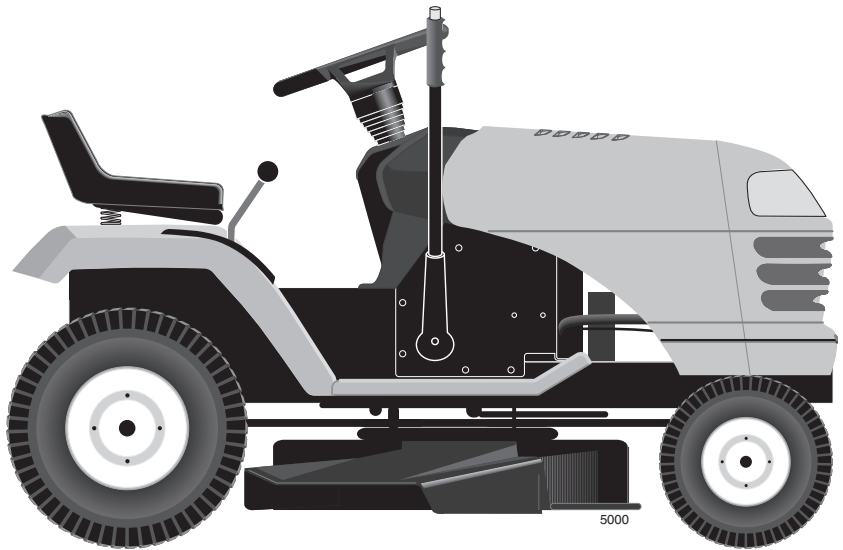


**SEARS**  
OWNER'S  
MANUAL

**MODEL NO.  
944.608131**

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



**CRAFTSMAN®**

**14.5 HP\***  
**ELECTRIC START**  
**38" MOWER**  
**6 SPEED TRANSAXLE**  
**LAWN TRACTOR**

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

\*As rated by the engine manufacturer

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



# SAFETY RULES



## Safe Operation Practices for Ride-On Mowers

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



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



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



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

### I. GENERAL OPERATION

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above,

are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

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

### II. SLOPE OPERATION

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

- Mow up and down slopes, not across.
- Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Do not mow on wet grass. Tires may lose traction. Always keep the machine in gear when going down slopes. Do not shift to neutral and coast downhill.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.
- Use extra care while operating machine with grass catchers or other attachments; they can affect the stability of the machine. Do no use on steep slopes.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not mow near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel is over the edge or if the edge caves in.

### III. CHILDREN

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

- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.



# SAFETY RULES



## Safe Operation Practices for Ride-On Mowers

### IV. TOWING

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

### V. SERVICE

#### SAFE HANDLING OF GASOLINE

To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.

- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never fuel the machine indoors.
- Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water heater or other appliances.
- Never fill containers inside a vehicle or on a truck or trailer bed with plastic liner. Always place containers on the ground away from your vehicle when filling.
- Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- Never overfill fuel tank. Replace gas cap and tighten securely.

#### GENERAL SERVICE

- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.



- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

## TABLE OF CONTENTS

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

MAINTENANCE .....	14-17
SERVICE AND ADJUSTMENTS .....	18-23
STORAGE .....	24
TROUBLESHOOTING .....	25-26
REPAIR PARTS - TRACTOR .....	28-45
REPAIR PARTS - ENGINE .....	46-48
PARTS ORDERING/SERVICE .....	BACK COVER

## PRODUCT SPECIFICATIONS

Gasoline Capacity and Type:	1.25 Gallons Unleaded Regular
Oil Type (API-SG-SL):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F) SYNTHETIC (below 0°F)
Your tractor was shipped from the factory with non-synthetic SAE 10W-30 motor oil.	
Oil Capacity:	48 oz (1.4L)
Spark Plug:	Champion RC12YC (Gap: .030")
Ground Speed: (MPH)	Forward: 1st 1.1 2nd 1.4 3rd 2.2 4th 3.4 5th 4.4 6th 4.9 Reverse: 1.4
Charging System:	3 Amps Battery 5 Amps Headlights
Battery:	AMP/HR: 28 Min. CCA: 230 Case Size: U1R
Blade Torque:	45-55 FT. LBS.

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

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

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

## MAINTENANCE AGREEMENT

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

## CUSTOMER RESPONSIBILITIES

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

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

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

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

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

### FULL ONE (1) YEAR WARRANTY ON BATTERY

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

#### COMMERCIAL OR RENTAL USE

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

#### This Warranty does **NOT** cover:

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

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

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

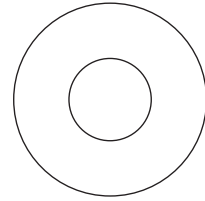
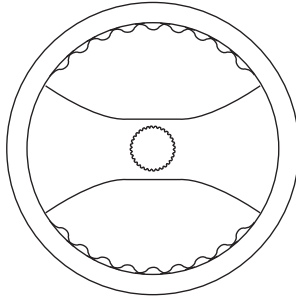
**SEARS CANADA, INC., TORONTO, ONTARIO M5B 2B8**

# UNASSEMBLED PARTS

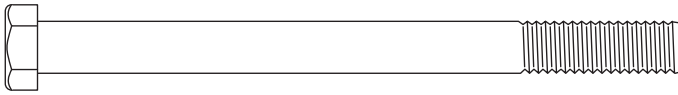
## Steering Wheel



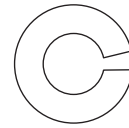
Steering Wheel Insert



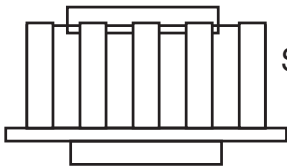
(1) Large Flat Washer



(1) Hex Bolt



(1) 5/16 Lock Washer



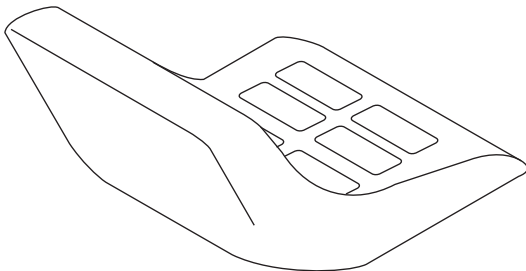
Steering Wheel Adapter

Steering Extension Shaft

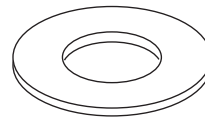


Steering Boot

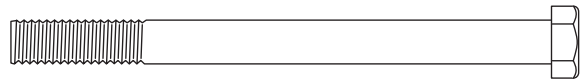
## Seat



(1) Seat

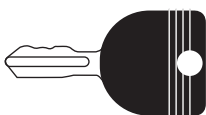


(1) Washer



(1) Hex Bolt

## Keys

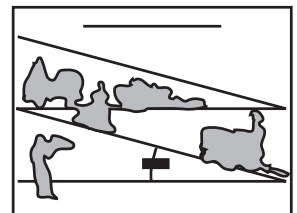


(2) Keys



(1) Oil Drain Tube  
For Future Use

## 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.

- (2) 7/16" wrenches      Utility knife
- (1) 1/2" wrench        Tire pressure gauge
- Phillips screwdriver

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

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

## BEFORE REMOVING TRACTOR FROM SKID

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

#### ASSEMBLE EXTENSION SHAFT AND BOOT

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

#### INSTALL STEERING WHEEL

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

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

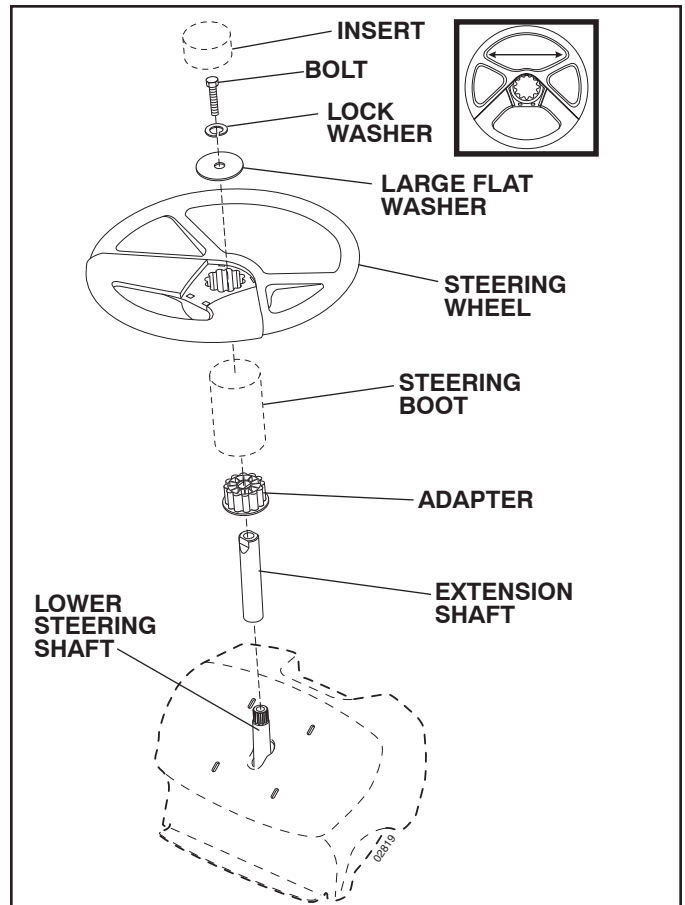


Fig. 1

### CONNECT BATTERY (See Fig. 2)



**CAUTION:** Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc. Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift seat pan to raised position.
- Remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in the Maintenance section of this manual for charging instructions).
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

# ASSEMBLY

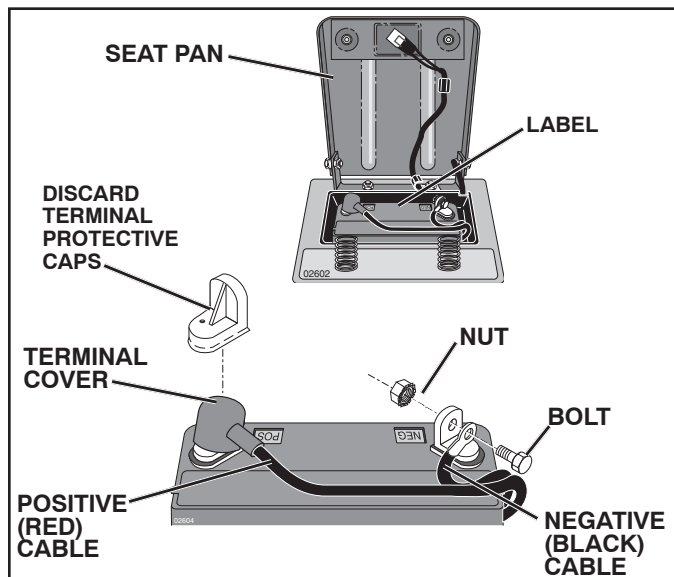


Fig. 2

## INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment bolt.

- Remove adjustment bolt, lock washer and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment bolt, lockwasher 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 brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment bolt securely.

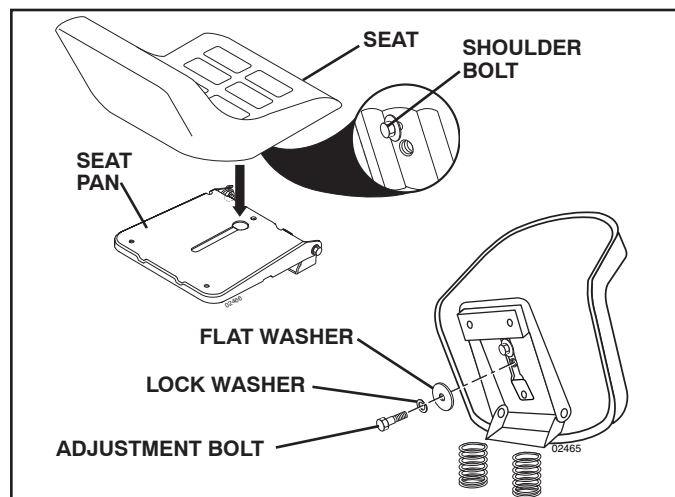


Fig. 3

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

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

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

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

# ASSEMBLY

## CHECK TIRE PRESSURE

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

- Reduce tire pressure to PSI shown on tires.

## CHECK DECK LEVELNESS

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

## CHECK FOR PROPER POSITION OF ALL BELTS

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

## CHECK BRAKE SYSTEM

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

## INSTALL MULCHER PLATE (See Fig. 4)

### (If previously removed)

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



**CAUTION: Do not remove deflector shield from mower.**

## TO CONVERT TO BAGGING OR DISCHARGING

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

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

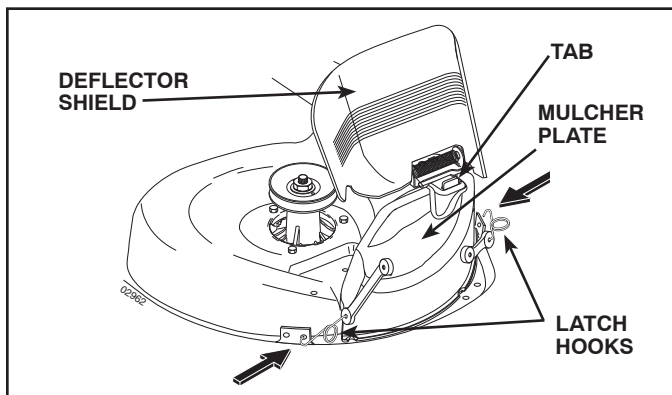


Fig. 4

## ✓ CHECKLIST

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

*PLEASE REVIEW THE FOLLOWING CHECKLIST:*

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

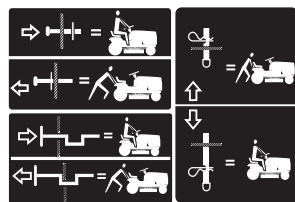
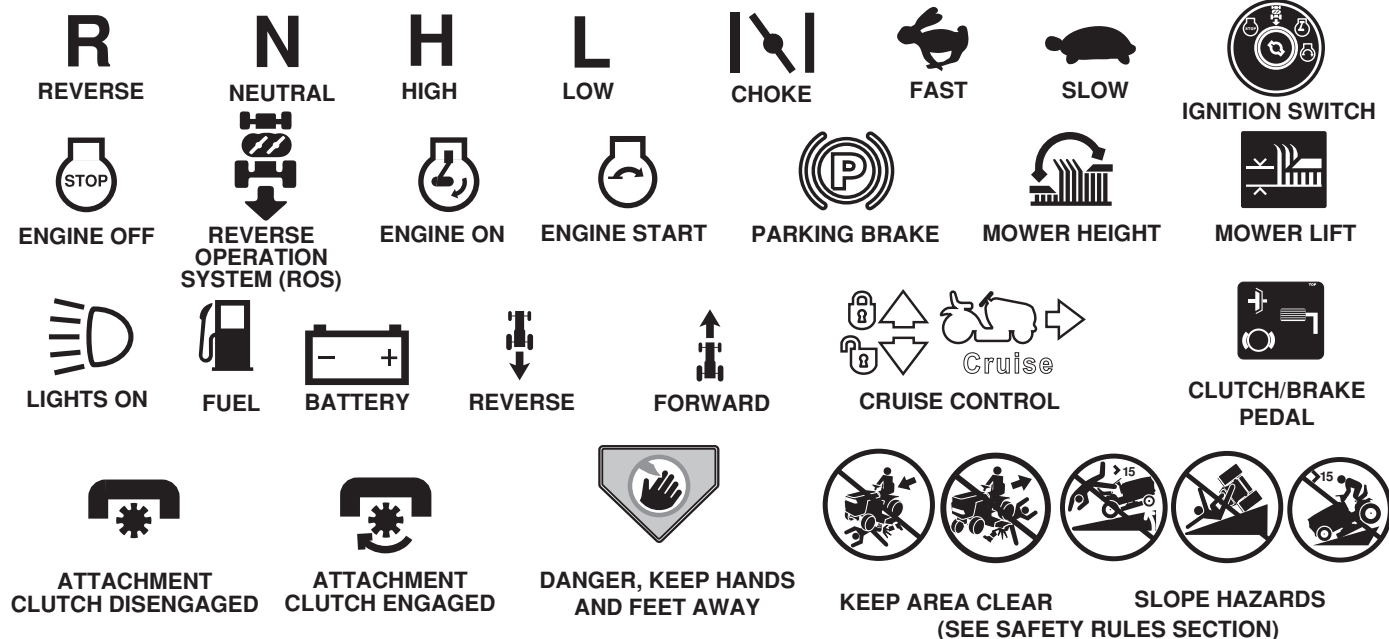
**WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:**

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



# OPERATION

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



**FREE WHEEL**  
(Automatic Models only)



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



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



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



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

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



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



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

# OPERATION

## KNOW YOUR TRACTOR

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

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

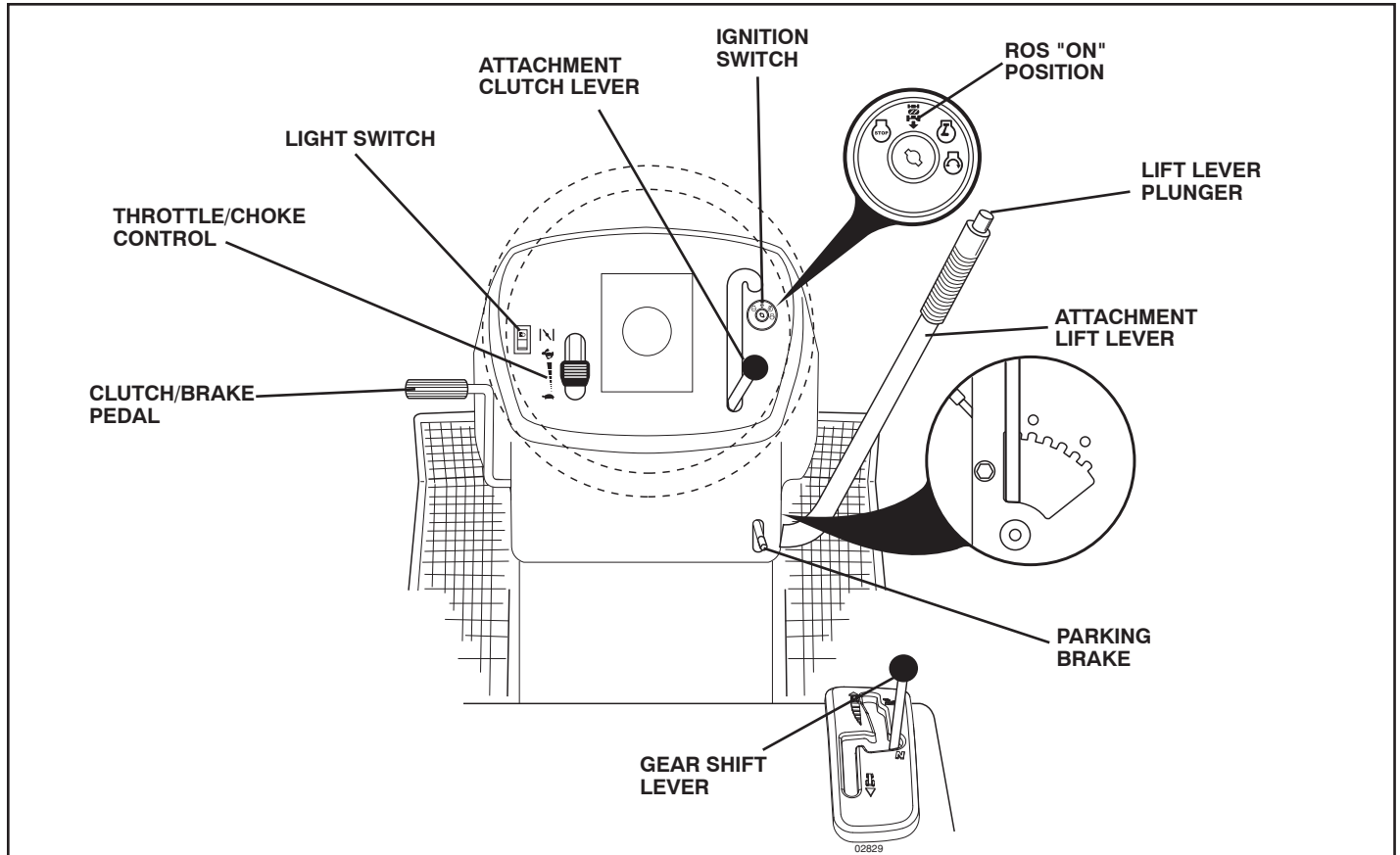


Fig. 5

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

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

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

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

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

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

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

**LIGHT SWITCH** - Turns the headlights on and off.

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

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

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

# 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.

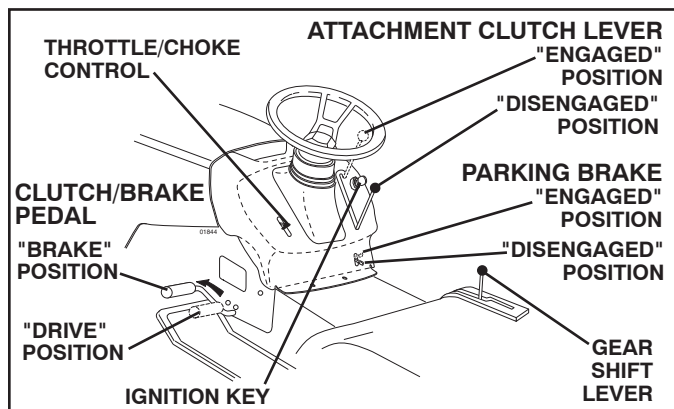


Fig. 6

### 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 position.

#### ENGINE -

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

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

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

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

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



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

### TO USE THROTTLE CONTROL (See Fig. 6)

Always operate engine at full speed (fast).

- Operating engine at less than full speed (fast) reduces the engine's operating efficiency.
- Full speed (fast) offers the best 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 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. 7)

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.

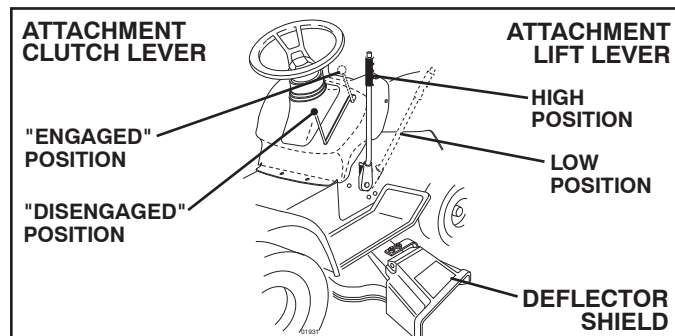


Fig. 7

# 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. You must remain fully and centrally positioned in the seat to prevent the engine from hesitating or cutting off when operating your equipment on rough, rolling terrain or hills.

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



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

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

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

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

### USING THE REVERSE OPERATION SYSTEM -

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



ROS "ON"  
POSITION



ENGINE "ON" POSITION  
(NORMAL OPERATING)

Fig. 8

## 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 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.).

## TO OPERATE ON HILLS



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

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

## TOWING CARTS AND OTHER ATTACHMENTS

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

## BEFORE STARTING THE ENGINE

### CHECK ENGINE OIL LEVEL

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

### ADD GASOLINE

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



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

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

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

# OPERATION

## TO START ENGINE (See Fig. 5)

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 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

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

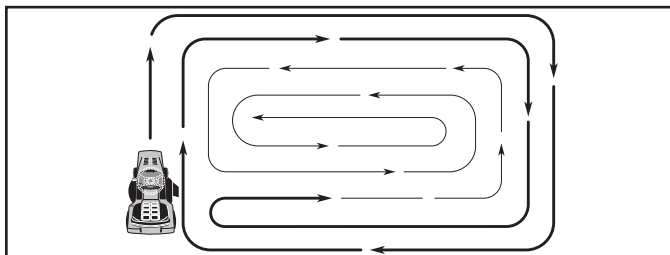


Fig. 9

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

## MULCHING MOWING TIPS

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

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

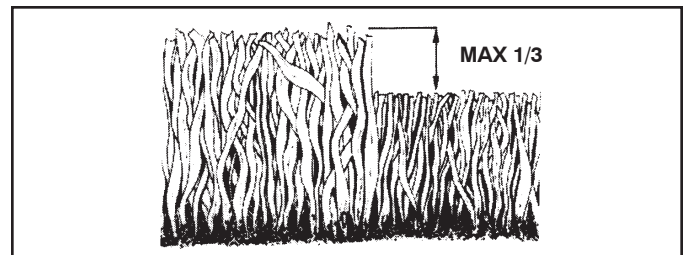


Fig. 10

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

# MAINTENANCE

MAINTENANCE SCHEDULE		SERVICE INTERVALS							SERVICE DATES				
		BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE					
TRACTOR	Check Brake Operation	✓	✓										
	Check Tire Pressure	✓	✓										
	Check Operator Presence and Interlock Systems	✓											
	Check for Loose Fasteners	✓				✓ <sub>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.

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## GENERAL RECOMMENDATIONS

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

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

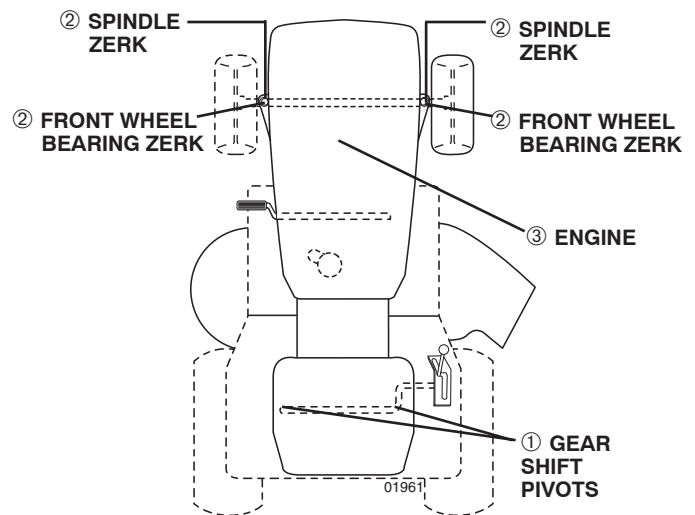
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

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

## BEFORE EACH USE

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

## LUBRICATION CHART



- ① SAE 30 OR 10W30 MOTOR OIL  
 ② GENERAL PURPOSE GREASE  
 ③ REFER TO MAINTENANCE "ENGINE" SECTION

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

# MAINTENANCE

## TRACTOR

Always observe safety rules when performing any maintenance.

### BRAKE OPERATION

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

### TIRES

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

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

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

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

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

#### CHECK OPERATOR PRESENCE SYSTEM

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

#### CHECK REVERSE OPERATION (ROS) SYSTEM

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

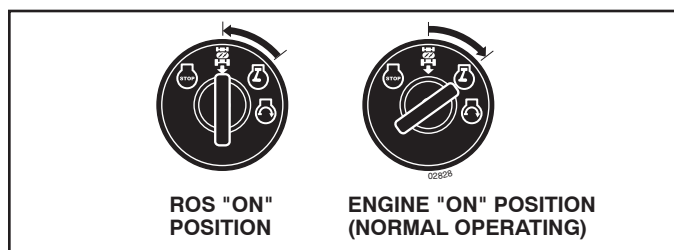


Fig. 11

## BLADE CARE

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



**CAUTION:** Use only a replacement blade approved by the manufacturer of your tractor. Using a blade not approved by the manufacturer of your tractor is hazardous, could damage your tractor and void your warranty.

### BLADE REMOVAL (See Fig. 12)

- Raise mower to highest position to allow access to blades.
- Remove blade bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.

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

- Reassemble blade bolt, lock washer and flat washer in exact order as shown.
- Tighten blade bolt securely (45-55 Ft. Lbs. torque).

**IMPORTANT:** BLADE BOLT IS HEAT TREATED. IF BOLT NEEDS REPLACING, REPLACE ONLY WITH APPROVE BOLT SHOWN IN THE REPAIR PARTS.

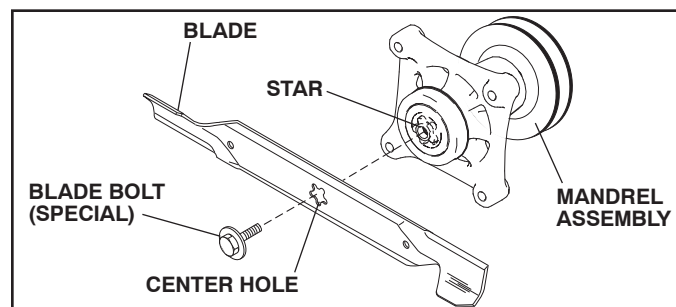


Fig. 12

## BATTERY

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

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

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

### TO CLEAN BATTERY AND TERMINALS

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

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

# MAINTENANCE

## V-BELTS

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

## TRANSAXLE COOLING

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

## ENGINE

### LUBRICATION

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

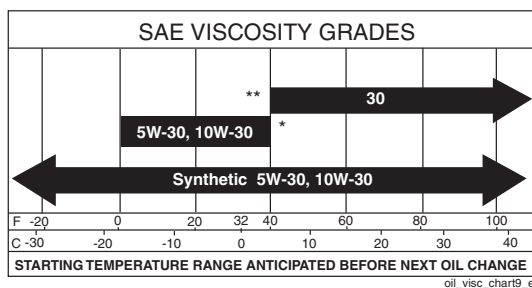
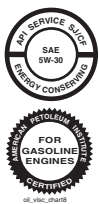


Fig. 13

**\* 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. 13 and 14)

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

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

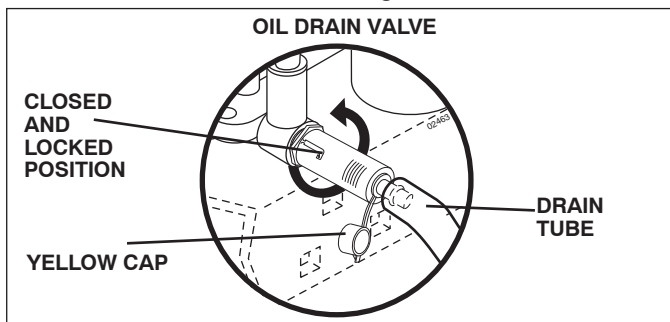


Fig. 14

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

## CLEAN AIR SCREEN

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



# MAINTENANCE

## ENGINE COOLING SYSTEM (See Fig. 15)

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

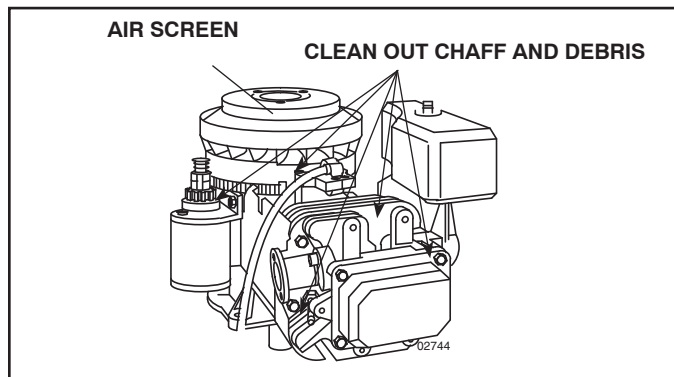


Fig. 15

## AIR FILTER (See Fig. 16)

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

Service air cleaner more often under dusty conditions.

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

**NOTE:** If very dirty or damaged, replace cartridge.

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

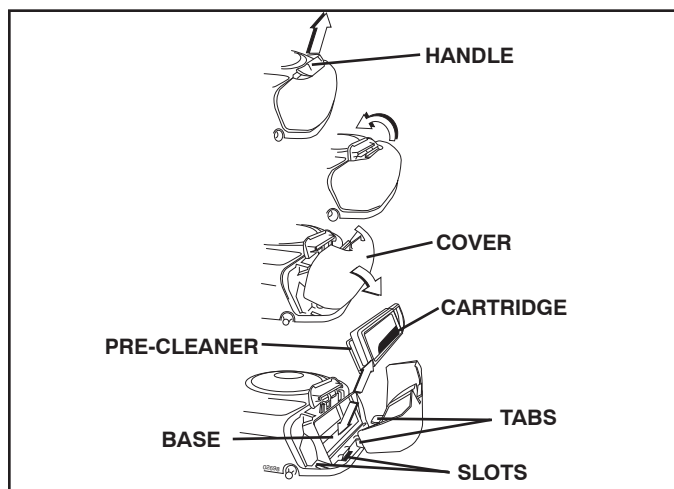


Fig. 16

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

## MUFFLER

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

## SPARK PLUGS

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

## IN-LINE FUEL FILTER (See Fig. 17)

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

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

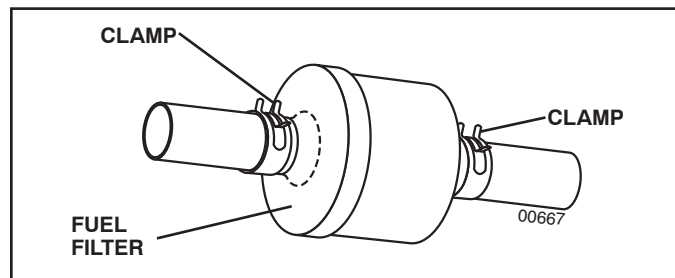


Fig. 17

## CLEANING

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

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

# SERVICE AND ADJUSTMENTS



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

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

## TO REMOVE MOWER (See Fig. 18)

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

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

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

## TO INSTALL MOWER (See Fig. 18)

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

## TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See the sides of tires for proper PSI). If tires are over or underinflated, you will not properly adjust your mower.

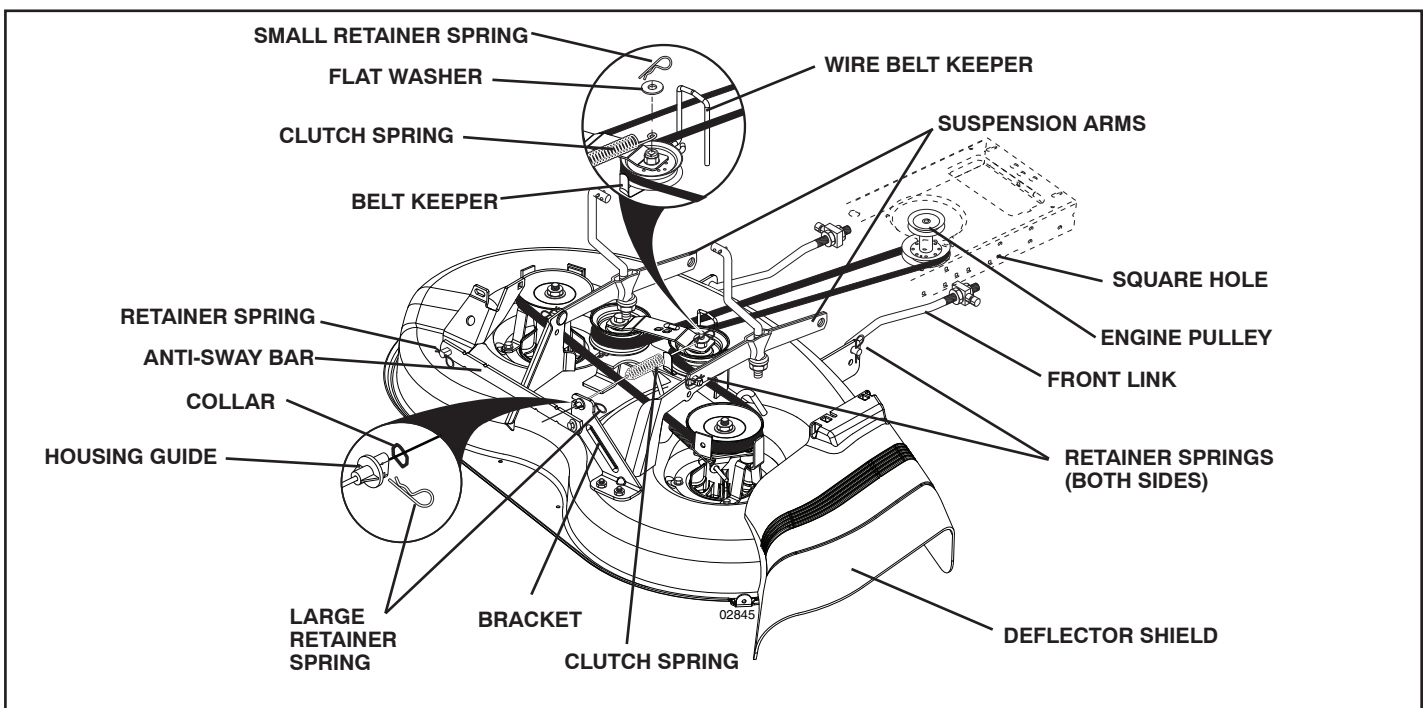


Fig. 18

# SERVICE AND ADJUSTMENTS

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

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

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

- Recheck measurements after adjusting.

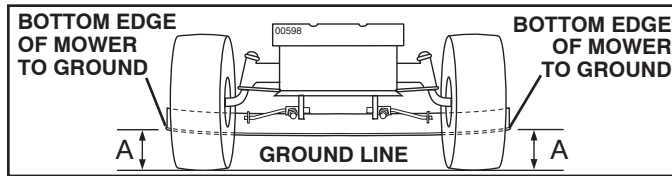


Fig. 19

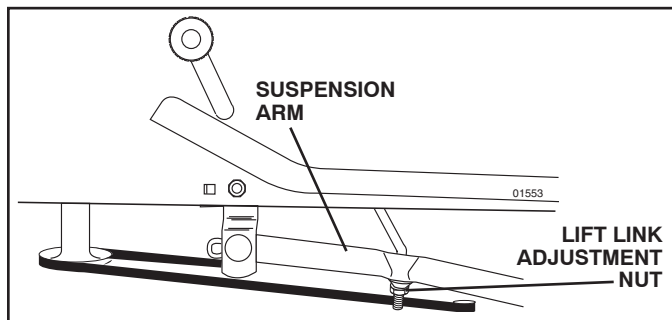


Fig. 20

## FRONT-TO-BACK ADJUSTMENT (See Figs. 21 and 22)

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

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

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

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

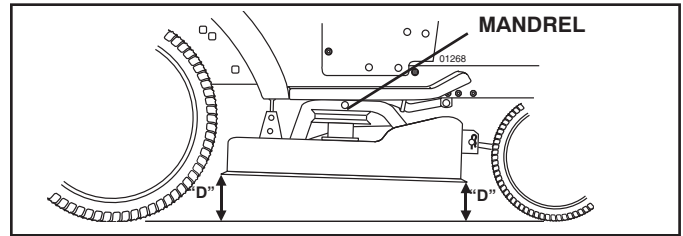


Fig. 21

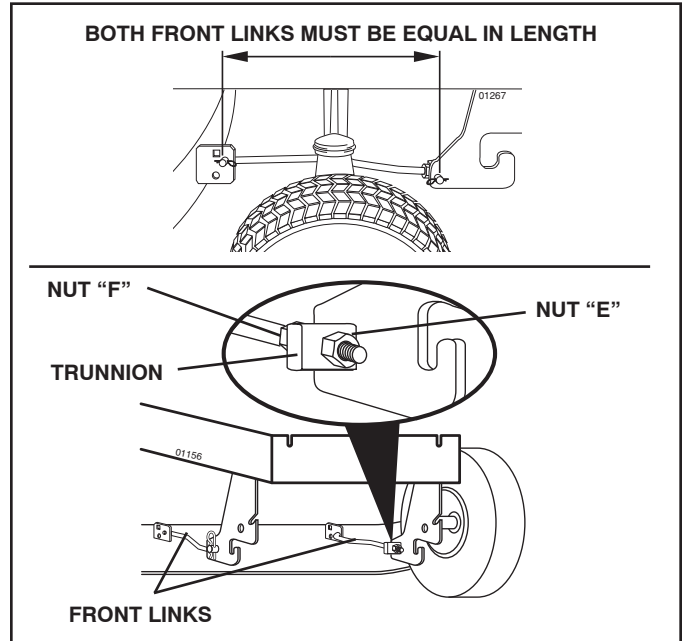


Fig. 22

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

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

### BELT REMOVAL -

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

### BELT INSTALLATION -

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

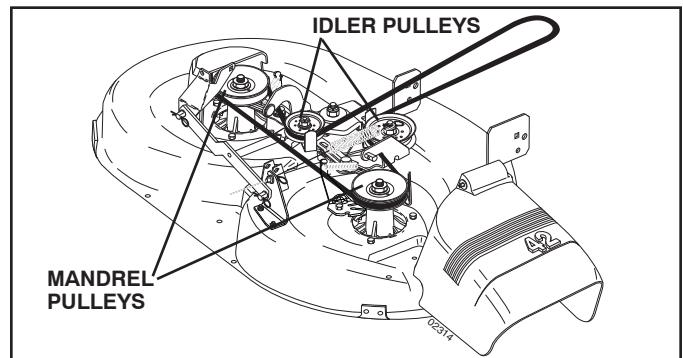


Fig. 23

# SERVICE AND ADJUSTMENTS

## TO CHECK BRAKE

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

You may also check brake by:

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

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

## TO REPLACE MOTION DRIVE BELT (See Fig. 24)

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

### BELT REMOVAL -

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

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

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

### BELT INSTALLATION -

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

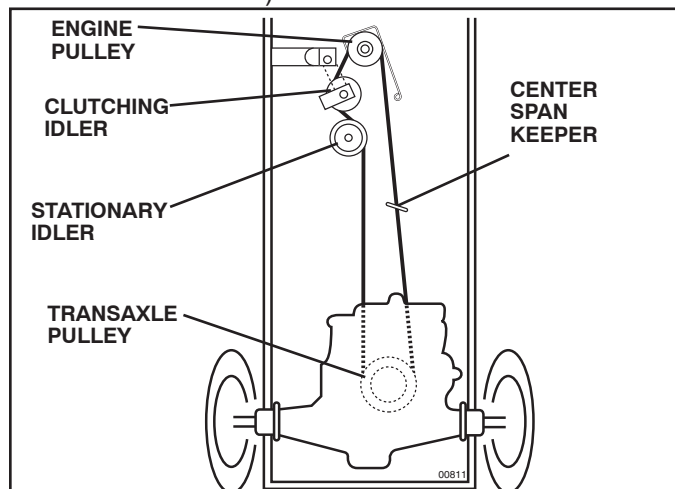


Fig. 24

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

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

- Make sure transaxle is in neutral .

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

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

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

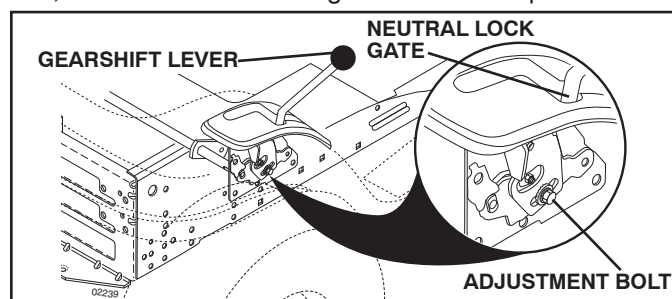


Fig. 25

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 26)

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

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

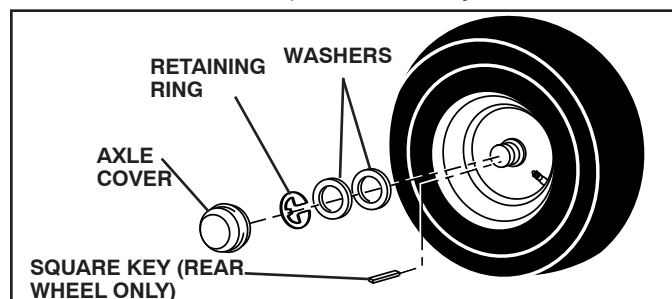


Fig. 26

## FRONT WHEEL TOE-IN/CAMBER

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

# SERVICE AND ADJUSTMENTS

## TO 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.

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



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

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

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

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

### TO ATTACH JUMPER CABLES -

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

### TO REMOVE CABLES, REVERSE ORDER -

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

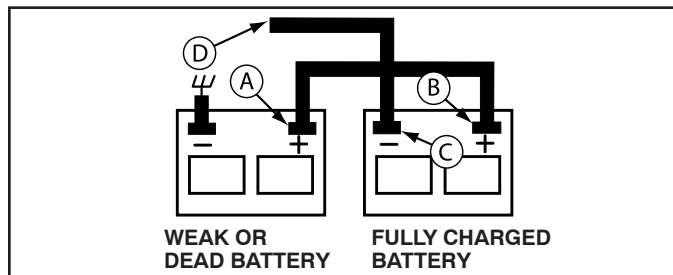


Fig. 27

## REPLACING BATTERY (See Fig. 28)



**WARNING:** Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc. Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift seat pan to raised position.

- Disconnect BLACK battery cable first then RED battery cable and carefully remove battery from tractor.
- Install new battery with terminals in same position as old battery.
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

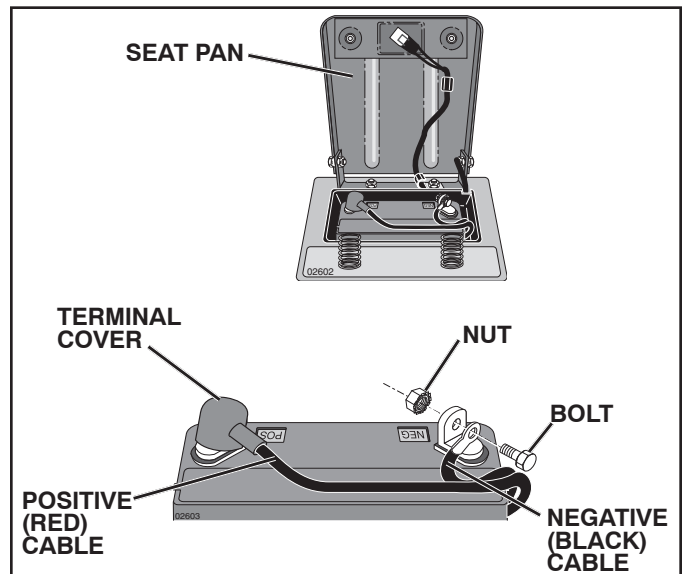


Fig. 28

## TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 29)

- 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.

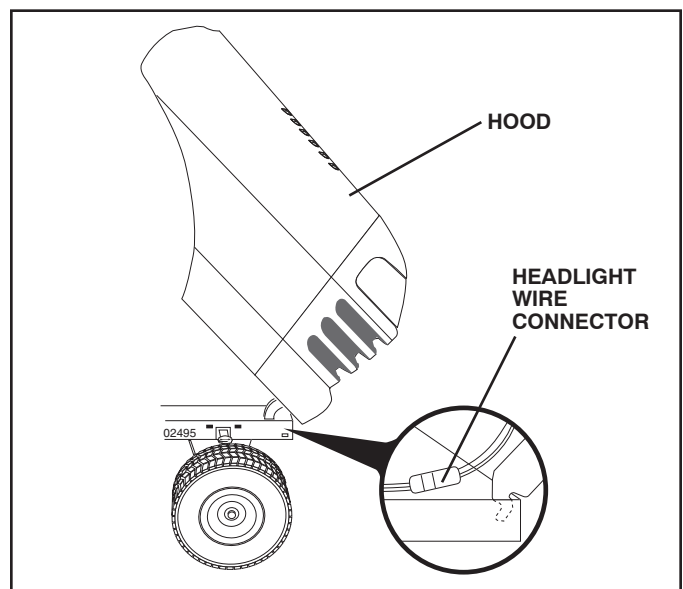


Fig. 29

# SERVICE AND ADJUSTMENTS

## TO REPLACE HEADLIGHT BULB

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

## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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

## ENGINE

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

## TO ADJUST THROTTLE CONTROL CABLE (See Fig. 30)

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.

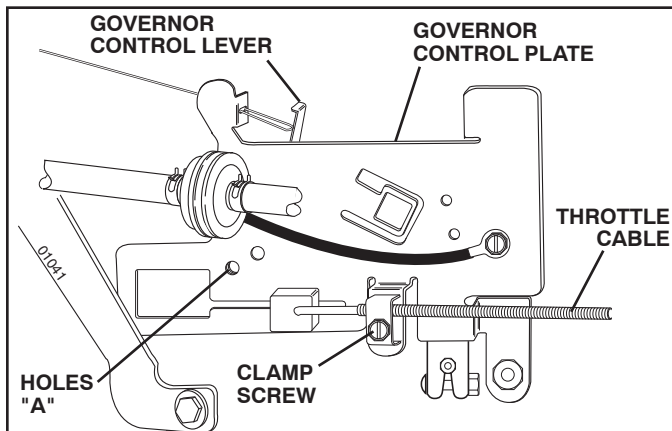


Fig. 30

## TO ADJUST CARBURETOR (See Fig. 31)

**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 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.

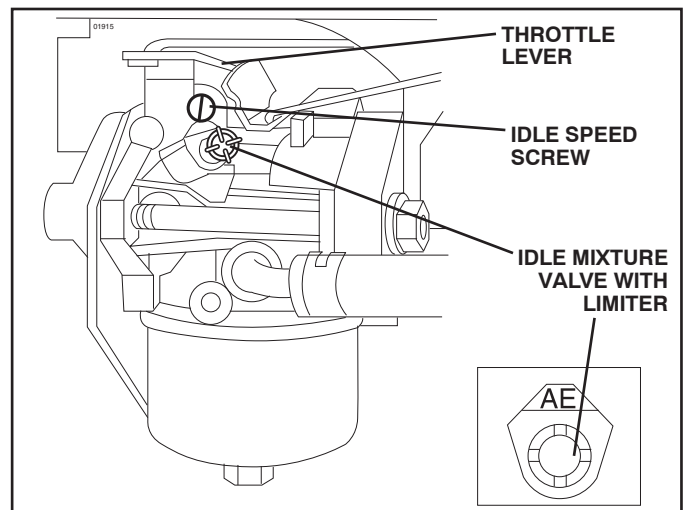


Fig. 31

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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.



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

## TRACTOR

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

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

## BATTERY

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

## ENGINE

### FUEL SYSTEM

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

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

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

### ENGINE OIL

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

### CYLINDER(S)

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

## OTHER

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

**IMPORTANT:** NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST 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. Empty 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. Empty fuel tank and refill tank with fresh, clean 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. Raise cutting height/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. Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>9. Empty 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>

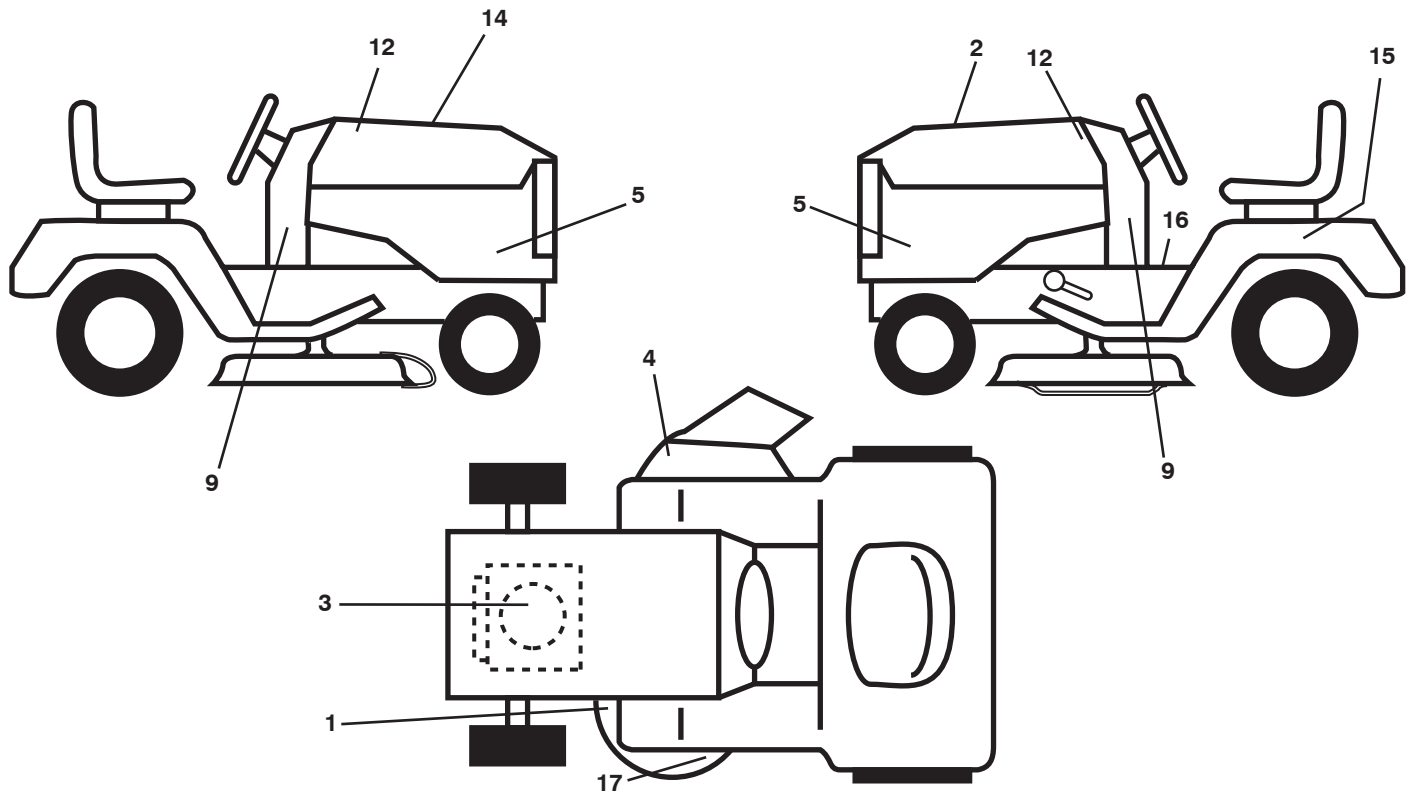


# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
<b>Engine dies when tractor is shifted into reverse</b>	<ol style="list-style-type: none"> <li>Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.</li> </ol>	<ol style="list-style-type: none"> <li>Turn ignition key to ROS "ON" position. See Operation section.</li> </ol>
<b>Engine continues to run when operator leaves seat with attachment clutch engaged</b>	<ol style="list-style-type: none"> <li>Faulty operator-safety presence control system.</li> </ol>	<ol style="list-style-type: none"> <li>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>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
<b>Mower blades will not rotate</b>	<ol style="list-style-type: none"> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol style="list-style-type: none"> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
<b>Poor grass discharge</b>	<ol style="list-style-type: none"> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>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>Light switch is "OFF".</li> <li>Bulb(s) or lamp(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol style="list-style-type: none"> <li>Turn light switch "ON".</li> <li>Replace bulb(s) or lamp(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
<b>Battery will not charge</b>	<ol style="list-style-type: none"> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol style="list-style-type: none"> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
<b>Engine "backfires" when turning engine "OFF"</b>	<ol style="list-style-type: none"> <li>Engine throttle control not set between half and full speed (fast) position before stopping engine.</li> </ol>	<ol style="list-style-type: none"> <li>Move throttle control between half and full speed (fast) position before stopping engine.</li> </ol>

# TRACTOR - MODEL NUMBER 944.608131

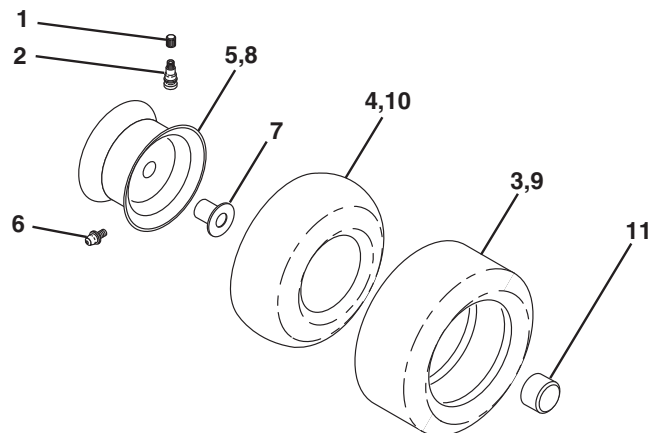
## DECALS



KEY NO.	PART NO.	DESCRIPTION
1	194302	Decal, V-Belt Sch. 36/38/97
2	421479	Decal, Replacement
3	419934	Decal, Engine HP
4	170563	Decal, Warning
5	411634	Decal, SDPNL
9	177097	Decal, Chassis
12	411697	Decal, Hood
15	149517	Decal, Caution, Battery

KEY NO.	PART NO.	DESCRIPTION
16	411658	Decal, Fender Warning Eng/Fr
17	146046	Decal, V-Belt Sch.
--	138311	Decal, Handle Lft Height Adj.
--	184310X428	Pad Footrest LH
--	184311X428	Pad Footrest RH
--	421480	Manual, Owners Eng
--	421481	Manual, Owners Fren

## WHEELS & TIRES



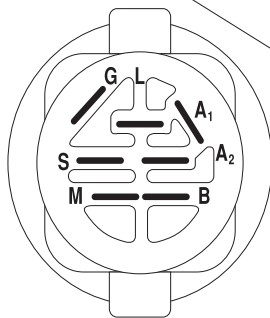
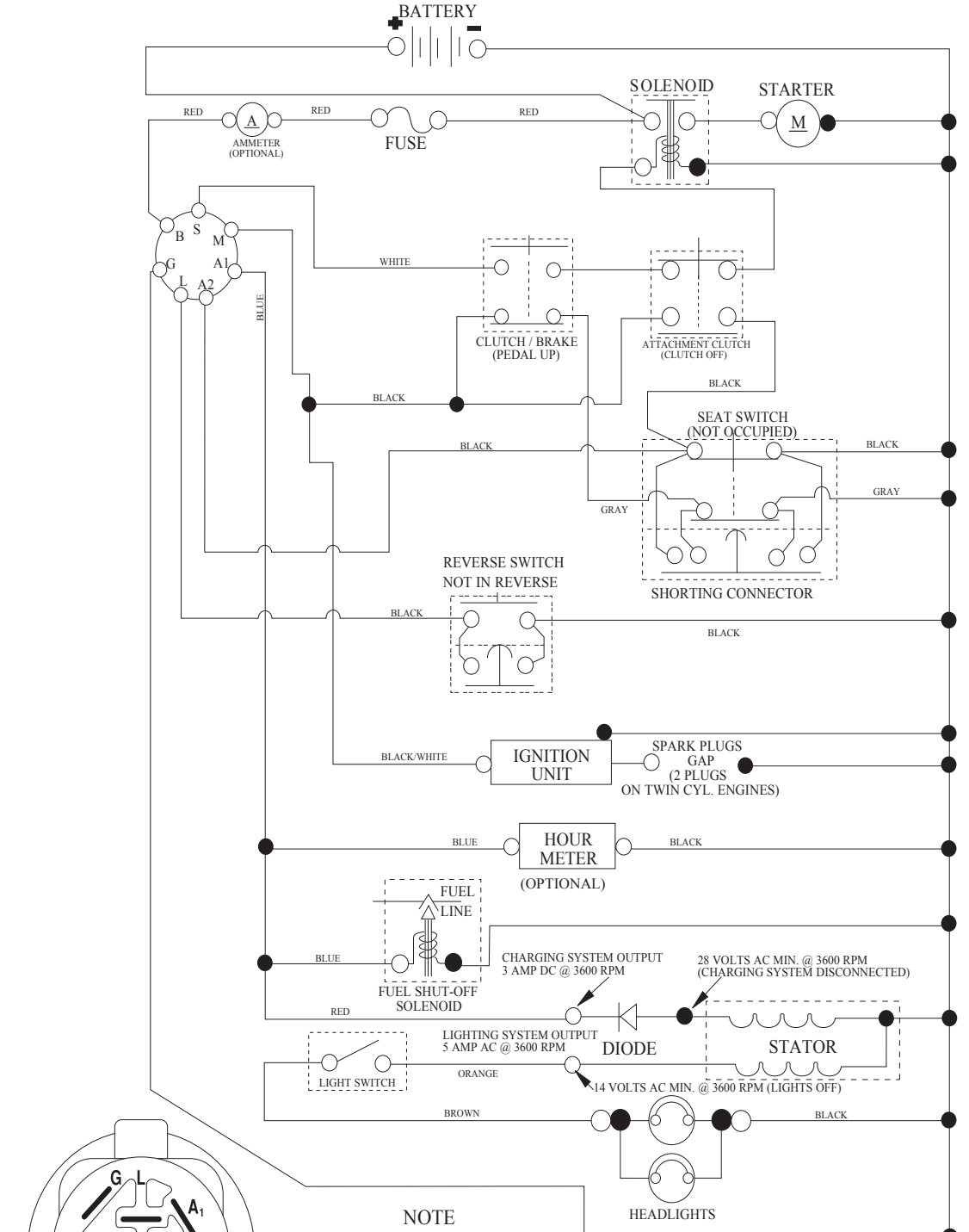
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Tire valve
2	65139	Stem, Valve
3	124157X	Tire, Front
4	59904	Tube, Front (Service item only)
5	106732X624	Rim assembly, 6" Front
6	278H	Fitting, Grease (Front wheel only)
7	9040H	Bearing, Flange (Front wheel only)
8	106108X624	Rim assembly, 8" Rear
9	123969X	Tire, Rear
10	7152J	Tube, Rear (Service item only)
11	104757X428	Cap, Hub Axle
--	144334	Sealant, Tire (10 oz. Tube)

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

# TRACTOR - MODEL NUMBER 944.608131

## SCHEMATIC

SCH03



IGNITION SWITCH

POSITION	CIRCUIT	"MAKE"
OFF	M+G+A1	
RUN/OVERRIDE	B+A1	
RUN	B+A1	L+A2
START	B + S + A1	

### 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.

● NON-REMOVABLE CONNECTIONS

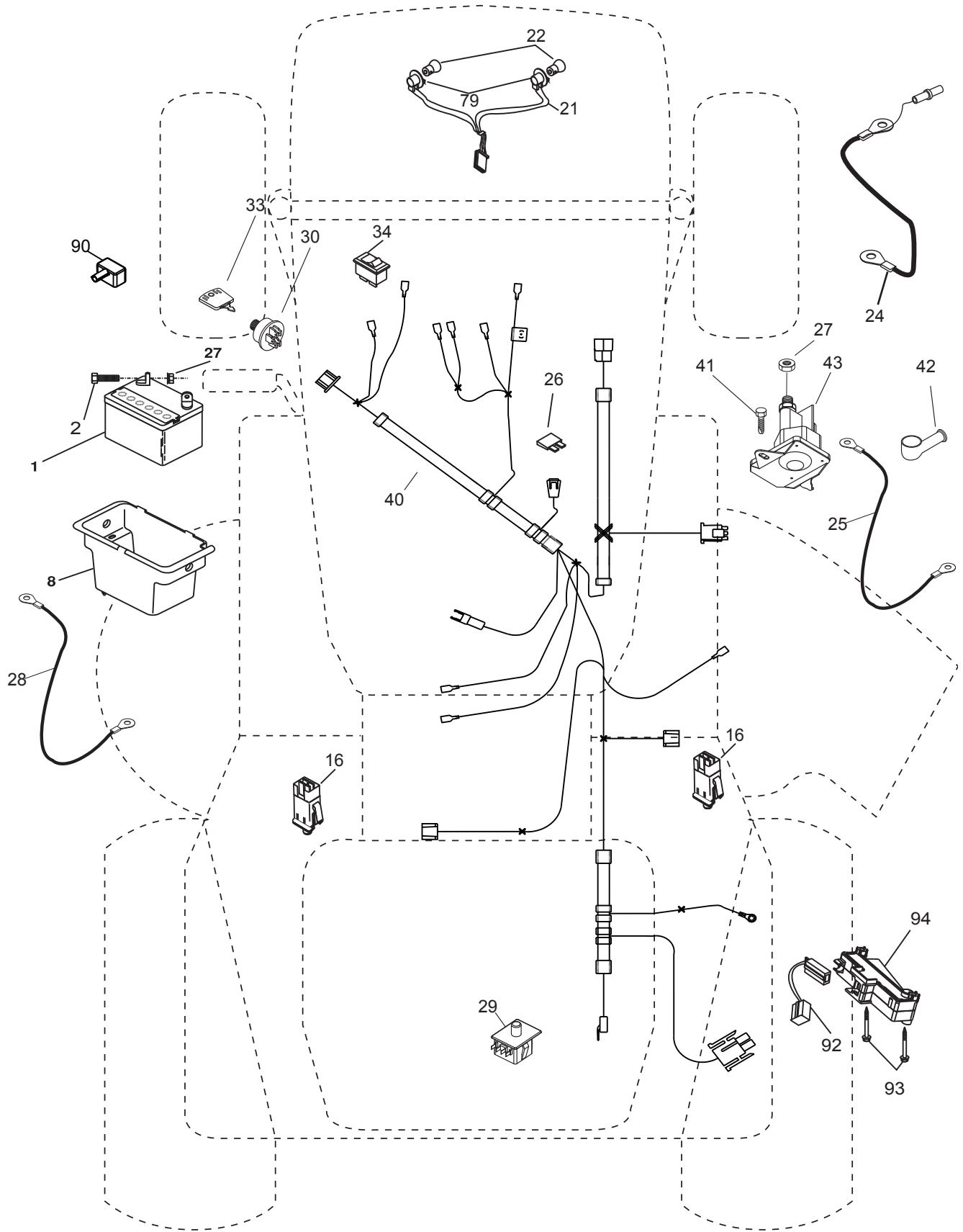
○ REMOVABLE CONNECTIONS

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

# TRACTOR - MODEL NUMBER 944.608131

## ELECTRICAL

L02



# TRACTOR - MODEL NUMBER 944.608131

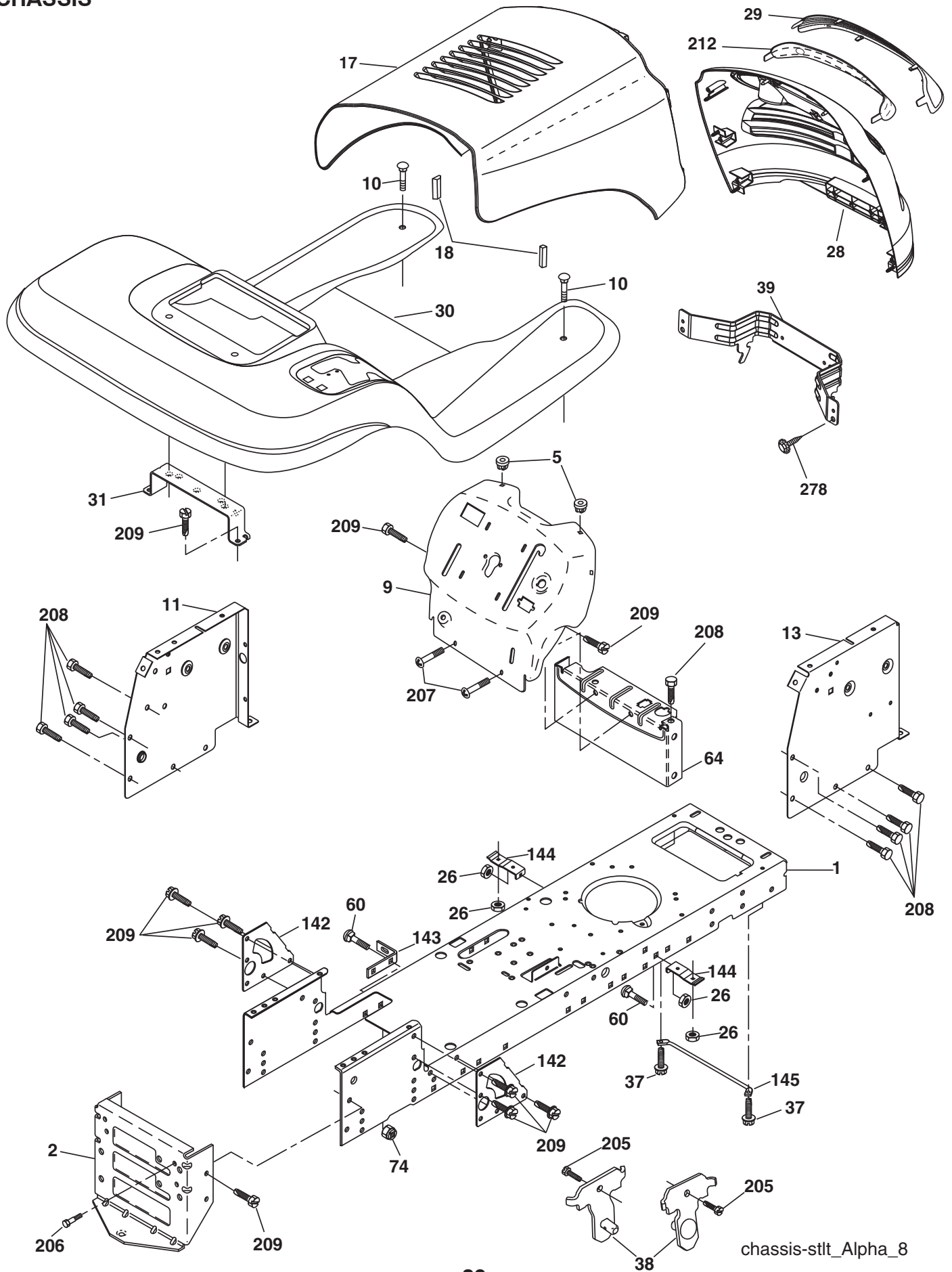
## ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20 unc x 3/4
8	176689	Box Battery
16	176138	Switch Interlock
21	175688	Harness Asm Light w/4152j
22	4152J	Bulb Light #1156
24	4799J	Cable Battery 6 Ga. 11"red
25	146147	Cable Battery
26	175158	Fuse 20 AMP
27	73510400	Nut Keps Hex 1/4-20 unc
28	4207J	Cable Ground 6 Ga. 12" Black
29	192749	Switch
30	193350	Switch Ign
33	411934	Key/Chain
34	110712X	Switch Light/Reset
40	197428	Harness Ign
41	71110408	Bolt Blk Fin Hex 1/4-20
42	131563	Cover Terminal Red
43	192507	Solenoid
79	175242	Socket Asm. Bulb
90	180449	Cover Terminal Battery
92	196615	Harness Pigtail
93	192540	Screw Plastite 10-14 x 2.0
94	191834	Module Reverse

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

# TRACTOR - MODEL NUMBER 944.608131

## CHASSIS



# TRACTOR - MODEL NUMBER 944.608131

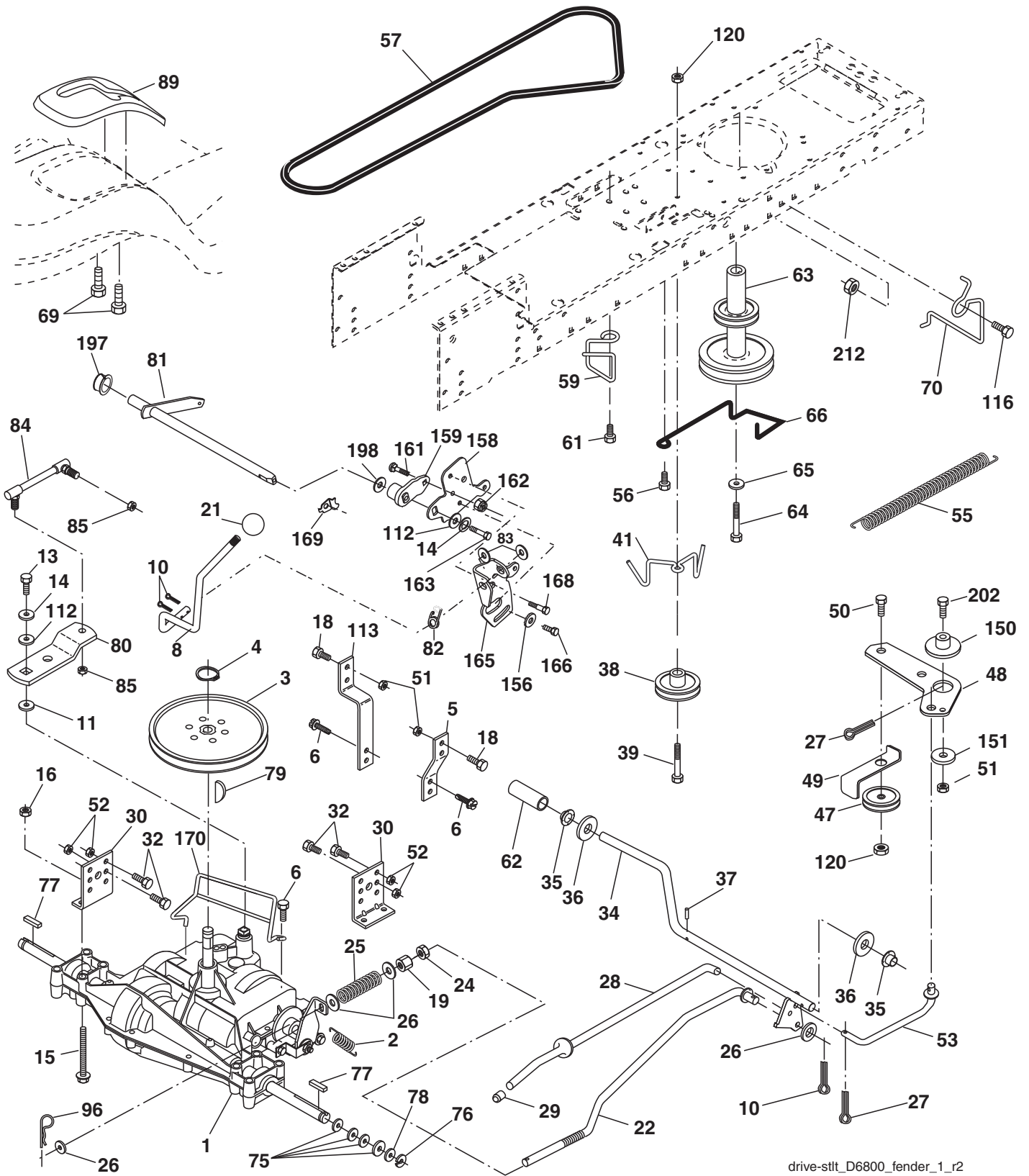
## CHASSIS

KEY NO.	PART NO.	DESCRIPTION
1	174619	Chassis
2	176554	Drawbar, Stretch
5	155272	Bumper, Hood/Dash
9	193510X014	Dash
10	72140608	Bolt, Carriage 3/8-16 x 1
11	174996	Panel Dash LH
13	172105X010	Panel Silkscr Dash RH
17	187559X417	Hood
18	184921	Bumper Hood
26	73800600	Nut Lock Hex w/Ins 3/8-16 unc
28	411650	Grille/Lens Asm (Include Key nos. 29 and 212)
29	187567X599	Lens Grille Basic Bar
30	192394X417	Fender
31	139976	Bracket Fender
37	17490508	Screw Thdrol 5/16-18 x 1/2 TYT
38	175710	Bracket Asm. Pivot Mower
39	187568	Bracket Pivot
60	72140606	Bolt RDHD SQNK 3/8-16 unc x 3/4
64	154798	Dash Lower
74	73680600	Nut Crownlock 3/8-16 unc
142	175702	Plate Reinforcement
143	186689	Bracket Swaybar Chassis Notch
144	175582	Bracket Footrest
145	409167	Rod Pivot Chassis/Hood
205	17490608	Screw Thdrol 3/8-16 x 1/2
206	170165	Bolt Shoulder 5/16-18
207	17670508	Screw Thdrol 5/16-18 x 1/2
208	17670608	Screw Thdrol 3/8-16 x 1/2
209	17000612	Screw Hex Wsh Thdrol 3/8-16
212	187569	Insert Lens Reflect
278	416358	Screw #10 x 0.750 Single Lead-Hex
--	5479J	Plug Button Blk 359 Dia Choke
--	187801	Plug Dome Plastic

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

# TRACTOR - MODEL NUMBER 944.608131

## DRIVE



drive-stlt\_D6800\_fender\_1\_r2



# TRACTOR - MODEL NUMBER 944.608131

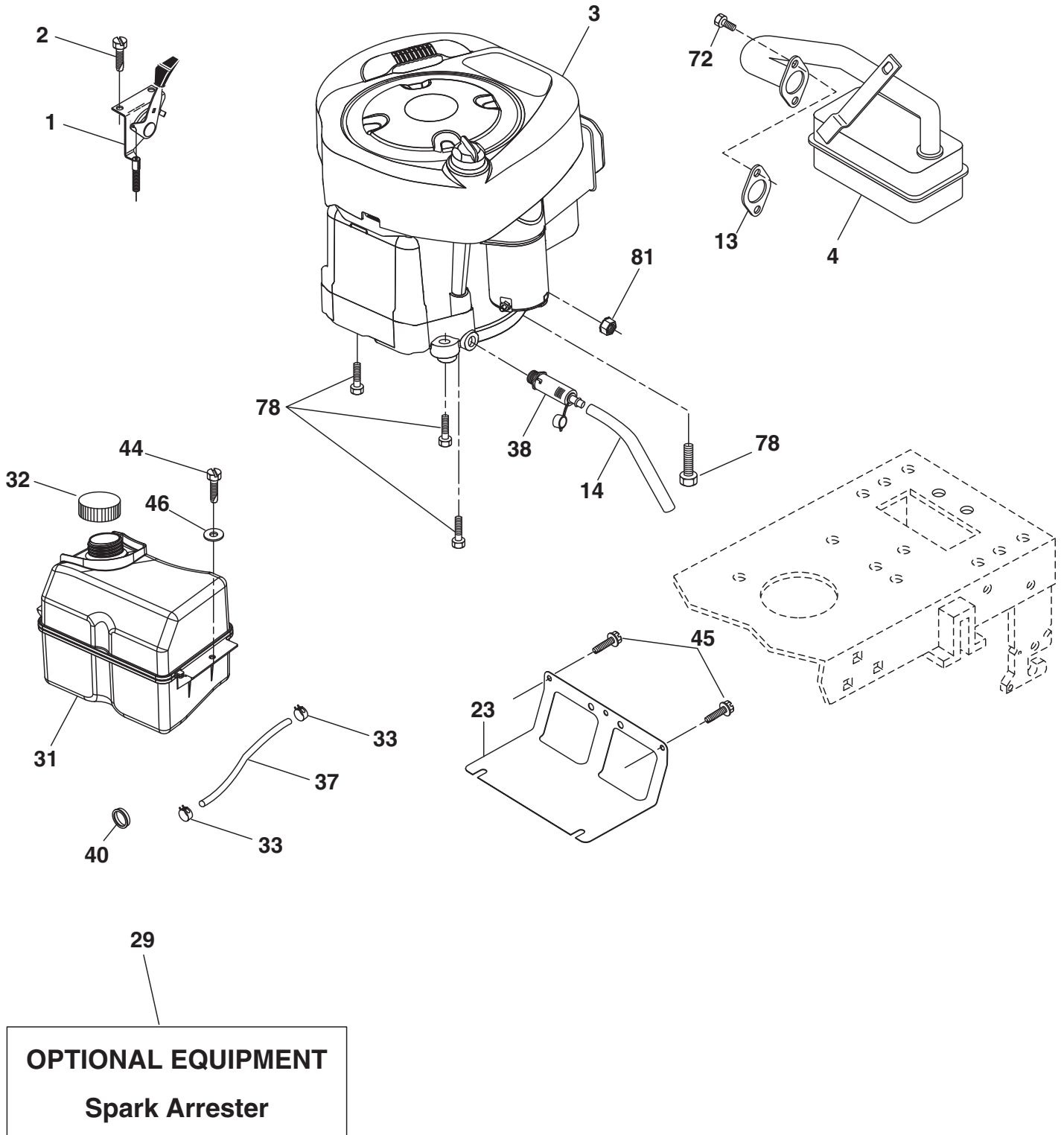
## DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	-----	Transaxle DANA D6800-2 (See Breakdown)	63	175410	Engine Pulley
2	146682	Spring Return Brake T/a Zinc	64	173937	Bolt Hex
3	123666X	Pulley Transaxle 18" Tires	65	10040700	Washer Lock Hvy Hlcl Spr 7/16
4	12000028	Ring Retainer # 5100-62	66	154778	Keeper Belt Engine Foolproof
5	121520X	Strap Torque 30 Degrees	69	142432	Screw Hex wsh HiLo 1/4 x 1/2 unc
6	17060512	Screw 5/16-18 x 3/4	70	134683	Guide Belt Mower Drive RH
8	192502	Rod Shift Fender Adjust Lt	75	121749X	Washer 25/32 x 1 1/4 x 16 Ga.
10	76020416	Pin Cotter 1/8 x 1 Cad	76	12000001	E-ring #5133-75
11	105701X	Washer Plate Shf 388 Sq Hole	77	123583X	Key Square 2 0 x 1845/ 1865
13	74550412	Bolt 1/4-28 unf Gr. 8 w/Patch	78	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
14	10040400	Washer Lock Hvy Helical	79	2228M	Key Woodruff #9 3/16 x 3/4
15	74490544	Bolt Hex FLGHD 5/16-18 Gr. 5	80	131488	Arm Shift
16	73800500	Nut Lock Hex w/ins 5/16-18	81	165594	Shaft Asm Cross Tapered Pmst/20
18	74780616	Bolt, Fin Hex 3/8-16 unc x 1 Gr. 5	82	165711	Spring Torsion T/a
19	73800600	Nut Lock 3/8-16 unc	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
21	106933X	Knob	84	166229	Link Transaxle Dana/18" Zinc
22	130804	Rod Brake Blk Zinc 26 840	85	150360	Nut Lock Center 1/4 - 28 FNTHD
24	73350600	Nut Hex Jam 3/8-16 unc	89	192388X428	Console Shift STLT
25	106888X	Spring Rod Brake 2 00 Zinc	96	4497H	Retainer Spring 1"
26	19131316	Washer 13/32 x 13/16 x 16 Ga.	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
27	76020412	Pin Cotter 1/8 x 3/4 Cad	113	127285X	Strap Torque LT
28	175765	Rod Brake Parking LT/YT	116	72140608	Bolt Rdhd Sq Neck 3/8-16 x 1
29	71673	Cap Brake Parking	120	73900600	Nut Lock Flg. 3/8-16 unc
30	174973	Bracket Mtg Transaxle	150	175456	Spacer Retainer
32	74760512	Bolt Hex Hd 5/16-18 unc x 3/4	151	19133210	Washer 13/32 x 2 x 10
34	175578	Shaft Asm Pedal Foot	156	166002	Washer Srrted 5/16ID x 1.125
35	120183X	Bearing Nylon Blk 629 Id	158	165589	Bracket Shift Mount
36	19211616	Washer 21/32 x 1 x 16 Ga.	159	183900	Hub Tapered Flange Shift Lt
37	1572H	Pin Roll 3/16 x 1"	161	72140406	Bolt Rdhd Sqnk 1/4-20 x 3/4
38	179114	Pulley Composite Flat	162	73680400	Nut Crownlock 1/4-20 unc
39	72110622	Bolt RDHD 3/8-16 unc x 2-3/4 Gr. 5	163	74780416	Bolt Hex Fin 1/4-20 unc x 1 Gr. 5
41	175556	Keeper Belt Flat Idler	165	165623	Bracket Pivot Lever
47	127783	Pulley Idler V Groove Plastic	166	17490510	Screw 5/16-18 x 5/8
48	154407	Bellcrank Asm	168	165492	Bolt Shoulder 5/16-18 x .561
49	123205X	Retainer Belt Style Spring	169	165580	Plate Fastening
50	72110612	Bolt Carr. Sh. 3/8-16 x 1-1/2 Gr. 5	170	187414	Keeper Belt Transaxle Gear
51	73680600	Nut Crownlock 3/8-16 unc	197	169613	Nyliner Snap-In
52	73680500	Nut Crownlock 5/16-18 unc	198	169593	Washer Nyliner
53	199652	Link Clutch	202	72110614	Bolt RdHd 3/8-16 unc x 1-3/4 Gr. 5
55	105709X	Spring Return Clutch 6 75	212	145212	Nut Hexflange Lock
56	17060620	Screw 3/8-16 x 1-1/4			
57	401603	V-Belt Ground Drive			
59	169691	Keeper Belt Span Ctr			
61	17120614	Screw 3/8-16 x .875			
62	8883R	Cover Pedal Blk Round			

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

# TRACTOR - MODEL NUMBER 944.608131

## ENGINE



engine-stlt\_bs\_10

# TRACTOR - MODEL NUMBER 944.608131

## ENGINE

KEY NO.	PART NO.	DESCRIPTION
1	170551	Control Th/ch Flag
2	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
3	-----	Engine, B&S 31A507 (Order parts from engine manufacturer)
4	137352	Muffler Exhaust B&S
13	165291	Gasket Eng 1 313 Id Tin Plated
14	148456	Tube Drain Oil Easy
23	169837	Shield BRN/DBR Guard
29	137180	Kit Spark Arrestor (Flat Scrn)
31	407516	Tank Fuel Front
32	197725	Cap Asm Fuel
33	123487X	Clamp Hose
37	137040	Line Fuel 20"
38	181654	Plug Drain Oil
40	124028X	Bushing Snap
44	17670412	Screw 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 16 Ga.
72	192334	Screw Socket Hd 5/16-18 x .75
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  
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For engine service and replacement parts, call the toll free number for your engine manufacturer listed below:

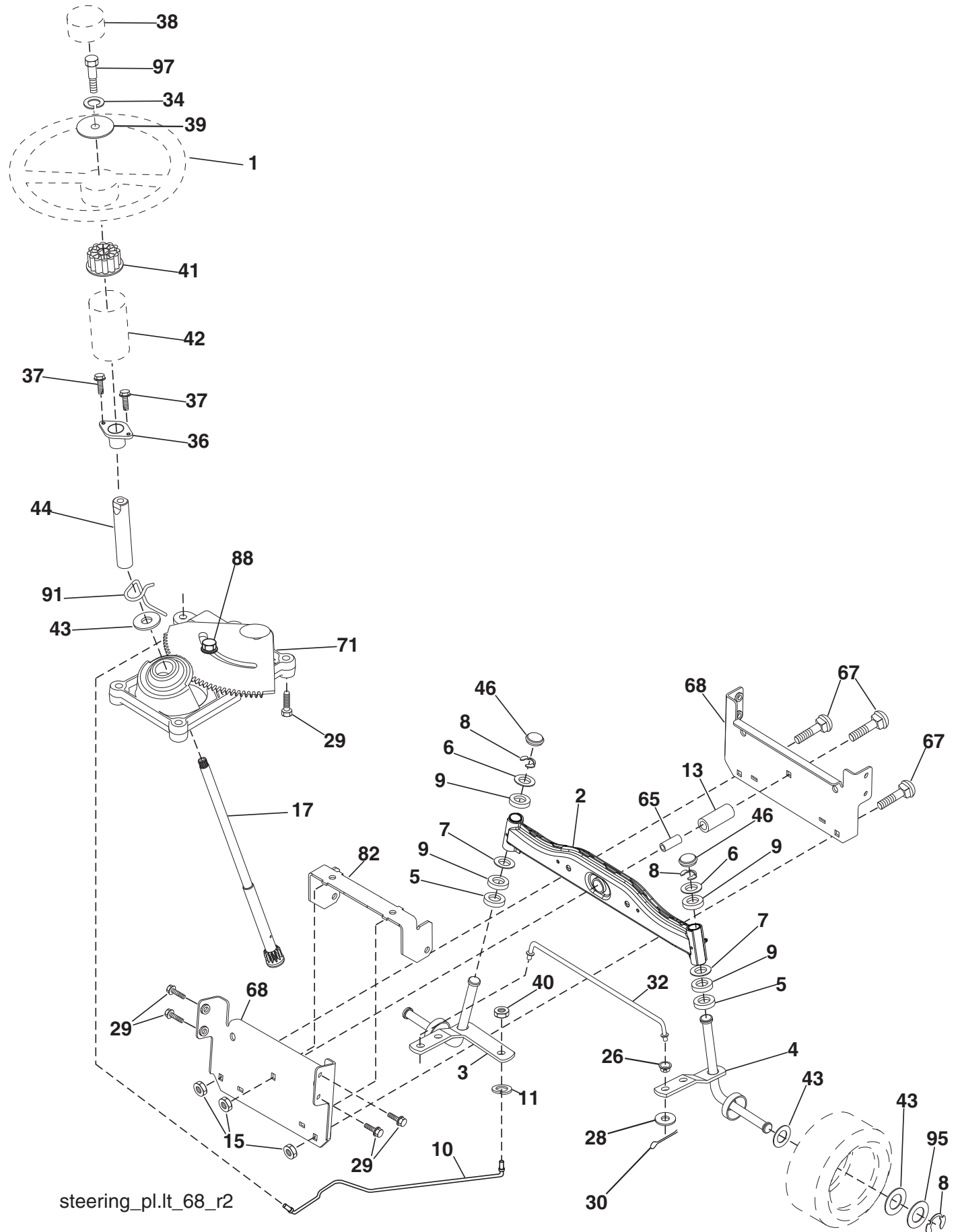
Briggs & Stratton            1-800-233-3723

### Engine Power Rating Information

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

# TRACTOR - MODEL NUMBER 944.608131

## STEERING



steering\_pl.lt\_68\_r2

# TRACTOR - MODEL NUMBER 944.608131

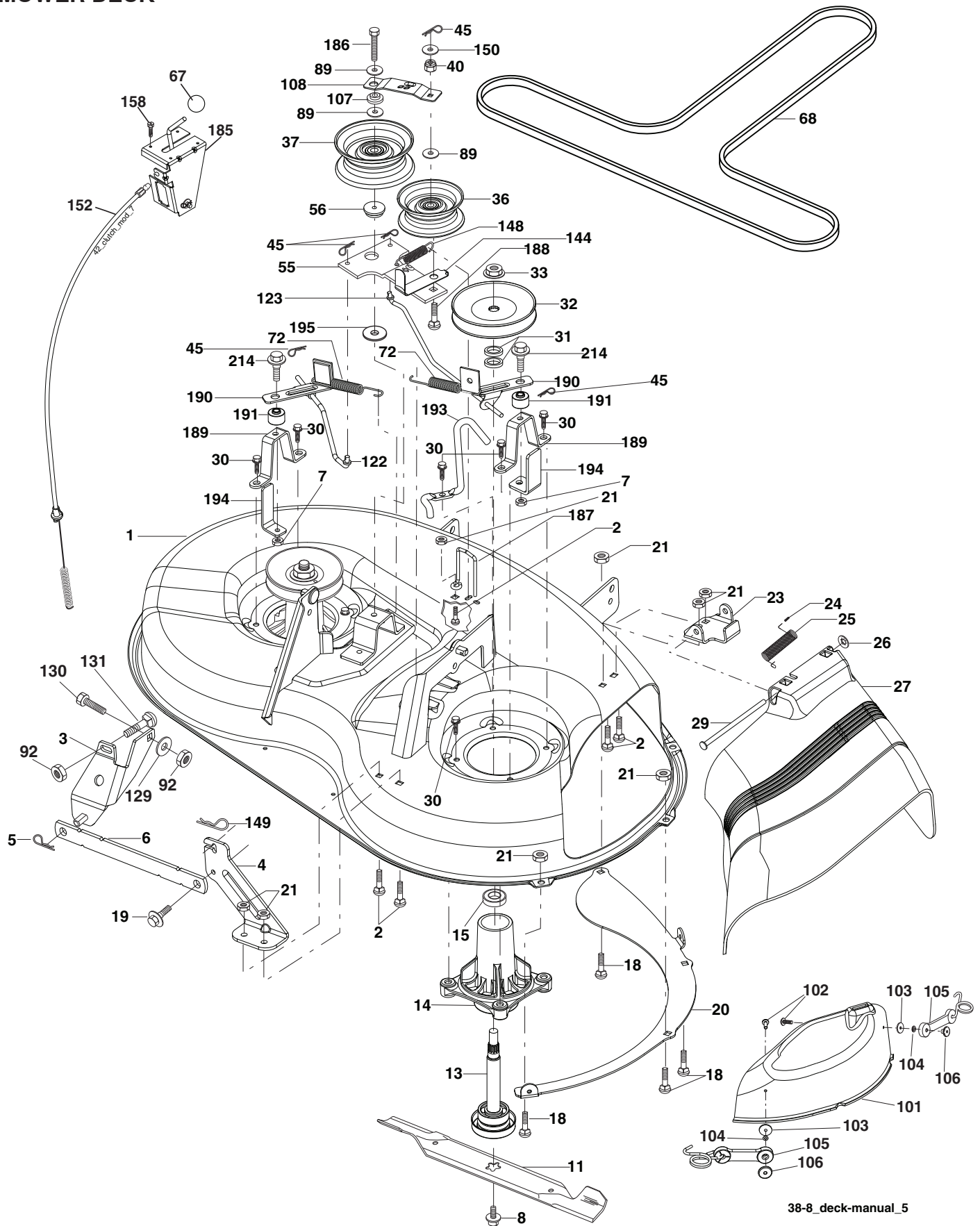
## STEERING

KEY NO.	PART NO.	DESCRIPTION
1	186780	Wheel Steering
2	418168	Axle Asm
3	169840	Spindle Asm LH
4	169839	Spindle Asm RH
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
7	19272016	Washer 27/32 x 1-1/4 x 16 Ga.
8	12000029	Ring Klip #t5304-75
9	3366R	Bearing Col Strg Blk
10	175121	Link Drag
11	10040600	Washer Lock Hvy Hlcl Spr 3/8
13	136518	Spacer Bearing Axle Front
15	145212	Hexflange Lock
17	411386	Shaft Asm Strg
26	126847X	Bushing Link Drag Blk LR
28	19131416	Washer 13/32 x 7/8 x 16 Ga.
29	17000612	Screw 3/8-16 x 3/4
30	76020412	Pin Cotter 1/8 x 3/4 Cad
32	192757	Rod Tie Wire Form 19 75 Mech
34	10040500	Washer Lock Hvy Hlcl Spr 5/16
36	155099	Bushing Strg 5/8 Id Dash
37	152927	Screw
38	186781	Cap Wheel Steering
39	19113812	Washer 11/32 ID x 2-3/8 OD x 12 Ga.
40	73540600	Nut Crownlock 3/8-24
41	186737	Adaptor Wheel Strg
42	145054X428	Boot Dash Mtl Steering Blk
43	121749X	Washer 25/32 x 1 1/4 x 16 Ga.
44	190752	Extension Steering
46	121232X	Cap Spindle Fr Top Blk
65	414736	Spacer Brace Axle
67	72110618	Bolt RDHD SQNK 3/8-16 x 2-1/4
68	169827	Brace Axle
71	175146	Steering Asm.
82	199978	Bracket Susp Chassis Front
88	175118	Bolt Shoulder 7/16-20
91	175553	Clip Steering
95	188967	Washer Harden .793 x 1.637 x 060
97	74780564	Bolt 5/16-18 unc x 4"L Hlcl Spr. 5/16

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

# TRACTOR - MODEL NUMBER 944.608131

## MOWER DECK



38-8\_deck-manual\_5

# TRACTOR - MODEL NUMBER 944.608131

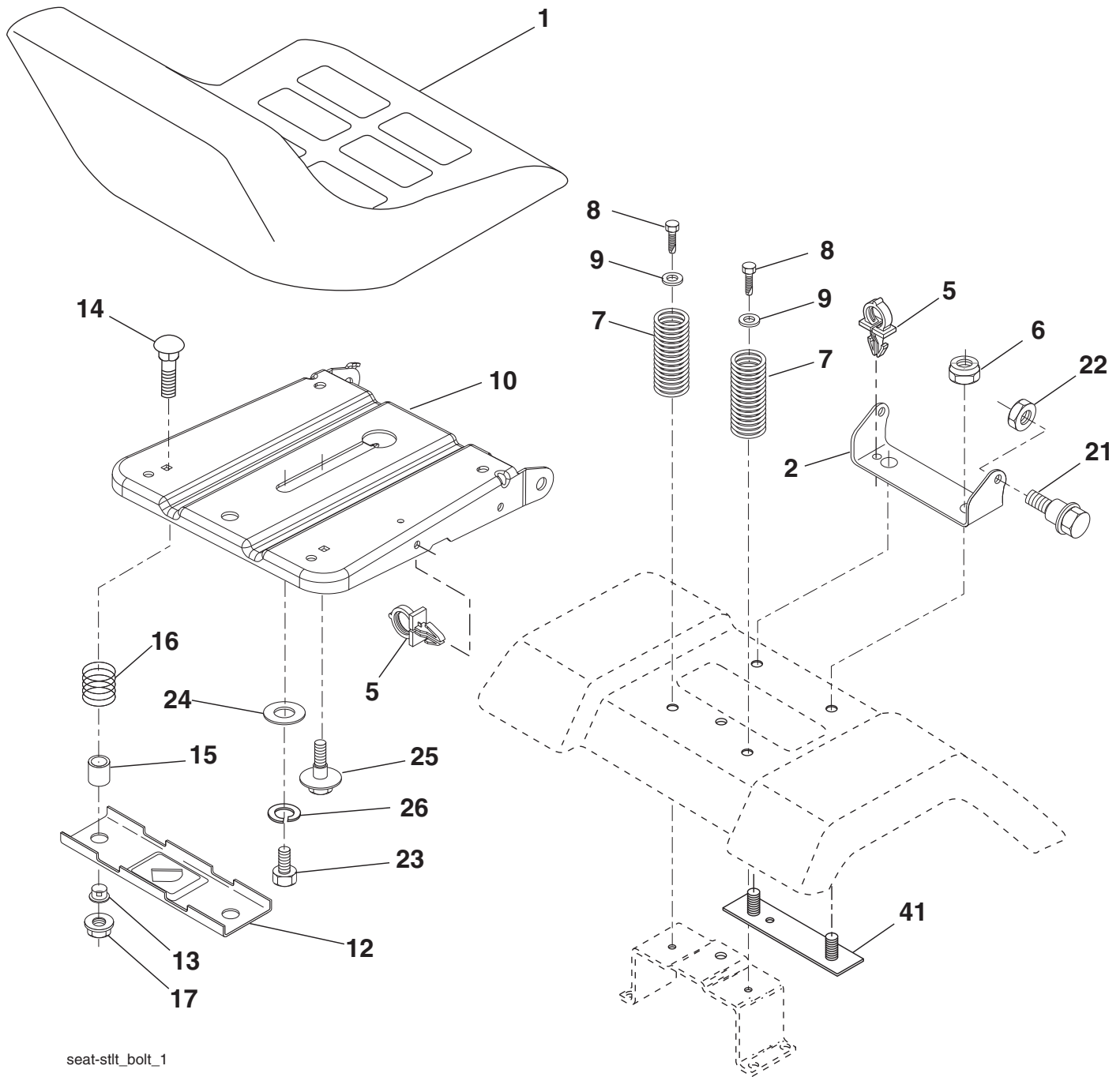
## MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	192556	Mower Housing Assembly	101	192573	Cover Mulching
2	72140506	Bolt Carriage 5/16-18 x 3/4	102	71081010	Screw Pan HD Phillip 10-24 x 5/8
3	138017	Bracket Asm Fr. Sway Bar	103	19061216	Washer #10
4	192568	Bracket Deck Sway Bar 38"/42"	104	10071000	Washer Lock
5	4939M	Retainer Spring	105	160793	Latch Asm
6	178024	Bar Sway Deck	106	2029J	Nut Weld .327/.304 #10-24
7	73800500	Nut Lock 5/16-18 unc	107	133502	Spacer Retainer
8	193003	Bolt 3/8-24 x 1.25 Gr. 8	108	133503	Stiffener, Idler Arm
11	193957	Blade 38" 3 in 1 Premium	122	410189	Rod, Brake LH
--	138497	Blade 38" Hi Lift	123	410190	Rod, Brake RH
13	192872	Shaft Assembly, Mandrel, Vented (Includes Key Number 6)	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
14	187281	Housing, Mandrel, Vented	130	74780616	Bolt Fin Hex 3/8-16 unc x 1 Gr. 5
15	110485X	Bearing, Ball, Mandrel	131	72140608	Botl RDHD SQNK 3/8-16 unc x 1
18	72140505	Blade Rdhd Sqnk 5/16-18 x 5/8	144	193414	Keeper Belt Idler Tension
19	132827	Bolt, Shoulder	148	169022	Spring Return Idler
20	400095	Baffle Vortex Front	149	165898	Retainer Spring Yellow
21	73680500	Nut	150	19091210	Washer 9/32 x 3/4 x 10 Ga.
23	192557	Bracket, Mower Deflector	152	193235	Clutch Cable 38"
24	105304X	Cap, Sleeve	158	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
25	197026	Spring, Torsion, Deflector	185	188234	Head Asm Cable Clutch
26	110452X	Nut, Push	186	17490644	Screw Hex Wsh Thdrol 3/8-16x2-3/4
27	192572X428	Shield, Deflector	187	193412	Keeper Belt M Shape
29	131491	Rod, Hinge	188	165891	Bolt Carriage Idler
30	173984	Screw Thdrol.	189	192559	Brake Stand
31	187690	Washer, Spacer	190	192560	Brake Arm
32	153532	Pulley, Mandrel	191	192561	Brake Spacer
33	400234	Nut, Toplock	193	193413	Keeper Belt RH Mandrel
36	131494	Pulley, Idler, Flat	194	194105	Brake Guard
37	193198	Pulley, Idler Flat	195	19133210	Washer 13/32 x 2 x 10 Ga.
40	73680600	Nut, Crownlock 3/8-16 unc	214	193782	Bolt/Washer Asm. 5/16-18
45	4497H	Retainer	--	192558	Brake Assembly
55	133840	Idler Arm Assembly	--	192870	Mandrel Assembly (Includes hous- ing, shaft assembly, and bearing only - pulley/nut/washer and blade bolt/washers not included)
56	165723	Spacer, Retainer	--	193646	Replacement Mower, Complete
67	106932X	Knob			
68	193214	V-Belt			
72	193216	Spring Brake Return			
89	19131311	Washer 13/32 x 13/16 x 11 Ga.			
92	73800600	Nut Lock Hex w/INS 3/8-16 unc			

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

# TRACTOR - MODEL NUMBER 944.608131

## SEAT



seat-stlt\_bolt\_1

KEY NO.	PART NO.	DESCRIPTION
1	188709	Seat
2	140551	Bracket Seat Pivot
3	145006	Clip Push-In Hinged
4	73800600	Nut Lock Hex w/Ins 3/8 - 16
5	124181X	Spring Seat Cprsn 2 250 Blk Zi
6	17000616	Screw 3/8-16 x 1.5
7	19131614	Washer 13/32 x 1 x 14 Ga.
8	195530	Pan Asm. Seat
9	174648	Bracket Pnt Mounting Switch
10	121248X	Bushing Snap Blk Nyl
11	72050412	Bolt Rdhd Sht Nk 1/4 - 20 x 1 -1/2
12	134300	Spacer Split .28 x .96

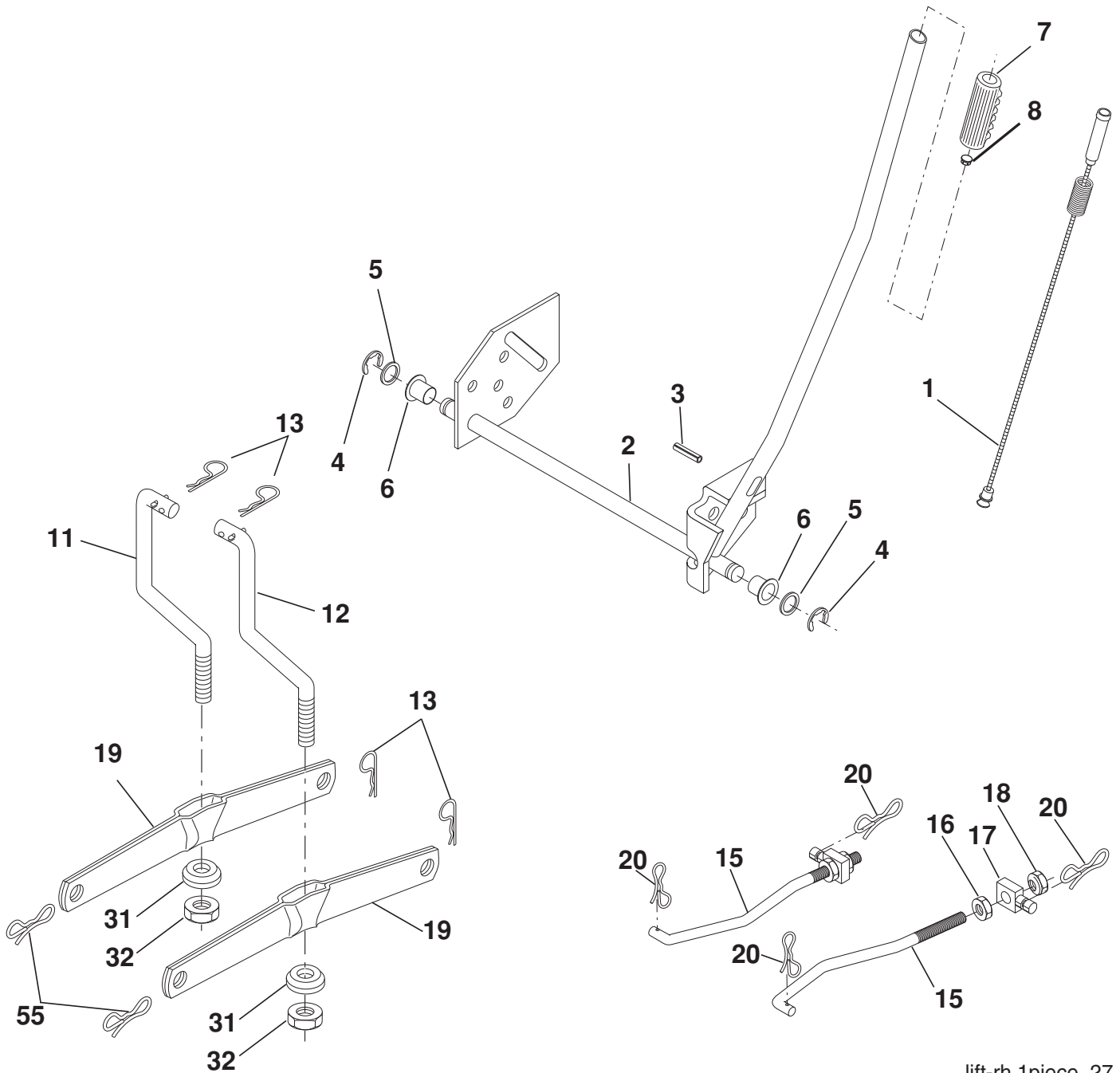
KEY NO.	PART NO.	DESCRIPTION
16	121250X	Spring Cprsn
17	123976X	Nut Lock 1/4 Lge Flg
21	171852	Bolt Shoulder 5/16-18 unc-2A
22	73800500	Nut Lock Hex w/Ins 5/16 - 18
23	71110814	Bolt Hex
24	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
25	127018X	Bolt Shoulder 5/16-18 x .62
26	10040800	Washer Lock Hvy Hlcl Spr 1/2
41	140675	Strap Asm

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



# TRACTOR - MODEL NUMBER 944.608131

## MOWER LIFT



lift-rh.1piece\_27

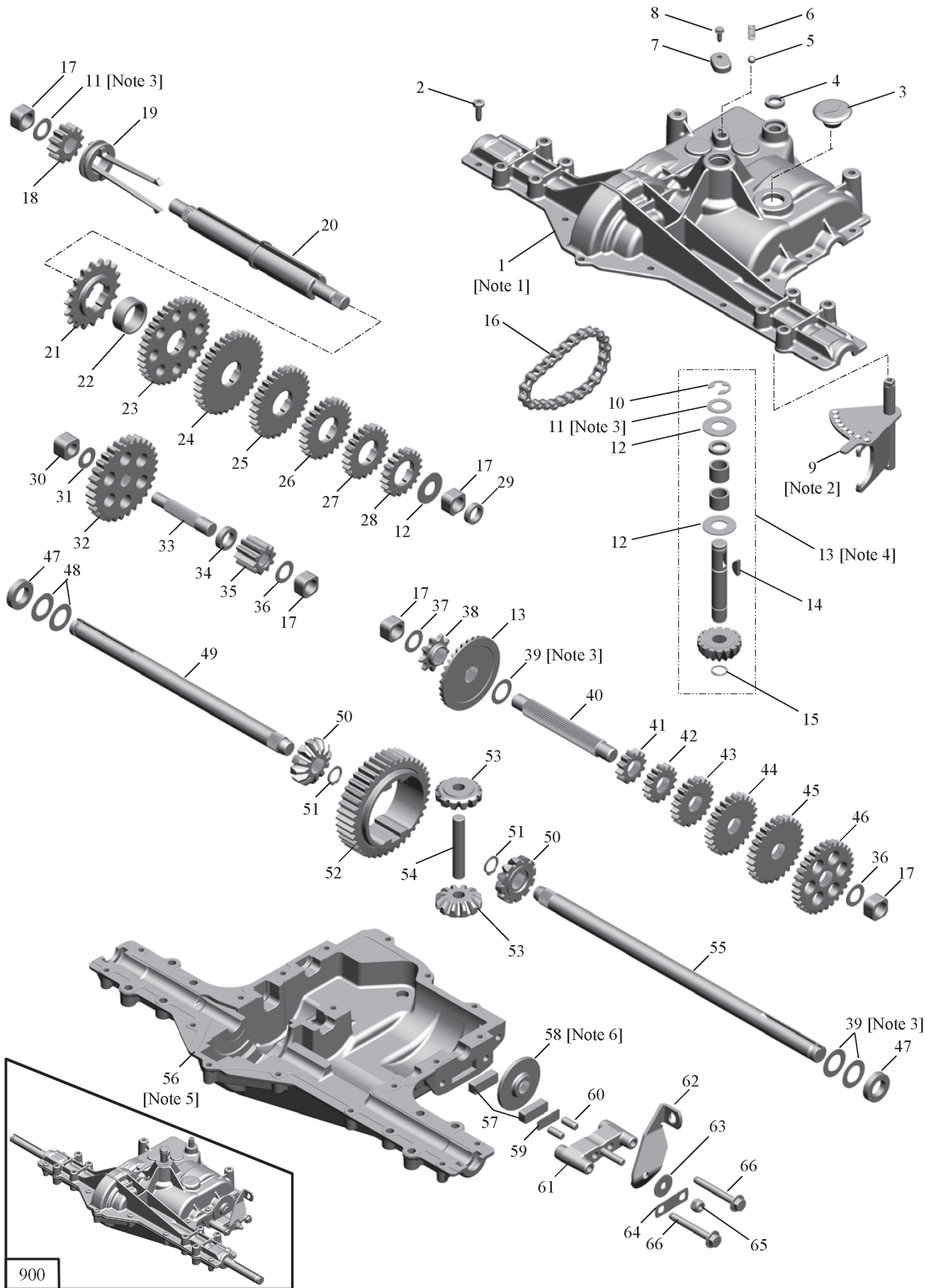
KEY NO.	PART NO.	DESCRIPTION
1	404981	Wire Asm Inner/Sprg w/Plunger
2	159471	Shaft Asm Lift RH
3	105767X	Pin Groove 1 500 Zinc
4	12000002	E Ring #5133-62
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylon Blk 629 Id
7	109413X	Grip Handle Bicycle Matte Blk
8	124526X	Button Plunger Black
11	139865	Link Lift LH Fixed Length
12	139866	Link Lift RH Fixed Length
13	4939M	Retainer Spring

KEY NO.	PART NO.	DESCRIPTION
15	173288	Link Front
16	73350800	Nut Jam Hex 1/2-13 unc
17	175689	Trunnion
18	73800800	Nut Lockw/Wsh 1/2-13 unc
19	139868	Arm Suspension Rear
20	194209	Pin Cotter 7/16 Bow Tie Lock
31	169865	Bearing Pvt Lift
32	73540600	Nut Crownlock 3/8-24
55	194208	Pin Cotter 5/16 Bow Tie Lock

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

# TRACTOR - MODEL NUMBER 944.608131

## DANA TRANSAXLE - MODEL NUMBER D6800-2



900

## TRACTOR - MODEL NUMBER 944.608131

### DANA TRANSAXLE - MODEL NUMBER D6800-2

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	407112	Assy, Kit, Housing, Upper	44	106589X	Gear, Spur, 25T
2	2274J	Screw, Tapping, 1/4-20 x .734	45	120408X	Gear, Spur, 28T
3	407113	Plug, Rubber	46	105937X	Gear, Spur, 31T
4	407114	Seal, Oil	47	407129	Seal, Oil
5	190973	Ball, Detent	48	2264J	Washer, Plain, .758 x 1.25 x .031
6	190974	Spring, Detent	49	407130	Axle, LH
7	407115	Cover, Detent	50	190987	Gear, Miter, 12T, Splined
8	190975	Screw, Tapping, No. 10-24 x .482	51	160948	Ring, Retaining
9	407116	Assy, Shifter	52	134419	Gear, Spur, 41T
10	2225J	Ring, Retaining	53	460949	Gear, Miter, 12T, Idler
11	134793	Assy, Kit, Shim, .625 Shaft	54	120952X	Shaft, Cross
12	120415X	Washer, Plain, .632 x 1.38 x .046	55	407131	Axle, RH
13	6753	Assy, Kit, Input Shaft & Bevel & Pinion	56	407132	Housing, Lower
14	142674	Key, Woodruff, No. 606	57	407133	Assy, Kit, Friction Puck
15	134383	Ring, Retaining	58	407134	Disc, Brake
16	105910X	Chain, 24 Pitches	59	108989X	Spacer, Brake Puck
17	407118	Bushing, .626 x .874 Sq x .560	60	120954X	Pin, Dowel
18	407119	Gear, Spur, 12T	61	160952	Jaw, Brake
19	407120	Assy, Collar, Shift	62	138244	Lever, Actuating
20	407121	Shaft, Intermediate, RH Brake	63	108996X	Washer, Plain, .321 x 1.00 x .055
21	120470X	Sprocket, 18T	64	160954	Bracket, Anti-Rotation
22	407122	Spacer, 1.131 x 1.45 x .580	65	73810500	Nut, Lock, 5/16-24
23	142677	Gear, Spur, 37T	66	160953	Screw, Tapping, 5/16-18 x 2.35
24	142681	Gear, Spur, 35T	900	402719	Transaxle
25	124644X	Gear, Spur, 30T			
26	108980X	Gear, Spur, 25T			
27	120406X	Gear, Spur, 22T			
28	134796	Gear, Spur, 19T			
29	407123	Seal, Oil			
30	407124	Bushing, .501 x .874 Sq x .650			
31	120467X	Washer, Plain, .505 x .942 x .040			
32	407125	Gear, Spur, 30T			
33	407126	Shaft, Idler			
34	407127	Spacer, .633 x 1.00 x .260			
35	134418	Gear, Spur, 10T			
36	2228J	Washer, Plain, .632 x 1.00 x .046			
37	2230J	Washer, Plain, .632 x 1.00 x .036			
38	105928X	Sprocket, 9T			
39	134394	Assy, Kit, Shim, .750 Shaft			
40	407128	Shaft, Drive			
41	142678	Gear, Spur, 12T			
42	143697	Gear, Spur, 15T			
43	124641X	Gear, Spur, 20T			

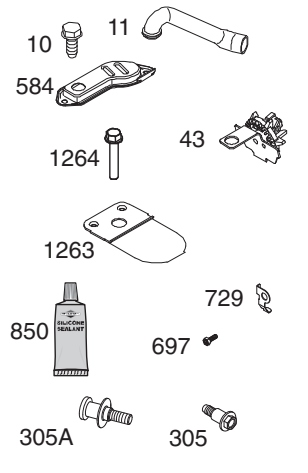
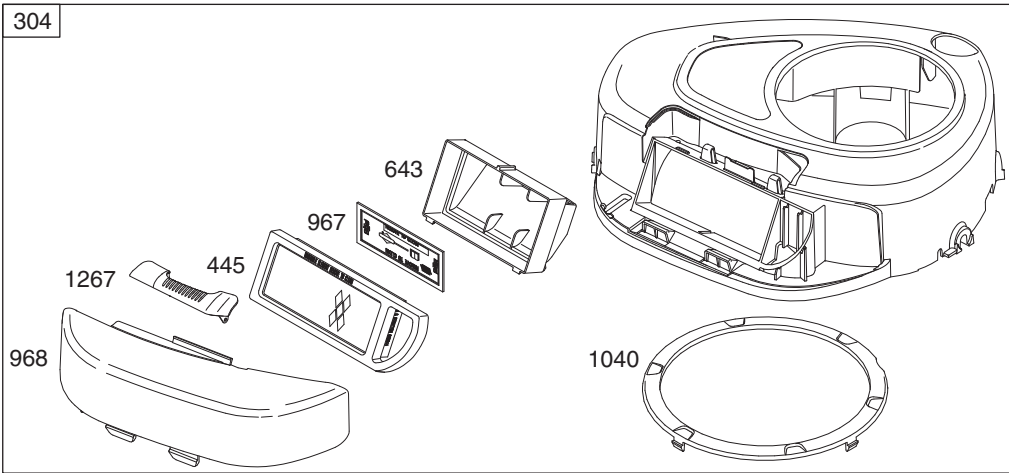
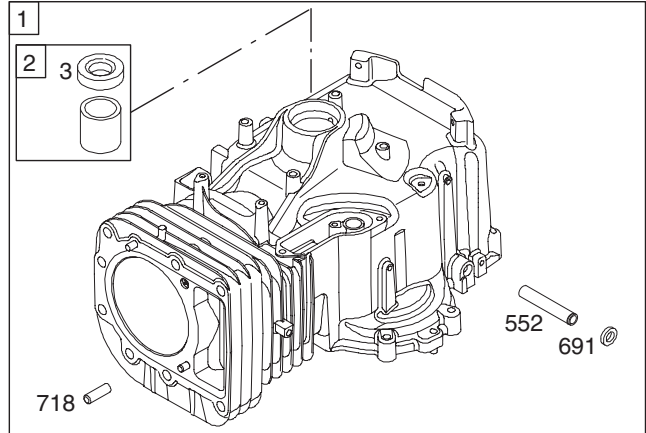
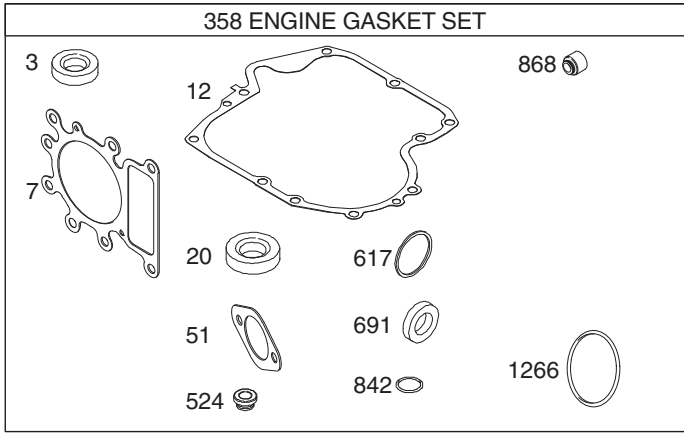
**Notes:**

- [1] Includes 7072, 5272, 7101, 840052, 7057, 7089.
- [2] Anti-Seize lubricant to be applied to top surface of 6670 Shifter Assembly (use Bostik Never-Seez or equivalent).
- [3] Use in various combinations to maintain proper clearances.
- [4] Includes 1106, 1746, 3876, 3956, 4689, 5272, 7073, 7074, 7057.
- [5] Silicone Sealant to be applied between Upper and Lower Housings (use Loctite Ultra Gray Silicone 5699 or equivalent).
- [6] Anti-Seize lubricant to be applied to id of 7103 Brake Disc (use Bostik Never-Seez or equivalent).
- [7] Refill Transaxle with (10) ounces 80W90 gear lube.

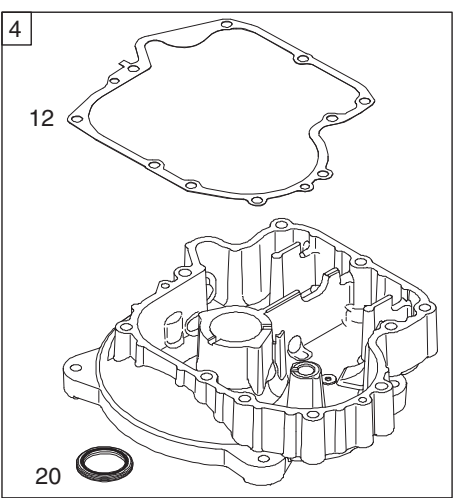
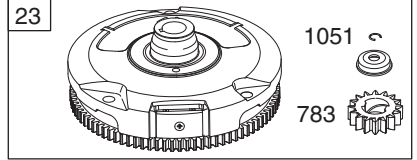
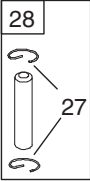
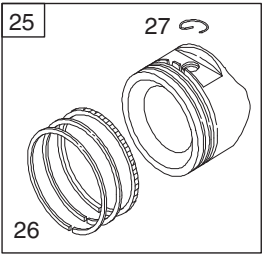
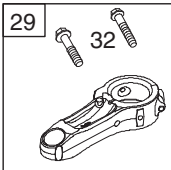
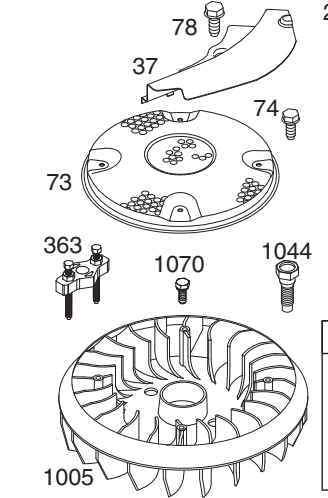
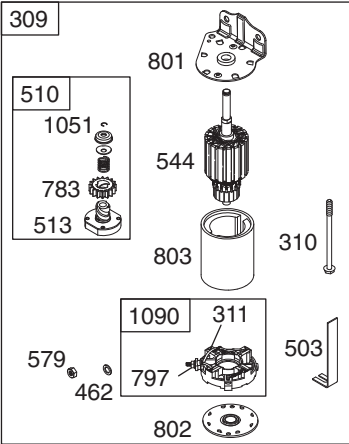
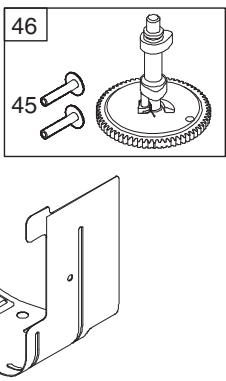
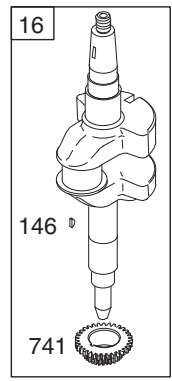
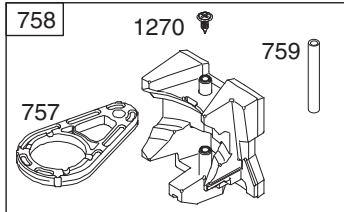
NOTE: All Component Dimensions Given In U.S. Inches  
1 Inch = 25.4 mm

# TRACTOR - MODEL NUMBER 944.608131

## BRIGGS & STRATTON ENGINE - MODEL NUMBER 31A507, TYPE NUMBER 0742-B1

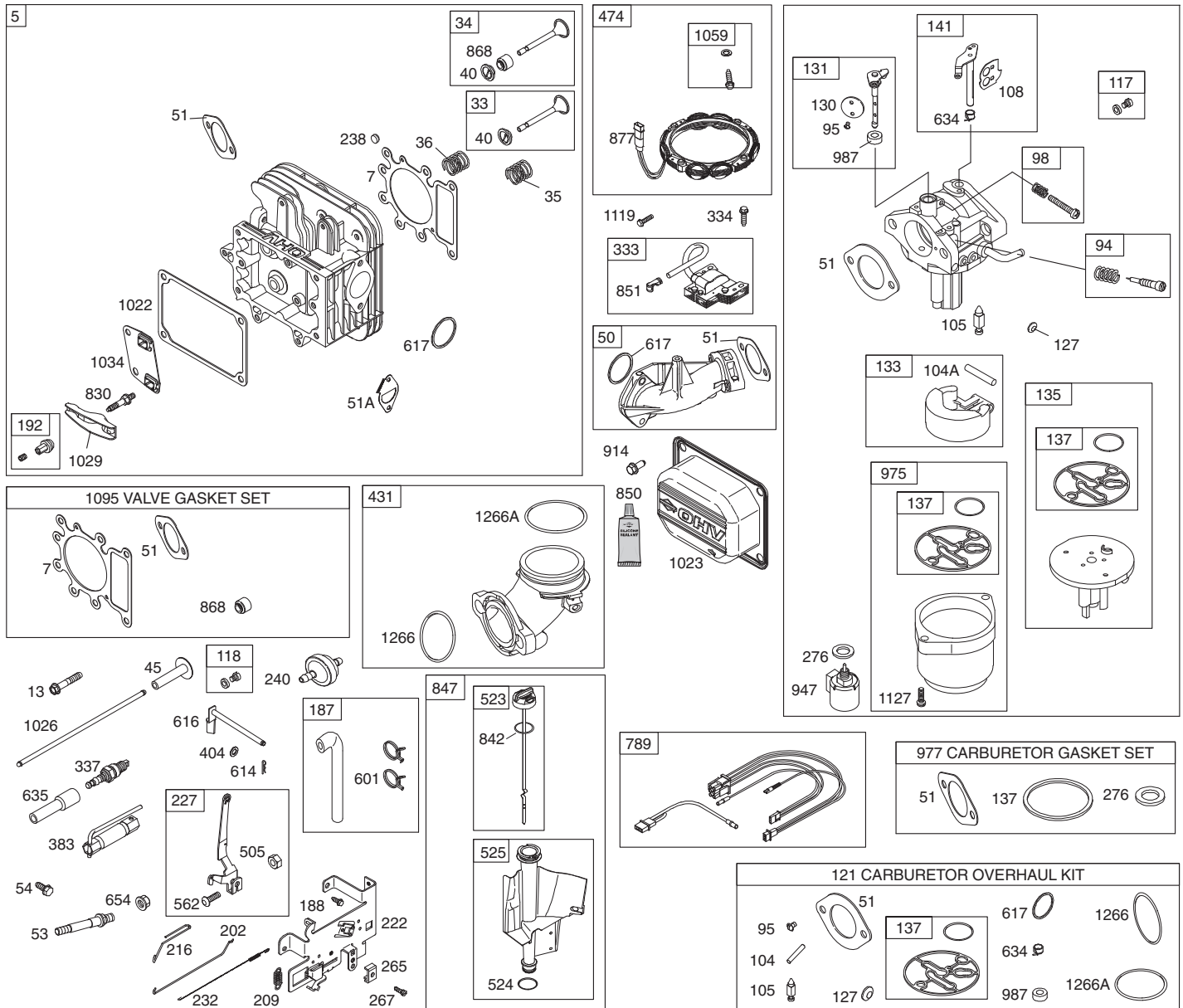


- 48 SHORT BLOCK
- 1058 OPERATOR'S MANUAL
- 1329 REPLACEMENT ENGINE
- 1330 REPAIR MANUAL
- 1036 EMISSIONS LABEL



# TRACTOR - MODEL NUMBER 944.608131

## BRIGGS & STRATTON ENGINE - MODEL NUMBER 31A507, TYPE NUMBER 0742-B1



KEY NO.	PART NO.	DESCRIPTION
1	793987	Cylinder Assembly
2	399265	Kit-Bushing/Seal (Magneto Side)
3	391086s	• Seal-Oil (Magneto Side)
4	697106	Sump-Engine
5	793989	Head-Cylinder
7	699168	•+ Gasket-Cylinder Head
10	697157	Screw (Breather Assembly)
11	794683	Tube-Breather
12	697110	• Gasket-Crankcase
13	793988	Screw (Cylinder Head)
15	690946	Plug-Oil Drain
16	697127	Crankshaft
20	795387	• Seal-Oil (PTO Side)
22	692125	Screw (Crankcase Cover/Sump)
23	693557	Flywheel
24	222698s	Key-Flywheel
25	792507	Piston Assembly (Standard)
	792648	Piston Assembly (.020" Oversize)
26	791936	Ring Set (Standard)
	792649	Ring Set (.020" Oversize)
27	698469	Lock-Piston Pin
28	697099	Pin-Piston

KEY NO.	PART NO.	DESCRIPTION
29	794122	Rod-Connecting (Standard)
32	791118	Screw (Connecting Rod)
33	791934	Valve-Exhaust
34	791935	Valve-Intake
35	691279	Spring-Valve (Intake)
36	691279	Spring-Valve (Exhaust)
37	697352	Guard-Flywheel
42	499586	Keeper-Valve
43	691968	Slinger-Governor/Oil
45	690564	Tappet-Valve
46	793880	Camshaft
48	697761	Short Block
50	690193	Manifold-Intake
51	692137	•Ø‡+ Gasket-Intake
51A	794312	Gasket-Intake
53	690227	Stud (Carburetor)
54	691148	Screw (Intake Manifold)
73	794437	Screen-Rotating
78	691003	Screw (Flywheel Guard)

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

# TRACTOR - MODEL NUMBER 944.608131

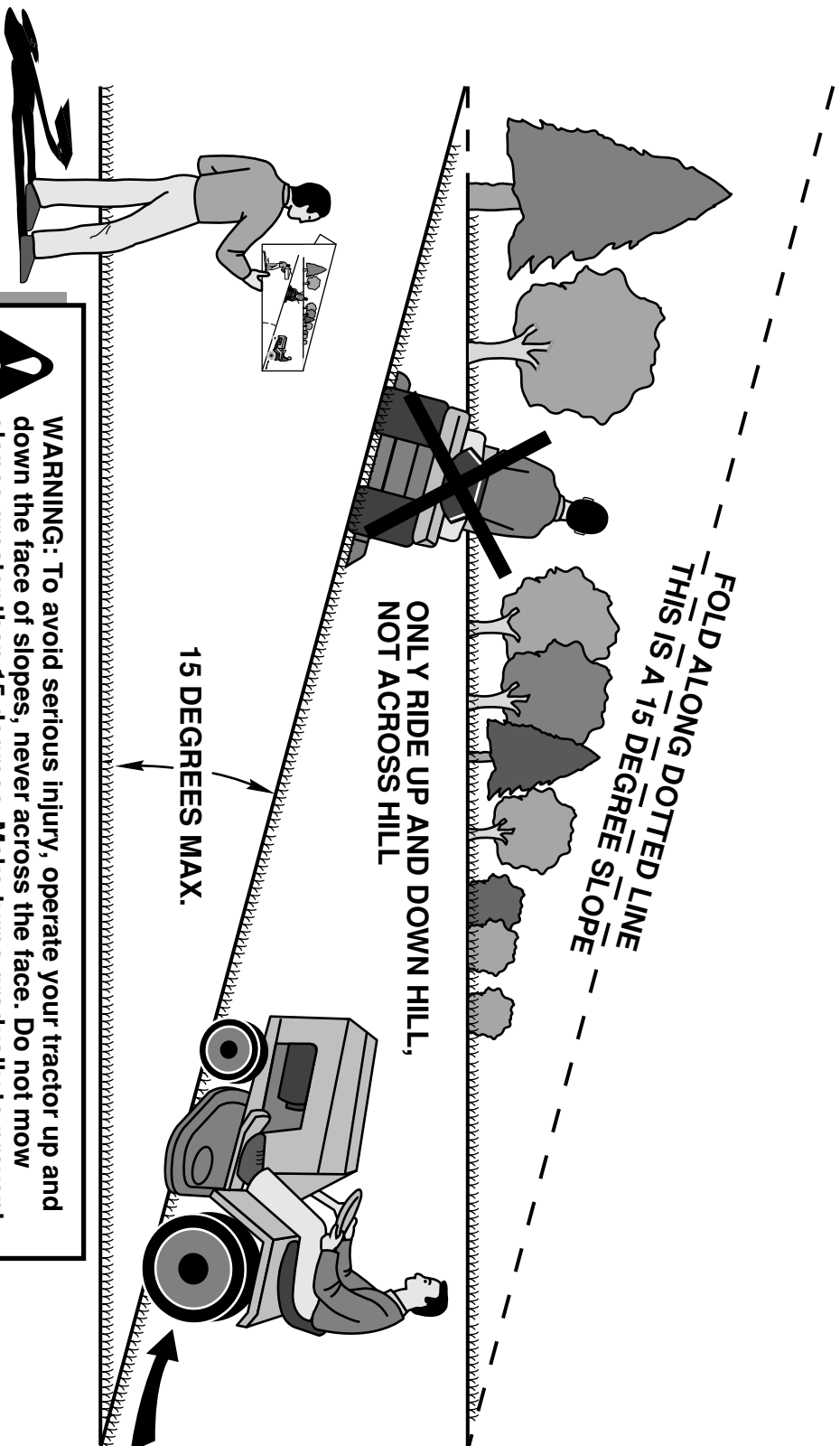
## BRIGGS & STRATTON ENGINE - MODEL NUMBER 31A507, TYPE NUMBER 0742-B1

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
94	793610	Kit-Idle Mixture	634	698779	Ø Spring/Seal Assembly
95	690718	Ø Screw (Throttle Valve)	635	691909	Boot-Spark Plug
98	695408	Kit-Idle Speed	643	698401	Retainer-Air Filter
104	694918	Ø Pin-Float Hinge	654	690958	Nut (Carburetor)
105	696136	Ø Valve-Float Needle	691	692407	• Seal-Governor Shaft
108	695419	Valve-Choke	697	690372	Screw (Drive Cap)
117	699732	Ø Jet-Main (Standard)	718	690959	Pin-Locating
118	699458	Jet-Main (High Altitude)	729	691224	Clip-Wire
121A	699521	Kit-Carburetor Overhaul	741	697128	Gear-Timing
125	792358	Carburetor	757	793242	Link-Counterweight
127	690727	Ø Plug-Welch	758	697134	Counterweight
130	699500	Valve-Throttle	759	697392	Pin-Counterweight
131	699501	Kit-Throttle Shaft	783	693713	Gear-Pinion
133	694914	Float-Carburetor	789	698329	Harness-Wiring
135	698780	Tube-Fuel Transfer	797	693167	Nut (Brush Retainer)
137	698781	Ø	801	691283	Cap-Drive
Gasket-Float Bowl			802	691286	Cap-End
141	695420	Kit-Choke Shaft	803		Housing-Starter (For service see Starter Motor 693551)
146	691639	Key-Timing	830	691095	Stud (Rocker Arm)
187	791805	Line-Fuel(Molded)(CuttoRequiredLength)	842	691031	• Seal-O Ring (Dipstick Tube)
188	691693	Screw (Control Bracket)	847	790442	Dipstick/Tube Assembly
192	691986	Adjuster-Rocker Arm	850	100100	Sealant-Liquid
202	691841	Link-Mechanical Governor	851	692424	Terminal-Spark Plug
209	692208	Spring-Governor	868	690968	•+ Seal-Valve
216	691840	Link-Choke	877	393456	Wire-Connector/Alternator
222	694042	Bracket-Control	914	691108	Screw (Rocker Cover)
227	691374	Lever-Governor Control	947	699915	Solenoid-Fuel
232	691842	Spring-Governor	967	697015	Filter-Pre Cleaner
238	691843	Cap-Valve	968	698403	Cover-Air Cleaner
240	394358s	Filter-Fuel	975A	699502	Bowl-Float
265	691024	Clamp-Casing	977	690192	Gasket Set-Carburetor
267	794904	Screw (Casing Clamp)	987	698777	Ø Seal-Throttle Shaft
276	695410	Washer-Sealing	1005	794438	Fan-Flywheel
304	698402	Housing-Blower	1023	791079	Cover-Rocker Arm
305	697102	Screw (Blower Housing)	1026	692003	Rod-Push (Intake)
305A	793376	Screw (Blower Housing)		692011	Rod-Push (Exhaust)
306	697107	Shield-Cylinder	1029	691751	Arm-Rocker
307	691003	Screw (Cylinder Shield)	1034	690822	Guide-Push Rod
309	693551	Motor-Starter	1036		Label-Emissions (Available from an authorized Briggs & Stratton Dealer)
310	690323	Bolt (Starter Motor)	1040	698368	Plate-Trim
311	497608	Brush Set	1044	698139	Screw (Flywheel)
333	795315	Armature-Magneto	1051	691265	Ring-Retaining
334	691061	Screw (Magneto Armature)	1059	698516	Kit-Screw/Washer
337	491055s	Plug-Spark	1070	690363	Screw (Flywheel Fan)
358	792621	Gasket Set-Engine	1090	691293	Retainer-Brush
363	19203	Flywheel Puller	1091	691333	Cap-Limiter
383	89838s	Wrench-Spark Plug	1095	794152	Gasket Set-Valve
404	691691	Washer (Governor Crank)	1119	691183	Screw (Alternator)
415	794129	Plug	1127	695407	Screw (Float Bowl)
431	697122	Elbow-Intake	1263	697124	Reed-Breather
445	698083	Filter-Air Cleaner Cartridge	1264	697104	Screw (Breather Reed)
462	691261	Washer (Starter Cable)	1266	691917	•Ø Seal-O Ring (Intake Elbow)
474	696459	Alternator	1266A	697123	Ø Seal-O Ring (Intake Elbow)
503	691532	Strap-Starter	1267	697419	Latch-Blower Housing
505	691251	Nut (Governor Control Lever)	1270	793243	Plug-AVS Counterweight
510	693699	Drive-Starter	1329	31A607-0026	Replacement Engine (Transfer Muffler and/or Spark Arrester Assembly from the original engine if suitable for additional service or add new parts as required.)
513	692024	Clutch-Drive	1330	272147	Repair Manual
523	699908	Dipstick			
524	691032	• Seal-Dipstick Tube			
525	697184	Tube-Dipstick			
544		Starter-Armature (For service see Starter Motor 693551)			
552	697144	Bushing-Governor Crank			
562	691119	Bolt (Governor Control Lever)			
579	691029	Nut (Starter Cable)			
584	794682	Cover-Breather Passage			
601	791850	Clamp-Hose			
614	691620	Pin-Cotter			
616	692012	Crank-Governor			
617	692138	Ø • Seal-O Ring (Intake Manifold)			

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

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

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



1. Fold this page along dotted line indicated above.
2. Hold page before you so that its left edge is vertically parallel to a tree trunk or other upright structure.
3. Sight across the fold in the direction of hill slope you want to measure.
4. Compare the angle of the fold with the slope of the hill.

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