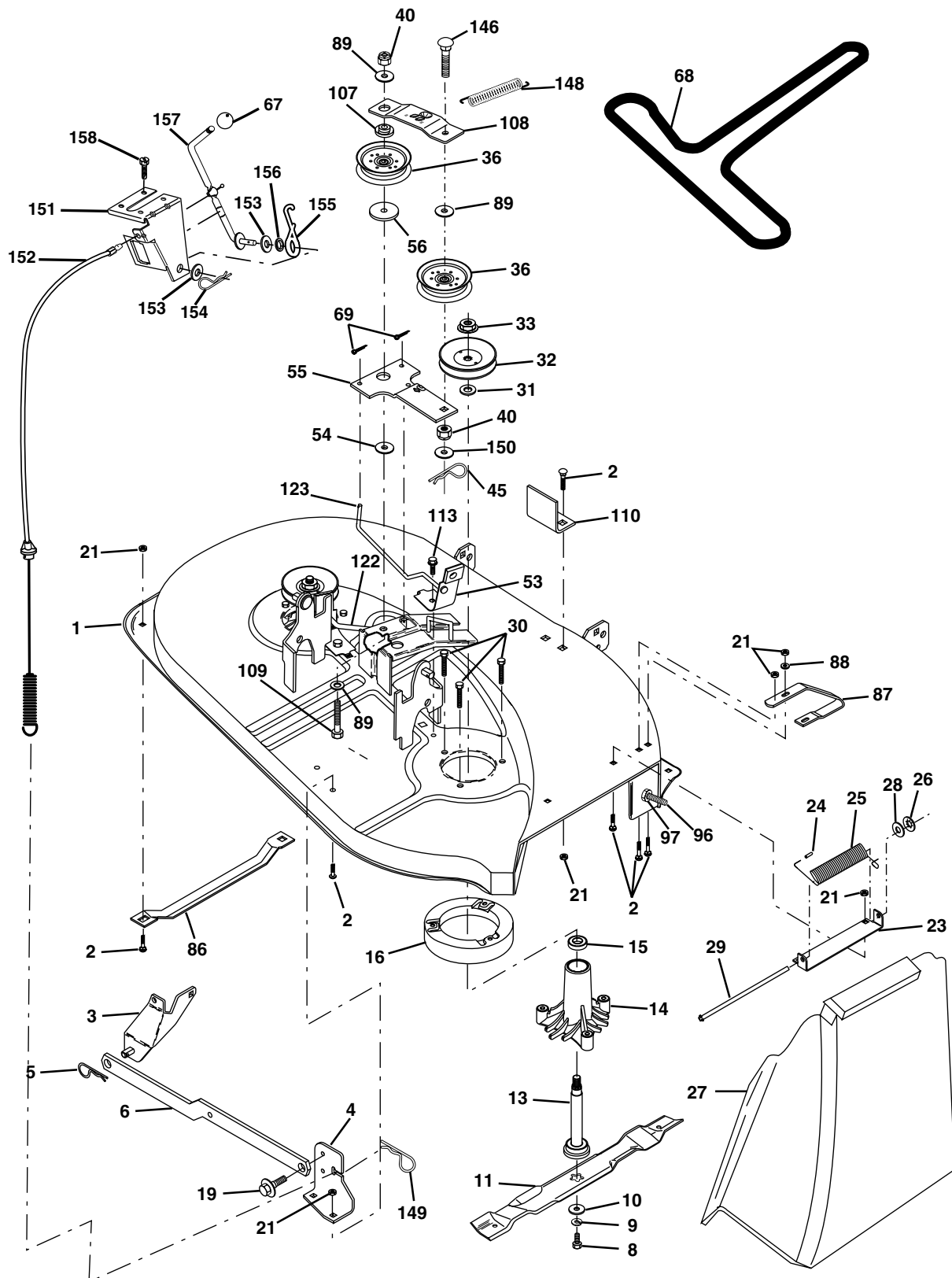
KEY NO.	PART NO.	DESCRIPTION
15	173288	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	175689	Trunnion Blk Zinc
18	73800800	Nut Lock W/Wsh 1/2-13 Unc
19	139868	Arm Suspension Rear
20	163552	Retainer Spring
31	169865	Bearing Pvt Lift
32	73540600	Nut Crownlock 3/8-24

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

## MOWER DECK





# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### MOWER DECK

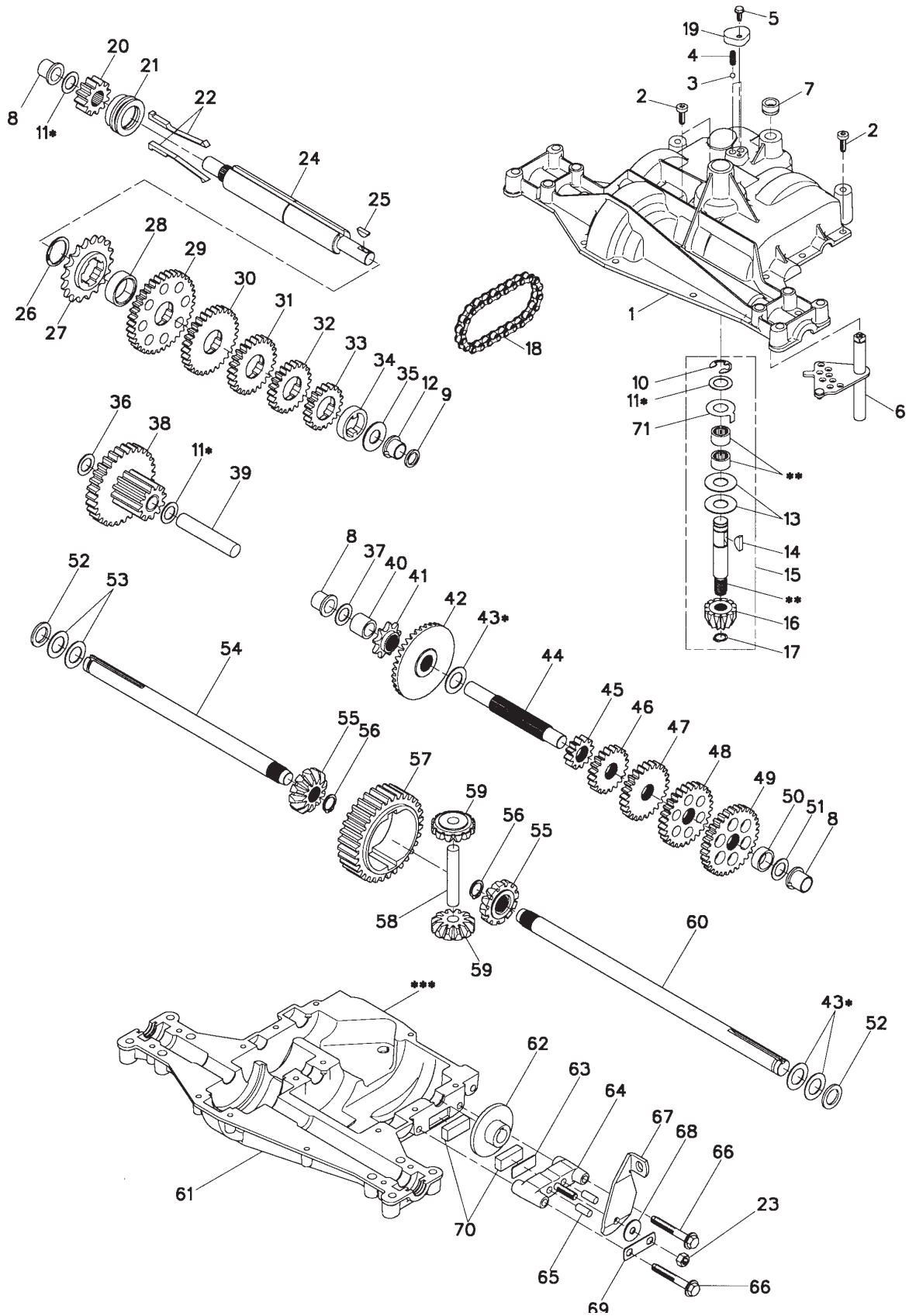
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	170280	Deck Asm Weldment	68	144200	V-Belt, Mower
2	72140506	Bolt	69	76020312	Pin, Cotter 3/32 x 3/4
3	138017	Asm., Bar, Anti-Sway	86	7631J	Runner, LH
4	169970	Bracket Sway Bar Deck 38/42"	87	128772	Runner, RH
5	4939M	Spring, Retainer	88	19111216	Washer 11/32 x 3/4 x 16 Ga.
6	178024	Bar Sway Deck	89	19131612	Washer 13/32 x 1 x 12 Ga.
8	850857	Bolt 3/8-24 x 1.25 Gr. 8	96	74930620	Bolt 3/8-16 x 1-1/4
9	10030600	Washer, Lock	97	73930600	Nut Centerlock 3/8-16
10	140296	Washer, Hardened	107	133502	Spacer, Retainer
11	134148	Blade, Mower, Hi Lift	108	133503	Stiffener, Idler Arm
13	137645	Asm., Shaft, Mandrel, Vented	109	74760640	Bolt, hex Head 3/8-16 x 2-1/2
14	128774	Housing, Mandrel, Vented	110	142587	Upstop Deck Front 38"
15	110485X	Bearing, Ball, Mandrel	113	17060512	Screw, 5/16-18 x 3/4
16	174493	Stripper, Mower	122	131289	Rod, Brake, LH
19	132827	Bolt, Shoulder	123	169971	Rod, Brake, RH
21	73680500	Nut, Crownlock 5/16 - 18 UNC	146	165891	Bolt Carriage Idler
23	137607	Bracket, Deflector	148	169022	Spring Return Idler
24	105304X	Cap, Sleeve	149	165898	Retainer Spring Yellow Zinc
25	123713X	Spring, Torsion, Deflector	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
26	110452X	Washer, Lock	151	169670	Bracket Clutch Cable
27	106736X428	Deflector, Shield	152	172758	Clutch Cable 38"/42"
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	153	169674	Washer Flat 3/8" Type B
29	106735X	Rod, Hinge	154	169675	Spring Retainer
30	173984	Screw Hex Thdrol	155	169671	Spring Retention Lvr Cltch Cab
31	129963	Washer, Spacer	156	169672	Spacer Clutch Cable 3/8"
32	153532	Pulley, Mandrel	157	169669	Rod Clutch Cable 3/8"
33	178342	Nut Lock	158	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
36	131494	Pulley, Idler, Flat	--	130794	Mandrel Assembly (includes Housing, Shaft and Shaft Hardware Only - Pulley Not Included)
40	73680600	Nut, Crownlock 3/8 - 16 UNC	--	171665	Replacement Mower, Complete
45	4497H	Retainer Spring 1: Zinc/Cad			
53	130840	Brake Assembly			
54	133943	Washer, Hardened			
55	133840	Arm, Idler Assembly			
56	165723	Spacer, Retainer			
67	149846	Knob Custom Oval			

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

DANA TRANSAXLE - MODEL NUMBER 4360-139



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### DANA TRANSAXLE - MODEL NUMBER 4360-139

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	170981	Housing, Upper	41	105928X	Sprocket, 9T
2	2274J	Screw, Tapping, 1/4-20 X .734	42	170988	Gear, Bevel, 36T
3	134400	Ball, Detent	43	134394	* Assy, Kit, Shim, .750 Shaft
4	105904X	Spring, Detent	44	120473X	Shaft, Drive
5	160940	Screw, Tapping, No. 10-24 X .482	45	142678	Gear, Spur, 12T
6	138235	Assy, Kit, Shifter	46	124641 X	Gear, Spur, 20T
7	108727X	V-Ring	47	106589X	Gear, Spur, 25T
8	148266	Bearing, Flange	48	120408X	Gear, Spur, 28T
9	148269	Seal, Oil	49	105937X	Gear, Spur, 31T
10	2225J	Ring, Retaining	50	105936X	Spacer, .781 X 1.00 X .375
11	134793	* Assy, Kit, Shim, .625 Shaft	51	2226J	Washer, Plain, .632 X 1.00 X .060
12	148268	Bearing, Flange	52	134401	Washer, Neoprene
13	120415X	Washer, Plain, .632 X 1.38 X .046	53	2264J	Washer, Plain, .758 X 1.25 X .031
14	142674	Key, Woodruff, No. 9	54	160946	Axle, LH
15	170983	Assy, Kit, Input Shaft	55	170990	Gear, Miter, T, Splined
16	170986	Pinion, Bevel, 12T	56	160948	Ring, Retaining
17	105909X	Ring, Retaining	57	110071X	Gear, Spur, 32T
18	105910X	Chain, 24 Pitches	58	120952X	Shaft, Cross
19	160942	Cover, Detent	59	170991	Gear, Miter, 1 2T, Idler
20	160943	Gear, Spur, 1 2T	60	160950	Axle, RH
21	148267	Collar, Clutch	61	170992	Housing, Lower
22	138236	Assy, Kit, Clutch Keys	62	7294J	Disc, Brake
23	73810500	Nut, Lock, 5/16-24	63	108989X	Spacer, Brake Puck
24	142676	Shaft, Intermediate	64	160952	Jaw, Brake
25	2244J	Key, Woodruff, No. 61	65	120954X	Pin, Dowel
26	105916X	Ring, Retaining	66	160953	Screw, Tapping, 5/16-18 X 2.35
27	120470X	Sprocket, 1 8T	67	138244	Lever, Actuating
28	110070X	Spacer, 1. 131 X 1.45 X .494	68	108996X	Washer, Plain, .321 X 1.00 X .055
29	142677	Gear, Spur, 37T	69	160954	Bracket, Anti-Rotation
30	124644X	Gear, Spur, 30T	70	120951X	Puck, Friction
31	108980X	Gear, Spur, 25T	71	174256	Washer, Anti Rotation
32	120406X	Gear, Spur, 22T	72	120416X	Grease
33	134796	Gear, Spur, 1 9T			
34	134797	Spacer, 1. 133 X 1.50 X .375			
35	105925X	Washer, Plain, .640 X 1.37 X .061			
36	2228J	Washer, Plain, .632 X 1.00 X .046			
37	170987	Washer, Plain, .632 X 1.00 X .031			
38	174255	Assy, Gear, Comb., 12T & 30T			
39	124639X	Shaft, Idler			
40	120472X	Spacer, .633 X .87 X .755			

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

\* Use in various combinations to maintain proper clearances.

\* \* Order Key No. 15.

\* \* \* Silicone Sealant to be applied between Upper and Lower Housings (use Loctite Ultra Gray Silicone 5699 or equivalent).

# REPAIR PARTS

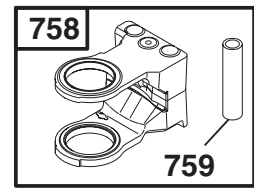
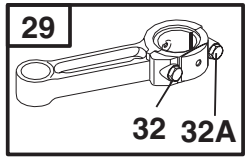
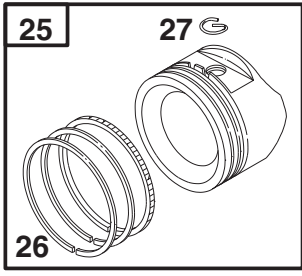
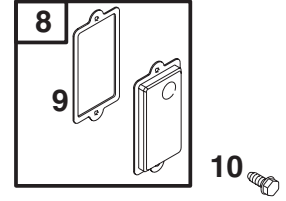
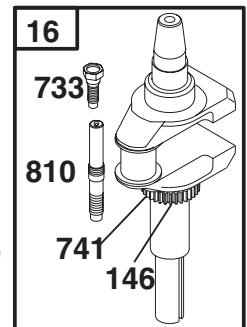
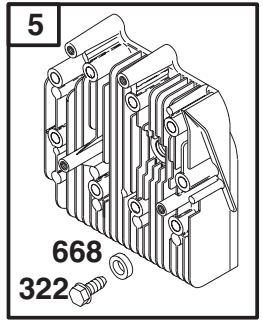
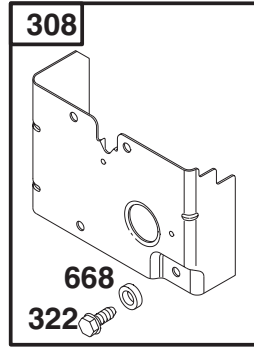
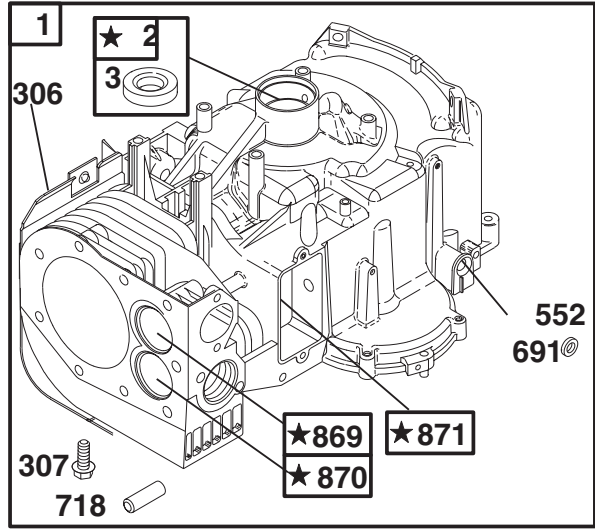
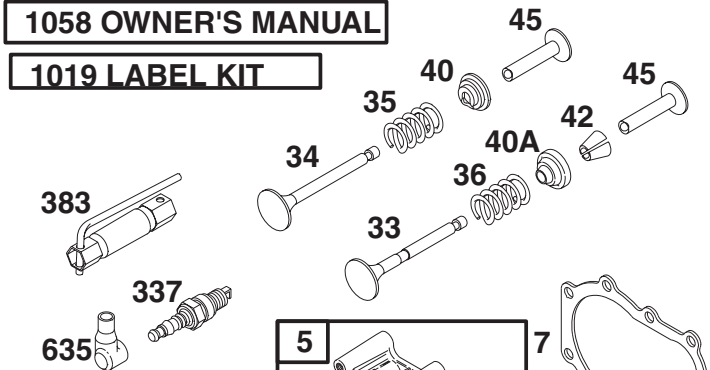
TRACTOR - - MODEL NUMBER 944.602131

BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1

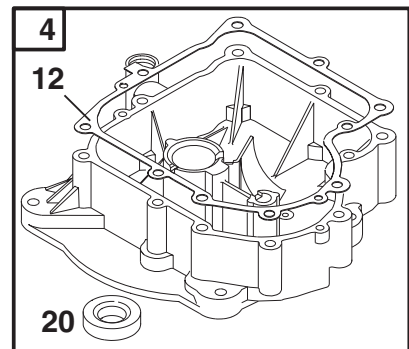
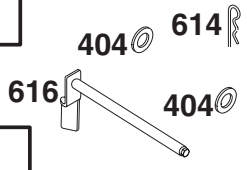
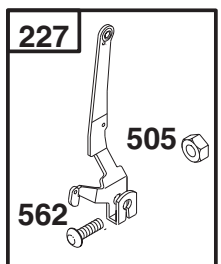
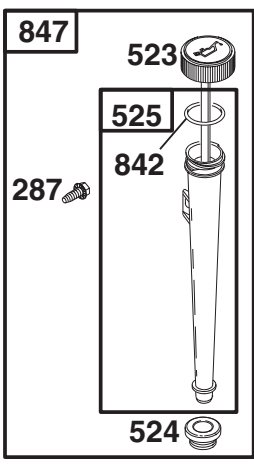
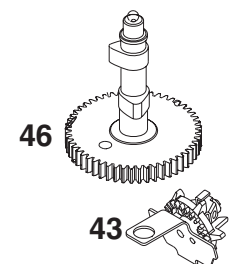
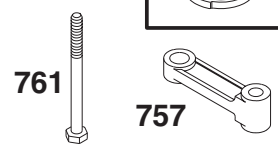
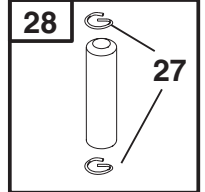


**1058 OWNER'S MANUAL**

**1019 LABEL KIT**



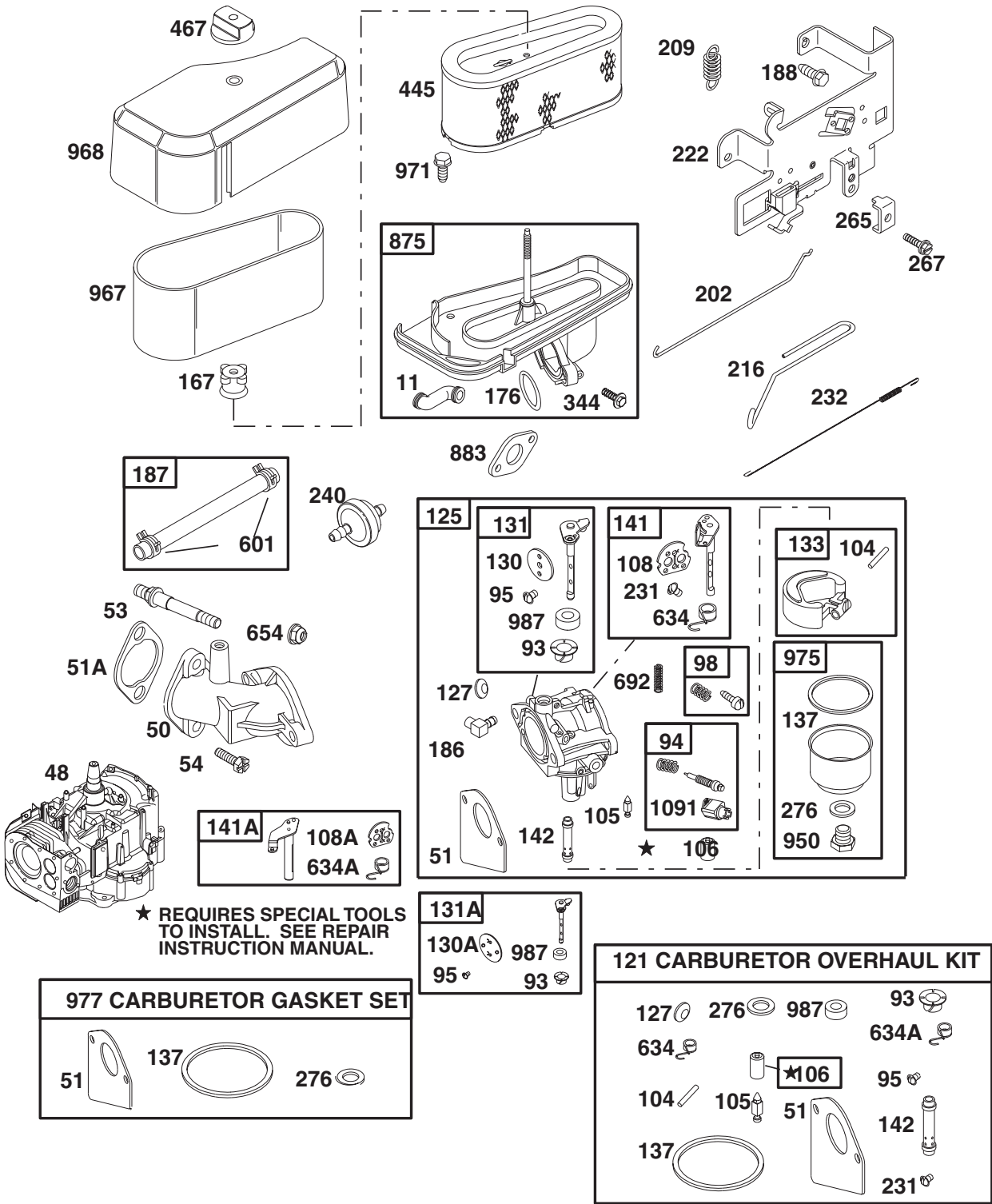
★ **REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.**



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

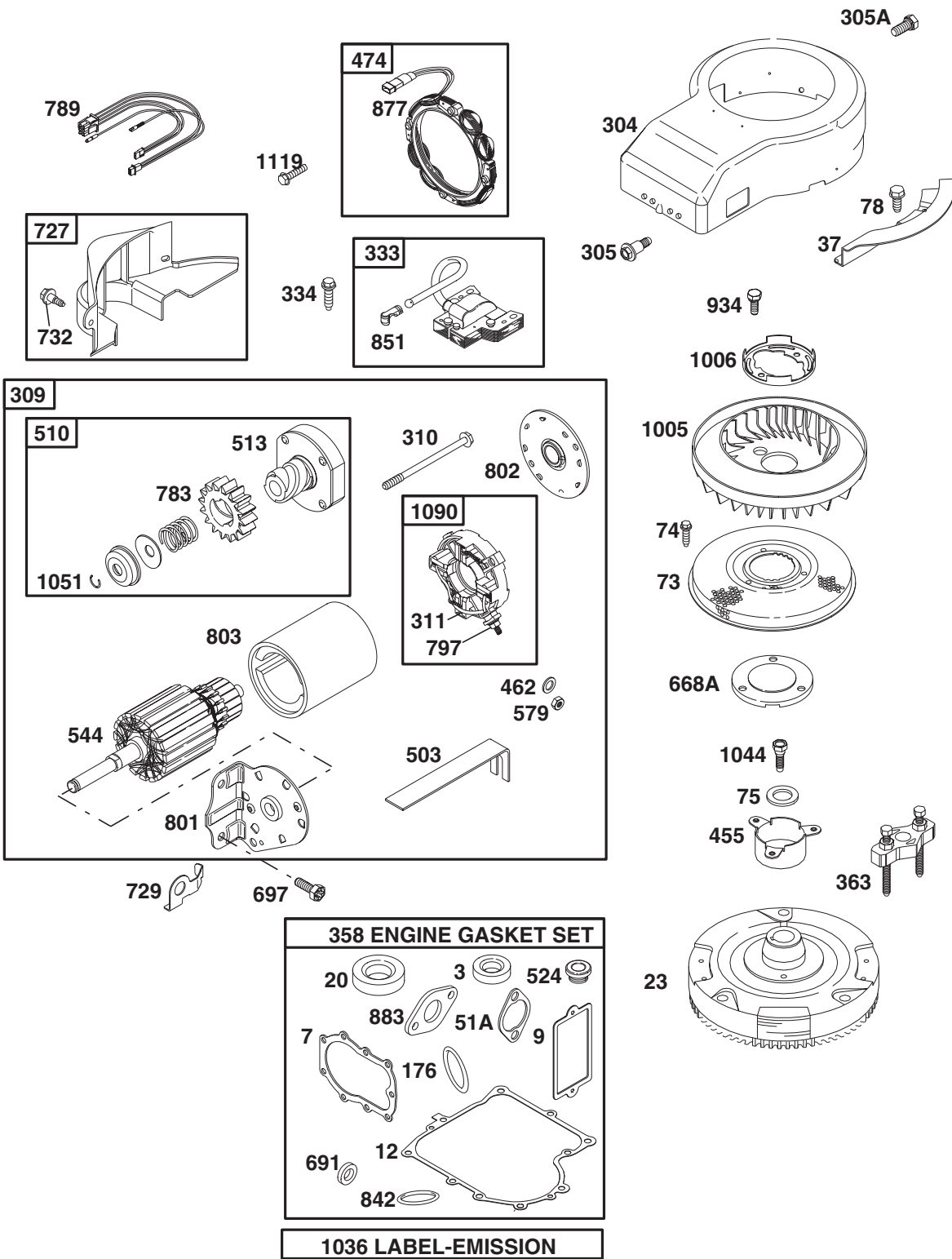
BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

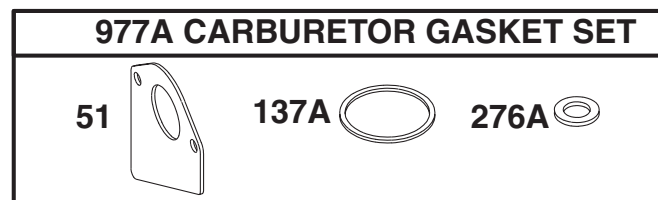
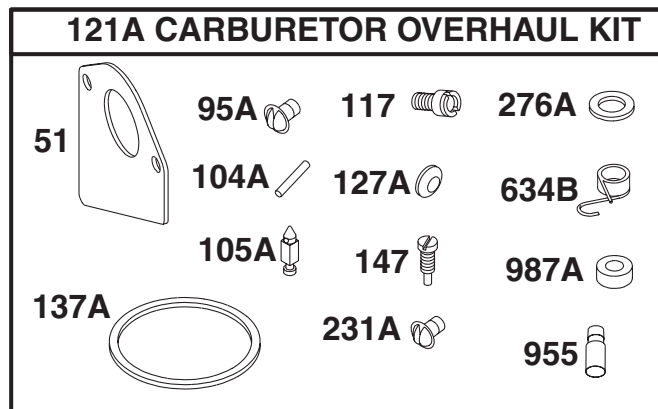
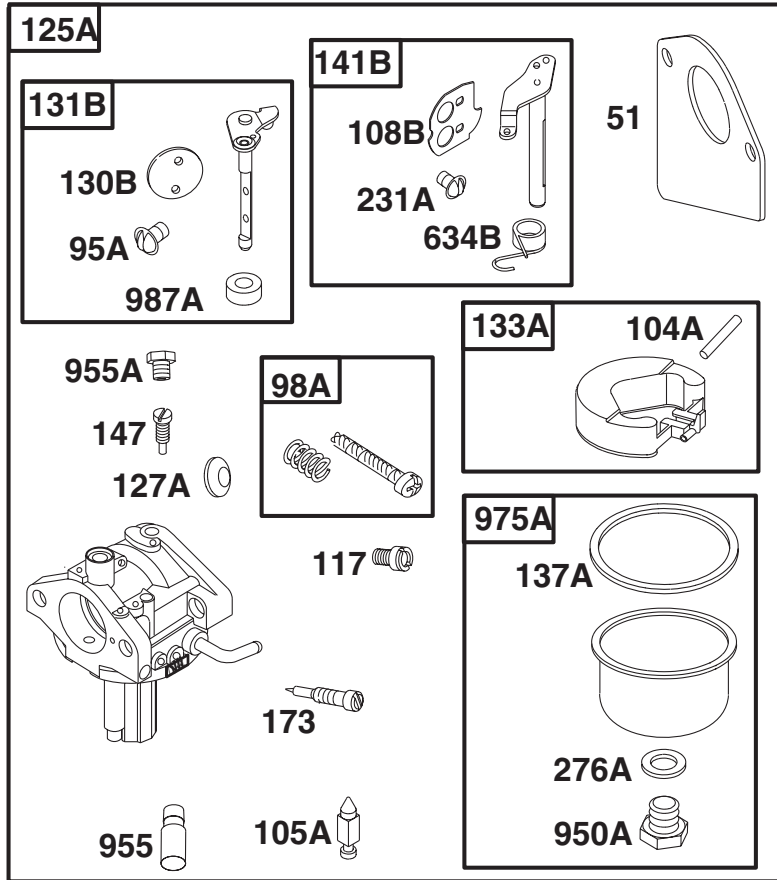
BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.602131

BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1

#### KEY PART

NO.	NO.	DESCRIPTION
1	496413	Cylinder Assembly
2	399269	Kit-Bushing/Seal
3	391086	• Seal-Oil (Magneto Side)
4	494238	Sump-Engine
5	494240	Head-Cylinder
7	271866	•+ Gasket-Cylinder Head
8	495735	Breather Assembly
9	27803	•+ Gasket-Breather
10	691666	Screw (Breather Assembly)
11	692253	Tube-Breather
12	692226	• Gasket-Crankcase (.015 Thick, Std.)
	692406	• Gasket-Crankcase (.005 Thick)
	692405	• Gasket-Crankcase (.009 Thick)
13	690904	Screw (Cylinder Head)
15	690946	Plug-Oil Drain
16	693944	Crankshaft
20	291675	• Seal-Oil (PTO Side)
22	692125	Screw (Engine Sump)
23	693557	Flywheel (Steel Ring Gear)
24	222698	Key-Flywheel
25	499284	Piston Assembly (Standard)
	499288	Piston Assembly (.010 O.S.)
	499292	Piston Assembly (.020 O.S.)
	499296	Piston Assembly (.030 O.S.)
26	391780	Ring Set-Piston (Standard)
	392331	Ring Set-Piston (Chrome, Standard)
	391781	Ring Set-Piston (.010 O.S.)
	391782	Ring Set-Piston (.020 O.S.)
	499999	Ring Set-Piston (.030 O.S.)
27	691299	Lock-Piston Pin
28	498319	Pin-Piston (Standard)
	498320	Pin-Piston (.005 O.S.)
29	494504	Rod-Connecting (Standard)
	490469	Rod-Connecting (.020 U.S.)
32	690356	Screw (Connecting Rod)
32A	690348	Screw (Connecting Rod)
33	262246	Valve-Exhaust
34	262247	Valve-Intake
35	691605	Spring-Valve (Intake)
36	691597	Spring-Valve (Exhaust)
37	690456	Guard-Flywheel
40	690656	Retainer-Valve (Intake)
40A	691939	Retainer-Valve (Exhaust)
42	494553	Keeper-Valve
43	691968	Slinger-Governor/Oil
45	691811	Tappet-Valve
46	692123	Camshaft
48	496050	Short Block (Replacement Engine 311707-0028-E1)
50	691711	Manifold-Intake
51	692284	Ø‡ Gasket-Intake
51A	272554	•+ Gasket-Intake
53	691098	Stud (Carburetor)
54	690953	Screw (Intake Manifold)
73	690492	Screen-Rotating
74	691655	Screw (Rotating Screen)
75	690582	Washer (Flywheel)
78	690661	Screw (Flywheel Guard)
93	690602	Ø Bushing-Throttle Shaft
94	498030	Idle Mixture Kit
95	691636	Ø Screw (Throttle Valve)

#### KEY PART

NO.	NO.	DESCRIPTION
95A	690718	Ø Screw (Throttle Valve)
98	495800	Idle Speed Kit
98A	694907	Idle Speed Kit
104	690525	Ø Pin-Float Hinge
104A	694918	Ø Pin-Float Hinge
105	231855	Ø Valve-Float Needle
105A	694922	Ø Valve-Float Needle
106	690577	Ø Seat-Inlet
108	690464	Valve-Choke (Manual Choke)
108A	692344	Valve-Choke (Choke A Matic)
108B	694923	Valve-Choke
117	690880	Ø Jet-Main (Standard)
	694925	Ø Jet-Main (High Altitude)
121	499220	Kit-Carburetor Overhaul (Walbro)
121A	694930	Kit-Carburetor Overhaul (Nikki)
125	498027	Carburetor (Walbro)
125A	694941	Carburetor (Nikki)
127	695005	Ø Plug-Welch
127A	694916	Ø Plug-Welch
130	691750	Valve-Throttle
130A	694917	Valve-Throttle
130B	694917	Valve-Throttle
131	494885	Throttle Shaft Kit
131A	494379	Throttle Shaft Kit
131B	694909	Throttle Shaft Kit
133	494381	Float-Carburetor
133A	694914	Float-Carburetor
137	281165	Ø‡ Gasket-Float Bowl
137A	694920	Ø‡ Gasket-Float Bowl
141	495097	Choke Shaft Kit (Manual Choke)
141A	495931	Choke Shaft Kit (Choke A Matic)
141B	694913	Choke Shaft Kit
142	691434	Ø Nozzle-Carburetor (Standard)
	497737	Nozzle-Carburetor (High Altitude)
146	691639	Key-Timing
147	694927	Ø Jet-Pilot
167	692297	Seal-Air Cleaner Nut
173	694926	Valve-Idle Mixture
176	691917	•+ O-Ring Seal (Air Cleaner Base)
186	692317	Connector-Hose
187	691050	Line-Fuel (Cut to Required Length)
188	691693	Screw (Control Bracket)
202	691841	Link-Mechanical Governor
209	690480	Spring-Governor
216	691840	Link-Choke
222	694042	Bracket-Control
227	691374	Control Lever-Governor
231	691636	Ø Screw (Choke Valve)

RPM Settings: Low Speed: 1900-2100  
High Speed: 3000-3200

- Included in Engine Gasket Set, Key. No. 358
- Ø Included in Carburetor Overhaul Kit, Key. No. 121 and 121A
- ‡ Included in Carburetor Gasket Set, Key. No. 977 and 977A
- + Included in Valve Gasket Set, Key. No. 1095

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



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.602131

### BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1147-E1

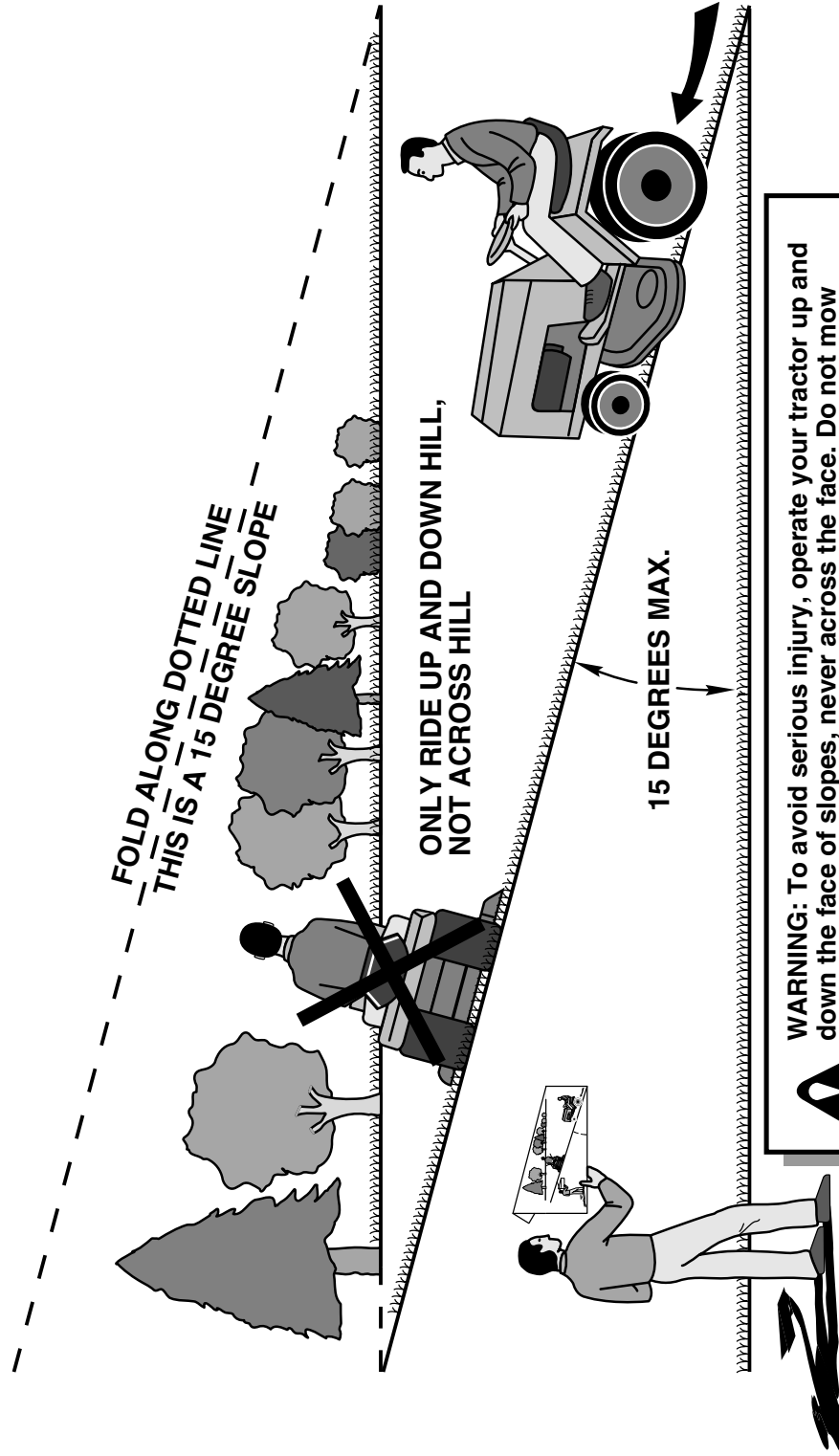
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
231A	690718	Ø Screw (Choke Valve)	741	691284	Gear-Timing
232	691842	Spring-Governor Link	757	691714	Link-Counterweight
240	394358	Filter-Fuel	758	692423	Counterweight
265	691024	Clamp-Casing	759	691239	Pin-Counterweight
267	695134	Screw (Casing Clamp)	761	691096	Screw (Counterweight)
276	692255	Ø‡ Sealing Washer	783	693713	Gear-Pinion
276A	690997	Ø‡ Sealing Washer	789	695050	Harness-Wiring
287	691002	Screw (Dipstick Tube)	797	693167	Nut (Brush Retainer)
304	690844	Housing-Blower	801	691429	Cap-Drive
305	692198	Screw (Blower Housing)	802	691286	Cap-End
305A	692127	Screw (Blower Housing)	803	693757	Housing-Starter
306	690459	Shield-Cylinder	810	691779	Extension-Crankshaft
307	691003	Screw (Cylinder Shield)	842	691870	• Dipstick/Tube Seal
308	491490	Cover-Cylinder Head	847	496415	Dipstick/Tube Assembly
309	693551	Motor-Starter	851	493880	Terminal-Spark Plug
310	690323	Bolt (Starter Motor)	869	691802	Seat-Valve (Intake)
311	497608	Brush Set	870	262405	Seat-Valve (Exhaust)
322	692198	Screw (Cylinder Head Cover)	871	261961	Bushing-Valve Guide (Exhaust Valve)
333	492341	Armature-Magneto		231218	Bushing-Valve Guide (Brass Intake Valve)
334	691061	Screw (Armature Magneto)	875	694942	Base-Air Cleaner
337	802592	Spark Plug	877	393456	Wire-Alternator
344	693675	Screw (Cable Clamp)	883	692236	•+ Gasket-Exhaust
358	494241	Engine Gasket Set	934	691058	Screw (Fan Retainer)
363	19203	Flywheel Puller	950	691657	Screw-Float Bowl
383	89838	Wrench-Spark Plug	950A	694919	Screw-Float Bowl
404	691691	Washer (Governor Crank)	955	694924	Ø Plug-Carburetor
445	496894	Filter-Air Cleaner Cartridge	955A	694921	Plug-Carburetor
455	691173	Cup-Flywheel	967	272403	Filter-Pre Cleaner
462	691261	Washer (Starter Cable)	968	691916	Cover-Air Cleaner
467	691668	Knob-Air Cleaner	971	692126	Screw (Air Cleaner Base)
474	691063	Alternator	975	495933	Bowl-Float
503	691532	Strap-Starter	975A	694908	Bowl-Float
505	691251	Nut (Governor Control Lever)	977	494385	Gasket Set-Carburetor
510	693699	Drive-Starter	977A	694931	Gasket Set-Carburetor
513	692024	Clutch-Drive	987	691326	Ø Seal-Throttle Shaft
523	692014	Dipstick	987A	690998	Ø Seal-Throttle Shaft
524	281370	• Seal-Dipstick Tube	1005	695056	Fan-Flywheel
525	691398	Tube-Dipstick	1006	690452	Retainer-Fan
544	692034	Armature-Starter	1019	491252	Kit-Label
552	491986	Bushing-Governor Lever	1036	695699	Label-Emissions
562	691119	Bolt (Governor Control Lever)	1044	691658	Screw (Flywheel)
579	691029	Nut (Starter Cable)	1051	691265	Ring-Retainer
601	95162	Clamp-Hose	1058	274787	Owner's Manual
614	691620	Pin-Cotter	1090	691293	Retainer-Brush
616	692012	Crank-Governor	1091	691333	Cap-Limiter
634	690801	Ø Seal/Spring Assembly (Manual Choke)	1095	498539	Valve Gasket Set
634A	690802	Ø Seal/Spring Assembly (Choke A Matic)	1119	691183	Screw (Alternator)
634B	694912	Ø Seal/Spring Assembly			RPM Settings: Low Speed: 1900-2100 High Speed: 3000-3200
635	66538	Boot-Spark Plug			• Included in Engine Gasket Set, Key. No. 358
654	690958	Nut (Carburetor)			Ø Included in Carburetor Overhaul Kit, Key. No. 121 and 121A
668	690510	Spacer			‡ Included in Carburetor Gasket Set, Key. No. 977 and 977A
668A	691323	Spacer			+ Included in Valve Gasket Set, Key. No. 1095
691	692407	• Governor Shaft Seal			<b>NOTE:</b> All component dimensions given in U.S. inches 1 inch = 25.4 mm
692	690572	Spring-Detent			
697	690372	Screw (Starter Motor)			
718	690959	Pin-Locating			
727	490324	Cover-Starter Drive			
729	691224	Clip-Wire			
732	691002	Screw (Starter Drive Cover)			
733	691658	Screw (Crankshaft Extension)			

---

# SERVICE NOTES

---

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



# Get it fixed, at your home or ours!

Just Call:

**1-800-4-MY-HOME<sup>®</sup>**

(1-800-469-4663)

24 hours a day, 7 days a week

For the repair of major brand appliances **in your own home...**  
no matter who made it, no matter who sold it!

For your nearest **Sears Parts and Service** location,  
to bring in products like vacuums, lawn equipment and electronics.

For **Sears Parts & Service**, to order the replacement parts,  
accessories and owner's manuals that you need to do-it-yourself.

[www.sears.ca](http://www.sears.ca)

---

To purchase or inquire about a Sears Maintenance Agreement, call:

**1-800-361-6665**

9 a.m. – 11 p.m. Mon. – Fri., EST, 9 a.m. – 4 p.m. Sat.

---

Pour service en français:

**1-800-LE-FOYER<sup>MC</sup>**

(1-800-533-6937)

[www.sears.ca](http://www.sears.ca)



® / <sup>TM</sup> Trademarks of Sears, Roebuck and Co. used under license by Sears Canada

<sup>MD</sup> Marque déposée / <sup>MC</sup> Marque de commerce de Sears, Roebuck and Co. utilisée en vertu d'une licence de Sears Canada