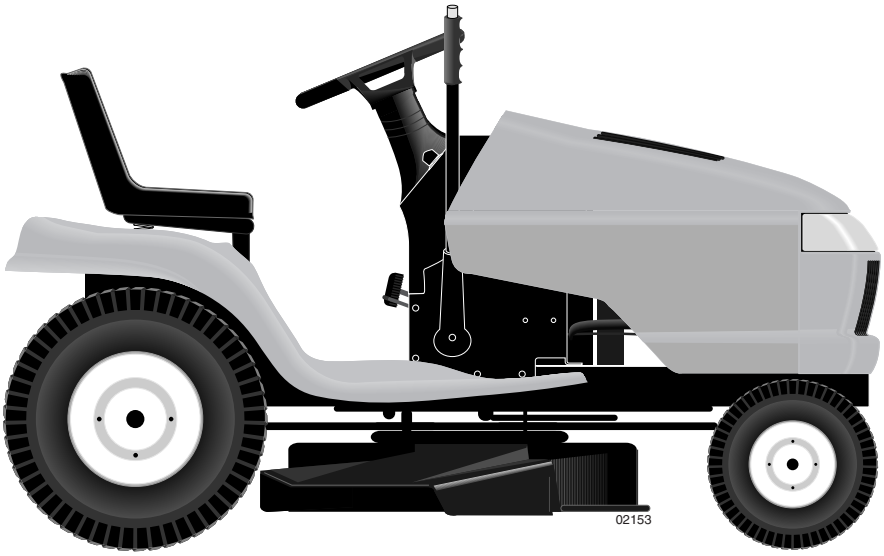
SEARS

# OWNER'S MANUAL

## MODEL NO. 944.605060

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




CRAFTSMAN®

# 24.0 HP ELECTRIC START 48" MOWER AUTOMATIC LAWN TRACTOR

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

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

# SAFETY RULES

## Safe Operation Practices for Ride-On Mowers

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

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

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

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

## I. GENERAL OPERATION

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- Keep machine free of grass , leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

## II. SLOPE OPERATION

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

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

# SAFETY RULES

**Safe Operation Practices for Ride-On Mowers**

## III. CHILDREN

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

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

## IV. TOWING

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

## V. SERVICE

### SAFE HANDLING OF GASOLINE

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

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

### GENERAL SERVICE

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


- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Be alert and turn machine off if a child enters the area.
- 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 Gallons<br>Unleaded Regular |
| Oil Type (API-SG-SL): | SAE 30 (above 32°F)<br>SAE 5W-30 (below 32°F)<br>Synthetic (below 0°F) |
| Your tractor was shipped from the factory with non-synthetic SAE 10W-30 motor oil. | |
| Oil Capacity: | W/Filter: 4.0 Pints<br>W/O Filter: 3.75 Pints |
| Spark Plug (Gap: .040"): | Champion QC12YC |
| Ground Speed (MPH): | Forward: 5.5<br>Reverse: 2.4 |
| Tire Pressure: | Front: 14 PSI<br>Rear: 10 PSI |
| Charging System: | 16 Amps @ 3600 RPM |
| Battery: | AMP/HR: 35<br>MIN. CCA: 280<br>CASE SIZE: U1R |
| Blade Bolt Torque: | 45-55 FT. LBS. |

## MAINTENANCE AGREEMENT

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

## CUSTOMER RESPONSIBILITIES

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

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

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

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

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

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

# WARRANTY

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

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

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

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

**COMMERCIAL OR RENTAL USE**

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

**This Warranty does NOT cover:**

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

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

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

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

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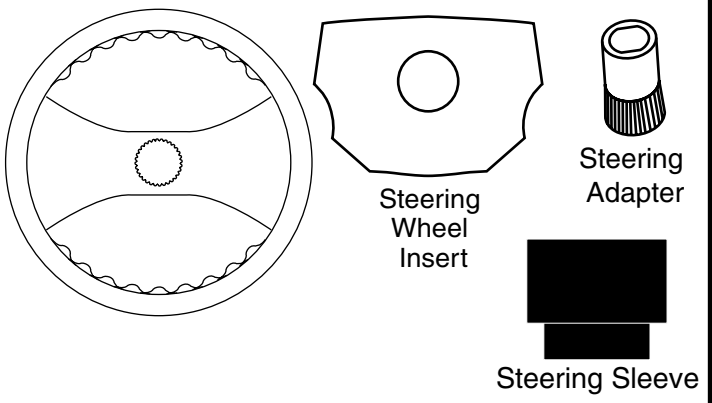
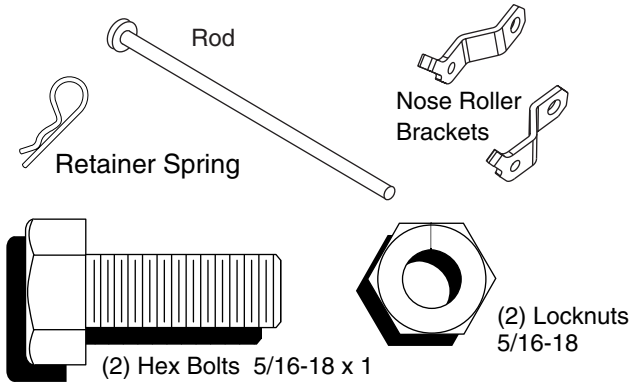
# UNASSEMBLED PARTS

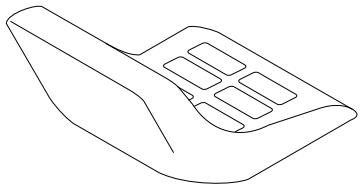
### Steering Wheel




### Nose Roller



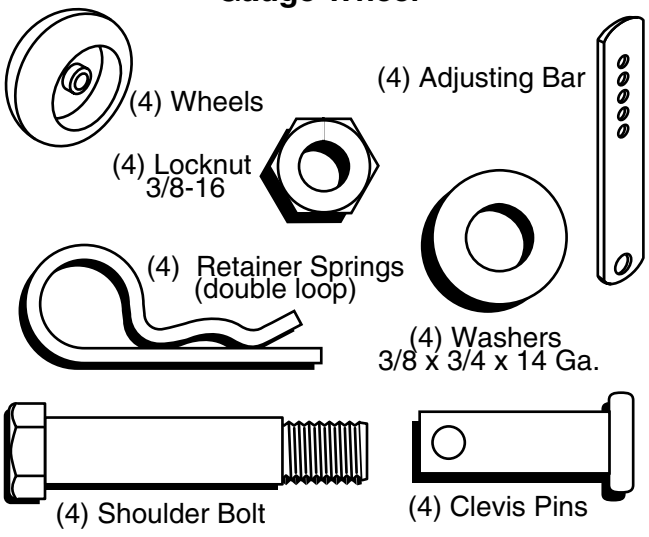

### Seat



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

(1) Knob

### Gauge Wheel

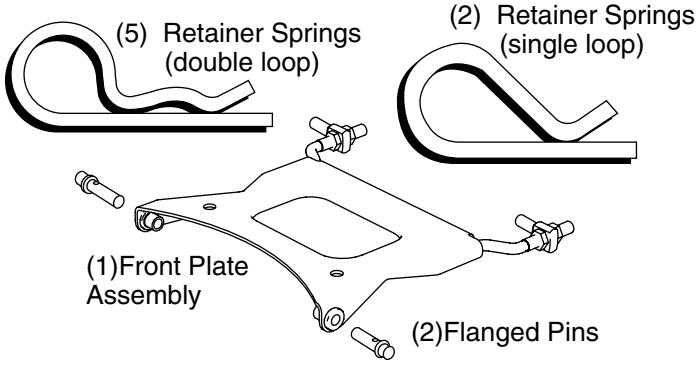



### Battery

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

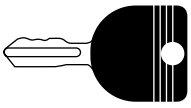
(2) Keps Nuts 1/4-20

### Mower



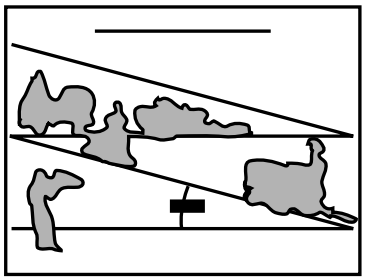

(1) Oil Drain Tube For Future Use

### Key



(2) Keys

### Slope Sheet



# ASSEMBLY

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

## TOOLS REQUIRED FOR ASSEMBLY

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

(1) 3/4" wrench
(2) 7/16" wrenches
(1) 1/2" wrench
(1) 3/4" socket w/drive ratchet
Pliers
Tire pressure gauge
Utility knife

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

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

## BEFORE REMOVING TRACTOR FROM SKID

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

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide the steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

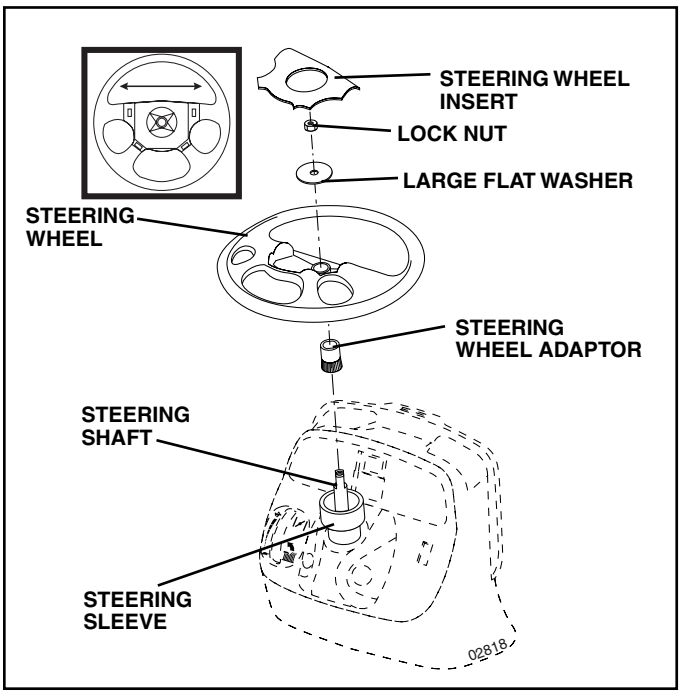



**FIG. 1**

### CONNECT BATTERY (See Fig. 2)

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

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

- Lift hood to raised position.
- Open terminal access doors, remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) battery terminal with hex bolt and keps nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and keps nut. Tighten securely.
- Close terminal access doors.

Use terminal access doors for:

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

# ASSEMBLY

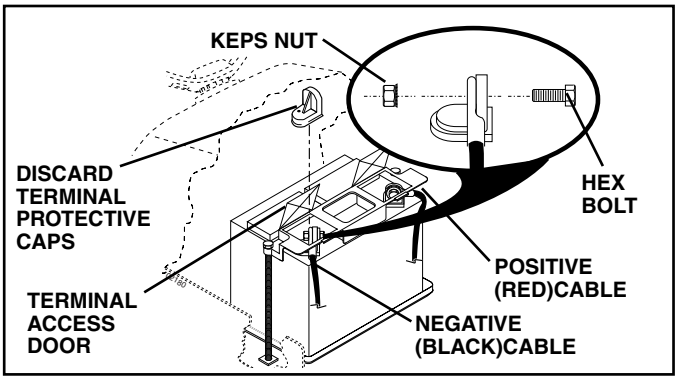



**FIG. 2**

## INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.

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

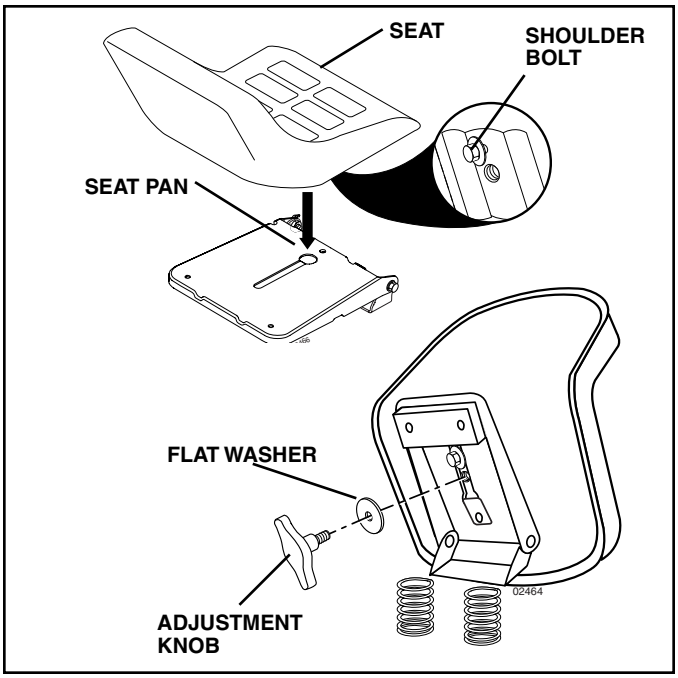



**FIG. 3**

**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)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See “TO TRANSPORT” in the Operation section of this manual).
- Roll tractor forward off skid.

## 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.

- Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- Place freewheel control in "transmission engaged" position (see "TO TRANSPORT" in Operation section of this manual).
- Sit on seat in operating position, depress brake pedal and set the parking brake.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Release parking brake.
- Slowly depress forward drive pedal and drive tractor off skid.
- Apply brake to stop tractor and set parking brake.
- Turn ignition key to "OFF" position.

Continue with the instructions that follow.

## ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 4)

The gauge wheels are designed to keep the mower deck in proper position when operating mower. Be sure they are properly adjusted to ensure optimum mower performance.

- Slide gauge wheel bar down into bracket channel, Be sure that gauge wheel bar aligning holes are on top. Assemble gauge wheels as shown using shoulder bolts, 3/8 washers and 3/8-16 center locknuts and tighten securely.
- For ease of mower to tractor assembly, raise gauge wheels to highest position and retain with clevis pins and spring retainers.
- Adjust gauge wheels before operating mower. See “TO ADJUST GAUGE WHEELS” in the Operation section of this manual.

# ASSEMBLY

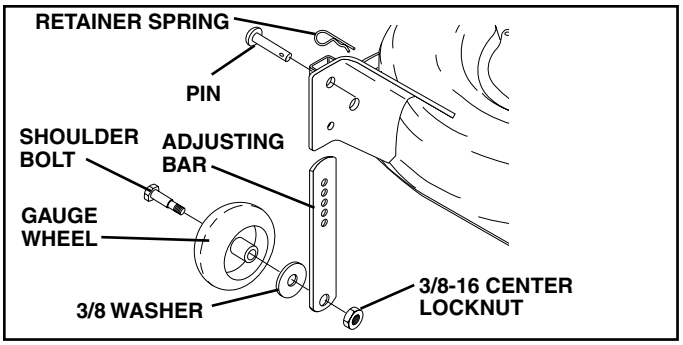



FIG. 4

## TO ATTACH NOSE ROLLER (See Fig. 5)

- Assemble brackets "A" and "B" to the inside of mower mounting brackets as shown. Tighten securely.

**NOTE:** Be sure bracket tabs are positioned in tab holes in mower brackets.

- Position nose roller between brackets and install rod and retainer spring.

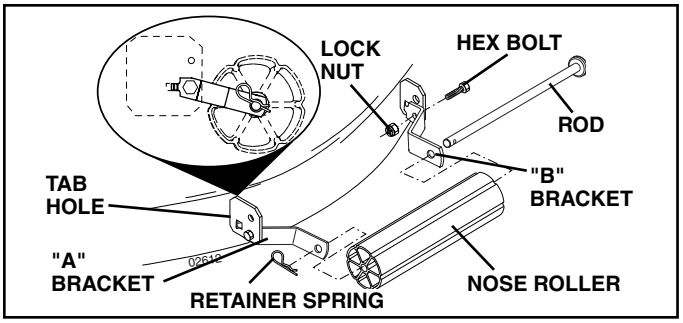



FIG. 5

## INSTALL MOWER AND DRIVE BELT (See Figs. 6 and 7)

Be sure tractor is on level surface and mower suspension arms are raised with attachment lift control. Engage parking brake.

- Cut and remove ties securing anti-sway bar and belts. Swing anti-sway bar to left side of mower deck.
- Slide mower under tractor with deflector shield to right side of tractor.

**IMPORTANT:** Check belt for proper routing in all mower pulley grooves.

- If equipped, turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift control.
- Be sure belt tension rod is in disengaged position.
- Install belt into electric clutch pulley groove.
- Place the suspension arms on outward pointing deck pins. Retain with double loop retainer spring with loops up as shown.
- Install front plate assembly to tractor suspension brackets and retain with single loop retainer springs as shown.
- Position front plate assembly between front mower brackets. Raise deck and plate assembly to align holes and insert flanged pins. Secure pins with double loop retainer springs between the plate assembly and mower brackets.

**NOTE:** To assist in locating hole in flanged pin, the hole in pin is inline with notch on head of pin.If necessary, move mower side-to-side to give space between plate and mower brackets.

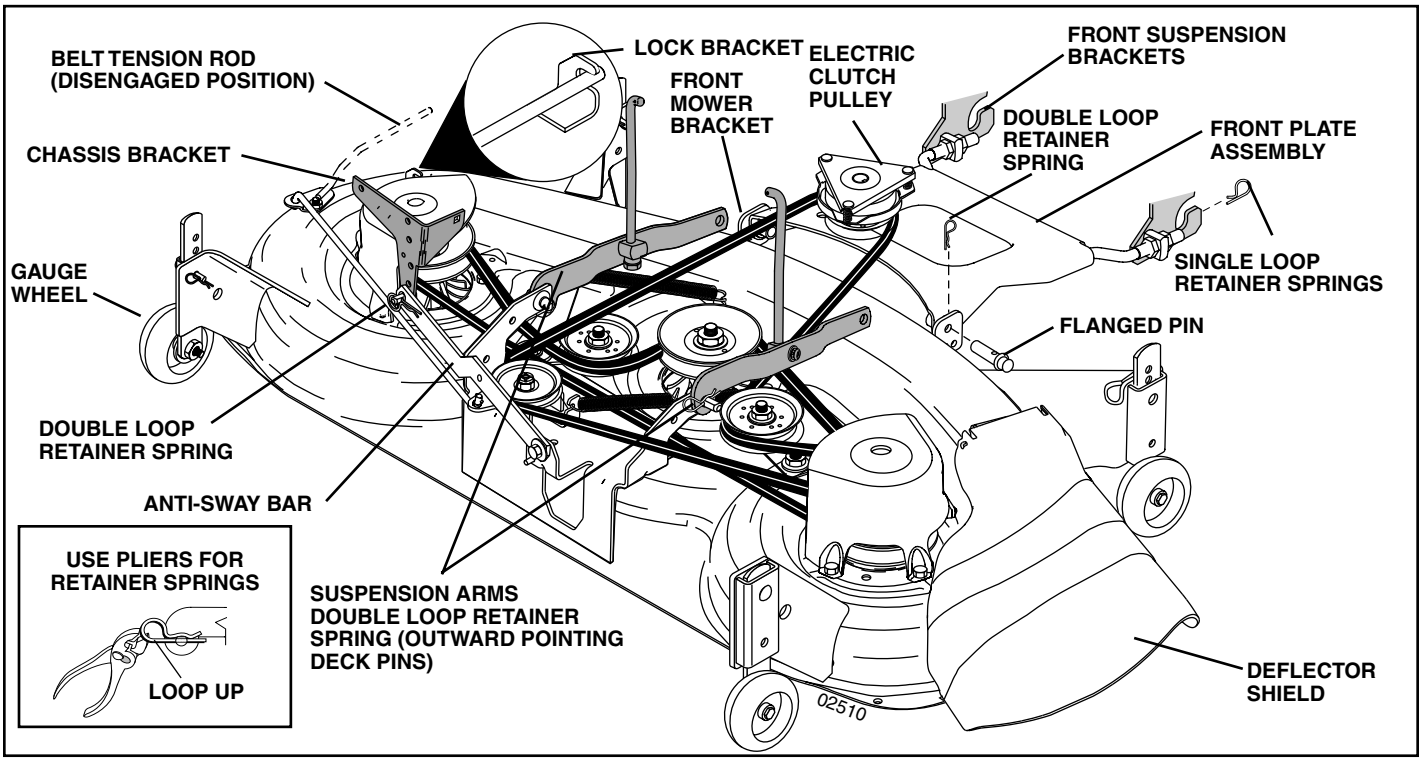



FIG. 6

# ASSEMBLY

**IMPORTANT:** Check belt for proper routing in all mower pulley grooves. Engage belt tension rod by pushing rod into locking bracket.

- Engage belt tension rod by pushing rod into locking bracket.

**CAUTION: Belt tension rod is spring loaded. Have a tight grip on rod and engage slowly.**

- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- If equipped, turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Adjust gauge wheels before operating mower as shown in the Operation section of 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.

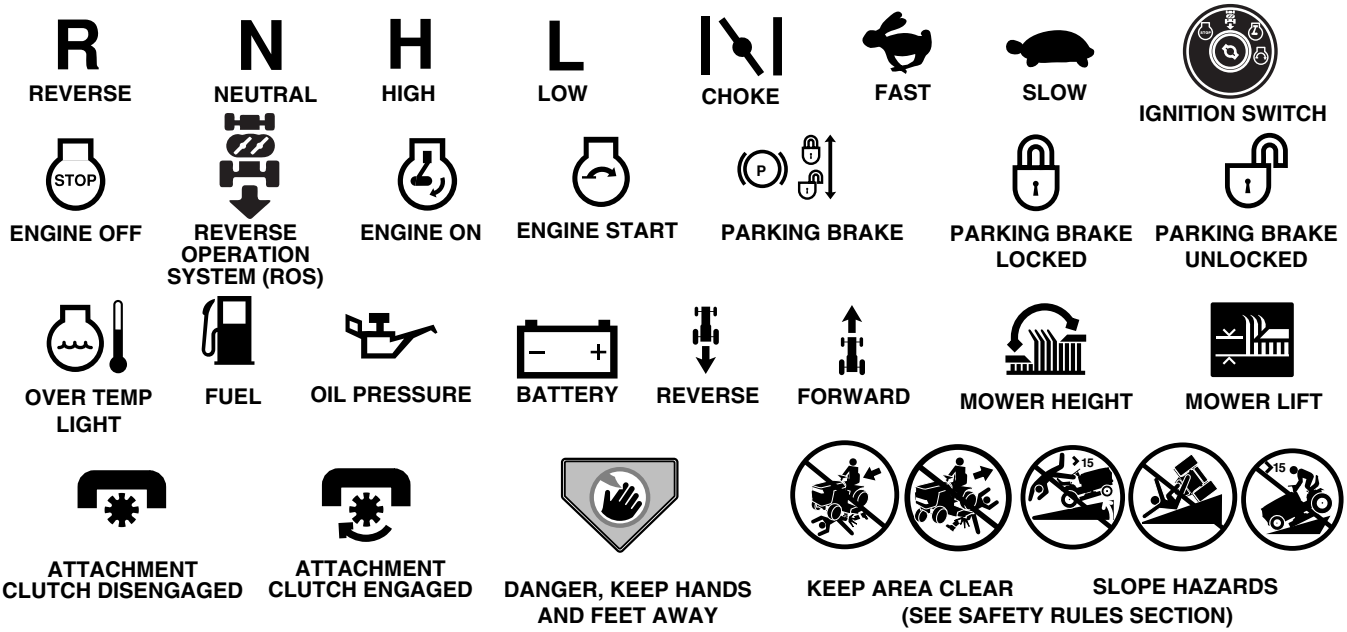
✓ Be sure brake system is in safe operating condition.

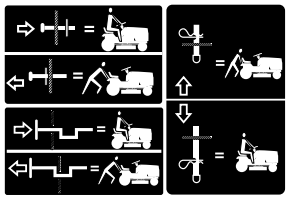
✓ Be sure Operator Presence System and Reverse Operation System (ROS) are working properly (See the Operation and Maintenance sections in this manual).

✓ 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.



FREE WHEEL
(Automatic Models only)

LIGHTS ON

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

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

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

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

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

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

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

# OPERATION

## KNOW YOUR TRACTOR

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

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

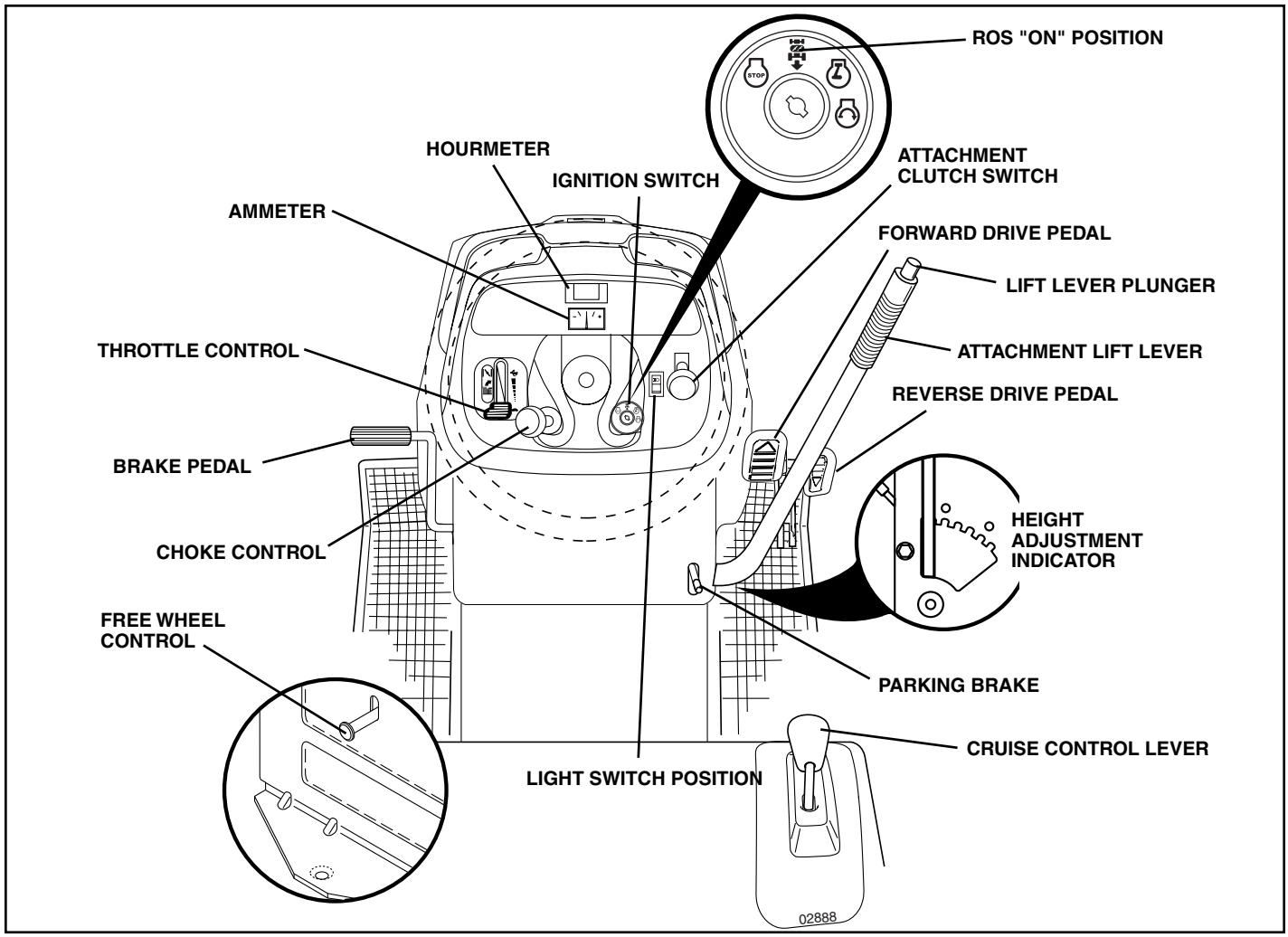



**FIG. 7**

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

**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.

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

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

**CRUISE CONTROL LEVER** - Used to set forward movement of tractor at desired speed without holding the forward drive pedal.

**FORWARD DRIVE PEDAL** - Used for forward movement of tractor.

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

**HOURMETER** - Indicates hours of operation.

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

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

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

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

**REVERSE DRIVE PEDAL** - Used for reverse movement of tractor.

**THROTTLE CONTROL** - Used to control engine speed.

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

# OPERATION


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

## HOW TO USE YOUR TRACTOR

### TO SET PARKING BRAKE (See Fig. 8)

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

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

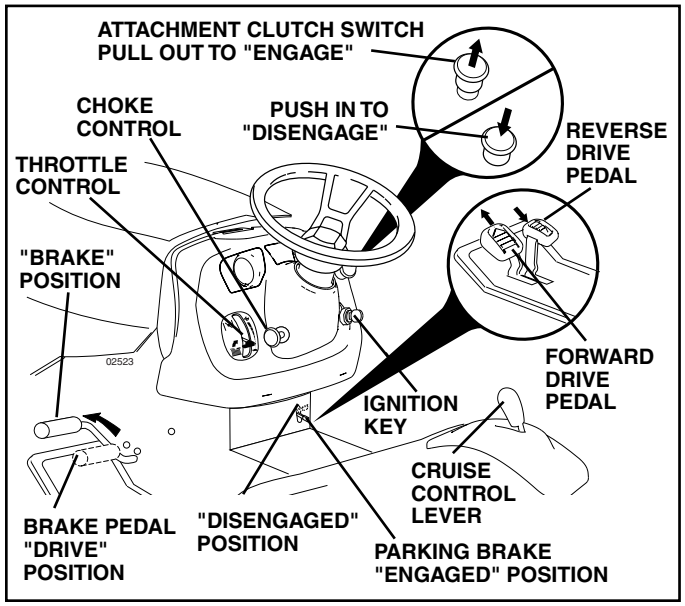



**FIG. 8**

### STOPPING (See Fig. 8)

MOWER BLADES -

- To stop mower blades,move attachment clutch switch to “DISENGAGED” position.

GROUND DRIVE -

- To stop ground drive, depress brake pedal into full “BRAKE” position.

**IMPORTANT**: FORWARD AND REVERSE DRIVE PEDALS RETURN TO NEUTRAL POSITION WHEN NOT 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 BE DISCHARGED, (DEAD).

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

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

### TO USE THROTTLE CONTROL (See Fig. 8)

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 (See Fig. 8)

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 (See Fig. 8)

The direction and speed of movement is controlled by the forward and reverse drive pedals.

- Start tractor and release parking brake.
- Slowly depress forward or reverse drive pedal to begin movement. Ground speed increases the further down the pedal is depressed.

### TO USE CRUISE CONTROL (See Fig. 8)

The cruise control feature can be used for forward travel only.

SYSTEM CHARACTERISTICS

The cruise control should only be used while mowing or transporting on relatively smooth, straight surfaces. Other conditions such as trimming at slow speeds may cause the cruise control to disengage. do not use the cruise control on slopes, rough terrain or while trimming or turning.

- With forward drive pedal depressed to desired speed, move cruise control lever forward to “SET” position and hold while lifting your foot off the pedal, then release the cruise control lever.
- To disengage the cruise control, pull the lever backward to “OFF” position, or fully depress the brake pedal.

### TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

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 (See Fig. 9)

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:**Adjust gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO ADJUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- Remove retainer spring and clevis pin which secure each gauge wheel bar.
- 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.
- Replace retainer spring into clevis pin.
- 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.

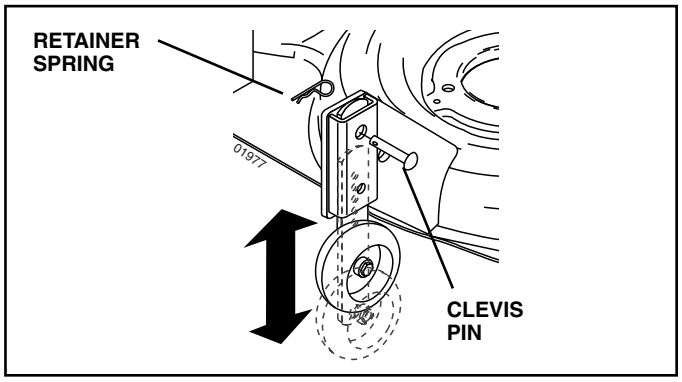



**FIG. 9**

## TO OPERATE MOWER (See Fig. 10)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine. You must remain fully and centrally positioned in the seat to prevent the engine from hesitating or cutting off when operating your equipment on rough, rolling terrain or hills.

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

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

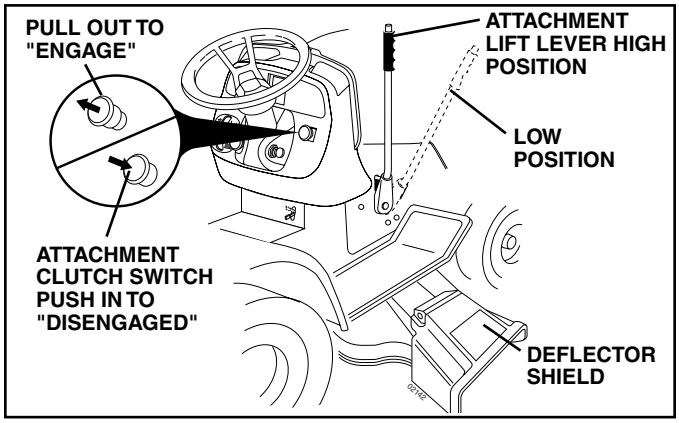



**FIG. 10**

## REVERSE OPERATION SYSTEM (ROS)

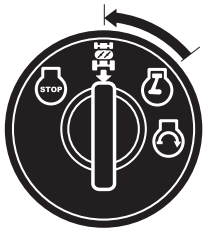
Your tractor is equipped with a Reverse Operation System (ROS). Any attempt by the operator to travel in the reverse direction with the attachment clutch engaged will shut off the engine unless ignition key is placed in the ROS "ON" position.

**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 -**

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

**ROS "ON" POSITION**




**ENGINE "ON" POSITION (NORMAL OPERATING)**

## TO OPERATE ON HILLS

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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If stopping is absolutely necessary, push brake pedal quickly to brake position and engage parking brake.
- To restart movement, slowly release parking brake and brake pedal.
- Slowly depress appropriate drive pedal to slowest setting.
- Make all turns slowly.

## TO TRANSPORT (See Figs. 7 and 11)

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

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control out and 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 reengage transmission, reverse above procedure.

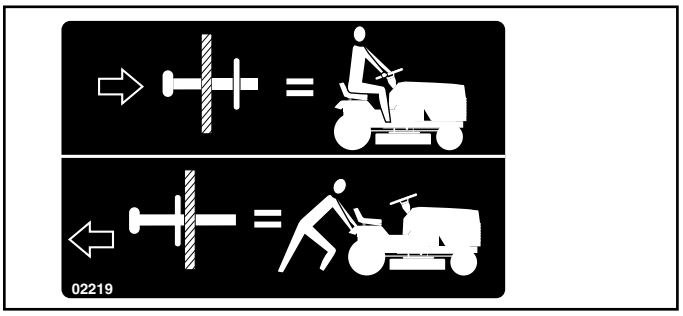



**FIG. 11**

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

## TOWING CARTS AND OTHER ATTACHMENTS

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

# BEFORE STARTING THE ENGINE

## CHECK ENGINE OIL LEVEL

The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.

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

## ADD GASOLINE

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

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

**IMPORTANT:** WHEN OPERATING IN TEMPERATURES BELOW32°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 (See Fig. 7)

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.

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress brake pedal and set parking brake.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to fast position
- 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.

- 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)

- 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)

- 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:
  - Be sure the tractor is on level ground.
  - Release the parking brake and let the brake slowly return to operating position.
  - 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.

- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. Disengage parking brake
- Depress forward drive pedal to full forward position, hold for five (5) seconds and release pedal. Depress reverse drive pedal to full reverse position, hold for five (5) seconds and release pedal. Repeat this procedure three (3) times.

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

- Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. Disengage parking brake.
- Drive tractor forward for approximately five feet then backwards for five feet. Repeat this driving procedure three times.

Your tractor is now purged and now 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 been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 12).

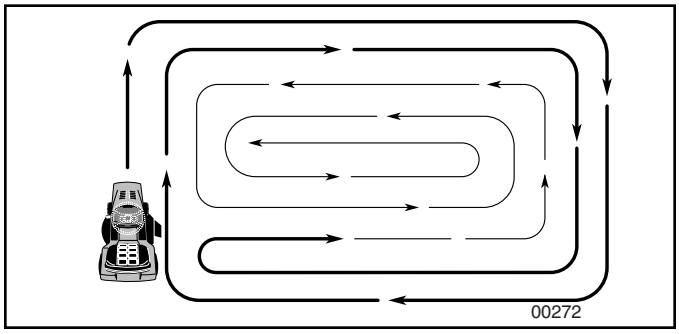



**FIG. 12**

- 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

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

maint_sch-tractore ROS.e

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.

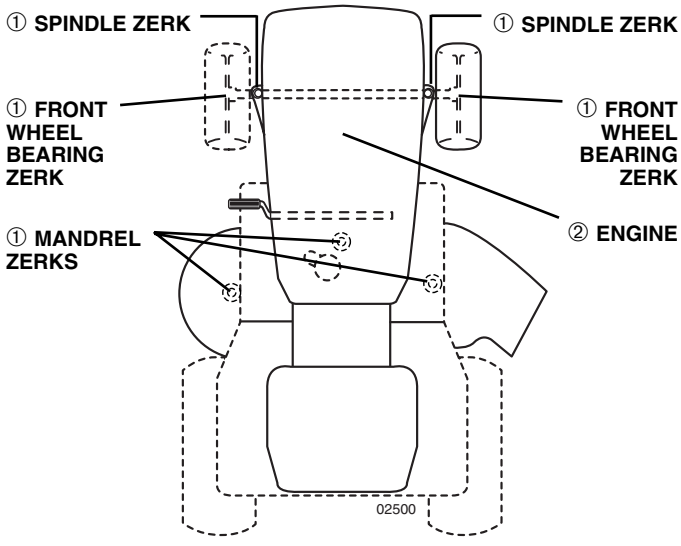
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

- 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.

# MAINTENANCE

## TRACTOR

Always observe safety rules when performing any maintenance.

### BRAKE OPERATION

If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be checked and adjusted. (See "TO 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 (See Fig. 13)

- Raise mower to highest position to allow access to blades.

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

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

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

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

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

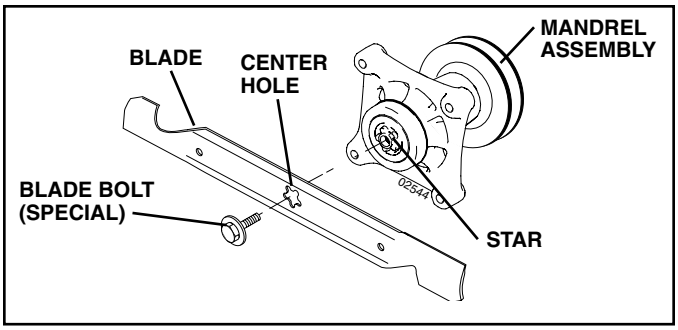



**FIG. 13**

## TO SHARPEN BLADE (See Fig. 14)

**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.

# MAINTENANCE

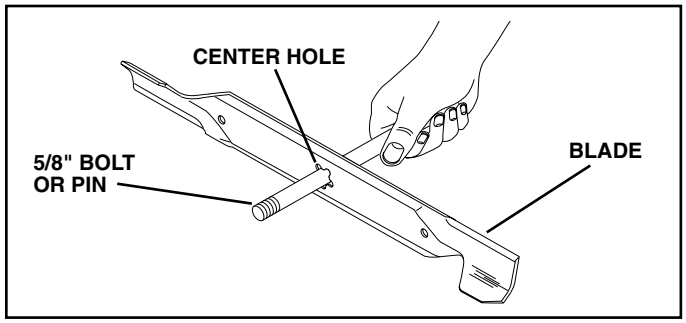



**FIG. 14**

## 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.

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

## V-BELTS

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

## TRANSAXLE COOLING

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.

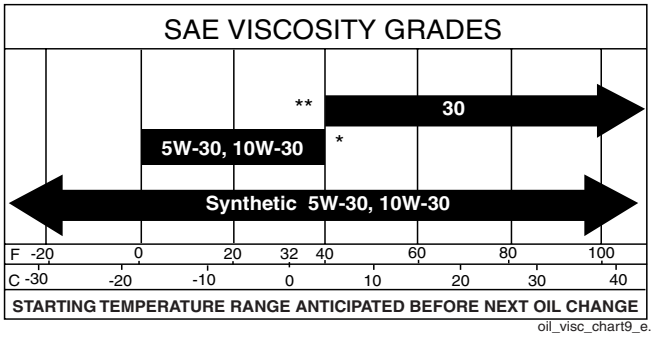
## TRANSAXLE PUMP FLUID

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 your nearest authorized service center/department.

# ENGINE

## LUBRICATION

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




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

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

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

Change the oil after every 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 (See Fig. 15)

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

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

# MAINTENANCE

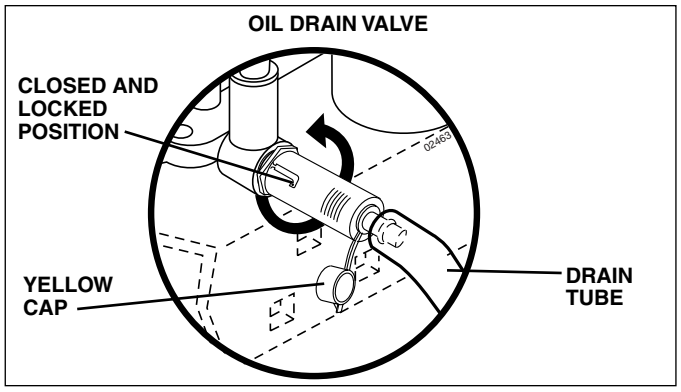



FIG. 15

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

## CLEAN AIR SCREEN

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

## 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.

## AIR FILTER (See Fig. 16)

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

Service air cleaner more often under dusty conditions.

- Remove cover.

TO SERVICE PRE-CLEANER

- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.

TO SERVICE CARTRIDGE

- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall precleaner 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.

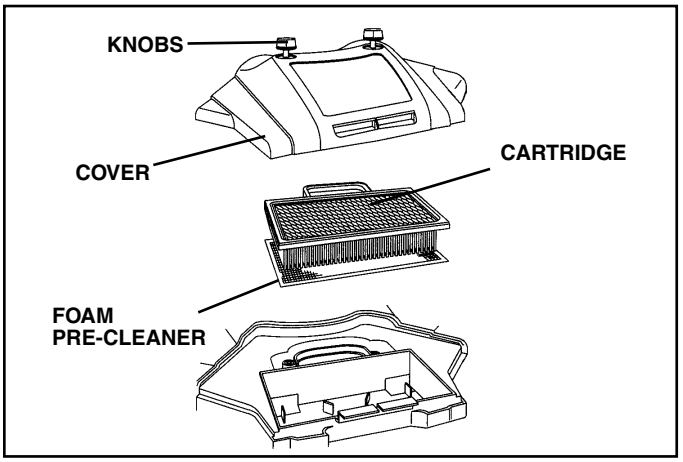



FIG. 16

## 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.

## MUFFLER

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

## SPARK PLUGS

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

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

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

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

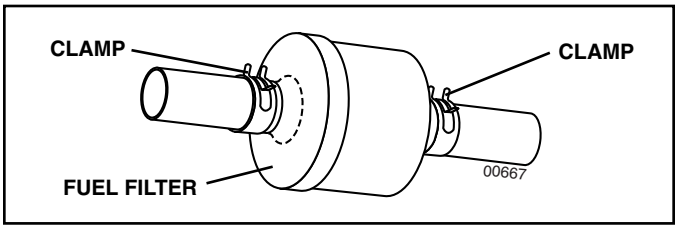



FIG. 17

## CLEANING

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

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

# SERVICE AND ADJUSTMENTS

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

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

## TRACTOR

### TO REMOVE MOWER (See Fig. 18)

- Place attachment clutch in "DISENGAGED" position.
- If equipped, turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Disengage belt tension rod from lock bracket.

**CAUTION: Rod is spring loaded. Have a tight grip on rod and release slowly.**

- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove four retainer springs from front plate assembly and remove plate.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Slide mower forward and remove belt from electric clutch pulley.
- Slide mower out from under right side of tractor.

### TO INSTALL MOWER

Be sure tractor is on level surface and mower suspension arms are raised with attachment lift control. Engage parking brake.

- Swing anti-sway bar to left side of mower deck.
- Slide mower under tractor with deflector shield to right side of tractor.

**IMPORTANT:** CHECK BELT FOR PROPER ROUTING IN ALL MOWER PULLEY GROOVES.

- If equipped, turn height adjustment knob counterclockwise until it stops.

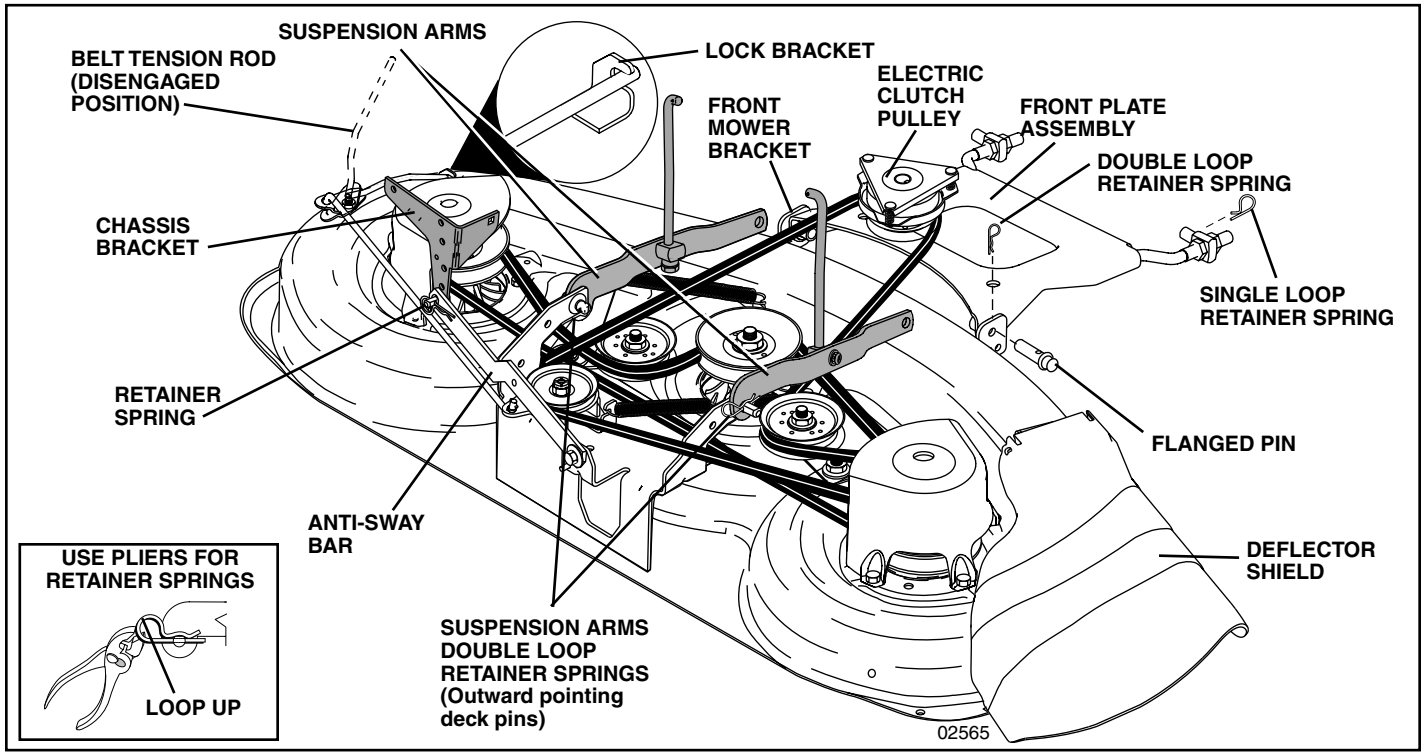



**FIG. 18**

- Lower mower linkage with attachment lift control.
- Be sure belt tension rod is in disengaged position.
- Install belt into electric clutch pulley groove.
- Place the suspension arms on outward pointing deck pins. Retain with double loop retainer spring with loops up as shown.
- Install front plate assembly to tractor suspension brackets and retain with single loop retainer springs as shown.
- Position front plate assembly between front mower brackets. Raise deck and plate assembly to align holes and insert flanged pins. Secure pins with double loop retainer springs between the plate assembly and mower brackets.

**NOTE:** To assist in locating hole in flanged pin, the hole in pin is inline with notch on head of pin. If necessary, move mower side-to-side to give space between plate and mower brackets.

**IMPORTANT:** CHECK BELT FOR PROPER ROUTING IN ALL MOWER PULLEY GROOVES.

- Engage belt tension rod by pushing rod into locking bracket.

**CAUTION: Belt tension rod is spring loaded. Have a tight grip on rod and engage slowly.**

- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- If equipped, turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.

## TO LEVEL MOWER HOUSING

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

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

- Raise mower to its highest position.
- Measure height from bottom edge of mower to ground level at front corners of mower. Distance "A" on both sides of mower should be the same.
- 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 3/16".

- Recheck measurements after adjusting.

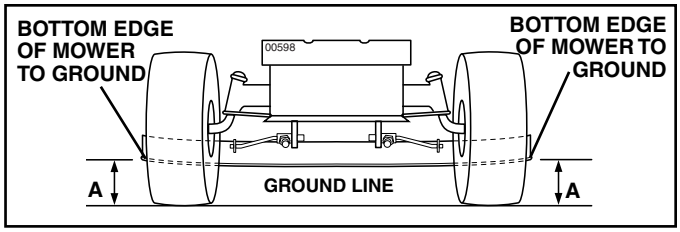



**FIG. 19**

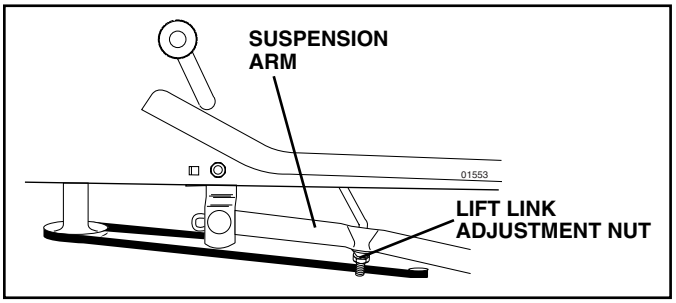



**FIG. 20**

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

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

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

**CAUTION: Blades are sharp. Protect your hands with gloves and/or wrap blade with heavy cloth.**

Check adjustment on right side of tractor. Position any blade so the tip is pointing straight forward. Measure distance "B" at front and rear tip of the blade.

- Before making any necessary adjustments, check that both front plate 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 blade, loosen nut "C" on both front links an equal number of turns.

**NOTE:** Each full turn of nut "C" will change distance. "B" by approximately 3/16".

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

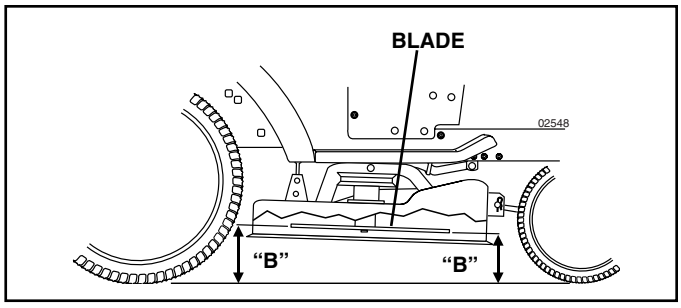



**FIG. 21**

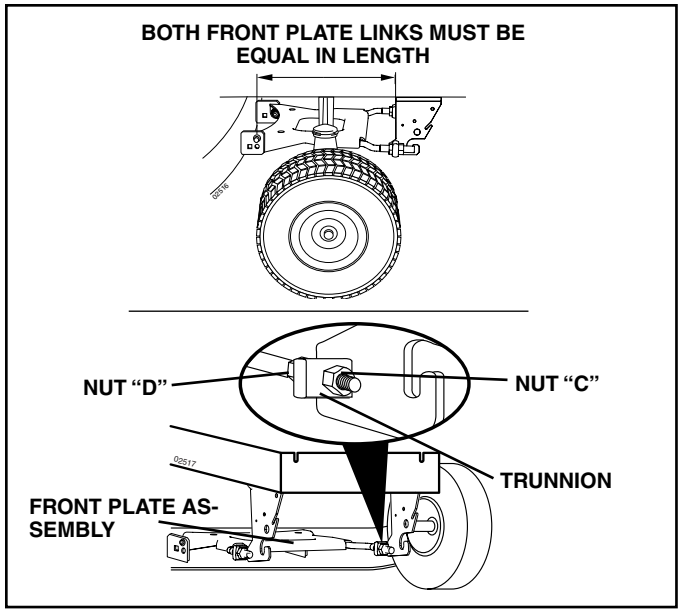



FIG. 22

## TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 23)

- Park tractor on a level surface. Engage parking brake.
- Lower mower to its lowest position.
- Disengage belt tention rod from lock bracket.

**CAUTION: Rod is spring loaded. Have a tight grip on rod and release slowly.**

- Remove screws from R.H. mandrel cover and remove cover.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Disconnect R.H. suspension arm from rear deck bracket by removing retainer spring.
- Roll belt over the top of R.H. mandrel pulley carefully.
- Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and spring arm.

MOWER DRIVE BELT INSTALLATION (See Fig. 25)

- Install belt in both idlers.
- Install new belt onto electric clutch pulley.
- Roll belt into upper groove of R.H. mandrel pulley carefully.
- Carefully check belt routing making sure belt is in the grooves correctly.
- Reconnect R.H. suspension arm to rear deck bracket with retainer spring.
- Reassemble R.H. mandrel cover.
- Engage belt tension rod by pushing rod into locking bracket.

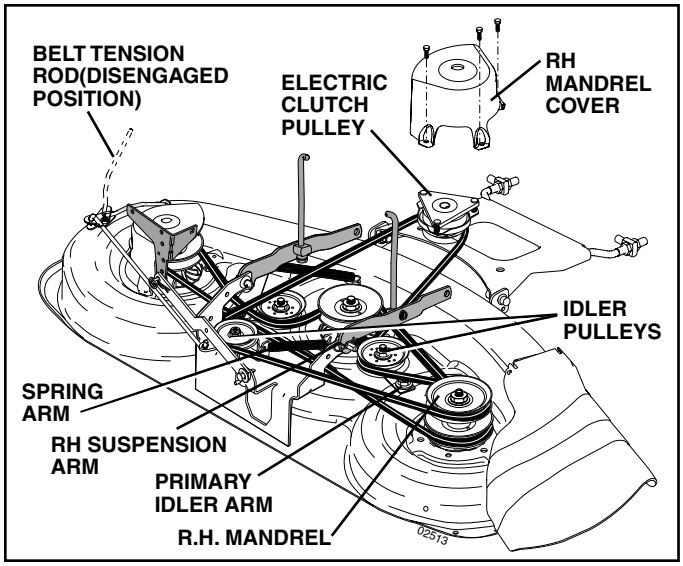



FIG. 23

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 24)

## TO REPLACE MOWER BLADE (SECONDARY) DRIVE BELT

Park the tractor on level surface. Engage parking brake.

- Remove mower (See "TO REMOVE MOWER" in this section of manual).
- Remove screws from R.H. and L.H. mandrel covers and remove covers.

REMOVE MOWER DRIVE BELT

(Refer to "TO REMOVE MOWER DRIVE BELT" illustration in this section of manual).

- Carefully roll belt over the top of R.H. mandrel pulley.
- Remove belt from idler pulleys.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and spring arm.

REMOVE MOWER BLADE (SECONDARY) DRIVE BELT

- Carefully roll belt off L.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and R.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler pulley to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and secondary spring arm.

INSTALL NEW MOWER BLADE (SECONDARY) DRIVE BELT

- Install new belt in lower groove of R.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Carefully roll belt over L.H. mandrel pulley. Make sure belt is in all grooves properly.

REINSTALL MOWER DRIVE BELT

(Refer to "TO REMOVE MOWER DRIVE BELT" illustration in this section of manual).

- Install belt into upper groove of R.H. mandrel pulley and around both idlers. Pull belt to front of mower to remove slack.
- Reinstall mandrel covers and securely tighten all screws.
- Carefully check belt routing making sure belt is in all grooves correctly.
- Reinstall mower to tractor (See "TO INSTALL MOWER" in this section of manual).

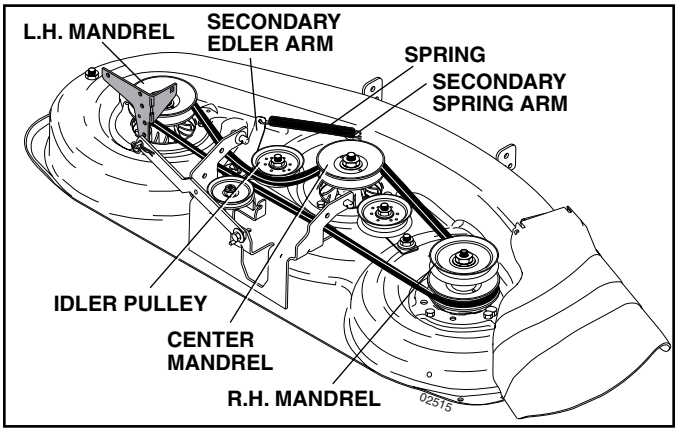



**FIG. 24**

## TO CHECK AND ADJUST BRAKE (See Fig. 25)

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

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

TO CHECK BRAKE

- Park tractor on a level, dry concrete or paved surface, depress brake pedal all the way down and engage parking brake.
- 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

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

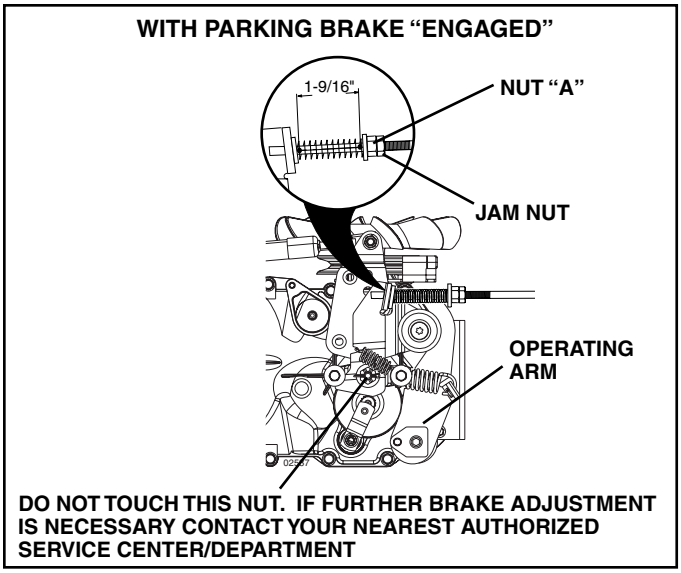



**FIG. 25**

## TO REPLACE MOTION DRIVE BELT (See Fig. 26)

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

BELT REMOVAL -

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

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

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

BELT INSTALLATION -

- Carefully work new belt down around transmission cooling fan and onto the input pulley.
- Slide belt into the center span keeper.
- Pull belt toward front of tractor and roll belt around electric clutch and onto engine pulley.
- Install belt through stationary idler and clutching idler.
- Reinstall clutch locator and tighten nut securely.
- Reconnect clutch harness.
- Make sure belt is in all pulley grooves and inside all belt guides and keepers.

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

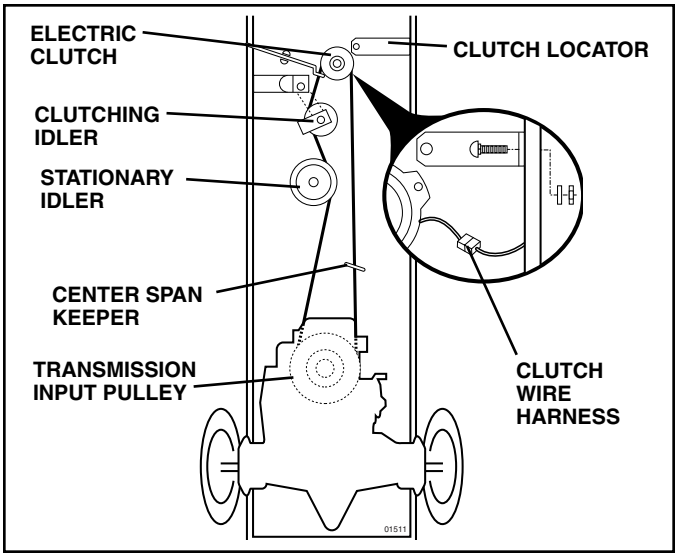



FIG. 26

## 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 per instructions in the Assembly section of this manual.

## FRONT WHEEL TOE-IN/CAMBER

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

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 27)

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

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

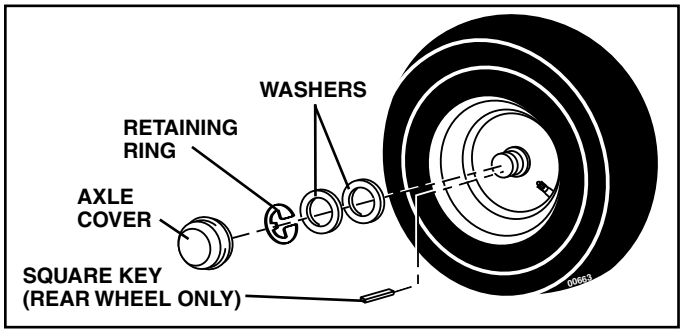



FIG. 27

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 28)

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

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

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

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

TO ATTACH JUMPER CABLES -

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

TO REMOVE CABLES, REVERSE ORDER -

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

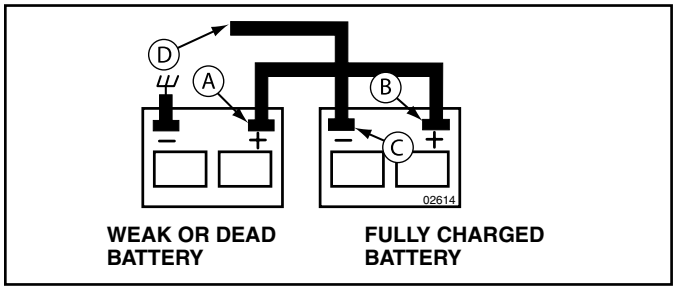



FIG. 28

# SERVICE AND ADJUSTMENTS

## TO REPLACE HEADLIGHT BULB

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

## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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

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

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

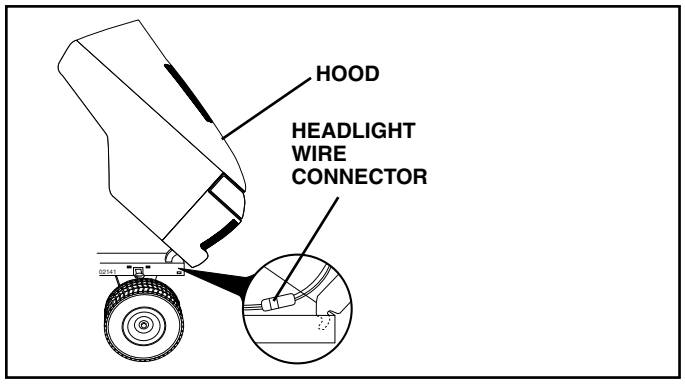



FIG. 29

# ENGINE

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

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

- With engine not running, move throttle control lever to fast position.
- Check that swivel is against stop. If it is not, loosen cable clamp screw and pull cable back until swivel is against stop. Tighten cable clamp screw securely.

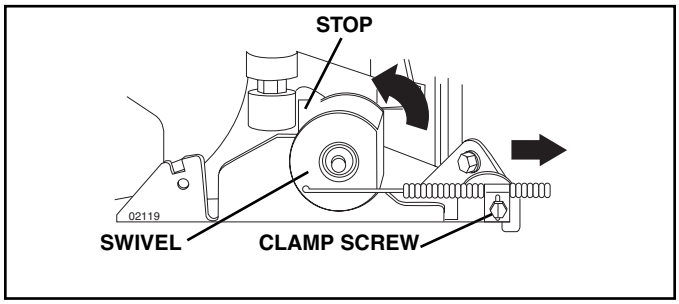



FIG. 30

## TO ADJUST CHOKE CONTROL (See Fig. 31)

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

- With engine not running, move choke control (located on dash panel) to full choke position.
- Loosen knob and remove cover assembly from air cleaner.
- Choke should be closed. If it is not, loosen casing clamp screw and move choke cable until choke is completely closed. Tighten casing clamp screw securely.
- Replace air cleaner cover assembly and tighten knob.

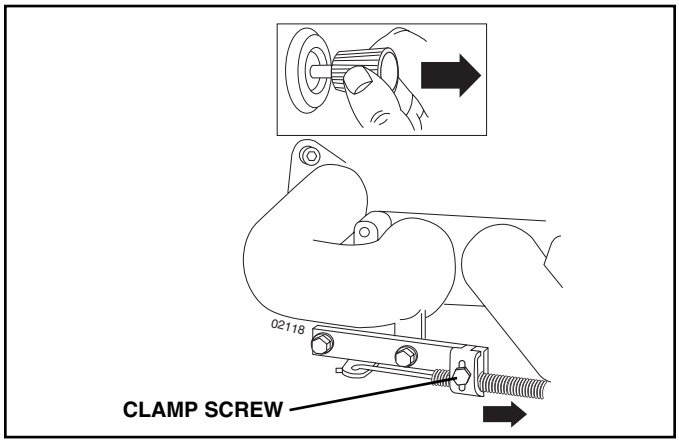



FIG. 31

## TO ADJUST CARBURETOR

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your tractor to an authorized service center for repair and/or adjustment.

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

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

# STORAGE

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

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

## TRACTOR

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

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

### BATTERY

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

## ENGINE

### FUEL SYSTEM

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

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

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

### ENGINE OIL

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

### CYLINDER(S)

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

## OTHER

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

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

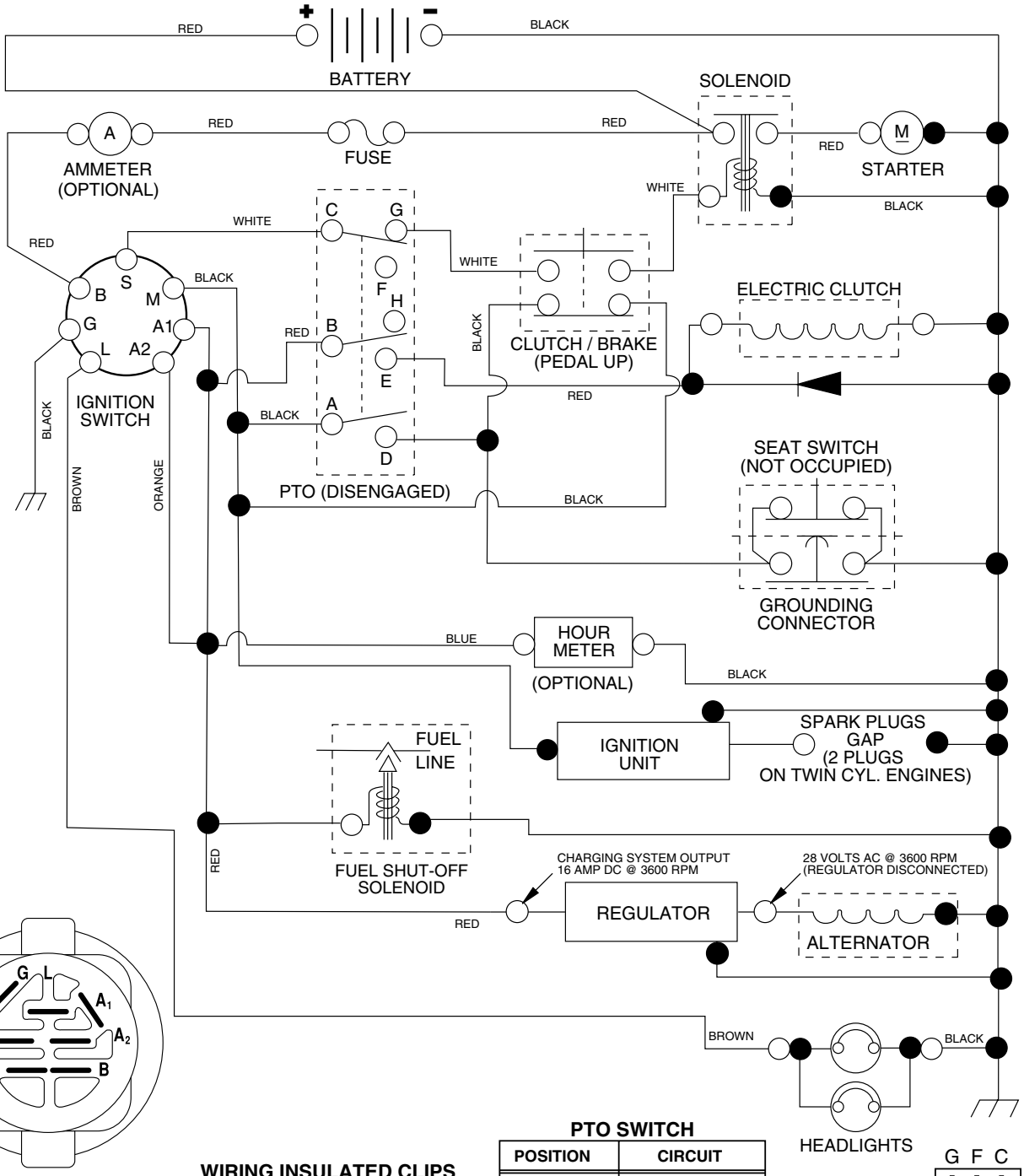
# TROUBLESHOOTING POINTS

| PROBLEM | CAUSE | CORRECTION |
|---|---|---|
| **Will not start** | 1. Out of fuel.<br>2. Engine not “CHOKED” properly.<br>3. Engine flooded.<br>4. Bad spark plug.<br>5. Dirty air filter.<br>6. Dirty fuel filter.<br>7. Water in fuel.<br>8. Loose or damaged wiring.<br>9. Carburetor out of adjustment.<br>10. Engine valves out of adjustment. | 1. Fill fuel tank.<br>2. See “TO START ENGINE” in Operation section.<br>3. Wait several minutes before attempting to start.<br>4. Replace spark plug.<br>5. Clean/replace air filter.<br>6. Replace fuel filter.<br>7. Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.<br>8. Check all wiring.<br>9. See “To Adjust Carburetor” in Service Adjustments section.<br>10. Contact an authorized service center/department. |
| **Hard to start** | 1. Dirty air filter.<br>2. Bad spark plug.<br>3. Weak or dead battery.<br>4. Dirty fuel filter.<br>5. Stale or dirty fuel.<br>6. Loose or damaged wiring.<br>7. Carburetor out of adjustment.<br>8. Engine valves out of adjustment. | 1. Clean/replace air filter.<br>2. Replace spark plug.<br>3. Recharge or replace battery.<br>4. Replace fuel filter.<br>5. Empty fuel tank and refill tank with fresh, clean gasoline.<br>6. Check all wiring.<br>7. See “To Adjust Carburetor” in Service Adjustments section.<br>8. Contact an authorized service center/department. |
| **Engine will not turn over** | 1. Brake pedal not depressed.<br>2. Attachment clutch is engaged.<br>3. Weak or dead battery.<br>4. Blown fuse.<br>5. Corroded battery terminals.<br>6. Loose or damaged wiring.<br>7. Faulty ignition switch.<br>8. Faulty solenoid or starter.<br>9. Faulty operator presence switch(es). | 1. Depress brake pedal.<br>2. Disengage attachment clutch.<br>3. Recharge or replace battery.<br>4. Replace fuse.<br>5. Clean battery terminals.<br>6. Check all wiring.<br>7. Check/replace ignition switch.<br>8. Check/replace solenoid or starter.<br>9. Contact an authorized service center/department. |
| **Engine clicks but will not start** | 1. Weak or dead battery.<br>2. Corroded battery terminals.<br>3. Loose or damaged wiring.<br>4. Faulty solenoid or starter. | 1. Recharge or replace battery.<br>2. Clean battery terminals.<br>3. Check all wiring.<br>4. Check/replace solenoid or starter. |
| **Loss of power** | 1. Cutting too much grass/too fast.<br>2. Throttle in “CHOKE” position.<br>3. Build-up of grass, leaves and trash under mower.<br>4. Dirty air filter.<br>5. Low oil level/dirty oil.<br>6. Faulty spark plug.<br>7. Dirty fuel filter.<br>8. Stale or dirty fuel.<br>9. Water in fuel.<br>10. Spark plug wire loose.<br>11. Dirty engine air screen/fins.<br>12. Dirty/clogged muffler.<br>13. Loose or damaged wiring.<br>14. Carburetor out of adjustment.<br>15. Engine valves out of adjustment. | 1. Raise cutting height/reduce speed.<br>2. Adjust throttle control.<br>3. Clean underside of mower housing.<br>4. Clean/replace air filter.<br>5. Check oil level/change oil.<br>6. Clean and regap or change spark plug.<br>7. Replace fuel filter.<br>8. Empty fuel tank and refill tank with fresh, clean gasoline.<br>9. Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.<br>10. Connect and tighten spark plug wire.<br>11. Clean engine air screen/fins.<br>12. Clean/replace muffler.<br>13. Check all wiring.<br>14. See “To Adjust Carburetor” in Service Adjustments section.<br>15. Contact an authorized service center/department. |
| **Excessive vibration** | 1. Worn, bent or loose blade.<br>2. Bent blade mandrel.<br>3. Loose/damaged part(s). | 1. Replace blade. Tighten blade bolt.<br>2. Replace blade mandrel.<br>3. Tighten loose part(s). Replace damaged parts. |

# TROUBLESHOOTING POINTS

| PROBLEM | CAUSE | CORRECTION |
|---|---|---|
| **Engine dies when tractor is shifted into reverse** | 1. Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged. | 1. Turn ignition key to ROS "ON" position. See Operation section. |
| **Engine continues to run when operator leaves seat with attachment clutch engaged** | 1. Faulty operator-safety presence control system. | 1. Check wiring, switches and connections. If not corrected, contact an authorized service center/ department. |
| **Poor cut - uneven** | 1. Worn, bent or loose blade.<br>2. Mower deck not level.<br>3. Buildup of grass, leaves, and trash under mower.<br>4. Bent blade mandrel.<br>5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. | 1. Replace blade. Tighten blade bolt.<br>2. Level mower deck.<br>3. Clean underside of mower housing.<br>4. Replace blade mandrel.<br>5. Clean around mandrels to open vent holes. |
| **Mower blades will not rotate** | 1. Obstruction in clutch mechanism.<br>2. Worn/damaged mower drive belt.<br>3. Frozen idler pulley.<br>4. Frozen blade mandrel. | 1. Remove obstruction.<br>2. Replace mower drive belt.<br>3. Replace idler pulley.<br>4. Replace blade mandrel. |
| **Poor grass discharge** | 1. Engine speed too slow.<br>2. Travel speed too fast.<br>3. Wet grass.<br>4. Mower deck not level.<br>5. Low/uneven tire air pressure.<br>6. Worn, bent or loose blade.<br>7. Buildup of grass, leaves and trash under mower.<br>8. Mower drive belt worn.<br>9. Blades improperly installed.<br>10. Improper blades used.<br>11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. | 1. Place throttle control in “FAST” position.<br>2. Shift to slower speed.<br>3. Allow grass to dry before mowing.<br>4. Level mower deck.<br>5. Check tires for proper air pressure.<br>6. Replace/sharpen blade. Tighten blade bolt.<br>7. Clean underside of mower housing.<br>8. Replace mower drive belt.<br>9. Reinstall blades sharp edge down.<br>10. Replace with blades listed in this manual.<br>11. Clean around mandrels to open vent holes. |
| **Headlight(s) not working (if so equipped)** | 1. Light switch is “OFF”.<br>2. Bulb(s) or lamp(s) burned out.<br>3. Faulty light switch.<br>4. Loose or damaged wiring.<br>5. Blown fuse. | 1. Turn light switch “ON”.<br>2. Replace bulb(s) or lamp(s).<br>3. Check/replace light switch.<br>4. Check wiring and connections.<br>5. Replace fuse. |
| **Battery will not charge** | 1. Bad battery cell(s).<br>2. Poor cable connections.<br>3. Faulty regulator (if so equipped).<br>4. Faulty alternator. | 1. Replace battery.<br>2. Check/clean all connections.<br>3. Replace regulator.<br>4. Replace alternator. |
| **Loss of drive** | 1. Freewheel control in “disengaged” position.<br>2. Motion drive belt worn, damaged, or broken.<br>3. Air trapped in transmission during shipment or servicing. | 1. Place freewheel control in “engaged” position.<br>2. Replace motion drive belt.<br>3. Purge transmission. |
| **Engine “backfires” when turning engine “OFF”** | 1. Engine throttle control not set between half and full speed (fast) position before stopping engine. | 1. Move throttle control between half and full speed (fast) position before stopping engine. |

## SCHEMATIC




### IGNITION SWITCH

| POSITION | CIRCUIT | "MAKE" |
|---|---|---|
| OFF | M + G + A1 | NONE |
| ON + LIGHTS | B + A1 | L + A2 |
| ON | B + A1 | NONE |
| START | B + S + A1 | NONE |

**WIRING INSULATED CLIPS**

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

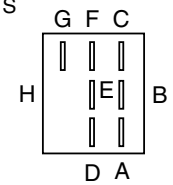
02762

### PTO SWITCH

| POSITION | CIRCUIT |
|---|---|
| OFF | C + G, B + H |
| ON | C + F, B + E, A + D |

REMOVABLE CONNECTIONS

NON-REMOVABLE CONNECTIONS

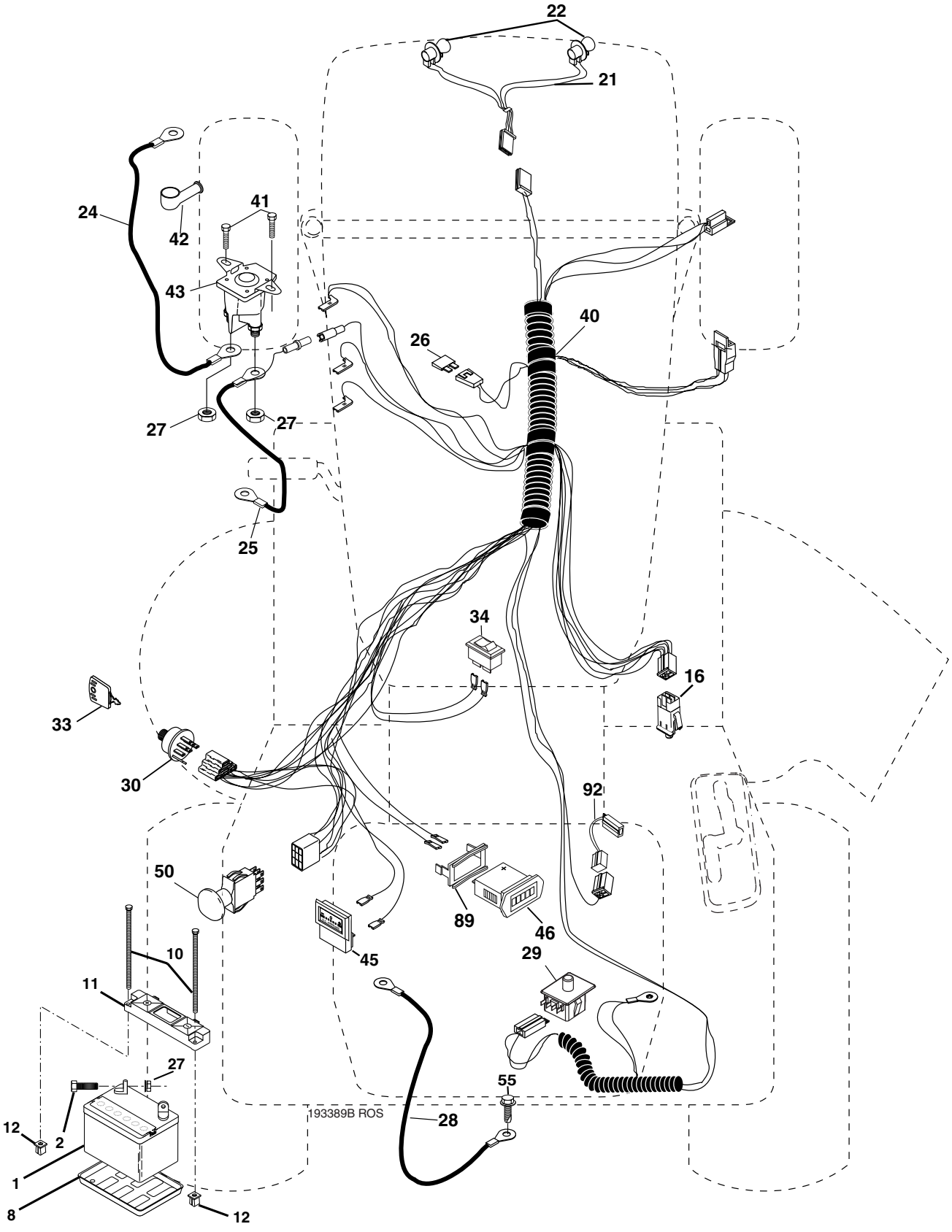



**PTO SWITCH CONNECTOR**

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### ELECTRICAL



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### ELECTRICAL

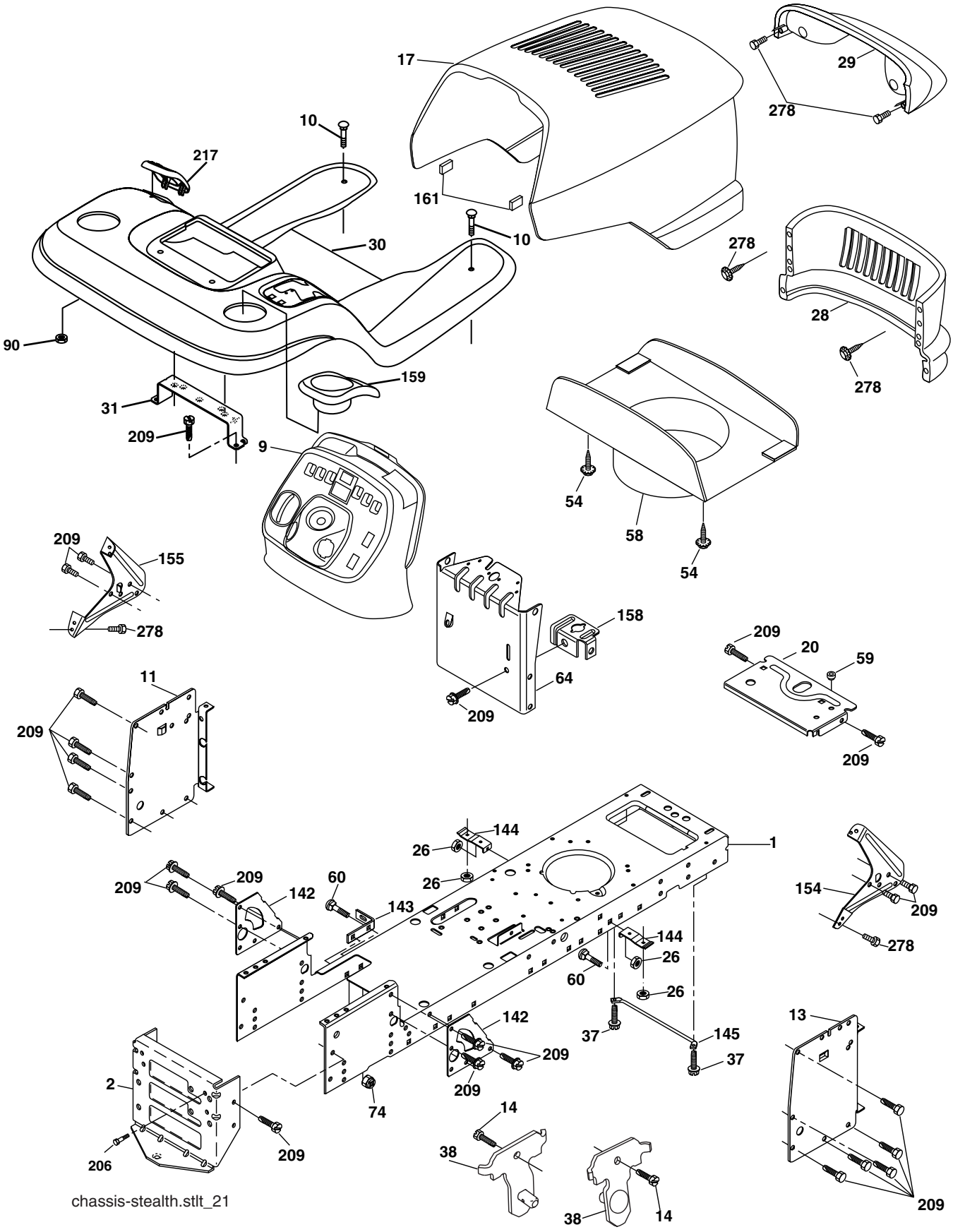
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 144927 | Battery 12 Volt 35 Amp |
| 2 | 74760412 | Bolt Hex Hd 1/4-20 unc x 3/4 |
| 8 | 7603J | Tray Battery |
| 10 | 145211 | Bolt Btr Frt 1/4-20 x 7.5 |
| 11 | 150109 | Holddown Battery Front Mount |
| 12 | 145769 | Nut Push Nylon 1/4" Battery |
| 16 | 176138 | Switch Interlock |
| 21 | 175688 | Harness Asm Light |
| 22 | 4152J | Bulb LIght #1156 |
| 24 | 8860R | Cable Starter 6 Ga. Red 17" |
| 25 | 146148 | Cable Battery 6 Ga. w/16 wire, red 22" |
| 26 | 175158 | Fuse |
| 27 | 73510400 | Nut Keps Hex 1/4-20 unc |
| 28 | 145491 | Cable Ground |
| 29 | 192749 | Switch Seat |
| 30 | 193350 | Switch Ign |
| 33 | 140403 | Key Ign |
| 34 | 110712X | Switch Light/Reset |
| 40 | 193389 | Harness Ign |
| 41 | 17720408 | Screw Thd Cut 1/4-20 x 1/2 |
| 42 | 131563 | Cover Terminal Red |
| 43 | 178861 | Solenoid |
| 45 | 122822X | Ammeter |
| 46 | 169635 | Hourmeter |
| 50 | 174652 | Switch PTO |
| 55 | 17490508 | Screw Thdrol 5/16-18 x 1/2 |
| 79 | 175242 | Socket Asm Bulb |
| 89 | 169639 | Bracket Snap-in Hourmeter |
| 92 | 193387 | Harness Pigtail |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### CHASSIS AND ENCLOSURES




chassis-stealth.stlt_21

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### CHASSIS AND ENCLOSURES

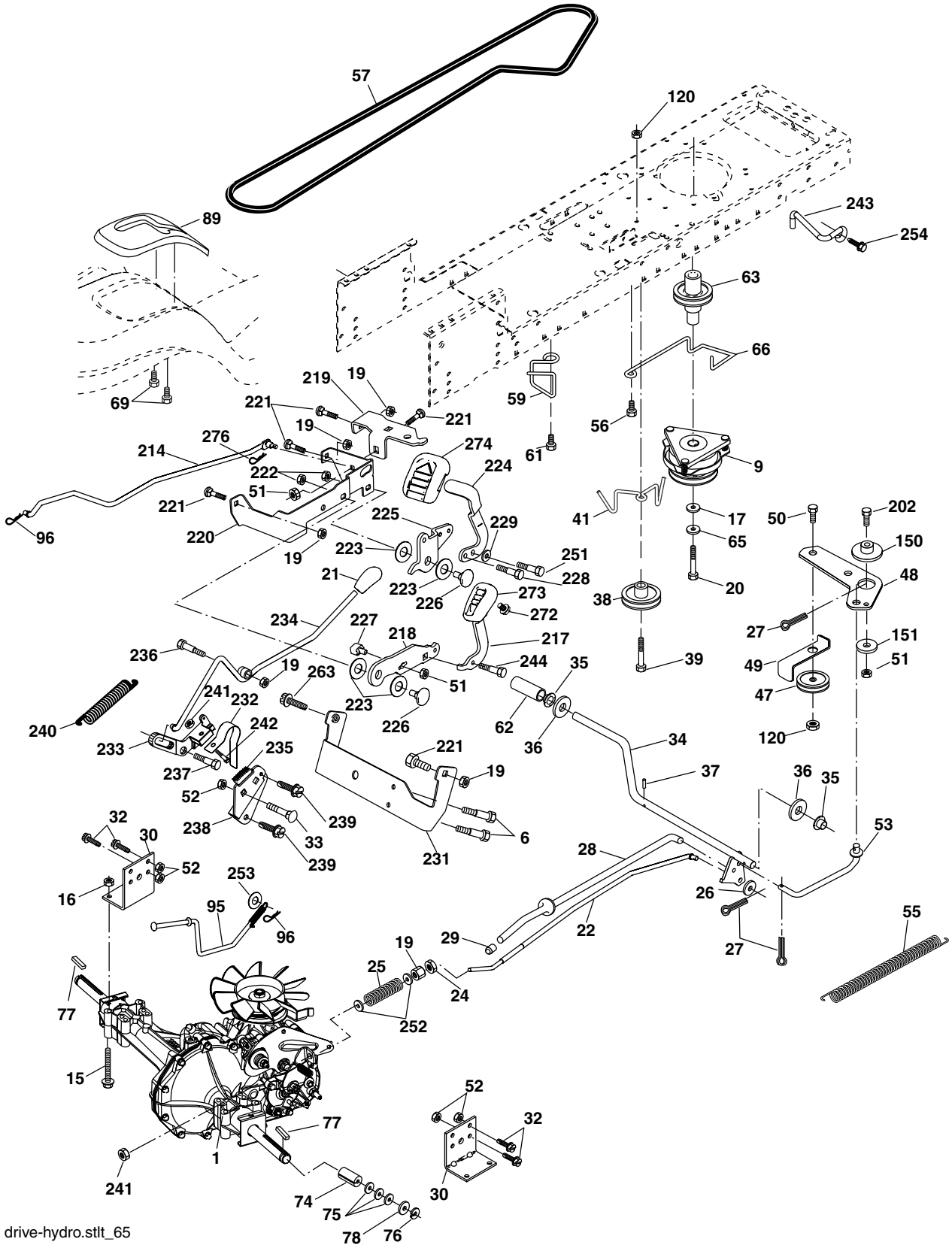
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 174619 | Chassis |
| 2 | 176554 | Drawbar |
| 9 | 193636X428 | Dash |
| 10 | 72140608 | Bolt 3/8-16 x 1 |
| 11 | 167203 | Panel, Dash, LH |
| 13 | 188702X010 | Panel, Dash, RH |
| 14 | 17490608 | Screw Thdrol 3/8-16 x 1/2 |
| 17 | 175260X615 | Hood Assembly |
| 20 | 162026 | Plate Battery |
| 26 | STD541437 | Locknut, Hex, with Insert 3/8-16 unc |
| 28 | 174515X615 | Grille |
| 29 | 179761 | Lens Asm. |
| 30 | 192395X615 | 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 |
| 59 | 187495 | Bushing |
| 58 | 175351 | Duct Hood |
| 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 Stl Gray |
| 161 | 164655 | Bumper Extrusion |
| 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
1 inch = 25.4 mm

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### DRIVE




drive-hydro.stlt_65

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### DRIVE

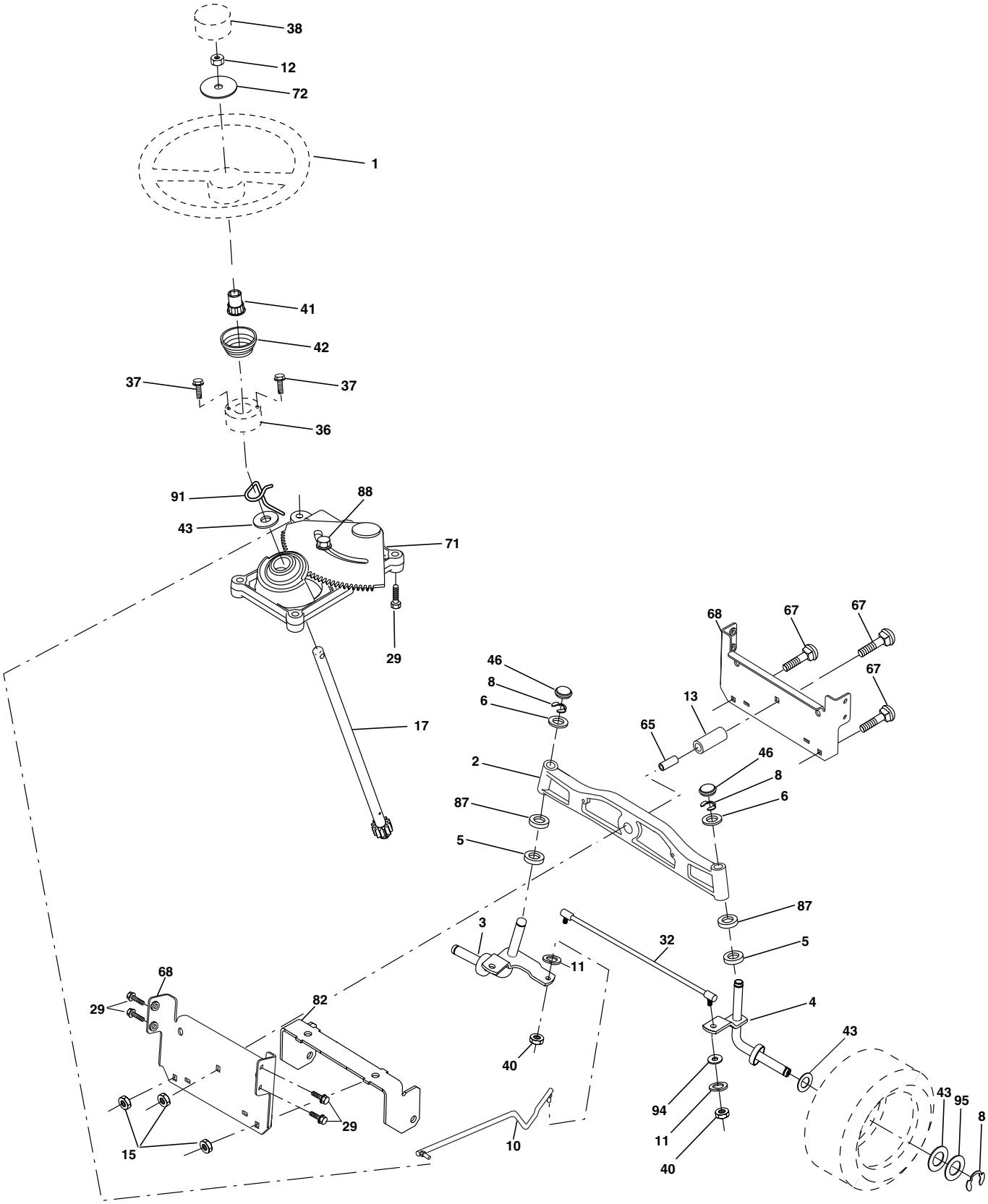
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | - - - - - - | Transaxle Hydro gear Model 347-0510 (See Breakdown) |
| 6 | 17060512 | Screw 5/16-18 x 3/4 |
| 9 | 179334 | Clutch Elec |
| 15 | 74490544 | Bolt Hex Flghd 5/16-18 Gr. 5 |
| 16 | 73800500 | Nut Lock Hex W/Ins. 5/16-18 unc |
| 17 | 126197X | Washer 1-1/2 OD x 15/32 ID x .250 |
| 19 | 73800600 | Nut Lock Hex W/Wsh 3/8-16 unc |
| 20 | 173937 | Bolt Hex 7/16-20 x 4 x Gr. 5-1.5 |
| 21 | 175036X505 | Knob Custom Control Cruise |
| 22 | 175896 | Rod, Brake |
| 24 | 73350600 | Nut, Hex Jam 3/8-16 unc |
| 25 | 192036 | Spring, Brake Rod |
| 26 | 19131316 | Washer |
| 27 | 76020412 | Pin Cotter 1/8 x 3/4 CAD. |
| 28 | 175765 | Rod, Parking Brake |
| 29 | 124236X | Cap Brake Parking |
| 30 | 169592 | Bracket, Transaxle |
| 32 | 74760512 | Bolt Hex Hd 5/16-18 unc x 3/4 |
| 33 | 72140506 | Bolt Rdhd Sqnk 5/16-18 unc x 3/4 |
| 34 | 175578 | Shaft, Foot Pedal |
| 35 | 120183X | Bearing, Nylon |
| 36 | 19211616 | Washer |
| 37 | 1572H | Pin, Roll |
| 38 | 179114 | Pulley, Composite, Flat |
| 39 | 72110622 | Bolt Rdhd 3/8-16 unc x 2-3/4 Gr. 5 |
| 41 | 175556 | Keeper, Belt Idler Flat |
| 47 | 127783 | Pulley, Idler, V-Groove |
| 48 | 154407 | Bellcrank Clutch Grnd Drw Stl |
| 49 | 123205X | Retainer, Belt |
| 50 | 72110612 | Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5 |
| 51 | 73680600 | Nut Crownlock 3/8-16 unc |
| 52 | 73680500 | Nut, Crownlock 5/16-18 unc |
| 53 | 105710X | Link, Clutch |
| 55 | 105709X | Spring, Return, Clutch |
| 56 | 17060620 | Screw 3/8-16 x 1-1/4 |
| 57 | 140294 | V-Belt, Ground Drive |
| 59 | 169691 | Keeper, Center Span |
| 61 | 17120614 | Screw 3/8-16 x .875 |
| 62 | 123533X | Cover, Pedal |
| 63 | 174607 | Pulley, Engine |
| 65 | 10040700 | Washer |
| 66 | 154778 | Keeper Belt Engine |
| 69 | 142432 | Screw Hex Wsh Hi-Lo 1/4-1/2 unc |
| 74 | 137057 | Spacer, Axle |
| 75 | 121749X | Washer 25/32 x 1-1/4 x 16 Ga. |
| 76 | 12000001 | E-Ring |
| 77 | 123583X | Key, Square |
| 78 | 121748X | Washer 25/32 x 1-5/8 x 16 Ga. |
| 89 | 188308X428 | Console, Shift |
| 95 | 195631 | Rod Bypass |
| 96 | 4497H | Retainer Spring 1" Zinc/Cad |
| 120 | 73900600 | Nut Lock Flg 3/8-16 unc |
| 150 | 175456 | Spacer Retainer |
| 151 | 19133210 | Washer 13/32 x 2 x 10 Ga. |
| 202 | 72110614 | Bolt RDHD 3/8-16 unc x 1-3/4 Gr. 5 |
| 214 | 174735 | Link Transaxle |
| 217 | 179433 | Pedal Reverse |
| 218 | 174713 | Arm Control Pedal Reverse |
| 219 | 174839 | Bracket Frest Pdl Ctrl. Hyd |
| 220 | 174711 | Bracket Mtg. Pedal Control |
| 221 | 72140606 | Bolt Rdhd Sqnk 3/8-16 unc x 3/4 |
| 222 | 73680700 | Nut Crownlock 7/16-14 unc |
| 223 | 174840 | Washer Nylon 11/16 ID x .060 |
| 224 | 174736 | Pedal Forward |
| 225 | 174712 | Arm Control Pedal Forward |
| 226 | 174902 | Bolt Pivot Spacer |
| 227 | 174710 | Cam Reverse Pedal LT |
| 228 | 179032 | Bolt Shoulder 5/16-18 |
| 229 | 176451 | Washer Serrated 5/16 x .75 |
| 231 | 174573 | Strap Torque |
| 232 | 175570 | Actuator Cruise Disengage |
| 233 | 174856 | Pawl Control Cruise |
| 234 | 174858 | Lever Control Cruise |
| 235 | 174857 | Sector Control Cruise |
| 236 | 128903 | Bolt Shoulder 3/8-16 unc 1/44 |
| 237 | 170165 | Bolt Shoulder 5/16-18 |
| 238 | 175807 | Arm Mtg. Cruise Sector |
| 239 | 17490508 | Screw Thdrol 5/16 x 1/2 |
| 240 | 175610 | Spring Return Cruise Control |
| 241 | 73930400 | Nut Centerlock 1/4-20 unc |
| 242 | 74780412 | Bolt Fin Hex 1/4-20 x .75 |
| 243 | 190736 | Bracket Anti-Rotation |
| 244 | 17490510 | Screw 5/16-18 x 5/8 |
| 251 | 17060516 | Screw 5/16-18 |
| 252 | 19131616 | Washer 13/32 x 1 x 16 Ga. |
| 253 | 179422 | Washer .3125 x .615 x 16 Gr. |
| 254 | 17000616 | Screw 3/8-16 x 1 |
| 263 | 17000612 | Screw 3/8-16 x .75 |
| 272 | 17670508 | Screw, 5/16-18 x 1/2 TT |
| 273 | 179610 | Pad, Reverse Pedal |
| 274 | 175646 | Cover Pedal Forward |
| 276 | 178062 | Clip Retainer .0375 |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### STEERING ASSEMBLY




steering_stealth_prem_6

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### STEERING ASSEMBLY

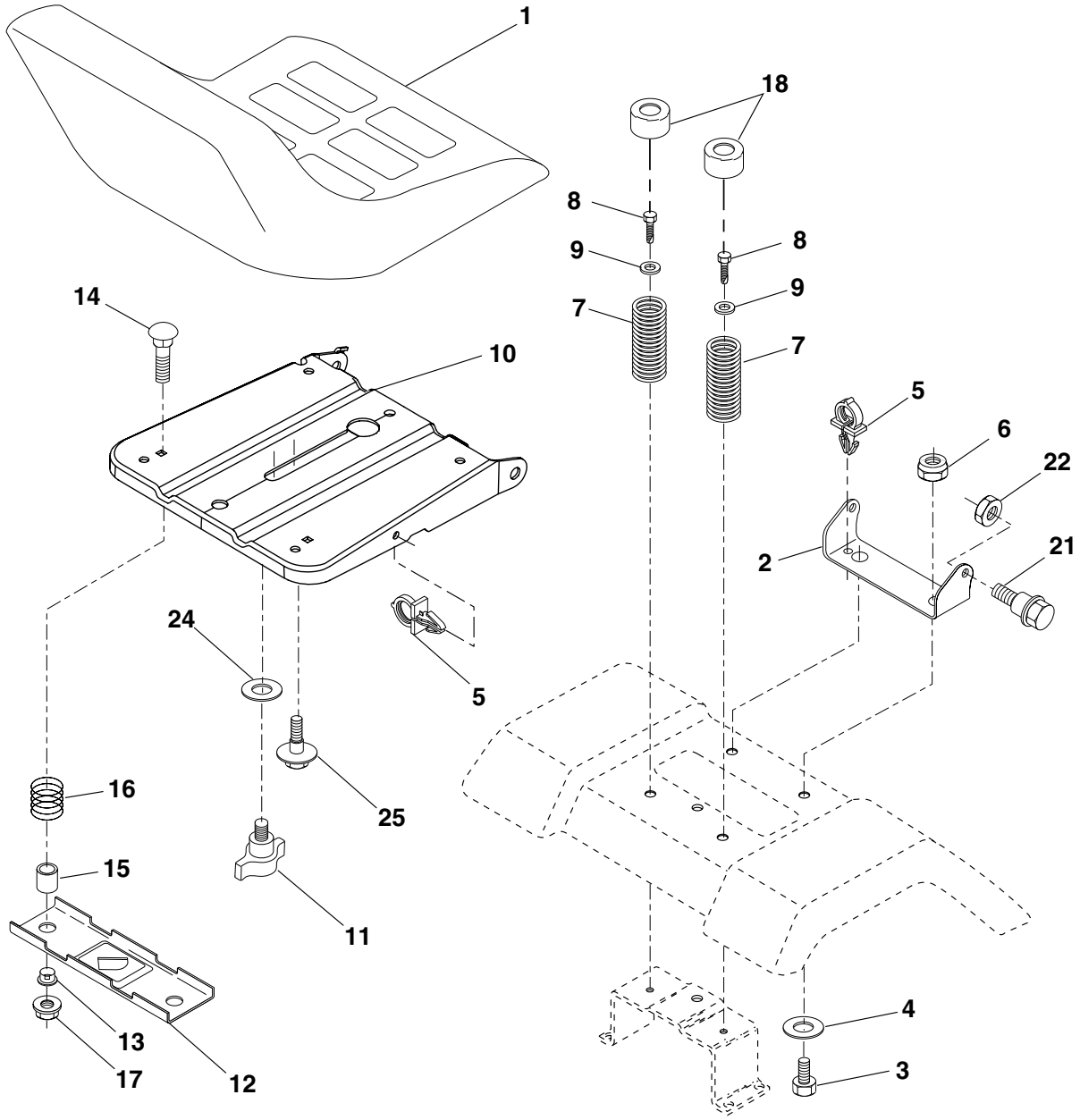
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 186094X428 | Wheel Steering |
| 2 | 184706 | Axle Asm |
| 3 | 169840 | Spindle Asm LH |
| 4 | 169839 | Spindle Asm RH |
| 5 | 6266H | Bearing Race Thrust Harden |
| 6 | 121748X | Washer 25/32 x 1-5/8 x 16 Ga. |
| 8 | 12000029 | Ring Klip #t5304-75 |
| 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 |
| 29 | 17000612 | Screw 3/8-16 x 3/4 |
| 32 | 180580 | Rod Tie |
| 36 | 155105 | Bushing Strg |
| 37 | 152927 | Screw |
| 38 | 186095X428 | Insert Cap Strg Wh |
| 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 Fr Top Red |
| 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. |
| 72 | 19183812 | Washer 9/16 ID x 2-3/8 OD 12 Ga. |
| 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 |
| 94 | 19121414 | Washer 3/8 x 7/8 x 14 Ga. |
| 95 | 188967 | Washer Harden .793 x 1.637 x .060 |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### SEAT ASSEMBLY




seat_lt.knob_2

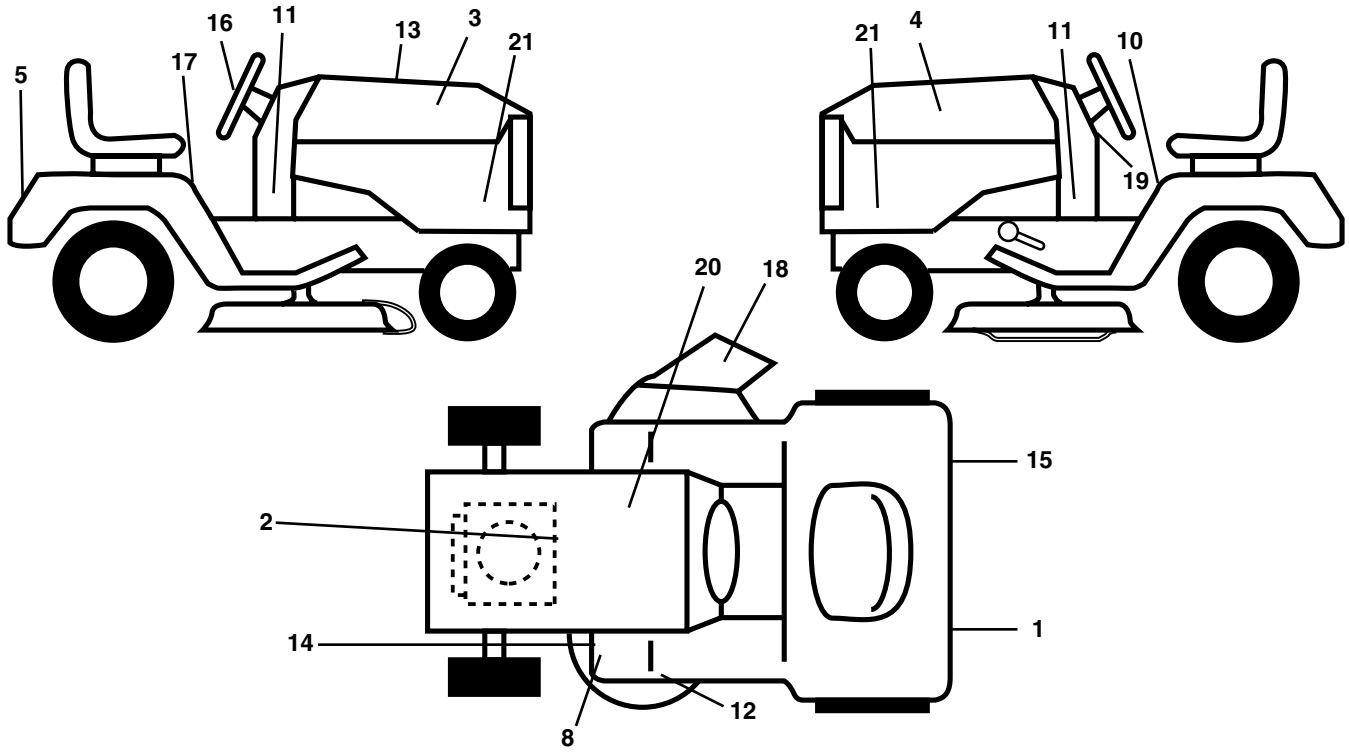
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 192919 | Seat |
| 2 | 140551 | Bracket Pivot Seat |
| 3 | STD523710 | Bolt Fin Hex 3/8-16 unc x 1 |
| 4 | 19131610 | Washer 13/32 x 1 x 10 Ga. |
| 5 | 145006 | Clip Push-In |
| 6 | STD541437 | Nut Hex w/Ins. 3/8-16 unc |
| 7 | 124181X | Spring Seat Cprsn |
| 8 | 17000616 | Screw 3/8-16 x 1-1/2 |
| 9 | 19131614 | Washer 13/32 x 1 x 14 Ga. |
| 10 | 182493 | Pan Seat |
| 11 | 166369 | Knob Seat Adj. Wingnut |
| 12 | 174648 | Bracket Mounting Switch |
| 13 | 121248X | Bushing Snap Blk Nyl 50 Id |
| 14 | 72050412 | Bolt Rdhd Sqnk 1/4-20 x 1-1/2 |
| 15 | 121249X | Spacer Split 28 x .88 Zinc |
| 16 | 123740X | Spring Cprsn Plate 1.310 Ga. |
| 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

# REPAIR PARTS

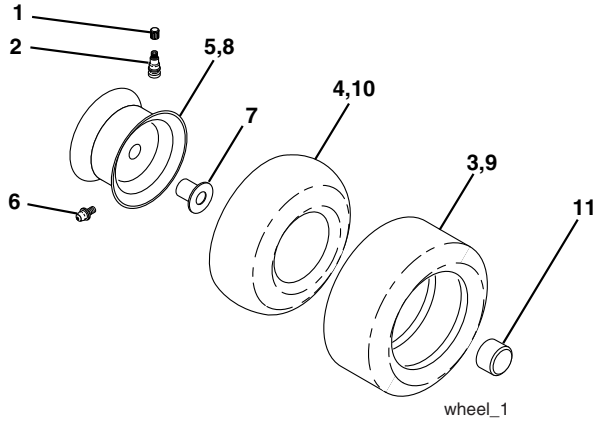
## TRACTOR - - MODEL NUMBER 944.605060

### DECALS




| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 187407 | Reflector LH |
| 2 | 189684 | Decal ENGN Sears |
| 3 | 194023 | Decal Hood RH |
| 4 | 194024 | Decal Hood LH |
| 5 | 163204 | Decal Fender |
| 8 | 178502 | Decal Deck Caution |
| 10 | 157140 | Decal Fender Danger Eng/Fr |
| 11 | 189637 | Decal Pnl Dash |
| 12 | 178482 | Decal Mower Heavy Duty |
| 13 | 196361 | Decal Replacement Parts |
| 14 | 175291 | Decal V-Belt Schematic |
| 15 | 187408 | Decal Reflector RH |
| 16 | 164065 | Decal Strng Whl |
| 17 | 195971 | Decal Fender Cruise |
| 18 | 170563 | Decal Warning |
| 19 | 164656 | Decal Dash |
| 20 | 149517 | Decal Bat Dan/Psn |
| 21 | 196365 | Decal Hood Side Panel |
| - - | 184351X428 | Pad Footrest LH STLT |
| - - | 184349X428 | Pad Footrest RH STLT |
| - - | 166960 | Decal By-Pass |
| - - | 196387 | Manual Owner's (English) |
| - - | 196388 | Manual Owner's (French) |

### WHEELS & TIRES



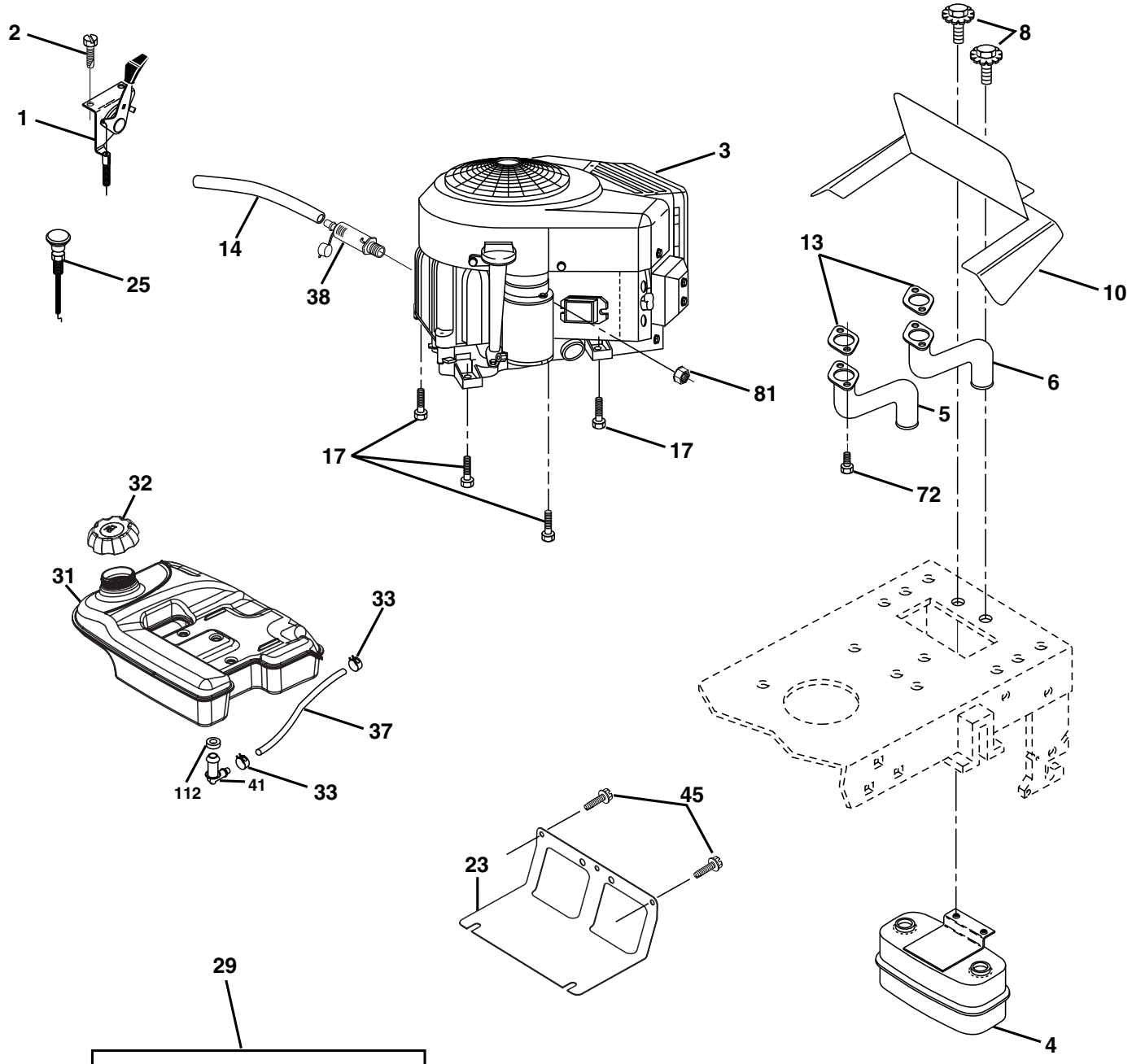

| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 59192 | Cap Valve Tire |
| 2 | 65139 | Stem Valve |
| 3 | 106222X | Tire F Ts 15 x 6 0 - 6 Service |
| 4 | 59904 | Tube Front (Service Item Only) |
| 5 | 106732X624 | Rim Asm 6" front Service |
| 6 | 278H | Fitting Grease (Front Wheel Only) |
| 7 | 9040H | Bearing Flange (Front Wheel Only) |
| 8 | 106108X624 | 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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### ENGINE




**OPTIONAL EQUIPMENT**

**Spark Arrester**

engine-bs intek-twin_39

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### ENGINE

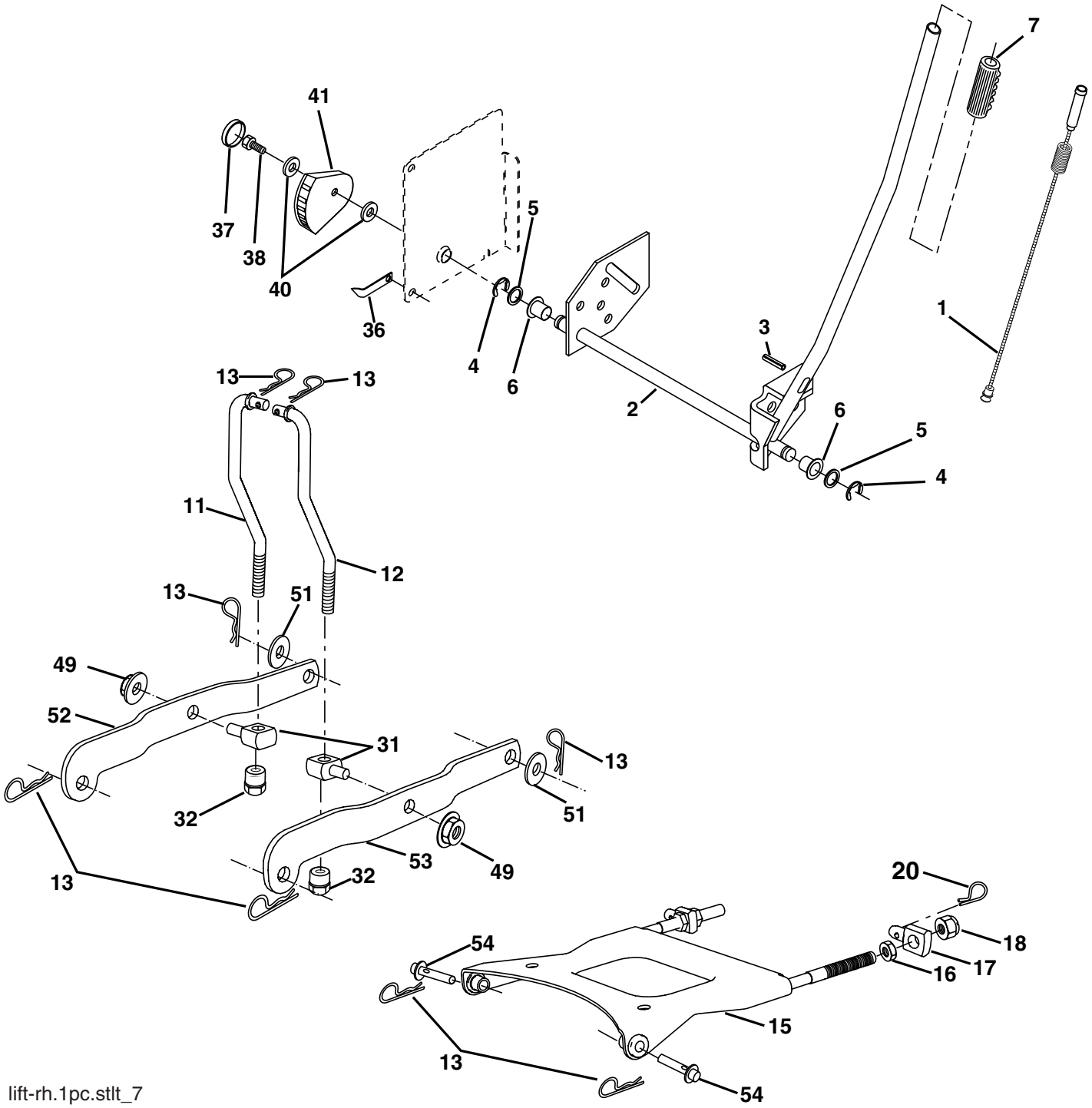
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 175437X428 | Control, Throttle |
| 2 | 191611 | Screw 10 x 3/4 Single Lead-Hex |
| 3 | - - - - - - - | Engine B&S Model 445677-0413-E1 (See Breakdown) |
| 4 | 149723 | Muffler, Asm. Twin Lo-Tone |
| 5 | 160589 | Pipe Exhaust Intek RH |
| 6 | 159955 | Pipe Exhaust Intek LH |
| 8 | 171877 | Bolt 5/16-18 unc x 3/4 |
| 10 | 162797 | Shield Heat |
| 13 | 165391 | Muffler Gasket |
| 14 | 148456 | Tube Drain Oil Easy |
| 17 | 17060624 | Screw Thdrol 3/8-16 x 1-1/2 |
| 23 | 169837 | Shield, Browning/Debris Guard |
| 25 | 187767X428 | Control Choke |
| 29 | 137180 | Arrester, Spark |
| 31 | 179022 | Tank, Fuel |
| 32 | 179124X418 | Cap Gauge, Fuel |
| 33 | 123487X | Clamp, Hose Blk |
| 37 | 8543R | Line, Fuel 7.5 |
| 38 | 181654 | Plug, Drain Oil Easy |
| 41 | 139277 | Stem Tank Fuel |
| 45 | 17000612 | Screw Hex Wsh Thdrol 3/8-16 x 3/4 |
| 72 | 183906 | Screw Socket Head 5/16-18 x 1 |
| 81 | 73510400 | Nut Keps Hex 1/4-20 unc |
| 112 | 3645J | Bushing |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### MOWER LIFT




lift-rh.1pc.stlt_7

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### MOWER LIFT

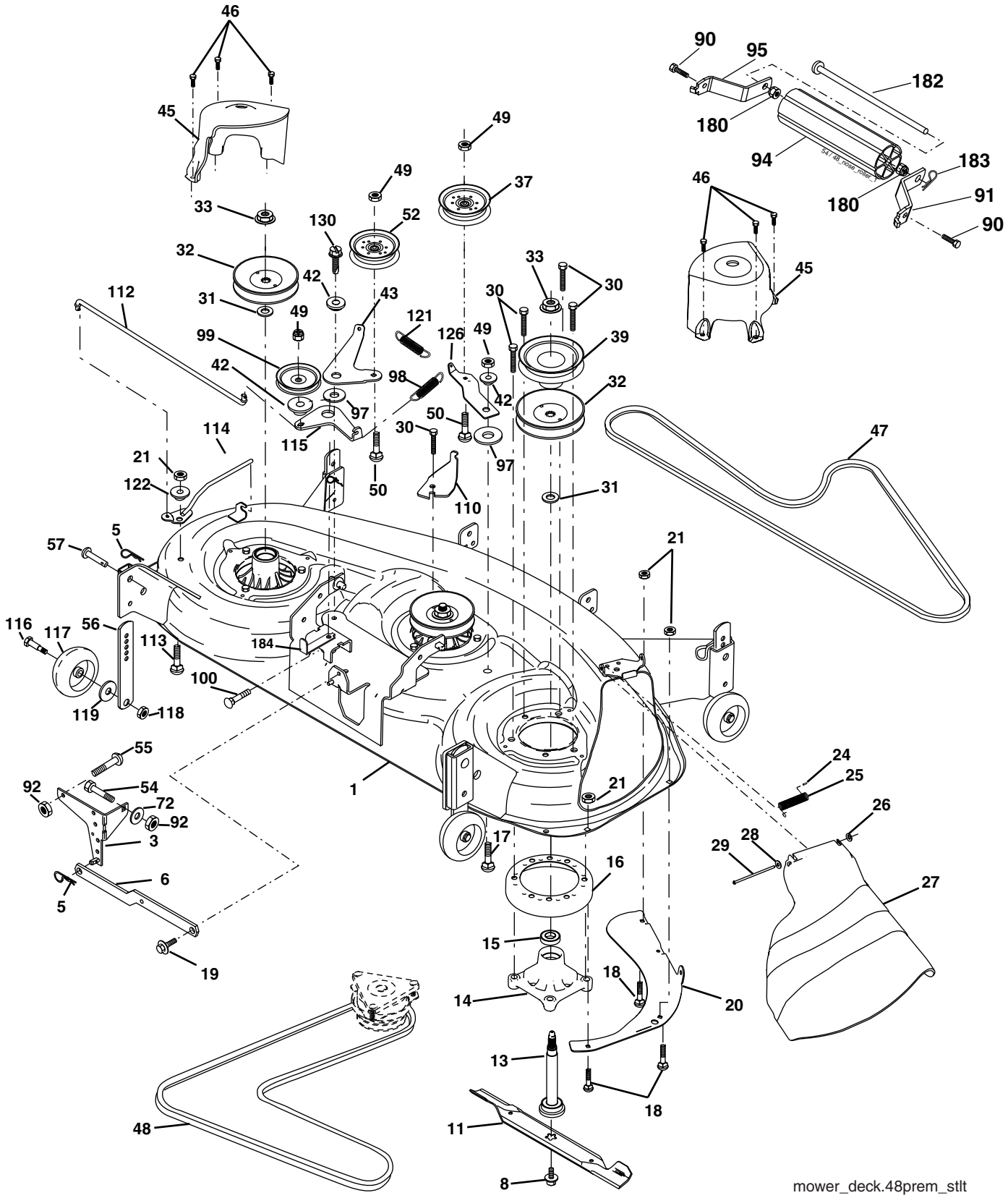
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 179504 | Plunger Assembly |
| 2 | 159476 | Shaft Assembly, Lift |
| 3 | 188822 | Pin, Groove |
| 4 | 12000002 | E-Ring |
| 5 | 19211621 | Washer 21/32 x 1 x 21 Ga. |
| 6 | 120183X | Bearing, Nylon |
| 7 | 175830 | Grip, Handle, Fluted |
| 11 | 175370 | Link, Lift, L.H. |
| 12 | 175371 | Link, Lift, R.H. |
| 13 | 4939M | Retainer Spring |
| 15 | 175562 | Plate Asm Suspension Front |
| 16 | 73350800 | Nut Hex Jam 1/2-13 unc |
| 17 | 175689 | Trunnion Front Susp. |
| 18 | 73800800 | Nut Lock w/Wsh 1/2-13 unc |
| 20 | 163552 | Retainer Spring |
| 31 | 176205 | Trunion Sups. Arm. |
| 32 | 175994 | Nut Lift Link 7/16-20 |
| 36 | 155097 | Pointer Height Indicator |
| 37 | 123935X | Plug Hole |
| 38 | 17060516 | Screw 5/16-18 x 1 |
| 40 | 19112410 | Washer 11/32 x 1-1/2 x 10 Ga. |
| 41 | 155098 | Indicator Height Stlt |
| 49 | 145212 | Nut Hex/Large Lock |
| 51 | 19171416 | Washer 17/32 x 7/8 x 16 Ga. |
| 52 | 175378 | Arm Suspension Rear LH |
| 53 | 175802 | Arm Suspension Rear RH |
| 54 | 175560 | Pin Flange |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### MOWER DECK




mower_deck.48prem_stlt

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### MOWER DECK

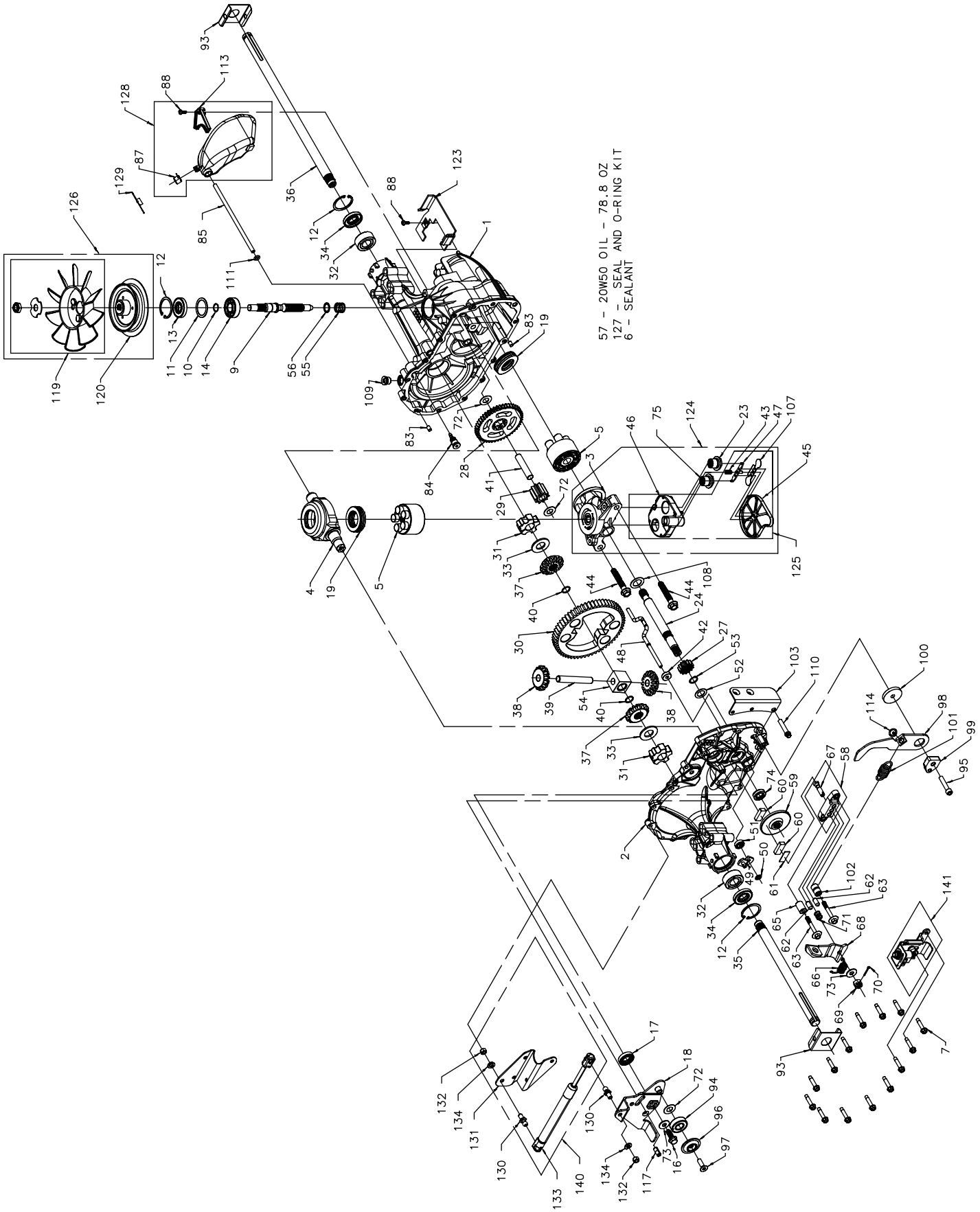
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 180358 | Deck Weldment Mower 48 |
| 3 | 138017 | Bracket Asm., Sway Bar |
| 5 | 4939M | Retainer Spring |
| 6 | 178024 | Arm, Suspension, Rear (Sway Bar) |
| 8 | 174365 | Bolt 7/16 Asm. Blade (The following blades are available) |
| 11 | 180054 | Blade, 48" Hi-Lift (For bagging and discharging) |
| - - | 173921 | Blade, 48" Mulching (For mulching mowers only) |
| 13 | 174360 | Shaft Mandrel Asm. Greaseable |
| 14 | 174358 | Housing Mandrel |
| 15 | 110485X | Bearing, Ball, Mandrel |
| 16 | 174493 | Stripper Mandrel Deck |
| 17 | 72110610 | Bolt RDHD Sq Neck 3/8-16 x 1.25 |
| 18 | 72140505 | Bolt, Carriage 5/16-18 x 5/8 |
| 19 | 132827 | Bolt, Hex Hd, Shoulder 5/16-18 |
| 20 | 174378 | Baffle, Vortex Mower |
| 21 | 73680500 | Nut, Crownlock 5/16-18 unc |
| 24 | 105304X | Cap, Sleeve |
| 25 | 178102 | Spring, Torsion |
| 26 | 110452X | Nut, Push |
| 27 | 180655X428 | Deflector Shield |
| 28 | 19111016 | Washer 11/32 x 5/8 x 16 Ga. |
| 29 | 131491 | Rod, Hinge |
| 30 | 173984 | Screw, Thdroll Washer Head |
| 31 | 187690 | Washer, Spacer |
| 32 | 153535 | Pulley, Mandrel |
| 33 | 178342 | Nut, Flg. Top Lock Cntr. 9/16 |
| 37 | 177968 | Pulley, Idler, Flat |
| 39 | 174375 | Pulley, Idler, Driven |
| 42 | 165723 | Spacer, Retainer |
| 43 | 174373 | Arm, Idler Secondary |
| 45 | 180806 | Cover, Mandrel Deck |
| 46 | 137729 | Screw, Thdroll. 1/4-20 x 5/8 |
| 47 | 180808 | V-Belt, Mower, Secondary |
| 48 | 174368 | V-Belt, Mower, Primary |
| 49 | 73900600 | Nut, Lock Flg. 3/8-16 unc |
| 50 | 72110612 | Bolt, Carr. 3/8-16 x 1-1/2 Gr. 5 |
| 52 | 175820 | Pulley Idler Flat |
| 54 | 74780616 | Bolt Fin Hex 3/8-16 unc x 1 Gr. 5 |
| 55 | 72140608 | Bolt Rdhd Sqnk 3/8-16 unc x 1 |
| 56 | 155986 | Bar Pnt Adj. |
| 57 | 156941 | Pin Head Rivet |
| 72 | 19131312 | Washer 13/32 x 13/16 x 12 Ga. |
| 90 | 74760516 | Bolt Hex Hd 5/16-18 unc x 1 |
| 91 | 180534 | Bracket Asm Noseroller LH |
| 92 | 73800600 | Nut Lock Hex w/Ins 5/16-18 unc |
| 94 | 176066 | Noseroller |
| 95 | 180535 | Bracket Asm Noseroller RH |
| 97 | 178515 | Washer Hardened |
| 98 | 179479 | Spring Primary Drive |
| 99 | 189993 | Pulley Idler"V" |
| 100 | 72110616 | Bolt RDHD Sqnk 3/8-16 unc x 2 |
| 110 | 175016 | Arm Spring Secondary |
| 112 | 174387 | Link Tension Relief Lever |
| 113 | 72110506 | Bolt 5/16-18 x 3/4 |
| 114 | 174384 | Tension Asm Relief Lever |
| 115 | 174609 | Arm Spring Tension Relief |
| 116 | 193406 | Bolt, Shoulder 3/8-16 x 3-5/8 Gr. 5 |
| 117 | 174873 | Gauge Wheel |
| 118 | 73930600 | Nut, Centerlock 3/8-16 unc |
| 119 | 19121414 | Washer 3/8 x 7/8 x 14 Ga. |
| 121 | 174371 | Spring Secondary Drive |
| 122 | 174606 | Bushing Pivot Tension Relief |
| 126 | 174372 | Arm, Idler, Primary Deck |
| 130 | 17000616 | Screw 3/8-16 x 1.0 |
| 180 | 73800500 | Nut Lock 5/16-18 |
| 182 | 179127 | Rod Roller Nose Narrow |
| 183 | 163552 | Retainer Spring |
| 184 | 173979 | Keeper Belt Idler |
| - - | 174356 | Mandrel Asm. Service (Includes Key Nos. 13-15) |
| - - | 181579 | Replacement Mower, Complete (Std. Deck-Order separately nose roller components key nos. 90, 91, 94, 95, 180,182, 183) |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### HYDRO GEAR TRANSAXLE - MODEL NUMBER 347-0510



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### HYDRO GEAR TRANSAXLE - MODEL NUMBER 347-0510

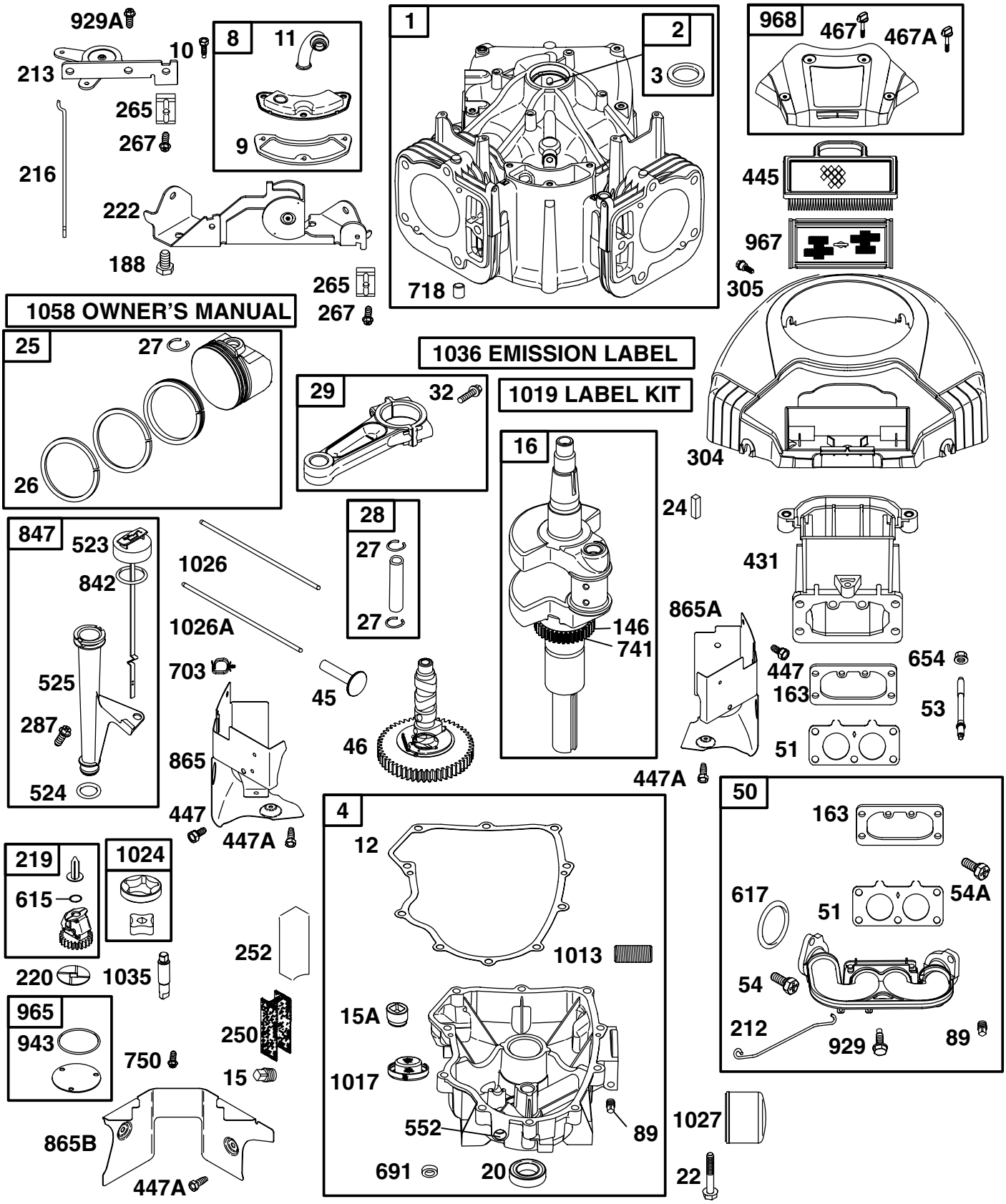
| KEY NO. | PART NO. | DESCRIPTION |
|---|---|---|
| 1 | 170351 | Kit, Main Housing |
| | | Main Housing, Machined |
| | | Bushing.865 X.985 X.790 |
| 2 | 170352 | Kit, Side Housing |
| | | Side Housing, Machined |
| | | Bushing.865 X.985 X.790 |
| | | Bushing.624 X.719 X.562 |
| 3 | 170353 | Kit, Center Section |
| | | Center Section, Machined |
| | | Bushing.707 X.788 X.591 |
| 4 | 170354 | Swashplate, Trunnion Machined |
| 5 | 169898 | Kit, Cylinder Block (10cc) |
| | | Block Cylinder, Piston, Spring, Compression, Washerthrust |
| 6 | 178322 | Sealant Tube |
| 7 | 170356 | Hex Flange Screw 1/420 X 1.25 |
| 9 | 170358 | Shaft, Input |
| 10 | 170359 | Retaining Ring |
| 11 | 170360 | Spacer |
| 12 | 169870 | Retaining Ring |
| 13 | 170361 | Seal, Lip.67 X 1.58 X.276 |
| 14 | 173158 | Bearing, Ball 6203 (BDR) |
| 16 | 170362 | Hex Flange Head Screw 1/420 X 1.25 |
| 17 | 170363 | Seal, Lip 18 X 32 X 7 |
| 18 | 178781 | Arm, Control |
| 19 | 173159 | Bearing, Thrust (10cc) |
| 23 | 170365 | Check Plug Assembly |
| 24 | 170366 | Shaft Motor |
| 27 | 170367 | Gear, Pinion, 13t |
| 28 | 170368 | 1 OT / 48t Gear |
| 29 | 170369 | Gear, 1 OT Jackshaft |
| 30 | 170370 | 60t Bullgear |
| 31 | 170371 | Sleeve Bearing.75 X 1.75 X.625 |
| 32 | 170389 | Sleeve Bearing (Outboard).75 X 1.575 X.625 |
| 33 | 142991 | Washer |
| 34 | 170390 | Lip Seal, Axle Shaft |
| 35 | 170391 | Shaft, Axle (Keyed, R.h.) |
| 36 | 170392 | Shaft, Axle (Keyed, L.h. ) |
| 37 | 150792 | Gear, Splined Diff. (2101000 & 3100750) |
| 38 | 150793 | Gear, Miter Diff. (2101000 & 3100750) |
| 39 | 150809 | Differential Shaft (3100750) |
| 40 | 170393 | Retaining Ring |
| 41 | 170394 | Pin, Jackshaft |
| 42 | 170395 | Magnet, Ring |
| 43 | 170396 | Spring, Bypass |
| 44 | 150797 | Bolt 3/824 X 21/2 |
| 45 | 170397 | Filter |
| 46 | 170398 | Base, Filter |
| 47 | 170399 | Actuator, Bypass |
| 48 | 170400 | Rod, Bypass Actuator |
| 49 | 196599 | Arm, Bypass |
| 50 | 170402 | Retaining Ring.25 External |
| 51 | 170403 | Seal, Lip.741 X.25 X.25 |
| 52 | 170404 | Washer, Flat 0.050" (2101000) |
| 53 | 170405 | Retaining Ring |
| 54 | 170406 | Bearing, Center Block |
| 55 | 142977 | Spring, Helical Compression |
| 56 | 142978 | Washer, Block Thrust 20w50 Oil 78.8 Oz |
| 58 | 142929 | Kit, Brake Yoke |
| 59 | 170408 | Rotor,brake |
| 60 | 142883 | Brake Puck |
| 61 | 142882 | Brake Puck Plate |
| 62 | 170409 | Pin, Brake Actuating |
| 63 | 170410 | Hfhcs 1/420 X 2 W/patch, Special Flg. |
| 65 | 170411 | Spacer, Brake Torsion Spring |
| 66 | 188297 | Spring, Brake Arm Bias |
| 67 | 170413 | Bolt, Square Head Brake |
| 6b | 178782 | Arm, Brake |
| 69 | 170415 | Nut, Castle 5/1624 |
| 70 | 170416 | Pin, Cotter 3/32x3/4 |
| 71 | 170417 | Brake Spring |
| 72 | 170418 | Washer (3100750) |
| 73 | 142884 | Washer, Flat |
| 74 | 170419 | Seal, Oil |
| 75 | 170420 | Ass'y Check Plug |
| 83 | 161168 | Pin |
| 84 | 170425 | Fitting, 5/16 X Sae 5/32 Tube |
| 85 | 170426 | Hose, Expansion Tank |
| 87 | 173160 | Cap, Vent |
| 88 | 178334 | Bolt, Self Tapping (BDR) |
| 93 | 170431 | Spring Clip, Housing |
| 94 | 178783 | Bearing, Ball |
| 95 | 178784 | Screw, 5/1624x 1 1/2 Socket Head Cap (3103000) |
| 96 | 178786 | Spacer, Locating |
| 97 | 178787 | Screw (3103000) |
| 98 | 178789 | Arm, Return |
| 99 | 178792 | Puck, Adjusting |
| 100 | 178793 | Washer, .325 Odxl.6 IDx.15 Tk |
| 101 | 178794 | Spring, Extension |
| 102 | 178795 | Spacer, .56 Odx.26 ID X.87 |
| 103 | 178796 | Bracket Torque |
| 107 | 170432 | Deflector |
| 108 | 170433 | Washer, Motor Shaft.71IDx 1.150dx.03 |
| 109 | 170434 | Plug, Straight Thread 9/1618 |
| 110 | 161159 | Screw, Torx Head 5/1618 (3103000) |
| 111 | 170435 | Oring.7 X.301 ID |
| 113 | 170437 | Bracket, Support Expansion Tank |
| 114 | 178797 | Spring Guide |
| 117 | 178799 | Pin, Spring 5/16 X.75 |
| 119 | 191031 | Kit, Fan Washer Nut |
| | | Washer, Od Slotted.53 X 1.53 X.06 |
| | | Hex Lock Nut 1/220 (Nylon Insert) Fan,71n |
| 120 | 188312 | Pulley |
| 123 | 178800 | Belt Keeper |
| 124 | 170444 | Kit, Center Section Filter Bypass |
| | | Center Section Machining, Base, Filter W/ poppet, Check Plug Assembly, .027 Washer |
| | | Check Plug Assembly, Washer, Spring, Bypass, Actuator,bypass, Deflector, Bottom, Filter, Bushing.707 X.788 X.591 |
| 125 | 170445 | Kit, Filter |
| | | Bottom, Filter, Spring, Bypass, Actuator,bypass, Deflector, Base, Filter W/poppet |
| 126 | 191028 | Kit, Fan/pulley |
| | | Hex Jam 1/2020 (Nylon Insert) Washer, Od Slotted.53 X 1.63 X.06, Fan, 71n |
| | | Pulley |
| 127 | 170447 | Kit, Seal |
| | | Lip Seal.67 X 1.58 X.276 |
| | | Lip Seal 18 X 32 X 7 |
| | | Lip Seal .706 X 1.584 X.25 |
| | | Lip Seal.741 X.250 X.250 Tc |
| | | Oil Seal.625 X 1.0 X.25 |
| | | Oring.07 X.301 ID |
| 128 | 173165 | Kit, Expansion Tank |
| | | Tank, Expansion Assembly, Cap,vent |
| | | Vsbolt, Self Tapping 1032 X 1/2 |
| | | Bracket, Support Expansion Tank |
| 129 | 191032 | Cap, Expansion Tank Shipping |
| 130 | 178802 | Stud, Threaded Ball |
| 131 | 178803 | Bracket, Cruise/damper |
| 132 | 178804 | Nut 5/1618 |
| 133 | 184227 | Damper |
| 134 | 178808 | Washer, 5/16 Lock |
| 140 | 191030 | Kit, Damper |
| | | Stud, Threaded Ball, Bracket, Cruise/ damper, Hex Nut 5/1618 Nc, Damper |
| | | Washer, Helical Spring Lock 5/16, Regular |
| 141 | 193801 | Kit, Rcs Switch |
| | | Bracket, Switch Base |
| | | Bracket, Switch Top |
| | | Nut, 5/1618 Breakaway |
| | | Switchsnap Mount |
| | | Washer, 5/16 Vibration |
| | | Hex Flange Screw 1/420 X 1.25 (Qty. 2) |
| | | Instruction Sheet |

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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

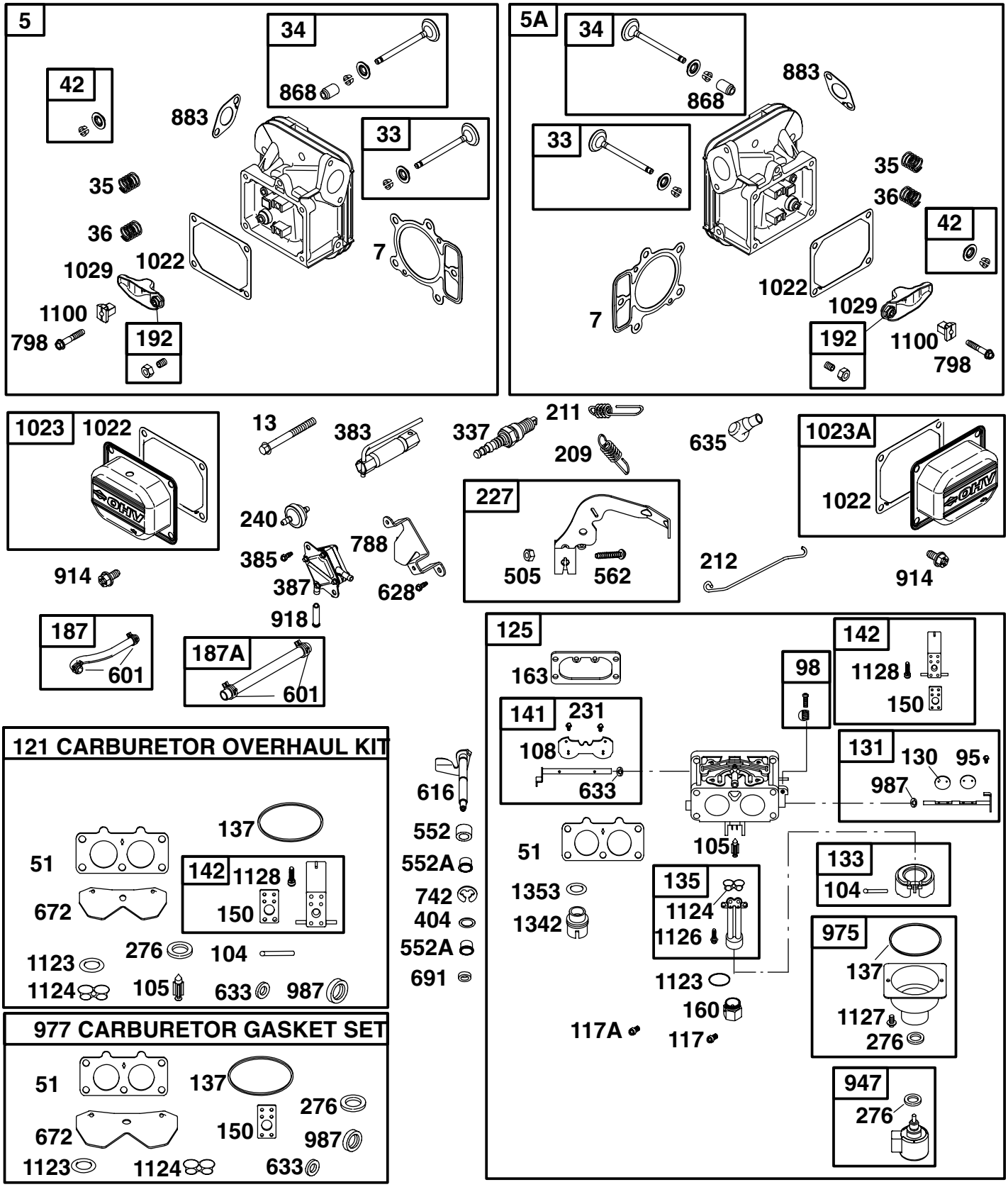
### BRIGGS ENGINE - MODEL NUMBER 445677, TYPE NUMBER 0413-E1



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

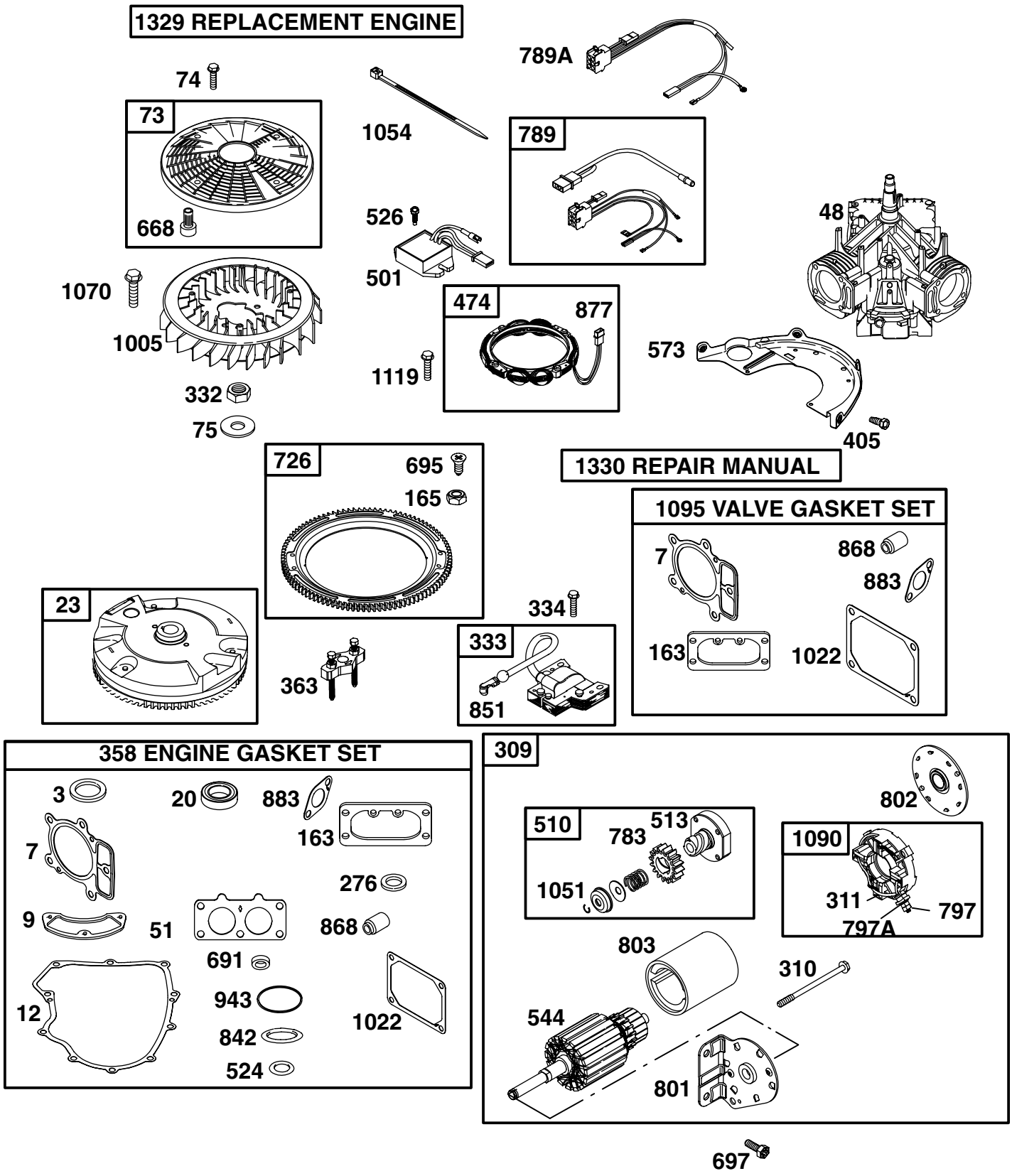
### BRIGGS ENGINE - MODEL NUMBER 445677, TYPE NUMBER 0413-E1



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### BRIGGS ENGINE - MODEL NUMBER 445677, TYPE NUMBER 0413-E1



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### BRIGGS ENGINE - MODEL NUMBER 445677, TYPE NUMBER 0413-E1

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

| | |
|---|---|
| • | 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

# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 944.605060

### BRIGGS ENGINE - MODEL NUMBER 445677, TYPE NUMBER 0413-E1

| KEY NO. | PART NO. | | DESCRIPTION |
|---|---|---|---|
| 523 | 691036 | | Dipstick |
| 524 | 691032 | • | Seal-O Ring (Dipstick Tube) |
| 525 | 691037 | | Tube-Dipstick |
| 526 | 691108 | | Screw (Regulator) |
| 544 | | | Armature-Starter (Serviced by 691262 Starter Motor Only) |
| 552 | 690552 | | Bushing-Governor Crank |
| 552A | 690553 | | Bushing-Governor Crank |
| 562 | 690311 | | Bolt (Governor Control Lever) |
| 573 | 691009 | | Plate-Back |
| 601 | 691038 | | Clamp-Hose |
| 615 | 698290 | | Retainer-Governor Shaft |
| 616 | 691045 | | Crank-Governor |
| 617 | 697891 | | Seal-O Ring (Intake Manifold) |
| 628 | 690960 | | Screw (Fuel Pump Bracket) |
| 633 | 690998 | Ø‡ | Seal-Choke/Throttle Shaft |
| 635 | 66538 | | Boot-Sparkplug |
| 654 | 690958 | | Nut (Carburetor) |
| 668 | 691215 | | Spacer |
| 672 | 690234 | Ø‡ | Gasket-Carburetor Plate |
| 691 | 690657 | • | Seal-Governor Shaft |
| 695 | 693149 | | Screw (Ring Gear) |
| 697 | 690372 | | Screw (Drive Cap) |
| 703 | 691010 | | Clip |
| 718 | 690959 | | Pin-Locating |
| 726 | 499612 | | Gear-Ring |
| 741 | 690980 | | Gear-Timing |
| 742 | 690328 | | Retainer-E Ring |
| 750 | 696999 | | Screw (Oil Pump Cover) |
| 783 | 693058 | | Gear-Pinion |
| 788 | 691039 | | Bracket-Fuel Pump |
| 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) |
| 847 | 499602 | | Assembly-Dipstick/Tube |
| 851 | 493880 | | Terminal-Spark Plug |
| 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 |
| 877 | 399916 | | Wire/Connector-Alternator |
| 883 | 690970 | •+ | Gasket-Exhaust |
| 914 | 691127 | | Screw (Rocker Arm Cover) |
| 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 |
| 967 | 273638 | | Filter-Pre Cleaner |
| 968 | 790689 | | Cover-Air Cleaner |
| 975 | 499810 | | Bowl-Float |
| 977 | 699735 | | Gasket Set-Carburetor |
| 987 | 691000 | Ø‡ | Seal-Throttle Shaft |
| 1005 | 790698 | | Fan-Flywheel |
| 1013 | 690954 | | Nipple-Oil Filter |
| 1017 | 690770 | | Screen-Oil Pump |
| 1019 | 693995 | | Kit-Label |
| 1022 | 690971 | •+ | Gasket-Rocker Cover |
| 1023 | 499599 | | Cover-Rocker Arm (Cylinder 1) |
| 1023A | 499600 | | Cover-Rocker Arm (Cylinder 2) |
| 1024 | 499054 | | Pump-Oil |
| 1026 | 690981 | | Rod-Push (Steel) |
| 1026A | 690982 | | Rod-Push (Aluminum) |
| 1027 | 492932 | | Filter-Oil |
| 1029 | 690972 | | Arm-Rocker |
| 1035 | 691042 | | Shaft-Pump |
| 1036 | 790625 | | Label-Emission |
| 1051 | 691265 | | Ring-Retaining |
| 1054 | 280275 | | Cable-Tie |
| 1058 | 275475 | | Owner's Manual |
| 1070 | 690372 | | Screw (Flywheel Fan) |
| 1090 | 691293 | | Retainer-Brush |
| 1095 | 694013 | | Set-Valve Gasket |
| 1100 | 690973 | | Pivot-Rocker Arm |
| 1119 | 691183 | | Screw (Alternator) |
| 1123 | 699725 | | Seal-O Ring (Solenoid Retainer) |
| 1124 | 690988 | Ø‡ | Seal-O Ring (Fuel Transfer Tube) |
| 1126 | 690991 | | Screw (Fuel Transfer Tube) |
| 1128 | 690990 | Ø | Screw (Carburetor Nozzle) |
| 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). |
| 1330 | 273521 | | Repair Manual |
| 1342 | 699731 | | Extension-Fuel Transfer Tube |
| 1353 | 699725 | | Seal-O Ring (Fuel Transfer Tube Extension) |

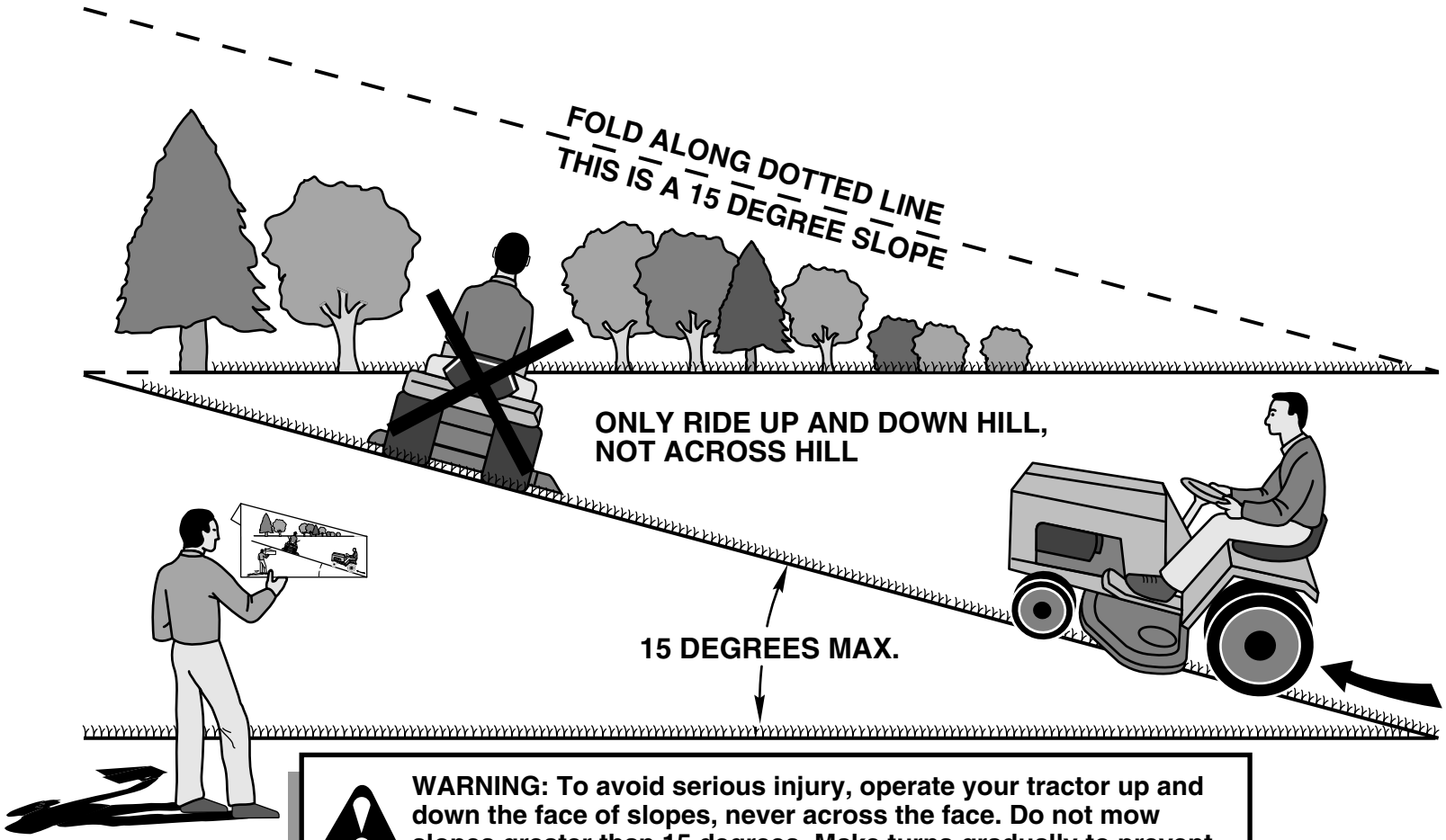
• Included in Engine Gasket Set, Key. No. 358
Ø Included in Carburetor Overhaul Kit, Key. No. 121
‡ Included in Carburetor Gasket Set, Key. No. 977
\+ Included in Valve Overhaul Kit, Key. No. 1095

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

# SERVICE NOTES

# SERVICE NOTES

# 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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