

Owner's Manual



# LAWN TRACTOR

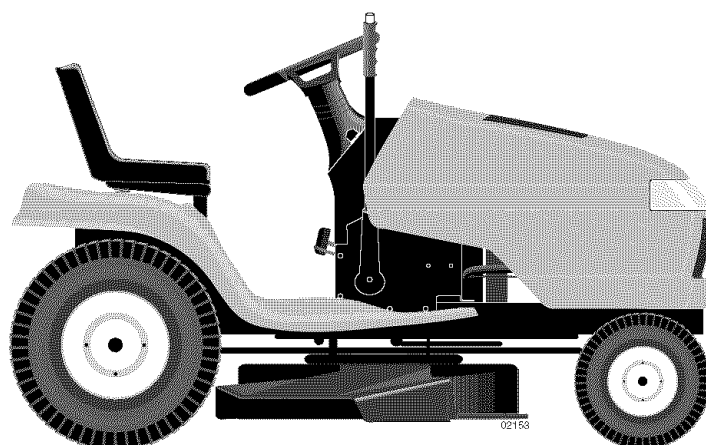
24 HP, 42" Mower

Electric Start

Automatic Transmission

Model No.

**917.275684**



This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

## **IMPORTANT:**

Read and follow all Safety Rules and Instructions before operating this equipment.

For answers to your questions about this product, Call:

**1-800-659-5917**

Sears Craftsman Help Line  
5 am - 5 pm, Mon - Sat

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A

Visit our Craftsman website: [www.sears.com/craftsman](http://www.sears.com/craftsman)

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## WARRANTY

### LIMITED WARRANTY ON CRAFTSMAN RIDING EQUIPMENT

For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace free of charge any parts that are found to be defective in material or workmanship according to the guidelines of coverage listed below. Sears will also provide free labor for these applicable warranted parts for the two full years. During the first 30 days of purchase, there will be no charges to service the product at your home for issues covered by this warranty. (See exclusions below). For your convenience, IN HOME warranty service will still be available after the first 30 days of purchase, but a trip charge will apply. This charge will be waived if the Craftsman product is dropped off at an authorized Sears location. For the nearest authorized Sears location, please call 1-800-4-MY-HOME®. This warranty applies only while this product is within the United States.

This Warranty does not cover:

- Expendable items which become worn during normal use, including but not limited to blades, spark plugs, air cleaners, belts, and oil filters.
- Standard Maintenance Servicing, oil changes, or tune-ups
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, including but not limited to, damage caused by towing objects beyond the capability of the riding equipment, impacting objects that bend the frame or crankshaft, or over-speeding the engine.
- Repairs necessary because of operator negligence, including but not limited to, electrical and mechanical damage caused by improper storage, failure to use the proper grade and amount of engine oil, failure to keep the deck clear of flammable debris, or failure to maintain the equipment according to the instructions contained in the owner's manual.
- Engine (fuel system) cleaning or repairs caused by fuel determined to be contaminated or oxidized (stale). In general, fuel should be used within 30 days of its purchase date.
- Normal deterioration and wear of the exterior finishes, or product label replacement.
- Riding equipment used for commercial or rental purposes.

### LIMITED WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge. During the first 30 days of purchase, there will be no charges to replace the battery at your HOME. After the first 30 days, for your convenience, IN-HOME warranty service will still be available but a trip charge will apply. This charge will be waived if the Craftsman product is dropped off at an authorized Sears location. For the nearest authorized Sears location, please call 1-800-4-MY-HOME®.


This battery warranty applies only while this product is within the United States.


This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.


Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179


# SAFETY RULES


**IMPORTANT:** This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

 **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 guard, or other safety devices in place and working.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

# SAFETY RULES

## 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 not use on steep slopes.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not mow near drop-offs, ditches, or embankments. The machine could suddenly roll over if a wheel is over the edge or if the edge caves in.

## III. CHILDREN

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

- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.

- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

## 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.

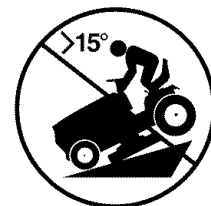
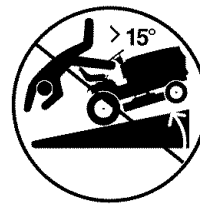
- Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
- Use only approved gasoline container.
- Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling.
- Never fuel the machine indoors.
- Never store the machine or fuel container where there 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.

# SAFETY RULES

- 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.
- Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.

## 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.



- 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:	4.0 Gallons Unleaded Regular	
Oil Type (API-SG-SL):	SAE 30(above 32°F) SAE 5W-30(below 32°F)	
Oil Capacity:	w/Filter	4.0 Pints
	w/o Filter	3.75 Pints
Spark Plug: (GAP: .040")	Champion QC12YC	
Ground Speed (MPH):	Forward:	5.5
	Reverse:	2.4
Tire Pressure:	Front:	14 PSI
	Rear:	10 PSI
Charging System:	16 Amps @ 3600RPM	
Battery:	Amp/Hr:	35
	Min. CCA:	280
	Case Size:	U1R
Blade Bolt Torque:	27–35 Ft. Lbs.	

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

Should you experience any problem you cannot easily remedy, please contact a Sears or other qualified service center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

### 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.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears service center (See REPAIR PARTS section of this manual).

### REPAIR PROTECTION AGREEMENTS

Congratulations on making a smart purchase. Your new Craftsman® product is designed and manufactured for years of dependable operation. But like all products, it may require repair from time to time. That's when having a Repair Protection Agreement can save you money and aggravation.

*Purchase a Repair Protection Agreement now and protect yourself from unexpected hassle and expense.*

Here's what's included in the Agreement:

- **Expert service** by our 12,000 professional repair specialists.
- **Unlimited service and no charge** for parts and labor on all covered repairs.
- **Product replacement** if your covered product can't be fixed.
- **Discount of 10%** from regular price of service and service-related parts not covered by the agreement; also, 10% off regular price of preventive maintenance check.
- **Fast help by phone** – phone support from a Sears technician on products requiring in-home repair, plus convenient repair scheduling.

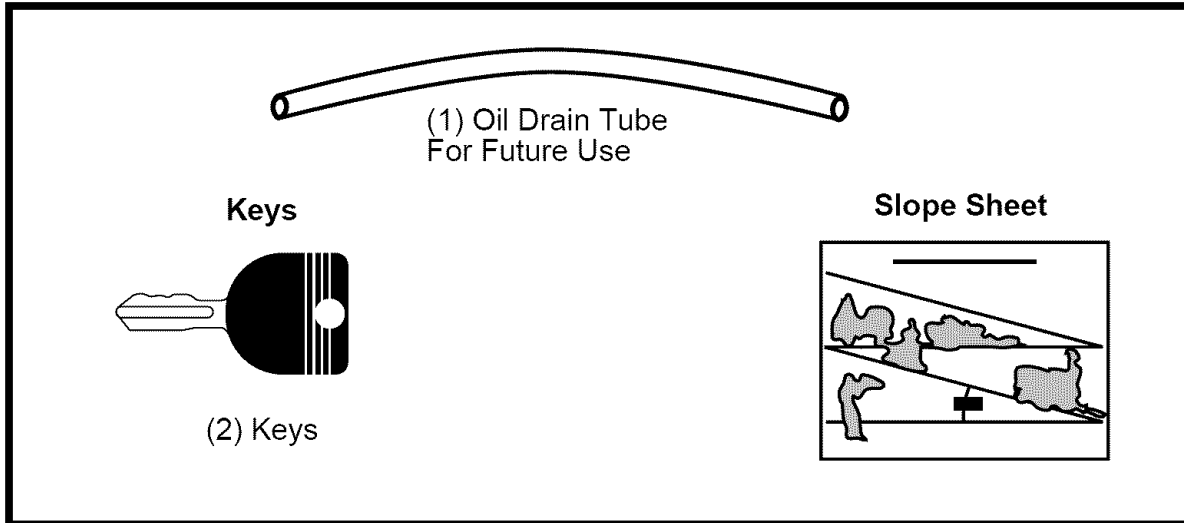
Once you purchase the Agreement, a simple phone call is all that it takes for you to schedule service. You can call anytime day or night, or schedule a service appointment online.

Sears has over 12,000 professional repair specialists, who have access to over 4.5 million quality parts and accessories. That's the kind of professionalism you can count on to help prolong the life of your new purchase for years to come. Purchase your Repair Protection Agreement today! **Some limitations and exclusions apply. For prices and additional information call 1-800-827-6655.**

### SEARS INSTALLATION SERVICE

*For Sears professional installation of home appliances, garage door openers, water heaters, and other major home items, in the U.S.A. call 1-800-4-MY-HOME®*

# UNASSEMBLED PARTS



# ASSEMBLY/PRE-OPERATION

Your new tractor has been assembled at the factory. 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

1. Cut along dotted lines on all four panels of carton. Remove end panels and lay side panels flat.
2. Remove protective materials from tractor hood and grille.

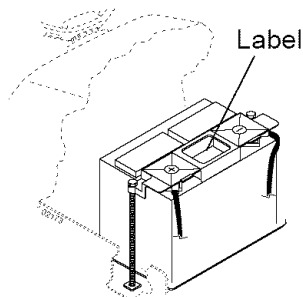
**IMPORTANT:** Check for and remove any staples in skid that may puncture tires where tractor is to roll off skid.

## HOW TO SET UP YOUR TRACTOR

### CHECK BATTERY

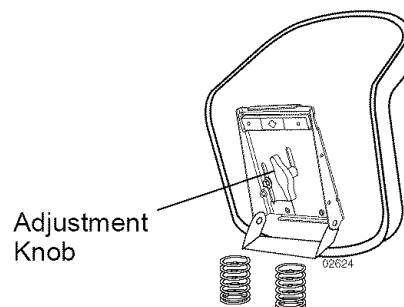
1. Lift hood to raised position.

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



## ADJUST SEAT

1. Raise seat and loosen adjustment knob.
2. Lower seat into operating position and sit in seat.
3. Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
4. Get off seat without moving its adjusted position.
5. Raise seat and tighten adjustment knob securely.



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

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

1. Press lift lever plunger and raise attachment lift lever to its highest position.
2. Release parking brake by depressing clutch/brake pedal.
3. Place freewheel control in "transmission disengaged" position (See "TO TRANSPORT" in the Operation section of this manual).
4. Roll tractor forward off skid.
5. Remove banding holding deflector shield up against tractor.

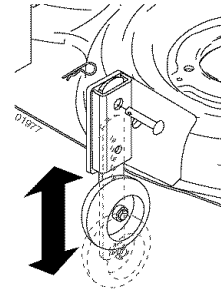
## TO DRIVE TRACTOR OFF SKID (See Operation section for location and function of controls)

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

1. Be sure all the above assembly steps have been completed.
  2. Check engine oil level and fill fuel tank with gasoline.
  3. Place freewheel control in "transmission engaged" position. (See "TO TRANSPORT" in the Operation section of this manual).
  4. Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
  5. Place motion control lever in neutral (N) position.
  6. Press lift lever plunger and raise attachment lift lever to its highest position.
  7. Start the engine. After engine has started, move throttle control to idle position.
  8. Release parking brake.
  9. Slowly move the motion control lever forward and slowly drive tractor off skid.
  10. Apply brake to stop tractor, set parking brake and place motion control lever in neutral position.
  11. Turn ignition key to "STOP" position.
- Continue with the instructions that follow.

## REPOSITION RIGHT REAR GAUGE WHEEL

For shipping purposes, the right rear gauge wheel assembly is mounted upside down on the mower. Remove the gauge wheel assembly and reinstall from the bottom as shown. To adjust gauge wheels, see the Operation section in this manual.



## CHECK TIRE PRESSURE

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

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

## CHECK DECK LEVELNESS

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

## CHECK FOR PROPER POSITION OF ALL BELTS

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

## CHECK BRAKE SYSTEM

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



## ✓CHECKLIST

Before you operate your new tractor, we wish to assure that you receive the best performance and satisfaction from this Quality Product.

Please review the following checklist:

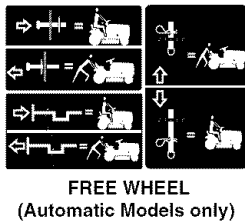
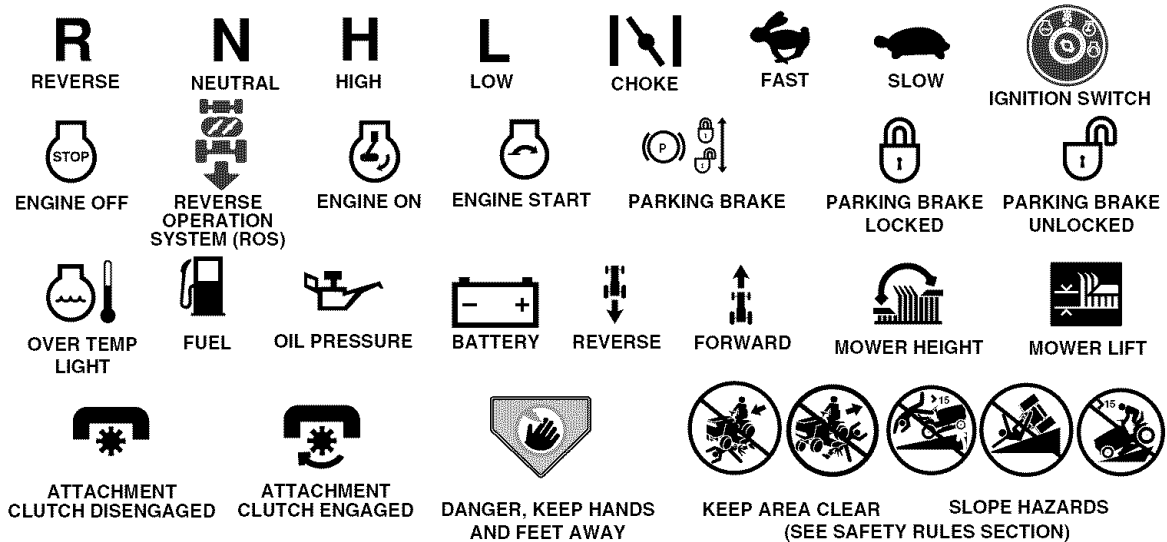
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated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

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).
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

# OPERATION

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



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.

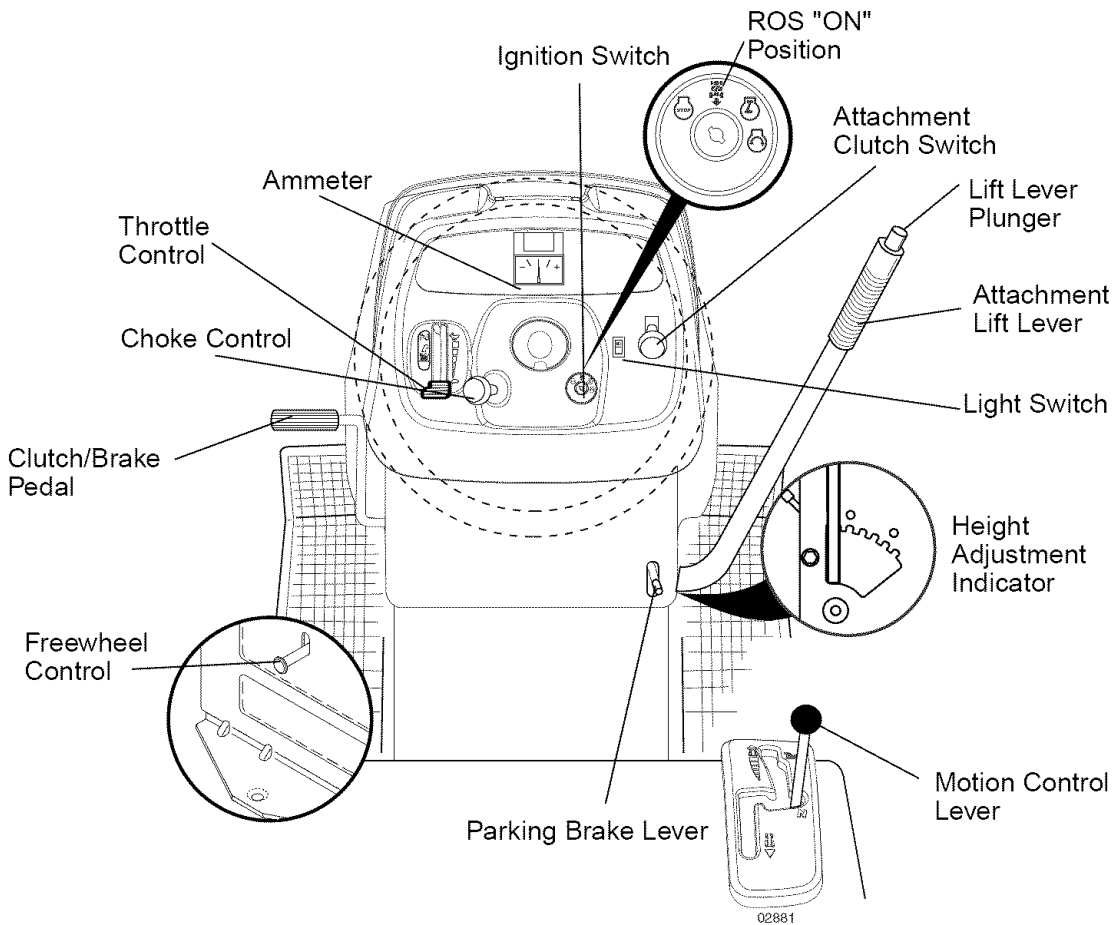


**FIRE** indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

## 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.



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

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

**ATTACHMENT CLUTCH SWITCH** - 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.

**CHOKE CONTROL** - Used when starting a cold engine.

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

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

**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.

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

**PARKING BRAKE LEVER** - 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 CONTROL** - Used to control engine speed.

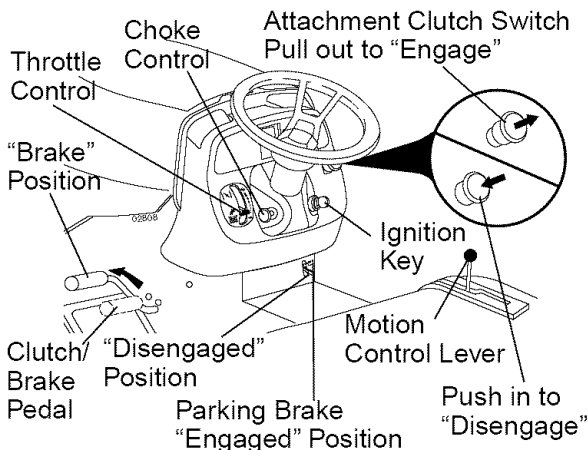


The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend standard safety glasses or a wide vision safety mask worn over spectacles.

## HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE

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.

1. Depress clutch/brake pedal all the way down and hold.
2. Pull parking brake lever up and release pressure from clutch/brake pedal. Pedal should remain in brake position. Make sure parking brake will hold tractor secure.



## STOPPING

### MOWER BLADES -

- To stop mower blades, push attachment clutch switch in to disengaged position.

### GROUND DRIVE -

- To stop ground drive, depress clutch/brake pedal all the way down.
- Move motion control lever to neutral (N) position.

**IMPORTANT:** The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

### ENGINE -

- Move throttle control 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 discharge and go 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 USE THROTTLE CONTROL

Always operate engine at full throttle.

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

## TO USE CHOKE CONTROL

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

- To engage choke control, pull knob out. Slowly push knob in to disengage.

## TO MOVE FORWARD AND BACKWARD

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

1. Start tractor with motion control lever in neutral (N) position.
2. Release parking brake.
3. Slowly move motion control lever to desired position.

## TO ADJUST MOWER CUTTING HEIGHT

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.

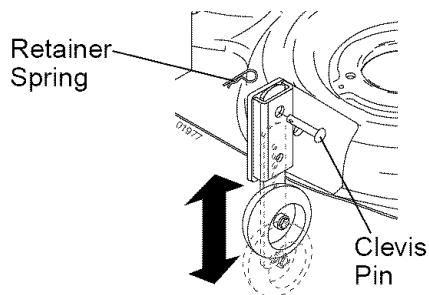
### TO ADJUST GAUGE WHEELS

Gauge wheels are properly adjusted when they are slightly off the ground when mower is at the desired cutting height in operating position. Gauge wheels then keep the deck in proper position to help prevent scalping in most terrain conditions.

**NOTE:** Be sure tractor is on a flat level surface.

1. Lower mower and adjust mower to desired cutting height (See "TO ADJUST MOWER CUTTING HEIGHT" in this section of manual).
2. Remove retainer spring and clevis pin which secure each gauge wheel bar.
3. Lower gauge wheels to ground. Raise gauge wheels slightly to align holes in bracket and gauge wheel bar and insert clevis pin. Gauge wheels should be slightly off the ground.
4. Replace retainer spring into clevis pin.
5. Be sure all gauge wheels are in the same setting.

**IMPORTANT:** Be sure to readjust gauge wheels if you change the cutting height of the mower deck.



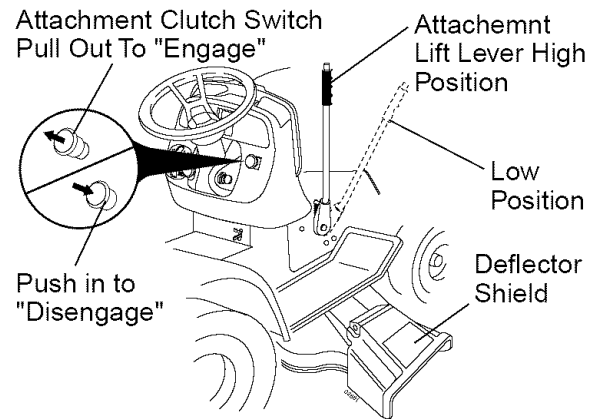
### TO OPERATE MOWER

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.

1. Select desired height of cut.
2. Start mower blades by engaging attachment clutch control.

**TO STOP MOWER BLADES -** disengage attachment clutch control.

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



### REVERSE OPERATION SYSTEM (ROS)

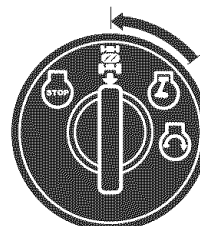
Your tractor is equipped with a Reverse Operation System (ROS). Any attempt by the operator to travel in the reverse direction with the attachment clutch engaged will shut off the engine unless ignition key is placed in the ROS "ON" position.

**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.**

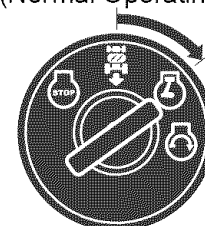
### USING THE REVERSE OPERATION SYSTEM -

1. Move motion control lever to neutral (N) position.
2. With engine running, turn ignition key counterclockwise to ROS "ON" position.
3. Look down and behind before backing.
4. Slowly move motion control lever to reverse (R) position to start movement.
5. When use of the ROS is no longer needed, turn the ignition key clockwise to engine "ON" position.

ROS "ON" Position



Engine "ON" Position (Normal Operating)



## TO OPERATE ON HILLS

**⚠WARNING:** Do not drive up or down hills with slopes greater than 15° and do not drive across any slope. Use the slope guide at the back of this manual.

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

**IMPORTANT:** The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

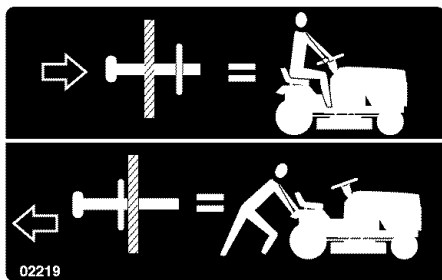
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

## TO TRANSPORT

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Freewheel control is located at the rear drawbar of tractor.

1. Raise attachment lift to highest position with attachment lift control.
  2. Pull freewheel control out and down into the slot and release so it is held in the disengaged position.
- Do not push or tow tractor at more than two (2) MPH.
  - To re-engage transmission, reverse above procedure.

### Transmission Engaged



### Transmission Disengaged

**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.

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

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

**IMPORTANT:** When operating in temperatures below 32°F(0°C), use fresh, clean winter grade gasoline to help insure good cold weather starting.

**CAUTION:** Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty.

Use fresh fuel next season. See Storage Instructions for additional information.

Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

## TO START ENGINE

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.

1. Be sure freewheel control is in the transmission engaged position.
2. Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
3. Place motion control lever in neutral (N) position.
4. Move attachment clutch to disengaged position.
5. Move throttle control to fast position
6. Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

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

7. Insert key into ignition and turn key clockwise to start position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, push choke control in, wait a few minutes and try again. If engine still does not start, pull the choke control out and retry.

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

8. When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.

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

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

8. When engine starts, slowly push choke control in until the engine begins to run smoothly. Continue to push the choke control in small steps allowing the engine to accept small changes in speed and load, until the choke control is fully in. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

**AUTOMATIC TRANSMISSION WARM UP**

Before driving the unit in cold weather, the transmission should be warmed up as follows:

1. Be sure the tractor is on level ground.
  2. Place the motion control lever in neutral. Release the parking brake and let the clutch/brake slowly return to operating position.
  3. Allow one minute for transmission to warm up. This can be done during the engine warm up period.
- The attachments can be used during the engine warm-up period after the transmission has been warmed up and may require the choke control be pulled out slightly.

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

## PURGE TRANSMISSION

**⚠ CAUTION:** Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

**IMPORTANT:** Should your transmission require removal for service or replacement, it should be purged after reinstallation before operating the tractor.

1. Place tractor safely on level surface with engine off and parking brake set.
2. Disengage transmission by placing freewheel control in "transmission disengaged" position (See "TO TRANSPORT" in this section of manual).
3. Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
4. Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

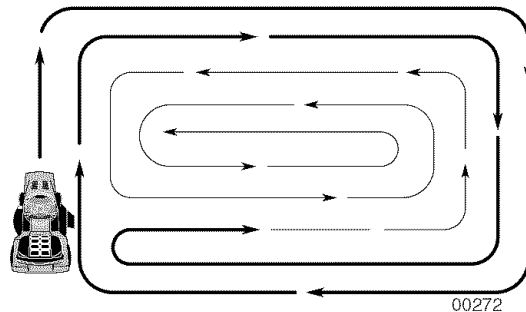
**NOTE:** During this step there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

5. Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.
6. Engage transmission by placing freewheel control in "transmission engaged" position (See "TO TRANSPORT" in this section of manual).
7. Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
8. Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.

Your transmission is now purged and ready for normal operation.

## 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 already been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished.



- 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.



# MAINTENANCE

<b>MAINTENANCE SCHEDULE</b>		BEFORE EACH USE					BEFORE STORAGE						
FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		EVERY 8 HOURS		EVERY 25 HOURS		EVERY 50 HOURS		EVERY 100 HOURS		EVERY SEASON		SERVICE DATES	
<b>T R A C T O R</b>	Check Brake Operation	✓	✓										
	Check Tire Pressure	✓	✓										
	Check Operator Presence and ROS Systems	✓											
	Check for Loose Fasteners	✓				✓ <sup>5</sup>		✓					
	Sharpen/Replace Mower Blades			✓ <sup>3</sup>									
	Lubrication Chart			✓					✓				
	Check Battery Level			✓ <sup>4</sup>									
	Clean Battery and Terminals			✓					✓				
	Check Transaxle Cooling			✓									
	Check V-Belts					✓							
<b>E N G I N E</b>	Check Engine Oil Level	✓	✓										
	Change Engine Oil (with oil filter)				✓ <sup>1,2</sup>				✓				
	Change Engine Oil (without oil filter)			✓ <sup>1,2</sup>					✓				
	Clean Air Filter			✓ <sup>2</sup>									
	Clean Air Screen			✓ <sup>2</sup>									
	Inspect Muffler/Spark Arrester				✓								
	Replace Oil Filter (If equipped)						✓ <sup>1,2</sup>						
	Clean Engine Cooling Fins						✓ <sup>2</sup>						
	Replace Spark Plug						✓	✓					
	Replace Air Filter Paper Cartridge						✓ <sup>2</sup>						
Replace Fuel Filter								✓					

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

3 - Replace blades more often when mowing in sandy soil.  
4 - Not required if equipped with maintenance-free battery.  
5 - Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

## GENERAL RECOMMENDATIONS

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

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

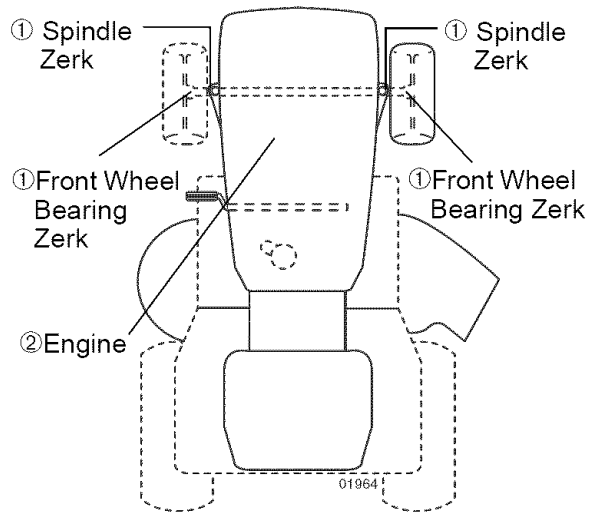
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

- 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 General Purpose Grease
- ② REFER TO Maintenance "ENGINE" SECTION

**IMPORTANT:** Do not oil or grease the pivot points which have special nylon bearings. Viscous lubricants will attract dust and dirt that will shorten the life of the self-lubricating bearings. If you feel they must be lubricated, use only a dry, powdered graphite type lubricant sparingly.

## 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 ADJUST BRAKE" in the Service and Adjustments section of this manual).

### TIRES

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

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

### OPERATOR PRESENCE SYSTEM AND REVERSE OPERATION SYSTEM (ROS)

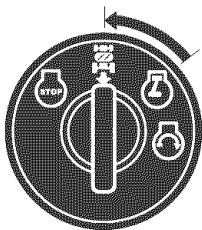
Be sure operator presence and reverse operation systems are working properly. If your tractor does not function as described, repair the problem immediately.

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

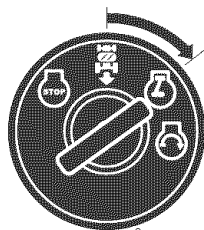
### CHECK OPERATOR PRESENCE SYSTEM

- 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.

ROS "ON" Position



Engine "ON" Position (Normal Operating)



### 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.

### 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.

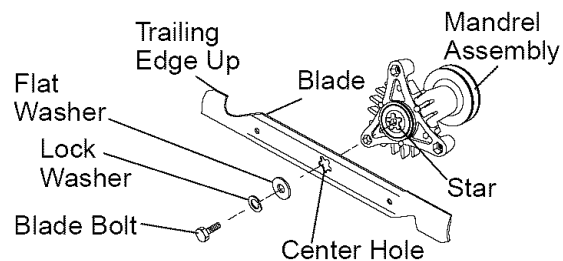
### BLADE REMOVAL

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

**IMPORTANT:** To ensure proper assembly, center hole in blade must align with star on mandrel assembly.

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

**IMPORTANT:** Blade bolt is heat treated. If bolt needs replacing, replace only with approve bolt shown in the Repair Parts.



### TO SHARPEN BLADE

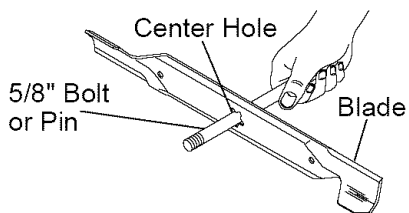
**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer.)

**NOTE:** Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.



## 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.

1. Remove terminal guard.
2. Disconnect **BLACK** battery cable first then **RED** battery cable and remove battery from tractor.
3. Rinse the battery with plain water and dry.
4. Clean terminals and battery cable ends with wire brush until bright.
5. Coat terminals with grease or petroleum jelly.
6. Reinstall battery (See "REPLACING BATTERY" in the SERVICE AND ADJUSTMENTS section of this manual).

## TRANSAXLE COOLING

The transmission fan and cooling fins should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot. To prevent possible damage to seals, do not use high pressure water or steam to clean transaxle.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

## TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact a Sears or other qualified service center.

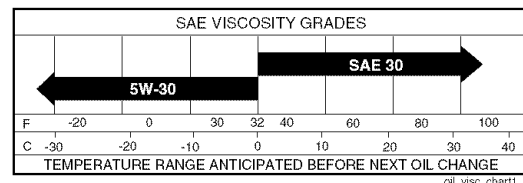
## V-BELTS

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

## ENGINE

### LUBRICATION

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



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, they will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

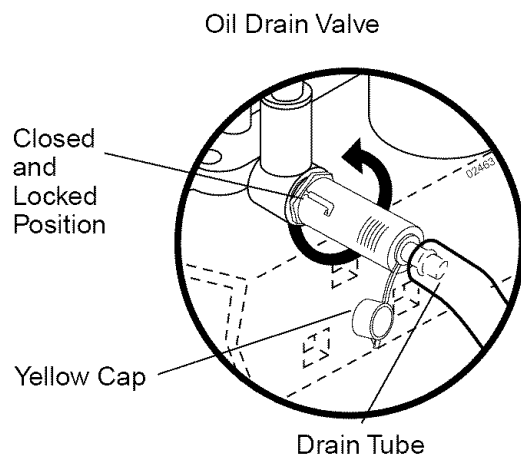
Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year.

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

## TO CHANGE ENGINE OIL

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

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



3. Unlock drain valve by pushing inward slightly and turning counterclockwise.
4. To open, pull out on the drain valve.
5. After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
6. Remove the drain tube and replace the cap onto the end of the drain valve.
7. Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
8. Use gauge on oil fill cap/dipstick for checking level. For accurate reading, tighten dipstick cap securely onto the tube before removing dipstick. 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.

## AIR FILTER

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

Service air cleaner more often under dusty conditions.

1. Remove cover.

### TO SERVICE PRE-CLEANER

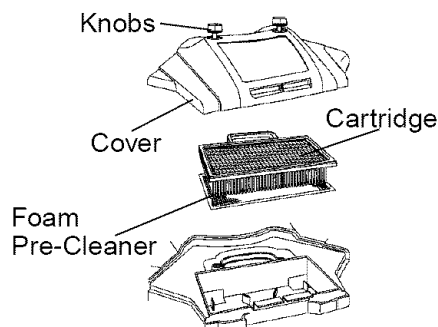
2. Wash it in liquid detergent and water.
3. Squeeze it dry in a clean cloth.
4. Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

**NOTE:** If very dirty or damaged, replace pre-cleaner.

### TO SERVICE CARTRIDGE

1. Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
2. Reinstall pre-cleaner cartridge, cover and secure.

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



## CLEAN AIR SCREEN

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

## CLEAN AIR INTAKE/COOLING AREAS

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

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

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

## MUFFLER

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

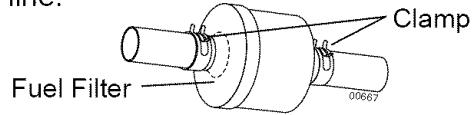
## SPARK PLUG(S)

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

## IN-LINE FUEL FILTER

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

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



## 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:**

1. Depress clutch/brake pedal fully and set parking brake.
2. Place motion control lever in neutral (N) position.
3. Place attachment clutch in "DISENGAGED" position.
4. Turn ignition key to "STOP" and remove key.
5. Make sure the blades and all moving parts have completely stopped.
6. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

## TRACTOR

### TO REMOVE MOWER

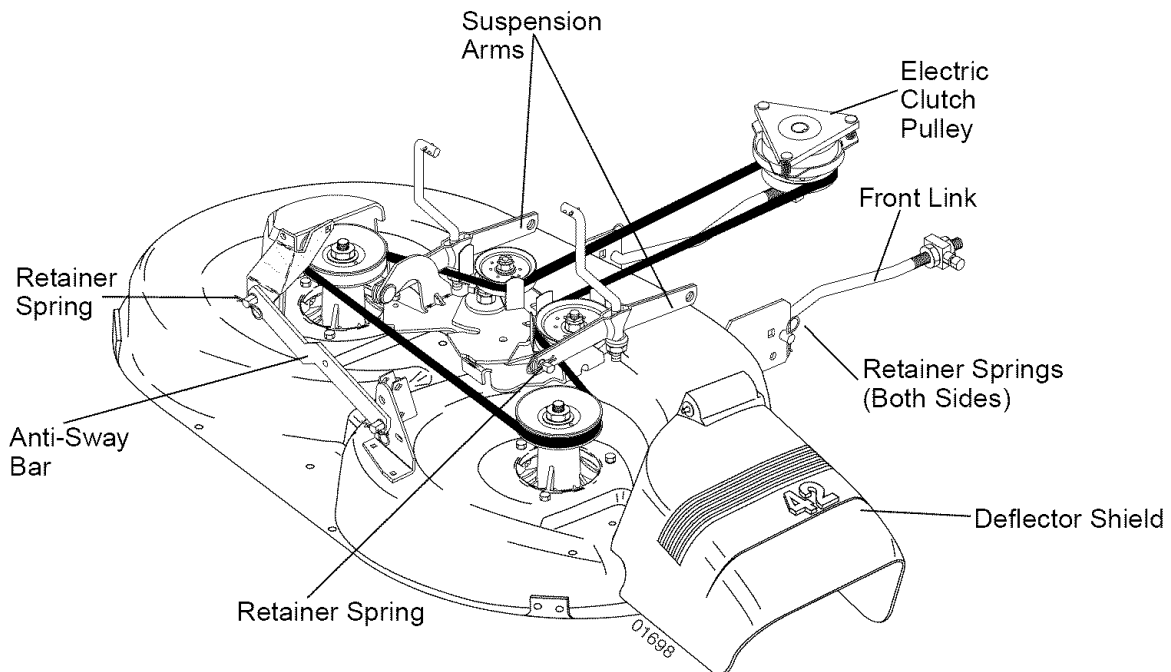
Mower will be easier to remove from the right side of tractor.

1. Place attachment clutch switch in "DISENGAGED" position.
2. Move attachment lift lever forward to lower mower to its lowest position.
3. Roll belt off electric clutch pulley.
4. Disconnect anti-sway bar from chassis bracket by removing retainer spring.
5. Disconnect suspension arms from rear deck brackets by removing retainer springs.
6. Disconnect front links from deck by removing retainer springs.
7. 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.

### TO INSTALL MOWER

1. Raise attachment lift lever to its highest position.
2. Slide mower under tractor with deflector shield to right side of tractor.
3. Lower lift lever to its lowest position.
4. Connect front links to mower deck and secure with retainer springs.
5. Connect suspension arms to rear deck brackets and secure with retainer springs.
6. Connect anti-sway bar to chassis bracket and secure with retainer spring.
7. Install belt into electric clutch pulley groove.



## TO LEVEL MOWER HOUSING

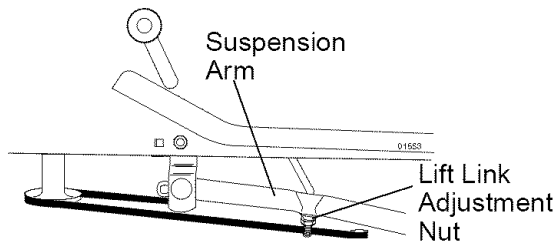
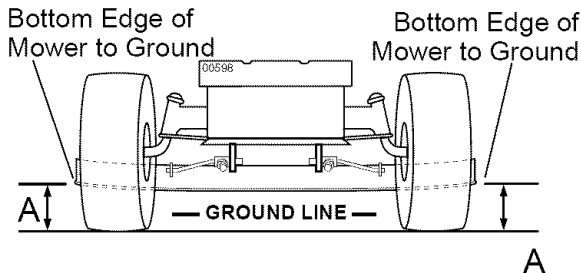
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" section of this manual). If tires are over or underinflated, you will not properly adjust your mower.

### SIDE-TO-SIDE ADJUSTMENT

- 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".

6.0 Recheck measurements after adjusting.



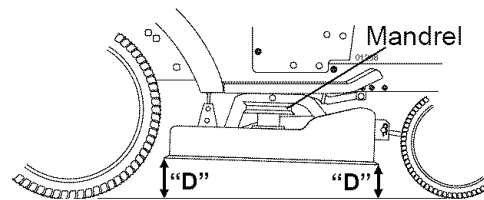
### FRONT-TO-BACK ADJUSTMENT

**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.

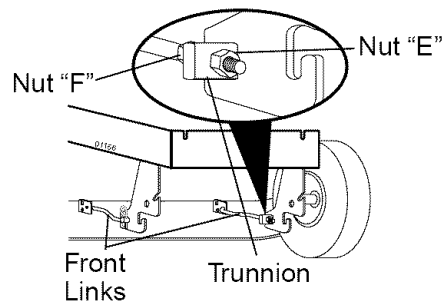
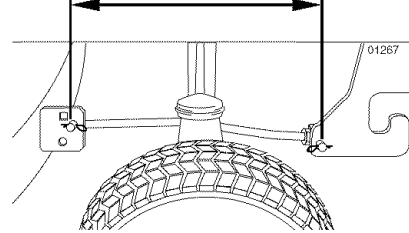
To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front of 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.



**BOTH FRONT LINKS MUST BE EQUAL IN LENGTH**



## TO REPLACE MOWER BLADE DRIVE BELT

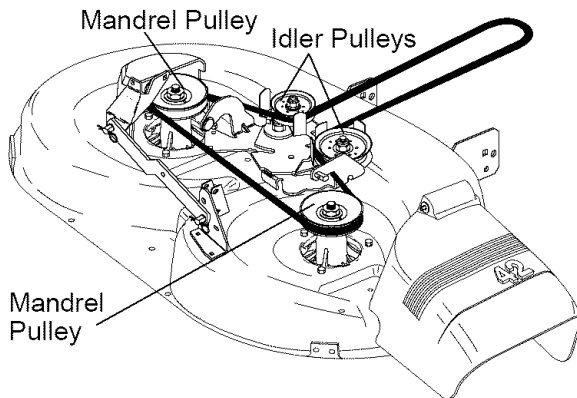
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

### BELT REMOVAL -

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

### BELT INSTALLATION -

1. Work belt around both mandrel pulleys and idler pulleys
2. Make sure belt is in all pulley grooves and inside all belt guides.
3. Install mower (See "To Install Mower" in this section of this manual).



## TO CHECK AND ADJUST BRAKE

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

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

### TO CHECK BRAKE

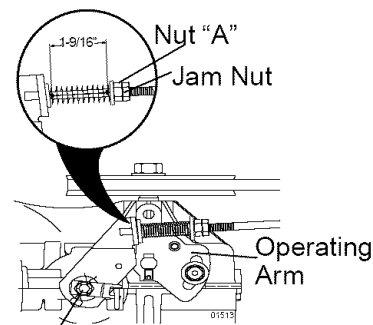
1. Park tractor on a level, dry concrete or paved surface, depress clutch/brake pedal all the way down and engage parking brake.
2. Disengage transmission by placing freewheel control in "transmission disengaged" position. Pull freewheel control out and into the slot and release so it is held in the disengaged position.

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

## TO ADJUST BRAKE

1. Depress clutch/brake pedal all the way down and engage parking brake.
2. Measure distance between brake operating arm and nut "A" on brake rod.
3. If distance is other than 1-9/16", loosen jam nut and turn nut "A" until distance becomes 1-9/16". Retighten jam nut against nut "A".
4. Engage transmission by placing freewheel control in "transmission engaged" position.
5. Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than five (5) feet in highest gear, further maintenance is necessary. Replace brake pads or contact a Sears or other qualified service center.

### With parking brake "Engaged"



Do not touch this nut. If further brake adjustment is necessary contact a Sears or other qualified service center.

## TO REPLACE MOTION DRIVE BELT

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

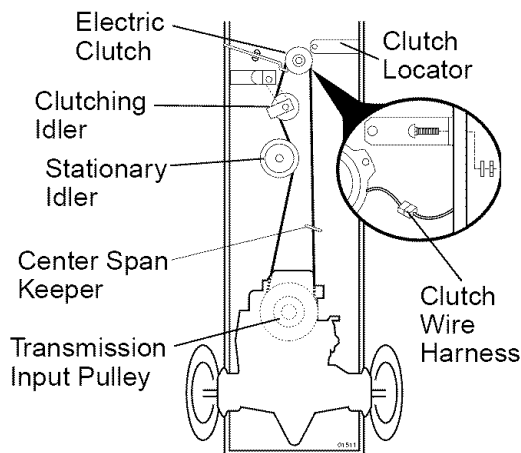
### BELT REMOVAL -

1. 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.
2. Disconnect clutch wire harness.
  3. Remove clutch locator.
  4. Remove belt from stationary idler and clutching idler.
  5. Remove belt downward from engine pulley and around electric clutch.
  6. Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
  7. Remove belt from center span keeper and pull belt away from tractor.



## BELT INSTALLATION -

1. Carefully work new belt down around transmission cooling fan and onto the input pulley.
2. Slide belt into the center span keeper.
3. Pull belt toward front of tractor and roll belt around electric clutch and onto engine pulley.
4. Install belt through stationary idler and clutching idler.
5. Reinstall clutch locator and tighten nut securely.
6. Reconnect clutch harness.
7. Make sure belt is in all pulley grooves and inside all belt guides and keepers.
8. Install mower (See "TO INSTALL MOWER" in this section of manual).



## TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT

The motion control lever has been preset at the factory and adjustment should not be necessary.

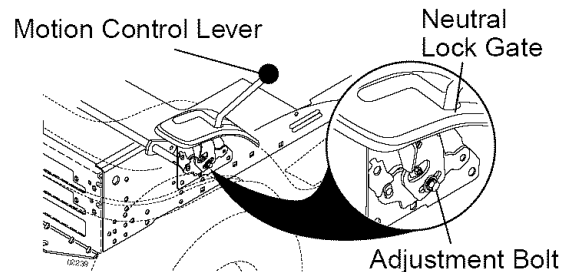
1. Loosen adjustment bolt in front of the right rear wheel, and lightly tighten.
2. Start engine and move motion control lever until tractor does not move forward or backward.

3. Hold motion control lever in that position and turn engine off.
4. While holding motion control lever in place, loosen the adjustment bolt.
5. Move motion control lever to the neutral (N) (lock gate) position.
6. Tighten adjustment bolt securely.

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

After above adjustment is made, if the tractor still creeps forward or backward while motion control lever is in neutral position, follow these steps:

1. Loosen the adjustment bolt.
2. Move the motion control lever 1/4 to 1/2 inch in the direction it is trying to creep.
3. Tighten adjustment bolt securely.
4. Start engine and test.
5. If tractor still creeps, repeat above steps until satisfied.



## TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in the Operation section of this manual.

## TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble with crossbars horizontal. Tighten securely.

## 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 a Sears or other qualified service center.

## TO REMOVE WHEEL FOR REPAIRS

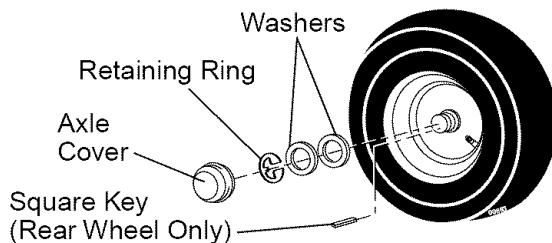
1. Block up axle securely.
2. Remove axle cover, retaining ring and washers to allow wheel removal (rear wheels have a square key - Do not lose).

3. Repair tire and reassemble.

**NOTE:** On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.

4. Replace washers and snap retaining ring securely in axle groove.
5. Replace axle cover.

**NOTE:** To seal tire punctures and prevent flat tires due to slow leaks, purchase and use tire sealant from Sears. Tire sealant also prevents tire dry rot and corrosion.



## TO START ENGINE WITH A WEAK BATTERY

**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:

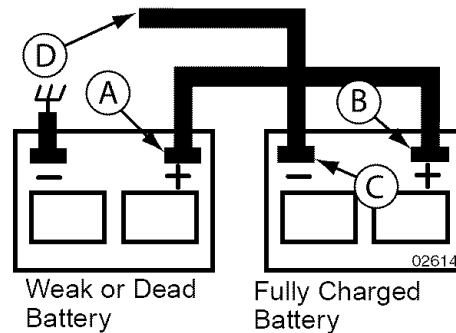
**IMPORTANT:** Your tractor is equipped with a 12 volt system. The other vehicle must also be a 12 volt system. Do not use your tractor battery to start other vehicles.

## TO ATTACH JUMPER CABLES -

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

## TO REMOVE CABLES, REVERSE ORDER -

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

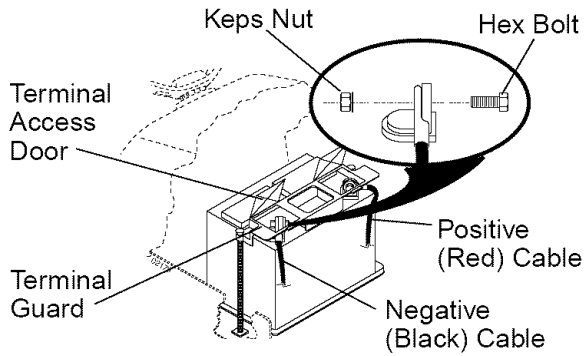


## REPLACING BATTERY

**WARNING:** Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

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

1. Lift hood to raised position.
2. Remove terminal guard.
3. Disconnect BLACK battery cable then RED battery cable and carefully remove battery from tractor.
4. Install new battery with terminals in same position as old battery.
5. Reinstall terminal guard.
6. First connect RED battery cable to positive (+) battery terminal with hex bolt and keps nut as shown. Tighten securely.
7. Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and keps nut. Tighten securely
8. Close terminal access doors.
9. Close hood.



## TO REMOVE HOOD AND GRILL ASSEMBLY

1. Raise hood.
2. Unsnap headlight wire connector.
3. Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
4. When replacing hood, be sure to reconnect the headlight wire connector.

## TO REPLACE HEADLIGHT BULB

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

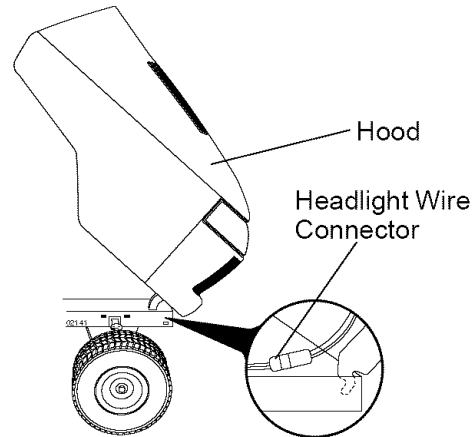
## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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



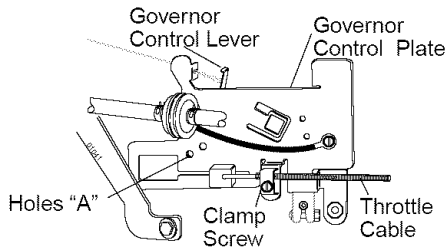
## ENGINE

Maintenance, repair, or replacement of the emission control devices and systems, which are being done at the 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

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:

1. With engine not running, move throttle control lever from slow to choke position. Slowly move lever from choke to fast position.
2. 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

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

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

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

of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** Damage to the needle valve and the seat in carburetor may result if screw is turned in too tight.

#### PRELIMINARY SETTING -

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

#### FINAL SETTING -

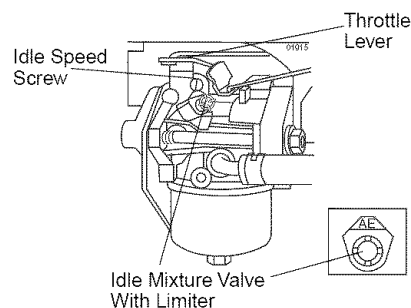
1. Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (**N**) position.
2. Move throttle control lever to slow position. With finger, rotate and hold throttle lever against idle speed screw. Turn idle speed screw to attain 1750 RPM.
3. 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 -

4. 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 a Sears or other qualified service center, which has proper equipment and experience to make any necessary adjustments.



# STORAGE

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

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

## TRACTOR

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

1. Clean entire tractor (See "CLEANING" in the Maintenance section of this manual).
2. Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
3. Lubricate as shown in the Maintenance section of this manual.
4. Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
5. 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 hose, or tank during storage.

Also, 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 letting 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)

1. Remove spark plug(s).
2. Pour one ounce of oil through spark plug hole(s) into cylinder(s).
3. Turn ignition key to start position for a few seconds to distribute oil.
4. 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 CHART:**

See appropriate section in manual unless directed to Sears service center

<b>PROBLEM</b>	<b>CAUSE</b>	<b>CORRECTION</b>
<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 and Adjustments section.</li> <li>10. Contact a Sears or other qualified service center.</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 and Adjustments section.</li> <li>8. Contact a Sears or other qualified service center.</li> </ol>
<b>Engine will not turn over</b>	<ol style="list-style-type: none"> <li>1. 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 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 a Sears or other qualified service center.</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> </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> </ol>

## TROUBLESHOOTING CHART:

See appropriate section in manual unless directed to Sears service center

PROBLEM	CAUSE	CORRECTION
<b>Loss of power (continued)</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <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 and Adjustments section.</li> <li>15. Contact a Sears or other qualified service center.</li> </ul>
<b>Excessive vibration</b>	<ul 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> </ul>	<ul style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Contact a Sears or other qualified service center.</li> <li>3. Tighten loose part(s). Replace damaged parts.</li> </ul>
<b>Engine dies when tractor is shifted into reverse</b>	<ul style="list-style-type: none"> <li>1. Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.</li> </ul>	<ul style="list-style-type: none"> <li>1. Turn ignition key to ROS "ON" position. See Operation section.</li> </ul>
<b>Engine continues to run when operator leaves seat with attachment clutch engaged</b>	<ul style="list-style-type: none"> <li>1. Faulty operator-safety presence control system.</li> </ul>	<ul style="list-style-type: none"> <li>1. Check wiring, switches and connections. If not corrected, contact a Sears or other qualified service center.</li> </ul>
<b>Poor cut - uneven</b>	<ul style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Mower deck not level.</li> <li>3. Buildup of grass, leaves, and trash under mower.</li> <li>4. Bent blade mandrel.</li> <li>5. Clogged mower deck vent from build-up of grass, leaves, and trash around mandrels.</li> </ul>	<ul 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. Contact a Sears or other qualified service center.</li> <li>5. Clean around mandrels to open vent holes.</li> </ul>

## TROUBLESHOOTING CHART:

See appropriate section in manual unless directed to Sears service center

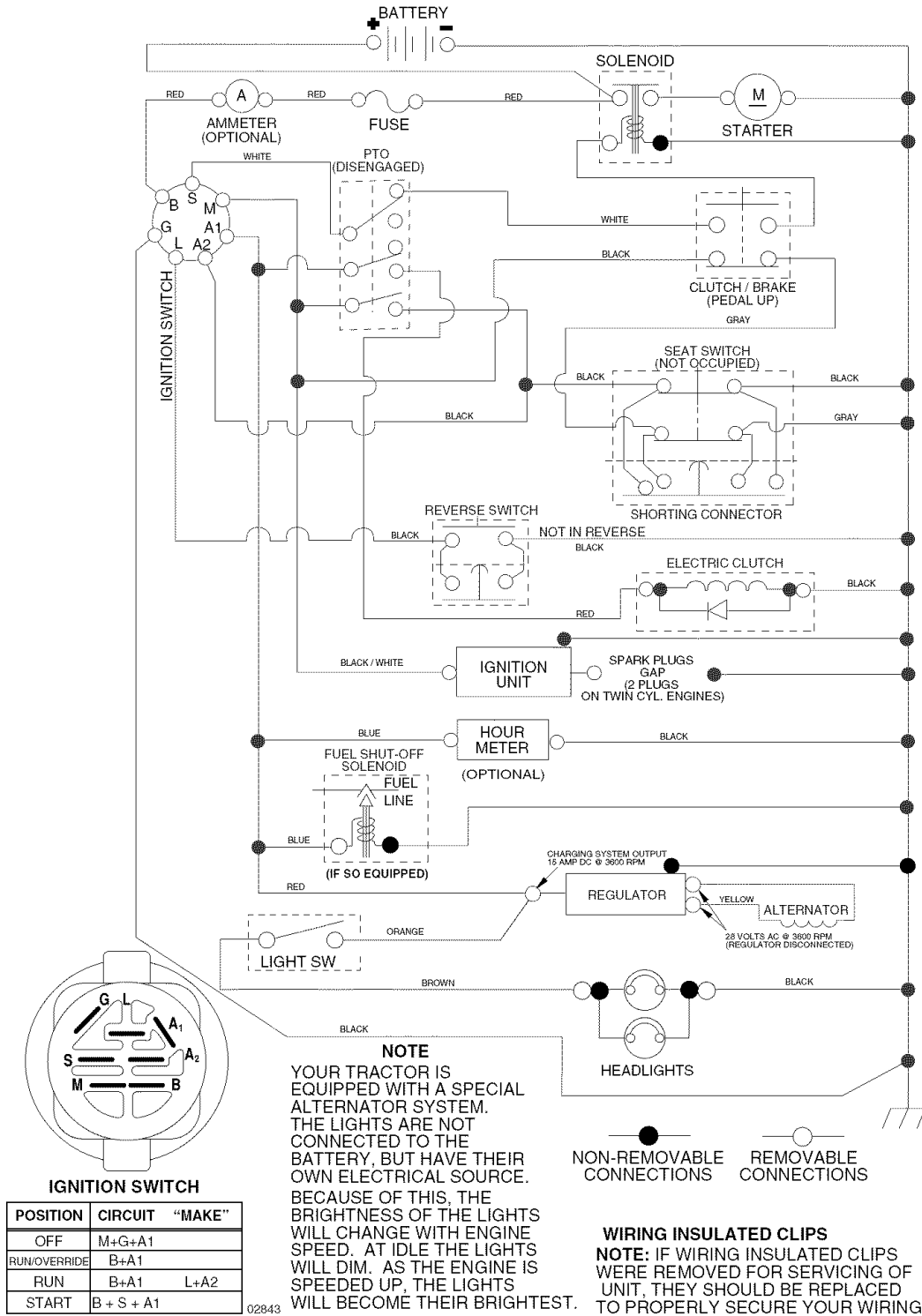
PROBLEM	CAUSE	CORRECTION
<b>Mower blades will not rotate</b>	<ol style="list-style-type: none"> <li>1. Obstruction in clutch mechanism.</li> <li>2. Worn/damaged mower drive belt.</li> <li>3. Frozen idler pulley.</li> <li>4. Frozen blade mandrel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove obstruction.</li> <li>2. Replace mower drive belt.</li> <li>3. Replace idler pulley.</li> <li>4. Contact a Sears or other qualified service center.</li> </ol>
<b>Poor grass discharge</b>	<ol style="list-style-type: none"> <li>1. Engine speed too slow.</li> <li>2. Travel speed too fast.</li> <li>3. Wet grass.</li> <li>4. Mower deck not level.</li> <li>5. Low/uneven tire air pressure.</li> <li>6. Worn, bent or loose blade.</li> <li>7. Buildup of grass, leaves and trash under mower.</li> <li>8. Mower drive belt worn.</li> <li>9. Blades improperly installed.</li> <li>10. Improper blades used.</li> <li>11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place throttle control in "FAST" position.</li> <li>2. Shift to slower speed.</li> <li>3. Allow grass to dry before mowing.</li> <li>4. Level mower deck.</li> <li>5. Check tires for proper air pressure.</li> <li>6. Replace/sharpen blade. Tighten blade bolt.</li> <li>7. Clean underside of mower housing.</li> <li>8. Replace mower drive belt.</li> <li>9. Reinstall blades sharp edge down.</li> <li>10. Replace with blades listed in this manual.</li> <li>11. Clean around mandrels to open vent holes.</li> </ol>
<b>Headlight(s) not working (if so equipped)</b>	<ol style="list-style-type: none"> <li>1. Light 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 light 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. Freewheel control in "disengaged" position.</li> <li>2. Motion drive belt worn, damaged, or broken.</li> <li>3. Air trapped in transmission during shipment or servicing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place freewheel control in "engaged" position.</li> <li>2. Replace motion drive belt.</li> <li>3. Purge transmission.</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>



# TRACTOR - - MODEL NUMBER 917.275684

## SCHEMATIC

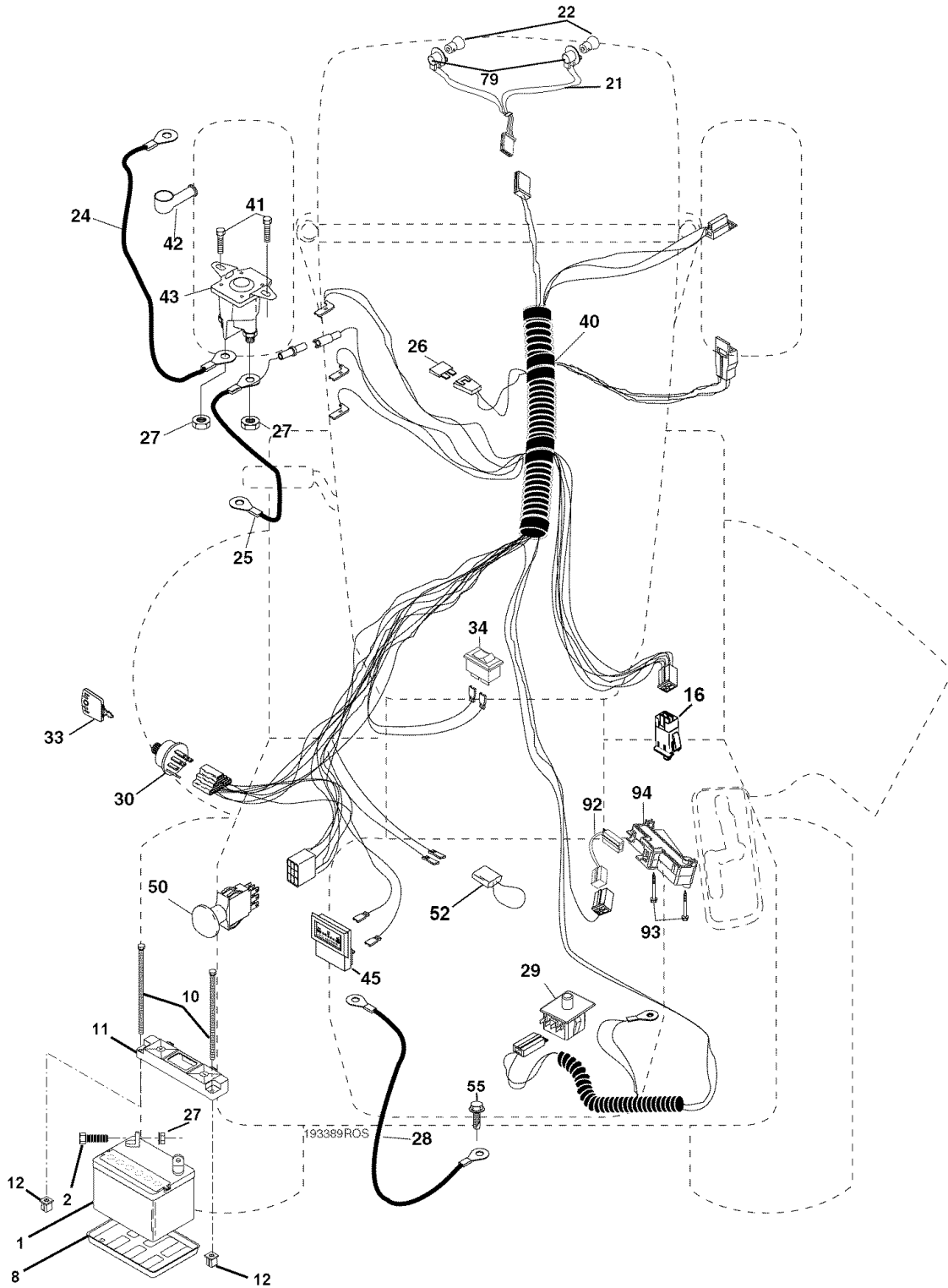
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# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.275684

## ELECTRICAL



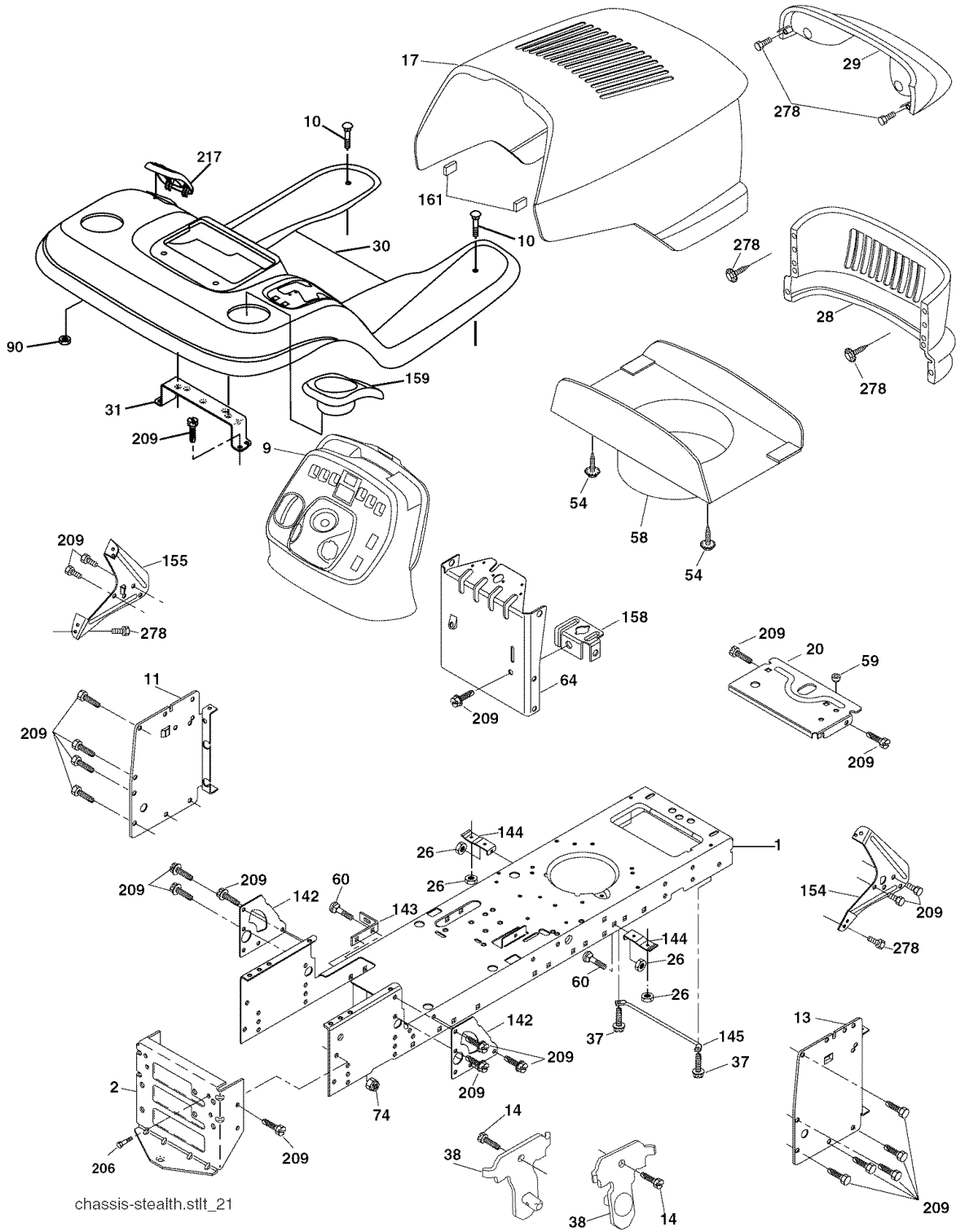
ELECTRICAL

TRACTOR - - MODEL NUMBER 917.275684

KEY NO.	PART NO.	DESCRIPTION
1	144927	Battery
2	74760412	Bolt Hex 1/4-20 x 3/4
8	7603J	Tray Battery
10	145211	Bolt Btr Front 1/4-20 x 7-1/2
11	150109	Holddown Battery Front Mount
12	145769	Nut Push Nylon Battery Front 1/4
16	176138	Switch Interlock
21	175688	Harness Light
22	4152J	Bulb Light
24	8860R	Cable Starter
25	146148	Cable Battery
26	175158	Fuse
27	73510400	Nut Keps Hex 1/4-20 unc
28	145491	Cable Ground
29	192749	Switch Seat
30	193350	Switch Ignition
33	140403	Key Molded
34	110712X	Switch Light / Reset
40	193389	Harness Ignition
41	17720408	Screw Thd Cut 1/4-20 x 1/2
42	131563	Cover Terminal
43	178861	Solenoid
45	122822X	Ammeter
50	174652	Switch PTO
52	141940	Protection Wire Loop
55	17490508	Screw Thdrol 5/16-18 x 1/2
79	175242	Socket Asm Bulb Twistlock
92	193465	Harness Pigtail Reverse Switch
93	192540	Screw Plastite 10-14 x 2.0
94	191834	Module Reverse ROS

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

TRACTOR - - MODEL NUMBER 917.275684  
CHASSIS AND ENCLOSURES



chassis-stealth.stft\_21

**TRACTOR - - MODEL NUMBER 917.275684**  
**CHASSIS AND ENCLOSURES**

<b>KEY NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	174619	Chassis
2	176554	Drawbar
9	193636X428	Dash
10	72140608	Bolt RDHD SQNK 3/8-16 x 1
11	167203	Panel Dash LH
13	188702X010	Panel Dash RH
14	17490608	Screw Thdrol 3/8-16 x 1/2
17	175260X428	Hood Assembly
20	162026	Plate Battery
26	STD541437	Locknut Hex with Insert 3/8-16 unc
28	174515X428	Grille
29	161840	Lens Bar
30	192395X428	Fender/Footrest
31	139976	Bracket Fender/Support
37	17490508	Screw Thdrol 5/16-18 x 1/2 TYT
38	175710	Bracket Asm Pivot Mower Rear
54	192512	Screw Hex Wshd 10-32 x 5/8
58	175351	Duct Hood
59	187495	Bushing 1.375 OD
60	STD533707	Bolt Rdhd Sqnk 3/8-16 unc x 3/4
64	174997	Dash Lower
74	STD541437	Nut Crownlock 3/8-16 unc
90	124346X	Nut Self-Thd Wsh-Hd 1/4
142	175702	Plate Reinforcement
143	186689	Bracket Swaybar Chassis
144	175582	Bracket Footrest
145	156524	Rod Pivot Chassis/Hood
154	161897	Bracket Dash Rh
155	161900	Bracket Dash Lh
158	162037	Parking Brake Bkrt
159	191120X428	Cupholder
161	164655	Bumper Extrusion .600 x 3.50
206	170165	Bolt Shoulder 5/16-18
209	17000612	Screw Hexwsh Thdr 3/8-16 x 3/4
217	179132X428	Console Fuel Window
278	191611	Screw 10 x 3/4 Single Lead-Hex

**NOTE:** All component dimensions given in U.S. inches  
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# TRACTOR - - MODEL NUMBER 917.275684

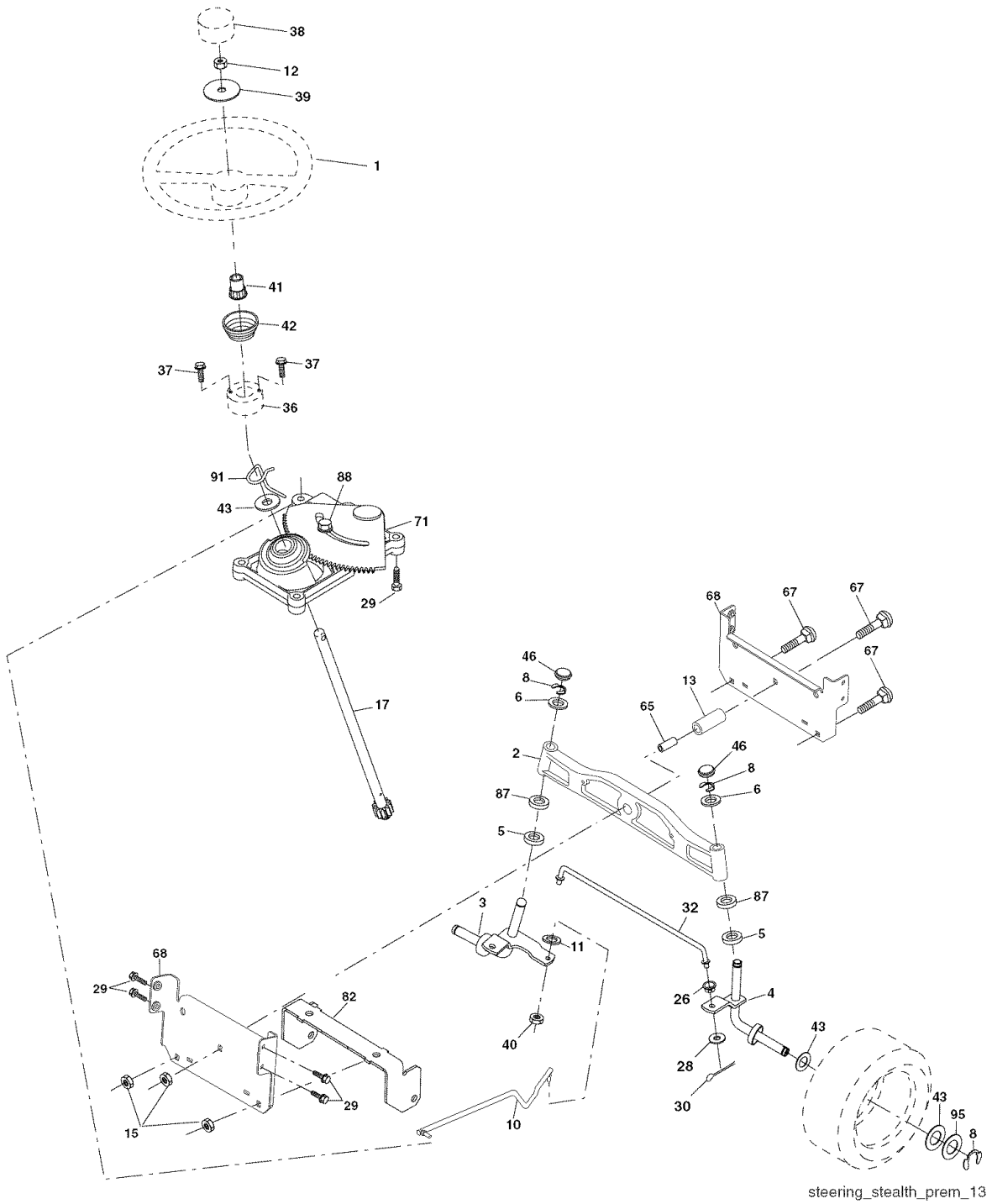
## GROUND DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	---	Transaxle, HydroGear, Model Number 314-0510 (See Break down)	61	17120614	Screw 3/8-16 x .875
8	192502	Rod Shift Fend.	62	123533X	Cover, Pedal
9	180505	Clutch Electric	63	174607	Pulley, Engine
10	76020416	Pin Cotter 1/8 x 1	65	10040700	Washer
14	10040400	Washer Lock Hvy 1/4	66	154778	Keeper Belt Engine
15	74490544	Bolt Hex Flghd 5/16-18 Gr. 5	69	142432	Screw Hew Wsh Hi-Lo 1/4-1/2 unc
16	73800500	Nut Lock Hex W/Ins. 5/16-18 unc	71	169183	Strap Torque LH
17	126197X	Washer 1-1/2 OD x 15/32 ID x .250	73	169182	Strap Torque RH
19	73800600	Nut Lock Hex W/Wsh 3/8-16 unc	74	137057	Spacer, Axle
20	173937	Bolt Hex 7/16-20 x 4 x Gr. 5-1.5 Thr.	75	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
21	106933X	Knob	76	12000001	E-Ring
22	169498	Rod, Brake	77	123583X	Key, Square
23	190736	Bracket Anti-Rotation	78	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
24	73350600	Nut, Hex Jam 3/8-16 unc	81	165596	Shaft Assy. Cross Taper
25	106888X	Spring, Brake Rod	82	165711	Spring Torsion
26	19131316	Washer	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
27	76020412	Pin Cotter 1/8 x 3/4 CAD.	84	169594	Link Transaxle
28	175765	Rod, Parking Brake	89	192387X428	Console, Shift
29	124236X	Knob Brake Parking	95	170201	Rod Bypass
30	169592	Bracket, Transaxle	96	4497H	Retainer Spring 1" Zinc/Cad
32	74760512	Bolt Hex Hd 5/16-18 unc x 3/4	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
34	175578	Shaft, Foot Pedal	120	73900600	Nut Lock Flg 3/8-16 unc
35	120183X	Bearing, Nylon	150	175456	Spacer Retainer
36	19211616	Washer	151	19133210	Washer 13/32 x 2 x 10 Ga.
37	1572H	Pin, Roll	156	166002	Washer 5/16 ID x 1.0 x .125
38	179114	Pulley, Composite	158	165589	Bracket Shift Mount
39	72110622	Bolt Rdhd 3/8-16 unc x 2-3/4 Gr. 5	159	183900	Hub Shift
41	175556	Keeper, Belt Idler Flat	161	72140406	Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr. 5
47	127783	Pulley, Idler, V-Groove	162	73680400	Nut Crownlock 1/4-20 unc
48	154407	Bellcrank Clutch Grnd Drw Stl	163	74780416	Bolt Hex Fin 1/4-20 unc x 1 Gr. 5
49	123205X	Retainer, Belt	165	165623	Bracket Pivot Lever
50	72110612	Bolt	166	17490510	Screw 5/16-18 x 5/8
51	73680600	Nut Crownlock 3/8-16 unc	168	165492	Bolt Shoulder 5/16-18 x .561
52	73680500	Nut, Crownlock 5/16-18 unc	169	165580	Plate Fastener Cross Shf.
53	105710X	Link, Clutch	197	169613	Nyliner Snap-in 5/8 ID
55	105709X	Spring, Return, Clutch	198	169593	Washer Nyl 7/8 ID x .105"
56	17060620	Screw 3/8-16 x 1-1/4	199	169612	Bolt Shoulder 5/16-18 unc
57	140294	V-Belt, Ground Drive	200	72140508	Bolt Rdhd Sqnk 5/16-18 unc x 1
59	169691	Keeper, Center Span	202	72110614	Bolt Carr Sh 3/8-16 x 1-3/4 Gr. 5
			254	17000616	Screw 3/8-16 x 1
			263	17000612	Screw 3/8-16 x .75

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

# TRACTOR - - MODEL NUMBER 917.275684

## STEERING ASSEMBLY





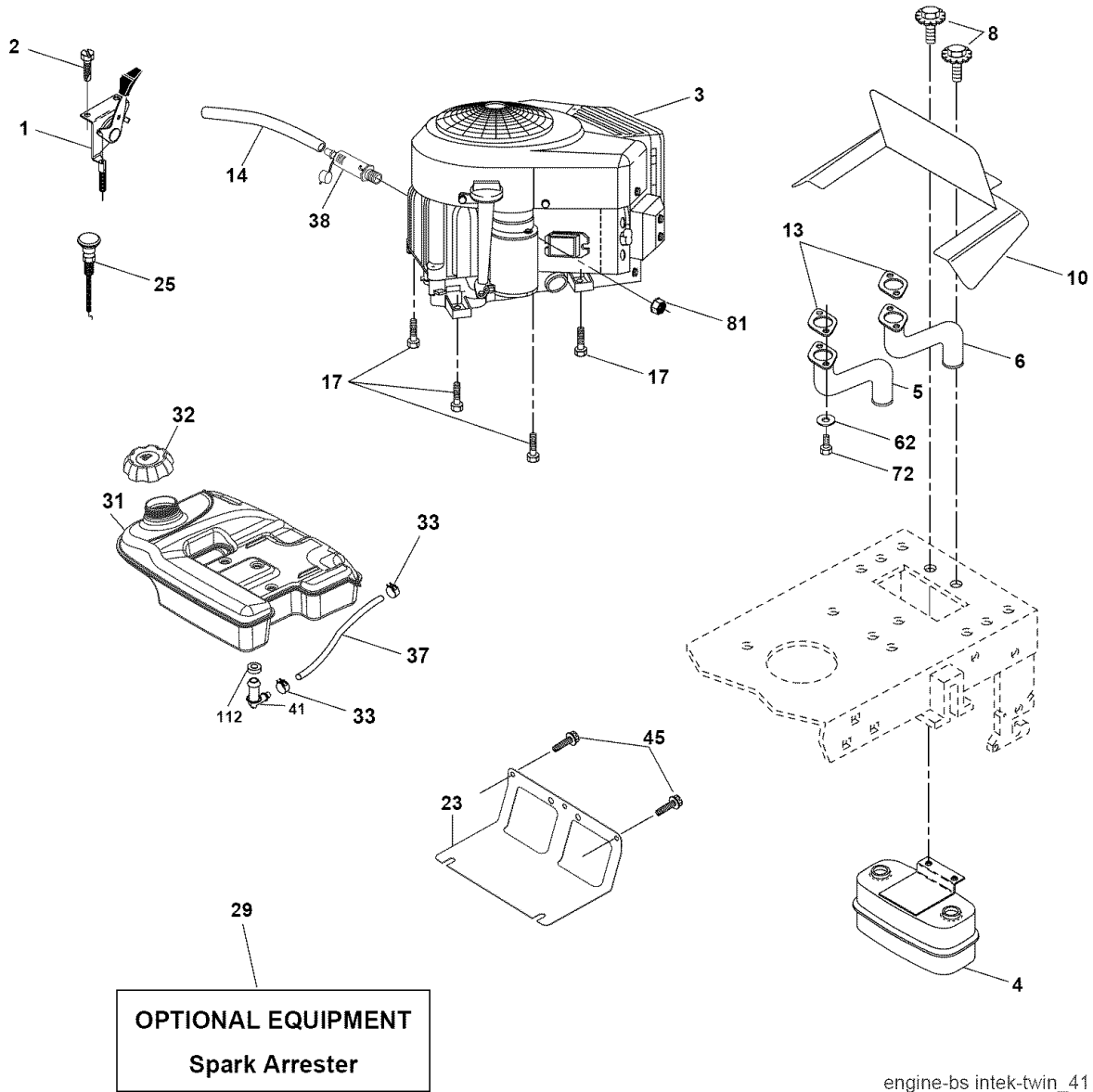
**TRACTOR - - MODEL NUMBER 917.275684**  
**STEERING ASSEMBLY**

KEY NO.	PART NO.	DESCRIPTION
1	186094X428	Wheel Steering
2	184706	Axle Asm
3	169840	Spindle Asm LH
4	169839	Spindle Asm RH
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
8	12000029	Ring Klip #t5304-75
10	175121	Link Drag
11	STD551137	Washer Lock Hvy Hlcl Spr 3/8
12	73940800	Nut Hex Jam Toplock 1/2-20 unf
13	136518	Spacer Bearing Axle Front
15	145212	Nut Hex Flange Lock
17	177883	Shaft Asm Steering
26	126847X	Bushing Link Drag
28	19131416	Washer 13/32 x 7/8 x 16 Ga.
29	17000612	Screw 3/8-16 x 3/4
30	76020412	Pin Cotter 1/8 x 3/4
32	130465	Rod Tie
36	155105	Bushing Strg
37	152927	Screw
38	186095X428	Insert Cap Strg Wh
39	19183812	Washer 9/16 ID x 2-3/8 OD 12 Ga.
40	73540600	Nut Crownlock 3/8-24
41	186737	Adaptor Wheel Strg
42	163888X428	Boot Steering
43	121749X	Washer 25/32 1 1/4 x 16 Ga.
46	184946X505	Cap Spindle
65	160367	Spacer Brace Axle
67	72110618	Bolt Rdhd Sq 3/8-16 unc x 2-1/4
68	169827	Axle Brace
71	175146	Steering Asm.
82	169835	Bracket Susp. Chassis Front
87	173966	Washer Flat .781 x 1-1/2 x .15
88	175118	Bolt Shoulder 7/16-20 unc
91	175553	Clip Steering
95	188967	Washer Harden .793 x 1.637 x .060

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

# TRACTOR - - MODEL NUMBER 917.275684

## ENGINE



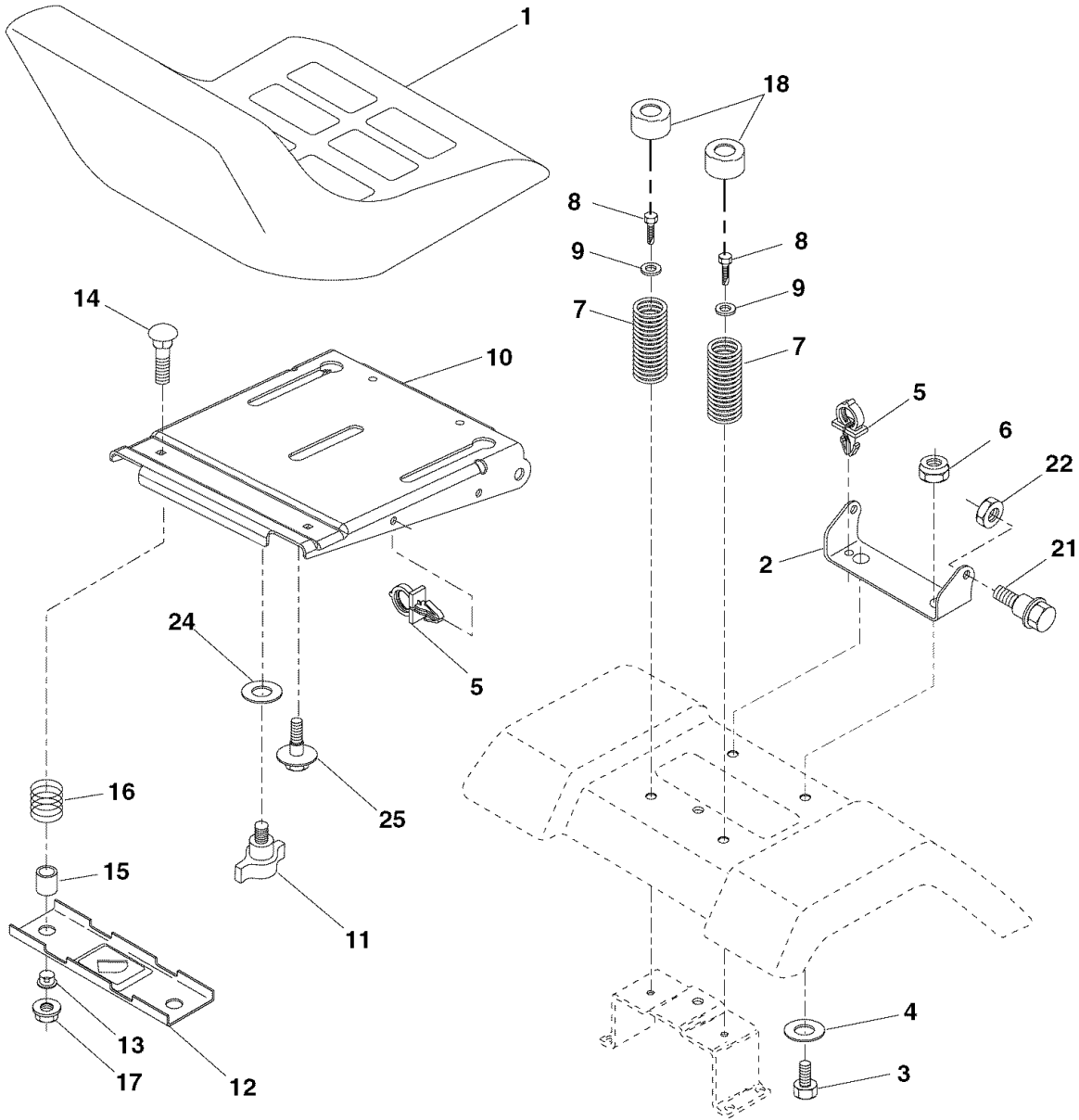
engine-bs intek-twin\_41

KEY PART NO.	PART NO.	DESCRIPTION	KEY PART NO.	PART NO.	DESCRIPTION
1	175437X505	Control Throttle/Choke	29	137180	Kit Spark Arrester (Flat Scrn)
2	191611	Screw 10 x 3/4 Single Lead-Hex	31	179022	Tank Fuel
3	-----	Engine B&S Model 445677-0413-E1 (See Breakdown)	32	179124X428	Cap Asm Fuel
4	149723	Muffler	33	123487X	Clamp Hose Black
5	160589	Exhaust Tube RH	37	8543R	Line Fuel
6	159955	Exhaust Tube LH	38	181654	Plug Drain Oil Easy
8	171877	Bolt 5/16-18 unc x 3/4 w/sems	41	139277	Stem Tank Fuel
10	162797	Shield Browning	45	17000612	Screw Hexwsh Thdr 3/8-16 x 3/4
13	165391	Muffler Gasket	72	183906	Screw Socket Head 5/16-18 x 1
14	148456	Tube Drain Oil Easy	81	73510400	Nut Keps Hex 1/4-20 unc
17	17060624	Screw 3/8-16 x 1 SMGML-1/2	112	3645J	Bushing
23	169837	Shield Heat			
25	18776X505	Control Choke			

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

# TRACTOR - - MODEL NUMBER 917.275684

## SEAT ASSEMBLY



seat\_ft.knob\_14

### KEY PART

NO.	NO.	DESCRIPTION
1	180598	Seat
2	180166	Bracket Pivot Fender
3	STD523710	Bolt Fin Hex 3/8-16 unc x 1
4	19131610	Washer 13/32 x 1 x 10 Ga
5	145006	Clip Push-In
6	STD541437	Nut Hex w/Ins 3/8-16 unc
7	124181X	Spring Seat Cprsn
8	17000616	Screw 3/8-16 x 1-1/2
9	19131614	Washer 13/32 x 1 x 14 Ga.
10	180186	Pan Seat
11	166369	Knob Seat Adj Wingnut
12	174648	Bracket Mounting Switch

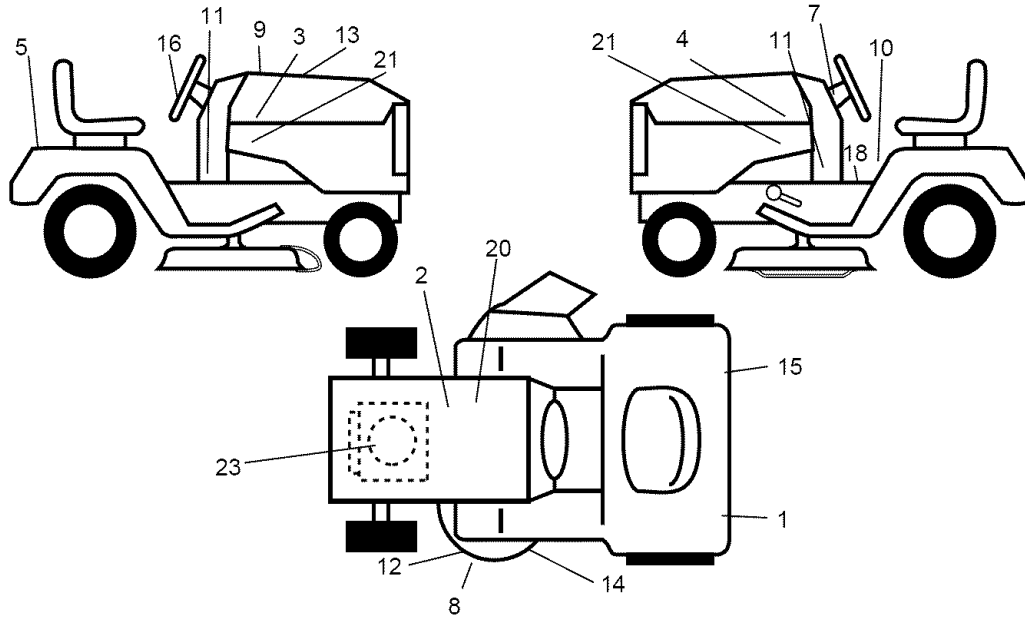
### KEY PART

NO.	NO.	DESCRIPTION
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050412	Bolt Rdhd Sqnk 1/4-20 x 1-1/2
15	121249X	Spacer Split
16	123740X	Spring Cprsn
17	123976X	Nut Lock 1/4 Lge Flg Gr. 5 Zinc
18	124238X	Cap Spring Seat
21	171852	Bolt Shoulder 5/16-18 unc
22	STD541431	Nut Hex Lock W/Ins 5/16-18
24	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
25	127018X	Bolt Shoulder 5/16-18 x 62

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

# TRACTOR - - MODEL NUMBER 917.275684

## DECALS



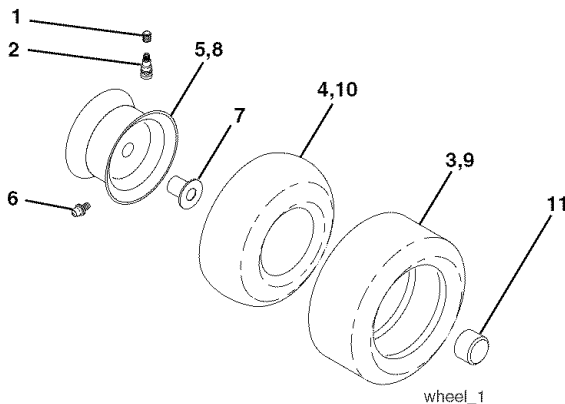
### KEY PART NO. NO.

KEY PART NO.	PART NO.	DESCRIPTION
1	187407	Decal Reflector LH
2	138047	Decal Battery Diehard Sears
3	194023	Decal Hood RH
4	194024	Decal Hood LH
5	194027	Decal Fender Craftsman
7	193654	Decal Dash
8	179128	Decal Deck Caution
9	195880	Decal Replacement Hood
10	156439	Decal Fender Danger
11	189637	Decal Panel Dash
12	172331	Decal Mower Heavy-Duty
13	133644	Decal Replacement Parts
14	160396	Decal V-Belt Schematic

### KEY PART NO. NO.

KEY PART NO.	PART NO.	DESCRIPTION
15	187408	Decal Reflector RH
16	164065	Decal Steering Wheel
18	193307	Decal Fender Opr.
20	149516	Decal Battery
21	194025	Decal Hood Side Panel
23	189684	Decal Engine
--	166960	Decal By-Pass
--	184310X428	Pad Footrest LH
--	184311X428	Pad Footrest RH
--	199068	Manual Owner's English
--	199069	Manual Owner's Spanish

## WHEELS & TIRES



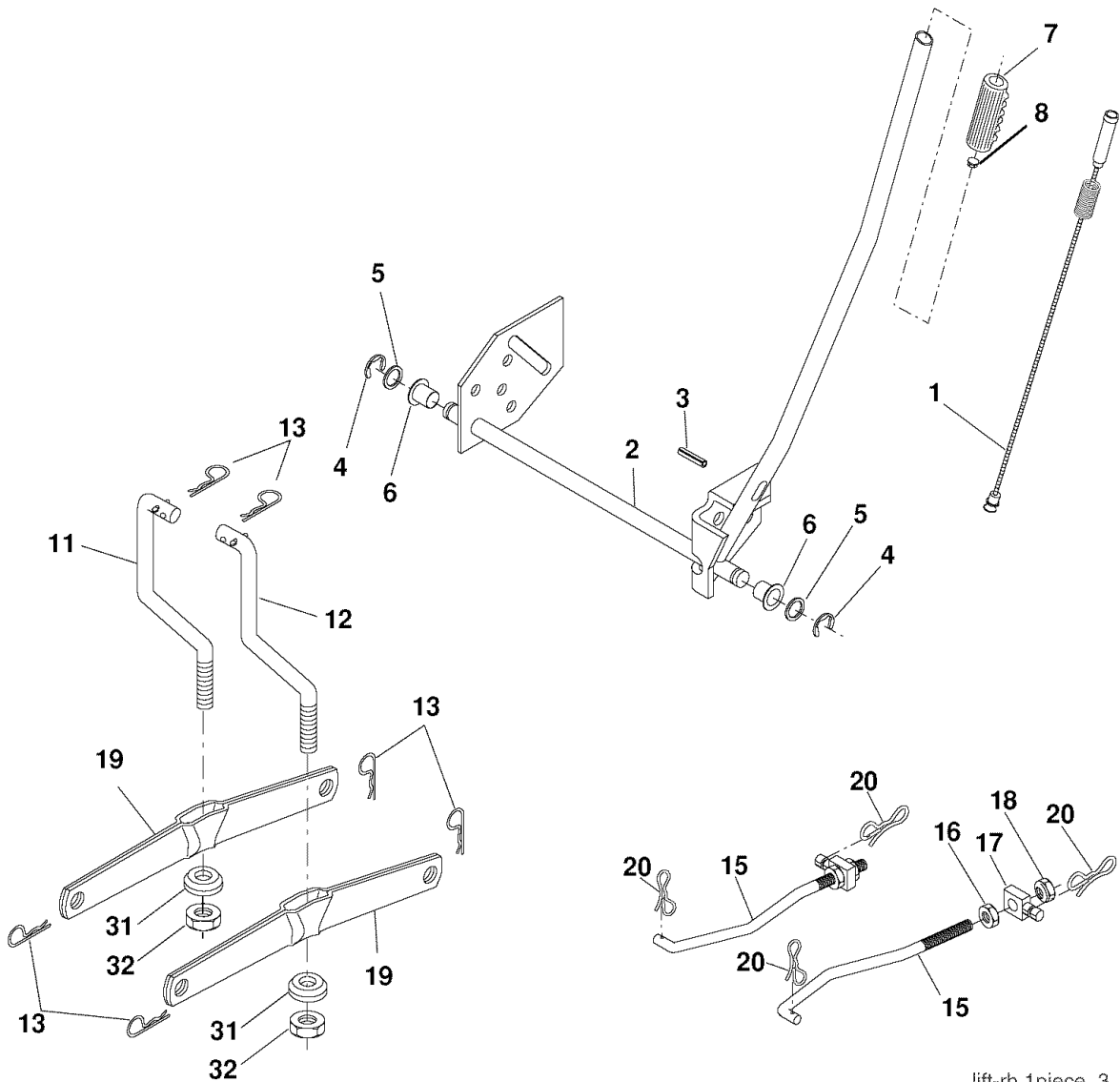
### KEY PART NO. NO.

KEY PART NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F Ts 15 x 6.0 - 6 Service
4	59904	Tube Front (Service Item Only)
5	106732X417	Rim Asm 6" front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X417	Rim Asm 8" rear Service
9	138468	Tire R Ts 20 x 8-8 C Service
10	7152J	Tube Rear (Service Item Only)
11	104757X428	Cap Axle Blk 1.50 x 1.00
--	144334	Sealant, Tire (10 oz. Tube)

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

# TRACTOR - - MODEL NUMBER 917.275684

## LIFT ASSEMBLY



lift-rh.1piece\_3

KEY NO.	PART NO.	DESCRIPTION
1	197980	Plunger Assembly
2	198070	Shaft Assembly, Lift
3	188822	Pin Groove
4	12000002	E-Ring
5	19211621	Washer 21/32 x 1 x 21 Ga.
6	120183X	Bearing Nylon
7	175830	Grip Handle Fluted
11	139865	Link Lift L.H.
12	139866	Link Lift R.H.
13	STD624008	Retainer Spring
15	173288	Link Front Susp

KEY NO.	PART NO.	DESCRIPTION
16	73350800	Nut Hex Jam 1/2-13 unc
17	175689	Trunnion Front Susp
18	73800800	Nut Lock w/Wsh 1/2-13 unc
19	139868	Arm Asm Suspension Mower
20	194209	Pin Cotter 7/16 Bow Tie Lock
31	169865	Bearing Pivot Lift
32	73540600	Nut Crownlock 3/8-24

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



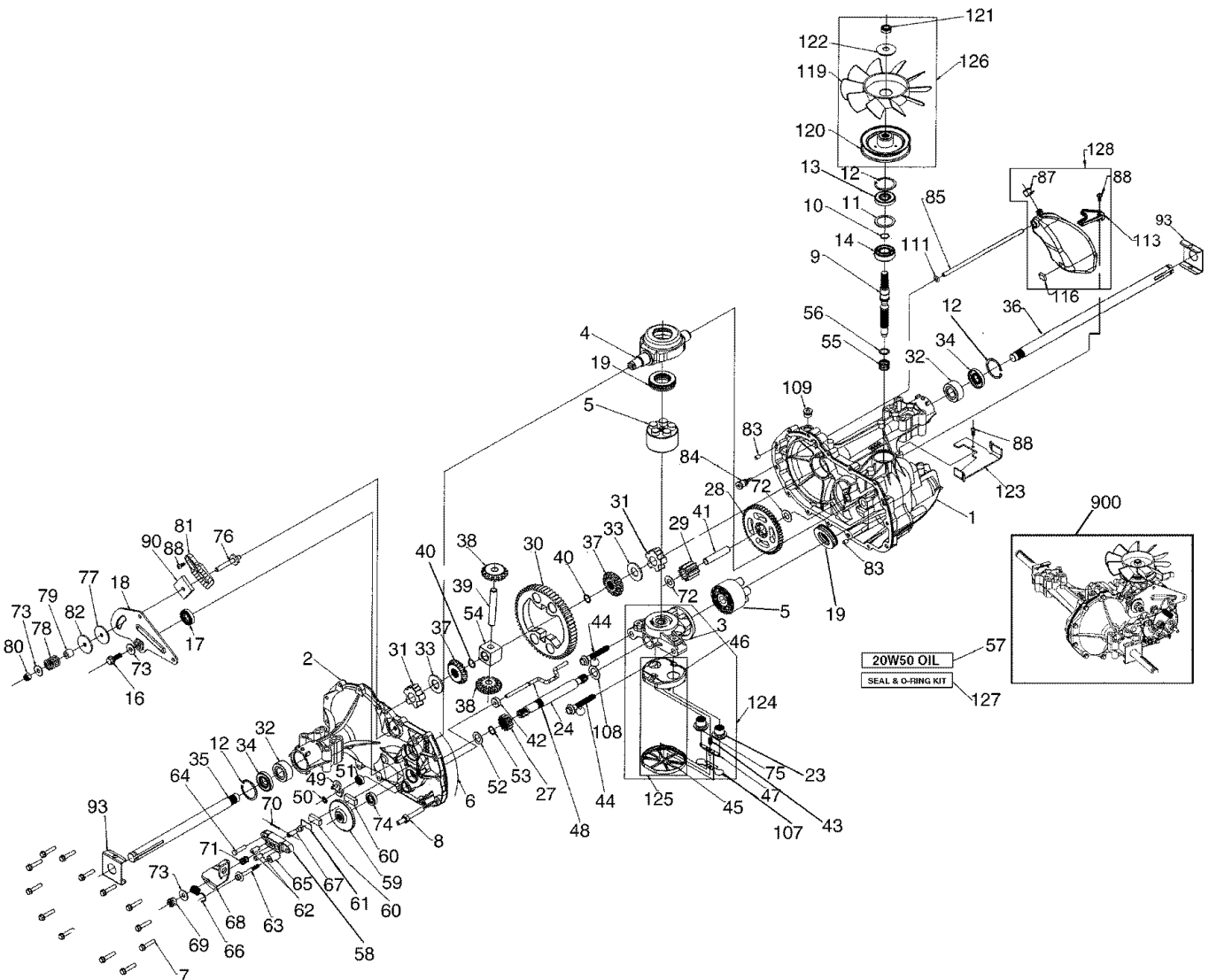
# TRACTOR - - MODEL NUMBER 917.275684

## MOWER DECK

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1	182032 Mower Housing	56	165723 Spacer Retainer
2	STD533107 Bolt	59	141043 Guard Tuv Idler (94)
3	138017 Bracket Asm Sway Bar Front	61	174882 Spring Ext Elect Clutch
4	165460 Bracket Sway Bar 38/42"	68	174883 V-Belt
5	STD624008 Retainer Spring	92	STD541437 Locknut Hex W/Wsh 3/8-16 unc
6	178024 Bar Sway Deck	113	17000510 Screw 5/16-18
8	850857 Bolt Hex 3/8-24 x 1.25 Gr. 8	116	4898H Bolt Shoulder
9	STD551137 Washer Lock	117	188606 Wheel Gauge
10	140296 Washer Hardened (The following blades are available)	118	73930600 Nut Crownlock 3/8-1
11	138971 Blade 42" Hi-Lift (For bagging or discharge)	119	19121414 Washer 13/32 x 7/8 x 14 Ga.
--	134149 Blade 42" Mulching STD (For mulching mowers only)	129	19131312 Washer 13/32 x 13/16 x 12 Ga.
--	139775 Blade 42" Mulching Premium (For better wear when mulching)	130	STD523710 Bolt Fin Hex 3/8-16 unc x 1Gr. 5
13	137645 Shaft Assembly Mandrel Vented (Incl. Key Number 6)	131	STD533710 Bolt Rdhd Sqnk 3/8-16 unc x 1
14	128774 Housing Mandrel Vented	134	156941 Pin Head Rivet
15	110485X Bearing Ball Mandrel	135	159765 Bracket Asm Wheel Gauge Rear LH
16	174493 Stripper Mower Deck	136	155986 Bar Adjusting Gauge Wheel
18	72140505 Bolt Carriage 5/16-18 x 5/8	138	159763 Bracket Asm Wheel Gauge Rear RH
19	132827 Bolt Shoulder	139	159767 Bracket Asm Wheel Gauge Front RH
20	159770 Baffle Vortex	140	159768 Bracket Asm Wheel Gauge Front LH
21	STD541431 Nut Crownlock 5/16-18 unc	143	157109 Bracket Arm Idler 42"
23	177563 Bracket Deflector	144	158634 Keeper Belt 42" Clutch Cable
24	105304X Cap Sleeve	145	165888 Pulley Idler Flat
25	123713X Spring Torsion Deflector	146	171977 Bolt Carriage Idler
26	110452X Nut Push	148	169022 Spring Return Idler
27	130968X428 Shield Deflector	149	165898 Retainer Spring Yellow Zinc
28	19111016 Washer 11/32 x 5/8 x 16 Ga.	150	19091210 Washer 9/32 x 3/4 x 10 Ga.
29	131491 Rod Hinge	159	STD533717 Bolt Rdhd Sqn 3/8-16 unc x 1-3/4
30	173984 Screw Thdrol Rolling Wsh Hd	184	19131410 Washer 3/8
31	187690 Washer Spacer	--	130794 Mandrel Assembly (Includes housing, shaft and shaft hardware only-pulley not included)
32	153535 Pulley Mandrel	--	181542 Replacement Mower, Complete (Std. Deck-Order separately gauge wheels 5, 116-119, 134, 136).
33	178342 Nut Toplock Flanged		
34	STD533717 Bolt		
36	131494 Pulley Idler Flat		
40	73900600 Nut Lock 3/8-16 unc		
44	140088 Guard Mandrel L.H.		
45	STD624003 Retainer		
46	137729 Screw Thd. Roll 1/4-20 x 5/8		
54	178515 Washer Hardened		
55	155046 Arm Idler		

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

TRACTOR - - MODEL NUMBER 917.275684  
HYDRO GEAR TRANSAXLE - - MODEL NUMBER 314-0510



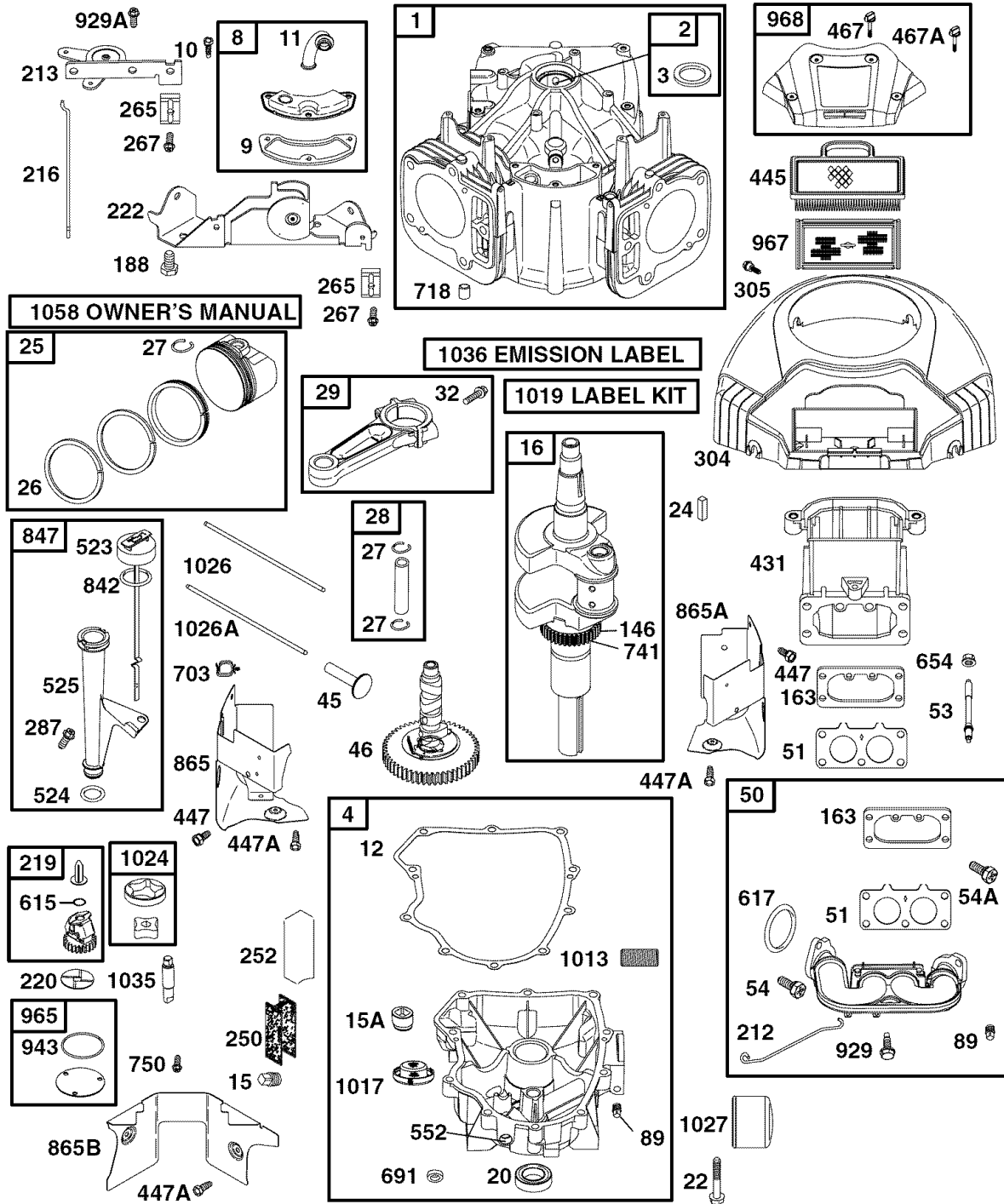


**TRACTOR - - MODEL NUMBER 917.275684**  
**HYDRO GEAR TRANSAXLE - - MODEL NUMBER 314-0510**

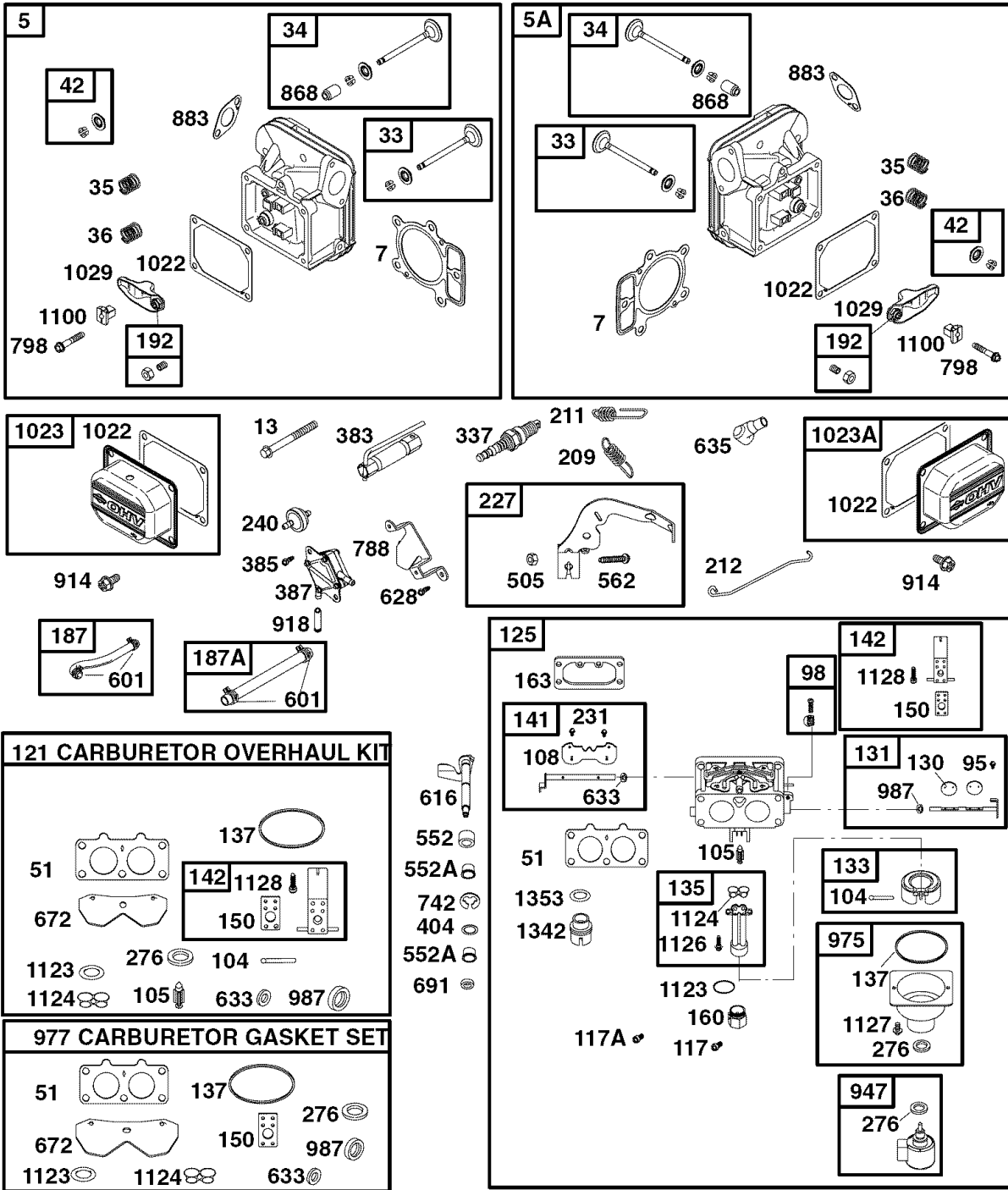
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	170351	Main Housing, Assembly	59	170408	Rotor, Brake
2	170352	Side Housing, Assembly	60	142883	Brake Puck
3	170353	Center Section, Assembly	61	142881	Puck Plate
4	170354	Swashplate, Trunion Machined	62	142887	Brake Actuating Pin
5	169898	Block - Assembly	63	170410	Hfhcs 1/4-20x2 W/Patch, SpecialFlange
6	170355	Sealant 10.5 Oz	64	142892	Bolt, 1/4-20 X 1 W/Patch
7	170356	Hex Flange Screw 1/4-20 X 1.25	65	170411	Spacer
8	170357	Stud, 5/16-24 Hex Double End	66	189386	Spring, Brake Arm Bias
9	170358	Shaft, Input	67	170413	Sq. Hd. Bolt 5/16-24-Ribbed
10	170359	Ring - Retaining	68	170414	Arm, Brake
11	170360	Spacer	69	170415	Slotted Hex Nut 5/16-24
12	169870	Ring - Retaining	70	170416	Cotter Pin 3/32 X 3/4
13	170361	Seal, Lip .67 X 1.58 X .276	71	170417	Compression Spring Brake Anti- Drag
14	169869	Ball Brg 17mm Id X 40mm Od X 12mm	72	170418	Washer, Ht .5 I.D. X 1 O.D. X .032
16	170362	Hex Flange Head Screw 5/16- 24X0.75	73	142884	Flat - Washer 11/32 I.D. X 7/8 O.D
17	170363	Lip Seal 18 X 32 X 7	74	170419	Oil Seal .625 X 1.0 X .25
18	170364	Arm, Control	75	170420	Check Plug Assembly, .027,Washer
19	150771	Bearing, 30x52x13 Thrust	76	170421	Stud, 5/16-24 Friction Pack
23	170365	Check Plug Assembly, Washer	77	170422	Puck, .330 X 1.50 X .0975
24	170366	Shaft, Motor	78	142969	Spring, Helical Comp
27	170367	Gear - Pinion, 13t	79	142980	Spacer
28	170368	10t/48t Gear	80	150778	Hex Lock Nut 5/16-24Unjf(Nylon Insert)
29	170369	Gear, 10t Jackshaft	81	170423	Wedge, Friction Pack
30	170370	60t Bull Gear	82	170424	Clip, Washer .316x1.50x.1046 (Plated)
31	170371	Sleeve Bearing .75 X 1.575 X .625	83	161162	Pin, Standard Headless
32	170389	SleeveBearing(Outboard) .75x1.750x.625	84	170425	Fitting, 5/16 Sae 5/32 Tube
33	142991	Washer, 3/4 Id X 1-1/2 Od X .13 Thk	85	170426	Hose, Expansion Tank
34	170390	Lip Seal Axle Seal	86	170427	Expansion Tank
35	170391	Shaft, Axle .75 X 11.39 (Key, R.H.)	87	170424	Cap - Poppet Valve
36	170392	Shaft, Axle .75 X 16.99 (Key, L.H.)	88	170429	Bolt, Self Tapping 10-32 X 1/2
37	150792	Miter Gear (Splined)	90	170430	Puck, Inner Wedge
38	150793	Miter Gear 15t (0.5 Id)	93	170431	Spring Clip - Housing Thrust
39	150809	Shaft	107	170432	Deflector
40	170393	Ring, Spiral Retaining	108	170433	Washer, Motor Shaft .71idx1.15odx.030thk
41	170394	Pin, Jackshaft	109	170434	Plug, Sae #6
42	170395	Magnet, Ring	111	170435	O-Ring .07 X .301 I.D.
43	170396	Spring, Bypass	112	170436	Shield, Vent
44	150797	Hydro Mtg Screw 3/8-24 X 2.5 Long	113	170437	Bracket, Support Expansion Tank
45	170397	Filter	116	170438	Silicon Sponge
46	170398	Base, Filter	119	170439	Fan, 7 In.
47	170999	Actuator, Bypass	120	170440	Pulley
48	170400	Rod, Bypass Actuator	121	170441	Hex Lock Nut 1/2-20 (Nylon Insert)
49	170401	Arm, Bypass	122	170442	Washer, Belleville
50	170202	Retaining Ring .250 External	123	170443	Belt Keeper
51	170403	Seal, Lip .741 X .250 X .250 Tc	124	170444	Center Section-Filter-Bypass Assembly
52	170404	Flat Washer, 5/8 Id X 1.0 Od X .05 Thk	125	170445	Filter Assembly
53	170405	Retaining Ring	126	170446	Fan - Pulley Service Assembly
54	170406	Bearing, Center Block	127	170447	Seal - O-Ring Kit
55	142977	Spring - Helical Compression	900	166768	Transaxle Complete
56	142978	Washer			
57	-----	20w-50 Oil			
58	170407	Brake Yoke			

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

**TRACTOR - - MODEL NUMBER 917.275684  
BRIGGS ENGINE-MODEL NUMBER 445677 TYPE NUMBER 0413-E1**

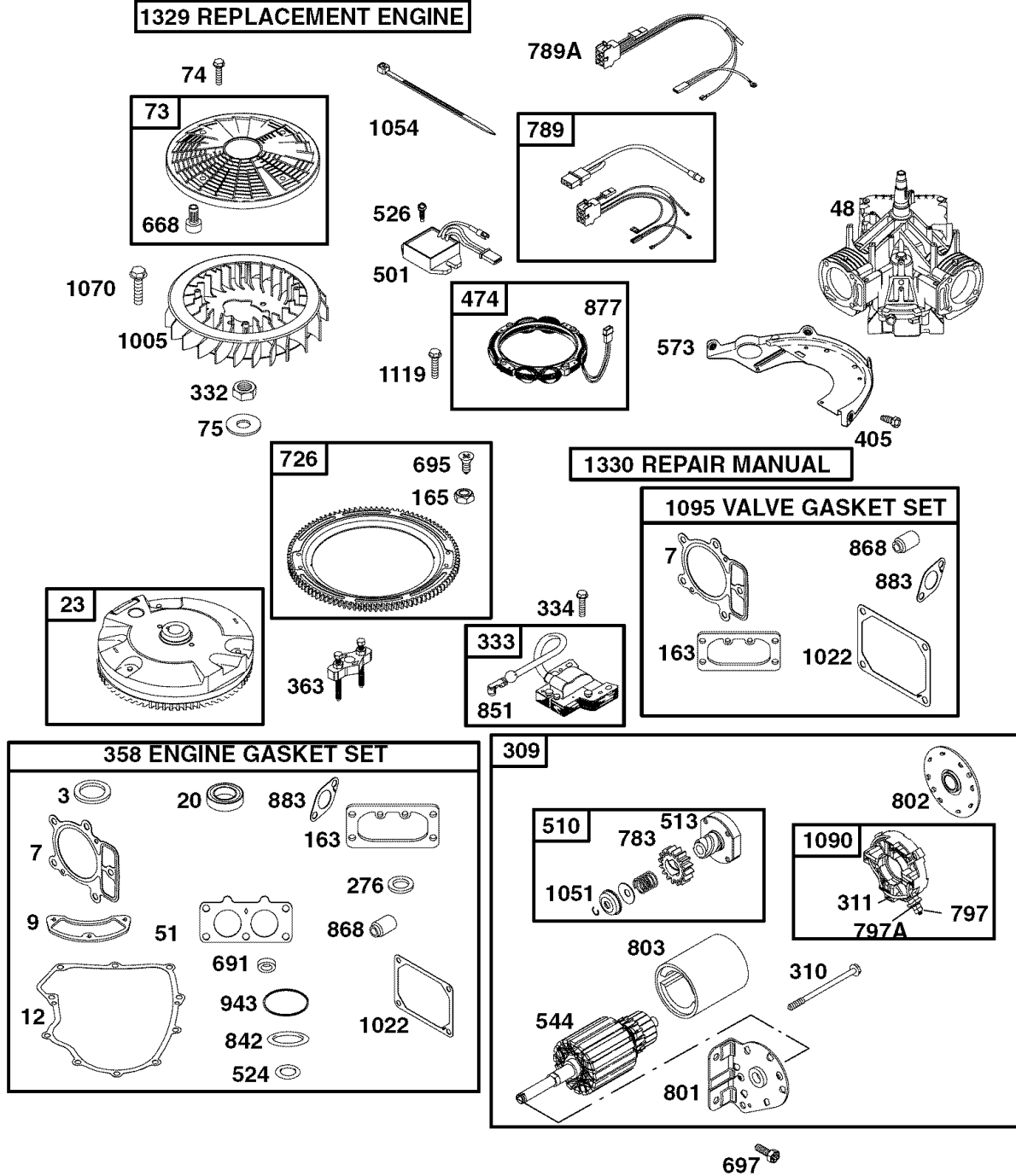


**TRACTOR - - MODEL NUMBER 917.275684  
BRIGGS ENGINE-MODEL NUMBER 445677 TYPE NUMBER 0413-E1**



**TRACTOR - - MODEL NUMBER 917.275684  
BRIGGS ENGINE-MODEL NUMBER 445677 TYPE NUMBER 0413-E1**

**1329 REPLACEMENT ENGINE**



**TRACTOR - - MODEL NUMBER 917.275684  
BRIGGS ENGINE-MODEL NUMBER 445677 TYPE NUMBER 0413-E1**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	699753	Cylinder Assembly	150	690995	Ø‡ Gasket-Nozzle
2	499585	Kit-Bushing/Seal (Magneto Side)	160	699727	Retainer-Solenoid
3	391086	• Seal-Oil (Magneto Side)	163	691001	•+ Gasket-Air Cleaner
4	699747	Sump-Engine	165	693148	Nut (Ring Gear)
5	693998	Head-Cylinder (Cylinder 1)	187	691049	Line-Fuel
5A	693999	Head-Cylinder (Cylinder 2)	187A	691050	Line-Fuel (Cut to Required Length)
7	693997	+ Gasket-Cylinder Head			
8	499601	Breather Assembly	188	691108	Screw (Control Bracket)
9	690937	• Gasket-Breather	192	690083	Adjuster-Rocker Arm
10	691108	Screw (Breather Assembly)	209	697674	Spring-Governor
11	690942	Tube-Breather	211	691019	Spring-Governed Idle
12	697227	• Gasket-Crankcase	212	695238	Link-Governor
13	791130	Screw (Cylinder Head)	213	691021	Bracket-Choke Control
15	690946	Plug-Oil Drain	216	691022	Link-Choke
15A	691680	Plug-Oil Drain	219	698231	Gear-Governor
16	790136	Crankshaft	220	690412	Washer (Governor Gear)
20	690947	• Seal-Oil (PTO Side)	222	698761	Bracket-Control
22	694966	Screw (Crankcase Cover)	227	691048	Lever-Governor Control
23	691053	Flywheel	231	690718	Screw (Choke Valve)
24	222698	Key-Flywheel	240	691035	Filter-Fuel
25	694003	Piston Assembly (Standard)	250	690957	Retainer-Breather
	694007	Piston Assembly (.020" Oversize)	252	690956	Collector-Oil
26	694004	Ring Set (Standard)	265	691024	Clamp-Casing
	694008	Ring Set (.020" Oversize)	267	695134	Screw (Casing Clamp)
27	690975	Lock-Piston Pin	276	690997	•Ø‡ Washer-Sealing
28	690229	Pin-Piston (Standard)	287	691108	Screw (Dipstick/Tube Assembly)
29	499583	Rod-Connecting (Standard)	304	790688	Housing-Blower
32	690976	Screw (Connecting Rod)	305	691005	Screw (Blower Housing)
33	499596	Valve-Exhaust	305A	790690	Screw (Blower Housing)
34	697464	Valve-Intake	309	691262	Motor-Starter
35	690963	Spring-Valve (Intake)	310	691263	Screw (Starter Motor)
36	690963	Spring-Valve (Exhaust)	311	497608	Brush Set
42	499586	Keeper-Valve	332	691059	Nut (Flywheel)
45	690977	Tappet-Valve	333	691060	Armature-Magneto
46	790562	Camshaft	334	691061	Screw (Magneto Armature)
48	698172	Short Block	337	691043	Spark Plug
50	695241	Manifold-Intake	358	694012	Gasket Set-Engine
51	690950	•Ø‡ Gasket-Intake	363	691062	Puller-Flywheel
53	690951	Stud (Carburetor)	383	690966	Wrench-Spark Plug
54	695239	Screw (Intake Manifold)	385	690960	Screw (Fuel Pump)
54A	699816	Screw (Intake Manifold)	387	808656	Pump-Fuel
73	494439	Screen-Rotating	404	690442	Washer (Governor Crank)
74	698425	Screw (Rotating Screen)	405	697820	Screw (Back Plate)
75	691056	Washer (Flywheel)	418	690999	Plate-Carburetor
89	690283	Plug-Oil	431	790816	Elbow-Intake
95	690718	Screw (Throttle Valve)	445	499486	Filter-Air Cleaner Cartridge
98	699721	Kit-Idle Speed	447	691003	Screw (Air Guide Cover)
104	694918	Ø Pin-Float Hinge	447A	691108	Screw (Air Guide Cover)
105	698537	Ø Valve-Float Needle	467	691008	Knob-Air Cleaner
108	699723	Valve-Choke	467A	790697	Knob-Air Cleaner
117	699494	Jet-Main (Standard)	474	696458	Alternator
117A	699495	Jet-Main (Standard)	501	691185	Regulator
121	699734	Kit-Carburetor Overhaul	505	691029	Nut (Governor Control Lever)
125	699709	Carburetor	510	497606	Drive-Starter
130	690993	Valve-Throttle	513	692024	Clutch-Drive
131	499805	Kit-Throttle Shaft			
133	699724	Float-Carburetor			
135	699729	Tube-Fuel Transfer			
137	690994	Ø‡ Gasket-Float Bowl			
146	690979	Key-Timing			

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

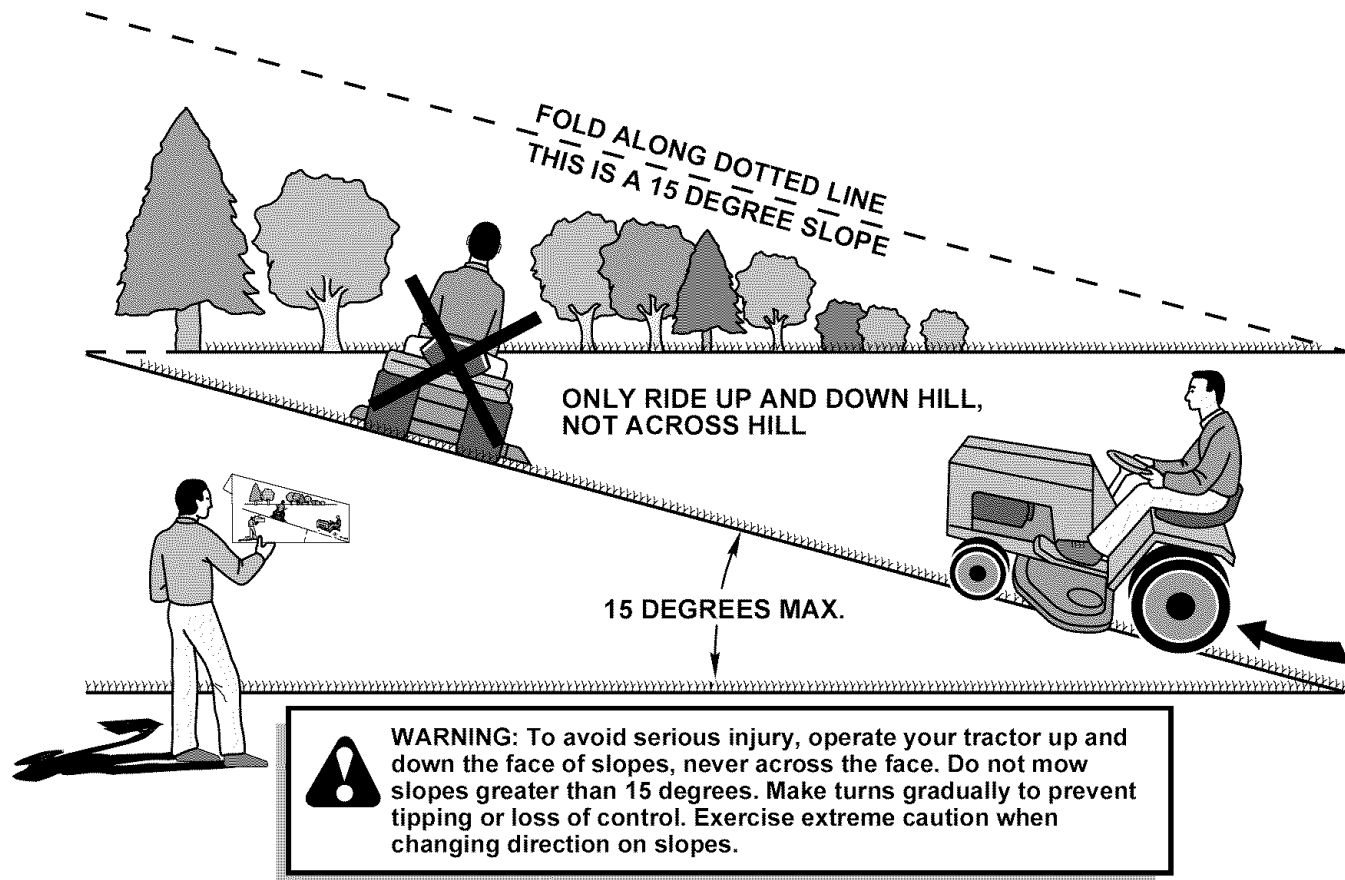
NOTE: All component dimensions given in U.S. inches  
1 inch = 25.4 mm

**TRACTOR - - MODEL NUMBER 917.275684  
BRIGGS ENGINE-MODEL NUMBER 445677 TYPE NUMBER 0413-E1**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
523	691036	Dipstick	967	273638	Filter-Pre Cleaner
524	691032 •	Seal-O Ring (Dipstick Tube)	968	790689	Cover-Air Cleaner
525	691037	Tube-Dipstick	975	499810	Bowl-Float
526	691108	Screw (Regulator)	977	699735	Gasket Set-Carburetor
544		Armature-Starter (Serviced by 691262 Starter Motor Only)	987	691000 Ø‡	Seal-Throttle Shaft
			1005	790698	Fan-Flywheel
			1013	690954	Nipple-Oil Filter
552	690552	Bushing-Governor Crank	1017	690770	Screen-Oil Pump
552A	690553	Bushing-Governor Crank	1019	693995	Kit-Label
562	690311	Bolt (Governor Control Lever)	1022	690971 •+	Gasket-Rocker Cover
573	691009	Plate-Back	1023	499599	Cover-Rocker Arm (Cylinder 1)
601	691038	Clamp-Hose	1023A	499600	Cover-Rocker Arm (Cylinder 2)
615	698290	Retainer-Governor Shaft	1024	499054	Pump-Oil
616	691045	Crank-Governor	1026	690981	Rod-Push (Steel)
617	697891	Seal-O Ring (Intake Manifold)	1026A	690982	Rod-Push (Aluminum)
628	690960	Screw (Fuel Pump Bracket)	1027	492932	Filter-Oil
633	690998 Ø‡	Seal-Choke/Throttle Shaft	1029	690972	Arm-Rocker
635	66538	Boot-Sparkplug	1035	691042	Shaft-Pump
654	690958	Nut (Carburetor)	1036	790625	Label-Emission
668	691215	Spacer	1051	691265	Ring-Retaining
672	690234 Ø‡	Gasket-Carburetor Plate	1054	280275	Cable-Tie
691	690657 •	Seal-Governor Shaft	1058	275475	Owner's Manual
695	693149	Screw (Ring Gear)	1070	690372	Screw (Flywheel Fan)
697	690372	Screw (Drive Cap)	1090	691293	Retainer-Brush
703	691010	Clip	1095	694013	Set-Valve Gasket
718	690959	Pin-Locating	1100	690973	Pivot-Rocker Arm
726	499612	Gear-Ring	1119	691183	Screw (Alternator)
741	690980	Gear-Timing	1123	699725	Seal-O Ring (Solenoid Retainer)
742	690328	Retainer-E Ring	1124	690988 Ø‡	Seal-O Ring (Fuel Transfer Tube)
750	696999	Screw (Oil Pump Cover)	1126	690991	Screw (Fuel Transfer Tube)
783	693058	Gear-Pinion	1128	690990 Ø	Screw (Carburetor Nozzle)
788	691039	Bracket-Fuel Pump	1329	445777-0027	Replacement Engine (If original engine is equipped with a six pin wiring harness transfer to the replacement engine. Transfer muffler and/or spark arrestor assembly from the original engine if suitable for additional service or add new parts as required. Transfer oil sensor to the replacement engine).
789	698330	Harness-Wiring			
789A	696576	Harness-Wiring			
797	691029	Nut (Brush Retainer)			
797A	693167	Nut (Brush Retainer)			
798	697890	Screw (Rocker Arm)			
801	691283	Cap-Drive			
802	691286	Cap-End			
803		Housing-Starter (Serviced by 691262 Starter Motor Only)			
842	691031 •	Seal-O Ring (Dipstick)	1330	273521	Repair Manual
847	499602	Assembly-Dipstick/Tube	1342	699731	Extension-Fuel Transfer Tube
851	493880	Terminal-Spark Plug	1353	699725	Seal-O Ring (Fuel Transfer Tube Extension)
855	691011	Adapter-Air Cleaner			
865	691012	Cover-Air Guide (Cylinder 1)			
865A	691014	Cover-Air Guide (Cylinder 2)			
865B	691015	Cover-Air Guide			
868	690968 •+	Seal-Valve	•		Included in Engine Gasket Set, Key. No. 358
877	399916	Wire/Connector-Alternator	Ø		Included in Carburetor Overhaul Kit, Key. No. 121
883	690970 •+	Gasket-Exhaust	‡		Included in Carburetor Gasket Set, Key. No.977
914	691127	Screw (Rocker Arm Cover)	+		Included in Valve Overhaul Kit, Key. No. 1095
918	694000	Hose-Vacuum			
929	695239	Screw (Choke Control Bracket)			
929A	691003	Screw (Choke Control Bracket)			
943	690589 •	Seal-O Ring (Oil Pump Cover)			
947	699728	Solenoid-Fuel			
965	499613	Cover-Oil Pump			

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

## SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



**WARNING:** To avoid serious injury, operate your tractor up and down the face of slopes, never across the face. Do not mow slopes greater than 15 degrees. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

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

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