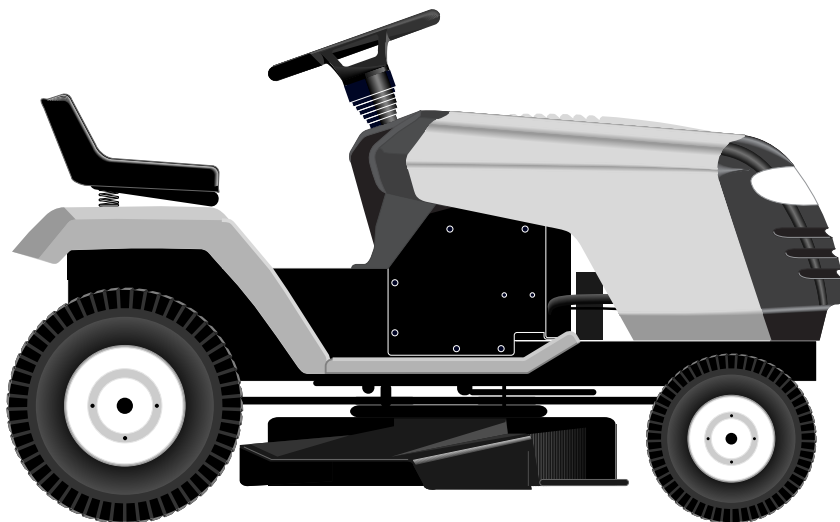


**SEARS**

**OWNER'S  
MANUAL**

**MODEL NO.  
944.600031**

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



**CRAFTSMAN<sup>®</sup>**

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

- Assembly
- Operation
- Customer Responsibilities
- 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.

### 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.

#### DONOT:

- *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.

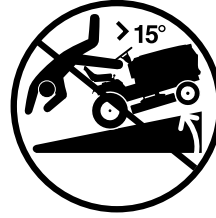
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and *down* for small children.
- Never carry children. They may fall off and be seriously injured or interfere 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.

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

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

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

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

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## PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	1.25 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG/SH):	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 or J19LM
VALVE CLEARANCE:	INTAKE: .005" - .007" EXHAUST: .009" - .011"
GROUND SPEED (MPH):	FORWARD: 1st 1.1 2nd 2.2 3rd 3.3 4th 4.4 5th 4.9 REVERSE: 1.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 12 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 25 MIN. CCA: 190 CASE SIZE: U1R
BLADE BOLT TORQUE:	27-35 FT. LBS.

## MAINTENANCE AGREEMENT

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

## CUSTOMER RESPONSIBILITIES

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

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

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service centre/department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

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

A spark arrester for the muffler is available through your nearest authorized service centre/department (See 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.

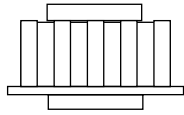
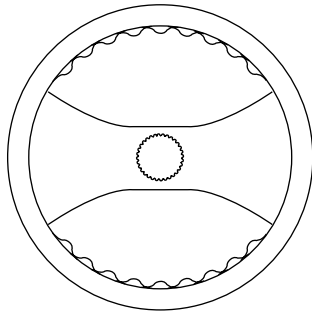
Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

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

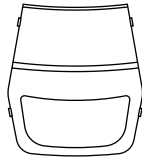
## Steering Wheel



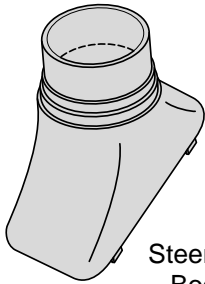
Steering Wheel Adapter



Steering Extension Shaft



Steering Wheel Insert



Steering Boot

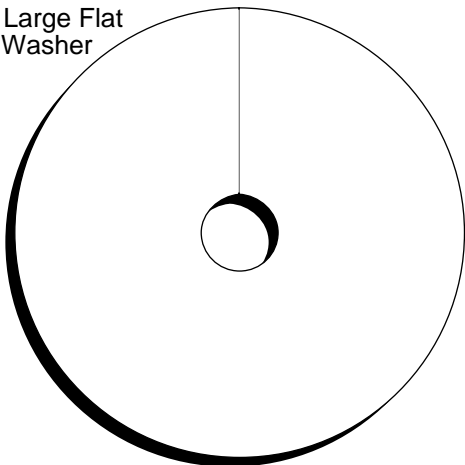


(1) Lockwasher 3/8

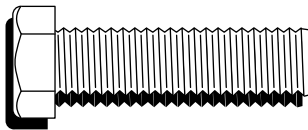
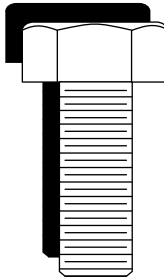


(1) Locknut 5/16-18

(1) Large Flat Washer

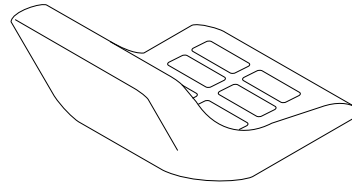


(1) Hex Bolt 3/8-16 x 1

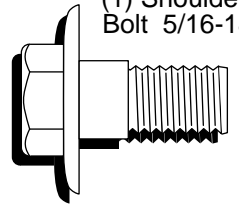


(1) Hex Bolt 5/16-18 x 1-1/4

## Seat



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

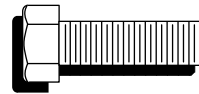


(1) Shoulder Bolt 5/16-18

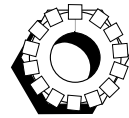
(1) Knob



## Battery

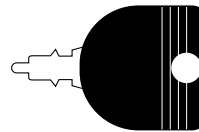


(2) Hex Bolts 1/4-20 x 3/4



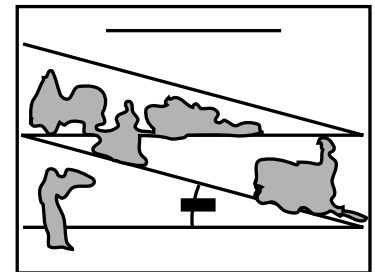
(2) Keps Nuts 1/4-20

## Keys



(2) Keys

## Slope Sheet



# ASSEMBLY

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

## TOOLS REQUIRED FOR ASSEMBLY

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

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

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton.
- Cut, 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 5/16 hex bolt and locknut. Tighten securely.
- 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, 3/8 lock washer, 3/8 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

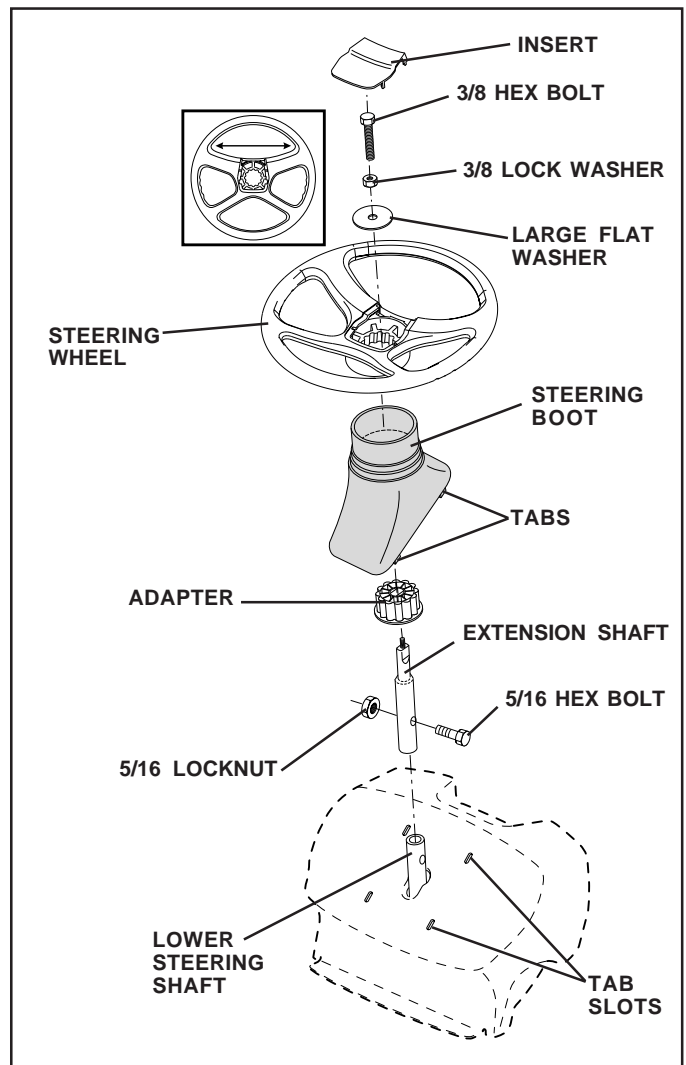


FIG. 1

## 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, wristwatch bands, rings, etc.

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

- Remove cardboard packing from seat pan and lift seat pan to raised position.
- Open battery box door and remove protective plastic.
- Remove terminal protective caps and discard.

# ASSEMBLY

- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.
- Close battery box door.

Open battery box door for:

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

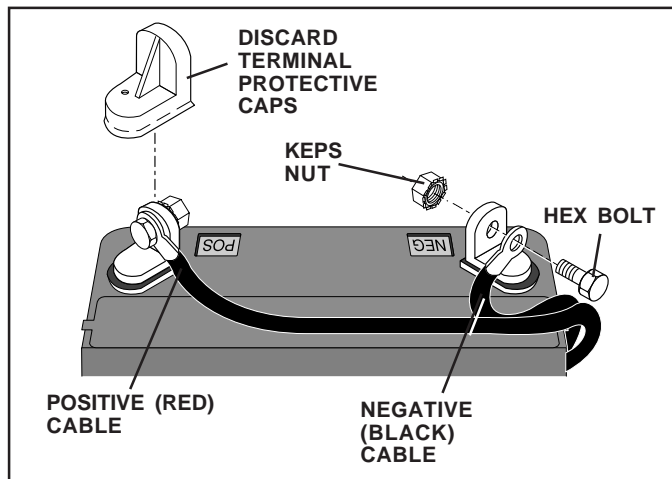


FIG. 2

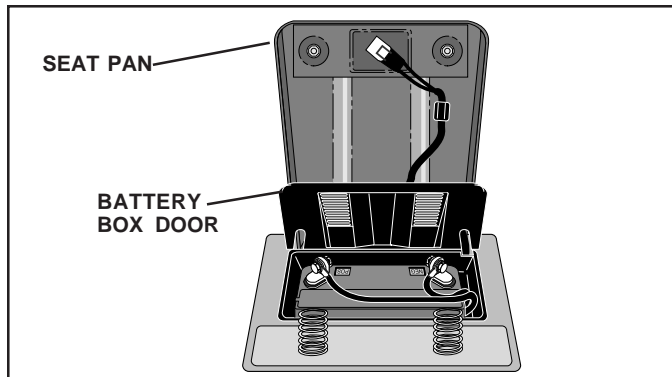


FIG. 3

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

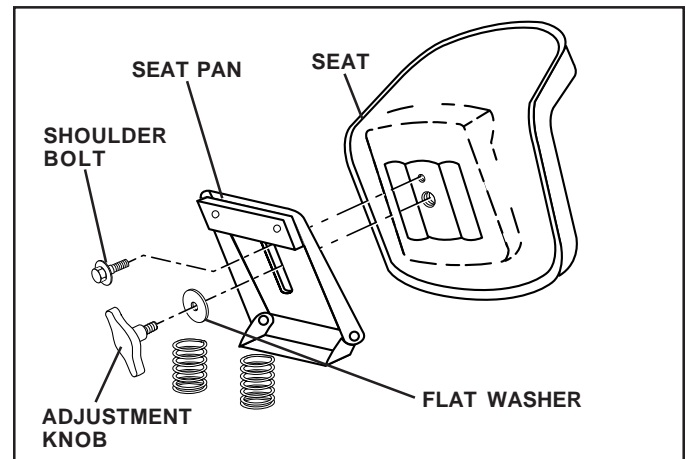


FIG. 4

**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 discharge guard up against tractor.

---

# ASSEMBLY

---

## TO DRIVE TRACTOR 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.

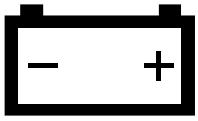
*WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:*

- ✓ 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.



BATTERY



CAUTION OR WARNING



REVERSE



FORWARD



FAST



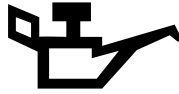
SLOW



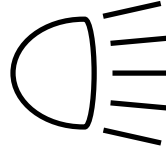
ENGINE ON



ENGINE OFF



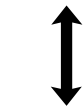
OIL PRESSURE



LIGHTS ON



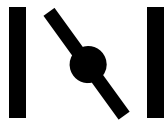
OVER TEMP LIGHT



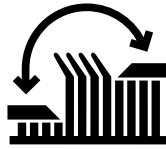
MOWER LIFT



FUEL



CHOKE



MOWER HEIGHT



PARKING BRAKE LOCKED



UNLOCKED



ATTACHMENT CLUTCH ENGAGED



REVERSE



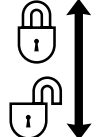
NEUTRAL



HIGH



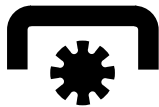
LOW



PARKING BRAKE



IGNITION



ATTACHMENT CLUTCH DISENGAGED



KEEP AREA CLEAR



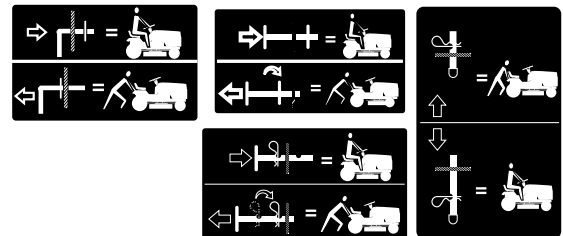
SLOPE HAZARDS



(SEE SAFETY RULES SECTION)



DANGER, KEEP HANDS AND FEET AWAY



FREE WHEEL (Automatic Models only)

# OPERATION

## KNOW YOUR TRACTOR

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

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

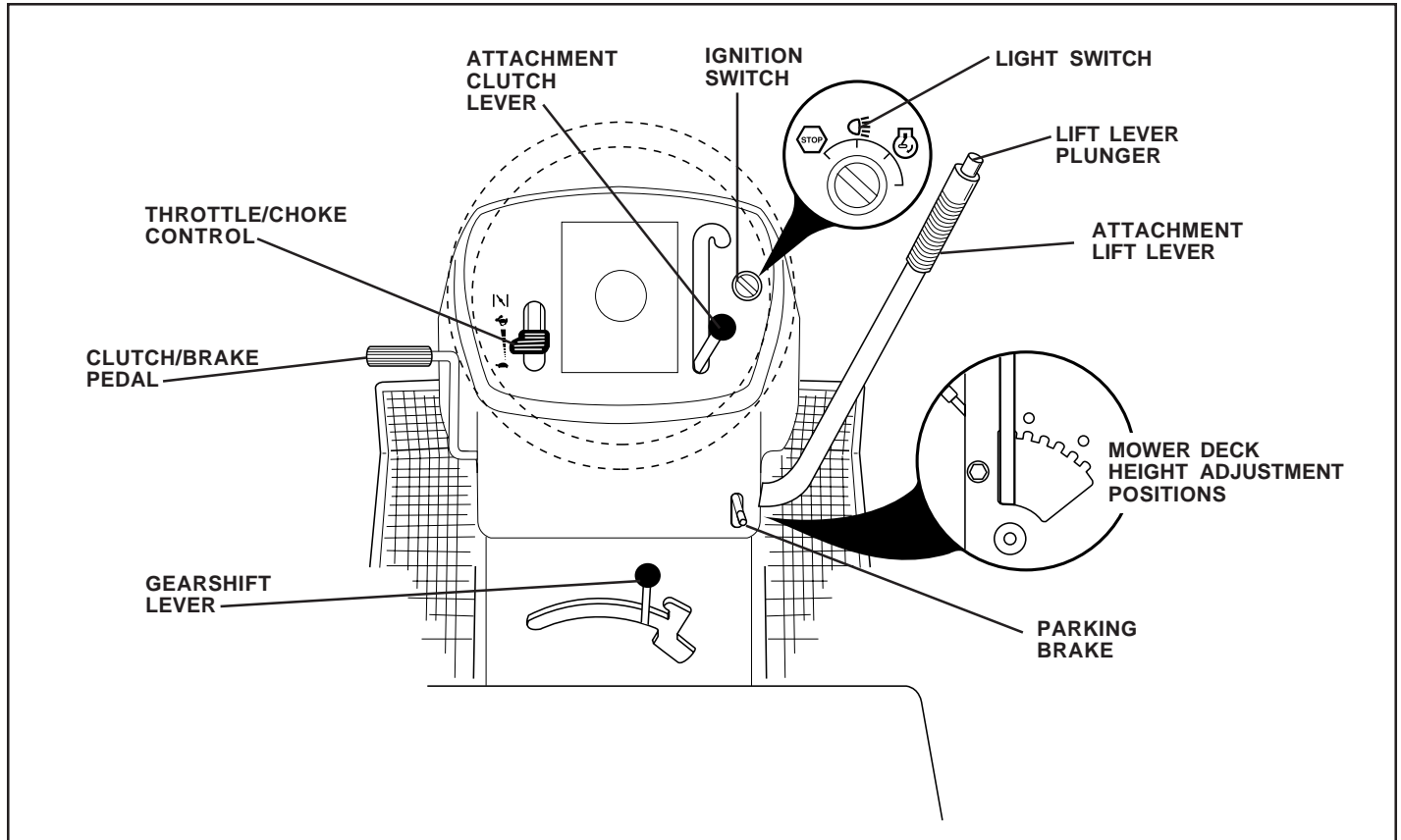


FIG. 5

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:** 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.

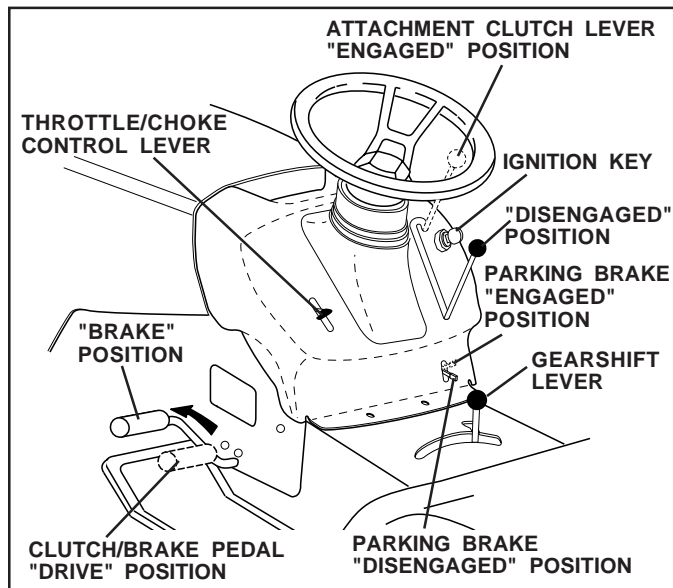


FIG. 6

### 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 discharge guard in place.

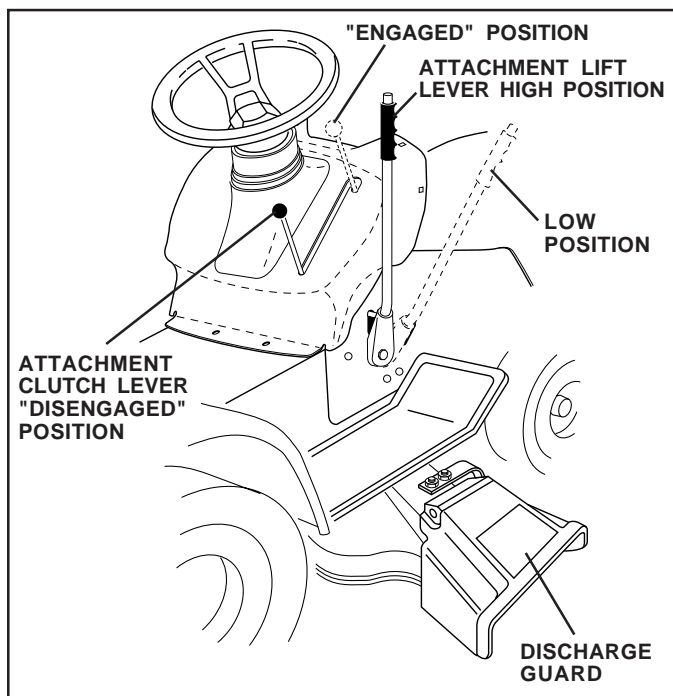


FIG. 7

## TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move 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 (See Fig. 12)

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

### ADD GASOLINE

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

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

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



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

# 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.

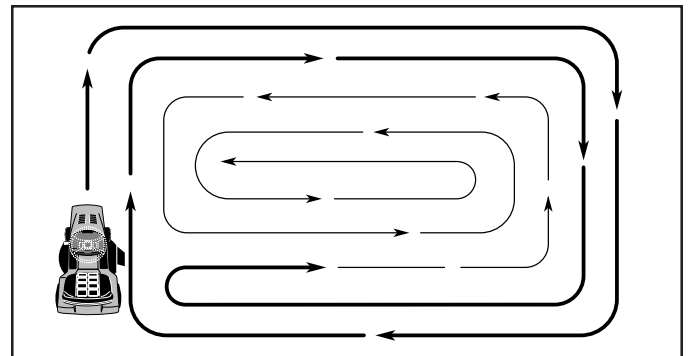


FIG. 8

# CUSTOMER RESPONSIBILITIES

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>7</sub>		✓					
	Sharpen/Replace Mower Blades			✓ <sub>4</sub>									
	Lubrication Chart			✓				✓					
	Check Battery Level			✓ <sub>6</sub>									
	Clean Battery and Terminals			✓				✓					
	Check Transaxle Cooling			✓									
	Adjust Blade Belt(s) Tension					✓ <sub>5</sub>							
Adjust Motion Drive Belt(s) Tension					✓ <sub>5</sub>								
ENGINE	Check Engine Oil Level	✓	✓										
	Change Engine Oil			✓ <sub>1,2,3</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 - If equipped with oil filter, change oil every 50 hours.  
 4 - Replace blades more often when mowing in sandy soil.

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

## GENERAL RECOMMENDATIONS

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

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

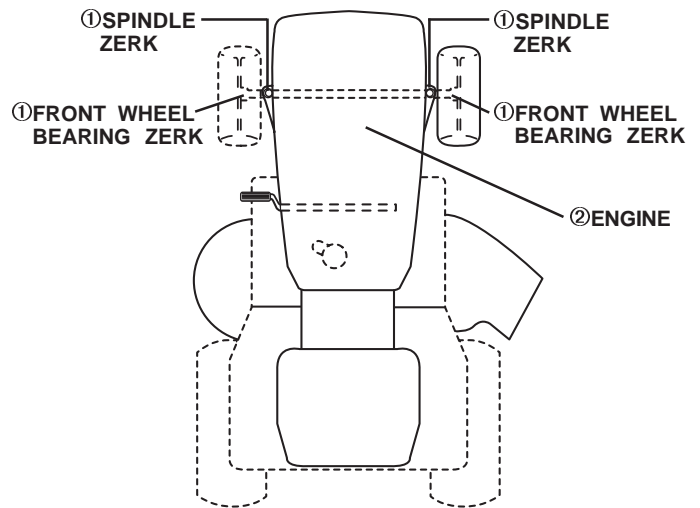
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

## BEFORE EACH USE

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

## LUBRICATION CHART



- ① GENERAL PURPOSE GREASE
- ② REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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

# CUSTOMER RESPONSIBILITIES

## TRACTOR

Always observe safety rules when performing any maintenance.

## BRAKE OPERATION

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

## TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" 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 hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.

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

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

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

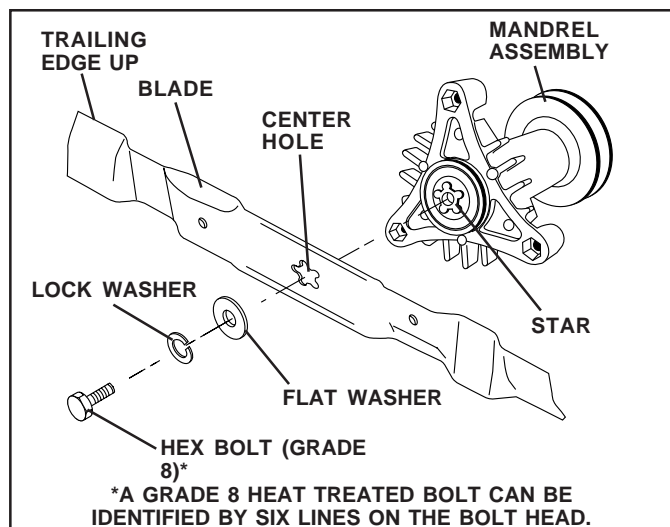


FIG. 9

## 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.

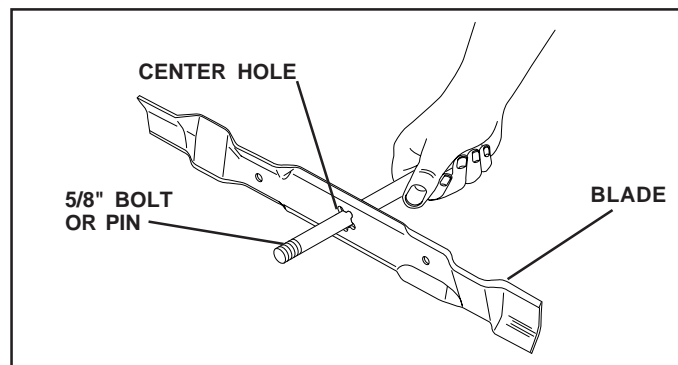


FIG. 10

# CUSTOMER RESPONSIBILITIES

## 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.

- Open battery box door.
- 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.

## WITHOUT OIL FILTER

## ENGINE

### LUBRICATION

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

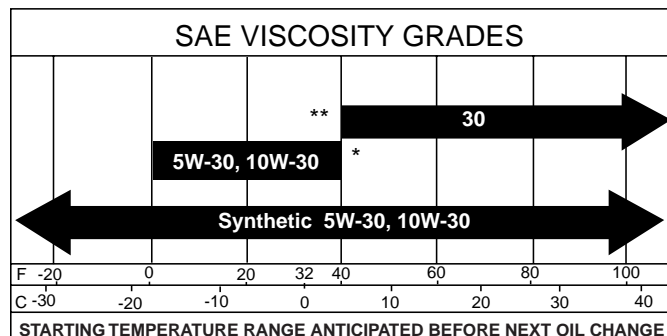


FIG. 11

**\* 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, SG or SH.

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.

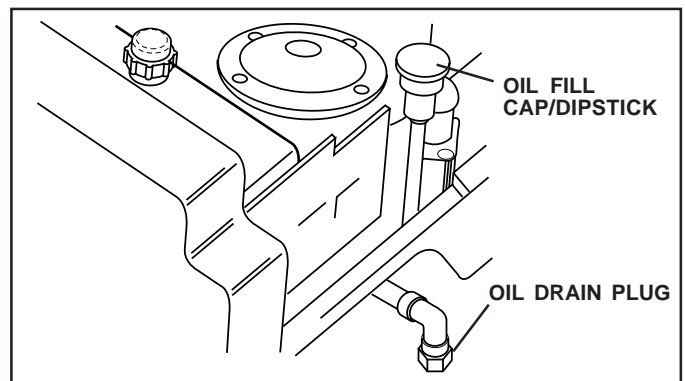


FIG. 12



# CUSTOMER RESPONSIBILITIES

## CLEAN AIR SCREEN (See Fig. 13)

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.

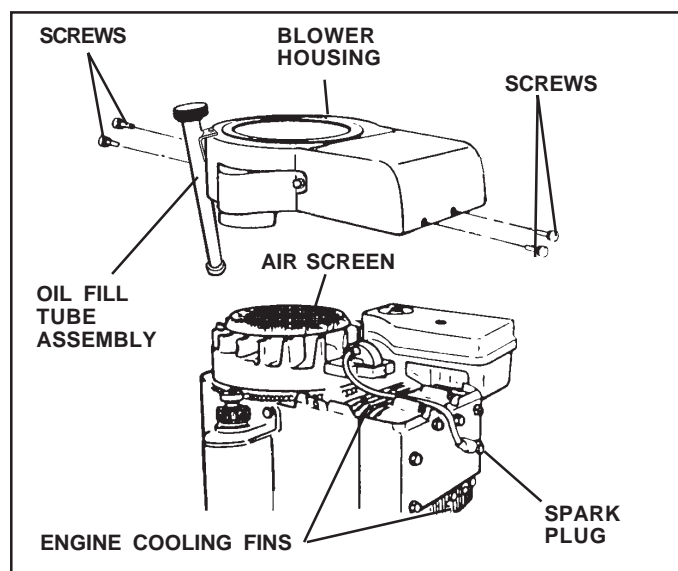


FIG. 13

## 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.

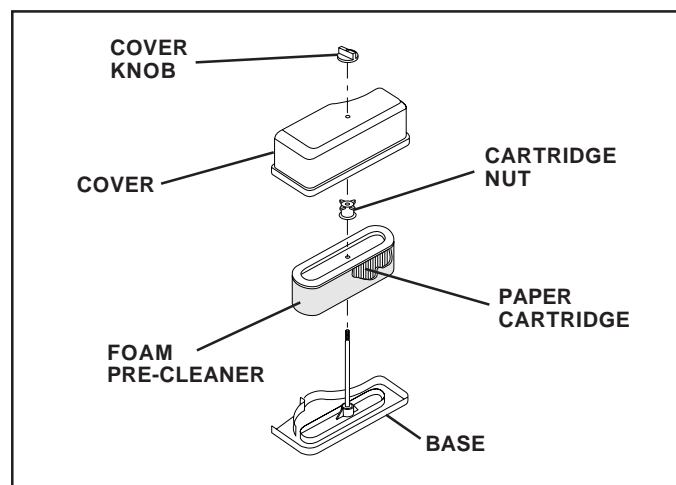


FIG. 14

# CUSTOMER RESPONSIBILITIES

## 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.

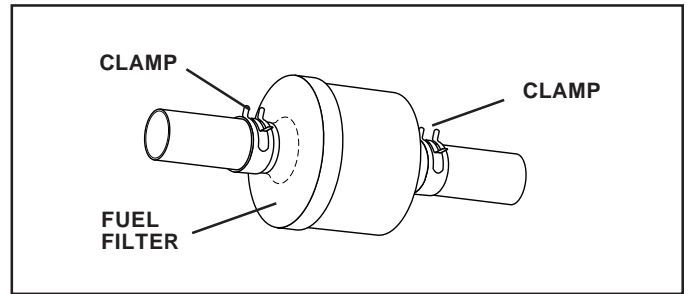


FIG. 15

## 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



## CAUTION: 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 “OFF” and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

## TRACTOR

### TO REMOVE MOWER (See Fig. 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 lift clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing guide out of bracket.
- Disconnect anti-swaybar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.

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

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

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

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

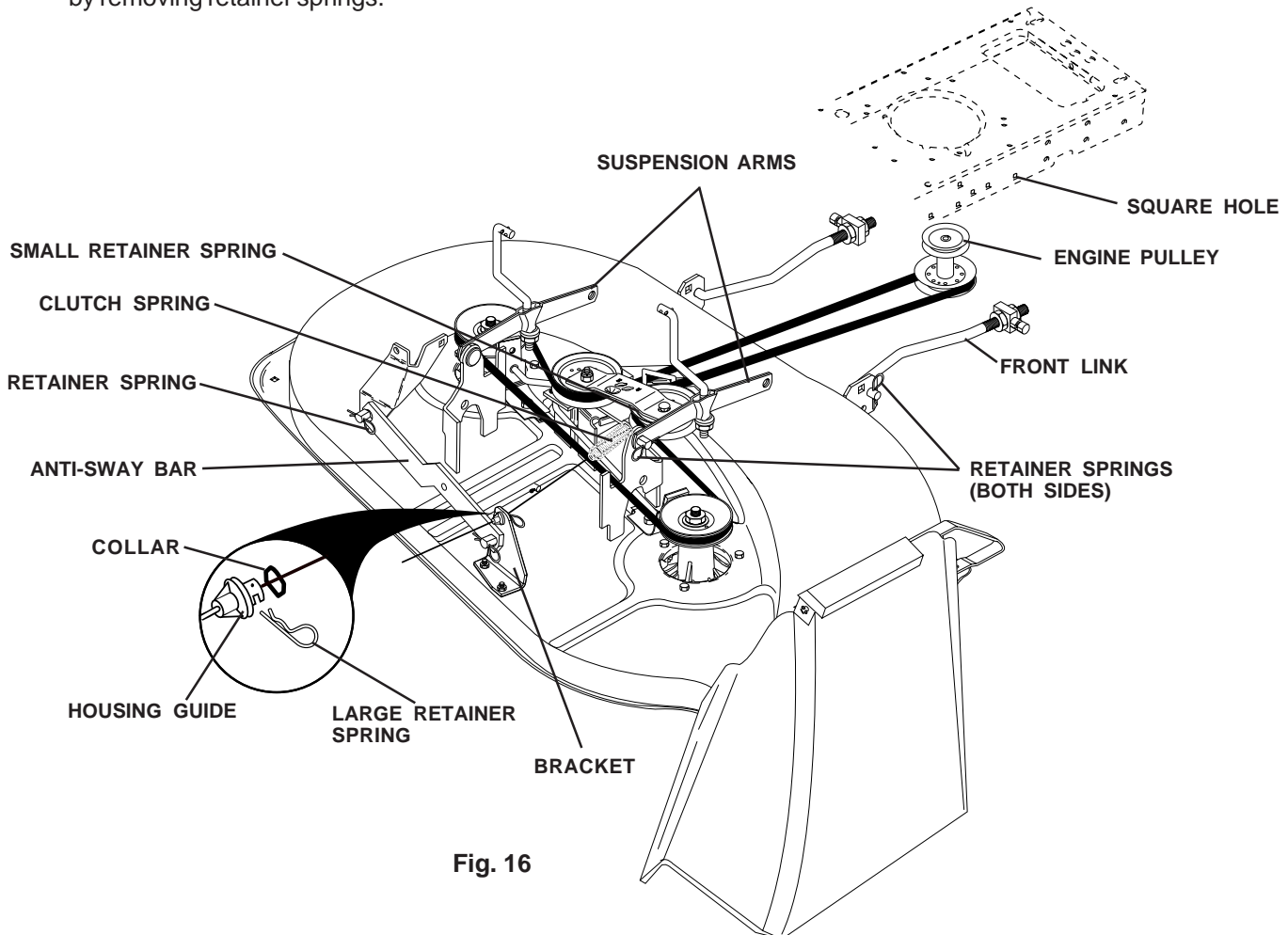


Fig. 16

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

- Recheck measurements after adjusting.

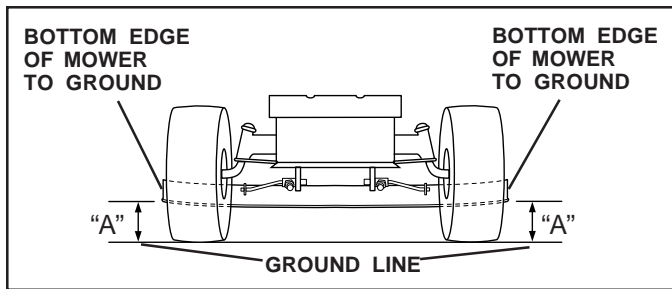


FIG. 17

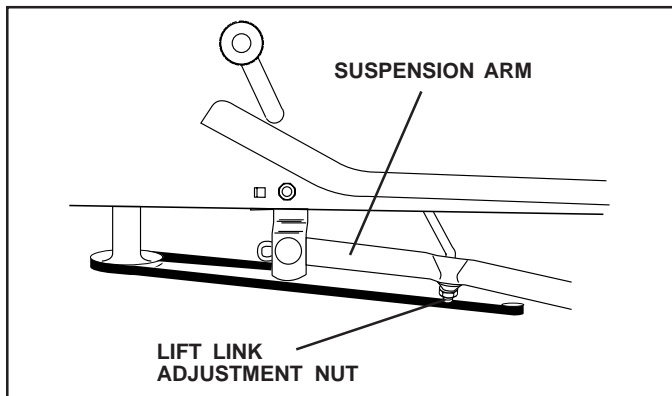


FIG. 18

### 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. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

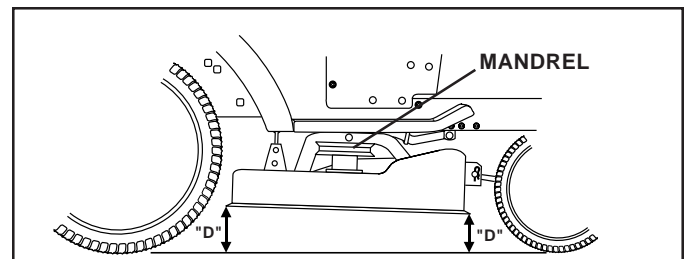


FIG. 19

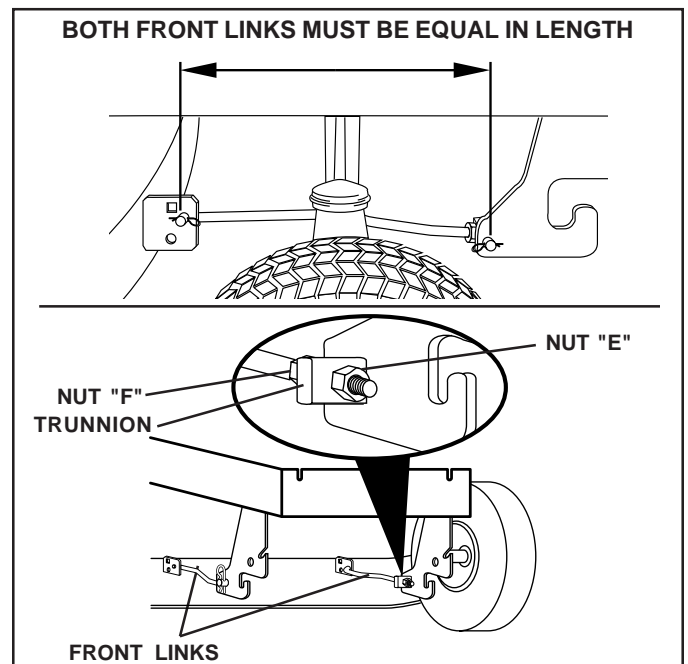


FIG. 20

# SERVICE AND ADJUSTMENTS

## 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 -

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

### BELT INSTALLATION -

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

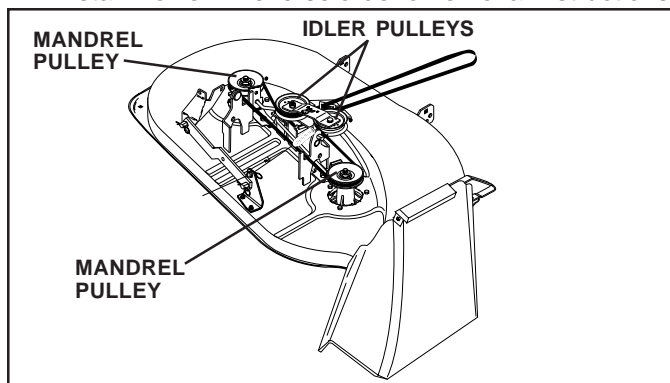


FIG. 21

## TO 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 six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

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

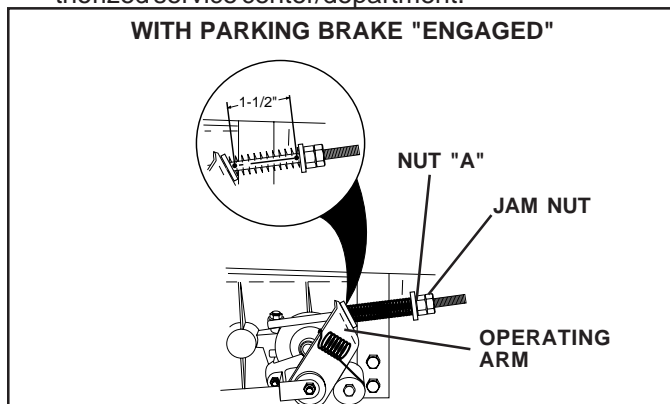


FIG. 22

## 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.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Pull belt toward front of tractor and remove downwards from around engine pulley.
- Install new belt by reversing above procedure.

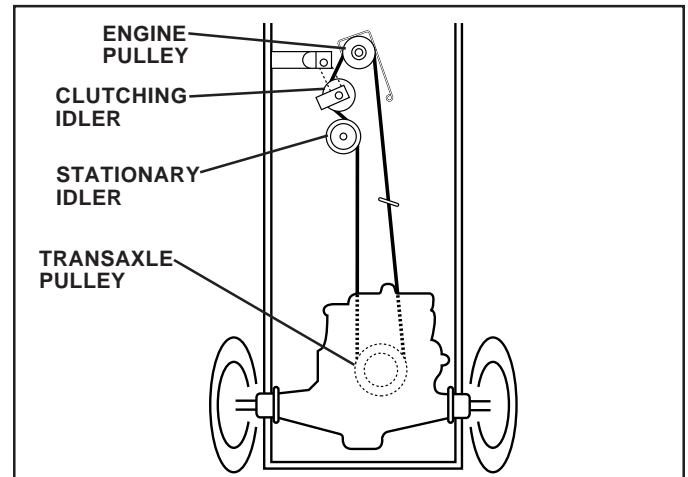


FIG. 23

## 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.

## 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.

# SERVICE AND ADJUSTMENTS

**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.

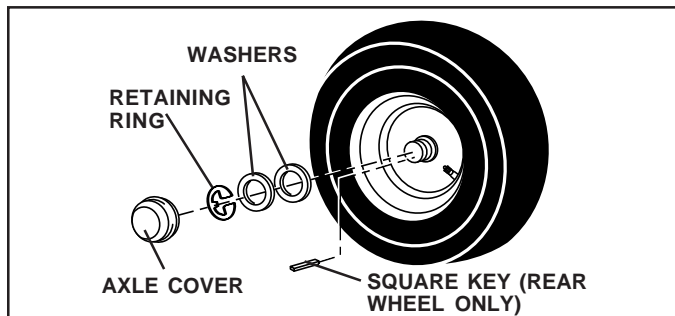


FIG. 24

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 25)



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

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

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

### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.

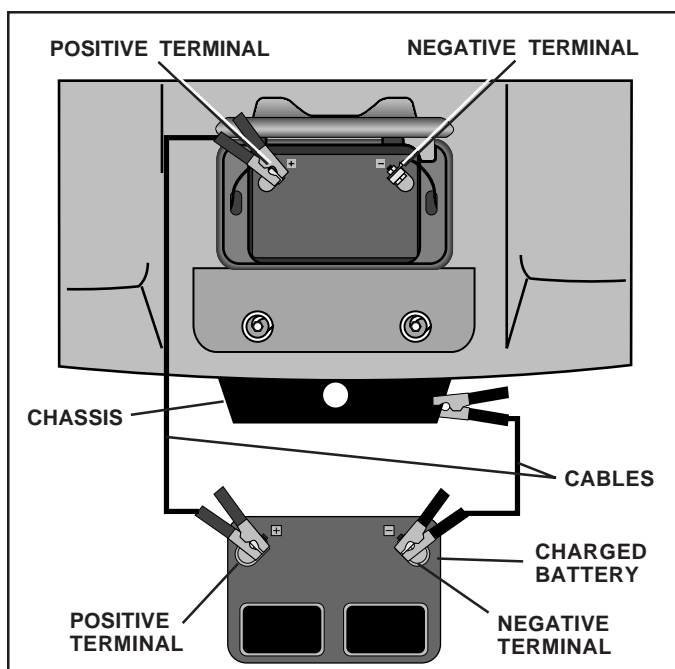


FIG. 25

- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

### TO REMOVE CABLES, REVERSE ORDER -

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

## 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 15 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.

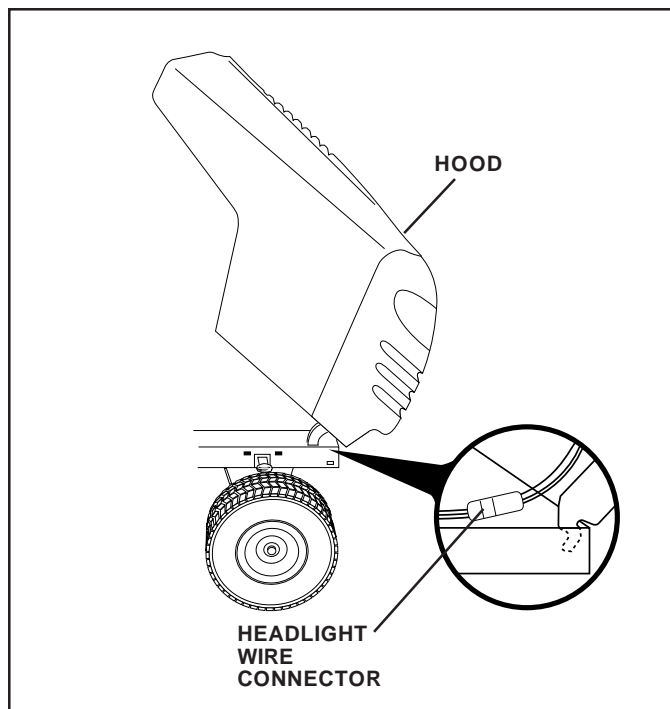


FIG. 26

# 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.

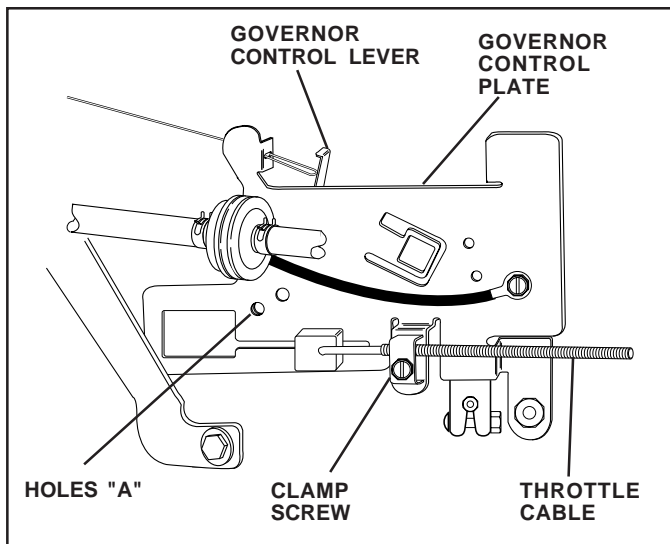


FIG. 27

### 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.

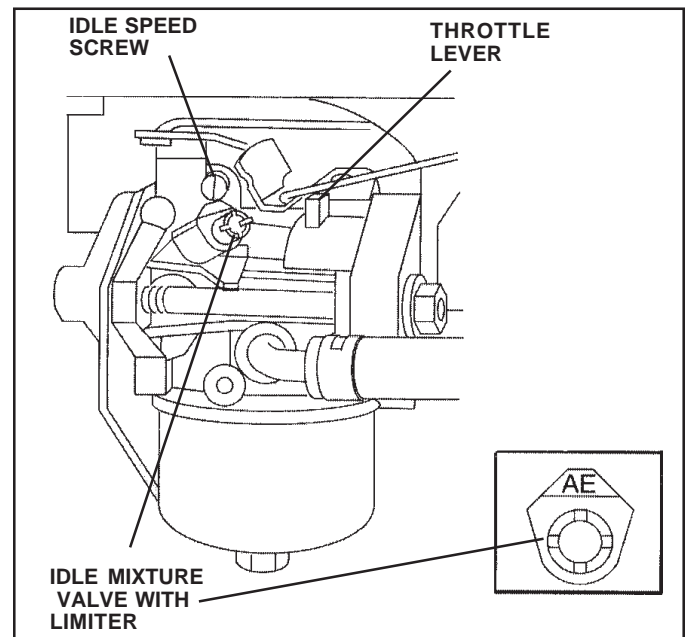


FIG. 28

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# STORAGE

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



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

## TRACTOR

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

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

## BATTERY

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see “TO CLEAN BATTERY AND TERMINALS” in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.

- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

## ENGINE

### FUEL SYSTEM

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

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

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

### ENGINE OIL

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

### CYLINDER(S)

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

## OTHER

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

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



# TROUBLESHOOTING POINTS

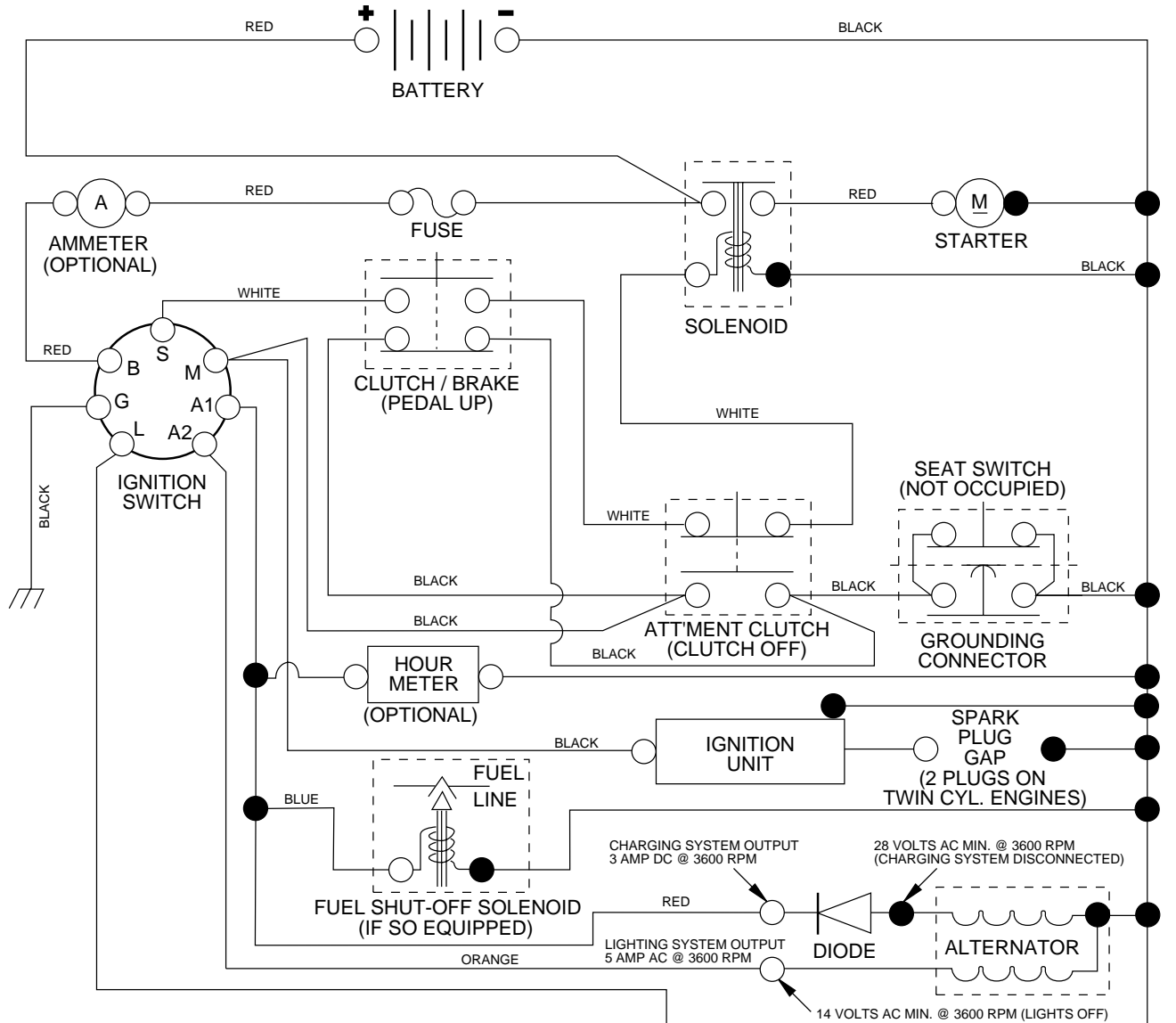
PROBLEM	CAUSE	CORRECTION
<b>Will not start</b>	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Engine not "CHOKED" properly.</li> <li>3. Engine flooded.</li> <li>4. Bad spark plug.</li> <li>5. Dirty air filter.</li> <li>6. Dirty fuel filter.</li> <li>7. Water in fuel.</li>   <li>8. 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) 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).</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>

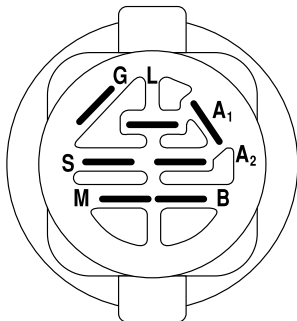
# TRACTOR - - MODEL NUMBER 944.600031

## 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.

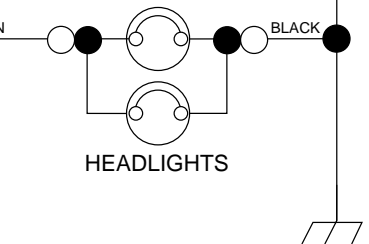


IGNITION SWITCH

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.



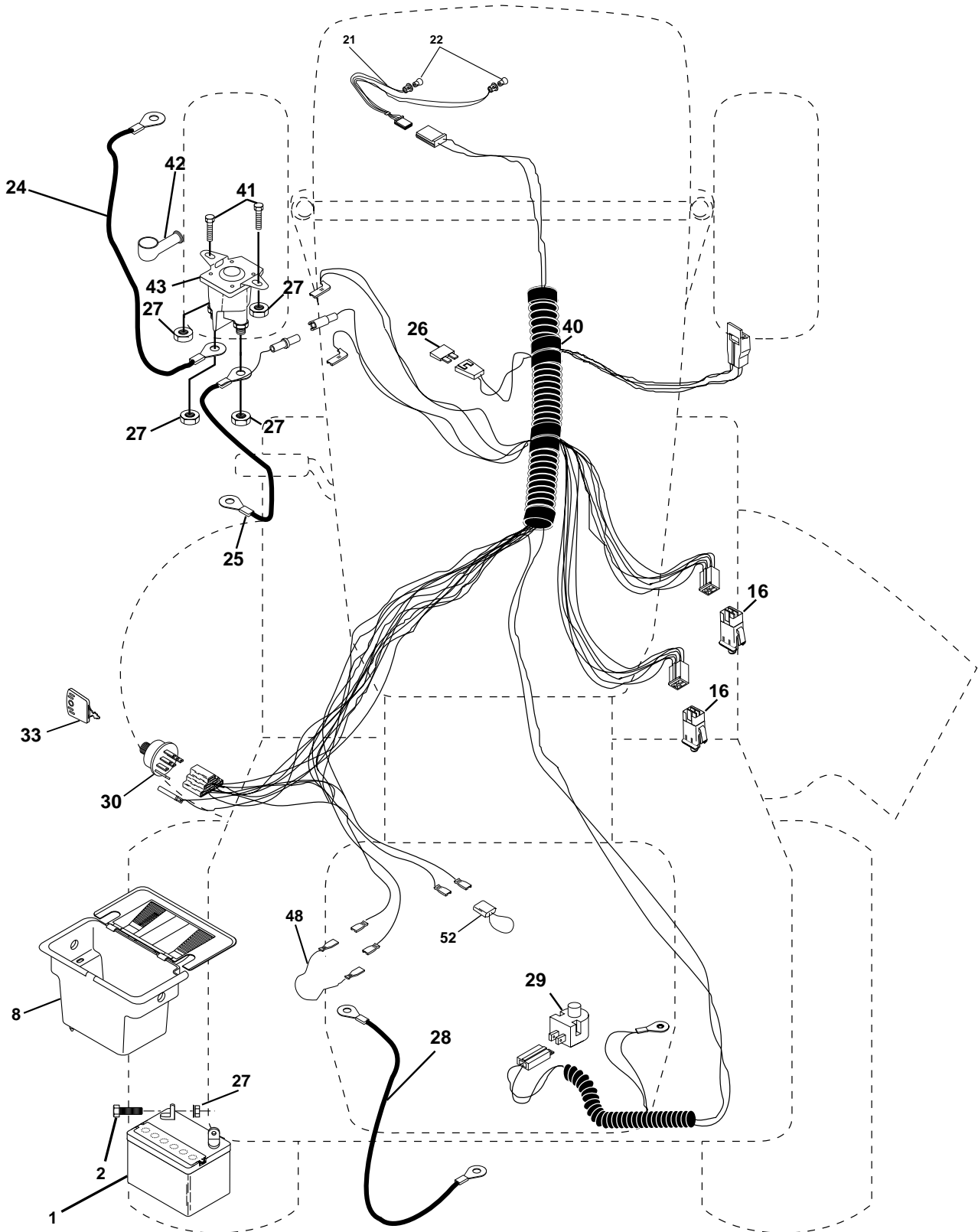
NON-REMOVABLE CONNECTIONS

REMOVABLE CONNECTIONS

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## ELECTRICAL



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### ELECTRICAL

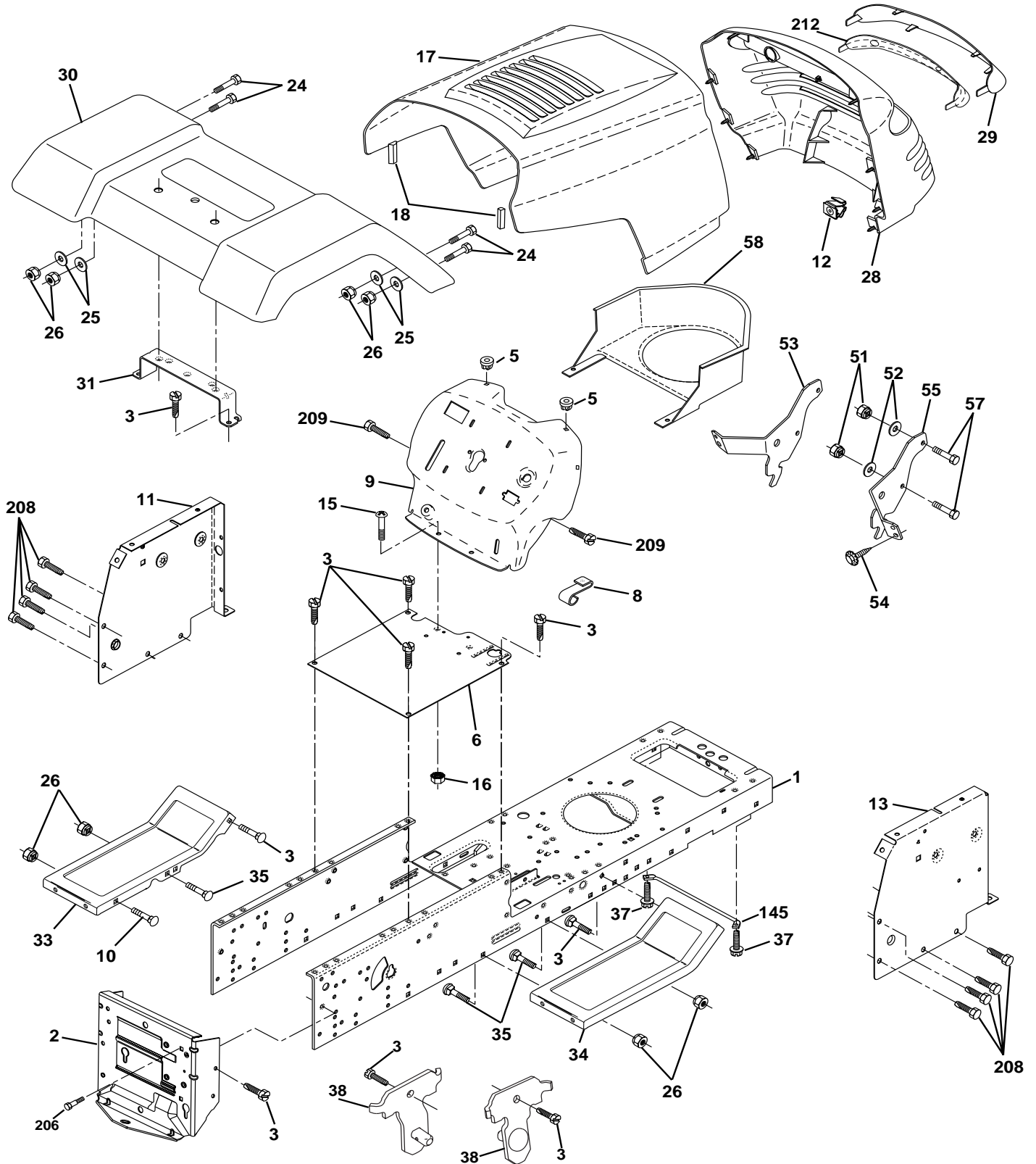
KEY NO.	PART NO.	DESCRIPTION
1	144925	Battery
2	74760412	Bolt Hex Hd 1/4-20unc X 3/4
8	156417	Case Battery
16	153664	Switch Interlock Push-In
21	166181	Harness Asm Light W/4152j
22	4152J	Bulb Light #1156
24	4799J	Cable Battery 6 Ga 11" red
25	146147	Cable Battery 6 Ga w/16 wire
26	166180	Fuse 15 AMP
27	73510400	Nut Keps Hex 1/4-20 Unc
28	4207J	Cable Ground 6 Ga 12"black
29	121305X	Switch Plunger Nc Gray
30	163968	Switch Ign
33	140403	Key Ign
40	170217	Harness Ign
41	71110408	Bolt Blk Fin Hex 1/4-20 UNC X 1/2
42	131563	Cover Terminal Red
43	145673	Solenoid
48	140844	Adapter Ammeter
52	141940	Protection Wire Loop

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## CHASSIS AND ENCLOSURES



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### CHASSIS AND ENCLOSURES

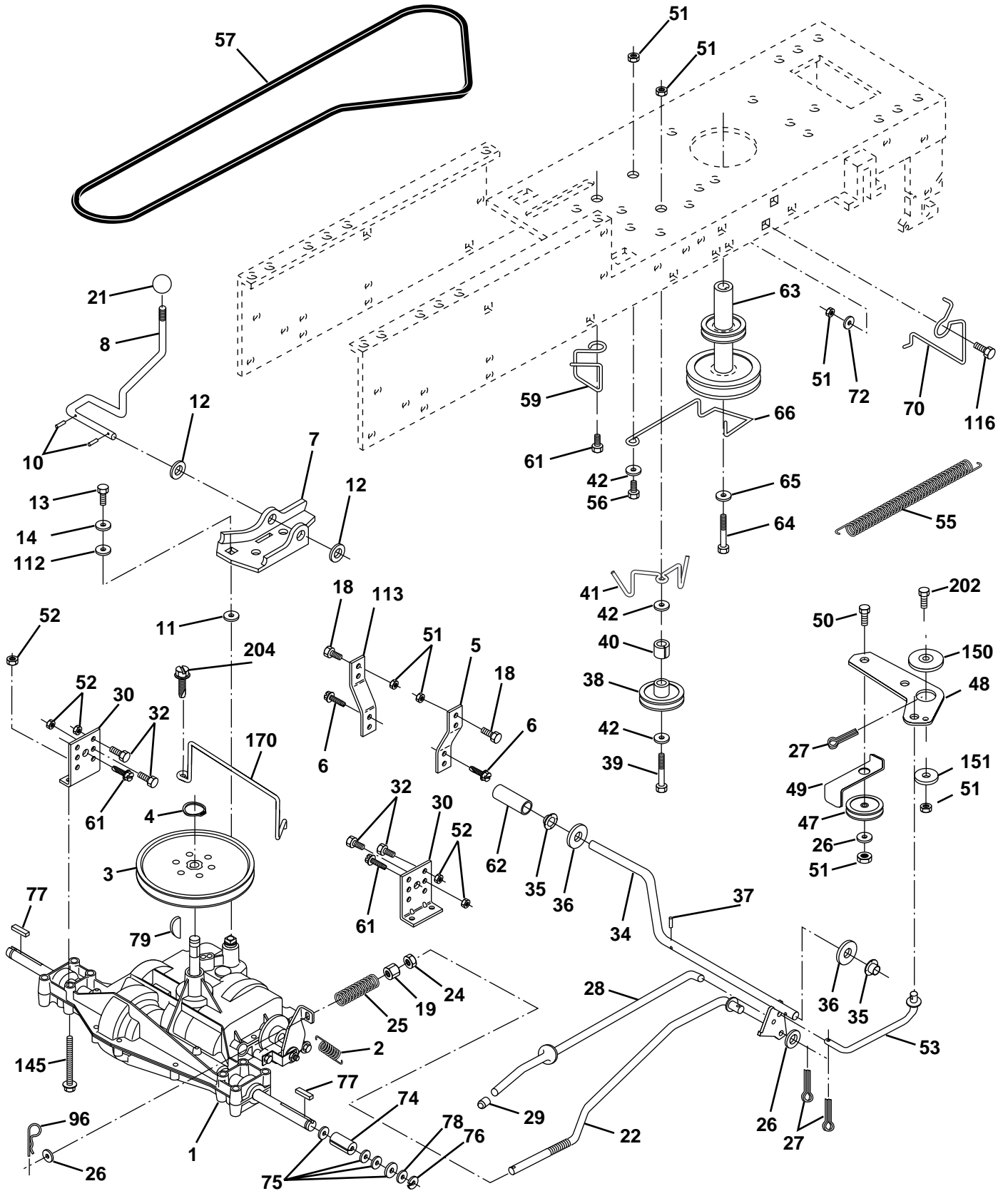
KEY NO.	PART NO.	DESCRIPTION
1	169831	Chassis
2	169061	Drawbar
3	17060612	Screw 3/8-16x3/4
4	19131216	Washer 13/32 x 3/4 x 16 Ga.
5	155272	BumperHood/Dash
6	155924X011	Saddle Silkscr 6 Spd
8	155138	Clip Retainer Slide-On
9	168347X012	Dash Silkscreened
10	72140608	Bolt Carriage 3/8-16 x 1
11	155927	Panel Dash Lh
12	145660	Clip Tinnerman Grille P/L
13	172107X010	Panel Dash Rh
14	17490608	Screw Thdrol 3/8-16x1/2 Ty-tt
15	74180512	Screw Mach Trhd 5/16-18uncx3/4
16	73510500	Nut Keps 5/16-18 UNC
17	159639X558	Hood Paint Steel P/L
18	126938X	BumperHood
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/Ins 3/8-16 UNC
28	157539	Grille P/L
29	150209X599	Lens Grille P/L
30	169465X558	Fender Pnt
31	136619	Bracket Pnt Fender
33	105476X558	Footrest Pnt Lh
34	105475X558	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
38	169834	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 vx 7/8
55	144696	Bracket, Grille RH
57	74780412	Bolt Hex 1/4-20 x 3/4
58	150127	Air Duct P/L
140	158418	Bracket Suspension Front
145	156524	Rod Pivot Chassis/Hood
206	170165	Bolt Shoulder 5/16-18
208	17670608	Screw Thdrol 3/8-16 x 1/2
209	17000612	Screw Hex Wsh thdrol 3/8-16
--	5479J	Plug Button Blk 359 Dia

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## DRIVE





# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### DRIVE

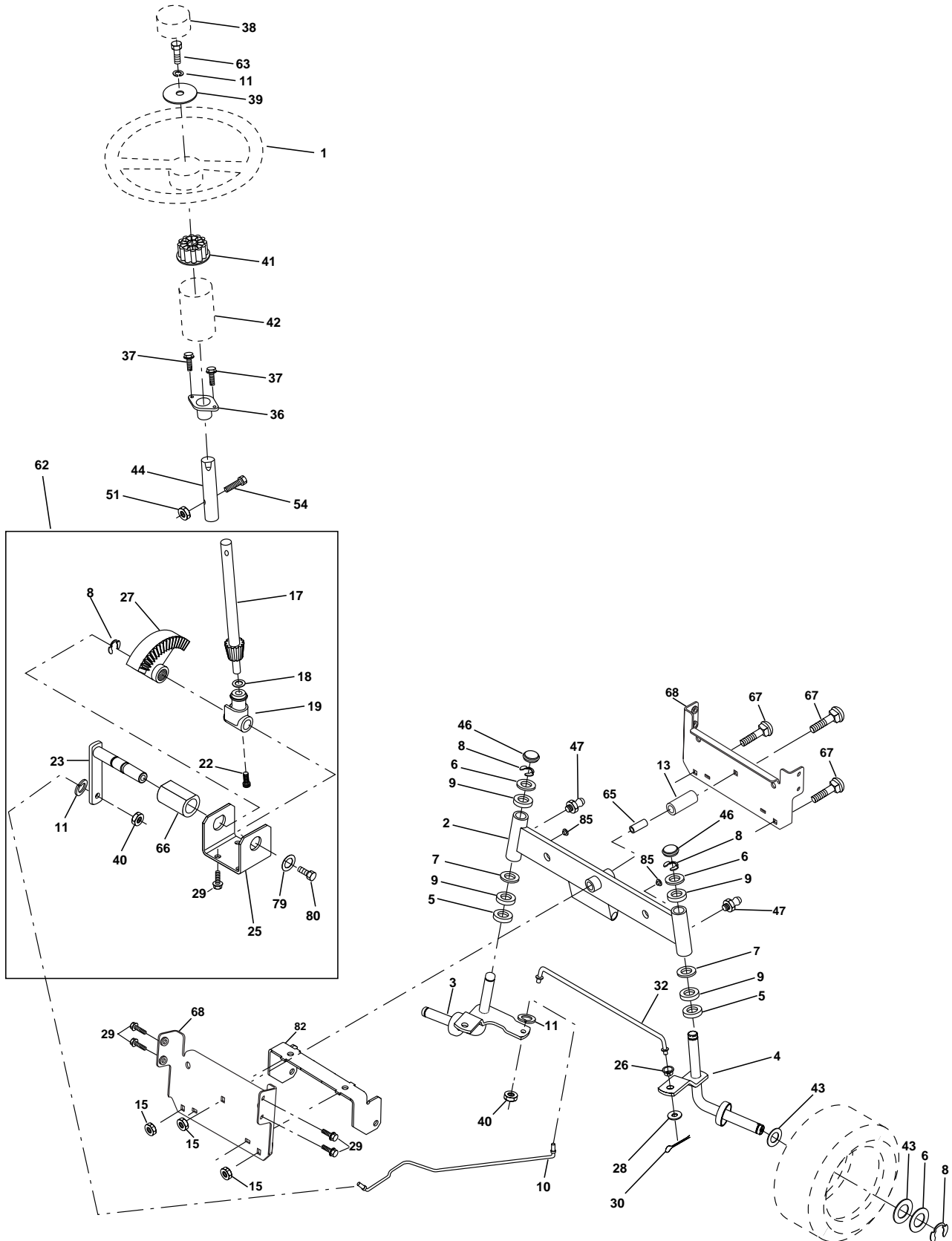
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	-----	Transaxle (See Breakdown) Peerless 205-544C	48	154407	Bellcrank Clutch Grnd Drv Stl
2	146682	Spring Return Brake T/a Zinc	49	123205X	Retainer Belt Style Spring
3	123666X	Pulley Transaxle 18" tires	50	STD523715	Bolt Hex Hd 3/8-16unc X 1-1/2
4	12000028	Ring Retainer #5100-62	51	STD541437	Nut Crownlock 3/8-16 Unc
5	121520X	Strap Torque 30 Degrees	52	STD541431	Nut Crownlock 5/16-18 Unc
6	17060512	Screw 5/16-18 X 3/4	53	105710X	Link Clutch
7	162240	Plate Pnt Rod Shift T/a (blk)	55	105709X	Spring Return Clutch 6 75
8	131679	Rod Shifter	56	STD523712	Bolt Fin Hx 3/8-16 X 1/4
10	STD561210	Pin Cotter 1/8 X 1 Cad	57	130801	V-Belt Ground Drive 95
11	105701X	Washer Plate Shf 388 Sq Hole	59	169691	Keeper Belt Span Ctr
12	19151216	Washer 15/32 x 3/4 x 16 Ga.	61	17060612	Screw 3/8-16x3/4
13	74550412	Bolt 1/4-28 Unf Gr 8 W/Patch	62	8883R	Cover Pedal Blk Round
14	STD551125	Washer Lock Hvy Helical 1/4	63	140186	Engine Pulley LT/YT
18	STD523710	Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5	64	71170764	Bolt Hex
19	STD541437	Nut Lock 3/8-16 Unc	65	STD551143	Washer Lock Hvy Hlcl Spr 7/16
21	106933X	Knob	66	154778	Keeper Belt Engine Foolproof
22	130804	Rod Brake Blk Zinc 26 840	70	134683	Guide Belt Mower Drive RH
24	STD541237	Nut Hex Jam 3/8-16 Unc	72	19132012	Washer 13/32 X 1-1/4 X 12 Ga
25	106888X	Spring Rod Brake 2 00 Zinc	74	137057	Spacer Axle
26	STD551037	Washer 13/32 X 13/16 X 16 Ga	75	121749X	Washer 25/32 X 1 1/4 X 16 Ga
27	STD561210	Pin Cotter 1/8 X 3/4 Cad	76	STD581075	E-ring #5133-75
28	145204	Rod Brake Parking LT/YT	77	123583X	Key Square 2 0 X 1845/ 1865
29	71673	Cap Brake Parking Black	78	121748X	Washer 25/32 X 1-5/8 X 16 Ga
30	130807	Bracket Mtg Transaxle	79	2228M	Key Woodruff
32	STD523107	Bolt Hex Hd 5/16-18unc X 3/4	96	4497H	Retainer Spring
34	155071	Shaft Asm Pedal Foot	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
35	120183X	Bearing Nylon Blk 629 Id	113	127285X	Strap Torque 90 degrees
36	STD551062	Washer 21/32 X 1 X 16 Ga	116	72110610	Bolt Rdhd Sq Neck 3/8-16 x 1.25
37	STD571810	Pin Roll 3/16 X 1"	145	74490540	Bolt Hex FLGHD 5/16-18 x Gr 5
38	131494	Pulley Idler Flat	150	165850	Bushing Bellcrank
39	72110622	Bolt Rdhd 3/8-16 UNC X 2-3/4 Gr. 5	151	19133210	Washer 13/32 x 2 x 10 Ga.
40	4470J	Spacer Split 395 X 59 Bzp	170	165849	Keeper Belt Transaxle Gear
41	165838	Keeper Belt Idler Foolproof	202	72110612	Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5
42	19131312	Washer 13/32 X 13/16 X 12 Ga	204	17060516	Screw 5/16-18 x 1
47	127783	Pulley Idler V Groove Plastic			

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## STEERING ASSEMBLY



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### STEERING ASSEMBLY

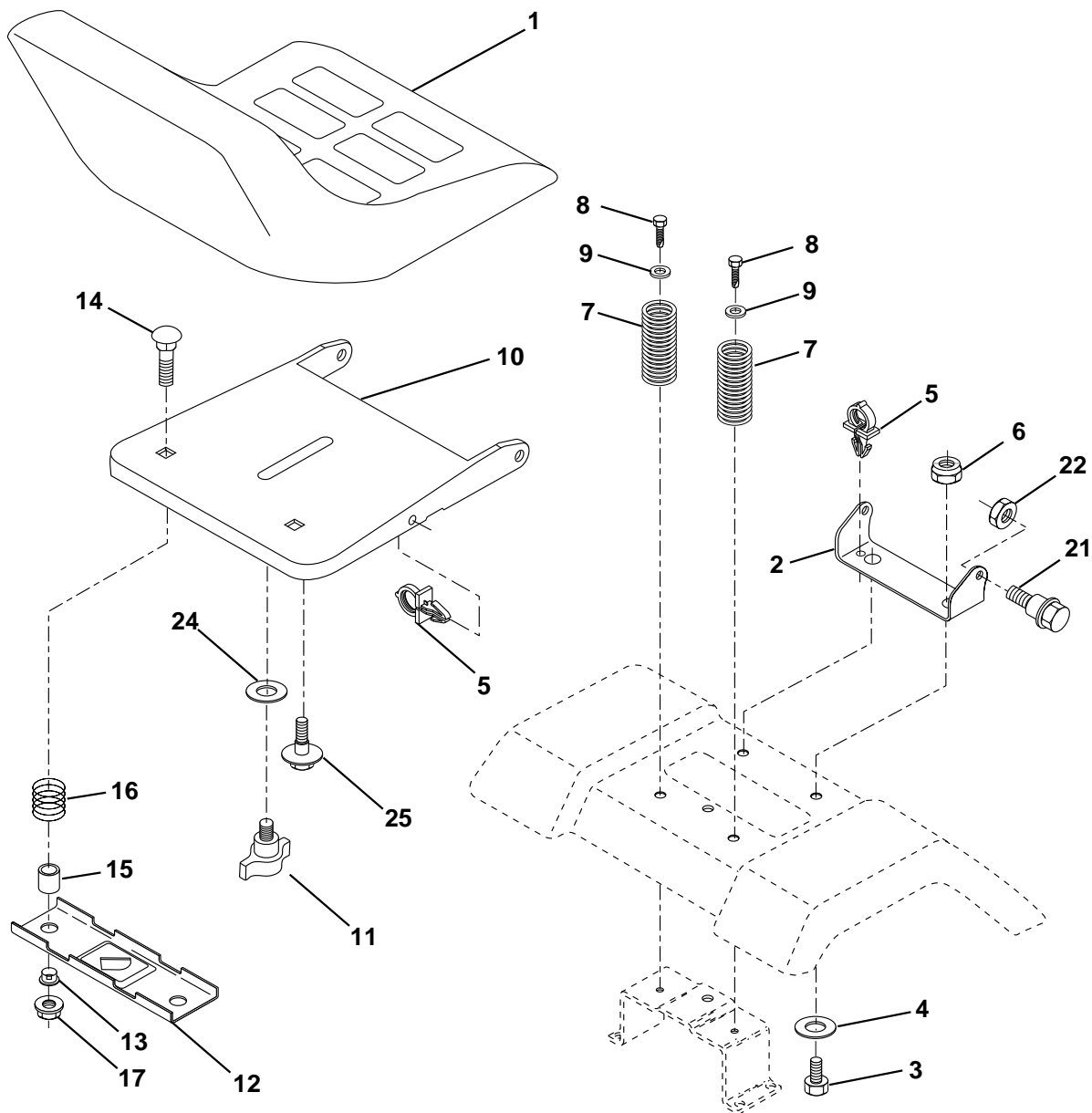
KEY NO.	PART NO.	DESCRIPTION
1	140044	Wheel Steering Blk
2	154427	Asm. Axle, Rear
3	156483	Asm., Spindle, Lh
4	157473	Asm., Spindle, Rh
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 X 1 5/8 X 16ga
7	19272016	Washer 27/32 X 1 1/4 X 16 Ga
8	12000029	Ring Klip #t5304-75
9	3366R	Bearing Col Strg Blk
10	169832	Link, Drag
11	10040600	Washer Lock Hvy 3/8
13	136518	Spacer Brg Axle Front
15	145212	Nut Hexflange Lock
17	156546	Shaft, Asm. Steering P/L
18	57079	Washer Thrust 515x 750x 033
19	160395	Support Shaft
22	165857	Screw Hex Wsh Hd Torx
23	165851	Shaft Asm Pittman
25	154406	Bracket Steering
26	126847X	Bushing Link, Drag, Blk, Lr
27	136874	Gear Sector
28	19131416	Washer 13/32 X 7/8 X 16ga
29	17060612	Screw 3/8-16x3/4
30	76020412	Pin Cotter 1/8 x 3/4 Cad
32	130465	Rod Tie Wire Form 19 75 Mech
36	155099	Bushing Strg 5/8 Id Dash
37	152927	Screw
38	140045	Cap Strg Wheel AYP/P/L
39	19133812	Washer 13/32 X 2-3/8 X 12 Ga
40	7810H	Nut Lock Center 3/8-24 UNF
41	100711L	Adaptor Wheel Strg
42	145054X428	Boot Steering
43	121749X	Washer 25/32 X 1 1/4 X 16 Ga
46	121232X	Cap Spindle Fr Top Blk
47	6855M	Fitting Grease
51	73800500	Nut Lock Hex w/Ins 5/16-18
54	74780520	Bolt Fin Hex 5/16-18 UNC x 1-1/4
62	167902	Kit Steering Assembly, Service
63	74780616	Bolt Fin Hex 3/8-16 x 1 Gr. 5
65	160367	Spacer Brace Axle
66	154404	Bearing Arm Pittman
67	72140618	Bolt, Rdhd Sq 3/8-16 UNC x 2-1/4
68	169827	Brace Axle
79	19132012	Washer 13/32 x 1-1/4 x 12 Ga
80	74950612	Bolt Hex Nylon 3/8-16 x 3/4
82	169835	Bracket Susp Chassis Front
85	133835	Fastener Christmas Tree

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	127427	Seat
2	140551	Bracket Pnt Pivot Seat
3	71110616	Bolt
4	19131610	Washer 13/32 X 1 X 10 Ga
5	145006	Clip Push-In
6	STD541437	Nut
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	155925	Pan Pnt Seat (blk)
11	166369	Knob Seat Adj Wingnut

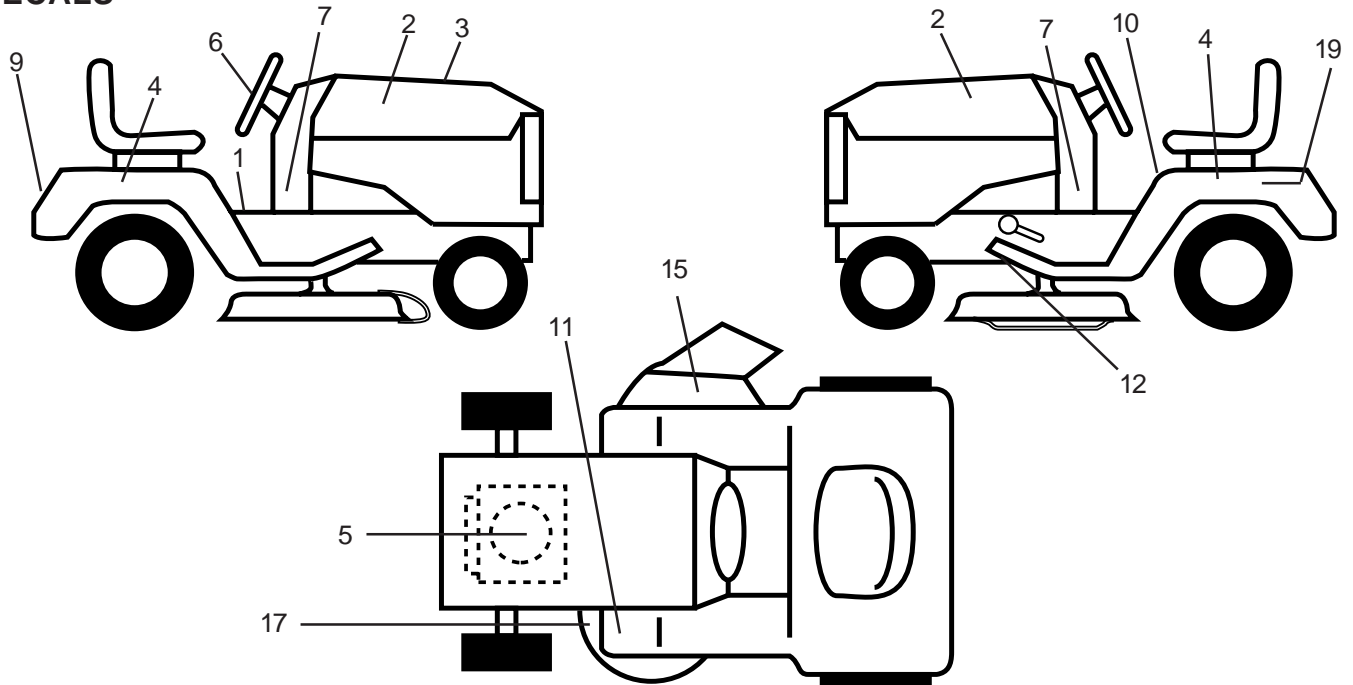
KEY NO.	PART NO.	DESCRIPTION
12	121246X	Bracket Pnt Mounting Switch
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050412	Bolt Rdhd Sht Nk 1/4-20x1-1/2
15	134300	Spacer Split 28 X 96 Zinc
16	121250X	Spring Cprsn 1 27 Blk Pnt
17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
21	171852	Bolt Shoulder 5/16-18 Unc
22	STD541431	Nut
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 944.600031

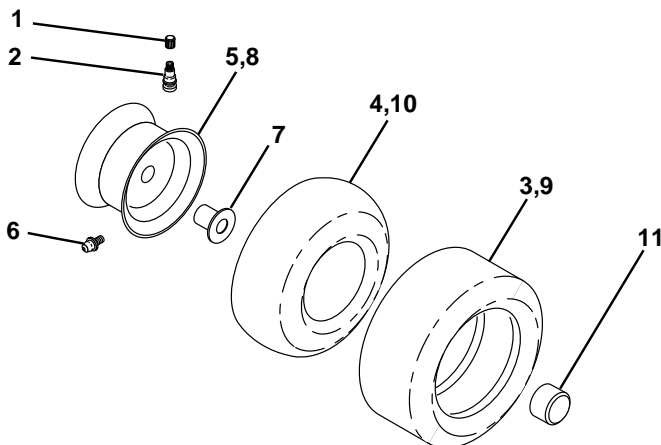
### DECALS



KEY NO.	PART NO.	DESCRIPTION
1	157163	Decal Oper Instruction Eng/Fr
2	171704	Decal Hood Logo
3	172264	Decal Replacement Parts
4	172276	Decal Fender 5Sp/38"
5	165387	Decal Engine HP
6	172275	Decal Strg Wheel
7	163248	Decal Panel Dsh Bs 13.5 IC Gold
9	163204	Decal Craftsman
10	157140	Decal Caution English/french

KEY NO.	PART NO.	DESCRIPTION
11	101892X	Decal Clutch/brake Eng/fr
12	146046	Decal V-belt Dr Sch Tractor E
15	170563	Decal Mower Warning
17	136832	Decal V-Belt Drive Sch.
19	149517	Decal Battery Dngr/Psn
--	138311	Decal Handle Lft Height Adj (Lift Handle)
--	173950	Manual Owner's English
--	173951	Manual Owner's French

### WHEELS & TIRES



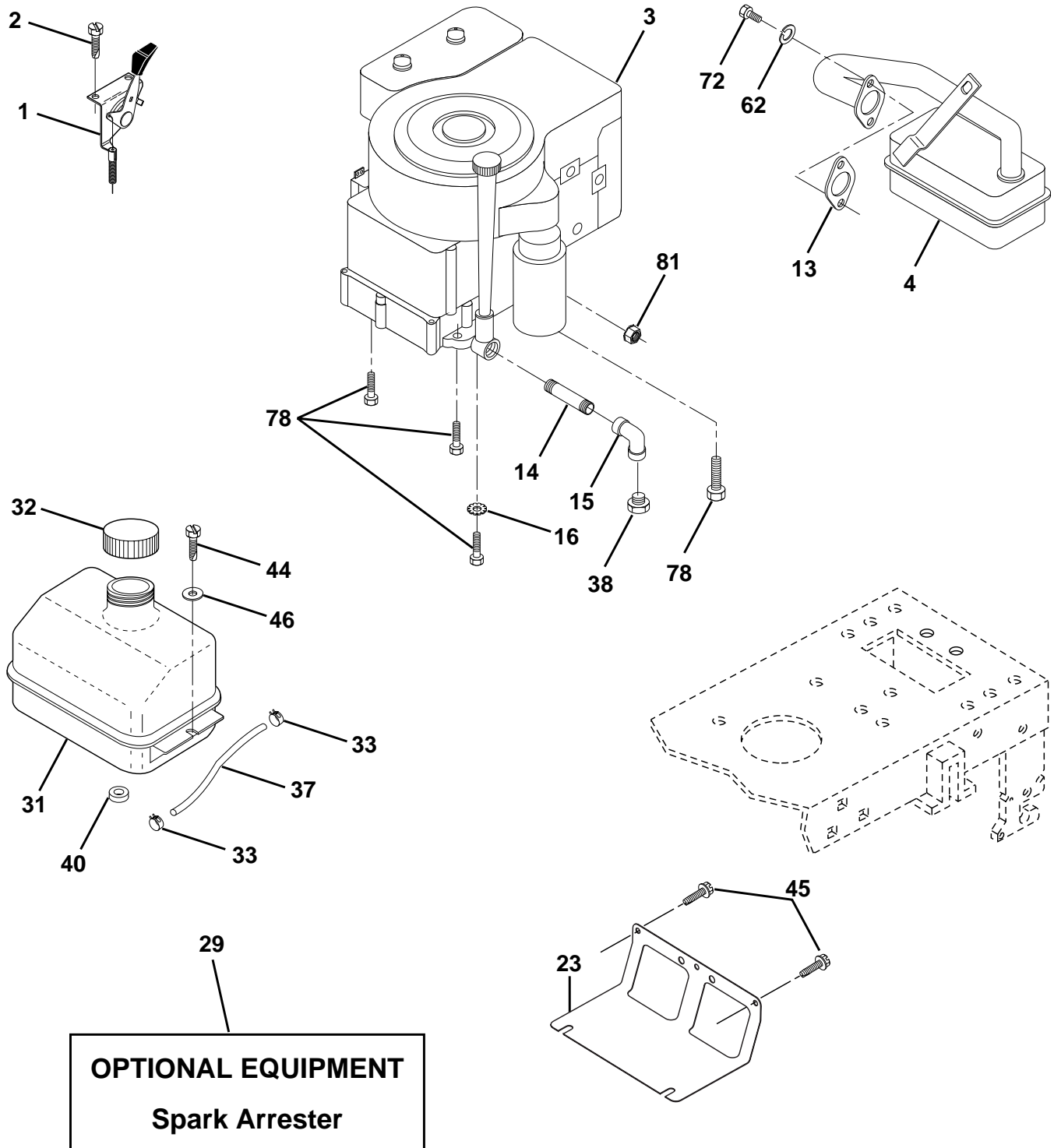
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F Ts 15 X 6 0 - 6 Service
4	59904	Tube Front (Service Item Only)
5	106732X427	Rim Asm 6" front White Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X427	Rim Asm 8"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

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## ENGINE



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### ENGINE

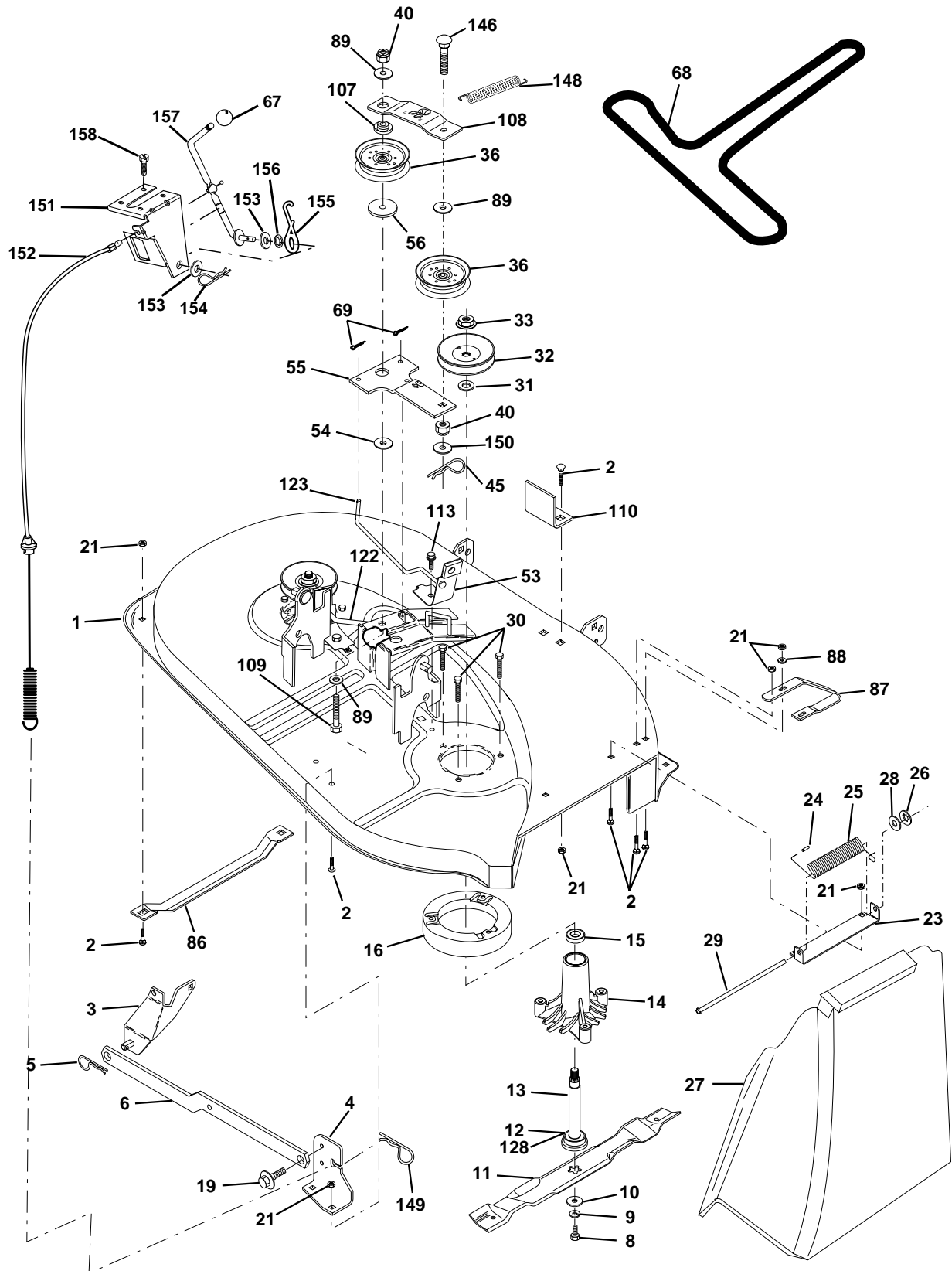
KEY NO.	PART NO.	DESCRIPTION
1	140310	Control Throt/Ch
2	17720410	Screw Hex Thd Cut 1/4-20 x 5/8 T
3	-----	Engine (See Engine Breakdown) Briggs Model No. 28R707-1140-E3
4	137348	Muffler Lt B&S 12/12.5/13 Hp
13	165291	Gasket
14	13280324	Nipple Pipe 3/8 Npt x 3"
15	13200300	Elbow Std 90 Degree 3/8-18 Npt
16	STD551237	Washer
23	169837	Shield Brn/Dbr Guard
29	137180	Arrestor Spark
31	109202X	Tank Fuel 1 25 Fr
32	158990	Cap Asm Fuel Sears Vented
33	123487X	Clamp Hose Blk
37	137040	Line Fuel 20"
38	-----	Plug Oil Drain (See Engine Breakdown)
40	124028X	Bushing Snap Nyl Blk Fuel Line
44	17490412	Screw Hexwsh Thdrol 1/4-20 x 3/4
45	17000612	Screw Hex Wsh thdrol 3/8-16
46	19091416	Washer 9/32 x 7/8 x 16ga
62	STD551131	Lockwasher
72	71070510	Screw Hexhd Cap 5/16-18 x 5/8
78	17060620	Screw 3/8-16 x 1-1/4
81	73510400	Nut Keps Hex 1/4-20 UNC

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## MOWER DECK





# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### MOWER DECK

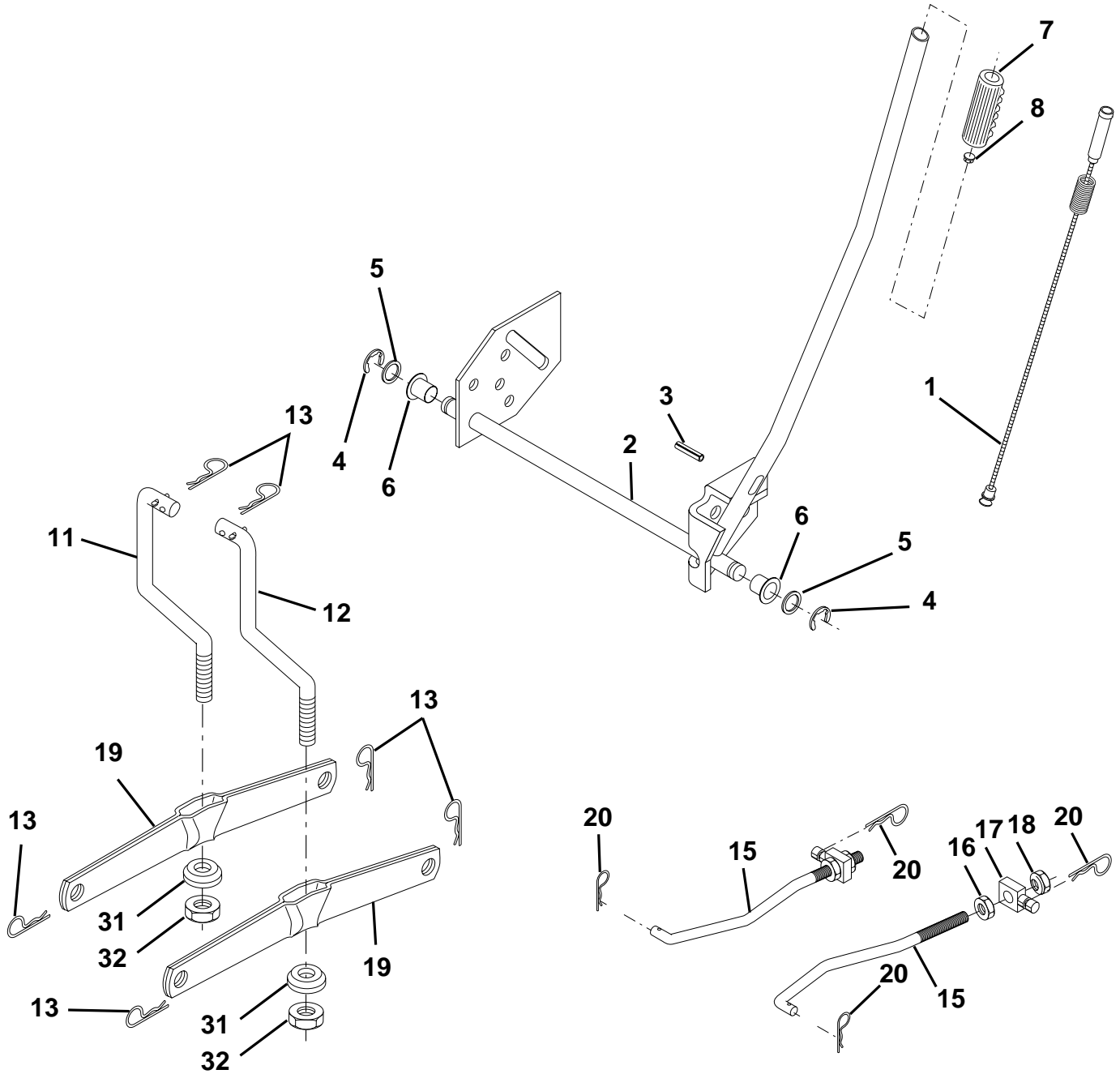
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	170280	Mower Housing Assembly	36	131494	Pulley, Idler, Flat
2	STD533107	Bolt Carriage 5/16-18 x 3/4	45	STD624003	Retainer
3	138017	Bracket Asm Fr. Sway Bar	53	130840	Brake Assembly
4	169970	Bracket Deck Sway Bar 38"/42"	54	133943	Washer, Hardened
5	STD624008	Retainer Spring	55	133840	Idler Arm Assembly
6	130832	Arm, Suspension, Rear	56	165723	Spacer, Retainer
8	850857	Bolt 3/8-24 x 1.25 Grade 8	67	149846	Knob Custom Oval
9	STD551137	Washer, Lock 3/8	68	144200	V-Belt, 42" Mower
10	140296	Washer, Hardened	69	STD560907	Pin, Cotter 3/32 x 3/4
11	134148	Blade, Mulching 38" Std (Originally equipped with)	86	7631J	Runner, LH
		(Following Blades are Optional)	87	128772	Runner, RH
	138497	Blade Mower 38" Hi-Lift Std (For better bagging, especially in wet conditions)	88	19111216	Washer 11/32 x 3/4 x 16 Ga.
	139774	Blade Mulching 38" Premium (For better wear when mulching)	89	19131612	Washer 13/32 x 1 x 12 Ga.
	138970	Blade Mower 38" Hi-Lift Premium (For better wear when bagging in heavy or wet conditions)	107	133502	Spacer Retainer
12	129895	Bearing, Ball	108	133503	Stiffener, Idler Arm
13	137645	Shaft Assembly, Mandrel, Vented (Includes Key Number 6)	109	74760640	Bolt, Hex Hd 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 5/16-1/ x 3/4
16	140329	Stripper, Vented Mower Deck	122	131289	Rod, Brake LH
19	132827	Bolt, Shoulder	123	169971	Rod, Brake RH
21	STD541431	Nut	128	153390	Washer Felt
23	137607	Bracket, Mower Deflector	146	165891	Bolt Carriage Idler
24	105304X	Cap, Sleeve	148	169022	Spring Return Idler
25	123713X	Spring, Torsion, Deflector	149	165898	Retainer Spring Yellow
26	110452X	Nut, Push	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
27	106736X428	Shield, Deflector	151	169670	Bracket Clutch Cable
28	19111016	Washer 11/32 x 5/8 x 16 Gauge	152	172758	Clutch Cable 38"/46"
29	106735X	Rod, Hinge	153	169674	Washer Flat 3/8" Type B
30	157722	Screw Thdrol. Washer Head	154	169675	Spring Retainer
31	129963	Washer, Spacer	155	169671	Spring Retention LVR CLTCH CAB
32	153532	Pulley, Mandrel	156	169672	Spacer Clutch Cable
33	137266	Nut, Toplock 9/16	157	169669	Rod Clutch Cable 3/8"
			158	17720410	Screw Hex Thd Cut 1/4-20 x 5/8
			--	130794	Mandrel Assembly (Includes Key Numbers 12-15, 17-19, 31 and 33)
			--	171665	Mower Deck, Complete

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## LIFT LEVER



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

## LIFT LEVER

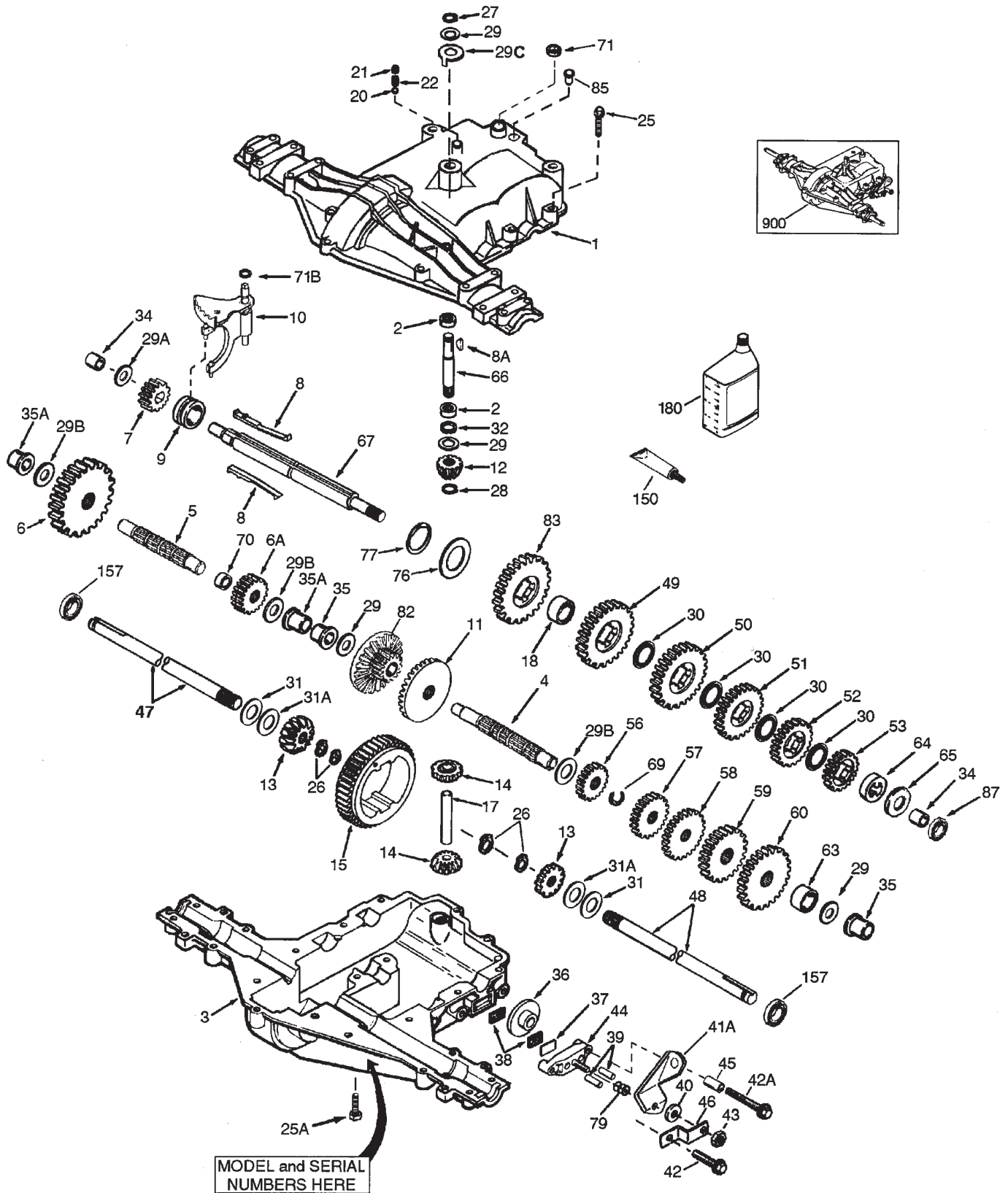
KEY NO.	PART NO.	DESCRIPTION
1	159460	Wire Asm Inner/Sprng w/Plunger Lt
2	159471	Shaft Asm Lift
3	105767X	Pin Groove
4	STD581062	E Ring #5133-62
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylon
7	125631X	Grip Handle Fluted
8	122365X	Button Plunger Red
11	139865	Link Lift Lh
12	139866	Link Lift Rh
13	STD624008	Retainer Spring
15	167253	Link Front
16	73350800	Nut Jam Hex 1/2 - 13 Unc
17	130171	Trunnion Blk Zinc
18	73800800	Nut Lock w/Wsh 1/2 - 13 Unc
19	139868	Arm Suspension Rear
20	163552	Retainer Spring Zinc
31	140302	Bearing Pvt. Lift Spherical
32	73540600	Nut Crownlock 3/8-24

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

TRANSAXLE PEERLESS 205-544C



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### TRANSAXLE PEERLESS 205-544C

REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	772147	Transaxle Cover	39	786026	Dowel Pin
2	780086A	Needle Bearing 5 / 8"	40	792076A	Flat Washer .312 ID x .059W
3	770128	Transaxle Case	41A	790079	Brake Lever
4	776395	Countershaft	42	792073A	Screw 1 / 4 - 20 x 1 - 1 / 4"
5	776409	Output Shaft	42A	792085A	Screw 1 / 4 - 20 x 2 - 1 / 4"
6	778364	Spur Gear (38 teeth)	43	792075	Locknut 5 / 16 - 24
6A	778369	Spur Gear (15 teeth)	44	790025	Brake Pad Holder
7	778330	Spur Gear (11 teeth)	45	786066	Spacer .2625 x 1.0
8	792180	Shift Key	46	786086	Brake Lever Bracket
8A	792047	Woodruff Key #9	47	774690	Axle (11 - 15 / 16 " long)
9	784352	Shift Collar	48	774691	Axle (16 - 1 / 2" long)
10	784378	Shift Rod & Fork	49	778356	Spur Gear (29 teeth)
11	778334	Bevel Gear (30 teeth)	50	778354	Spur Gear (23 teeth)
12	778309	Input Bevel Pinion (13 teeth)	51	778352	Spur Gear (19 teeth)
13	778368	Bevel Gear (13 teeth) (Include. 14)	52	778350	Spur Gear (16 teeth)
14	778368	Bevel Pinion (13 teeth) (Include 13)	53	778346	Spur Gear (15 teeth)
15	778370	Ring Gear (43 teeth)	53	778346	Spur Gear (15 teeth - steel)
17	786188	Drive Pin	56	778355	Spur Gear (11 teeth)
18	786102	Spacer 1.130 x .695	57	778353	Spur Gear (17 teeth)
20	792077A	Ball 5 / 6" dia	58	778351	Spur Gear (21 teeth)
21	792078	Set Screw 3 / 8-16 x 3 / 8"	59	778349	Spur Gear (24 teeth)
22	792079	Spring .310 OD x .625 L	60	778345	Spur Gear (25 teeth)
25	792073A	Screw 1/4 - 20 x 1-1 / 4"	63	786071	Countershaft Spacer 1 - 1 / 8" x 3 / 8"
25A	792177	Screw 1 / 4 - 20 x 1 - 3 / 8"	64	786072	Brake Shaft Spacer 1 - 3 / 8" x 3 / 8"
26	792125	Retaining Ring (pkg of 2)	65	780189	Flat Washer .563 ID x .062W
27	792035	Retaining Ring	66	776422	Input shaft
28	788040	Retaining Ring	67	776396	Shifter & Brake shaft
29	780072	Thrust Washer .627 ID x .031W	69	792170	Retaining Ring
29A	780160	Thrust Washer .563 ID x .031W	70	786187	Spacer .890
29B	780051	Thrust Washer .762 ID x .031W	71	788069	Square Cut Ring
29C	780199	Anti -Rotation Washer .632	71B	788092	"O" Ring
30	780108	Cup Washer 1.127 ID x .032W	76	780090	Flat Washer 1.128 ID x .058W
31	780001	Flat Washer .750 ID x .056 (Use as Needed)	77	788078A	Inverted Retaining Ring
31A	780195	Flat Washer .750 ID x .062W	79	792144	Spring .430 OD x .5000 L
32	788083	Oil Seal 5 / 8"	82	778333	Bevel & Spur Gear (30 & 13 teeth)
34	780194	Bushing .563	83	778338	Spur Gear (27 teeth)
35	780193	Flanged Bushing 5 / 8" ID	85	792154	Oil Fill Plug
35A	780197	Flanged Bushing .751	87	788089A	Oil Seal 9 / 16"
36	790075	Brake Disk	150	788093A	Liquid Gasket RTV Silicone
37	790007	Brake Pad Plate	157	788088A	Oil Seal 3 / 4"
38	799021	Brake Pad (pkg of 2)	180	730229A	Gear Oil 80W90
			900	794711	Replacement MST-205-544C Transaxle

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

# REPAIR PARTS

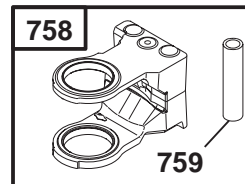
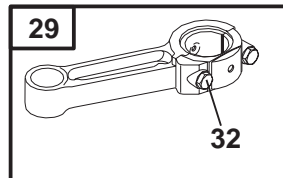
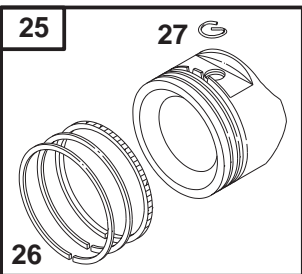
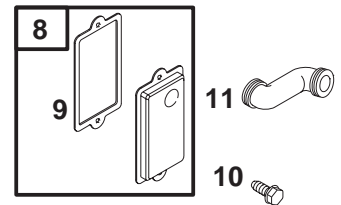
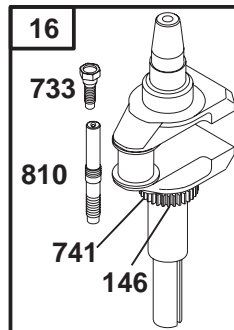
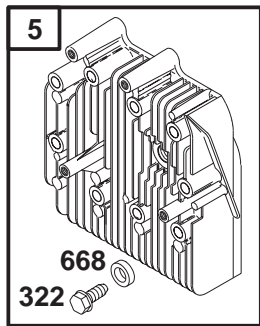
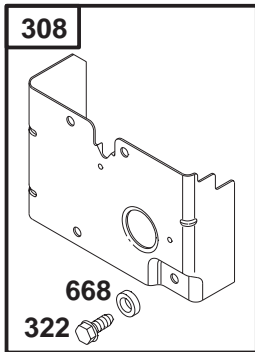
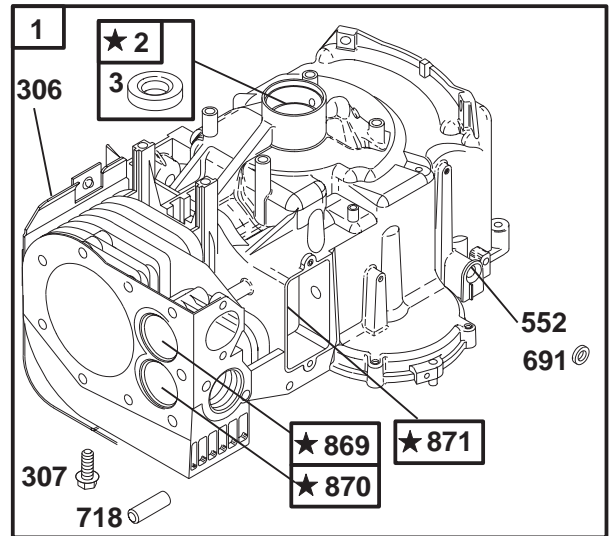
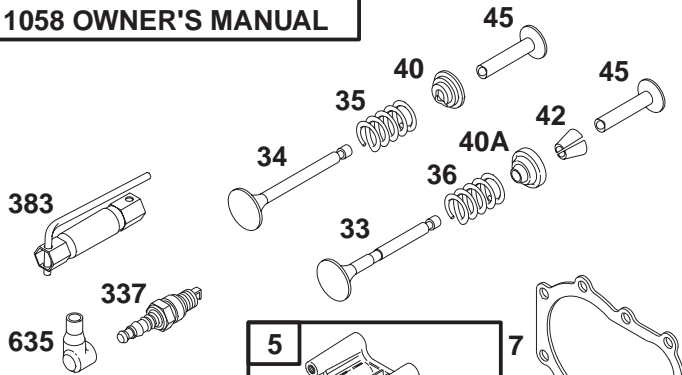
TRACTOR - - MODEL NUMBER 944.600031

BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3

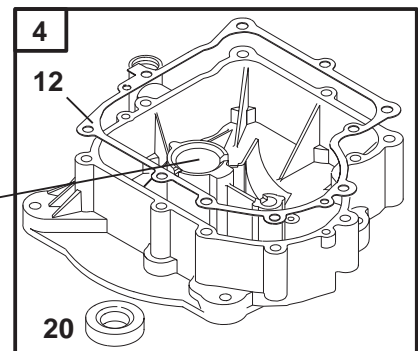
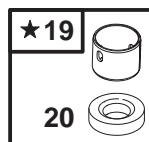
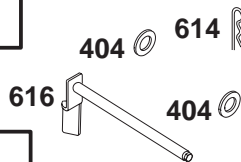
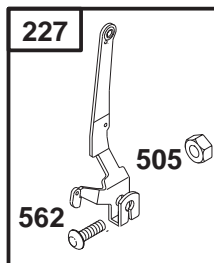
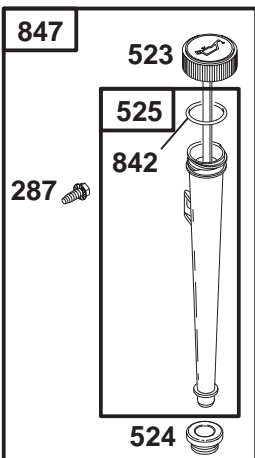
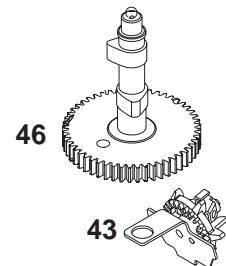
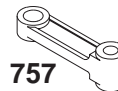
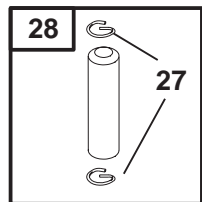
## 1095 VALVE GASKET SET



## 1058 OWNER'S MANUAL



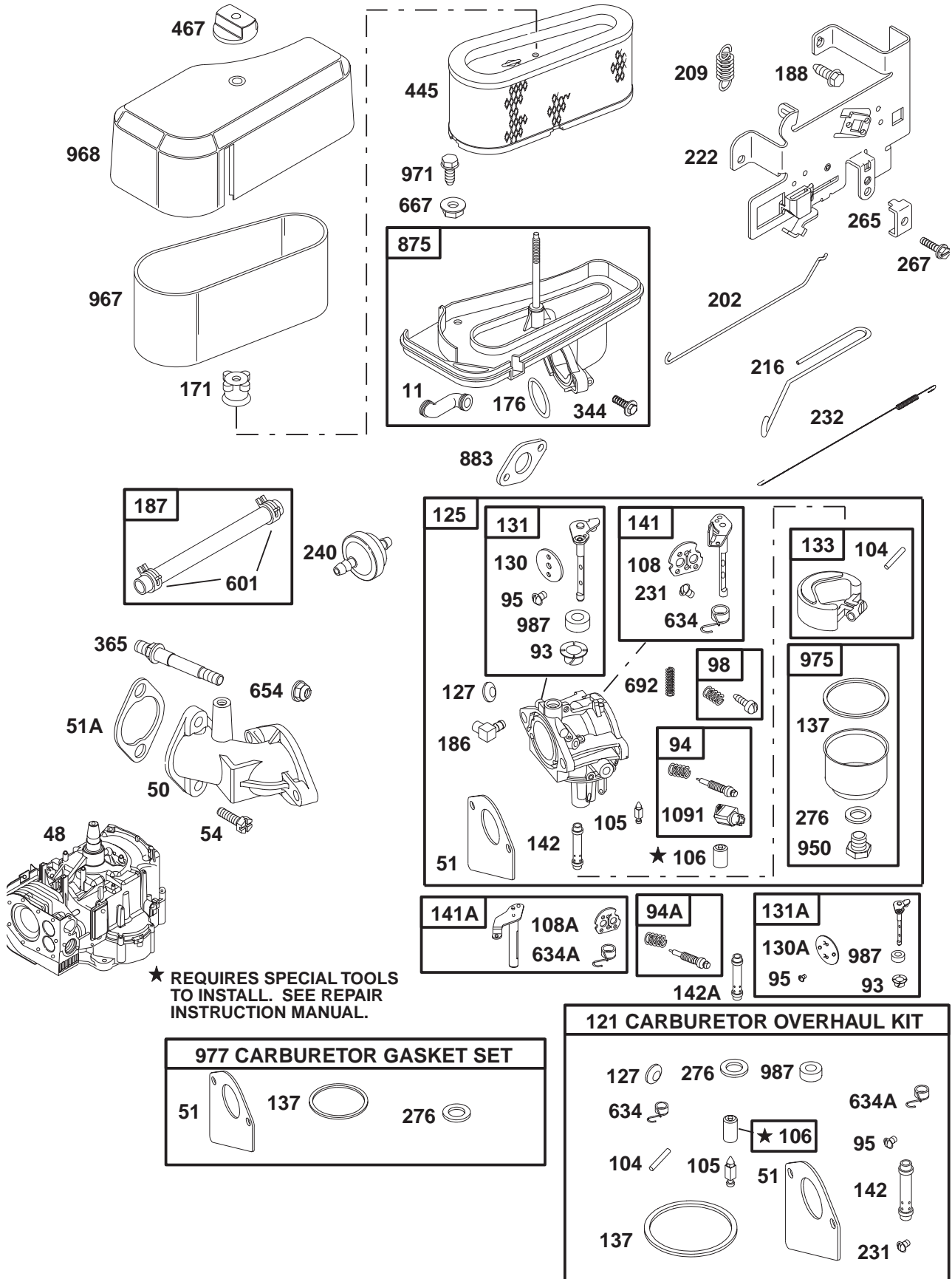
★ REQUIRES SPECIAL TOOLS TO INSTALL. SEE REPAIR INSTRUCTION MANUAL.



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

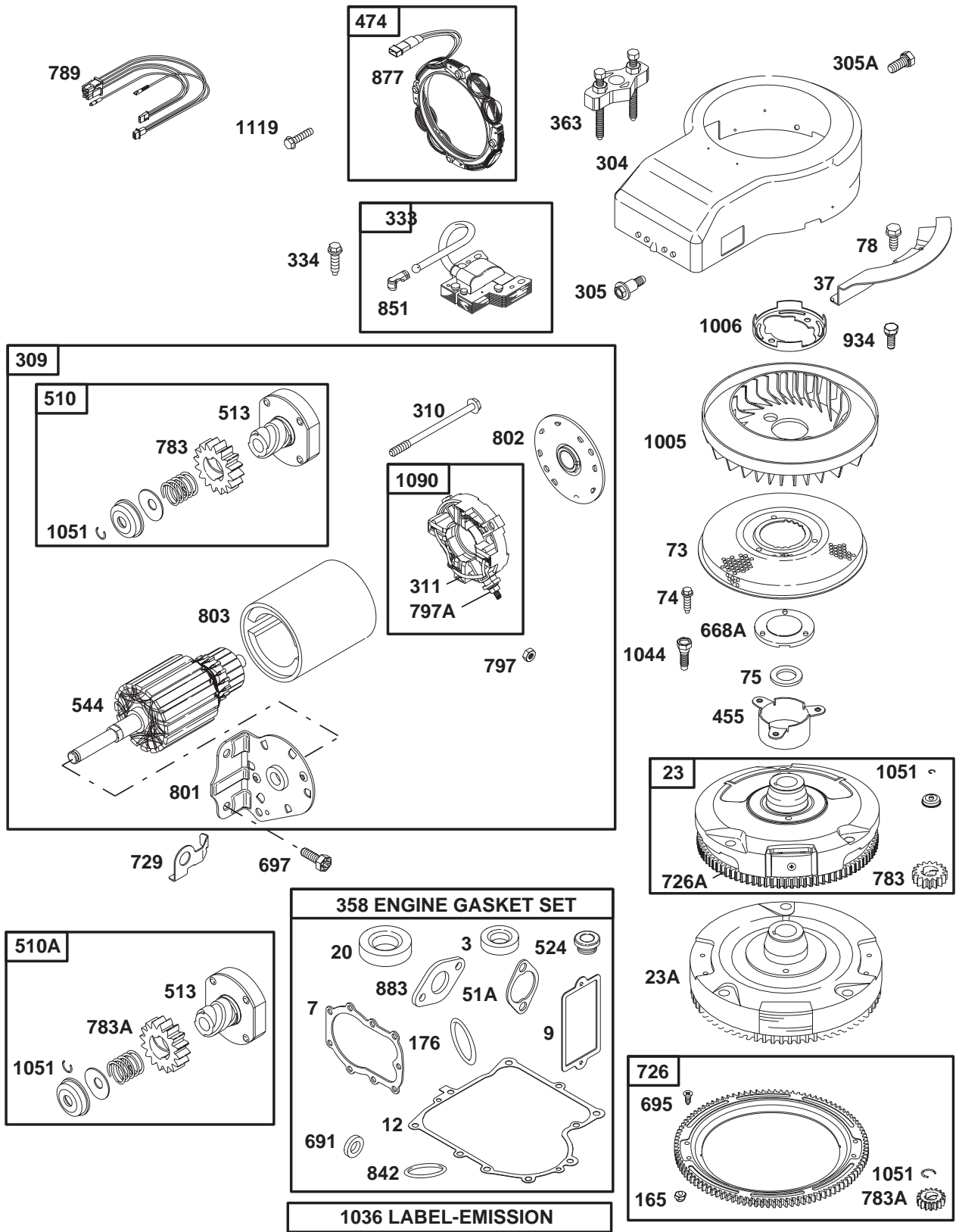
BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3

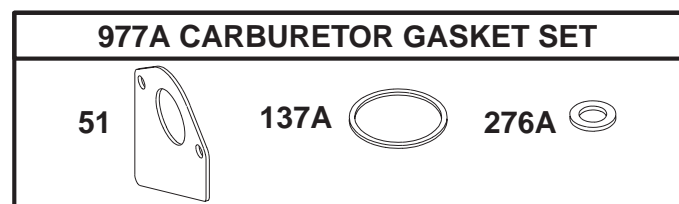
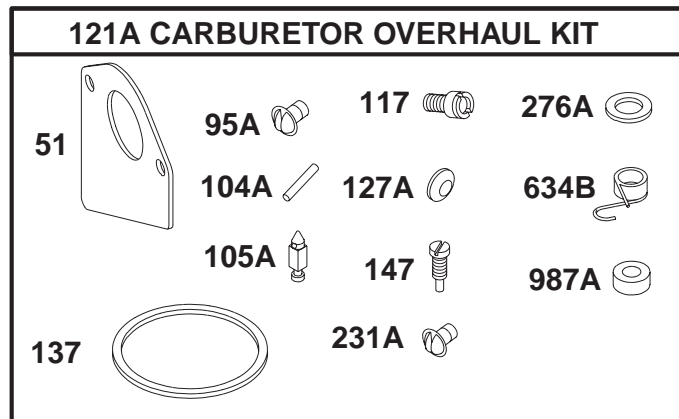
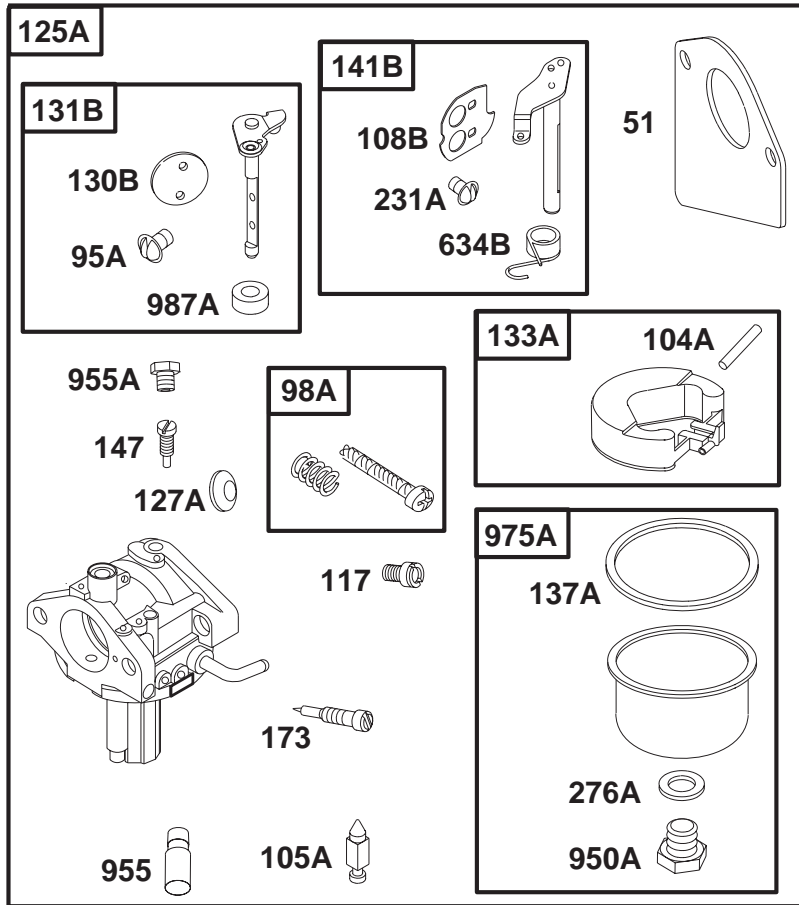




# REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.600031

BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	496413	Cylinder Assembly	105	231855 ●	Float Needle Valve
2	399265	Bushing/Seal Kit (Magneto Side)	105A	694922 ●	Float Needle Valve
3	391086 ☆	Oil Seal	106	231854 ●	Inlet Seat
4	494238	Engine Sump	108	690464	Choke Valve (Manual Choke)
5	494240	Cylinder Head	108A	692344	Choke Valve (Choke A Matic)
7	271866 ☆+	Cylinder Head Gasket	108B	694923	Choke Valve
8	495735	Breather Assembly	117	690880 ●	Main Jet
9	27803 ☆+	Breather Gasket		694925 ●	Main Jet (High Altitude)
10	691666	Screw (Breather Assembly)	121	499220	Carburetor Overhaul Kit
11	280100	Breather Tube		499231	Carburetor Overhaul Kit (LMT 157)
12	271916 ☆	Crankcase Gasket (.015 Thick, Std.)	121A	694930	Carburetor Overhaul Kit
	271997 ☆	Crankcase Gasket (.005 Thick)	125	498027	Carburetor (Walbro Carburetor)
	271996 ☆	Crankcase Gasket (.009 Thick)	125A	694941	Carburetor (Nikki Carburetor)
13	94622	Screw (Cylinder Head)	127	695005 ●	Welch Plug
15	94239	Oil Drain Plug	127A	694916 ●	Welch Plug
16	495162	Crankshaft	130	690468	Throttle Valve
19	490666	Bushing/Seal Kit (PTO Side)	130A	224539	Throttle Valve (Use on LMT 92)
20	291675 ☆	Oil Seal	130B	694917	Throttle Valve
22	692125	Screw (Engine Sump)	131	494485	Throttle Shaft Kit
23	693556	Flywheel (Steel Ring Gear)	131A	494379	Throttle Shaft Kit
23A	692682	Flywheel (Plastic Ring Gear)	131B	694909	Throttle Shaft Kit
24	222698	Flywheel Key	133	494381	Carburetor Float
25	499282	Piston Assembly (Standard)	133A	694914	Carburetor Float
	394662	Piston Assembly (.010 O.S.)	137	281165 ◆◆	Float Bowl Gasket
	394663	Piston Assembly (.020 O.S.)	137A	694920 ◆◆	Float Bowl Gasket
	394664	Piston Assembly (.030 O.S.)	141	495097	Choke Shaft Kit (Manual Choke)
26	391780	Ring Set (Standard)	141A	495931	Choke Shaft Kit (Choke A Matic)
	392331	Ring Set (Chrome, Standard)	141B	694913	Choke Shaft Kit
	391781	Ring Set (.010 O.S.)	142	691434 ●	Carburetor Nozzle (Standard, LMT 92, 93, 94, 96)
	391782	Ring Set (.020 O.S.)		497737	Carburetor Nozzle (High Altitude, LMT 92, 96)
	499999	Ring Set (.030 O.S.)	142A	691425 ●	Carburetor Nozzle (Standard, LMT 81, 157)
27	691299	Piston Pin Lock		497567	Carburetor Nozzle (High Altitude, LMT 157)
28	498319	Piston Pin	146	94196	Timing Key
29	494504	Connecting Rod (Standard)	147	694927 ●	Pilot Jet
	490469	Connecting Rod (.020 Undersize)	165	693148	Nut (Ring Gear)
32	691133	Screw (Connecting Rod)	171	281051	Nut (Air Cleaner)
33	262246	Exhaust Valve	173	694926	Idle Mixture Valve
34	262247	Intake Valve	176	281106 ☆+	O-Ring Seal (Air Cleaner Base)
35	65906	Valve Spring (Intake)	186	493496	Hose Connector
36	26828	Valve Spring (Exhaust)	187	298049	Fuel Line (Cut to Required Length)
37	690456	Flywheel Guard	188	94929	Screw (Control Bracket)
40	221596	Valve Retainer	202	262767	Mechanical Governor Link
40A	292260	Valve Retainer	209	260871	Governor Spring
42	494553	Valve Keeper	216	262766	Choke Link
43	490815	Governor/Oil Slinger	222	694042	Control Bracket
45	262248	Valve Tappet	227	691374	Governor Control Lever
46	692123	Camshaft	231	94098 ●	Screw (Choke Valve)
48	496606	Short Block	231A	805538 ●	Screw (Choke Valve)
50	213819	Intake Manifold	232	262785	Governor Link Spring
51	272465 ◆	Intake Gasket	240	394358	Fuel Filter
51A	272554 ☆+	Intake Gasket			
54	94913	Screw (Intake Manifold)			
73	690492	Rotating Screen			
74	94626	Screw (Rotating Screen)			
75	225136	Washer (Flywheel)			
78	94896	Screw (Flywheel Guard)			
93	690602	Throttle Shaft Bushing			
94	498030	Idle Mixture Kit			
94A	494383	Idle Mixture Kit			
95	94098 ●	Screw (Throttle Valve)			
95A	805538 ●	Screw (Throttle Valve)			
98	495800	Idle Speed Kit			
98A	694907	Idle Speed Kit			
104	690525 ●	Float Hinge Pin			
104A	694918 ●	Float Hinge Pin			

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

- ☆ Included in Engine Gasket Set, Ref Number 358.
- Included in Carburetor Overhaul Kit, Ref Number 121.
- ◆ Included in Carburetor Gasket Set, Ref Number 977.
- + Included in Valve Gasket Set, Ref Number 1095.

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.600031

### BRIGGS & STRATTON ENGINE - - MODEL NUMBER 28R707, TYPE NUMBER 1140-E3

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
265	221535	Casing Clamp	758	399891	Counterweight
267	695134	Screw (Casing Clamp)	759	691239	Counterweight Pin
276	281164	◆ Sealing Washer	761	691096	Screw (Counterweight)
276A	690997	◆ Sealing Washer	783	693713	Pinion Gear (For Steel Ring Gear Only)
287	94903	Screw (Oil Fill Tube)	783A	693058	Pinion Gear (For Plastic Ring Gear Only)
304	691399	Blower Housing	789	695050	Wiring Harness
305	692127	Screw (Blower Housing)	797	92278	Nut (Starter Terminal)
305A	94786	Screw (Blower Housing)	797A	693167	Nut (Starter Terminal)
306	690459	Cylinder Shield	801	691429	Drive Cap
307	94930	Screw (Cylinder Shield)	802	497607	End Cap
308	491490	Cylinder Head Cover	803	693757	Starter Housing
309	693551	Starter Motor (For Steel Ring Gear Only)	810	231828	Crankshaft Extension
	497595	Starter Motor (For Plastic Ring Gear Only)	842	270920	★ Dipstick/Tube Seal
			847	496415	Dipstick/Tube Assembly
310	690323	Screw (Starter Motor)	851	493880	Sparkplug Terminal
311	497608	Brush Set	869	261463	Valve Seat (Intake)
322	94786	Screw (Cylinder Cover)	870	262924	Valve Seat (Exhaust)
333	492341	Magneto Armature	871	261961	Guide Bushing (Exhaust)
334	94731	Screw (Magneto Armature)		231218	Guide Bushing (Intake)
337	802592	Sparkplug	875	694942	Air Cleaner Base (Used With Nikki Carburetor)
344	693675	Screw (Cable Clamp)		693676	Air Cleaner Base (Used With Walbro Carburetor)
358	494241	Engine Gasket Set			
363	19203	Flywheel Puller	877	393456	Alternator Connector/Wire
365	94637	Stud (Carburetor)	883	272293	★+ Exhaust Gasket
383	89838	Sparkplug Wrench	934	94627	Screw (Fan Retainer)
404	94927	Washer (Governor Crank)	950	94642	Float Bowl Screw
445	496894	A/C Cartridge Filter	950A	694919	Float Bowl Screw
455	691173	Flywheel Cup	955	694924	● Carburetor Plug
467	493903	Air Cleaner Knob	955A	694921	Carburetor Plug
474	393474	Alternator (Regulated)	967	272403	Pre Cleaner Filter
505	231082	Nut (Governor Control Lever)	968	281104	Air Cleaner Cover
510	693699	Starter Drive	971	692126	Screw (Air Cleaner Base)
513	398003	Drive Clutch	975	495933	Float Bowl
523	495230	Dipstick	975A	694908	Float Bowl
524	281370	★ Dipstick Tube Seal	977	494385	Carburetor Gasket Set
525	496113	Dipstick Tube	977A	694931	Carburetor Gasket Set
544	497603	Starter Armature	987	691326	● Throttle Shaft Seal
552	491986	Governor Lever Bushing	987A	281765	Throttle Shaft Seal
562	92613	Bolt (Governor Control Lever)	1005	695056	Flywheel Fan
601	95162	Hose Clamp	1006	690452	Fan Retainer
614	93306	Cotter Pin	1036	695036	Emissions Label
616	495157	Governor Crank	1044	94673	Screw (Flywheel)
634	690801	● Spring/Seal Assembly (Manual Choke)	1051	263080	Retaining Ring
634A	690802	● Spring/Seal Assembly (Choke A Matic)	1058	273681	Owner's Manual
634B	694912	● Spring/Seal Assembly	1090	497605	Brush Retainer
635	66538	Sparkplug Boot	1091	691333	Limiter Cap
654	94010	Nut (Carburetor)	1095	498539	Valve Gasket Set
667	94010	Nut (Air Cleaner Base)	1119	93621	Screw (Alternator)
668	690510	Spacer	— —		28R707-0028-E1 Replacement Engine
668A	691323	Spacer			
691	491323	★ Governor Shaft Seal			
692	690572	Detent Spring			
695	693109	Screw (Ring Gear)			
697	690372	Screw (Drive Cap)			
718	230192	Locating Pin			
726	399676	Ring Gear (Aluminum-Services Plastic Ring Gear Only)			
726A		Ring Gear (See Ref. 23 for Servicing)			
729	691224	Wire Clip			
733	94673	Screw (Crankshaft Extension)			
741	691284	Timing Gear			
757	213998	Counterweight Link			

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

- ★ Included in Engine Gasket Set, Ref Number 358.
- Included in Carburetor Overhaul Kit, Ref Number 121.
- ◆ Included in Carburetor Gasket Set, Ref Number 977.
- + Included in Valve Gasket Set, Ref Number 1095.

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

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# SERVICE NOTES

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# SERVICE NOTES

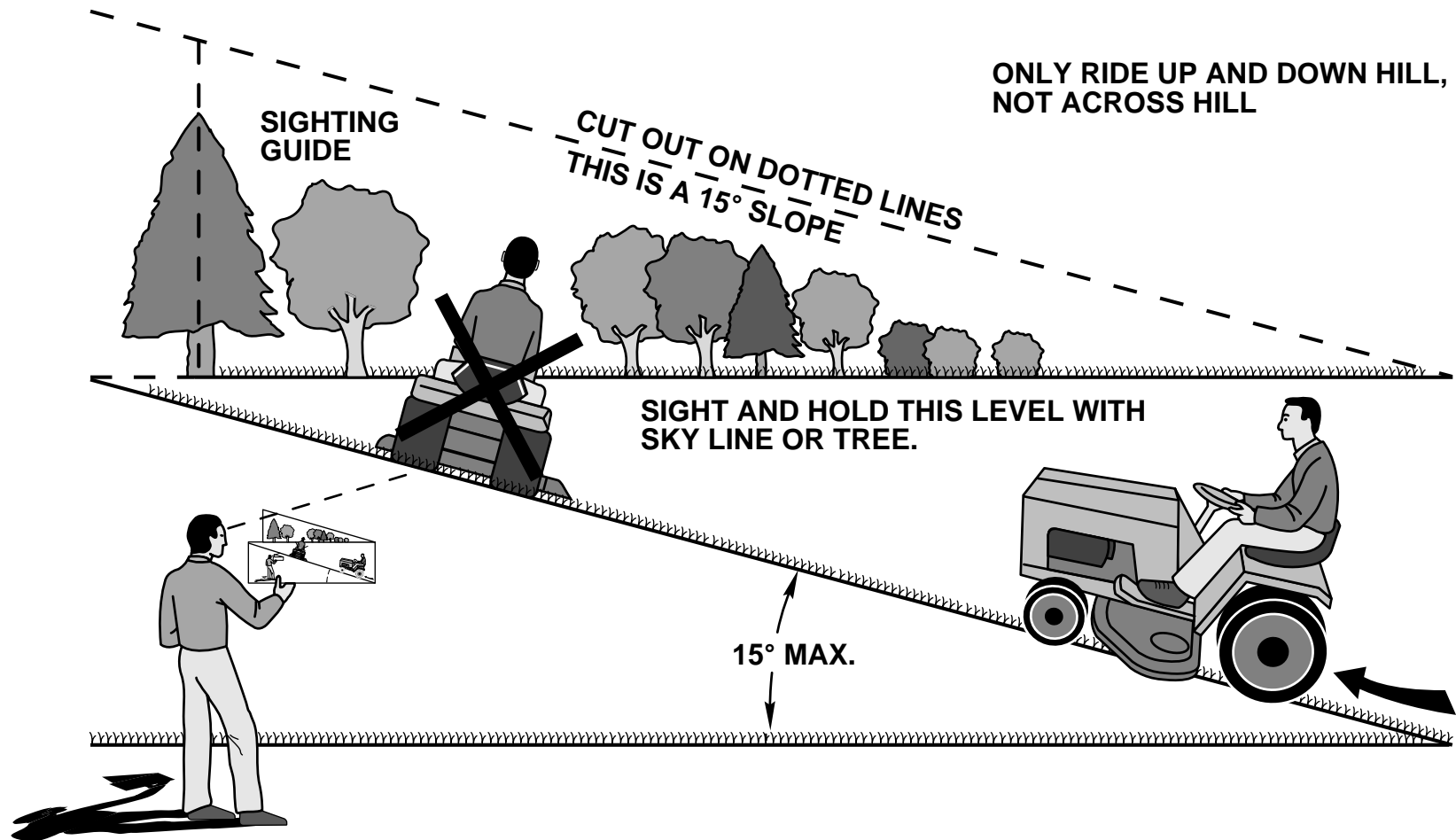
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# SERVICE NOTES

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# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

# **SEARS**

## **OWNER'S MANUAL**

### **MODEL NO. 944.600031**

### **HOW TO ORDER REPAIR PARTS**

# **CRAFTSMAN®**

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

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

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

All parts listed herein may be ordered from any Sears Canada, Inc. Service Centre/Department and most Retail Stores.

**WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:**

- **PRODUCT - TRACTOR**
- **MODEL NUMBER - 944.600031**
- **ENGINE MODEL NUMBER - 28R707, TYPE NUMBER 1140-E3**
- **PART NUMBER**
- **PART DESCRIPTION**

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

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SEARS HAS ACCESS TO OVER 800,000 PARTS  
WHETHER IT'S A SPARK PLUG OR LAWN MOWER BLADE.  
SEARS PARTS AND SERVICE CAN SUPPLY YOU WITH  
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