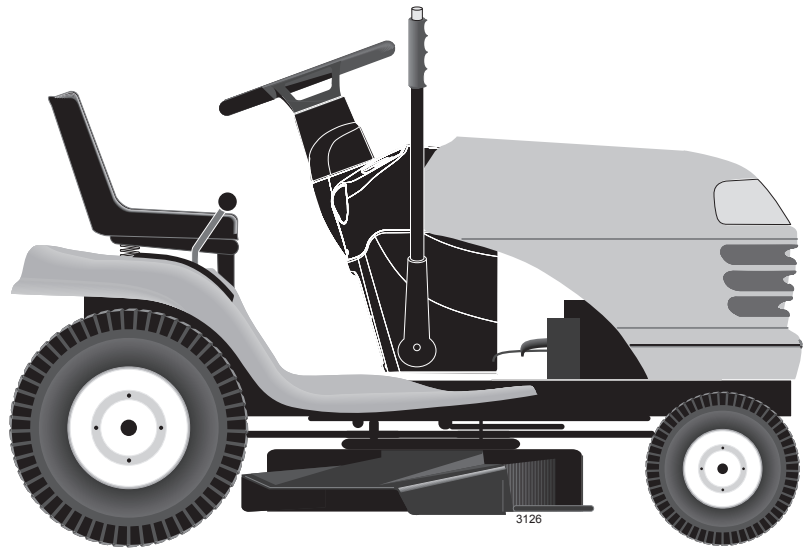


**SEARS**  
**OWNER'S**  
**MANUAL**

**MODEL NO.**  
**944.600081**

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



**CRAFTSMAN®**

**17.5 HP\***  
**ELECTRIC START**  
**42" 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.**



### WARNING



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



### WARNING



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

## 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 chute, 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 chute.
- 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.



# SAFETY RULES

## Safe Operation Practices for Ride-On Mowers



### 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.

### 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 chute 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.

## 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 10W30 motor oil	
Oil Capacity:	48 oz.
Spark Plug:	Champion RC12YC (Gap: .030")
Ground Speed (MPH):	Forward: 1st 1.0 2nd 1.4 3rd 2.1 4th 3.1 5th 4.0 6th 5.1 Reverse: 1.6
Charging System:	3 Amps Battery 5 Amps Headlights
Battery:	AMP/HR: 28 Min. CCA: 230 Case Size: U1R
Blade Bolt 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 representatives 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).

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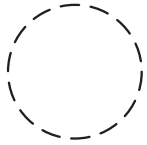
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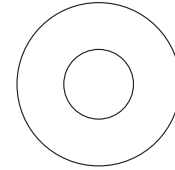
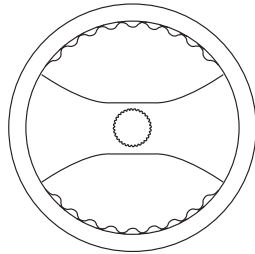
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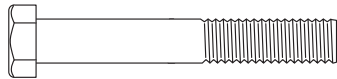
## Steering Wheel



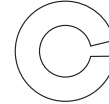
Steering Wheel Insert



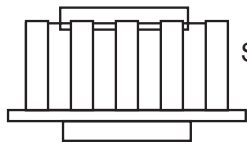
(1) Large Flat Washer



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



(1) 5/16 Lock Washer



Steering Wheel Adapter

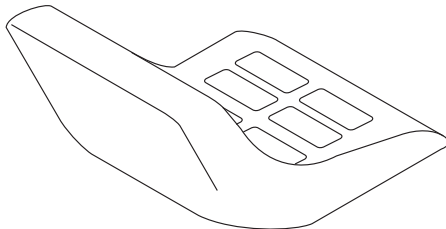


Steering Boot



Steering Extension Shaft

## Seat



(1) Seat

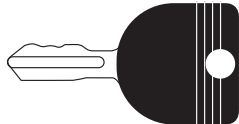


(1) Washer



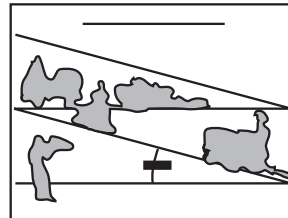
(1) Knob

## Keys



(2) Keys

## Slope Sheet



# ASSEMBLY

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

## TOOLS REQUIRED FOR ASSEMBLY

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

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

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton .
- Cut 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.

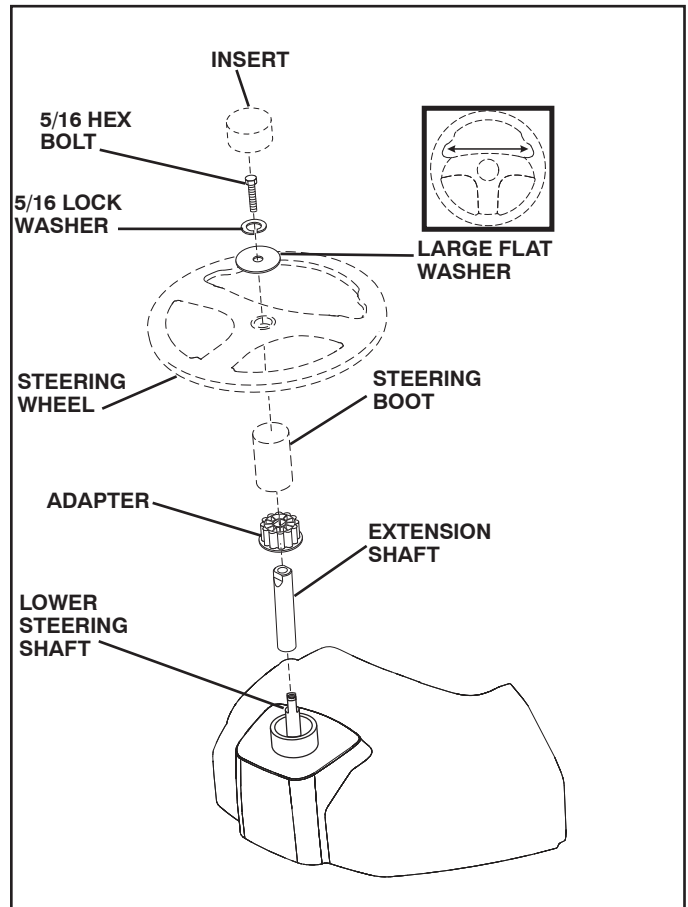


Fig. 1

### INSTALL SEAT (See Fig.2)

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten. Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

# ASSEMBLY

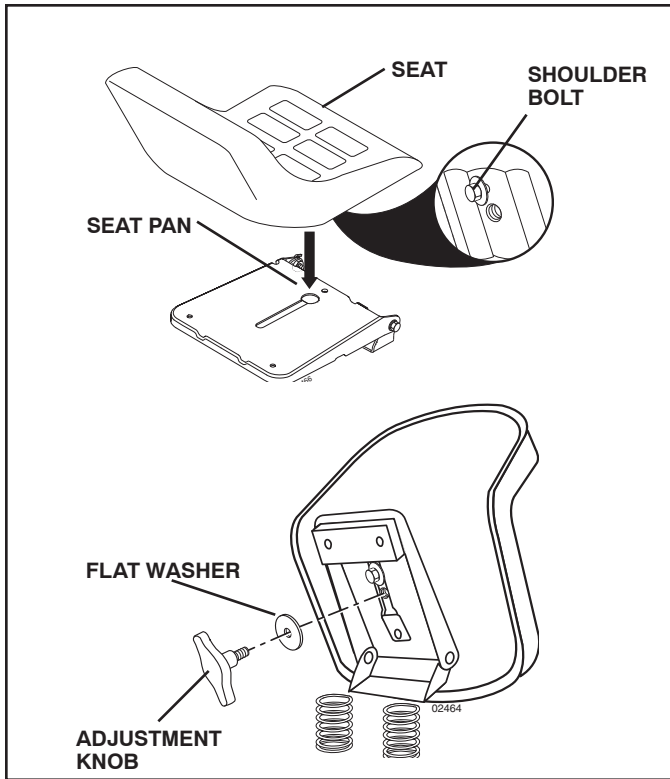


Fig. 2

## TO CHECK BATTERY (See Fig. 3)

- Lift seat to raised position.

**NOTE:** If this battery is put into service after month and year indicated on label (label is located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in Maintenance section of this manual for charging instructions).

- For battery and battery cable installation see "REPLACING BATTERY" in the "Service and Adjustments" section in this manual.

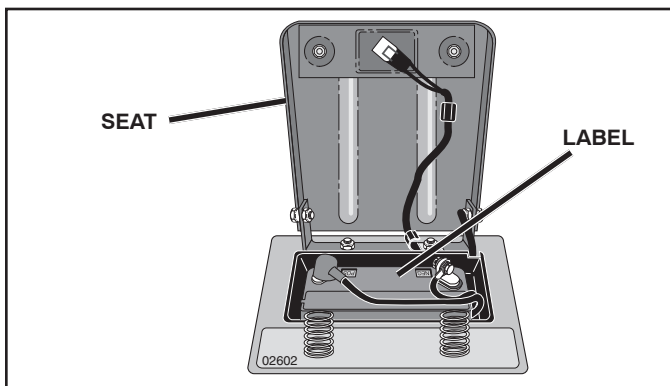


Fig. 3

**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 (N) position.
- Roll tractor forward off skid.
- Remove banding holding the deflector shield up against tractor.

## 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.

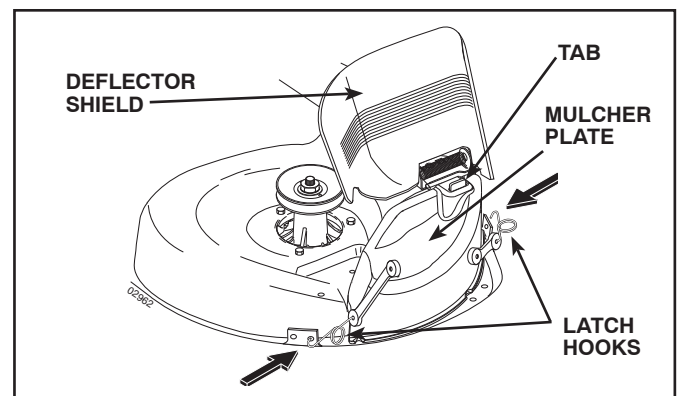


Fig. 4

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# ASSEMBLY

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

## CHECK BRAKE SYSTEM

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

## ✓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.

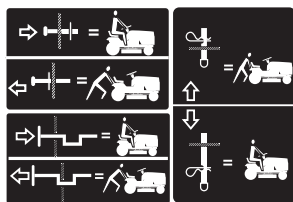
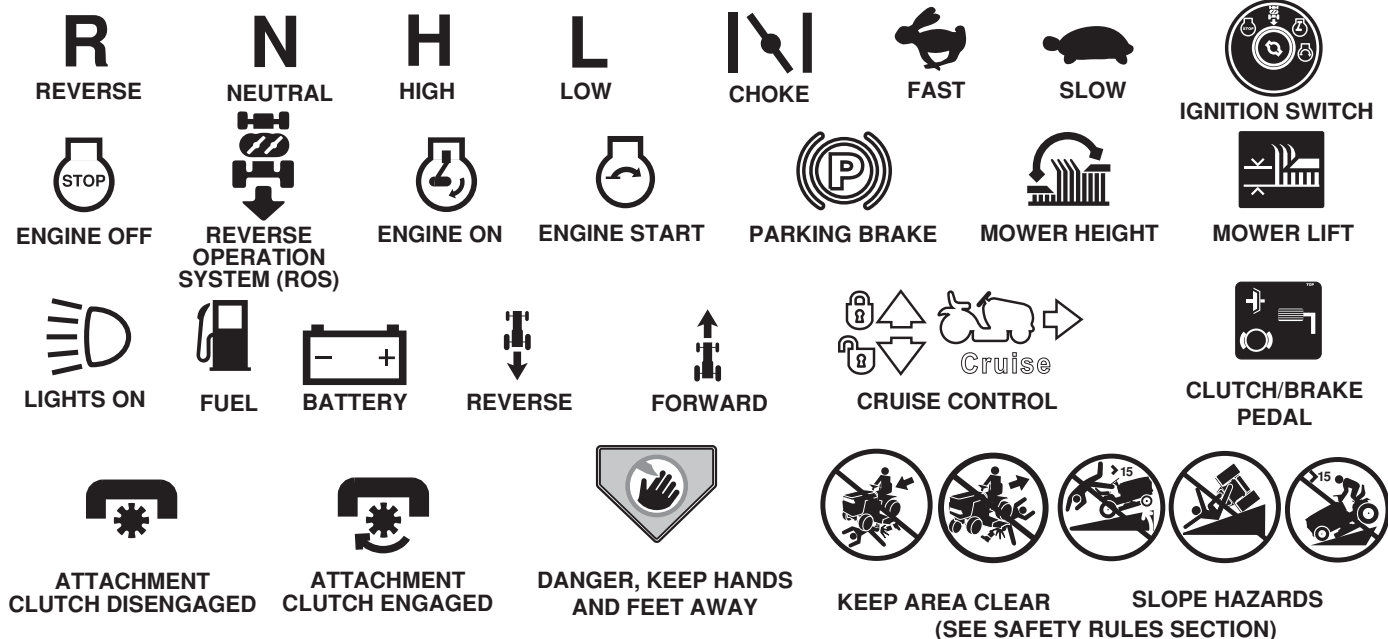
WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- ✓ 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.

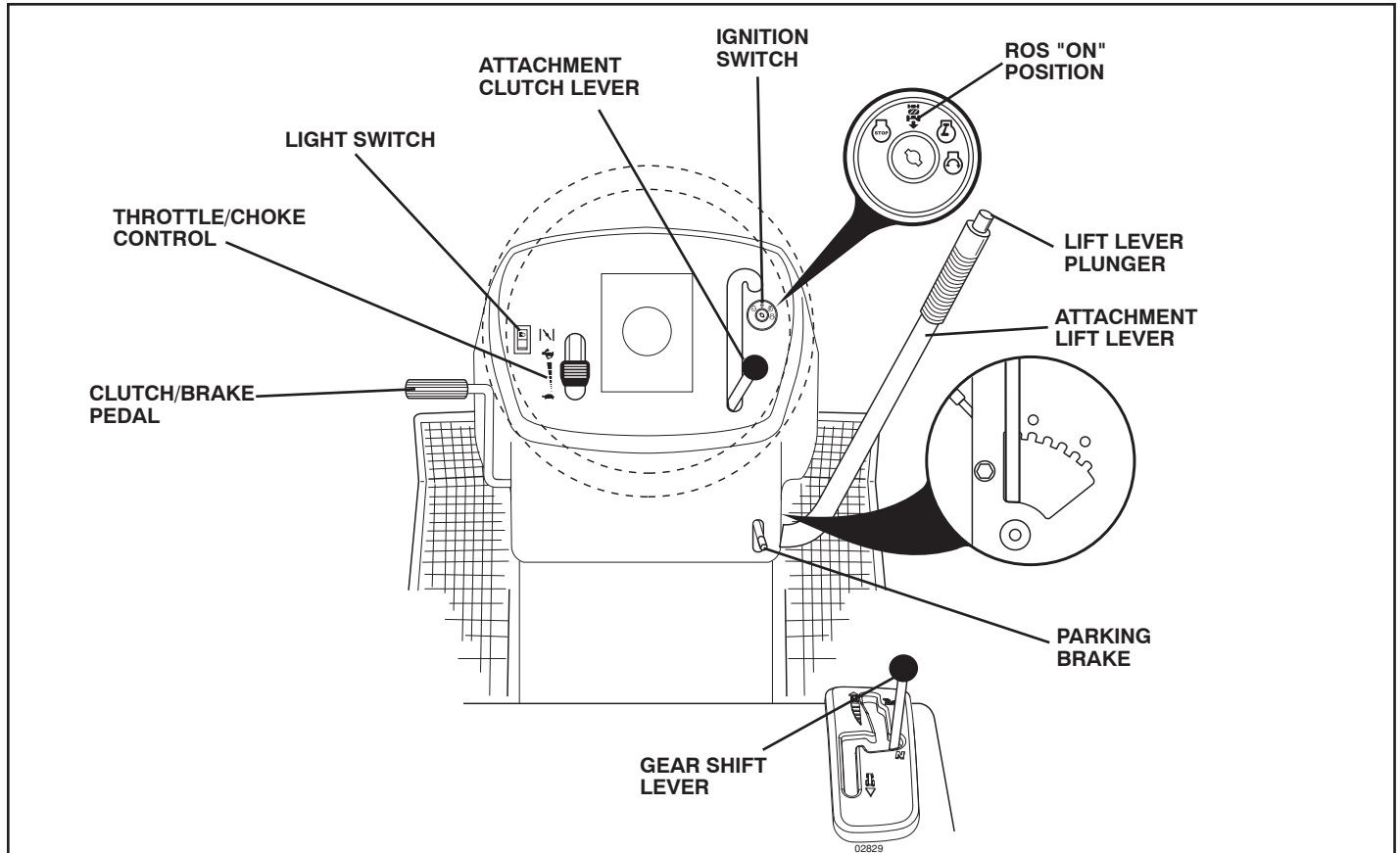


Fig. 5

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.

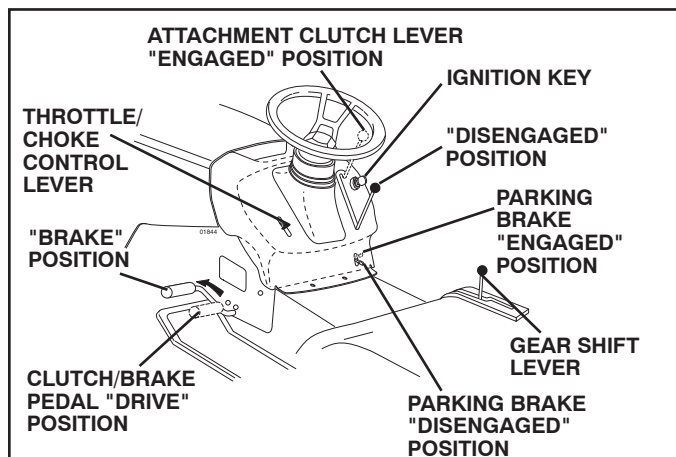


Fig. 6

### 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 (N) 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. 7)

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

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

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

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

### 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.

# OPERATION



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

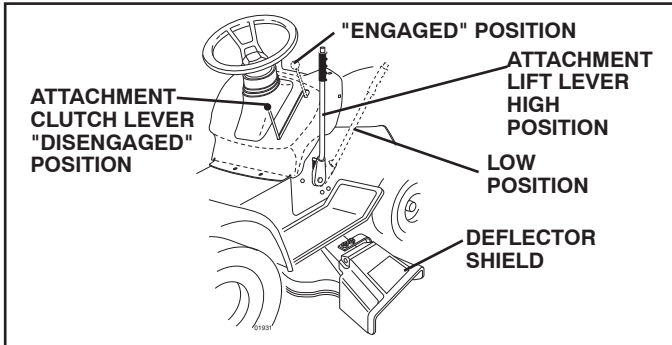


Fig. 7

## 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.

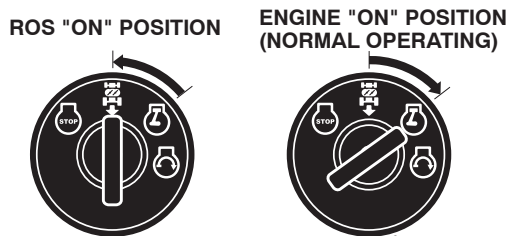


Fig. 8

## TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.

- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

## TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH.

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

## TOWING CARTS AND OTHER ATTACHMENTS

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

## BEFORE STARTING THE ENGINE

### CHECK ENGINE OIL LEVEL

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

### ADD GASOLINE

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



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

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

# OPERATION

**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.

## TO START ENGINE (See Fig. 6)

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

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

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

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

## WARM WEATHER STARTING (50° F/10° C 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/10° C 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/0° C) 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).

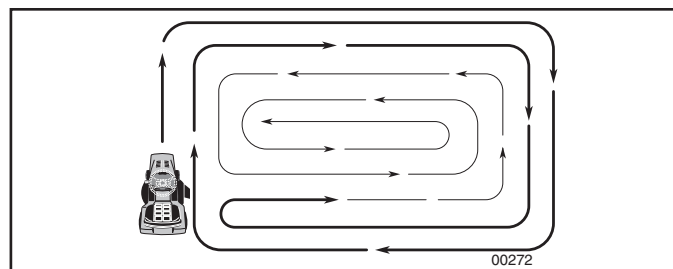


Fig. 9

- 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.

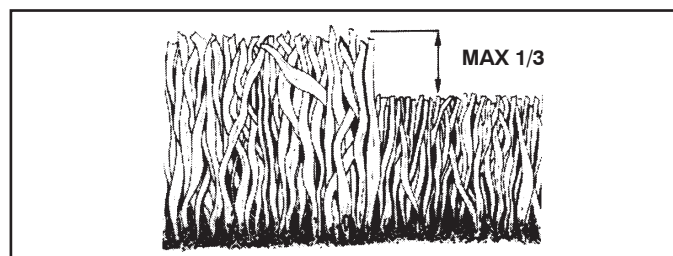


Fig. 10

- 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		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 & ROS Systems	✓						
	Check for Loose Fasteners	✓				✓		✓
	Check/Replace Mower Blades			✓ <sub>3</sub>				
	Lubrication Chart			✓				✓
	Check Battery Level			✓ <sub>4</sub>				
	Clean Battery and Terminals			✓				✓
	Check Transaxle Cooling			✓				
	Check Mower Levelness				✓			
	Check V-Belts					✓		
ENGINE	Check Engine Oil Level	✓	✓					
	Change Engine Oil (with oil filter)				✓ <sub>1,2</sub>			✓
	Change Engine Oil (without oil filter)			✓ <sub>1,2</sub>				✓
	Clean Air Filter			✓ <sub>2</sub>				
	Clean Air Screen			✓ <sub>2</sub>				
	Inspect Muffler/Spark Arrester				✓			
	Replace Oil Filter (If equipped)					✓ <sub>1,2</sub>		
	Clean Engine Cooling Fins					✓ <sub>2</sub>		
	Replace Spark Plug					✓	✓	
	Replace Air Filter Paper Cartridge					✓ <sub>2</sub>		
	Replace Fuel Filter						✓	

1 - Change more often when operating under a heavy load or in high ambient temperatures.  
2 - Service more often when operating in dirty or dusty conditions.

3 - Replace blades more often when mowing in sandy soil.  
4 - Not required if equipped with maintenance-free battery.

## 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.

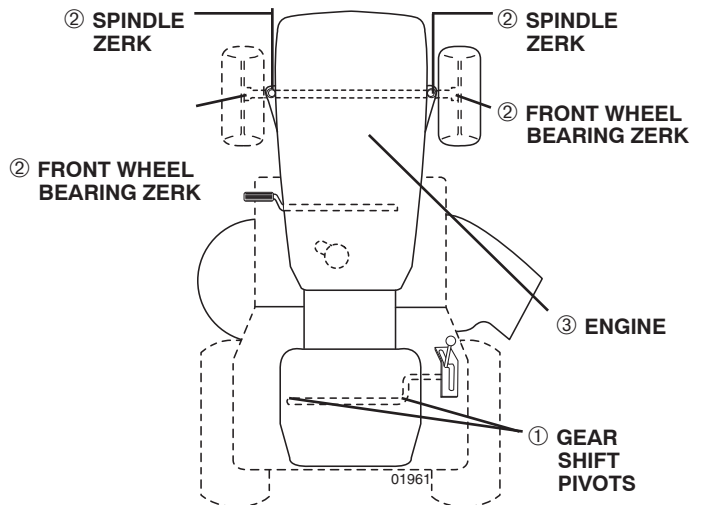
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

- 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.

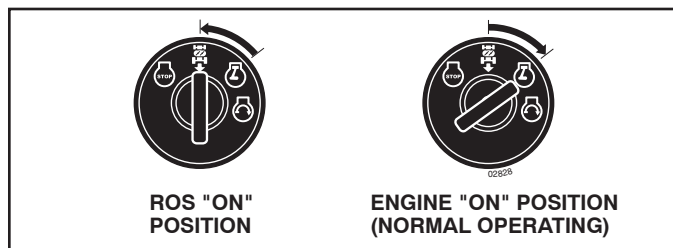


Fig. 11

## 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.

**NOTE:** Protect your hands with gloves and/or wrap blade with heavy cloth.

- Remove blade bolt by turning counterclockwise.
- Install new or resharpened blade with stamped "THIS SIDE UP" facing deck and mandrel assembly.

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

- Install and tighten blade bolt securely (45-55 Ft. Lbs. torque).

**IMPORTANT:** SPECIAL BLADE BOLT HEAT TREATED.

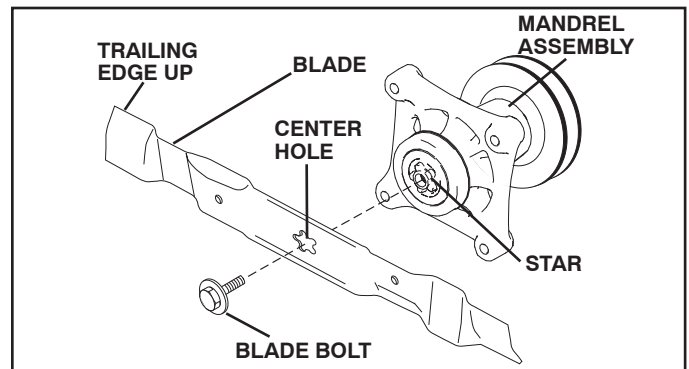


Fig. 12

## 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.

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

# 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.

**\* 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.

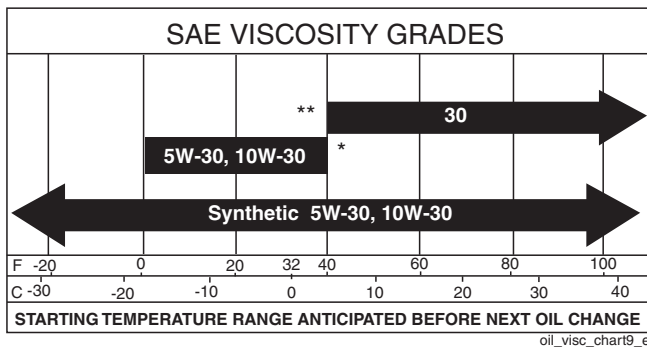


Fig. 13



**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 Fig. 14)

Determine temperature range expected before oil change. All oil must meet API service classification C.

- 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.

**CAUTION:** If engine has been operated for an extended period of time immediately prior to draining oil, oil will be hot.

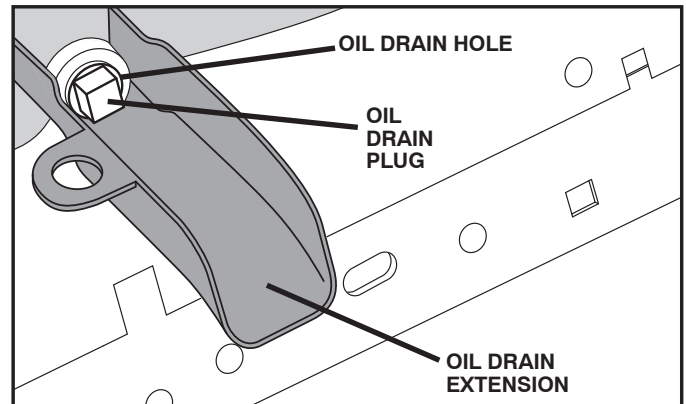


Fig. 14

- Slide oil drain extension under oil drain hole (drain hole may be flush with or protrude from engine block side wall).
- Make sure back face of oil drain extension is flush with engine side wall.
- Make sure bottom lip of oil drain extension is lined up with bottom of oil drain hole.
- Position a container to catch oil directly under front end of oil drain extension.
- Slide a 1/2" (12 point) socket mounted on an extension onto oil drain plug.
- Loosen plug while holding the oil drain extension firmly in place.
- Drain oil into container.
- After oil has drained completely, reinstall oil drain plug. (Do not tighten more than 13 Ft. Lbs.)
- 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.

## ENGINE OIL FILTER

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



# 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.

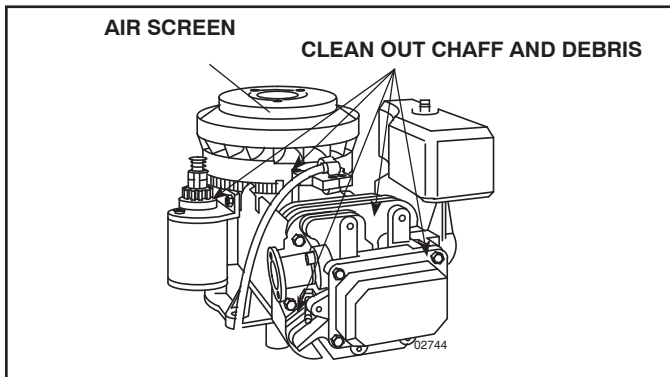


Fig. 15

## 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.

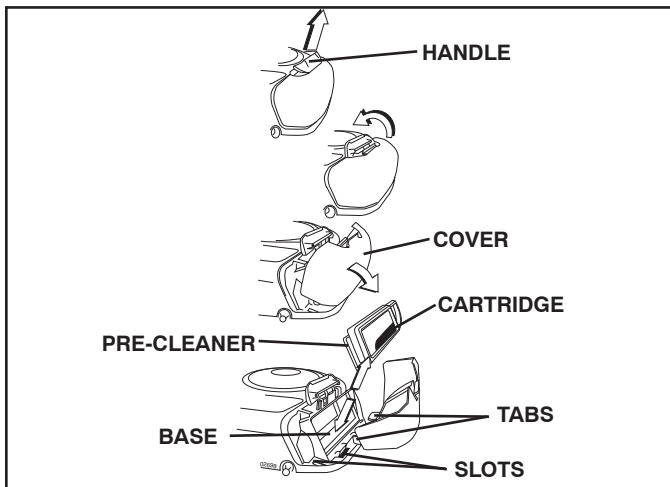


Fig. 16

**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.

**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.

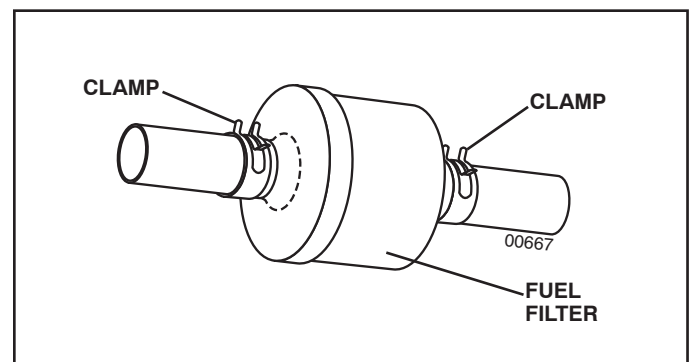


Fig. 17

## 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 (N) position.
- Place attachment clutch in “DISENGAGED” position.
- Turn ignition key to “STOP” and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

## TRACTOR

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

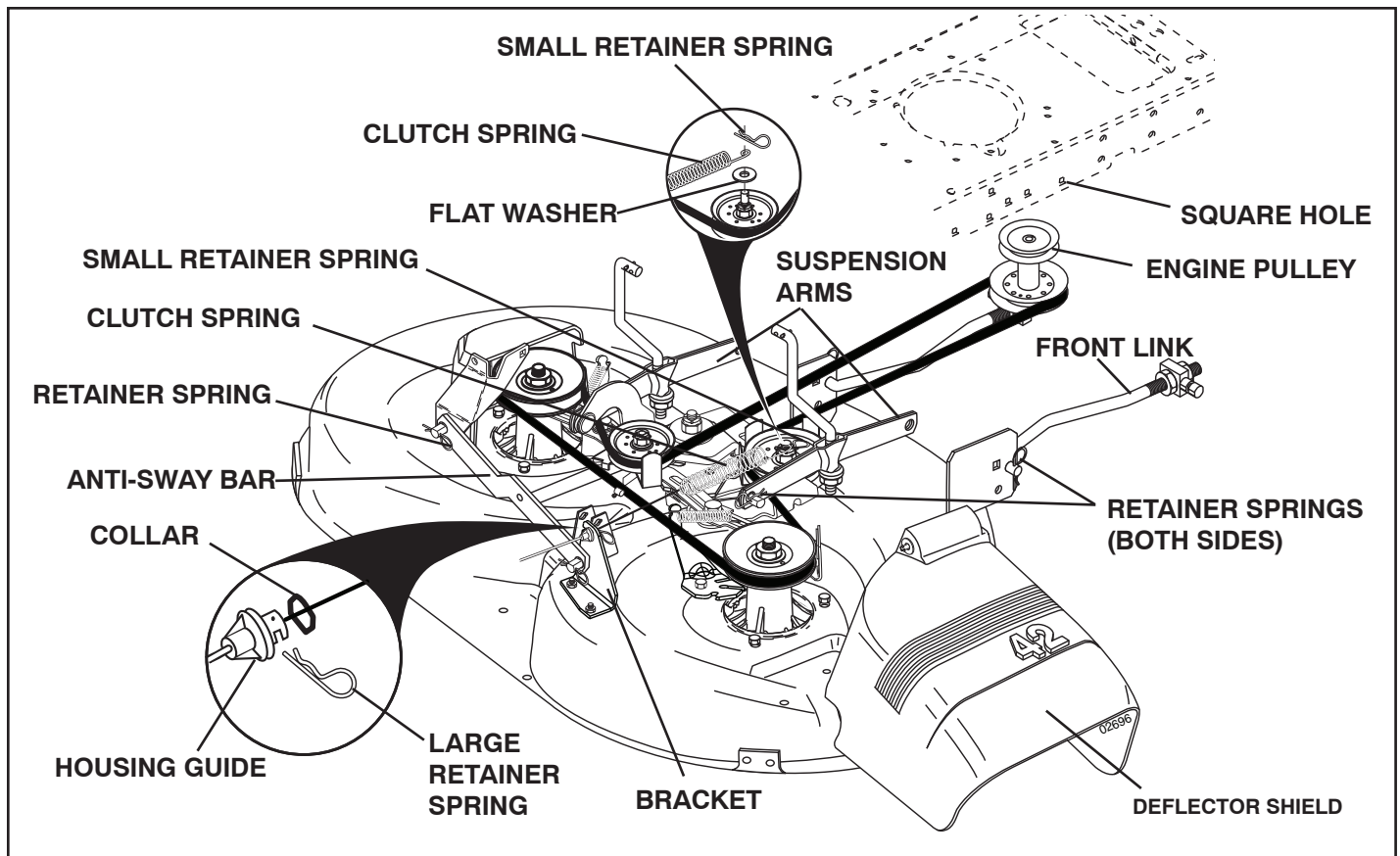


Fig. 18

# SERVICE AND ADJUSTMENTS

- 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 "PRODUCT SPECIFICATIONS" section of this manual). If tires are over or underinflated, you will not properly adjust your mower.

### SIDE-TO-SIDE ADJUSTMENT (See Figs. 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.

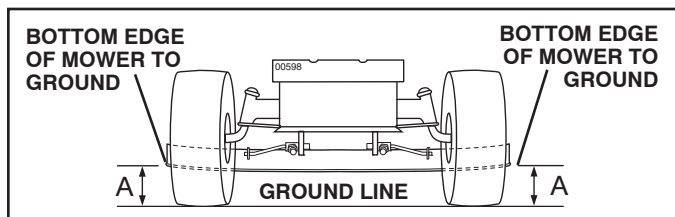


Fig. 19

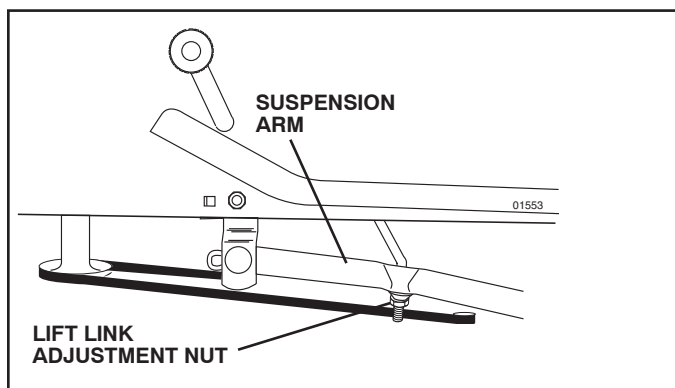


Fig. 20

### 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.

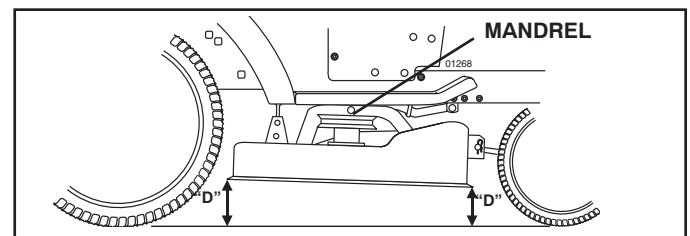


Fig. 21

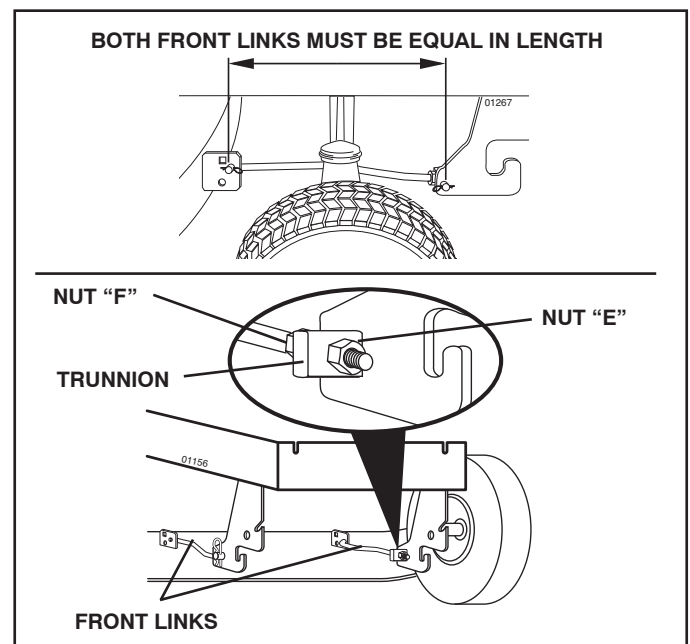


Fig. 22

# SERVICE AND ADJUSTMENTS

## 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.

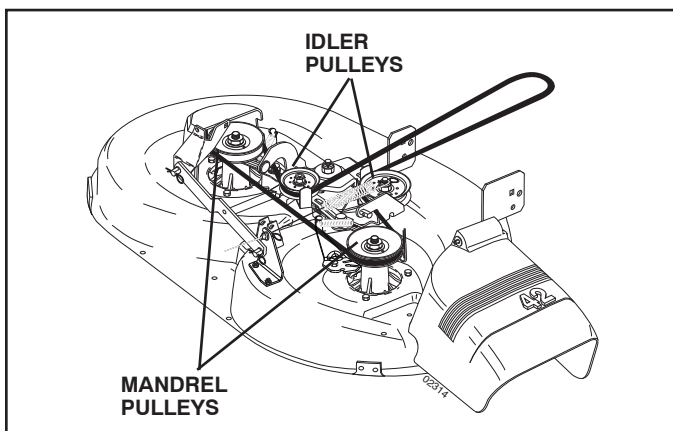


Fig. 23

## 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 (N) 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).

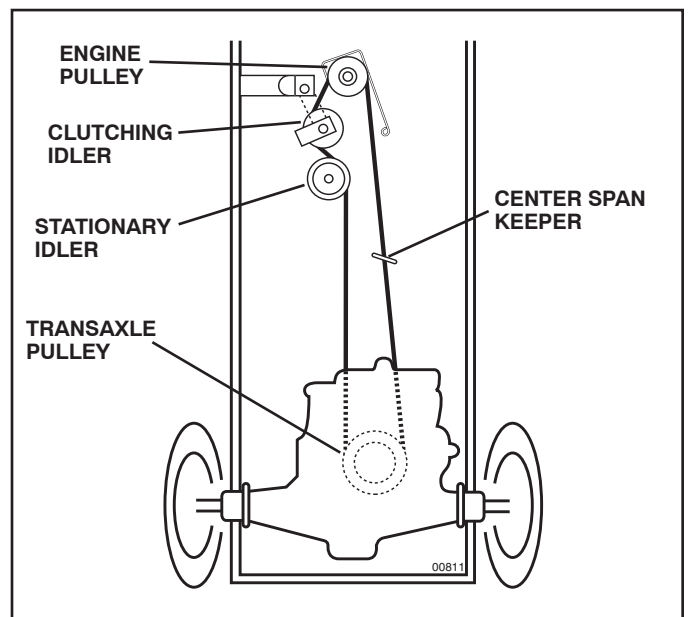


Fig. 24

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

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

- Make sure transaxle is in neutral (N).
- 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 (N) position.
  - Tighten adjustment bolt securely.

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

# SERVICE AND ADJUSTMENTS

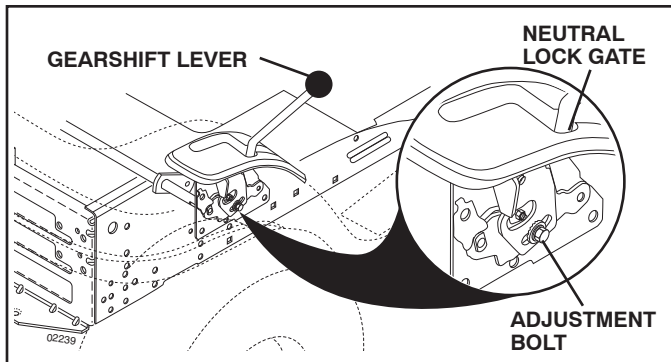


Fig. 25

## TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

## FRONT WHEEL TOE-IN/CAMBER

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

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

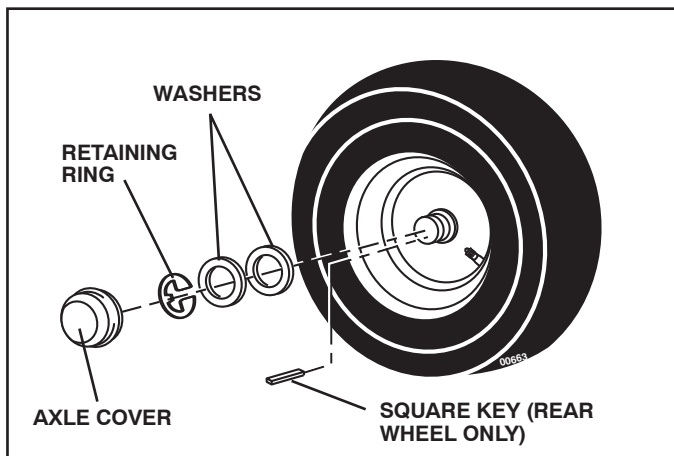


Fig. 26

## 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.

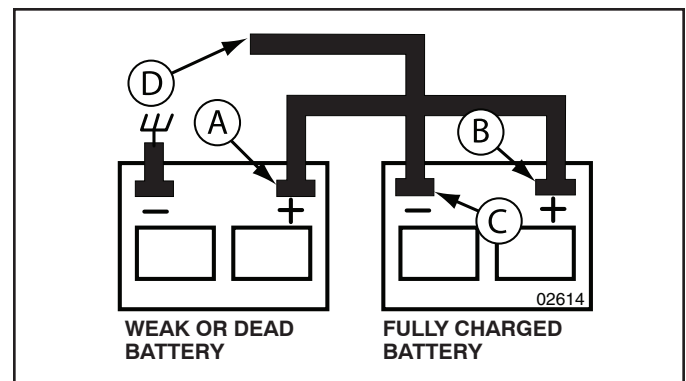


Fig. 27

# 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.

## TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 28)

- 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.

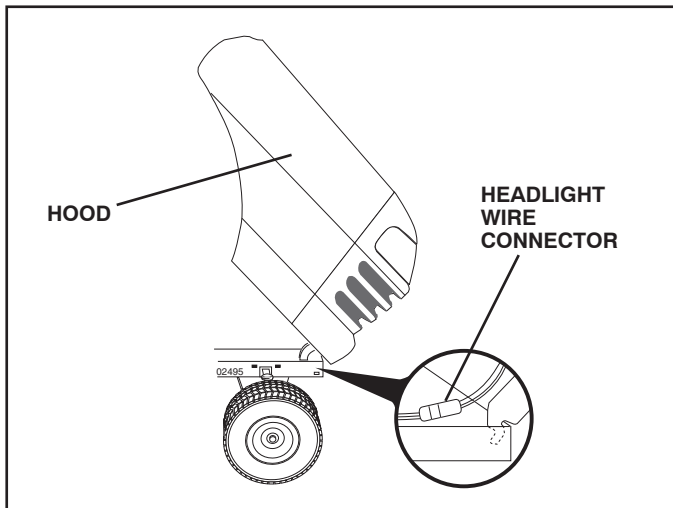


Fig. 28

## ENGINE

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

## TO ADJUST THROTTLE CONTROL CABLE (See Fig. 29)

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.

TO ADJUST CARBURETOR (See Fig. 30)

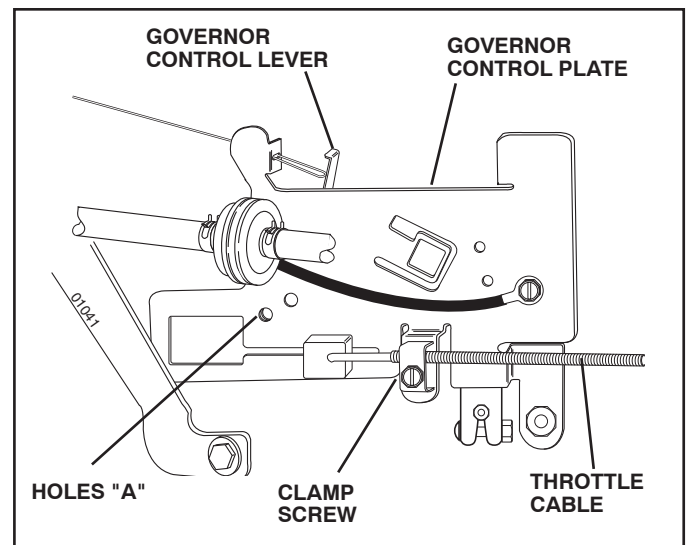


Fig. 29

**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.

# SERVICE AND ADJUSTMENTS

## PRELIMINARY SETTING -

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

## FINAL SETTING -

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

## ACCELERATION TEST -

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

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

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

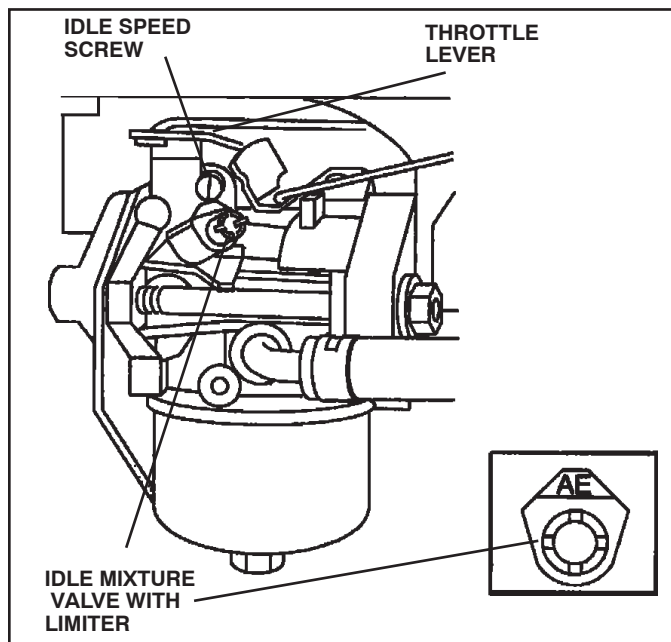


Fig. 30

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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 AREAS ARE STILL WARM.



# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
<b>Will not start</b>	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Engine not "CHOKED" properly.</li> <li>3. Engine flooded.</li> <li>4. Bad spark plug.</li> <li>5. Dirty air filter.</li> <li>6. Dirty fuel filter.</li> <li>7. Water in fuel.</li>   <li>8. Loose or damaged wiring.</li> <li>9. Carburetor out of adjustment.</li>   <li>10. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank.</li> <li>2. See "TO START ENGINE" in Operation section.</li> <li>3. Wait several minutes before attempting to start.</li> <li>4. Replace spark plug.</li> <li>5. Clean/replace air filter.</li> <li>6. Replace fuel filter.</li> <li>7. 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>

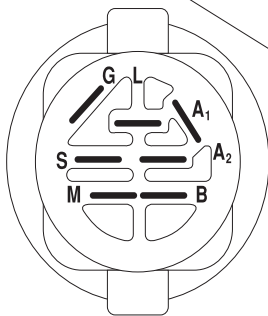
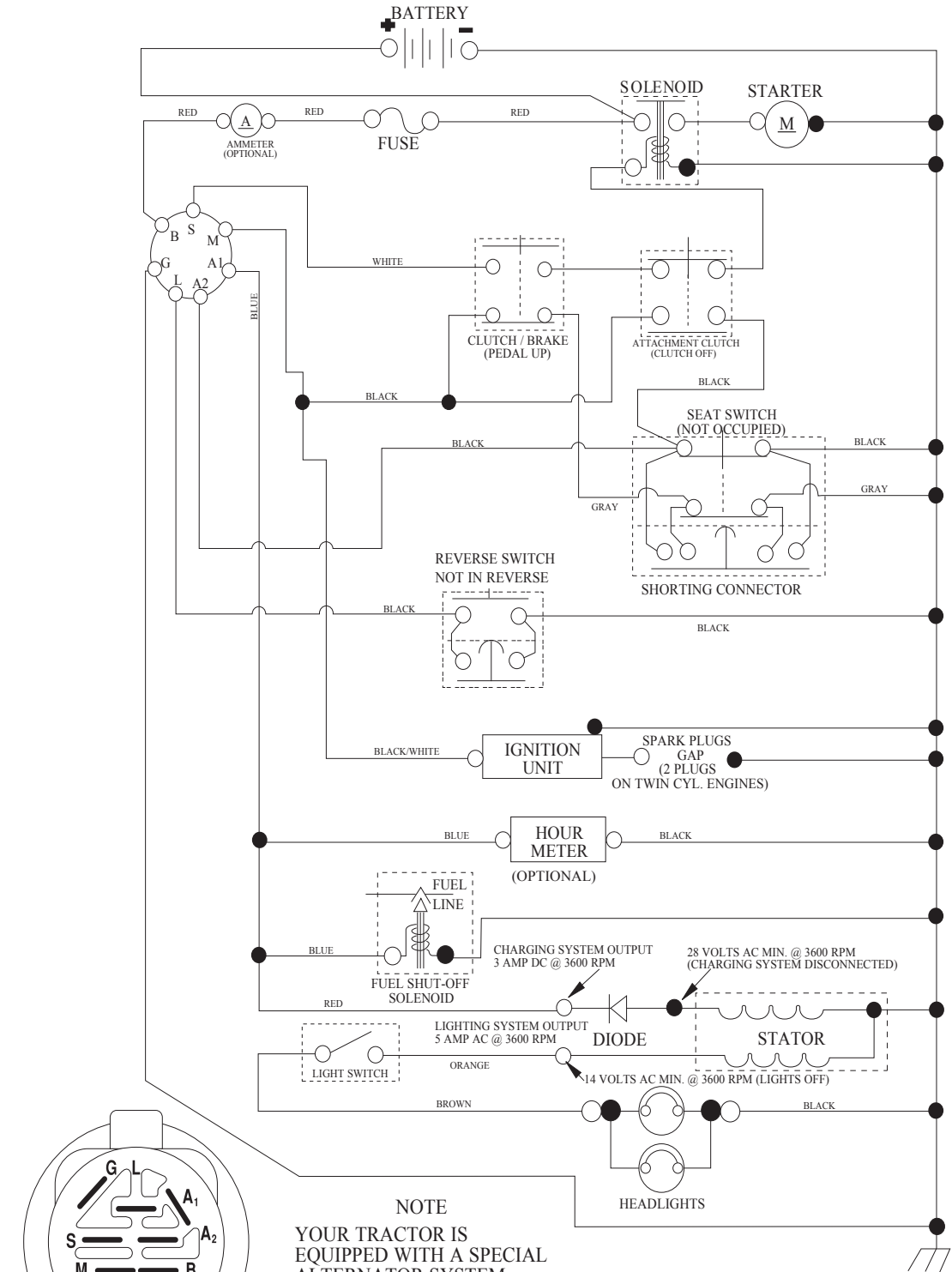
# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
<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>
<b>Engine continues to run when operator leaves seat with attachment clutch engaged</b>	<ol style="list-style-type: none"> <li>1. Faulty operator-safety presence control system.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.</li> </ol>
<b>Poor cut - uneven</b>	<ol style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Mower deck not level.</li> <li>3. Buildup of grass, leaves, or trash under mower.</li> <li>4. Bent blade mandrel.</li> <li>5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Level mower deck.</li> <li>3. Clean underside of mower housing.</li> <li>4. Replace blade mandrel.</li> <li>5. Clean around mandrels to open vent holes.</li> </ol>
<b>Mower blades will not rotate</b>	<ol style="list-style-type: none"> <li>1. Obstruction in clutch mechanism.</li> <li>2. Worn/damaged mower drive belt.</li> <li>3. Frozen idler pulley.</li> <li>4. Frozen blade mandrel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove obstruction.</li> <li>2. Replace mower drive belt.</li> <li>3. Replace idler pulley.</li> <li>4. Replace blade mandrel.</li> </ol>
<b>Poor grass discharge</b>	<ol style="list-style-type: none"> <li>1. Engine speed too slow.</li> <li>2. Travel speed too fast.</li> <li>3. Wet grass.</li> <li>4. Mower deck not level.</li> <li>5. Low/uneven tire air pressure.</li> <li>6. Worn, bent or loose blade.</li> <li>7. Buildup of grass, leaves and trash under mower.</li> <li>8. Mower drive belt worn.</li> <li>9. Blades improperly installed.</li> <li>10. Improper blades used.</li> <li>11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place throttle control in "FAST" position.</li> <li>2. Shift to slower speed.</li> <li>3. Allow grass to dry before mowing.</li> <li>4. Level mower deck.</li> <li>5. Check tires for proper air pressure.</li> <li>6. Replace blade. Tighten blade bolt.</li> <li>7. Clean underside of mower housing.</li> <li>8. Replace mower drive belt.</li> <li>9. Reinstall blades sharp edge down.</li> <li>10. Replace with blades listed in parts manual.</li> <li>11. Clean around mandrels to open vent holes.</li> </ol>
<b>Headlight(s) not working (if so equipped)</b>	<ol style="list-style-type: none"> <li>1. Switch is "OFF".</li> <li>2. Bulb(s) or lamp(s) burned out.</li> <li>3. Faulty light switch.</li> <li>4. Loose or damaged wiring.</li> <li>5. Blown fuse.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn switch "ON".</li> <li>2. Replace bulb(s) or lamp(s).</li> <li>3. Check/replace light switch.</li> <li>4. Check wiring and connections.</li> <li>5. Replace fuse.</li> </ol>
<b>Battery will not charge</b>	<ol style="list-style-type: none"> <li>1. Bad battery cell(s).</li> <li>2. Poor cable connections.</li> <li>3. Faulty regulator (if so equipped).</li> <li>4. Faulty alternator.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Check/clean all connections.</li> <li>3. Replace regulator.</li> <li>4. Replace alternator.</li> </ol>
<b>Loss of drive</b>	<ol style="list-style-type: none"> <li>1. Debris on steering plate (if equipped).</li> <li>2. Motion drive belt worn, damaged, or broken.</li> <li>3. Axle key missing.</li> </ol>	<ol style="list-style-type: none"> <li>1. See "CLEANING" in the maintenance section.</li> <li>2. Replace motion drive belt.</li> <li>3. Install axle key at rear wheel. See "TO REMOVE WHEEL" in the Service and Adjustments section.</li> </ol>
<b>Engine "backfires" when turning engine "OFF"</b>	<ol style="list-style-type: none"> <li>1. Engine throttle control not set between half and full speed (fast) position before stopping engine.</li> </ol>	<ol style="list-style-type: none"> <li>1. Move throttle control between half and full speed (fast) position before stopping engine.</li> </ol>
<b>Engine dies when tractor is shifted into reverse</b>	<ol style="list-style-type: none"> <li>1. Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn ignition key to ROS "ON" position. See Operation section.</li> </ol>

# TRACTOR - - MODEL NUMBER 944.600081

## 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.

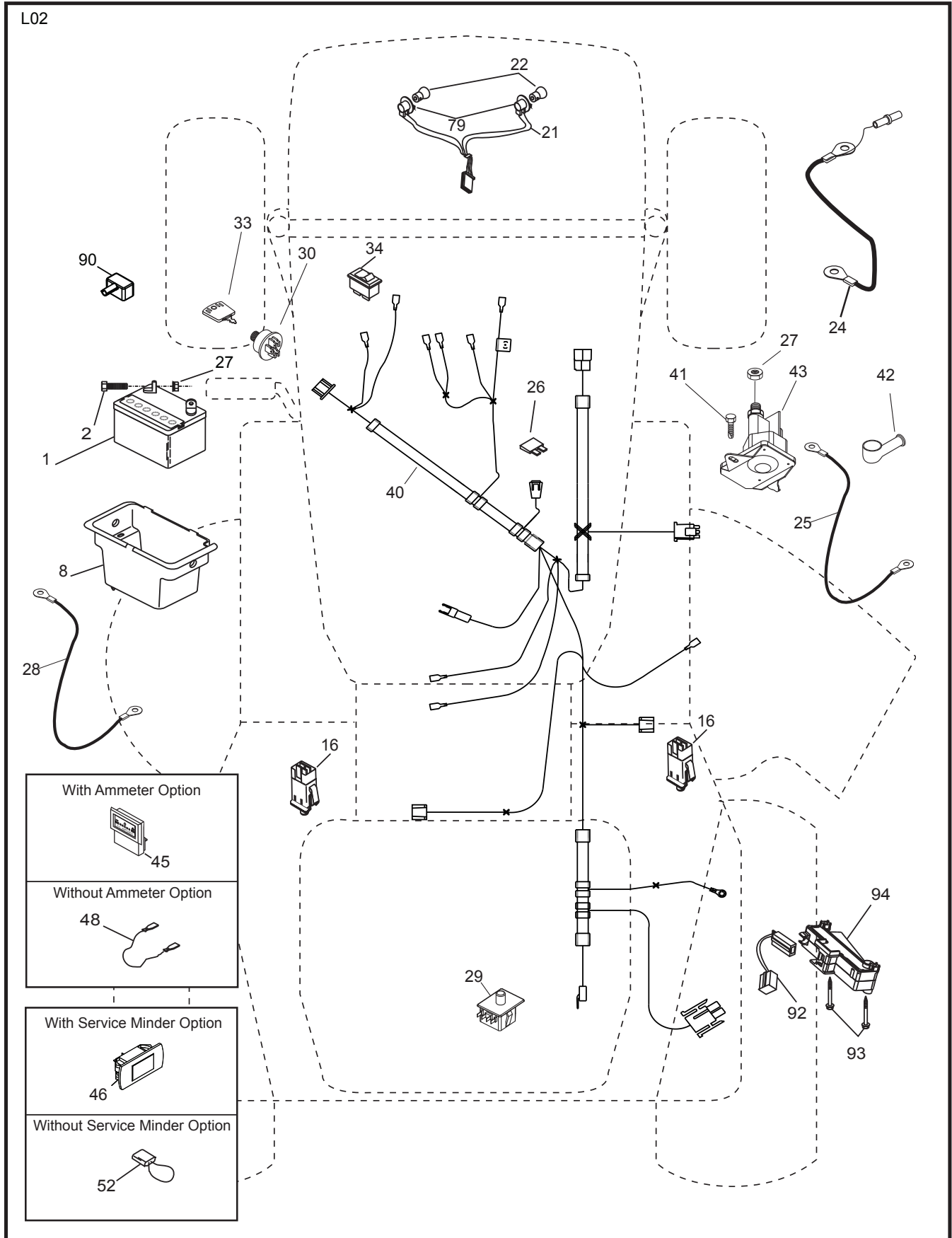
●  
NON-REMOVABLE CONNECTIONS

○  
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 944.600081

## ELECTRICAL



# TRACTOR - - MODEL NUMBER 944.600081

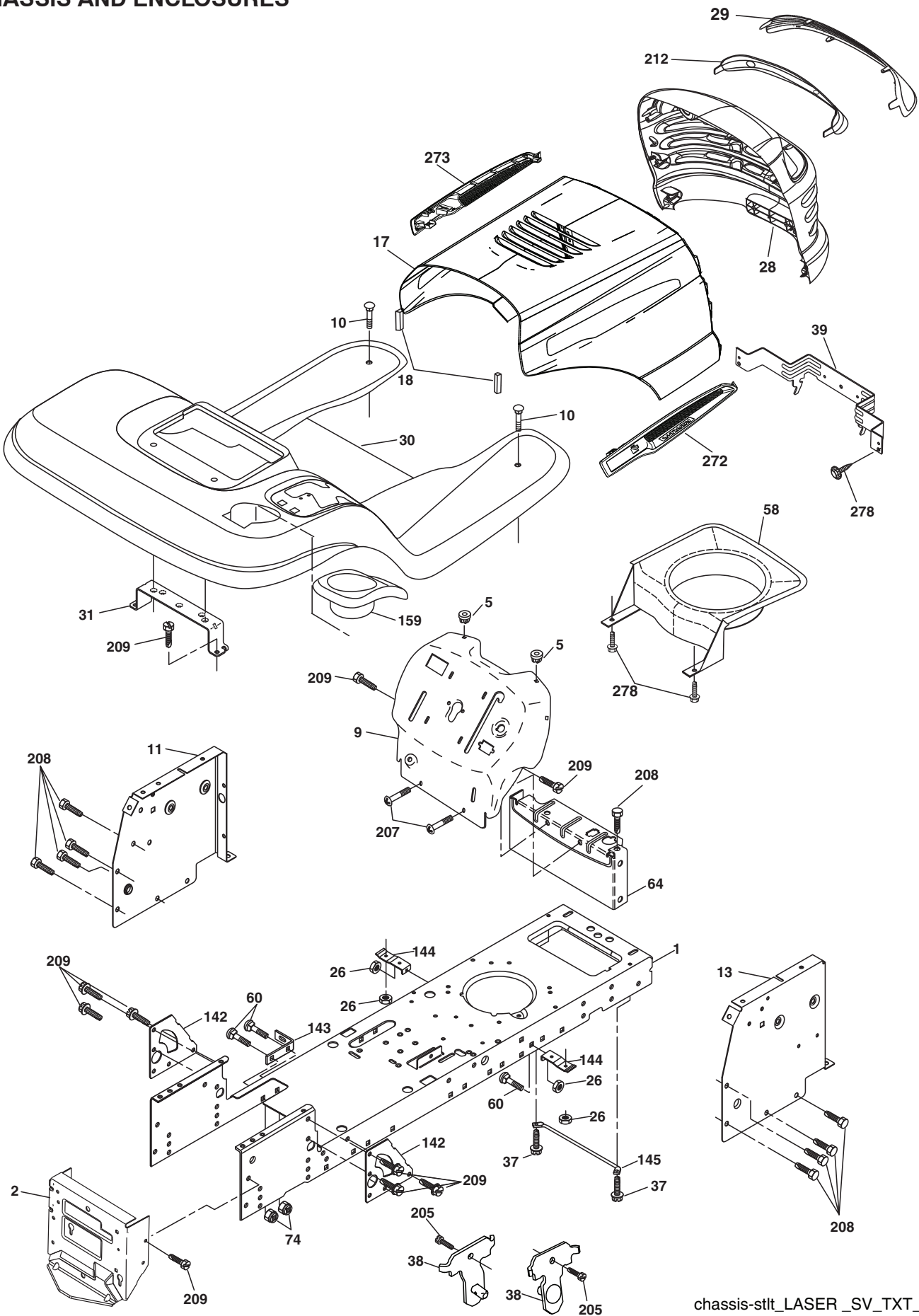
## ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery 12 Volt 28 Amp
2	74760412	Bolt Hex Hd 1/4-20 unc x 3/4
8	176689	Case Battery
16	176138	Switch Interlock Push-In
21	183759	Harness Asm Light W/4152J
22	4152J	Bulb Light #1156
24	421297	Cable Battery 6 Ga. w/16 wire,red
25	421299	Cable Battery 6 Ga. 11"red
26	175158	Fuse 20 AMP
27	73510400	Nut Kep Hex 1/4-20
28	421298	Cable Ground 6 Ga. 12" black
29	192749	Switch Seat
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 unc x 1/2
42	131563	Cover Terminal Red
43	192507	Solenoid
79	175242	Socket Asm. Bulb Twistlock
90	180449	Cover Terminal Battery
92	196615	Harness Pigtail Console ROS
93	192540	Screw Plastite 10-14 x 2.0
94	191834	Module Reverse ROS

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

# TRACTOR - - MODEL NUMBER 944.600081

## CHASSIS AND ENCLOSURES



chassis-stlt\_LASER\_SV\_TXT\_LT

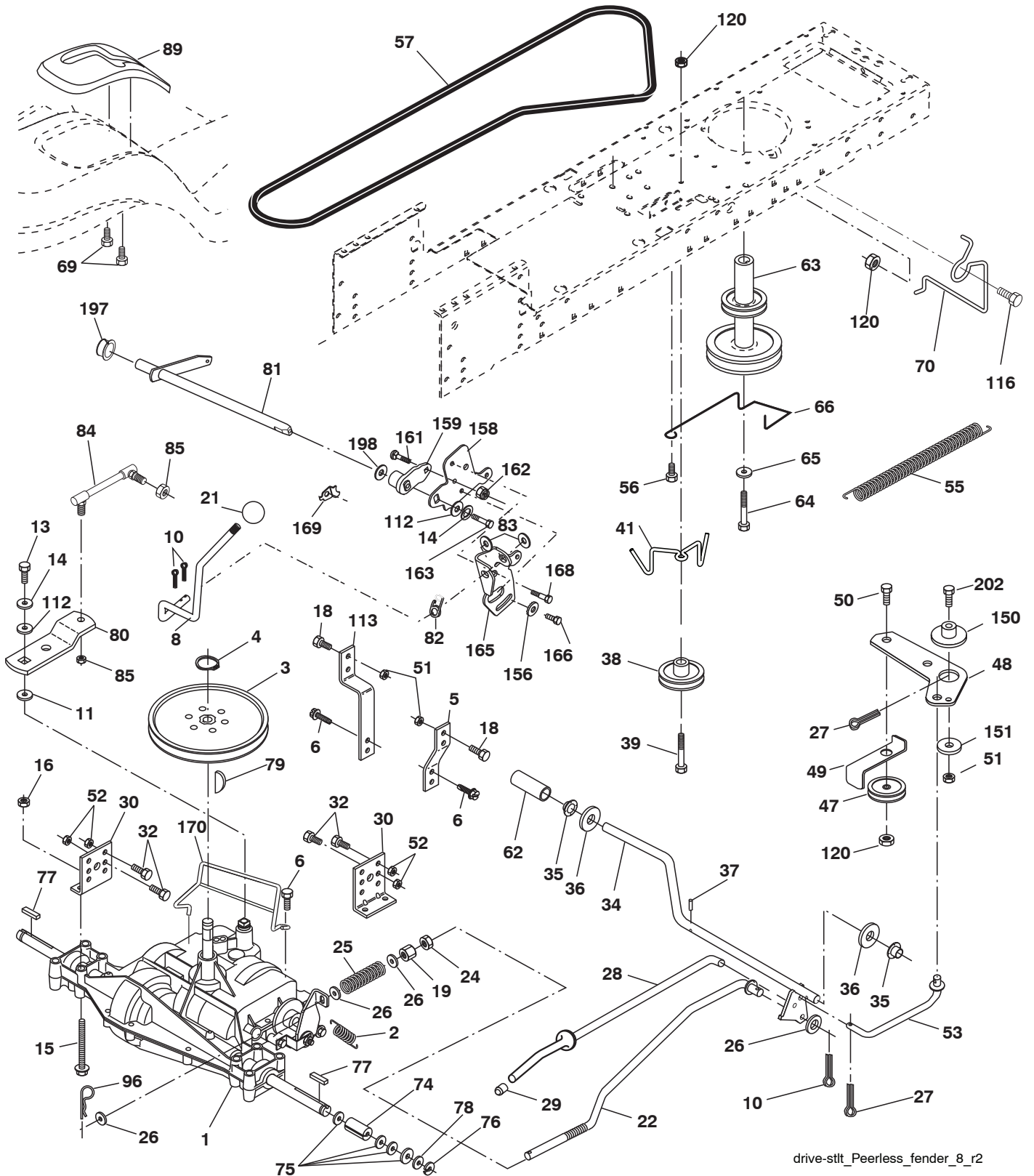
**TRACTOR - - MODEL NUMBER 944.600081**  
**CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION
1	174619	Chassis
2	176554	Drawbar
5	155272	Bumper Hood/Dash
9	428394X014	Dash
10	STD533710	Bolt Rdhd. Sqnk 3/8-16 x 1
11	174996	Panel Dash Lh
13	172105X010	Panel Dash Rh
17	184272X613	Hood
18	184921	Bumper Hood
26	STD541437	Nut Lock Hex W/Ins 3/8-16 unc
28	188461X428	Grille
29	174332X599	Lens Grille
30	192393X613	Fender Footrest
31	139976	Bracket Support Fender
37	17490508	Screw Thdrol 6/16-18 x 1/2 TYT
38	175710	Bracket, Assembly Pivot
39	407807	Bracket Pivot Laser
58	184270	Duct Air Intake
60	STD533707	Bolt Rdhd Sqnk 3/8-16 unc x 3/4
64	154798	Dash Lower STLT
74	STD541437	Nut Crownlock 3/8-16 unc
142	175702	Plate Reinforcement STLT
143	186689	Bracket Swaybar Chassis
144	175582	Bracket Pnt Footrest STLT
145	409167	Rod Pivot Chassis/Hood
159	155123X428	Cup holder
205	17490608	Screw Thdrol 3/8-16 x 1/2
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 Thdr. 3/8-16 x 3/4
212	175143	Insert Lens Reflective
272	184269X428	Vent Hood RH
273	184268X428	Vent Hood LH
278	416358	Screw #10 x 0.750 BOS THREAD
--	5479J	Plug Button
--	187801	Plug Dome

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

# TRACTOR - - MODEL NUMBER 944.600081

## DRIVE



drive-sttt\_Peerless\_fender\_8\_r2



# TRACTOR - - MODEL NUMBER 944.600081

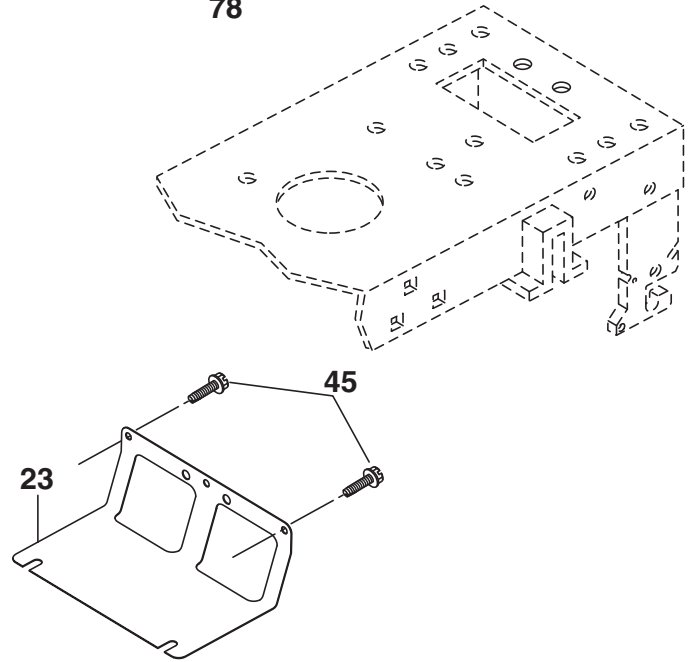
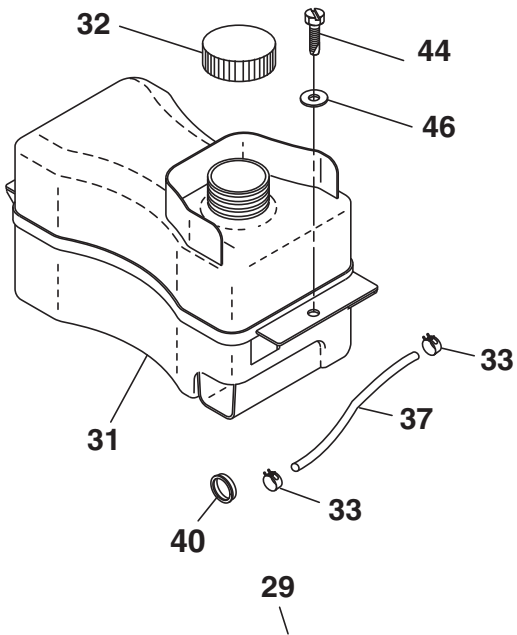
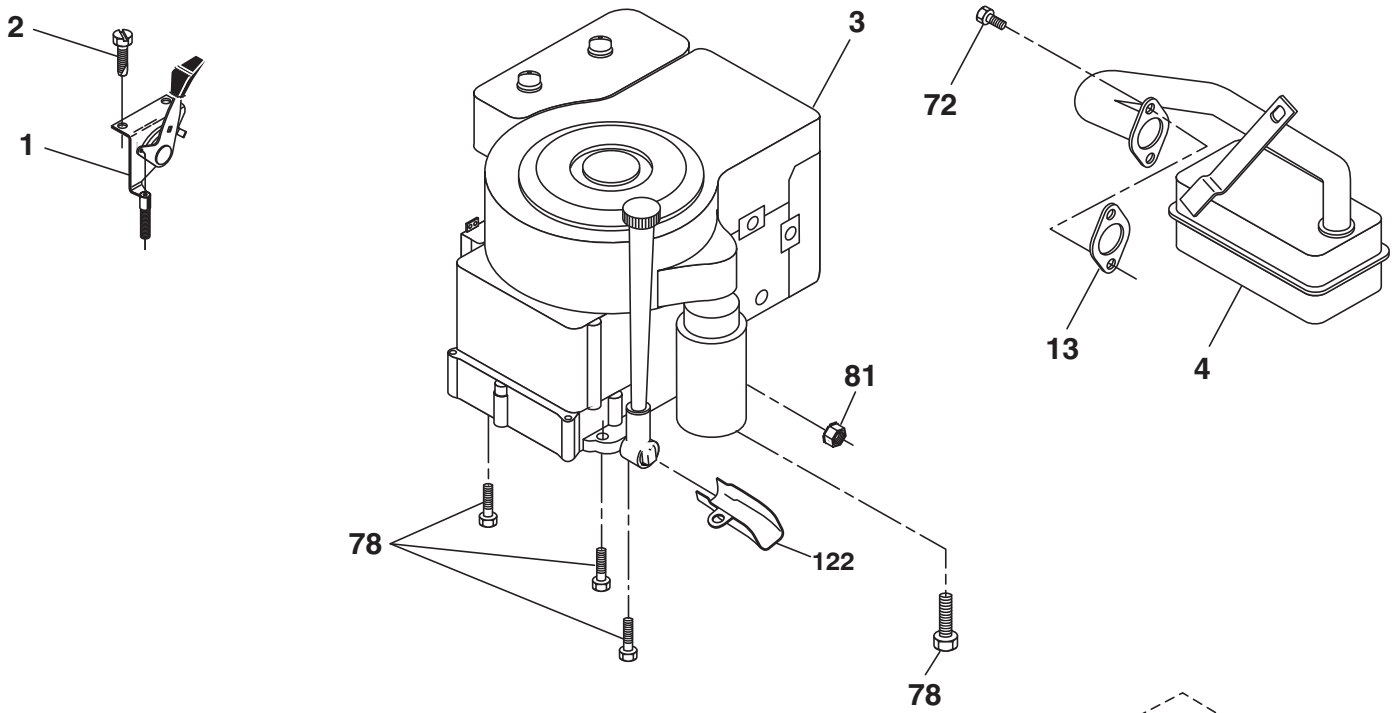
## DRIVE

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1	----- Transaxle Peerless 206-545C (See Transaxle Breakdown)	64	173937 Bolt Hex
2	146682 Spring Return Brake T/a Zinc	65	STD551143 Washer Lock Hvy Hlcl Spr 7/16
3	123666X Pulley Transaxle 18" tires	66	154778 Keeper Belt Engine Foolproof
4	12000028 Ring Retainer # 5100-62	69	142432 Screw
5	121520X Strap Torque 30 Degrees	70	134683 Guide Belt Mower Drive RH
6	17060512 Screw Thdrol 5/16-18 x 3/4 TYT	74	137057 Spacer
8	192502 Rod Shift Fender Adjust LT	75	121749X Washer 25/32 x 1 1/4 x 16 Ga.
10	STD561210 Pin Cotter 1/8 x 1 Cad	76	STD581075 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 1/4	79	2228M Key Woodruff
15	74490544 Bolt Hex 5/16-18 Gr. 5	80	131486 Arm Shift
16	STD541431 Nut Lock Hx w/Ins 5/16-18 unc	81	165594 Shaft Asm Cross
18	STD523710 Bolt, Fin Hex 3/8-16 unc x 1 Gr. 5	82	165711 Spring Torsion T/a
19	STD541437 Nut Lock 3/8-16 unc	83	19171216 Washer 17/32 x 3/4 x 16 Ga.
21	106933X Knob	84	166228 Link Transaxle
22	130804 Rod Brake Blk Zinc 26 840	85	150360 Nut Lock Center 1/4 - 28 FNTHD
24	STD541237 Nut Hex Jam 3/8-16 unc	89	192388X428 Console Shift STLT
25	106888X Spring Rod Brake 2 00 Zinc	96	4497H Retainer Spring
26	STD551037 Washer 13/32 x 13/16 x 16 Ga.	112	19091210 Washer 9/32 x 3/4 x 10 Ga.
27	STD561210 Pin Cotter 1/8 x 3/4 Cad	113	127285X Strap Torque LH
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 Bushing Retainer
32	STD523107 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 5/16 ID x 1 x .125
35	120183X Bearing Nylon Blk 629 Id	158	165589 Bracket Shift Mount
36	STD551062 Washer 21/32 x 1 x 16 Ga.	159	183900 Hub Tapered Flange Shift LT
37	STD571810 Pin Roll 3/16 x 1"	161	72140406 Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr. 5
38	179114 Pulley Idler Flat	162	73680400 Nut Crownlock 1/4-20 unc
39	72110622 Bolt 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 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 LT
50	72110612 Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5	170	187414 Keeper Belt Transaxle
51	STD541437 Nut Crownlock 3/8-16 unc	197	169613 Nyliner Snap-In
52	STD541431 Nut Crownlock 5/16-18 unc	198	169593 Washer Nyliner
53	199652 Link Clutch	202	72110614 Bolt 3/8-16 x 1-3/4 Gr. 5
55	105709X Spring Return Clutch 6 75		
56	17060620 Screw 3/8-16 x 1-1/4		
57	138255 V-Belt Ground Drive		
62	8883R Cover Pedal Blk Round		
63	175410 Engine Pulley LT/YT		

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

# TRACTOR - - MODEL NUMBER 944.600081

## ENGINE



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

engine-stlt\_bs\_14

# TRACTOR - - MODEL NUMBER 944.600081

## ENGINE

KEY NO.	PART NO.	DESCRIPTION
1	170545	Control Throttle/Choke
2	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
3	-----	Engine B&S, Model 31C707-1346-B1 (See Breakdown)
4	137352	Muffler Exhaust B&s Lt
13	165291	Gasket
23	169837	Shield Browning
29	137180	Arrestor Spark
31	407516	Tank Fuel 1 25 Fr
32	430220	Cap Asm Fuel Top
33	123487X	Clamp Hose Blk
37	137040	Line Fuel 20"
40	124028X	Bushing Snap Nyl Blk Fuel Line
44	17670412	Screw Hexwsh Thdrol 1/4-20 x 3/4
45	17000612	Screw Hex Wsh Thdrol 3/8-16 x 3/4
46	19091416	Washer 9/32 x 7/8 x 16 Ga.
72	192334	Screw Socket HD 5/16-18 x 3/4
78	17060620	Screw 3/8-16 x 1-1/4
81	73510400	Nut Keps Hex 1/4-20 unc
122	421922	Extension Drain Oil

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

For engine service and replacement parts, call the toll free number for your engine manufacturer listed below:

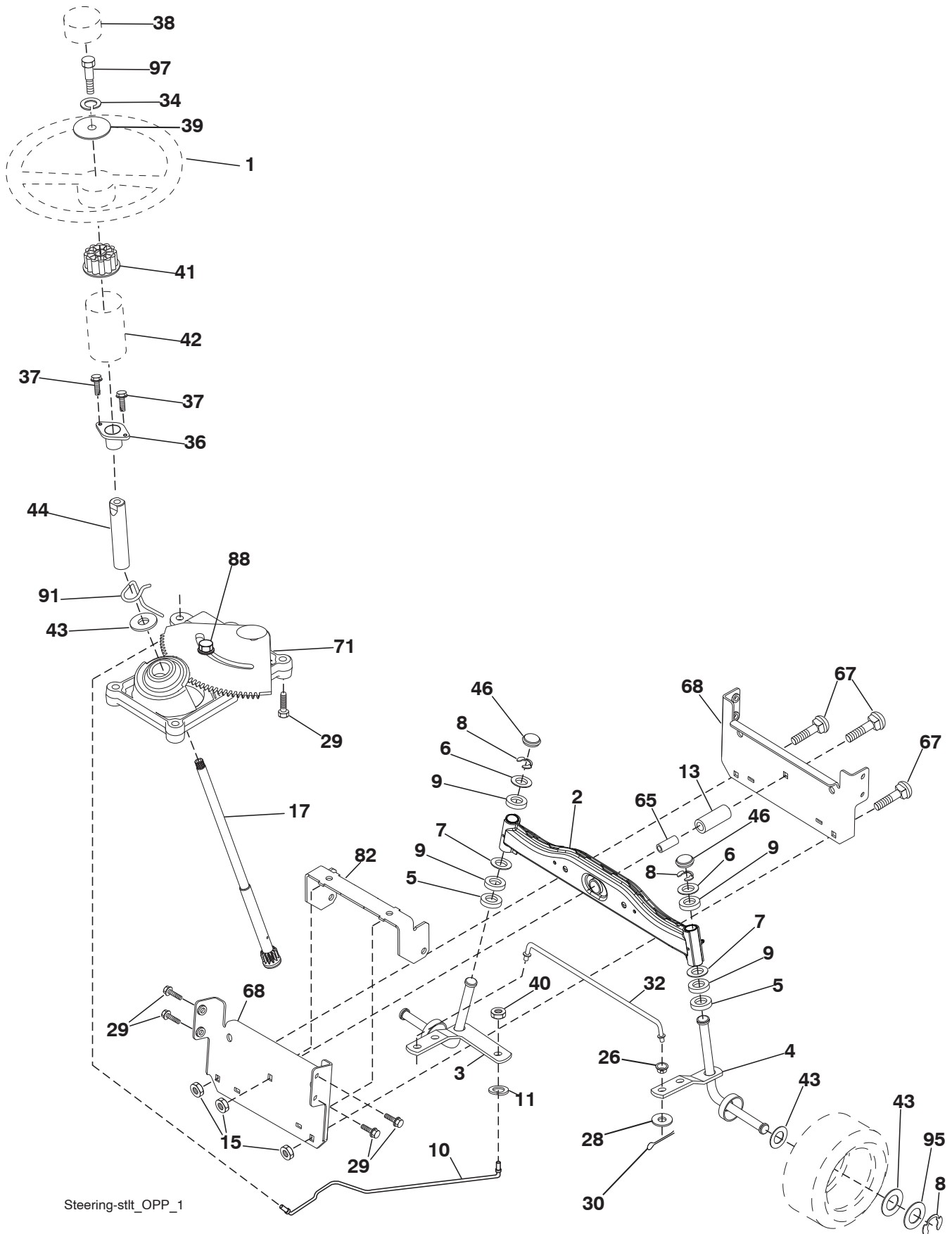
Briggs & Stratton            1-800-233-3723

### Engine Power Rating Information

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-05). Torque values are derived at 3060 RPM; horsepower values are derived at 3600 RPM. 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 power). 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 944.600081

## STEERING ASSEMBLY



Steering-stltt\_OPP\_1

# TRACTOR - - MODEL NUMBER 944.600081

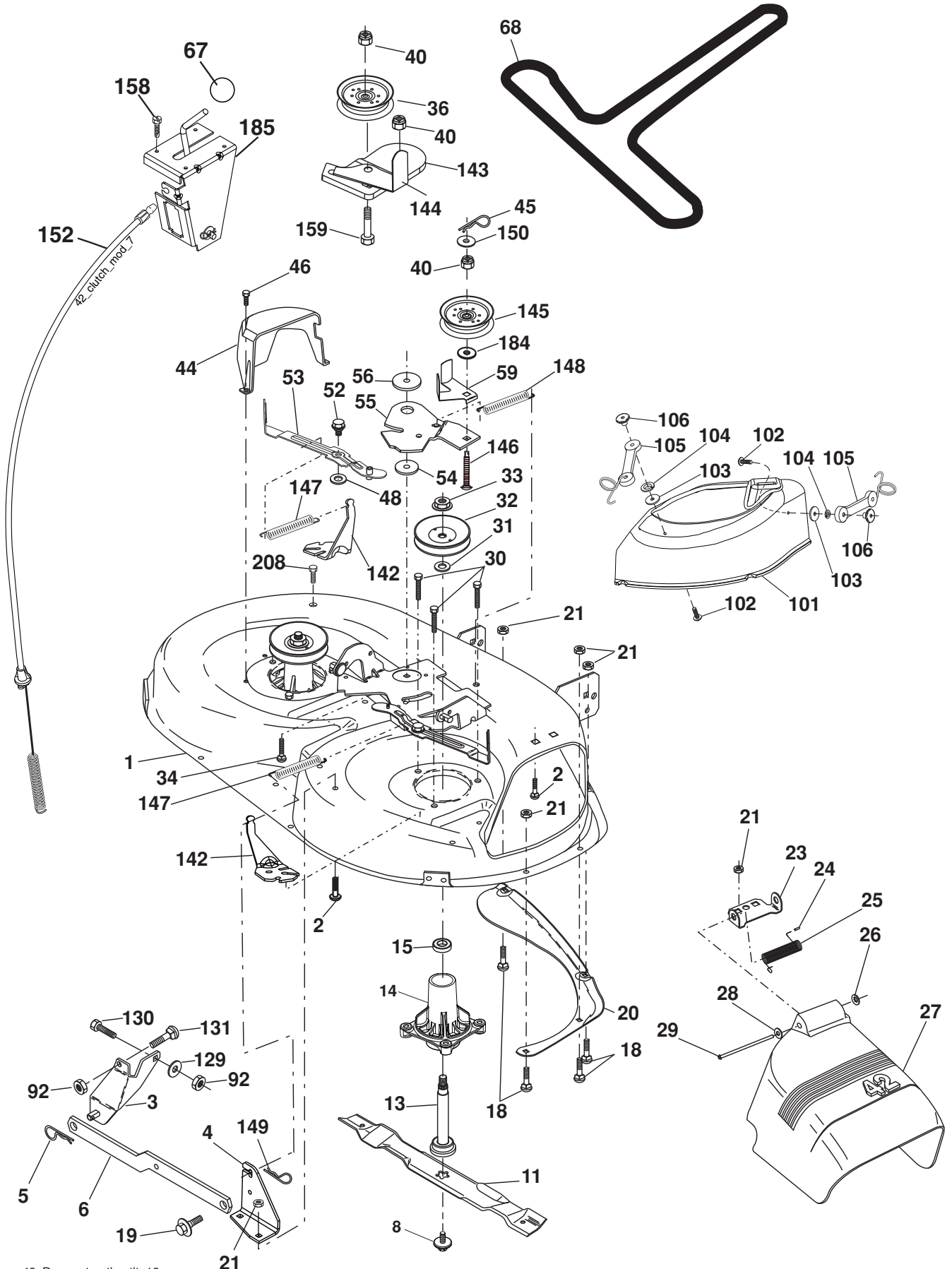
## STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	186780	Wheel Steering
2	418168	Axle Asm Welded LT/STL
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 Extended Stamp
11	STD551137	Washer Lock Hvy Hlcl Spr 3/8
13	136518	Spacer Bearing Axle
15	73900600	Nut Flange 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	STD561210	Pin Cotter 1/8 x 3/4 Cad
32	192757	Rod Tie Wire Form 19 75 Mech
34	10040500	Washer Lock 5/16
36	155099	Bushing Strg
37	152927	Screw
38	186781	Insert Cap Strg Wh Au
39	19113812	Washer 11/32 ID x 2-3/8 OD x 12 Ga.
40	73540600	Lock nut
41	186737	Adaptor Wheel Strg
42	145054X428	Boot Steering Shaft
43	121749X	Washer 25/32 x 1 1/4 x 16 Ga.
44	190752	Extension Steering Shaft LR/LT
46	121232X	Cap Spindle Fr Top Blk
65	414736	Spacer Brace Axle
67	72110618	Bolt Rdhd Sq 3/8-16 x 2-1/4
68	169827	Axle, Brace
71	175146	Steering Asm
82	199978	Bracket
88	175118	Bolt Shoulder 7/16-20 unc
91	175553	Clip Steering
95	188967	Washer Hardened
97	428982	Bolt 5/16-18 x 4

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

# TRACTOR - - MODEL NUMBER 944.600081

## MOWER DECK



42\_D\_man-t-path\_stlt\_16

# TRACTOR - - MODEL NUMBER 944.600081

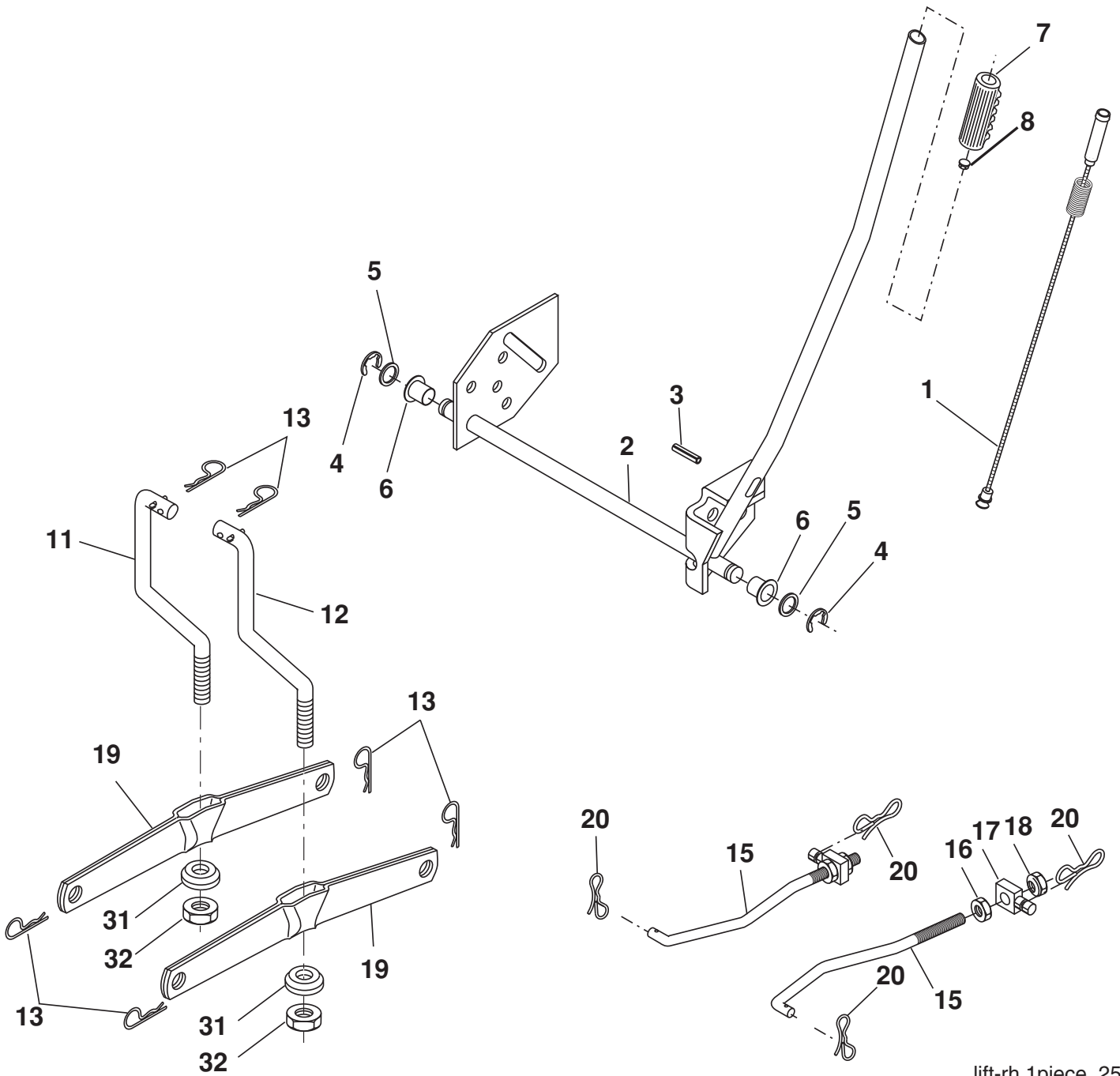
## MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	165892	Mower Deck Assembly, 42"	52	139888	Bolt, Shoulder 5/16-18 unc
2	STD533107	Bolt RDHD SQNK 5/16-18 unc x 3/4	53	184907	Arm Assembly, Pad, Brake
3	138017	Bracket Assembly, Sway Bar, Front	54	178515	Washer, Hardened
4	165460	Bracket Sway Bar 38/42" Deck	55	155046	Arm, Idler
5	STD624008	Retainer Spring	56	165723	Spacer, Retainer
6	178024	Bar, Sway Deck	59	141043	Guard, TUV Idler
8	193003	Bolt/Washer Asm. 7/16-20 unf (The following blades are available)	67	149846	Knob Custom Oval
11	134149	Blade, 42" Mulching Std (For mulching mowers only)	68	144959	V-Belt
--	424752	Blade, 42SP" 3N1	92	STD541437	Nut
--	139775	Blade, 42" Mulching Premium	101	193107	Cover Mulching
--	422719	Blade, 42SP" 3N Premium (For better wear when mulching)	102	71081010	Screw 10-24 x 5/8
--	138971	Blade, 42" Hi-Lift (For bagging or discharging)	103	19061216	Washer #10
13	192872	Shaft Asm. Mandrel	104	10071000	Washer Lock #10
14	187281	Housing, Mandrel	105	160793	Latch Asm.
15	110485X	Bearing, Ball, Mandrel	106	2029J	Nut Weld
18	72140505	Bolt, Carriage 5/16-18 x 5/8	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
19	132827	Bolt, Shoulder	130	STD523710	Bolt, Fin Hex 3/8-16 unc x 1 Gr. 5
20	159770	Baffle, Vortex	131	STD533710	Bolt, Rdhd Sqnk 3/8-16 unc x 1
21	STD541431	Nut Crownlock 5/16-18 unc	142	195784	Arm Spring Brake Mower
23	177563	Bracket, Deflector	143	157109	Bracket Arm Idler 42"
24	105304X	Cap, Sleeve	144	158634	Keeper Belt 42" Clutch Cable
25	123713X	Spring, Torsion, Deflector	145	165888	Pulley Idler Flat
26	110452X	Nut, Push	146	171977	Bolt Carriage Idler
27	130968X428	Shield, Deflector	147	131335	Spring Extension
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	148	169022	Spring Return Idler
29	131491	Rod, Hinge	149	165898	Retainer Spring Yellow Zinc
30	173984	Screw Thdrol DOD PT Hex	150	19091210	Washer 9/32 x 3/4 x 10 Ga.
31	187690	Washer, Spacer	152	169676	Cable Clutch 42 In
32	153535	Pulley, Mandrel	158	17720408	Screw Hex Thd Cut 1/4-20 x 1/2
33	400234	Nut, Toplock, Flanged	159	72140614	Bolt Rdhd Sqn 3/8-16 unc x 1-3/4
34	STD533717	Bolt RDHD 3/8-16 x 1-1/2 Gr. 5	184	19131410	Washer 13/32 x 7/8 x 10 Ga.
36	131494	Pulley, Idler, Flat	185	188234	Head Asm Cable Clutch
40	73900600	Nut Lock 3/8-16 unc	208	17670608	Screw THDROL 3/8-16 x 1/2
44	140088	Guard, Mandrel, L.H.	--	192870	Mandrel Assembly (Includes housing, shaft assembly, and bearing only - pulley/nut/washer and blade bolt/ washers not included)
45	STD624003	Retainer	--	419884	Replacement Mower, Complete
46	137729	Screw, Thd. Roll 1/4-20 x 5/8			
48	133944	Washer, Hardened			

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

# TRACTOR - - MODEL NUMBER 944.600081

## MOWER LIFT



lift-rh.1piece\_25



# TRACTOR - - MODEL NUMBER 944.600081

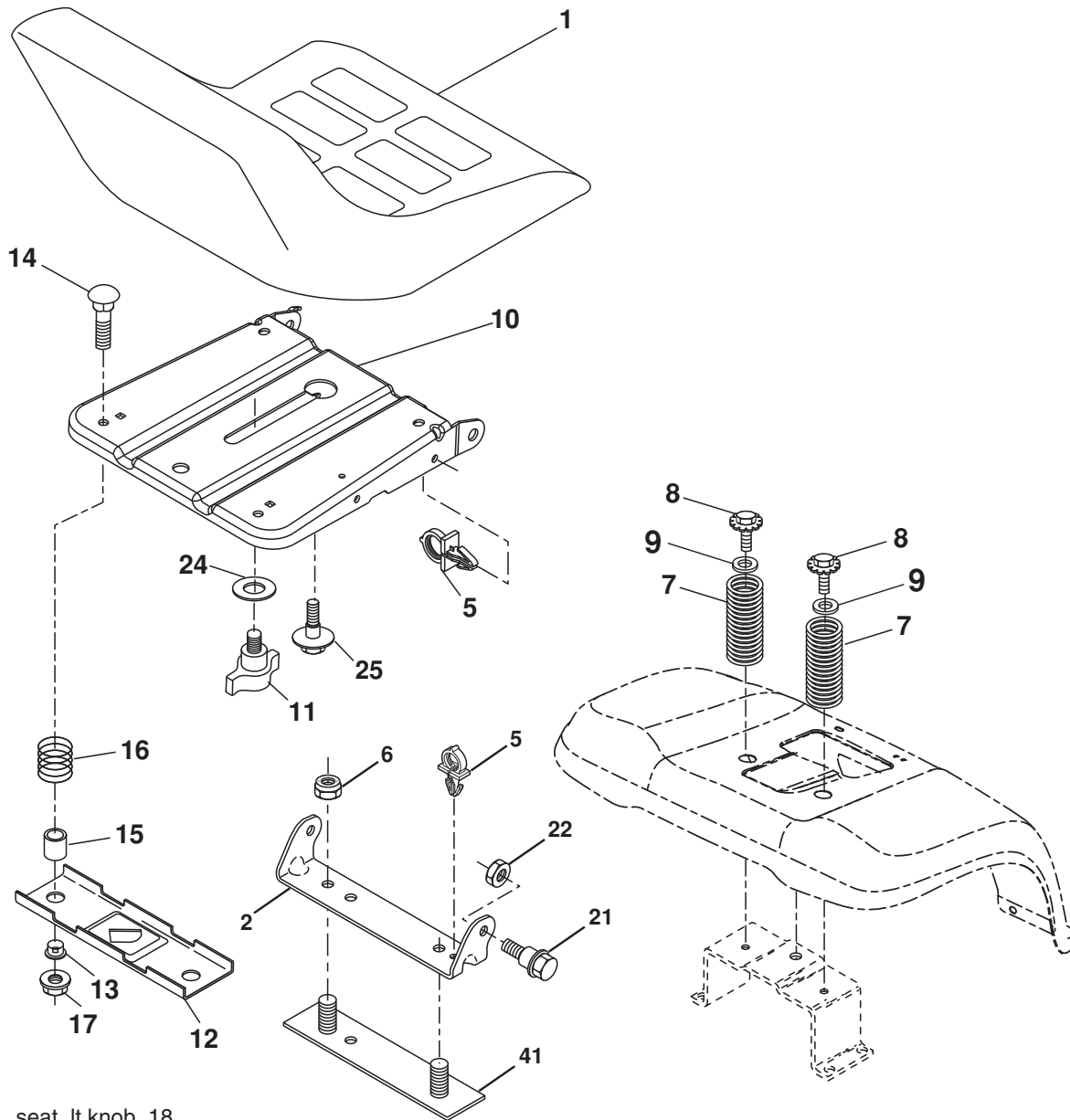
## MOWER LIFT

KEY NO.	PART NO.	DESCRIPTION
1	404981	Plunger Asm. Lift LVR
2	159471	Shaft Asm Lift
3	105767X	Pin Groove
4	STD581062	E Ring
5	19211621	Washer 29/32 x 1-1/4 x 21 Ga.
6	120183X	Bearing Nylon Blk .629 ID
7	125631X	Grip Handle Fluted
8	122365X	Button, Plunger
11	139865	Link Lift LH Fixed Length
12	139866	Link Lift RH Fixed Length
13	STD624008	Retainer Spring
15	173288	Link Front
16	73350800	Nut Jam Hex 1/2-13 unc
17	175689	Trunnion Blk Zinc
18	73800800	Nut Lock W/Wsh 1/2-13 unc
19	139868	Arm Suspension Rear
20	194209	Pin Cottor 7/16 Bowtie Lock
31	169865	Bearing Pvt. Lift
32	73540600	Nut Lock 3/8-24

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

# TRACTOR - - MODEL NUMBER 944.600081

## SEAT ASSEMBLY



seat\_lt.knob\_18

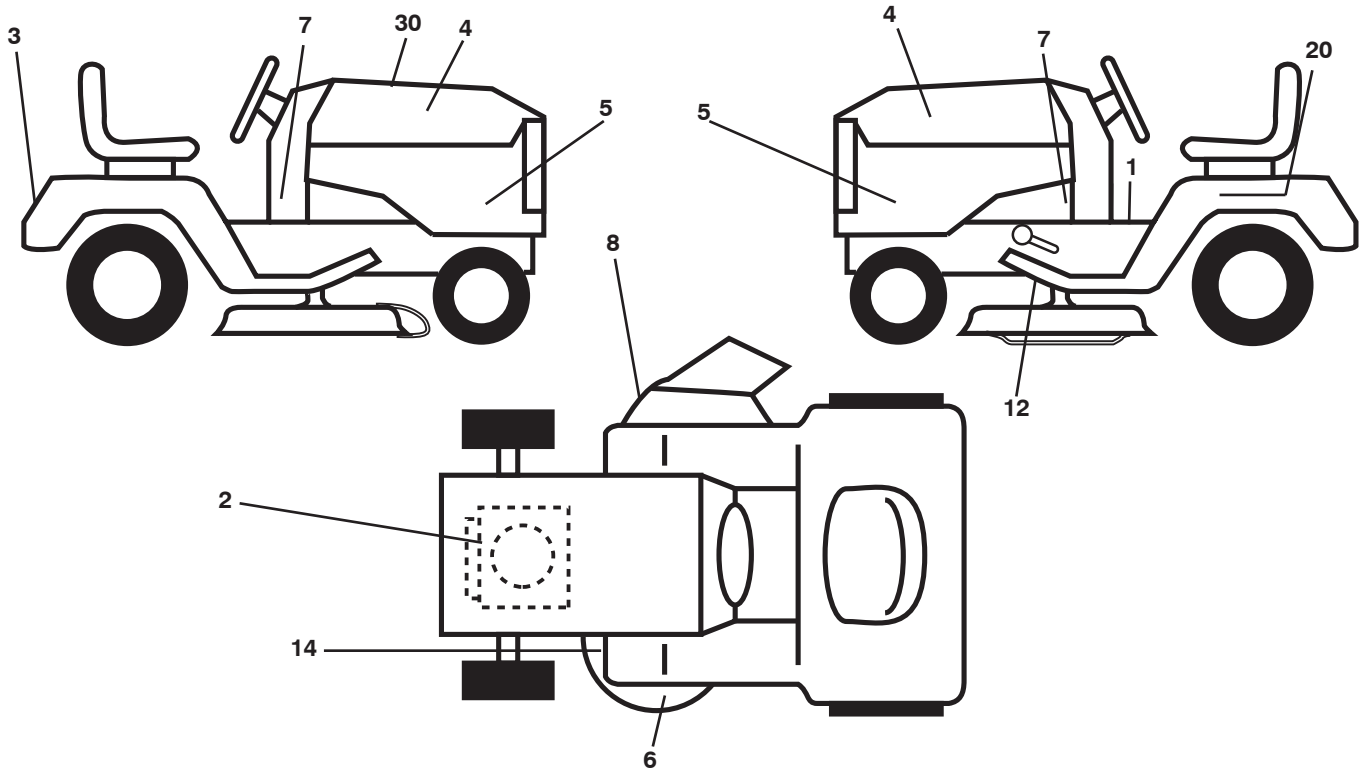
KEY NO.	PART NO.	DESCRIPTION
1	188709	Seat
2	140551	Bracket Pivot Seat
5	145006	Clip Push-In
6	STD541437	Nut Hex w/Ins. 3/8-16 unc
7	124181X	Spring Seat Cprsn 2 250 Blk Zi
8	17000616	Screw 3/8-16 x 1.5
9	19131614	Washer 13/32 x 1 x 14 Ga.
10	195530	Pan Seat
11	166369	Knob Seat
12	174648	Bracket Mounting Switch
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050412	Bolt Rdhd Sqkn 1/4-20 x 1-1/2

KEY NO.	PART NO.	DESCRIPTION
15	134300	Spacer Split 28 x 96 Yel Zinc
16	121250X	Spring Cprsn 1 27 Blk Pnt
17	123976X	Nut Lock 1/4 Lge Flg Gr. 5 Zinc
21	171852	Bolt Shoulder 5/16-18 unc
22	STD541431	Nut Hex Lock w/Ins 5/16-18
25	127018X	Bolt Shoulder 5/16-18 x .62
24	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
41	140675	Strap Asm.

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

# TRACTOR - - MODEL NUMBER 944.600081

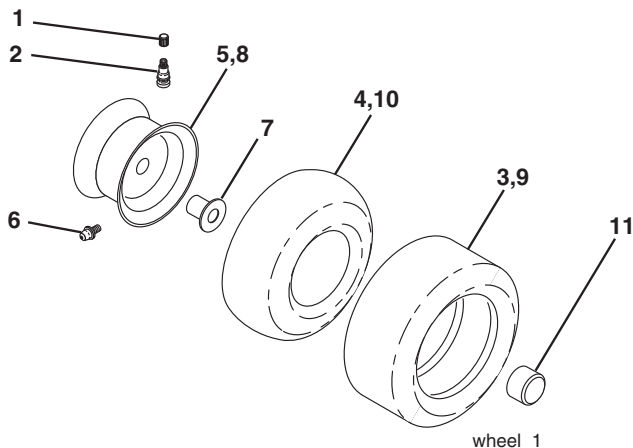
## DECALS



KEY NO.	PART NO.	DESCRIPTION
1	411658	Decal Fend STLT Oper
2	431092	Decal Engine
3	425123	Decal Hood/Fender
4	427599	Decal Hood Vent
5	433082	Decal Side Panel RH/LH
6	426593	Decal Mower Tract Precision
7	425634	Decal Lower Dash
8	170563	Decal Warning

KEY NO.	PART NO.	DESCRIPTION
12	146046	Decal Mower "B" "42"
14	160396	Decal V-Belt Schematic
20	149517	Decal Bat Dan/Psn
30	420327	Decal Replacement Parts
--	138311	Decal Handle Lft Height Adjust
--	184310X428	Pad Footrest LH
--	184311X428	Pad Footrest RH
--	436510	Manual Owner's (English)
--	436511	Manual Owner's (French)

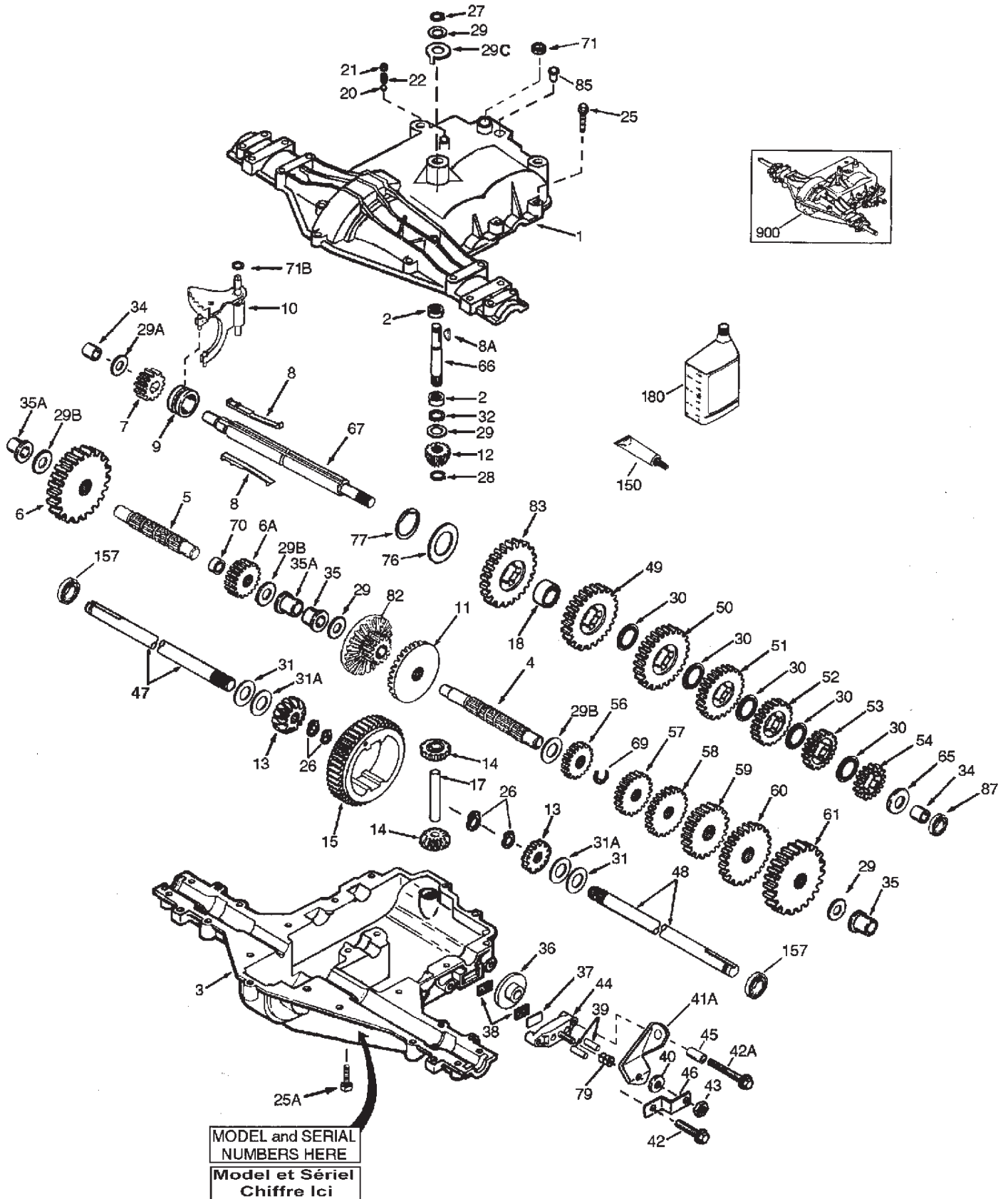
## WHEELS & TIRES



KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F
4	59904	Tube Front (Service Item Only)
5	106732X613	Rim Asm 6" Front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X613	Rim Asm 8" Rear Service
9	420531	Tire R
10	7152J	Tube Rear (Service Item Only)
11	104757X613	Cap Axle Blk 1 50 x 1 00
--	144334	Sealant, Tire (10 oz. Tube)

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

**TRACTOR - - MODEL NUMBER 944.600081**  
**PEERLESS TRANSAXLE - MODEL NUMBER 206-545C**



# TRACTOR - - MODEL NUMBER 944.600081

## PEERLESS TRANSAXLE - MODEL NUMBER 206-545C

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	772147	Transaxle Cover	42	792073A	Screw 1/4 - 20 x 1-1 /4"
2	780086A	Needle Bearing 5/8"	42A	792085A	Screw 1/4 - 20 x 2 1/4"
3	770128	Transaxle Case	43	792075	Locknut 5 / 16 - 24
4	776395	Countershaft	44	790025	Brake Pad Holder
5	776409	Output Shaft	45	786066	Spacer .2625 x 1.0
6	778364	Spur Gear (38 teeth)	46	786086	Brake Lever Bracket
6A	778369	Spur Gear (15 teeth)	47	774690	Axle (11-15 / 16" Long)
7	778330	Spur Gear (11 teeth)	48	774691	Axle (16 - 1 / 2" long)
8	792180	Shift Key	49	778356	Spur Gear (29 teeth)
8A	792047	Woodruff Key #9	50	778338	Spur Gear (27 teeth)
9	784352	Shift Collar	51	778354	Spur Gear (23 teeth)
10	784378	Shift Rod & Fork	52	778352	Spur Gear (19 teeth)
11	778334	Bevel Gear (30 teeth)	53	778350	Spur Gear (16 teeth)
12	778309	Input Bevel Pinion (13 teeth)	54	778346	Spur Gear (15 teeth)
13	778368	Bevel Gear (13 teeth) (Include. 14)	56	778355	Spur Gear (11 teeth)
14	778368	Bevel Pinion (13 teeth) (Include. 13)	57	778337	Spur Gear (13 teeth)
15	778370	Ring Gear (43 teeth)	58	778353	Spur Gear (17 teeth)
17	786188	Drive Pin	59	778351	Spur Gear (21 teeth)
18	786102	Spacer 1.130 X .695	60	778349	Spur Gear (24 teeth)
20	792077A	Ball 5/16" dia	61	778345	Spur Gear (25 teeth)
21	792078	Set Screw 3/8 - 16 x 3/8"	65	780189	Flat Washer .563 ID x .062W
22	792079	Spring .310 OD x .625 L	66	776422	Input Shaft
25	792073A	Screw 1/4 - 20 x 1-1/4"	67	776396	Shifter & Brake Shaft
25A	792177	Screw 1/4-20 x 1-3/8"	69	792170	Retaining Ring
26	792125	Retaining Ring (pkg of 2)	70	786187	Spacer .890
27	792035	Retaining Ring	71	788069	Square Cut Ring
28	788040	Retaining Ring	71B	788092	"O" Ring
29	780072	Thrust Washer .627 ID x .031W	76	780090	Flat Washer 1.128 ID x .058W
29A	780160	Thrust Washer .762 ID x .031W	77	788078A	Inverted Retaining Ring
29B	780051	Thrust Washer .762 ID x .031W	79	792144	Spring .430 OD x .5000 L
29C	780199	Anti-Rotation Washer .632	82	778333	Bevel & Spur Gear (30 & 13 teeth)
30	780108	Cup Washer 1.127 ID x .032W	83	778338	Spur Gear (27 teeth)
31	780001	Flat Washer .750 ID x .056W (Use As Needed)	85	792154	Oil Fill Plug
31A	780195	Flat Washer .750 ID x .062W	87	788089A	Oil Seal 9 / 16"
32	788083	Oil Seal 5/8"	150	788093A	Liquid Gasket RTV Silicone
34	780194	Bushing .563	157	788088A	Oil Seal 3 / 4"
35	780193	Flanged Bushing 5 / 8" ID	180	730229A	Gear Oil 80W90
35A	780197	Flanged Bushing .751	900	794712	Replacement MST - 206-545C Transaxle
36	790075	Brake Disk			
37	790007	Brake Pad Plate			
38	799021	Brake Pad (pkg of 2)			
39	786026	Dowel Pin			
40	792076A	Flat Washer .312 ID x .059W			
41A	790079	Brake Lever			

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

# TRACTOR - - MODEL NUMBER 944.600081

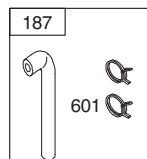
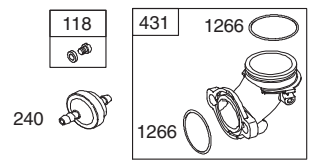
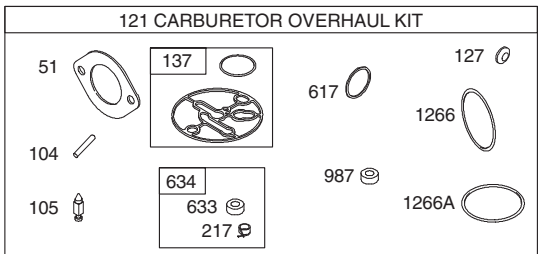
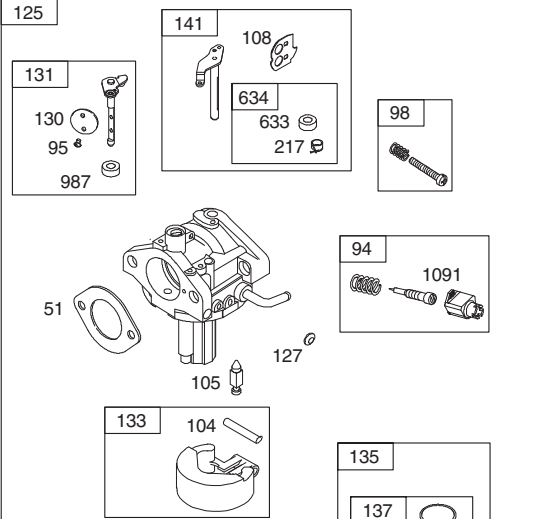
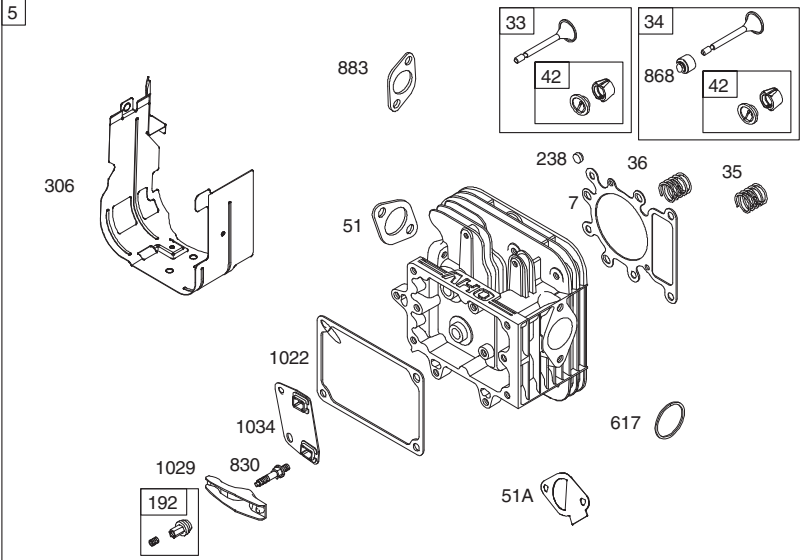
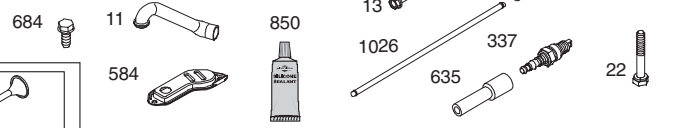
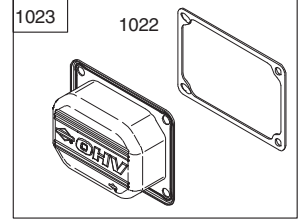
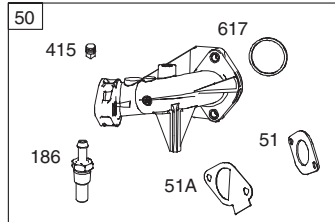
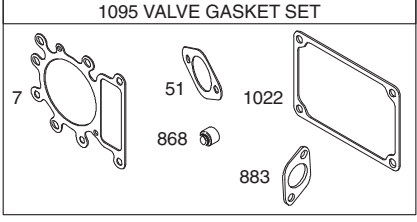
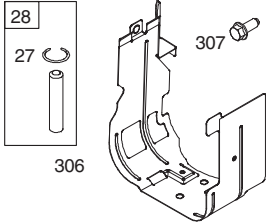
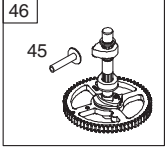
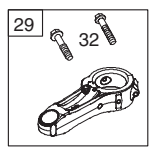
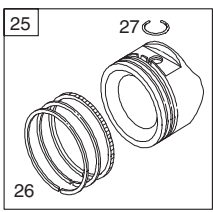
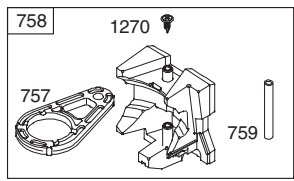
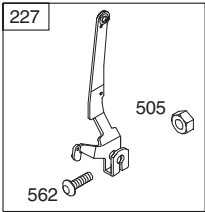
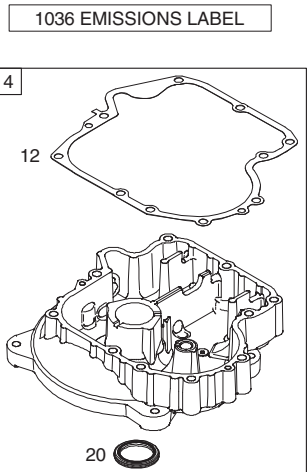
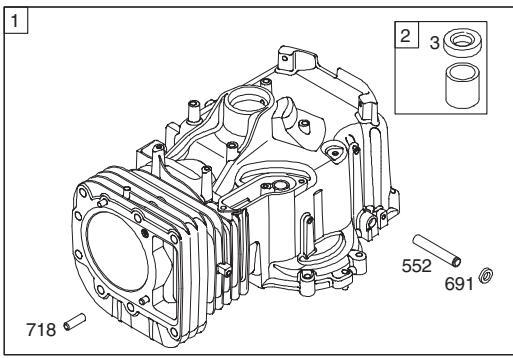
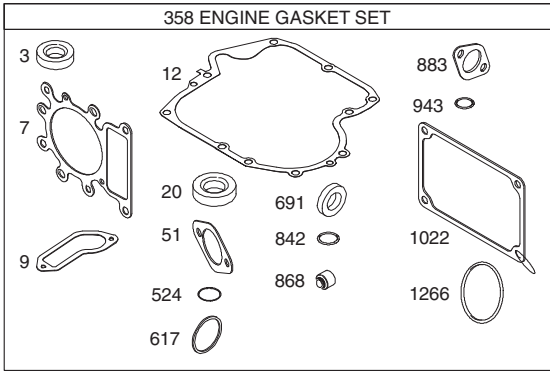
## BRIGGS & STRATTON ENGINE - MODEL NUMBER 31C707, TYPE NUMBER 1346-B1

48 SHORT BLOCK

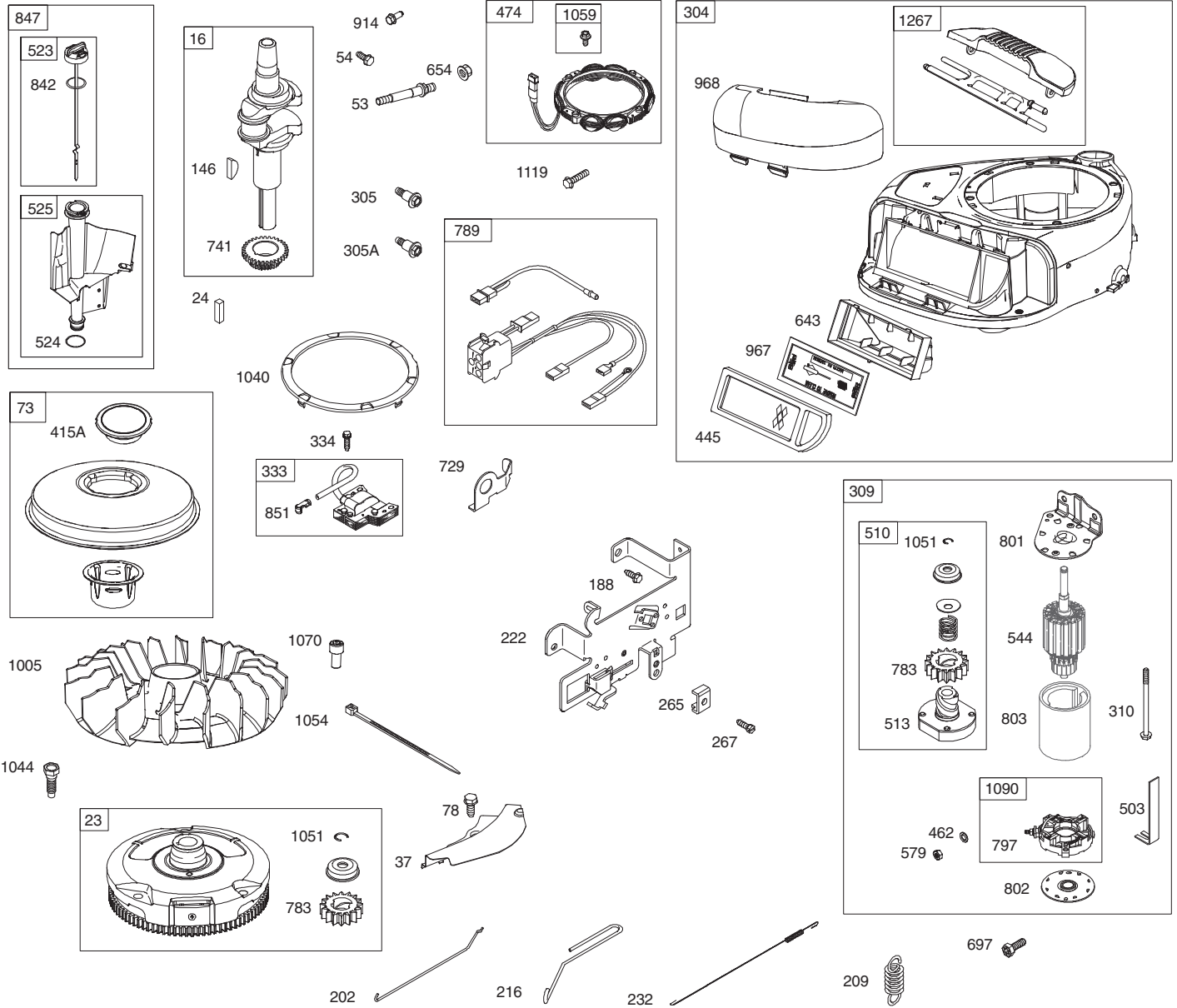
1036 EMISSIONS LABEL

1058 OPERATOR'S MANUAL

1329 REPLACEMENT ENGINE



**TRACTOR - - MODEL NUMBER 944.600081**  
**BRIGGS & STRATTON ENGINE - MODEL NUMBER 31C707, TYPE NUMBER 1346-B1**



## TRACTOR - - MODEL NUMBER 944.600081

### BRIGGS & STRATTON ENGINE - MODEL NUMBER 31C707, TYPE NUMBER 1346-B1

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	796010	Cylinder Assembly	186	794873	Connector-Hose (Intake Manifold)
2	399265	Bushing/Seal Kit (Magneto Side)	187	791805	Line-Fuel (Formed) (Cut to Required Length)
3	• 391086s	Seal-Oil (Magneto Side)	188	691693	Screw (Control Bracket)
4	697106	Sump-Engine	192	691986	Adjuster-Rocker Arm
5	796025	Head-Cylinder	202	691841	Link-Mechanical Governor
7	♦ 796584	Gasket-Cylinder Head	209	692208	Spring-Governor (Green)
11	794683	Tube-Breather	216	691840	Link-Choke
12	• 697110	Gasket-Crankcase	217	695409	Spring-Choke Return
13	793988	Screw (Cylinder Head)	222	694042	Bracket-Control
15	690946	Plug-Oil Drain	227	691374	Lever-Governor Control
16	797579	Crankshaft	232	691842	Spring-Governor Link
20	• 795387	Seal-Oil (PTO Side)	238	691843	Cap-Valve
22	692125	Screw (Crankcase Cover/Sump)	240	394358s	Filter-Fuel
23	698281	Flywheel	265	691024	Clamp-Casing
24	222698s	Key-Flywheel	267	794904	Screw (Casing Clamp)
25	796172	Piston Assembly (Standard)	276	695410	Washer-Sealing
	796173	Piston Assembly (.020" Oversize)	304	796416	Blower Housing
26	791936	Ring Set (Standard)	305	697102	Screw (Blower Housing) (Long)
	792649	Ring Set (.020" Oversize)	305A	793376	Screw (Blower Housing) (Short)
27	698469	Lock-Piston Pin	306	796006	Shield-Cylinder
28	796007	Pin-Piston	307	691003	Screw (Cylinder Shield)
29	794122	Rod-Connecting	309	693551	Motor-Starter
32	791118	Screw (Connecting Rod)	310	690323	Screw (Starter Motor)
33	792868	Valve-Exhaust	324	796308	Screen/Cup Assembly
34	791935	Valve-Intake	333	795315	Armature-Magneto
35	691279	Spring-Valve (Intake)	334	691061	Screw (Magneto Armature)
36	691279	Spring-Valve (Exhaust)	337	491055s	Plug-Spark
37	697352	Guard-Flywheel	358	796187	Gasket Set-Engine
42	499586	Keeper-Valve	404	691691	Washer (Governor Crank)
43	691968	Slinger-Governor/Oil	415	690283	Plug (Intake Manifold)
45	690564	Tappet-Valve	415A	794129	Plug (Cover/Retainer)
46	793880	Gear-Cam	431	697122	Elbow-Intake
48	697761	Short Block	445	698083	Filter-Air Cleaner Cartridge
50	796180	Manifold-Intake	462	691261	Washer (Starter Cable)
51 ♦ ♣	692137	Gasket-Intake	474	696459	Alternator
51A	796081	Gasket-Intake	503	691532	Strap-Starter
53	690227	Stud (Carburetor)	505	691251	Nut (Governor Control Lever)
54	691148	Screw (Intake Manifold)	510	693699	Drive-Starter
78	691003	Screw (Flywheel Guard)	513	692024	Clutch-Drive
94	793610	Kit-Idle Mixture	523	699908	Dipstick
95	690718	Screw (Throttle Valve)	524 •	691032	Seal-Dipstick Tube
98	695408	Kit-Idle Speed	525	697184	Tube-Dipstick
104	♣ 694918	Pin-Float Hinge	544		Armature-Starter (Order Starter Motor, Reference 309, 693551, for replacement)
105	♣ 696136	Valve-Float Needle	552	697144	Bushing-Governor Crank
108	695419	Valve-Choke	562	691119	Screw (Governor Control Lever)
117	843099	Jet-Main (Standard)	579	691029	Nut (Starter Cable)
118	790890	Jet-Main (High Altitude)	584	794682	Cover-Breather Passage (Use with Liquid Sealant, Reference 850)
121	796184	Kit-Carburetor Overhaul	585 •	697109	Gasket-Breather Passage
125	796109	Carburetor	601	791850	Hose-Clamp (Green)
127	♣ 690727	Plug-Welch	614	691620	Pin-Cotter
130	699500	Valve-Throttle	616	692012	Crank-Governor
131	699501	Kit-Throttle Shaft			
133	694914	Float-Carburetor			
135	698780	Tube-Fuel Transfer			
137	♣ 698781	Gasket-Float Bowl			
141	792777	Kit-Choke Shaft			
146	691639	Key-Timing			



## TRACTOR - - MODEL NUMBER 944.600081

### BRIGGS & STRATTON ENGINE - MODEL NUMBER 31C707, TYPE NUMBER 1346-B1

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
617	♣692138	Seal-ORing(IntakeManifold)(Red)	1090	691293	Retainer-Brush
633	699813	Seal-Choke/Throttle Shaft (Choke Shaft)	1091	691333	Cap-Limiter
634	♣ 698779	Spring/Seal Assembly (Choke Shaft)	1095	794152	Gasket Set-Valve
635	691909	Boot-Spark Plug	1119	691183	Screw (Alternator)
643	698401	Retainer-Air Filter	1127	695407	Screw (Float Bowl)
654	690958	Nut (Carburetor)	1263	697124	Reed-Breather
684	697157	Screw (Breather Assembly)	1264	697104	Screw (Breather Reed)
691	• 692407	Seal-Governor Shaft	1266	♣691917	Seal-O Ring (Intake Elbow) (Red)
718	690959	Pin-Locating	1266A♣697123		Seal-O Ring (Intake Elbow)
724	697478	Link-Starter Switch	1267	697419	Latch-Blower Housing
729	691224	Clip-Wire	1270	793243	Plug-AVS Counterweight
741	697128	Gear-Timing	1329	31C707-0026-G1	Replacement Engine (Replacement engine listed is not available in the state of California. Repair with individual parts)
757	793242	Link-Counterweight	1330	272147	Repair Manual
758	793763	Counterweight			
759	697392	Pin-Counterweight			
783	693713	Gear-Pinion			
789	698329	Harness-Wiring			
797	693167	Nut (Brush Retainer)			
801	691283	Cap-Drive			
802	691286	Cap-End			
803		Housing-Starter (Order Starter Motor, Reference 309, 693551, for replacement)			
830	691095	Stud-Rocker Arm			
842	• 691031	Seal-O Ring (Dipstick Tube)			
847	790442	Dipstick/Tube Assembly			
850	100106	Sealant-Liquid (Liquid Sealant is interchangeable with Breather Passage Gasket and/or Rocker Cover Gasket)			
851	692424	Terminal-Spark Plug			
868	♦690968	Seal-Valve			
883	• 692236	Gasket-Exhaust			
914	697551	Screw (Rocker Cover)			
947	699915	Solenoid-Fuel			
967	697015	Filter-Pre Cleaner			
968	698403	Cover-Air Cleaner			
975	699502	Bowl-Fuel			
987	♣ 698777	Seal-Throttle Shaft			
1005	796083	Fan-Flywheel			
1022	♦272475s	Gasket-Rocker Cover			
1023	797421	Cover-Rocker			
1026	692003	Rod-Push (Intake)			
	692011	Rod-Push (Exhaust)			
1029	691751	Arm-Rocker			
1034	690822	Guide-Push Rod			
1036		Label-Emissions (Available from a Briggs & Stratton Authorized Dealer)			
1040	698368	Plate-Trim			
1044	698139	Screw (Flywheel)			
1051	691265	Ring-Retaining			
1054	280275	Tie-Cable			
1059	698516	Kit-Screw/Washer			
1070	690363	Screw (Flywheel Fan)			

- Engine Gasket Set, Key No. 358
- ♦ Valve Gasket Set, Key No. 1095
- ♣ Carburetor Overhaul Kit, Key No. 121

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

**GENERAL:** Craftsman products are warranted to be free from defects in materials or workmanship for a specific time period as set-out below (the "Warranty Period"). Warranties extend to the original purchaser of a Craftsman product only. Purchases made through an online auction or through any website other than www.sears.ca are excluded. The relevant Warranty Period commences on the original date of purchase. Within this period, SEARS CANADA, Inc. will, at its sole option, repair or replace any products or components which fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost.

**EXCLUSIONS:** This warranty does not cover failures due to normal wear, abuse, misuse, neglect (including but not limited to the use of stale fuel, dirt, abrasives, moisture, rust, corrosion, or any adverse reaction due to improper storage or use habits), improper maintenance or failure to follow maintenance guidelines and/or instructions, failure to operate the product in accordance with the owner's manual or any additional instructions or information provided at the time of purchase or in subsequent communications with the original purchaser, accident or unauthorized alterations or repairs made or attempted by others. Also excluded from warranty coverage - except as provided below - are the following: maintenance, adjustments, components subject to wear including but not limited to: cosmetic components, belts, blades, blade adapters, bulbs, tires, filters, guide bars, lubricants, seats, grips, recoil assy's, saw chains and bars, trimmer lines and spools, spark plugs, starter ropes and tines, and discoloration resulting from ultraviolet light. Any product missing the model and/or serial number identification label will be disqualified from coverage under this warranty.

**REPAIRS:** Repairs have a 90 day warranty. If the defective product is still within the Warranty Period, then the new warranty is 90 days from the date of repair or to the end of the original Warranty Period, whichever period is longer.

**DISCLAIMERS:** THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN (OTHER THAN AS STATED HEREIN), AND WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM PROVINCE TO PROVINCE.

IN NO EVENT SHALL SEARS BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT. THE EXCLUSIONS IN THIS PARAGRAPH SHALL NOT APPLY IN JURISDICTIONS WHERE APPLICABLE LAW DOES NOT ALLOW FOR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. IN SUCH JURISDICTIONS, THIS PARAGRAPH SHALL NOT APPLY, BUT THE REMAINING PROVISIONS OF THIS DOCUMENT SHALL REMAIN VALID.

SEARS retains the exclusive right to repair or replace the product or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

**CUSTOMER RESPONSIBILITIES:** In addition to complying with all suggested maintenance guidelines and instructions, customers' obligations shall include but shall not be limited to: operating the product in accordance with the owner's manual or any additional instructions or information provided at the time of purchase or in subsequent communications to the purchaser from time to time, exhibit reasonable care in the use, operation, maintenance, general upkeep and storage of the product. Failure to comply with these requirements will void any applicable warranty.

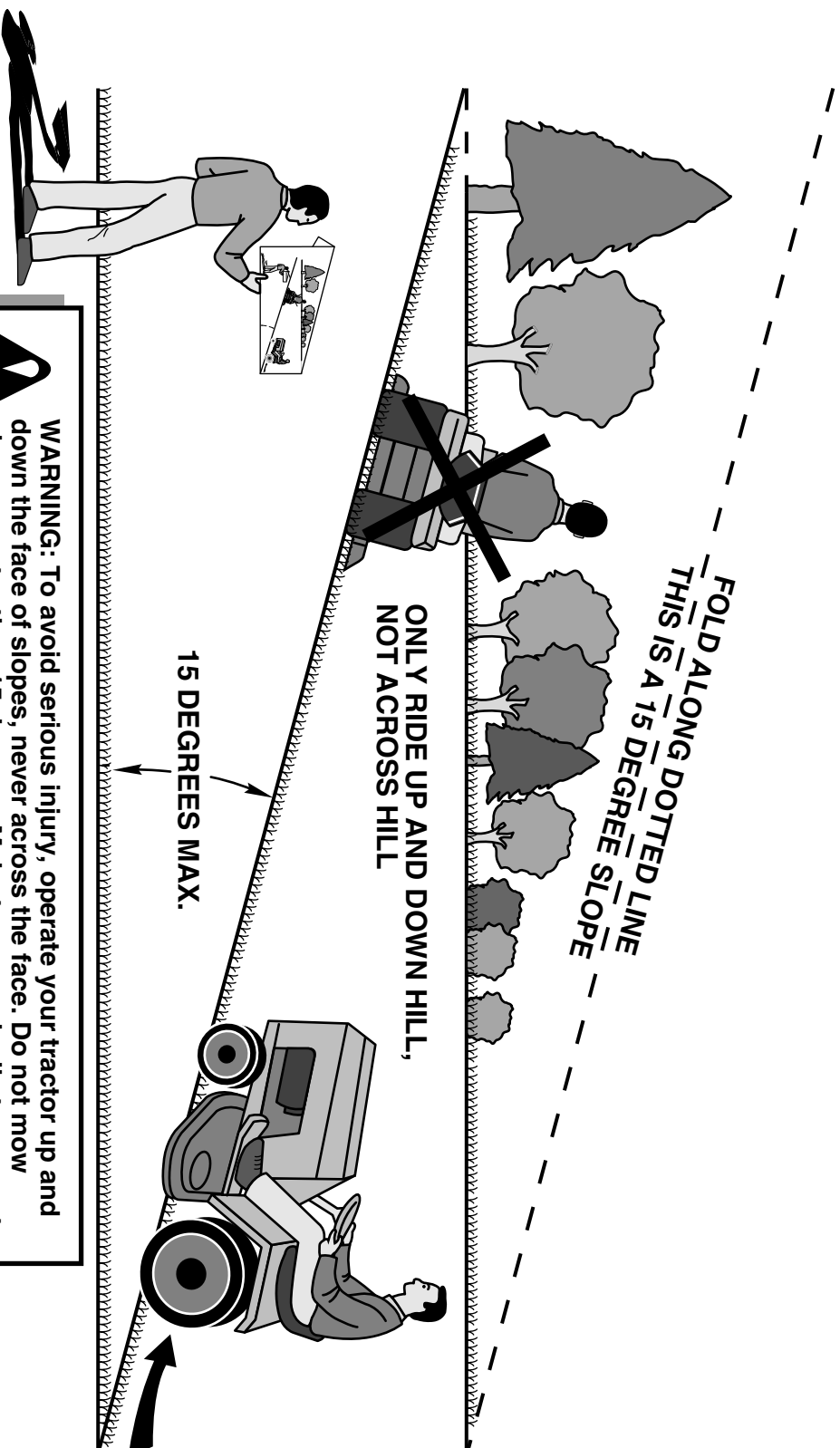
**LIST OF APPLICABLE WARRANTY PERIODS:** The following list contains the applicable Warranty Period for your Craftsman product and is based on a combination of the type of product or component and the intended and actual use of the product or component:

1. **90 DAYS:** Craftsman products intended for use or actually used for commercial, institutional, professional or income-producing purposes
2. **2 YEARS:** Craftsman riding lawn mowers, yard and garden tractors, walk behind mowers, tillers, brush cutters, snow blowers, handheld blowers, backpack blowers, hedge trimmers and electrical products for noncommercial, nonprofessional, non-institutional, or non-income-producing use, except for those components which are part of engine systems manufactured by third party engine manufacturers for which the purchase has received a separate warranty with product information supplied at the time of purchase.
3. **1 YEAR:** Craftsman power cutters, stump grinders, pole pruners, gas chain saws, electric chain saws, trimmer attachments, baggers and pole saws for noncommercial, nonprofessional, non-institutional, or non-income-producing use.
4. **90 DAYS:** All defective batteries, which will be replaced during this 90-day Warranty Period.
5. **60 DAYS:** Additional Warranty Period of 60 days will apply to adjustments and worn products or components BUT DOES NOT INCLUDE WEAR OR ADJUSTMENTS for products used for commercial, institutional, professional or income-producing purposes. Wear items include but are not limited to: belts, blades, tires, spark plugs, air filters, chains, shear bolts, skid plates, scraper bars, drift cutters, ropes, tines, collection bags and pulleys.

As the Warranty Period runs from the date of purchase and NOT from the date that a product is delivered, opened, assembled or first used, please ensure during this time period that your product or component has been assembled and tested for correction operation regardless of when you intend to actually use it. Claims made after the Warranty Period has expired will not be honored.

**PROOF OF PURCHASE/DOCUMENTATION:** Warranty coverage is conditioned upon the original purchaser furnishing SEARS CANADA or its authorized third party service provider if applicable, with the original sales receipt or other adequate written proof of the original purchase date and identification of the product. In the event that the original purchaser is unable to provide a company of the original sales receipt, SEARS CANADA Inc. reserves the right to determine in its sole discretion what other written proof of the original purchase date and identification of the product is acceptable.

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