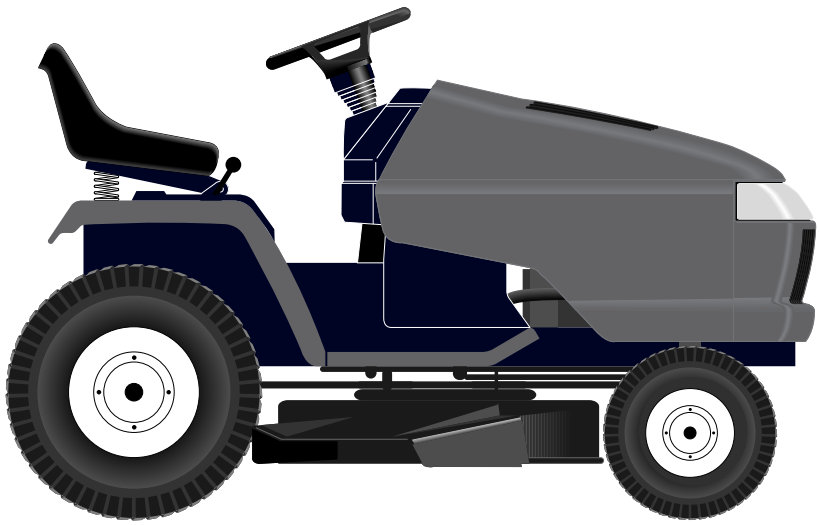
SEARS

OWNER'S MANUAL

MODEL NO. 944.601931

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



CRAFTSMAN®

23.0 HP ELECTRIC START 50" MOWER AUTOMATIC GARDEN TRACTOR

- Assembly
- Operation
- Customer Responsibilities
- 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.

I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- 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 tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. *Tall grass can hide obstacles.*
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes *slow* and *gradual*. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly *straight* down the slope.

DO NOT:

- *Do not* turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- *Do not* mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- *Do not* mow on wet grass. Reduced traction could cause sliding.
- *Do not* try to stabilize the machine by putting your foot on the ground.
- *Do not* use grass catcher on steep slopes.

III. CHILDREN

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

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and *down* for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.

SAFETY RULES

Safe Operation Practices for Ride-On Mowers

- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers or children even with the blades off.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

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

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

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

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

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PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF-SJ):	SAE 10W30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
COOLANT TYPE:	ETHYLENE GLYCOL ANTIFREEZE
COOLANT CAPACITY:	1.47 QUARTS
SPARK PLUG: (GAP: .030")	CHAMPION RC14YC
GROUND SPEED (MPH):	FORWARD: 0 – 5.8 REVERSE: 0 – 2.1
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @ 3600 RPM
BATTERY:	AMP/HR: 35 MIN. CCA: 280 CASE SIZE: U1R
BLADE BOLT TORQUE:	27–35 FT. LBS.

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

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

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

MAINTENANCE AGREEMENT

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

CUSTOMER RESPONSIBILITIES

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

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 Sears Authorized Service Centre/Department (See REPAIR PARTS section of this manual).

WARRANTY

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

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

FULL ONE (1) YEAR WARRANTY ON BATTERY

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

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

This Warranty does NOT cover:

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

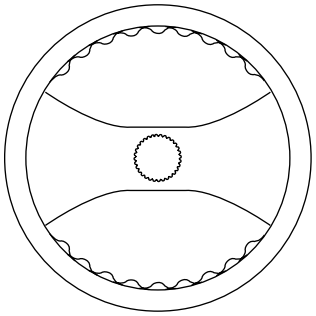
Warranty service is available by returning the Craftsman Riding Equipment to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

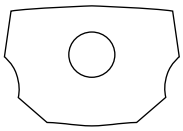
This warranty is in addition to any statutory warranty and does not exclude or limit legal rights you may have but shall run concurrently with applicable provincial legislation. Furthermore, some provinces do NOT allow limitation on how long an implied warranty will last so the above limitations may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

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

UNASSEMBLED PARTS

Steering Wheel



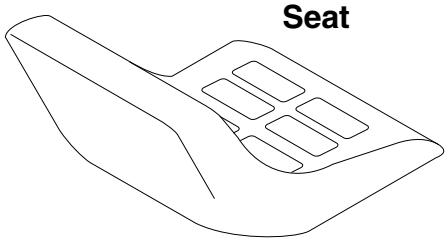


Steering Wheel Insert

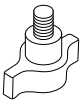
Steering Sleeve

Steering Sleeve Extension

Seat

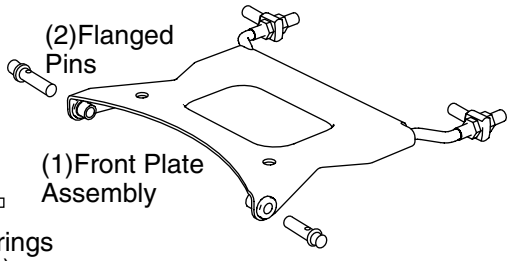


(1) Washer
17/32 x 1-3/16 x 12 Gauge



(1) Knob

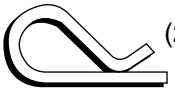
Mower



(2)Flanged Pins

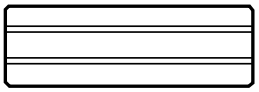
(1)Front Plate Assembly

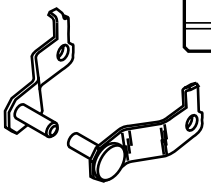
(5) Retainer Springs (double loop)



(2) Retainer Springs (single loop)

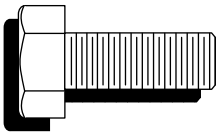
Nose Roller



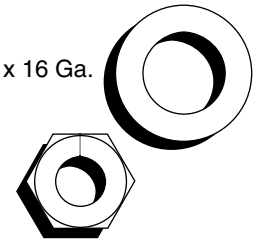


Nose Roller Brackets

(2) Washers 17/32 x 7/8 x 16 Ga.

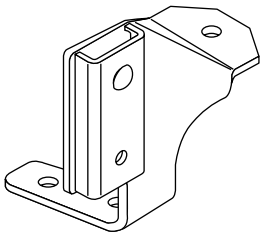


(2) Hex Bolts 5/16-18 x 1

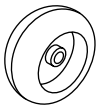


(2) Locknuts 5/16-18

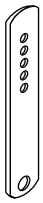
Gauge Wheel



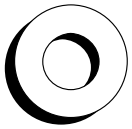
(4) Brackets



(4) Wheels

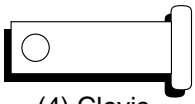


(4) Adjusting Bar

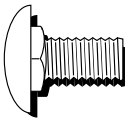


(4) Washers 3/8 x 3/4 x 14 Ga.

(12) Crownlock Nuts 3/8-16



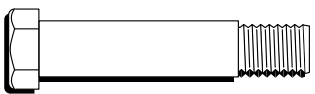
(4) Clevis Pins



(12) Carriage Bolts 5/16-18 x 5/8

(4) Locknut 3/8-16

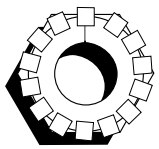
(4) Retainer Springs (double loop)



(4) Shoulder Bolt

Battery

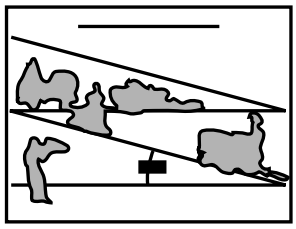
(2) Hex Bolts 1/4-20 x 3/4



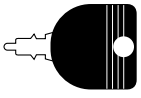
(2) Keps Nuts 1/4-20

(1) Oil Drain Tube For Future Use

Slope Sheet



Keys



(2) Keys

ASSEMBLY

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

TOOLS REQUIRED FOR ASSEMBLY

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

(2) 7/16" wrenches
(1) 9/16" wrench
(1) 1/2" wrench
(1) Pliers
(1) Tire pressure gauge
(1) Utility knife
(1) 3/4" socket w/drive ratchet

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

TO REMOVE TRACTOR FROM CARTON

UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton.
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove.

BEFORE REMOVING TRACTOR FROM SKID

ATTACH STEERING WHEEL (See Fig. 1)

- Remove hex bolt, lock washer 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.
- Align tabs and press steering sleeve extension into bottom of steering wheel.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with hex bolt, lock washer 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.

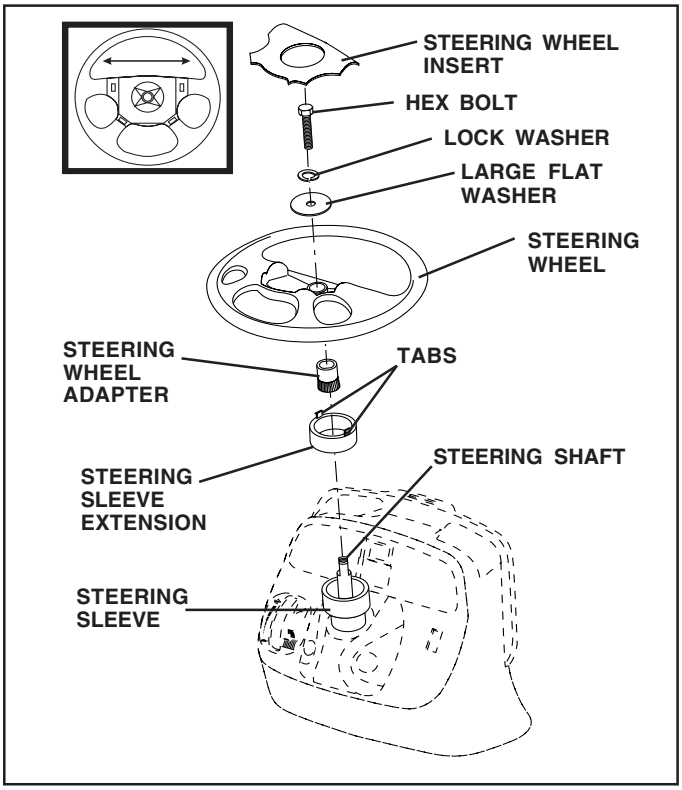


FIG. 1

HOW TO SET UP YOUR TRACTOR

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 hard ware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

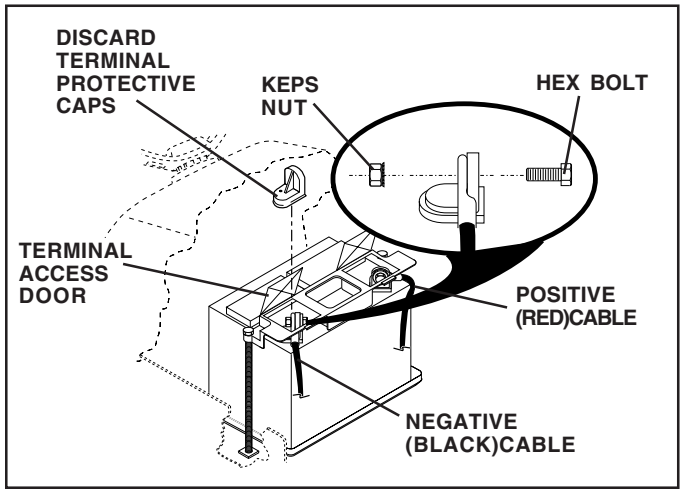


FIG. 2

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.

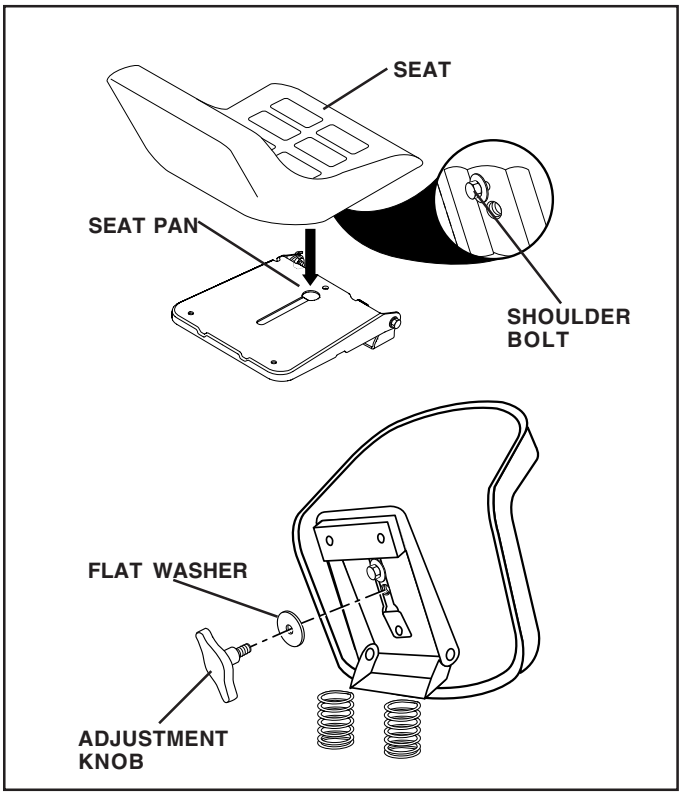


FIG. 3

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.

ASSEMBLY

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.
- 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 move the motion control lever forward and slowly 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 AND BRACKETS 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.

- Attach front gauge wheel brackets marked front left (FL), front right (FR) to mower deck using (3) carriage bolts and (3) locknuts. For ease of installation do not tighten locknuts until all carriage bolts have been installed.
- Attach rear gauge wheel brackets marked rear left (R L), rear right (RR) to mower deck using (3) carriage bolts and (3) locknuts. For ease of installation do not tighten locknuts until all carriage bolts have been installed.
- 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.
- Adjust gauge wheels to highest position for ease of mower deck assembly.
- Adjust gauge wheels before operating mower as shown in the operation section of this manual.

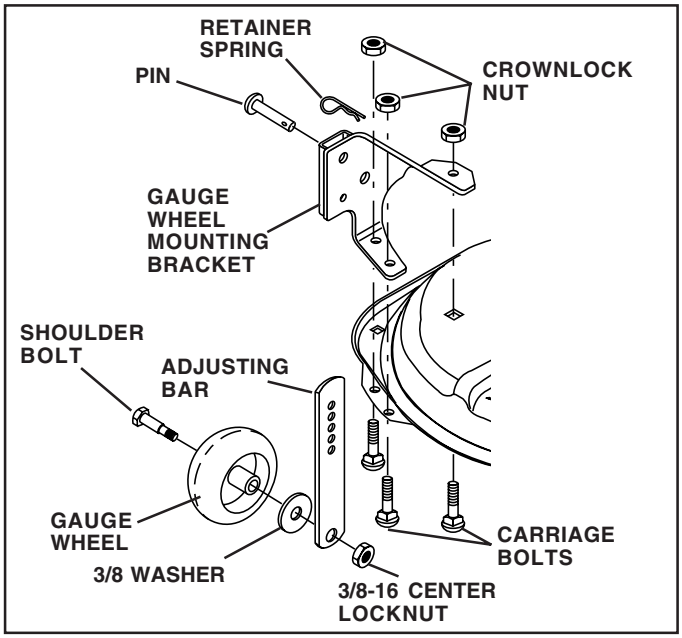


FIG. 4

TO ATTACH NOSE ROLLER (See Fig. 5)

- Position brackets, 17/32 x 7/8 x 16 gauge washers, and nose roller between deck mounting brackets as shown. Be sure to position brackets on correct side, as shown.
- Install hex bolts and lock nuts as shown. Tighten hardware securely.

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

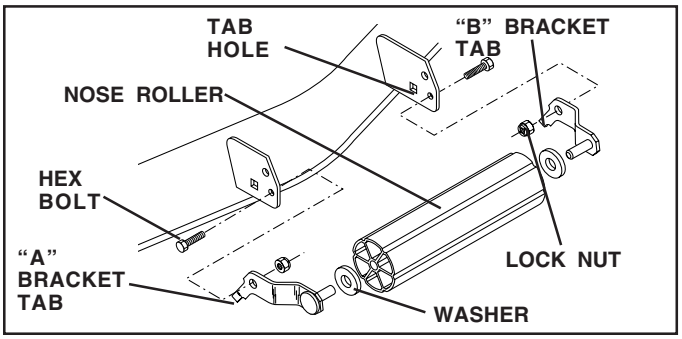


FIG. 5

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.
- Install belt into electric clutch pulley groove.
- Place the suspension arms on inward pointing deck pins. Retain with double loop retainer spring with loops down 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 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.

- 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.

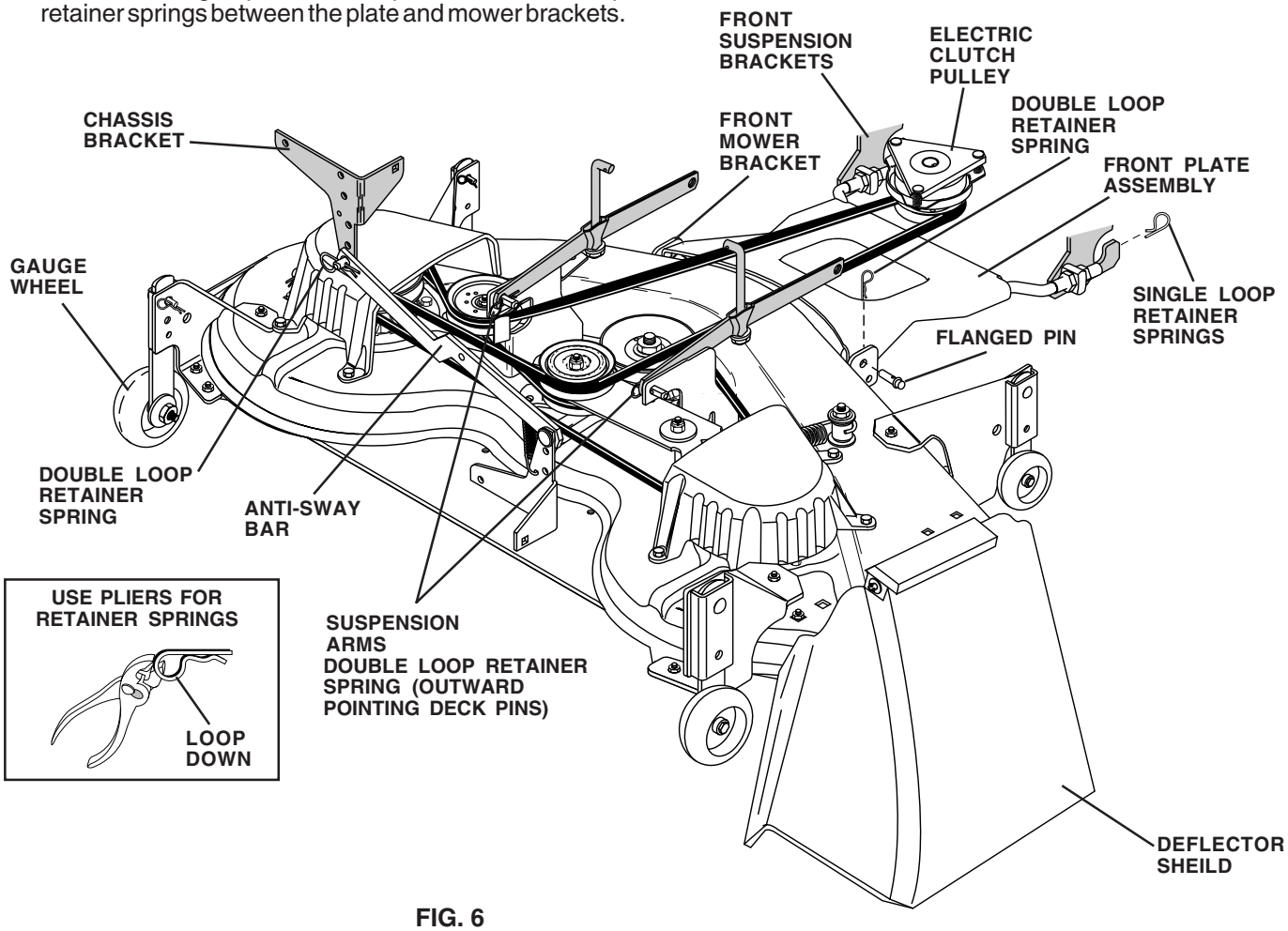


FIG. 6

ASSEMBLY

CHECK TIRE PRESSURE

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

- Reduce tire pressure to PSI shown 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.

✓CHECKLIST

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

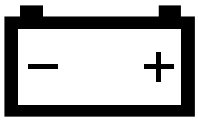
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated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

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

- ✓ Engine oil is at proper level.
- ✓ Engine coolant 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.
- ✓ 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 Operation section of this manual).

OPERATION

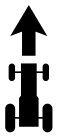
These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.



BATTERY

CAUTION OR WARNING

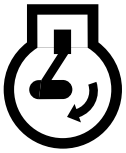
REVERSE



FORWARD

FAST

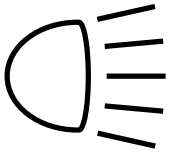
SLOW



ENGINE ON

ENGINE OFF

OIL PRESSURE

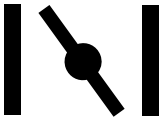


LIGHTS ON

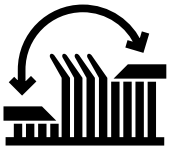
OVER TEMP LIGHT

MOWER LIFT

FUEL



CHOKE



MOWER HEIGHT

PARKING BRAKE LOCKED

UNLOCKED

ATTACHMENT CLUTCH ENGAGED

R

REVERSE

N

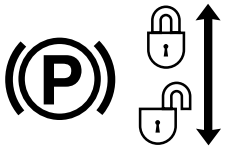
NEUTRAL

H

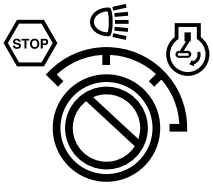
HIGH

L

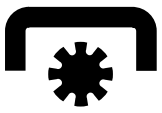
LOW



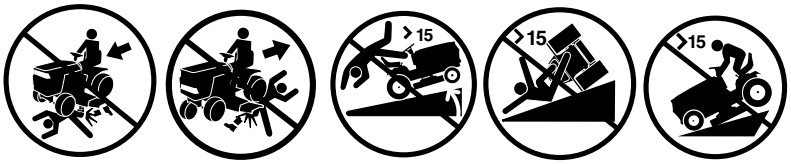
PARKING BRAKE



IGNITION



ATTACHMENT CLUTCH DISENGAGED

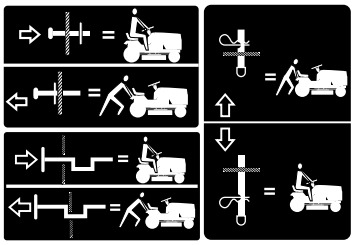


KEEP AREA CLEAR

SLOPE HAZARDS

(SEE SAFETY RULES SECTION)

DANGER, KEEP HANDS AND FEET AWAY



FREE WHEEL
(Automatic Models only)

OPERATION

KNOW YOUR TRACTOR

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

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

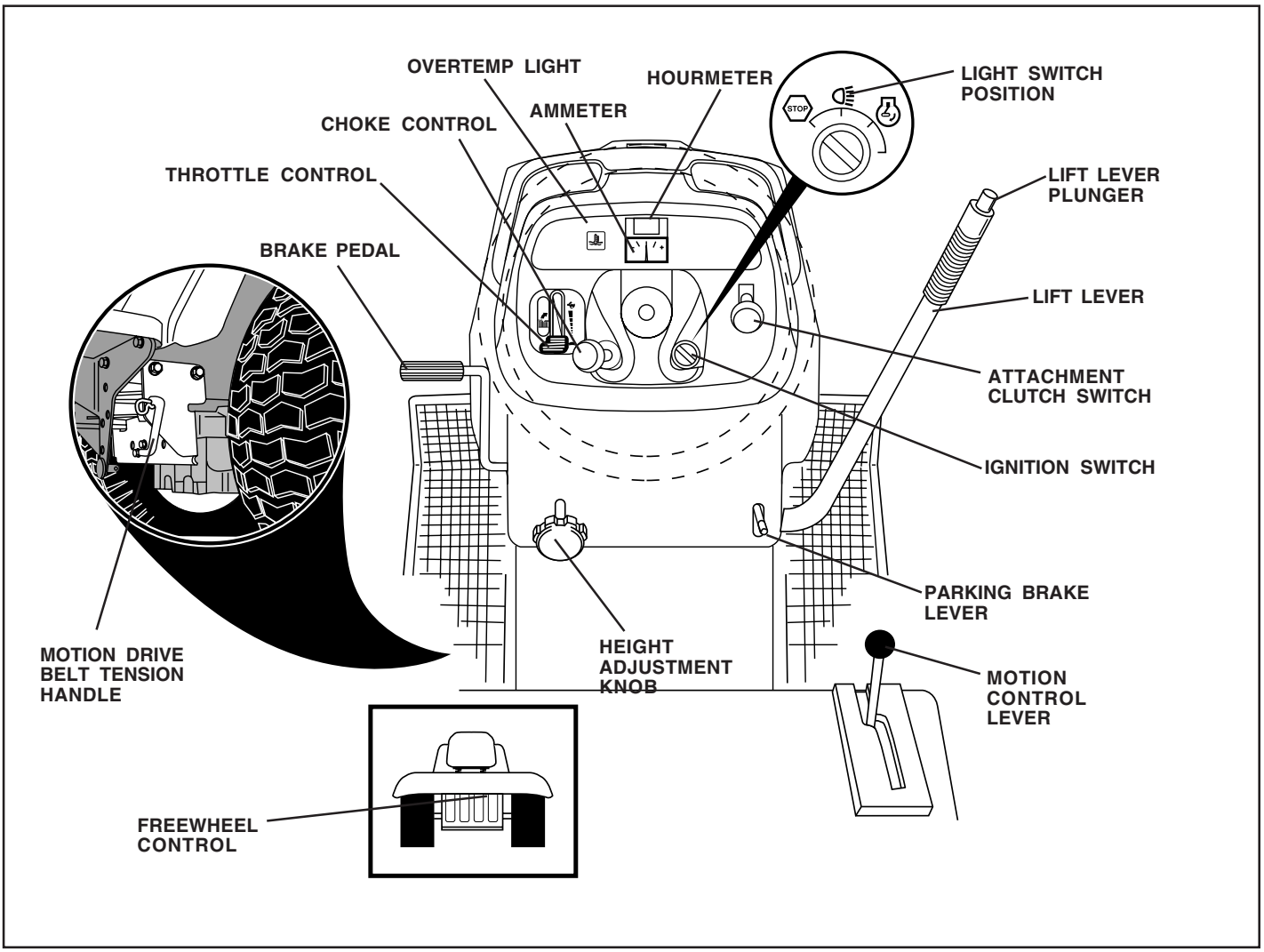


FIG. 7

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

ATTACHMENT CLUTCH SWITCH - Used to engage mower blades or other attachments mounted to your tractor.

LIFT LEVER - Used to raise and lower mower deck or other attachments mounted to your tractor.

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

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

CHOKE CONTROL - Used when starting a cold engine.

LIGHT SWITCH - Turns the headlights on and off.

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

THROTTLE CONTROL - Used to control engine speed.

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

IGNITION SWITCH - Used to start and stop the engine.

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

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

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

HOURMETER - Indicates hours of operation.

OVERTEMP LIGHT: Indicates overheated coolant during engine operation.

MOTION DRIVE BELT TENSION HANDLE- Used when changing motion drive belt and, if necessary, starting engine under extremely cold conditions.

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.

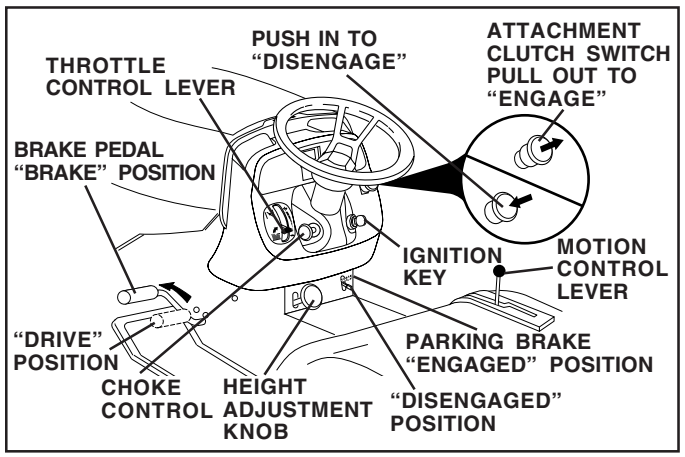


FIG. 8

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: THE MOTION CONTROL LEVER RETURNS TO NEUTRAL (N) POSITION WHEN THE BRAKE PEDAL IS FULLY DEPRESSED.

ENGINE -

- Move throttle control to slow position.

NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to "backfire".

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

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

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

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

TO USE 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 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 mower performance.

TO MOVE FORWARD AND BACKWARD (See Fig. 8)

CAUTION: Do not attempt to operate motion control lever when the parking brake is set or when the brake pedal is depressed. Doing so may result in misadjustment to the drive control system.

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

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

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise (↷) to raise cutting height.
- Turn knob counterclockwise (↶) to lower cutting height.

The cutting height range is approximately 1-1/2" to 4-1/2". 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.

OPERATION

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.

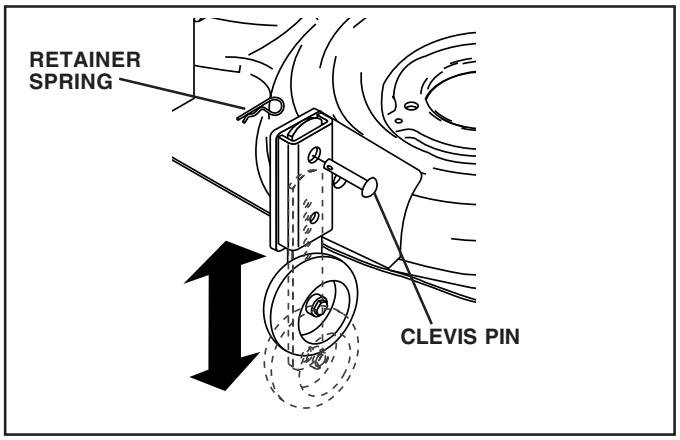


FIG. 9

TO OPERATE MOWER (See Figs. 7 and 8)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

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

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

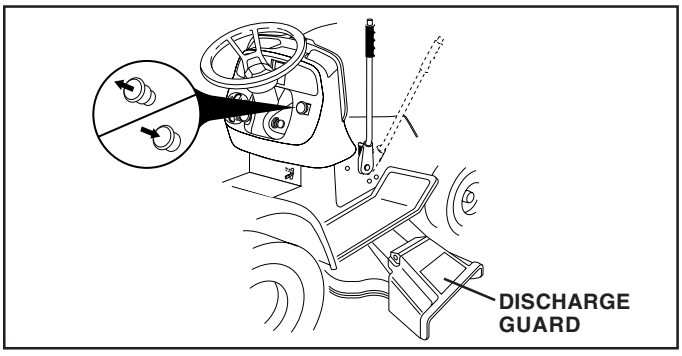


FIG. 10

TO OPERATE ON HILLS

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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If stopping is absolutely necessary, push brake pedal quickly to brake position and engage parking brake.

IMPORTANT: THE MOTION CONTROL LEVER RETURNS TO NEUTRAL (N) POSITION WHEN THE BRAKE PEDAL IS FULLY DEPRESSED.

- To restart movement, slowly release parking brake and brake pedal.
- Slowly move motion control lever 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.

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.).

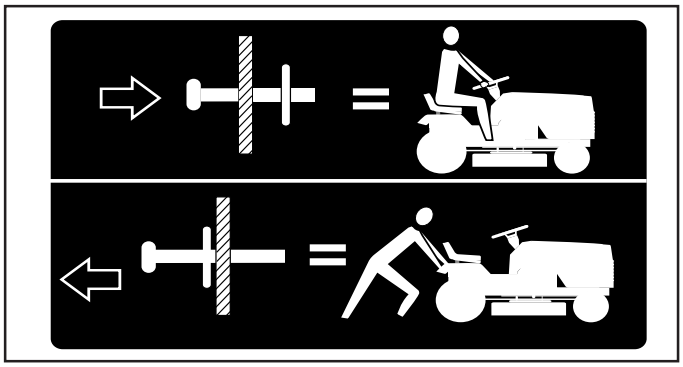


FIG. 11

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.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

CHECK COOLANT LEVEL (See Fig. 12)

CAUTION: Check coolant level at reservoir only. Do not open radiator cap.

- Check coolant with tractor on level surface.
- Unhook the four retaining straps and remove the upper blower housing and screen assembly.
- Observe coolant reservoir. Coolant should be between the "MAX" and "MIN" level marks.

CAUTION: Do not poor coolant into a hot engine or you may damage the cylinder head or block. Do not operate the engine without coolant.

- If necessary, add coolant by removing reservoir cap. Use only ethylene glycol antifreeze and soft water in the mixture ratio specified on the antifreeze container.
- Replace reservoir cap.
- Reinstall the upper blower housing and screen assembly.

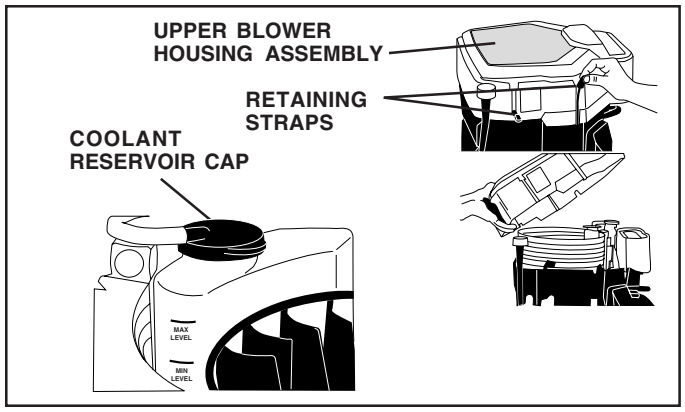


FIG. 12

ADD GASOLINE

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

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

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

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

OVERTEMP LIGHT

Located on the dash of your tractor, this light alerts you to the engine being overheated which requires immediate attention.

- Light should come on when engine is not running and the key switch is in "ON" position, this is a test to be sure the light is working.
- If light comes on while operating the engine, stop the engine. Find and correct the problem. See "Engine Overheats" in the Trouble Shooting section of this manual.

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.

OPERATION

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.

NOTE: In extreme cold conditions, if engine will not start, you may need to disengage the motion drive belt as follows:

- Be sure parking brake is engaged.
- Remove retainer spring from the drive belt tension handle to relieve belt tension.
- Start engine and allow it to warm up for three (3) minutes.
- Shut-off engine and engage parking brake.
- Engage drive belt tension handle and replace the retainer spring.

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.
  - Place the motion control lever in neutral. 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
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

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

- Move motion control lever to neutral (N) position. 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.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 13).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- **Always operate engine at full throttle when mowing** to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

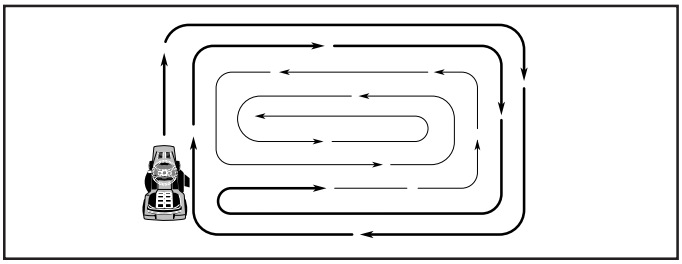


FIG. 13

CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY 1000 HOURS	EVERY SEASON	BEFORE STORAGE	SERVICE DATES				
TRACTOR	Check Brake Operation	✔	✔											
	Check Tire Pressure	✔	✔											
	Check Operator Presence and Interlock Systems	✔												
	Check for Loose Fasteners	✔				✔7			✔					
	Sharpen/Replace Mower Blades			✔4										
	Lubrication Chart			✔					✔					
	Check Battery Level			✔6										
	Clean Battery and Terminals			✔					✔					
	Check Transaxle Cooling			✔										
	Adjust Blade Belt(s) Tension					✔5								
	Adjust Motion Drive Belt(s) Tension					✔5								
ENGINE	Check Engine Oil Level	✔	✔											
	Change Engine Oil			✔1,2,3					✔					
	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							✔						
	Change Coolant						✔							

1 - Change more often when operating under a heavy load or in high ambient temperatures.
2 - Service more often when operating in dirty or dusty conditions.
3 - If equipped with oil filter, change oil every 50 hours.
4 - Replace blades more often when mowing in sandy soil.
5 - If equipped with adjustable system.
6 - Not required if equipped with maintenance-free battery.
7 - Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

GENERAL RECOMMENDATIONS

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

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

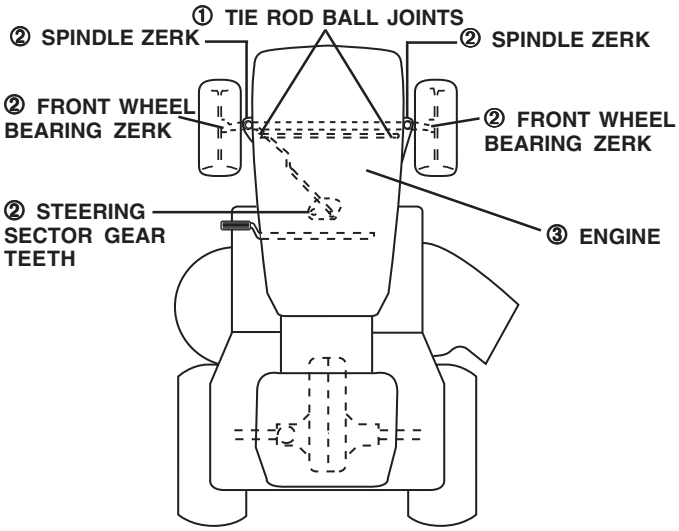
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

BEFORE EACH USE

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

LUBRICATION CHART



① SPRAY SILICONE LUBRICANT (MOVE BOOTS TO LUBRI CATE)
② GENERAL PURPOSE GREASE
③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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

CUSTOMER RESPONSIBILITIES

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

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

TIRES

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

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

OPERATOR PRESENCE SYSTEM

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

- The engine should not start unless the brake pedal is fully depressed and attachement clutch control is in the disengaged position.
- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

BLADE CARE

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

BLADE REMOVAL (See Fig. 14)

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

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

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

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

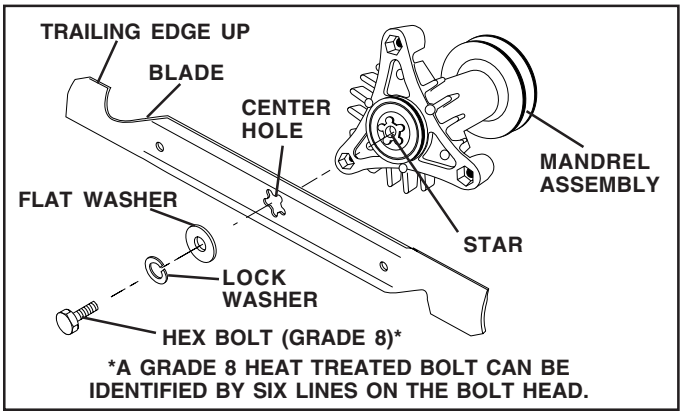


FIG. 14

TO SHARPEN BLADE (See Fig. 15)

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

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

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

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

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

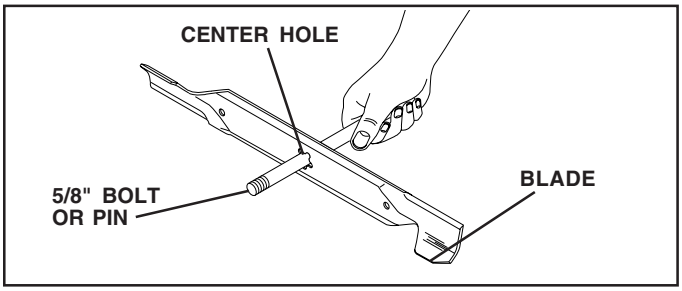


FIG. 15

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).

TRANSAXLE COOLING

The fan and cooling fins of transmission 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, no 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.

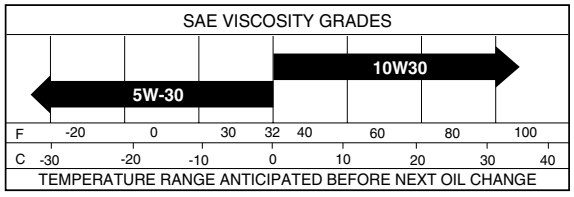
V-BELTS

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

ENGINE

LUBRICATION

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



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. 16)

Determine temperature range expected before oil change. All oil must meet API service classification SF-SJ.

- 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 cap from bottom fitting of drain valve and install the drain tube onto the fitting.
- 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. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

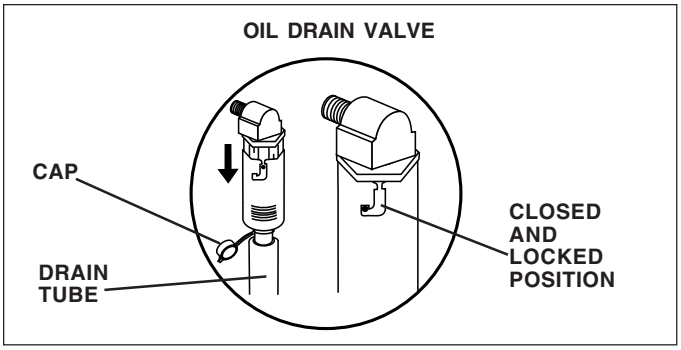


FIG. 16

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.

AIR FILTER (See Fig. 17)

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.

- Unhook the four retaining straps and remove the upper blower housing and screen assembly.

TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth. Allow it to dry.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

TO SERVICE CARTRIDGE

- Replace a dirty, bent, or damaged cartridge.

NOTE: Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge.

- Unhook the cartridge retaining strap and remove the cartridge.
- Install new cartridge and secure with retaining strap.

- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reinstall the upper blower housing and screen assembly. Secure with the four retaining straps.

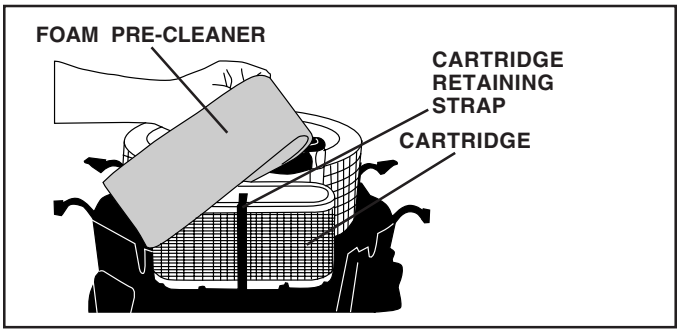


FIG. 17

CLEAN AIR SCREEN (See Fig. 18)

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a brush or compressed air to remove dirt and stubborn dried gum fibers. If required, the screen assembly may be separated from the blower housing by unsnapping it from the underside.

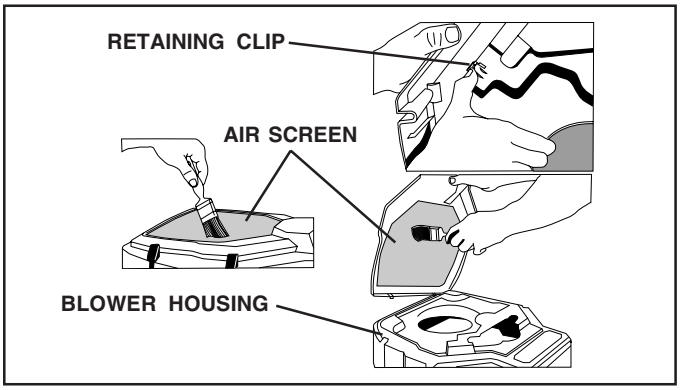


FIG. 18

CLEAN AIR INTAKE/COOLING AREAS (See Fig. 19)

To ensure proper air circulation, make sure the air intake screen, radiator, 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 upper blower housing assembly. Clean the cooling fins of the radiator, external surfaces, and the air intake screen and blower housing assembly as necessary. The screen assembly may be separated from the upper blower housing to permit more thorough cleaning if required (See "CLEAN AIR SCREEN"). Make sure all parts are reinstalled before starting the engine. If the screen assembly was separated from the blower housing, push the upper retaining clips into the locked position.

Clean the cooling fins of the radiator with a soft brush or blow out using clean, compressed air. Do not use a high pressure washer to clean, to avoid damaging the cooling fins.

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

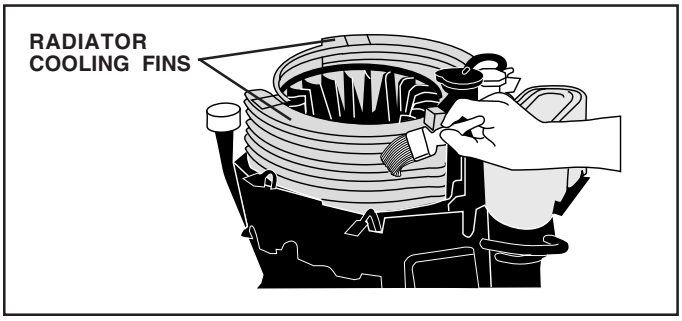


FIG. 19

TO CHANGE RADIATOR COOLANT (See Figs. 20, 21 and 22)

- Stop engine and allow it to cool sufficiently.
- Unhook the four retaining straps and remove the upper blower housing and screen assembly.
- Check if the radiator is cool to the touch. Slowly loosen the radiator cap to the first stop and allow any pressure to bleed off. Then loosen the cap fully and remove.

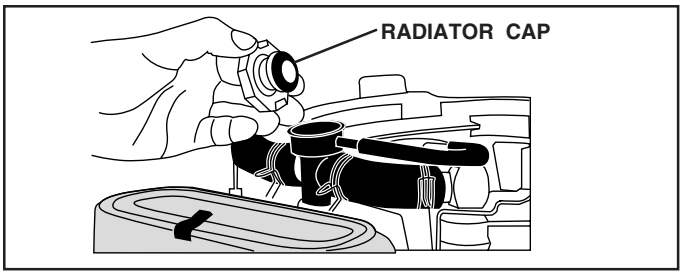


FIG. 20

- Locate and remove the coolant drain plug on the lower side of both cylinder heads. Drain the coolant into a suitable container.
- After the coolant has drained, apply pipe sealant with Teflon (not Teflon tape) to the threads and reinstall the plugs. Tighten the plugs to 120 in. lbs. Torque.
- The coolant reservoir has three (3) molded protrusions (1 upper and 2 lower) that fit into corresponding holes in the support brackets. Loosen the screws that secure the upper bracket to the radiator enough to allow the reservoir to be removed.
- Remove the reservoir cap. Carefully tip the bracket away from the reservoir and lift the reservoir out.

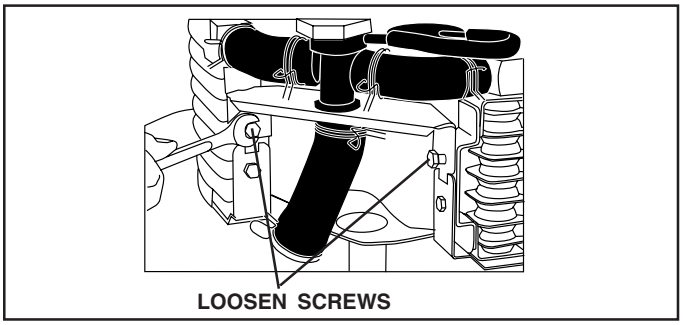


FIG. 21

- Pour out the contents of the reservoir and wash out or clean as required.
- Dispose of all the old coolant properly, according to local regulations.

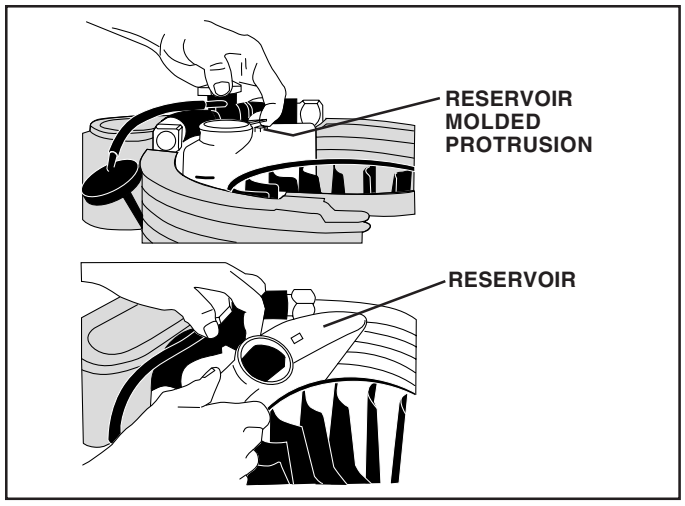


FIG. 22

- Reinstall the reservoir, engaging the molded protrusions in the mounting holes of the support brackets. Hold in this position and tighten the upper bracket screws securely.
- Check the condition of cooling system hoses, clamps and associated components. Replace as required.
- Mix equal parts of ethylene glycol anti-freeze and distilled water. For approximate engine coolant capacity, see "PRODUCT SPECIFICATIONS" in the front of this manual.
- Fill the cooling system through the neck for radiator cap with the coolant mixture. Allow coolant to drain into the lower areas of engine. Fill the overflow reservoir to a level between the "MAX" and "MIN" level marks. Reinstall the radiator and reservoir caps.
- Reinstall the upper blower housing and screen assembly.
- Start and run the engine for five minutes. Stop the engine and allow it to cool.
- Remove the upper blower housing and recheck the coolant level. Add coolant to reservoir only if necessary.
- Reinstall the upper blower housing and screen assembly. Secure with the retaining straps.

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. 23)

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.

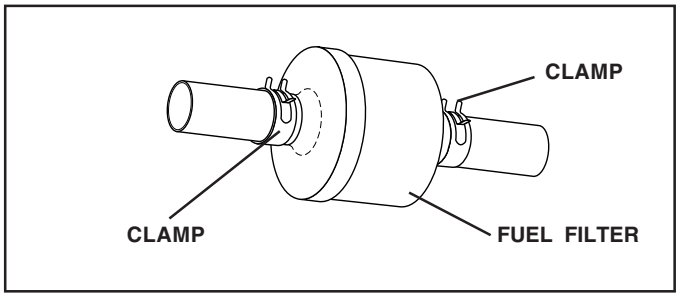


FIG. 23

CLEANING

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

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

SERVICE AND ADJUSTMENTS

CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

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

TRACTOR

TO REMOVE MOWER (See Fig. 24)

- Place attachment clutch in "DISENGAGED" position.
- If equipped, turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- 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

Follow procedure described in "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual.

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 Fig. 25)

- 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.

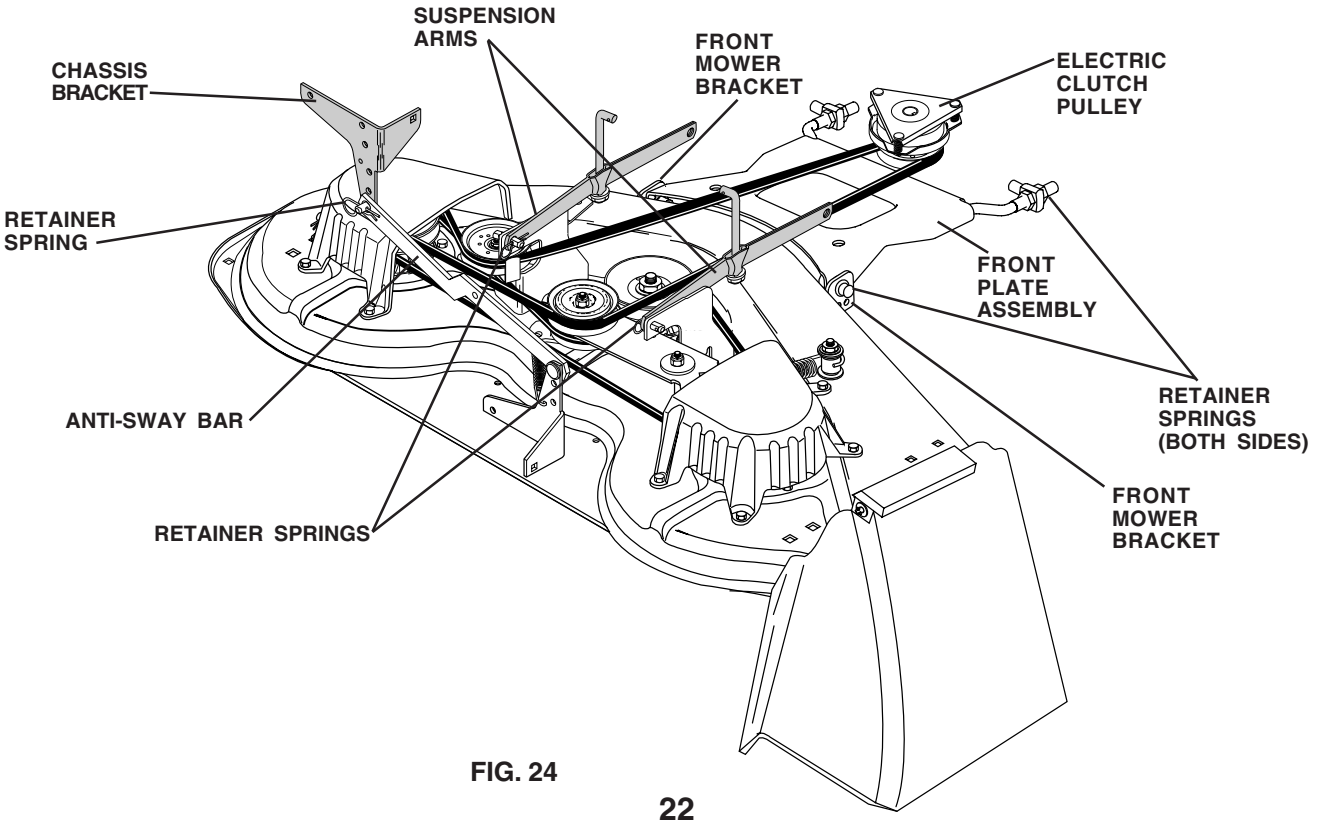


FIG. 24

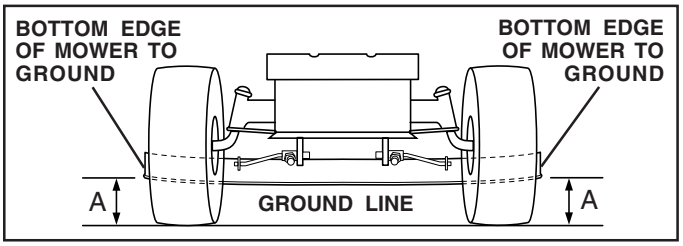


FIG. 25

FRONT-TO-BACK ADJUSTMENT (See Figs. 26 and 27)

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

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

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

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

NOTE: Each full turn of nut "G" will change dim. "F" by approximately 3/8".

- Recheck side-to-side adjustment.

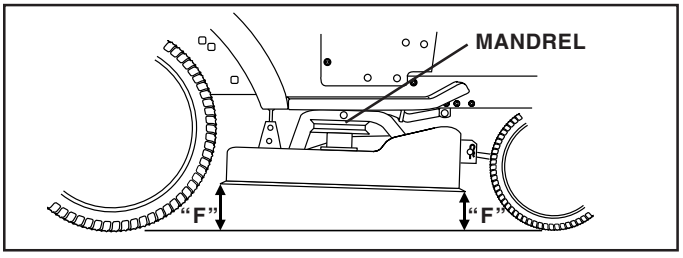


FIG. 26

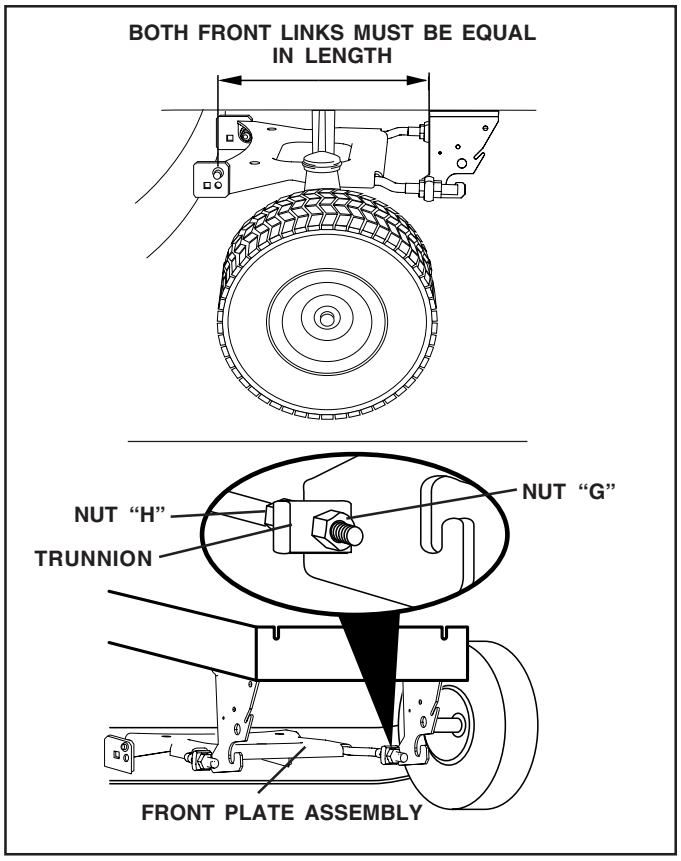


FIG. 27

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 28)

- Park tractor on a level surface. Engage parking brake.
- Remove screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and bolt in mower housing.

MOWER DRIVE BELT INSTALLATION (See Fig. 28)

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto electric clutch pulley.
- Roll belt into upper groove of L.H. mandrel pulley.
- Carefully check belt routing making sure belt is in the grooves correctly and inside belt keepers.
- Reassemble L.H. mandrel cover.

SERVICE AND ADJUSTMENTS

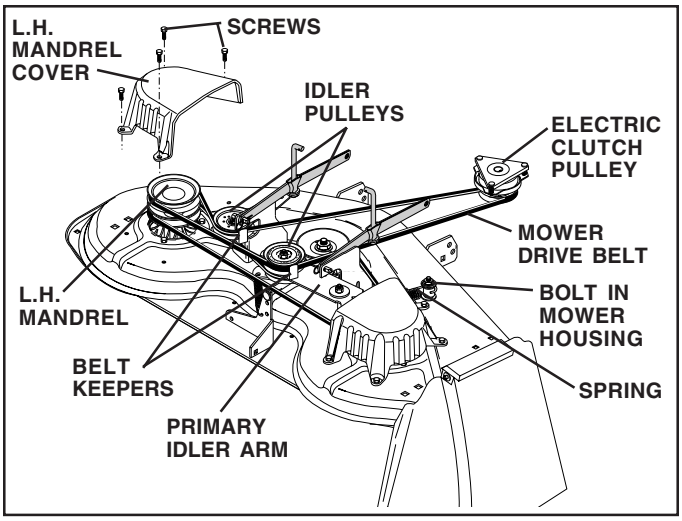


FIG. 28

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 29)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove screws from R.H. mandrel cover and remove cover. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.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 to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect spring to bolt in mower housing and reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

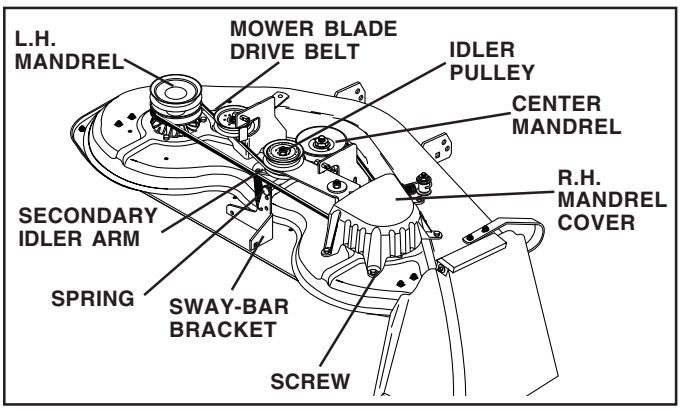


FIG. 29

TO ADJUST ATTACHMENT CLUTCH (See Fig. 30)

The electric clutch should provide years of service. The clutch has a built-in brake that stops the pulley within 5 seconds. Eventually, the internal brake will wear which may cause the mower blades to not engage, or, to not stop as required. Adjustments should be made by your nearest authorized service center/department.

- Make sure attachment clutch and ignition switches are in "OFF" position.
- Adjust the three nylon locknuts until space between clutch plate and rotor measures .012" at all three slot locations cut in side of brake plate.

NOTE: After installing a new electric clutch, run tractor at full throttle and engage and disengage electric clutch 10 cycles to wear in clutch plate.

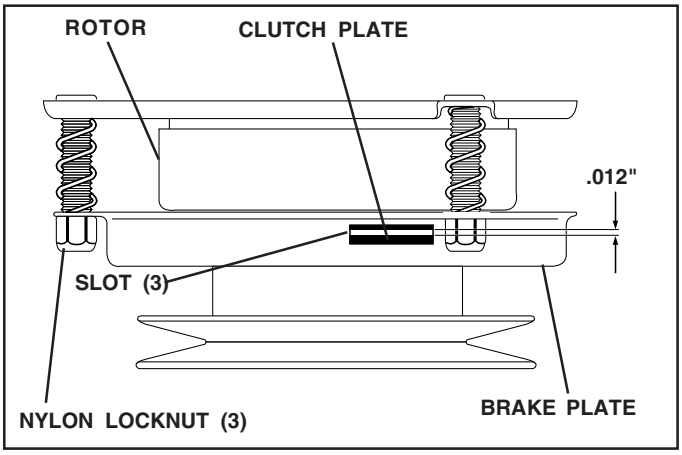


FIG. 30

TO REPLACE MOTION DRIVE BELT (See Fig. 31)

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

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

BELT REMOVAL -

- Create slack in belt by removing retainer spring from drive belt tension handle.
- Remove belt from all idler pulleys, transaxle pulley and then from engine pulley.

BELT INSTALLATION -

- Install new belt around engine pulley first, then around transaxle pulley and lastly into all the idler pulleys.
- Check to be sure belt is positioned correctly and is on proper side of all belt keepers.
- Engage the drive belt tension handle and replace the retainer spring.
- Reinstall mower.

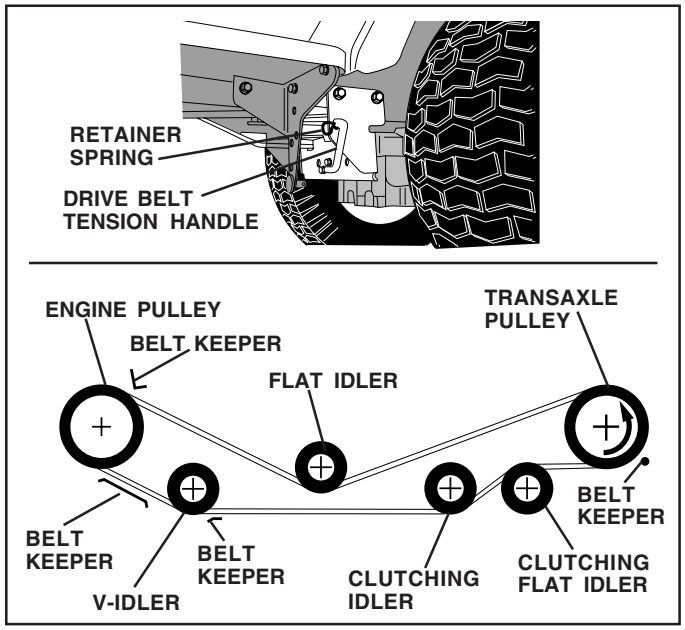


FIG. 31

TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT (See Fig. 32)

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

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position and engage parking brake.
- Loosen the adjustment bolt in front of the right rear wheel.
- Move motion control lever to the neutral position (N).
- Tighten the adjustment bolt.

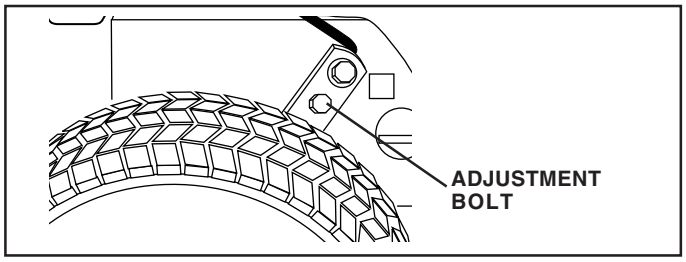


FIG. 32

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 ADJUSTMENT

Front wheel toe-in is required for proper steering operation. Toe-in was set at the factory and adjustment should not be necessary. If parts in the front axle or steering mechanism have been replaced or damaged, check toe-in and adjust if necessary.

TO CHECK TOE-IN (See Fig. 33)

- Position front wheels straight ahead.
- Measure distance between wheels at front and rear of tires (dimensions "A" and "B").
- Front dimension "A" should be 1/8" to 1/4" less than rear dimension "B".

TO ADJUST TOE-IN (See Figs. 33 and 34)

- Loosen jam nuts at adjustment sleeves on tie rod.
- Adjust tie rod until dimension "A" is 1/8" to 1/4" less than dimension "B".
- Tighten jam nuts securely.

FRONT WHEEL CAMBER

The front wheel camber is not adjustable on your tractor. If damage has occurred to affect the front wheel camber, contact your nearest authorized service center/department.

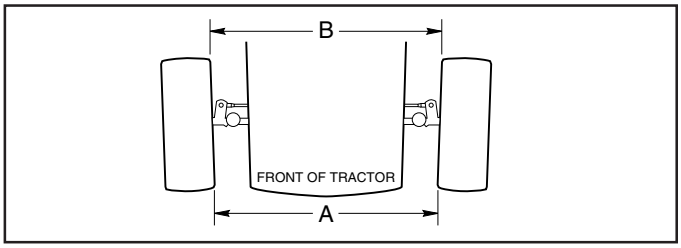


FIG. 33

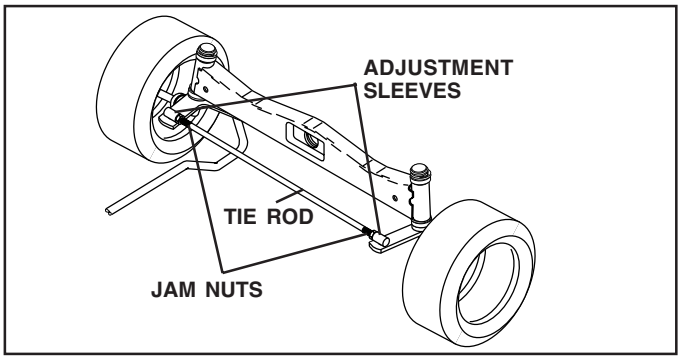


FIG. 34

TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 35)

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal.
- Repair tire and reassemble.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

REAR WHEEL -

- Block rear axle securely.
- Remove five (5) hub bolts to allow wheel removal.
- Repair tire and reassemble. Replace and tighten hub bolts securely.

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.

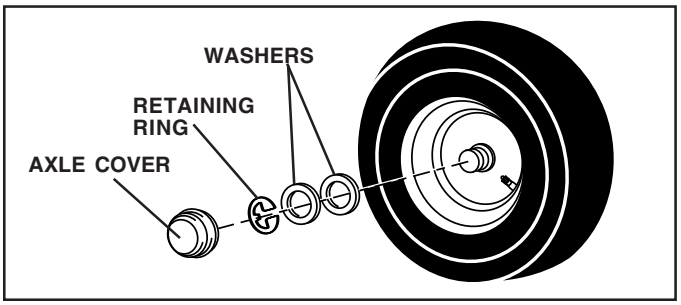


FIG. 35

TO START ENGINE WITH A WEAK BATTERY (See Fig. 36)

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

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

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

TO ATTACH JUMPER CABLES -

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

TO REMOVE CABLES, REVERSE ORDER -

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

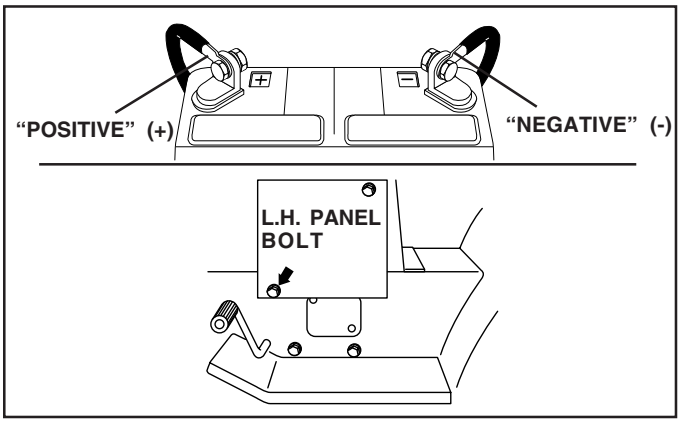


FIG. 36

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 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 35)

- While holding spring bushing with wrench, loosen jam nut.
- Turn adjustment bolt clockwise to extend spring and reduce lift effort for heavier attachments.
- Turn adjustment bolt counterclockwise for lighter attachments.
- Retighten jam nut against spring bushing.

IMPORTANT: DO NOT ADJUST FOR MAXIMUM SPRING TENSION WHEN USING LIGHT ATTACHMENTS SUCH AS A MOWER. ADJUST LIFT LEVER SPRING TO AID IN LIFTING ATTACHMENT. DO NOT OVERPOWER SPRING. WHEN REMOVING ATTACHMENT, ALWAYS ADJUST SPRING TENSION TO ITS LOWEST POSITION.

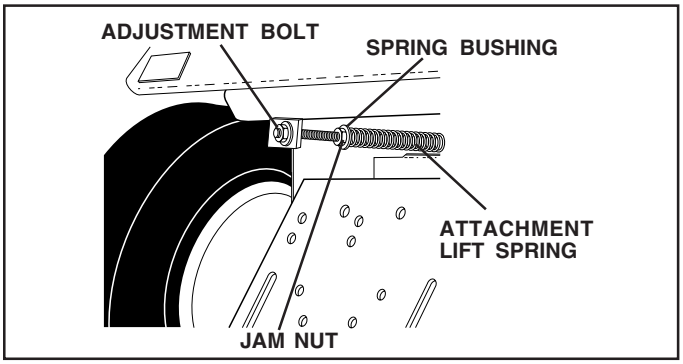


FIG. 35

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 36)

- 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 procedures.

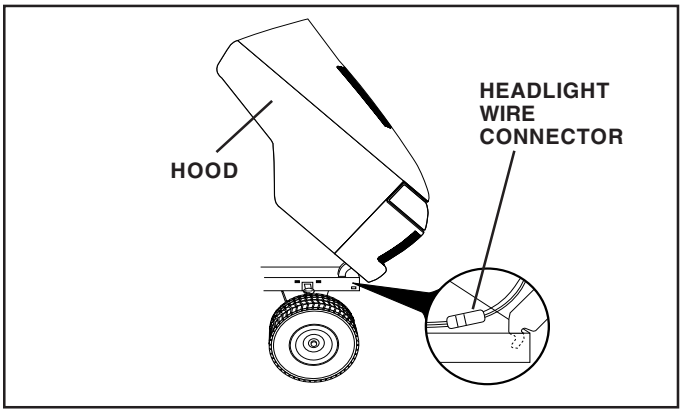


FIG. 36

ENGINE

CARBURETOR TROUBLESHOOTING AND ADJUSTMENTS

In compliance with government emission standards, the carburetor is calibrated to deliver the correct fuel-to-air mixture to the engine under all operating conditions. The carburetor cannot be adjusted, except for low idle speed. Carburetor servicing should be performed by an authorized service center only.

TROUBLESHOOTING

If engine troubles are experienced that appear to be fuel system related, check the following areas before adjusting the carburetor.

- Make sure the fuel tank is filled with clean, fresh gasoline.
- Make sure the fuel tank cap vent is not blocked and that it is operating properly.
- Make sure the in-line fuel filter is clean. Replace the filter if it is dirty or restricted.
- Make sure fuel is reaching the carburetor. This includes checking the fuel lines and fuel pump for restrictions or faulty components.
- Make sure the air cleaner cartridge and precleaner are clean and properly installed.
- Make sure the air intake screen, blower housing and cooling surfaces of radiator are clean and free of dirt and debris.
- Make sure cooling system is filled to the proper level.

If, after checking the items listed above, the engine is hard to start, runs roughly, or stalls at low idle speed, it may be necessary to adjust or service the carburetor.

TO ADJUST LOW IDLE SPEED (See Fig. 37)

- Place the throttle control into the “slow” position. Using a tachometer set the low idle speed to 1200 RPM by turning the low idle speed adjusting screw in or out.
- If proper operation is not restored after adjusting the low idle speed, carburetor servicing by an authorized service center may be required.

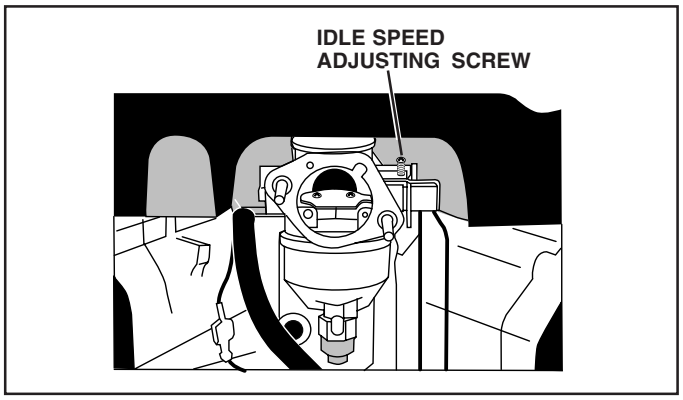


FIG. 37

IMPORTANT: Never tamper with the eninge governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed settng 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.

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

TRACTOR

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

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

BATTERY

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

ENGINE

FUEL SYSTEM

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

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

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

ENGINE OIL

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

COOLANT SYSTEM

The coolant (anti-freeze) mixture should be in good condition and tested to guard against freezing in cold temperatures. The recommended equal parts mixture will normally provide protection down to temperatures of -34° F (-37° C). If storage temperatures will fall below this, the cooling system should be drained. A note should then be attached to the equipment and/or engine as a reminder to refill the cooling system before starting.

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

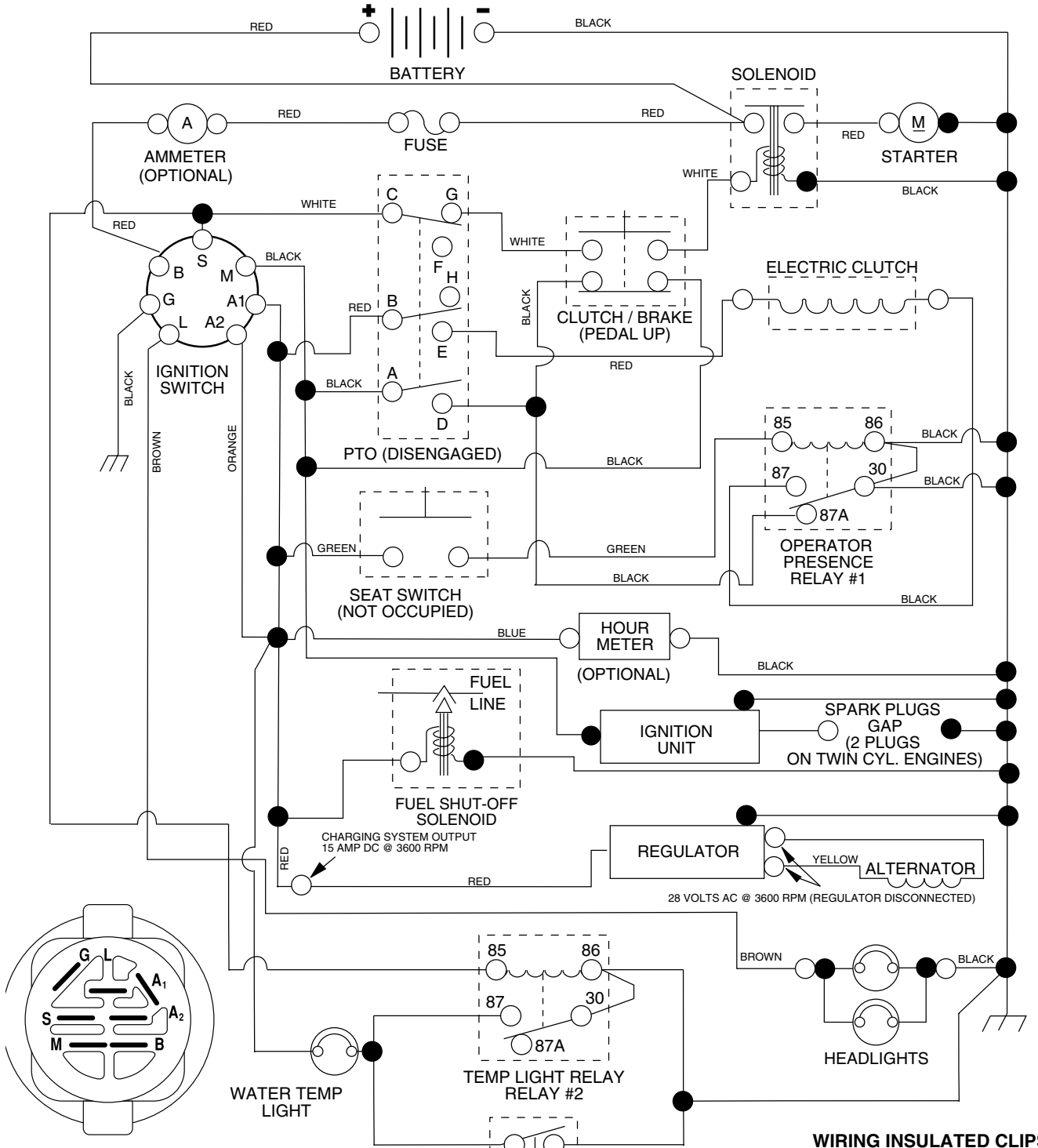
PROBLEM	CAUSE	CORRECTION
Will not start	1. Out of fuel. 2. Engine not “CHOKED” properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment. 11. Extreme cold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

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
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. 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes.
Mower blades will not rotate	1. Obstruction in clutch mechanism. 2. Worn/damaged mower drive belt. 3. Frozen idler pulley. 4. Frozen blade mandrel.	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.
Poor grass discharge	1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure. 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 9. Blades improperly installed. 10. Improper blades used. 11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Place throttle control in “FAST” position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	1. Switch is “OFF”. 2. Bulb(s) or lamp(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse.	1. Turn switch “ON”. 2. Replace bulb(s) or lamp(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.
Battery will not charge	1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator.	1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.
Loss of drive	1. Freewheel control in “disengaged” position. 2. Motion drive belt worn, damaged, or broken. 3. Air trapped in transmission during shipment or servicing.	1. Place freewheel control in “engaged” position. 2. Replace motion drive belt. 3. Purge transmission.
Engine “backfires” when turning engine “OFF”	1. Engine throttle control not set at “SLOW” position for 30 seconds before stopping engine.	1. Move throttle control to “SLOW” position and allow to idle for 30 seconds before stopping engine.

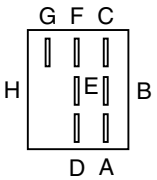
TRACTOR - - MODEL NUMBER 944.601931

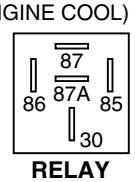
SCHEMATIC



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





RELAY

REMOVABLE CONNECTIONS

NON-REMOVABLE CONNECTIONS

WIRING INSULATED CLIPS

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

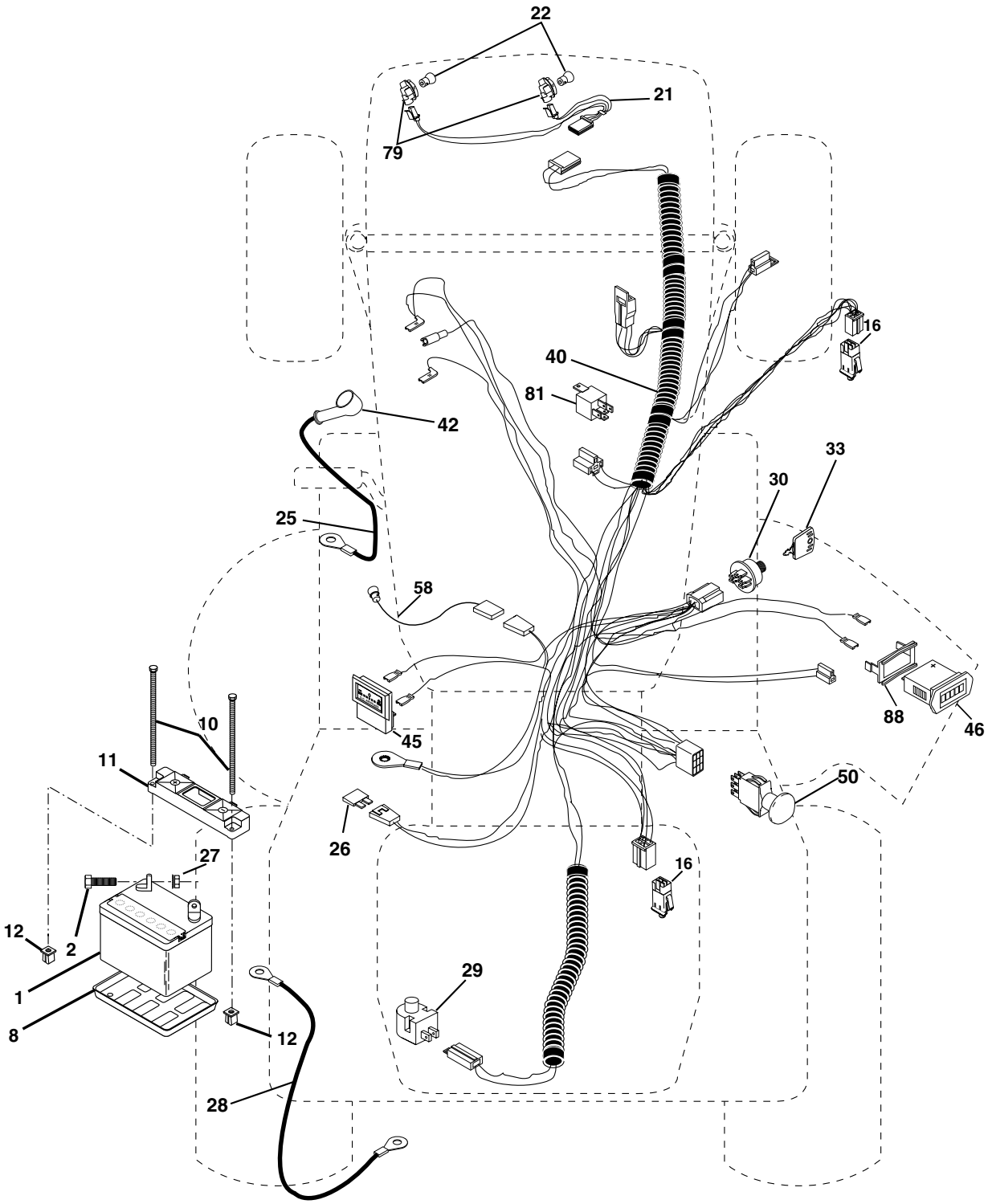
PTO SWITCH

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

ELECTRICAL



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

ELECTRICAL

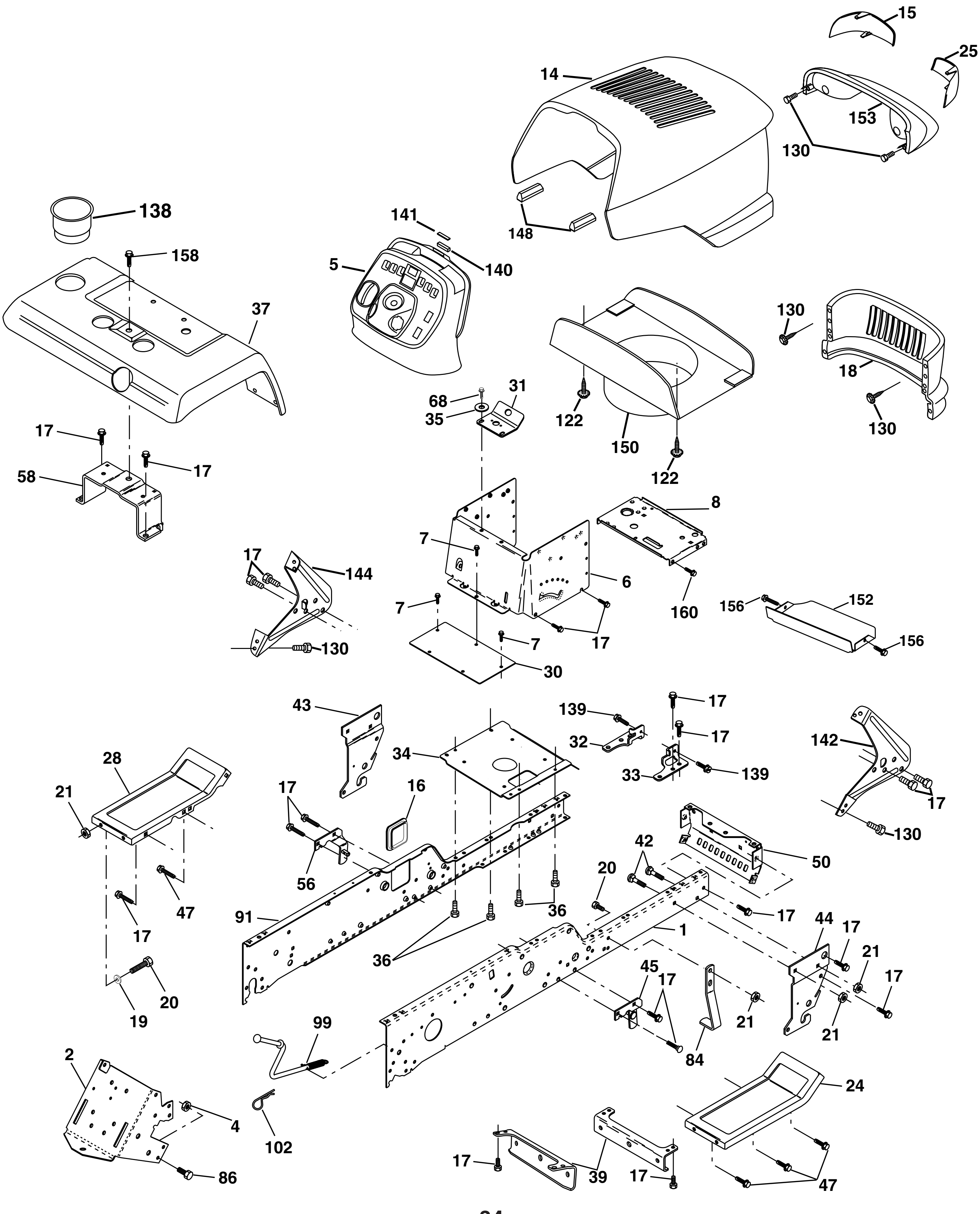
KEY NO.	PART NO.	DESCRIPTION
1	144927	Battery
2	74760412	Bolt Hex Head 1/4-20 x 3/4
8	7603J	Tray, Battery
10	145211	Bolt 1/4-20 x 7.5 Zinc
11	150109	Hold down Battery Dash Mount
12	145769	Nut Push Nylon 1/4"
16	153664	Switch Interlock Push-In
21	166184	Harness Socket Light w/4152J
22	4152J	Bulb Light
25	**150755**	Cable CV25 w/16.W.
26	108824X	Fuse
27	73510400	Nut, Keps Hex 1/4-20 UNC
28	170697	Cable, Ground
29	160784	Switch, Plunger
30	**175566**	Switch, Ign
33	140403	Key, Ignition
40	174909	Harness Ign.
42	154336	Cover, Terminal
45	122822X	Ammeter
46	169635	Meter, Hour
50	174652	Switch, PTO
58	175024	Harness LPKG Stealth Water Temp
79	163996	Bulbholder
81	109748X	Relay Asm.
89	169639	Bracket Snap-In

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

CHASSIS AND ENCLOSURES



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

CHASSIS AND ENCLOSURES

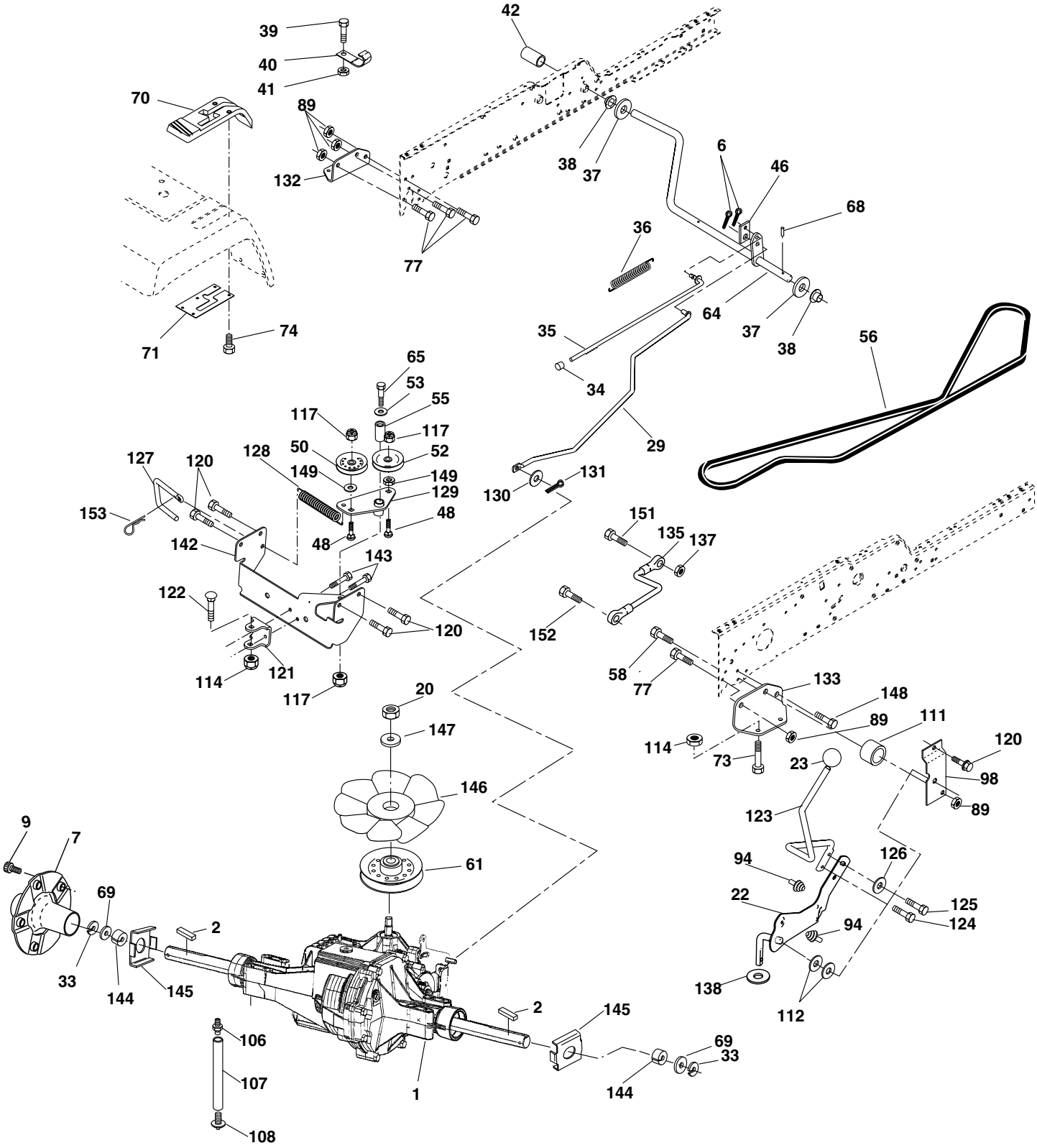
KEY NO.	PART NO.	DESCRIPTION
1	175465	Rail, Frame RH
2	175282	Drawbar, Gt
4	73680700	Nut, Lock Hex 7/16 Unc
5	163976X614	Dash
6	157882	Dash, Lower Vgt One Piece
7	17720408	Screw, Thd Cut 1/4-20 x 1/2
8	145166	Support, Battery
14	161023X612	Hood Asm., Pnt
15	161841	Lens LH
16	121794X	Cover, Access
17	17060612	Screw 3/8-16 x .75
18	160564X612	Grille
19	19131312	Washer 13/32 x 13/16 x 12 Ga.
20	STD523710	Bolt, Fin Hex 3/8-16 x 1
21	73800600	Nut Crownlock 3/8-16 Unc
24	145243X614	Footrest, RH
25	161842	Lens, RH
28	145244X612	Footrest, LH
30	145052	Saddle, Hydro
31	161419	Brace, Supt 1-pc VGT Steering
32	161327	Bracket, Pivot Chassis Lh
33	161326	Bracket, Pivot Chassis Rh
34	177018	Bracket, Engine Support Rear
35	19111116	Washer 11/32 x 11/16 x 16 Ga.
36	STD522507	Bolt, Fin Hex 5/16-18 x 3/4
37	167287X612	Fender Pnt
39	175278	Bracket, Axle Front
42	STD533710	Bolt, Carriage 3/8-16 x 1
43	136939	Bracket, Spnsn Front Lh
44	136940	Bracket, Spnsn Front Rh
45	154913	Bracket Asm., Susp Chassis Rh
47	17490608	Screw Thdrol. 3/8-16 x 1/2
50	175476	Bracket, Chassis Front
56	154914	Bracket Asm., Susp Chassis Lh
58	175315	Bracket Fender
68	17490508	Screw Thdrol. 5/16-18 x 1/2
84	142992	Stop, Over Center Mower
86	74760716	Bolt Fin Hex 7/16-14 UNC x 1
91	175464	Rail, Frame Lh
99	177143	Rod By Pass
102	STD624003	Retainer, Spring
122	161464	Screw Hex Wshd 8-18 x 7/8
130	164863	Screw Hwhd Hi-Lo #13-16 x 3/4
138	163975X614	Cupholder
139	171873	Bolt Shoulder 5/16-18 TT
140	163806	Magnet YTGT
141	163805	Striker Plate YTGT
142	161897	Bracket Dash Rh
144	161900	Bracket Dash Lh
148	164655	Extrusion Bumpers
150	174585	Duct Heat Hood
152	177956	Shield Browining
153	161235	Lens Asm.
156	17060512	Screw 5/16-18 x 3/4
158	17670608	Screw Thdrol 3/8-16 x 1/2
160	17060508	Screw 5/16-18 x 1/2

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

GROUND DRIVE



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

GROUND DRIVE

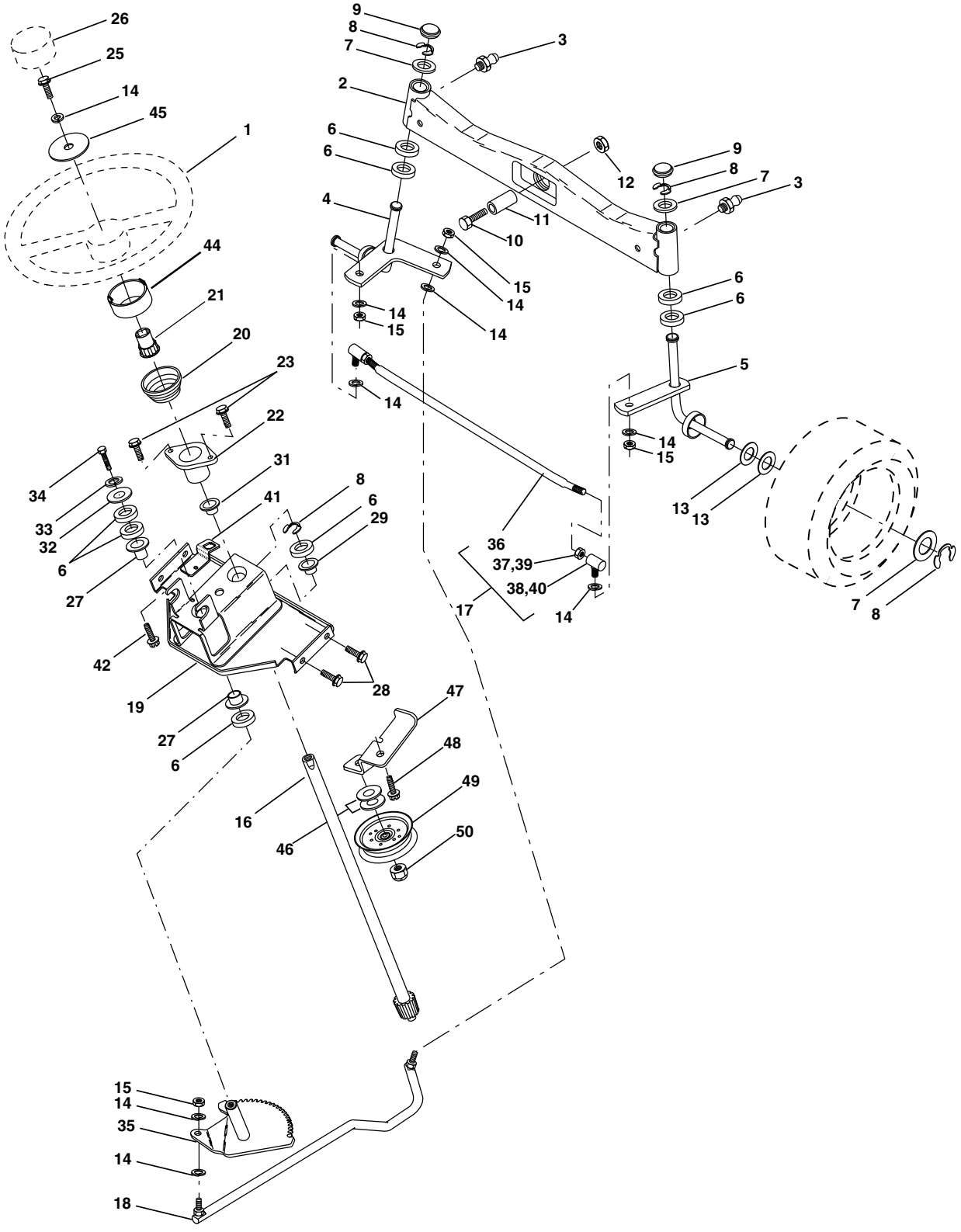
KEY NO.	PART NO.	DESCRIPTION
2	9396E	Key Sq. 1/4 x 1/4 x 2
6	STD561210	Pin, Cotter
7	140507	Wheel, Hub Assembly
9	140080	Bolt, Hub
20	73940800	Nut
22	178391	Lever Asm Shift
23	174779	Knob
29	176600	Brake, Rod
33	12000053	Ring E
34	71673	Cap, Parking Brake
35	137648	Rod, Parking Brake
36	149412	Spring, Drive Ground
37	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
38	150035	Nyliner
39	74321016	Screw, Fin. #10-24 x 1
40	178575	Actuator, Interlock Switch
41	73931000	Nut Centerlock 10-24 Unc
42	8883R	Cover, Pedal
46	145170	Retainer, Spring
48	72110614	Bolt, Carri. 3/8-16 x 1-3/4 Gr. 5
50	131494	Pulley, Idler, Flat
52	127783	Pulley, Idler, Grooved
53	207J	Washer, Hardened
55	105706X	Bearing, Idler
56	161597	V-Belt
58	74760724	Bolt Fin Hex 7/16-14 x 1-1/2
61	143995	Pulley, Transaxle
64	176601	Shaft, Clutch/Brake Pedal
65	67609	Bolt, Shoulder
68	STD571812	Pin, Roll
69	123800X	Washer
70	164892X428	Console Automatic YT/GT
71	151179	Plate Console Shift
73	74490548	Bolt Hex Flghd 5/16-18 x 3 Gr. 5
74	142432	Screw Hex Wsh. Hi-Lo 1/4-1/2
77	74760716	Bolt Fin Hex 7/16-14 x 1
89	73680700	Nut Crownlock 7/16-14 Unc
94	133835	Fastener Christmas Tree
98	141004	Bracket Shift
106	142917	Cap Asm Vent Hydro
107	154739	Line Fuel Hydro 15"
108	142918	O-Ring Asm. Hydro
111	156240	Spacer Shift Lever VGTH
112	156104	Washer Nylon High Temp
114	73800500	Nut Lock Hex w/Ins 5/16-18 Unc
117	73900600	Nut, Lock Flg. 3/8-16
120	17060612	Screw 3/8-16 x .75
121	175611	Bracket Strap Torque
122	72010520	Bolt RdHd Sq 5/16-18 Unc x 2-1/2
123	176602	Rod Shift
124	165492	Bolt shoulder 5/16-18 x.561
125	166880	Screw 5/16-18 x 5/8
126	166002	Washer Srrtd 5/16 ID x 1.0 x .125
127	177362	Link Control Clutch
128	176624	Spring Drive Grnd
129	178588	Bracket Asm Idler Tensioning
130	19131016	Washer 13/32 x 5/8 x 16 Ga.
131	76020312	Pin Cotter 3/32 x 3/4
132	175467	Bracket Mtg. Hydro 3500 Lh Vgt
133	175468	Bracket Mtg. Hydro 3500 Rh Vgt
135	177364	Link Asm Control Hydro 3500
137	1685H	Nut Lock 5/16-18 Nc Thd
138	1370H	Washer Thrust 5/8 x 1.10 x 1/32
142	175469	Strap Torque HG-3500
143	17060512	Screw Thdrol 5/16-18 x 3/4
144	160849	Washer Spacer Axle HG-3000
145	163168	Washer Axle Flange HG-3000
146	140462	Fan 7" Hydro
147	141322	Washer
148	17060616	Screw Thdrol 3/8-16 x 1
149	19131410	Washer 13/32 x 7/8 x 10 Ga.
151	74760514	Bolt Fin Hex 5/16-18 x 3/4
152	178705	Bolt Hex 5/16-18 x 1 w/Patch
153	4497H	Spring, Retainer
- -	176057	Transaxle Hydro Gear 311-3500

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

STEERING ASSEMBLY



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

STEERING ASSEMBLY

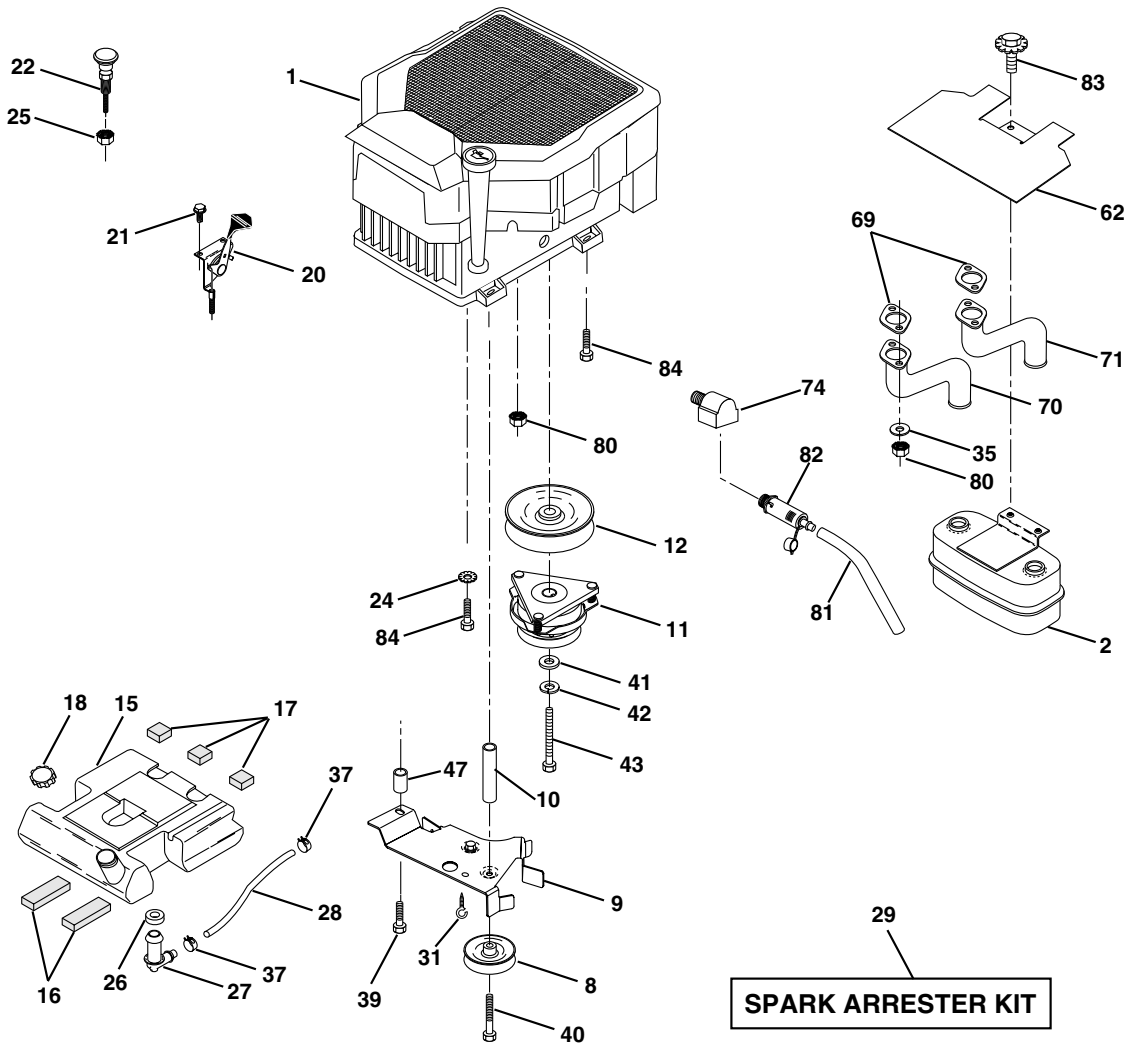
KEY NO.	PART NO.	DESCRIPTION
1	159944X614	Wheel, Steering
2	**178557**	Axle Asm., Front
3	6855M	Fitting, Grease
4	161849	Spindle Asm, LH
5	161848	Spindle Asm., RH
6	6266H	Bearing, Race Thrust Harden
7	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
8	12000029	Ring, Klip #T5304-75
9	121232X	Cap, Spindle
10	74781044	Bolt, Fin Hex 5/8-11 x 2-3/4
11	136518	Spacer Bearing Axle Front
12	73901000	Nut, Lock Flange 5/8-11 Unc
13	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
14	STD551137	Washer, Lock Hvy Hlcl Spr 3/8
15	STD541537	Nut, Lock Center 3/8-24 UNF
16	145103	Shaft Asm., Steering
17	137347	Rod Asm., Tie Ball J Ball Vgt (Inc. Key No. 36-40)
18	**175572**	Draglink, Ball Joint Solid Vgt
19	156011	Support Asm., Steering Vgt
20	163887X614	Boot, Steering
21	159945	Adapter, Wheel Steering
22	155105	Bushing, Strg. Blk
23	152927	Screw
25	STD523710	Bolt, Fin Hex 3/8-16 x 1 Gr. 5
26	159946X614	Cap , Wheel Steering
27	3366R	Bearing, Col. Strg.
28	17000612	Screw 3/8-16 x 3/4
29	104239X	Bearing, Flange
31	138136	Bushing, Nyliner Snap
32	19111610	Washer 11/32 x 1 x 10 Ga.
33	STD551131	Washer, Lock Hvy Hlcl Spr 5/16
34	STD523107	Bolt, Hex Hd 5/16-18 x 3/4
35	138059	Gear, Sector Steering
36	137156	Tie Rod
37	73360600	Jam Nut RH Thread
38	109850X	Joint Asm. Ball RH Thread
39	73700600	Jam Nut LH Thread
40	109851X	Joint Asm. Ball LH Thread
41	155246	Bracket Switch Interlock VGT 97
42	17490508	Screw Thdrol 5/16-18 x 1/2 Tyt
44	160135X614	Extension, Steering
45	19132411	Washer 13/32 x 1-1/20 x 11 Ga.
46	178291	Spacer
47	177863	Bracket Asm. Idler Stationary
48	17060612	Screw 3/8-16 x 3/4
49	131494	Pulley Idler Flat
50	73900600	Nut Lock Flg. 3/8-16

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

ENGINE



KEY NO.	PART NO.	DESCRIPTION
1	- - - - - -	Engine (See Breakdown) Kohler Model No. LV625-851509
2	149723	Muffler
8	121361X	Pulley V-Idler
9	177748	Keeper Asm. Belt Engine
10	175288	Bushing
11	170056	Clutch Electric
12	143996	Pulley Engine VGT Elect Clutch
15	151346	Tank Fuel Rear 3.50 Yt/Gt 96
16	109227X	Pad Spacer
17	106082X	Pad Spacer
18	161493	Cap Asm Fuel W/Gauge
20	177328X428	Control Throttle
21	164863	Screw Hwhd Hi-Lo #13-16 x 3/4
22	175441X428	Control Choke
24	STD551237	Washer Ext Tooth 3/8
25	73920600	Nut Keps 3/8 - 24 UNF
26	3645J	Bushing
27	139277	Stem Tank Fuel
28	7834R	Fuel Line
29	137180	Spark Arrester Kit
31	145006	Clip

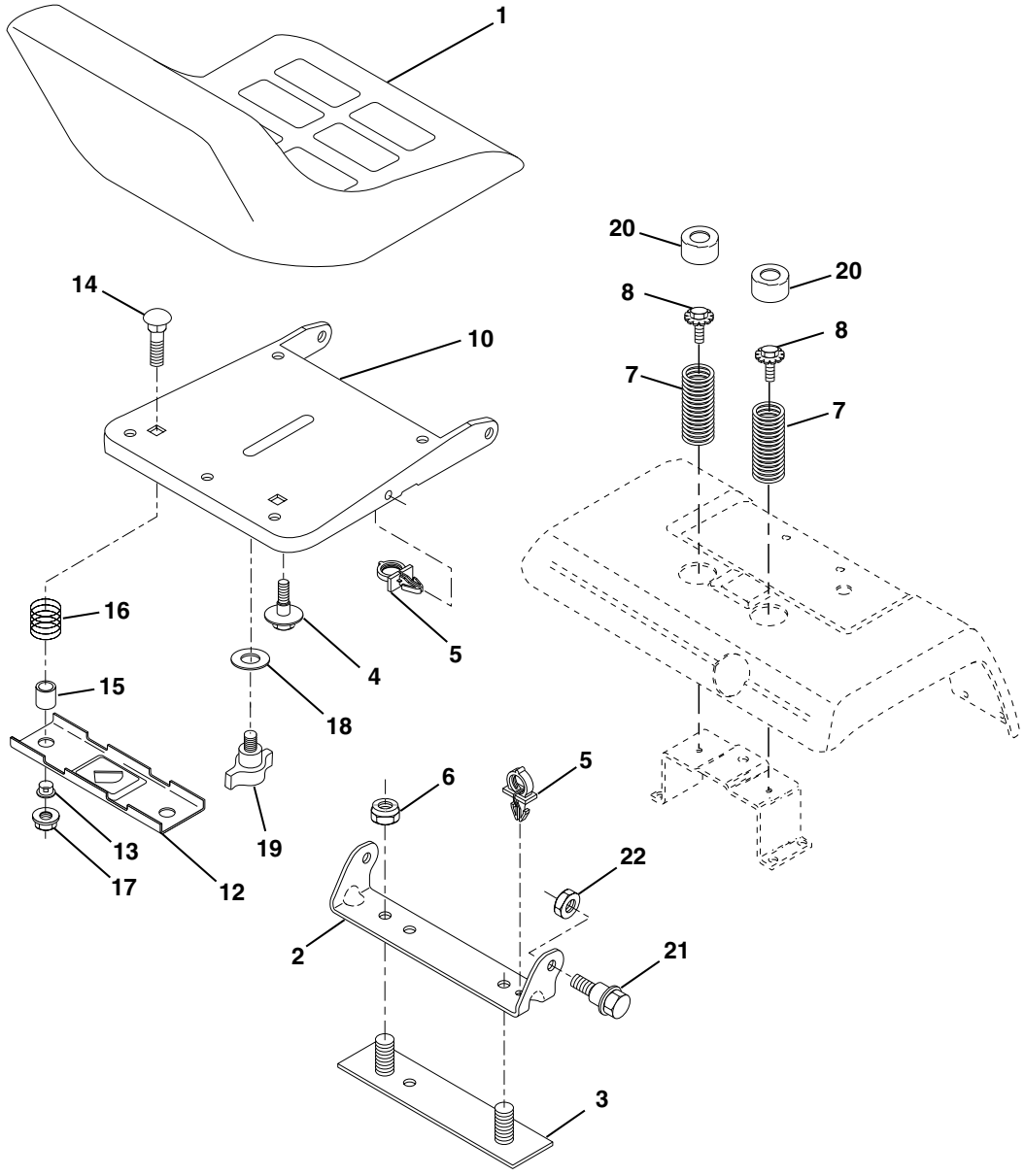
KEY NO.	PART NO.	DESCRIPTION
35	10010500	Washer Split
37	123487X	Clamp Hose
39	17490636	Screw TT 3/8-16 x 2-1/4 UNC
40	17490664	Screw TT 3/8-16 x 4 UNC
41	126197X	Washer 1-1/2 OD X 15/32 ID X .250
42	STD551143	Washer Lock 7/16
43	173937	Bolt 7/16-20 x 4 Gr. 5
47	175287	Bushing
62	146629	Shield Heat Muffler CV-Intek
69	24-041-02	Gasket Kohler CV18-CV26
70	175545	Tube Exhaust Lh
71	175546	Tube Exhaust Rh
74	162295	Elbow Street Brass
80	M73030800	Nut Flange M8-1.25 Non-Lk Zink
81	148456	Tube Drain Oil Easy
82	148315	Plug Drain Oil Easy
83	171877	Bolt 5/16-18 Unc x 3/4 w/sems
84	17060624	Screw Thdrol 3/8-16 x 1-1/2

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

SEAT



KEY NO.	PART NO.	DESCRIPTION
1	174785	Seat
2	140551	Bracket, Pivot Seat
3	140675	Strap, Fender
4	127018X	Bolt, Shoulder 5/16-18 x .62
5	145006	Clip, Push In, Hinged
6	STD541437	Nut, Crownlock 3/8-16 Unc
7	124181X	Spring, Seat Cprsn
8	171877	Bolt 5/16-18 Unc x 3/4 w Sems
10	**174894**	Pan, Seat
12	121246X	Bracket, Mounting Switch
13	121248X	Bushing, Snap
14	72050412	Bolt, Carriage 1/4-20 X 1-1/2

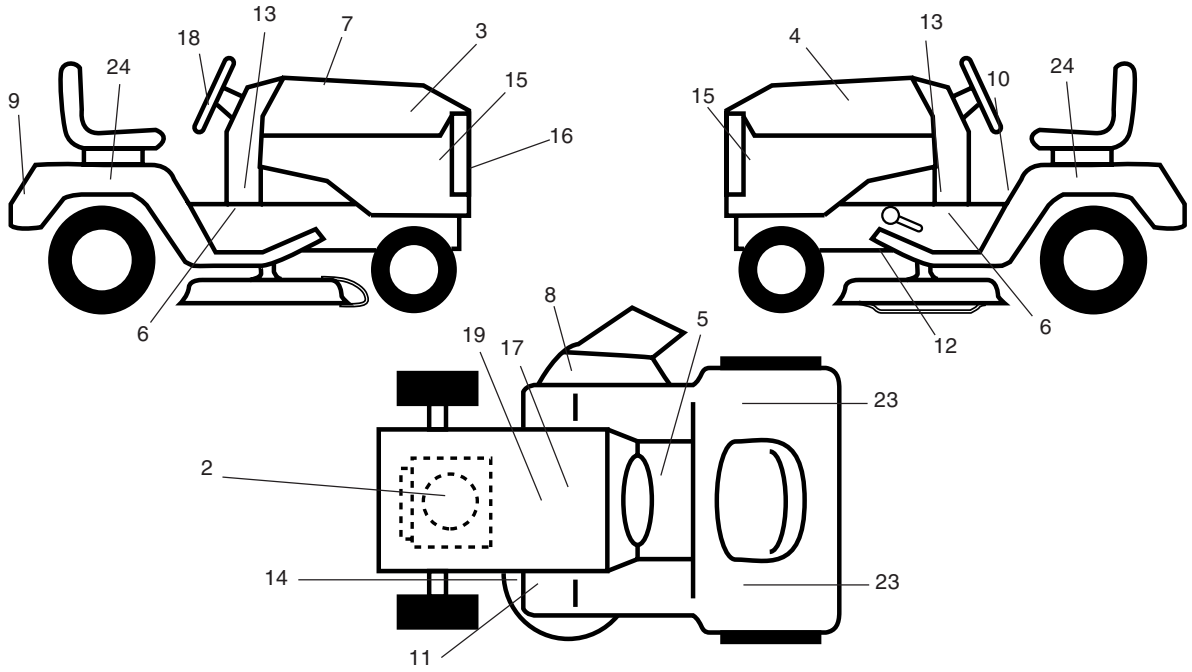
KEY NO.	PART NO.	DESCRIPTION
15	121249X	Spacer, Split
16	123740X	Spring, Cprsn
17	123976X	Nut, Lock 1/4 Lge Flg Gr. 5
18	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
19	166369	Knob, Seat Adj Wingnut
20	124238X	Cap, Spring Seat
21	171852	Bolt, Shoulder 5/16-18
22	STD541431	Nut, Crownlock 5/16-18 Unc

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

REPAIR PARTS

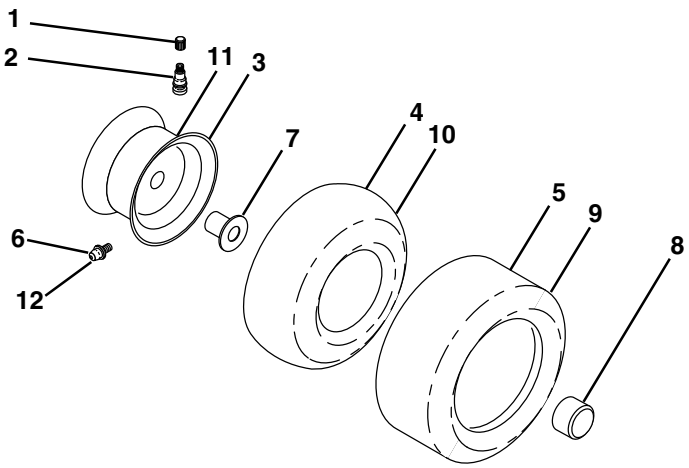
TRACTOR - - MODEL NUMBER 944.601931

DECALS



KEY NO.	PART NO.	DESCRIPTION
2	174904	Decal, Hp Engine
3	174860	Decal, Hood RH Craftsman
4	174861	Decal, Hood LH Craftsman
5	140837	Decal, Brake Parking Saddle
6	**177375**	Decal, Lower Dash
7	177405	Dash Insert
8	**170563**	Decal Deck Warn Keep hands away
9	163204	Decal, Fender, Craftsman
10	**157140**	Decal, Fender Danger
11	**177782**	FTRest VGT 3000
12	**177554**	Decal, V-Belt Dr GRND 3500
13	174862	Decal, Dash
14	160397	Decal, Deck Schematic
15	174863	Decal, Side Panel
16	174865	Decal Grille
17	**149517**	Decal, Btry Dngr/Psn Eng. Acme
18	174866	Decal, Insert Strg
19	138047	Decal, Battery
23	106202X	Reflector, Taillight
24	163223	Decal, Fender Hyd/Auto
- -	138311	Decal, Handle LFT Height Adjust (Lift Handle)
- -	**166960**	Decal, Bypass Control
- -	**157199X614**	Pad, Footrest
- -	**179349**	Owner's Manual, English
- -	**179350**	Owner's Manual, French

WHEELS AND TIRES



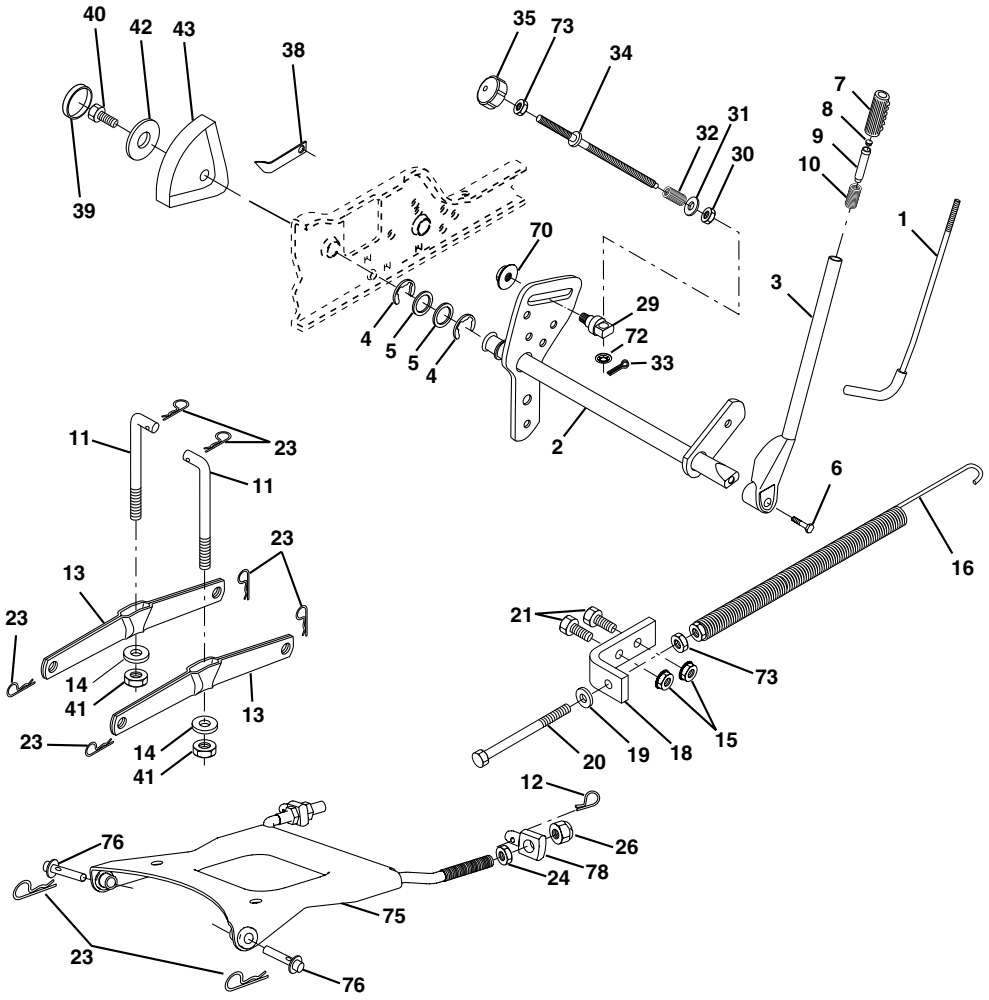
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	148736X612	Rim Asm Front
4	8134H	Tube, Front (Service Item Only)
5	148741	Tire, Front
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	104757X612	Cap Axle (Front Wheel Only)
9	151607	Tire Rear
10	7154J	Tube Rear (Service Item Only)
11	148738X612	Rim Asm Rear
12	6856M	Fitting Grease
- -	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 944.601931

LIFT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	121006X	Rod Asm., Lever
2	177535	Shaft Asm., Lift Vgt
3	159189	Lever Asm., Lift Rh
4	12000022	E-Ring Truarc #5133-87
5	19292016	Washer 29/32 x 1-1/4 x 16 Ga.
6	71110624	Bolt, Fin Hex 3/8-16 x 1-1/2
7	125631X	Grip, Handle Fluted
8	122365X	Button, Plunger
9	122364X	Plunger, Lever Lift
10	2876H	Spring 2-1/8"
11	146704	Link Lift
12	163552	Retainer, Spring
13	139868	Arm, Suspension Vgt
14	169865	Bearing
15	STD541437	Nut, Crownlock 3/8-16 Unc
16	674A247	Spring Asm., Assist Lift
18	143363	Bracket, Spring Assist
19	STD551037	Washer 13/32 x 13/16 x 16 Ga.
20	5328J	Bolt, Adjust Spring Assist
21	STD523710	Bolt, Fin Hex 3/8-16 x 1
23	4939M	Retainer Spring
24	73350800	Nut, Jam Hex 1/2-13 Unc

KEY NO.	PART NO.	DESCRIPTION
26	73680800	Nut Crownlock 1/2-13 Unc
29	150233	Trunnion, Infin Height
30	110807X	Nut, Special
31	STD551037	Washer 13/32 x 5/8 x 16 Ga.
32	137150	Spring, Compression Inf Hgt
33	STD560907	Pin, Cotter 3/32 x 1/2
34	137167	Rod, Adj Lift
35	138057	Knob, Inf 3/8-16 Unc
38	155097	Pointer, Height Indicator
39	123935X	Plug, Hole
40	17060516	Screw 5/16-18 x 1
41	73540600	Nut, Crownlock 3/8-24
42	19112410	Washer 11/32 x 1-1/2 x 10 Ga.
43	123934X	Scale, Indicator Height
70	145212	Nut Hex Flange Lock
72	110452X	Nut Push Phos & Oil
73	STD541237	Nut Hex Jam 3/8-16 Unc
75	175805	Plate Asm Front
76	175560	Pin Flange
78	175689	Trunnion

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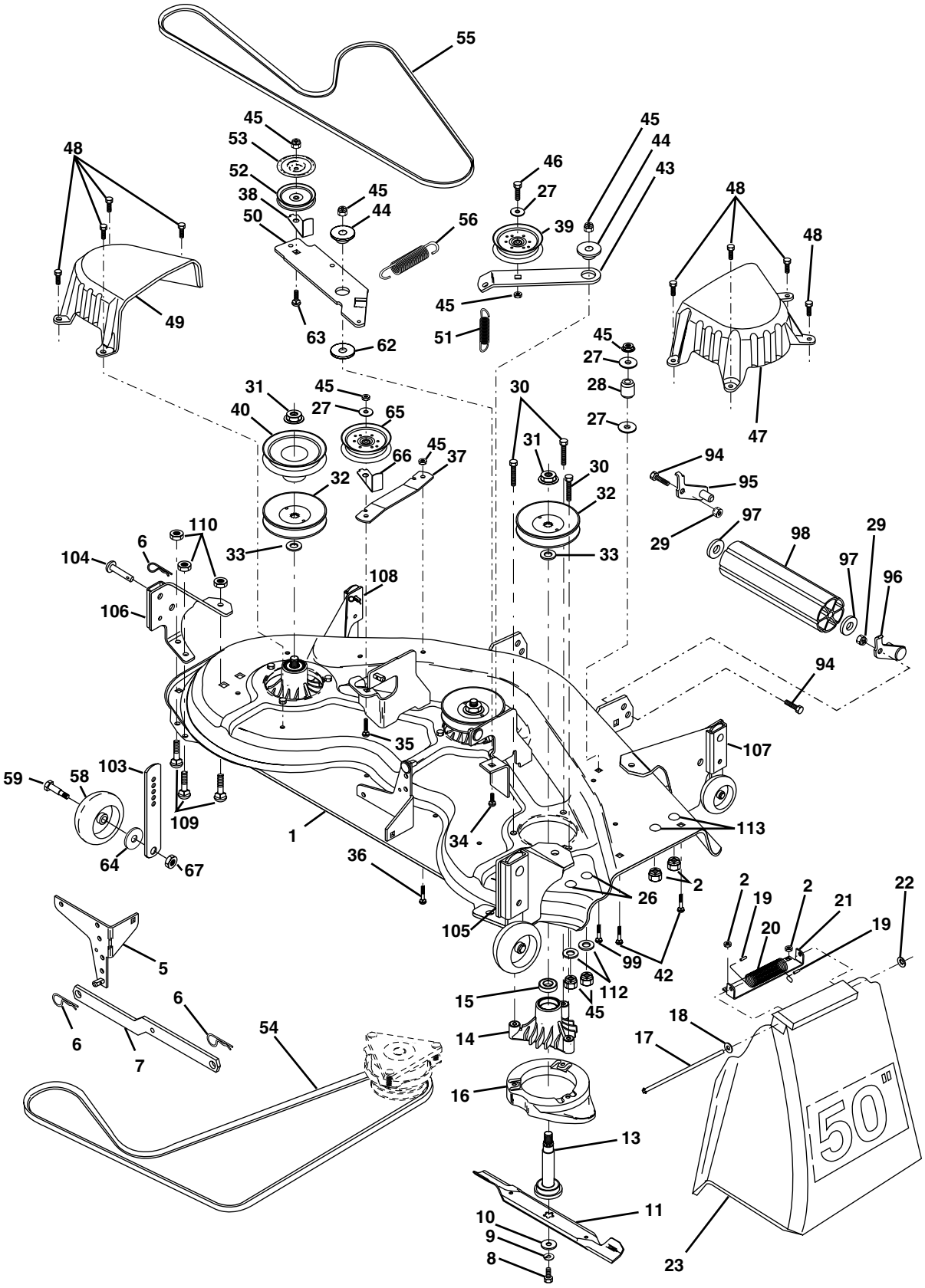
REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

MOWER DECK



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

MOWER DECK

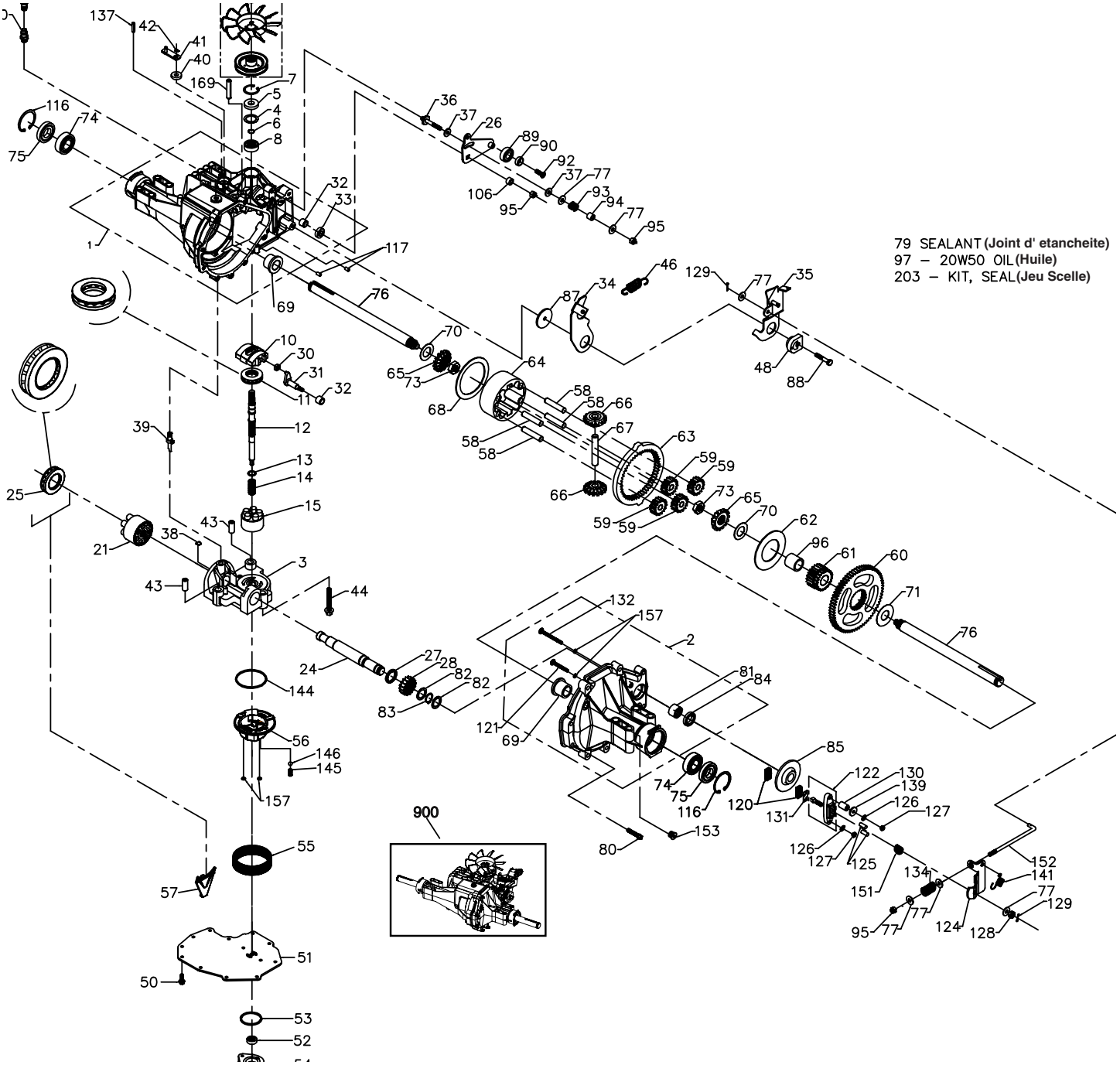
KEY NO.	PART NO.	DESCRIPTION
1	156990X613	Mower Deck Weldment
2	STD541431	Nut, Crownlock 5/16-18
5	138457	Bracket asm., Sway Bar
6	STD624008	Retainer, Spring
7	130832	Arm, Suspension, Rear (Sway Bar)
8	850857	Bolt, Patch 3/8-24 x 1-1/4 Gr. 8
9	STD551137	Washer, Lock Hvy. Unplated 3/8
10	140296	Washer, Hard Blade, Mower Vented
11	137380	Blade (3 Required)
13	137553	Shaft Asm. w/Lower Bearing
14	137152	Housing, Mandrel
15	110485X	Bearing, Ball, Mandrel
16	**174493**	Stripper, Mower Round
17	106735X	Rod, Hinge
18	19111016	Washer 11/32 x 5/8 x 16 ga.
19	105304X	Cap, Sleeve
20	123713X	Spring, Torsion Deflector
21	**137607X431**	Bracket, Deflector
22	110452X	Nut, Push
23	110509X428	Shield, Deflector Mower
26	72110606	Bolt Carr. Sqnk 3/8-16 x 3/4
27	STD551037	Washer 13/32 x 13/16 x 16 Ga.
28	132823	Spacer, Spring Stop Idler
29	**STD541431**	Nut Lock Hex w/Ins 3/8-16 Unc
30	**173984**	Screw Thdrol Washer Head
31	**178342**	Nut, Flg. Top Lock Cntr. 9/16
32	173436	Pulley, Mandrel
33	129963	Washer, Spacer Mower Vented
34	72140610	Bolt, Carraige 3/8-16 x 1-1/4
35	72110616	Bolt, Carraige 3/8-16 x 2
36	72110608	Bolt, Carraige 3/8-16 x 1 Gr.5
37	**137166X431**	Stiffener, Arm Idler
38	173968	Keeper, Belt, Idler
39	173438	Pulley, Idler, Flat
40	173980	Pulley, Driven
42	STD533107	Bolt, Carriage 5/16-18 Unc x 3/4
43	**136460X431**	Arm, Idler Secondary
44	122052X	Spacer, Retainer
45	STD541437	Nut, Crownlock 3/8-16 UNC
46	74760628	Bolt, Fin Hex 3/8-16 Unc x 1 3/4
47	137200	Cover, Mandrel RH
48	137729	Screw, Thdroll. 1/4-20 x 5/8
49	136574	Cover, Mandrel LH
50	**137272X431**	Arm, Idler, Primary
51	137273	Spring, Secondary
52	139245	Pulley, Idler, V-Groove
53	**137789X431**	Shield, Idler
54	139573	V-Belt, Mower, Primary
55	144959	V-Belt, Mower, Secondary
56	138687	Spring, Primary
58	133957	Wheel, Gauge
59	137644	Bolt, Shoulder
62	133943	Washer, Hardened
63	72110612	Bolt, Carr. 3/8-16 x 1-1/2 Gr. 5
64	19121414	Washer 3/8 x 7/8 x 14 Ga.
65	173981	Pulley, Flat, Idler
66	173979	Keeper, Belt, Idler
67	73930600	Nut, Centerlock 3/8-16 UNC
94	STD523710	Nut LockHex 3/8-16 Unc x 1
95	**132274X**	Bracket Asm Noseroller LH
96	**132273X**	Bracket Asm Noseroller RH
97	19171416	Washer 17/32 x 7/8 x 16 Ga.
98	132264	Roller Nose
99	72110614	Bolt, Carr. 3/8-16 x 1-3/4 Gr. 5
103	**155986X**	Bar Adjusting Gauge Wheel
104	156941	Pin, Head Pivot
105	**156852X613**	Bracket Pnt Ga. Wheel Asm R. Rh 50
106	156853X613	Bracket Pnt Ga. Wheel Asm R. LH 50
107	156854X613	Bracket Pnt Ga. Wheel Asm F. RH 50
108	156856X613	Bracket Pnt Ga. Wheel Asm. F. LH 50
109	72010505	Bolt, Carriage 5/16-18 x 5/8 Blk.
110	73980500	Nut, Crownlock 5/16-18 Blk.
112	19171216	Washer 17/32 x 3/4 x 16 Ga.
113	72110504	Bolt, Carriage 5/16 UNC x 1/2
- -	174844	Mower Service
- -	143651	Mandrel Asm (Includes Key Nos. 8-10, 13-15, 31 and 33)

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

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

TRANSAXLE - - MODEL NUMBER 311-3500



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

TRANSAXLE - - MODEL NUMBER 311-3500

KEY NO.	PART NO.	DESCRIPTION
1	161122	Main Housing Assembly
2	178317	R.H. Housing Assembly
3	169522	Center Section Assembly
4	161125	Spacer
5	142932	Seal-Lip
6	142928	Wire Retaining Ring
7	142933	Retaining Ring
8	142934	Ball Bearing
9	169523	Cradle Bearing
10	169524	Variable Swashplate
11	150771	Thrust Bearing 30 X 52 X 13
12	161126	Input Shaft
13	142978	Block Thrust Washer
14	142977	Arm - Trunnion
15	196050	10cc Cylinder Block Assembly
21	169525	21cc Cylinder Block Assembly
24	161127	Output (Motor) Shaft
25	169526	Thrust Bearing 42 X 68 X 16
26	161128	Control Arm
27	161129	Spacer
28	161130	16t Pinion Gear
29	169527	Capscrew, M6 X 1-22
30	142941	Slot Guide
31	161132	Trunnion Arm
32	161133	Trunnion Bushing
33	142940	Lip Seal
34	178318	Arm Return
35	178319	Arm Actuating
36	169528	5/16-24 Stud
37	142967	Puck, Friction
38	150787	Bypass Plate
39	169529	Bypass Actuator
40	142945	Lip Seal
41	142952	Bypass Arm
42	142953	Retaining Ring
43	142965	Pin
44	150797	Screw
48	178320	Puck
50	178343	Screw-Self Tapping
51	169530	Lower Cover
52	169531	Gerotor Assembly
53	144581	O-Ring
54	161139	Gerotor Cover
55	178321	Filter
56	169533	Charge Manifold
57	161142	Retainer, Motor Bearing
58	161143	Pin, Carrier
59	161144	15t Planet Gear
60	161145	7t Spur Gear
61	161146	21t Sun Gear
62	161147	Planet Thrust Plate
63	161148	51t Ring Gear
64	161149	Planetary Carrier
65	178511	Miter Gear, Diff. (Splined)
66	178512	Miter Gear, Diff.
67	161152	Shaft, Differential
68	161153	Diff. Thrust Plate
69	169534	Flange Bearing
70	161154	Washer
71	161155	Washer
73	161156	Hex Jam Nut, 5/8-18
74	169535	Ball Brg 6205-1
75	161157	Seal 1"Id X 2.0472" X 0.375"
76	161158	Shaft, Axle
77	142884	Washer
79	178322	Gasket Material
80	161159	Torx Head Screw, 5/16-18
81	161160	Needle Bearing (Sce1412)
82	161161	Washer2
83	161162	Retaining Ring
84	161163	Lip Seal (0.875i.D.X1.3o.D.X0.25
85	161164	Brake Disk
87	178323	Washer
88	178324	Screw 5/16-24
89	178325	Bearing
90	178326	Spacer
91	169536	Oring, 0.070 X 0.239
92	178327	Screw
93	142969	Spring, Friction Pack
94	142980	Spacer, Friction Pack
95	169537	Hex Lock Nut 5/16-24
96	169538	Sleeve Bearing
97	150798	Oil
106	161166	Spacer, Trunnion
108	178328	Plug
110	142918	Fitting-O Ring Ass'y
111	142917	Cap Vent Ass'y
116	169539	Retaining Ring
117	161168	Std Hdls Pin
120	142883	Puck, Brake
121	169540	Rib Neck Bolt, 2"
122	178329	Brake Yoke
124	178330	Arm, Brake
125	142887	Pins, Brake
126	161172	Lockwasher, 1/4"
127	161173	Nut, 1/4-20
128	142885	Nut, Castle
129	142886	Cotter Pin
130	161174	Spacer
131	142882	Puck Plate
132	169544	Rib Neck Bolt, 3" 1
134	178331	Spring
136	178332	Spring Extension
137	178333	Pin Spring
138	178334	Bolt Self Tapping
139	161176	Washer, 7/8od X 0.265id X 0.125 Thk
141	178335	Spring Brake
144	169545	O Ring, 2.864 Id X 0.070 Thk
145	169546	Spring, Relief
146	169547	Ball, 7/16
151	161181	Comp. Spring, Brake Anti-Drag
152	178336	Brake Pull Rod
153	142914	Plug, Straight Thread
155	178337	Kit Fan
157	169548	Screw O-Ring
180	169549	Manifold Kit
203	178338	Kit Seal
900	176057	Transaxle, complete

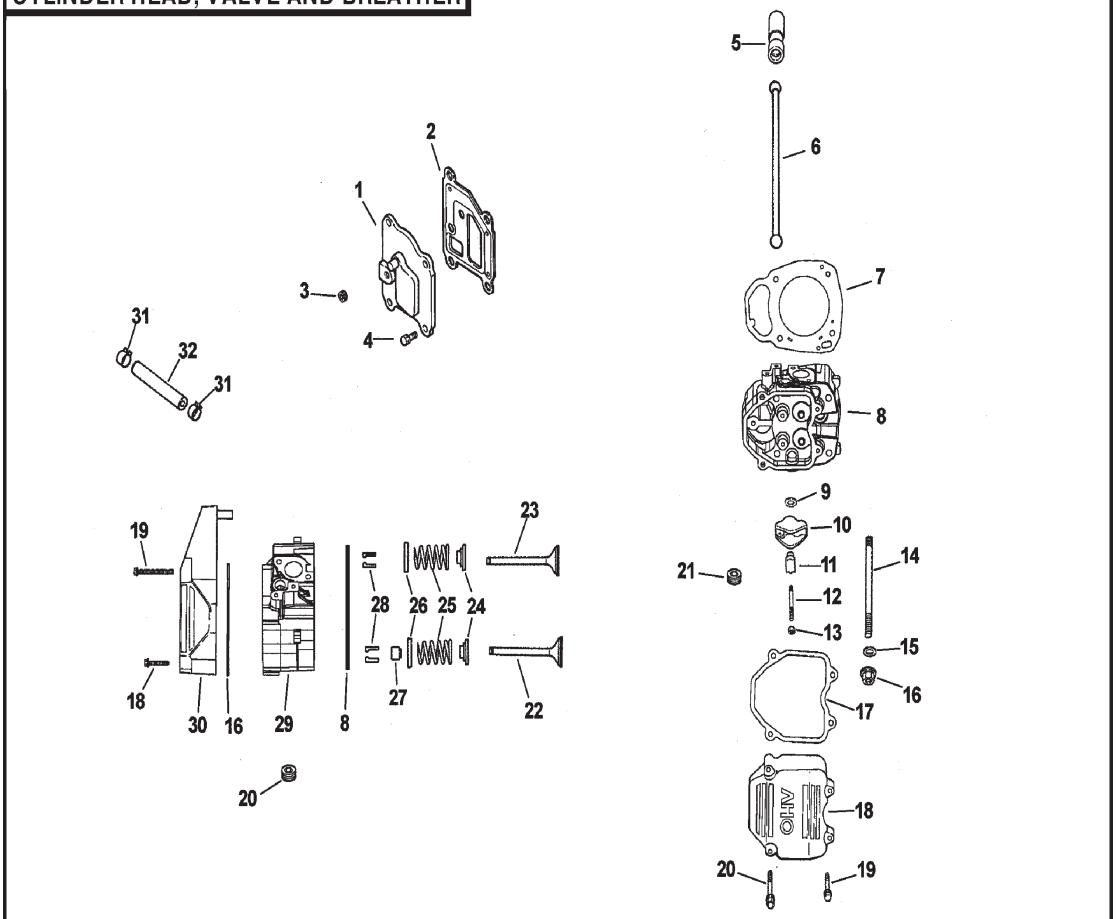
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

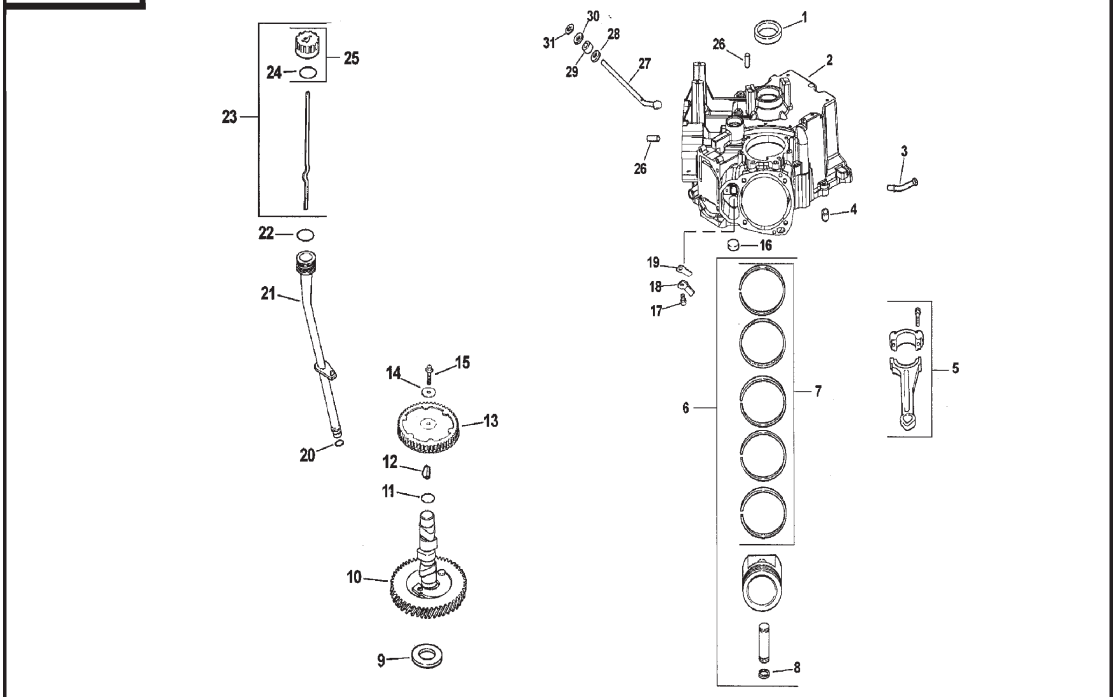
TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

CYLINDER HEAD, VALVE AND BREATHER



CRANKCASE



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

HEAD/VALVE/BREATHER

KEY NO.	PART NO.	DESCRIPTION
1.	66 096 06-S	Cover, breather
2.	24 041 23-S	Gasket, breather
3.	X-75-23-S	Plug, pipe 1/8"
4.	M-645020-S	Screw, hex. flange M6x1.0x20 (4)
5.	25 351 01-S	Lifter, valve (4)
6.	24 411 05-S	Rod, push (4)
7.	66 041 02-S	Gasket, cylinder head (2)
8.	66 318 02-S	Head assembly, #2 cylinder
9.	66 422 02-S	Shim (4) (A.R.)
	66 422 01-S	Shim (4) (A.R.)
	66 422 05-S	Shim (4) (A.R.)
10.	25 186 01-S	Arm, rocker (4)
11.	66 599 13-S	Pivot, rocker arm (4)
12.	66 072 04-S	Stud, (4)
13.	66 100 02-S	Nut, lock (4)
14.	66 072 01-S	Stud, cylinder head (8)
15.	220534-S	Washer, 5/16" (8)
16.	24 100 10-S	Nut, hex. flange M8x1.25 (8)
17.	66 041 04-S	Gasket, valve cover (2)
18.	66 096 02-S	Cover, valve - plain
19.	M-651025-S	Screw, hex. flange M6x1.0x25 (4)
20.	M-651050-S	Screw, hex. flange M6x1.0x50 (4)
21.	66 139 01-S	Plug, pipe 3/8" (2)
22.	24 016 01-S	Valve, exhaust (Std.) (2)
	24 016 02-S	Valve, exhaust (.25) (2)
23.	24 017 01-S	Valve, intake (Std.) (2)
	24 017 02-S	Valve, intake (.25) (2)
24.	12 173 01-S	Cap, valve spring (4)
25.	24 089 02-S	Spring, valve (4)
26.	66 018 02-S	Retainer, spring (4)
27.	66 032 05-S	Seal, valve stem (2)
28.	12 755 03-S	Kit, retainer (4)
29.	66 318 01-S	Head assembly, #1 cylinder
30.	66 096 03-S	Cover, breather valve
31.	X-426-3-S	Clamp, hose (2)
32.	66 326 10-S	Hose, breather

CRANKCASE

KEY NO.	PART NO.	DESCRIPTION
1.	24 032 01-S	Seal, oil front
2.		Crankcase (Use Miniblock 66 782 01)
3.	24 294 13-S	Fitting
4.	24 380 13-S	Pin, dowel locating (2)
5.	24 067 13-S	Connecting Rod (Std.) (2)
	24 067 14-S	Connecting Rod (.25) (2)
6.	24 874 09-S	Piston w/Ring Set (Std.) (2) (Includes 7,8)
	24 874 10-S	Piston w/Ring Set (.25) (2)
	24 874 11-S	Piston w/Ring Set (.50) (2)
	24 874 15-S	Piston w/Ring Set (.08) (2)
7.	24 108 08-S	Ring Set (Std.) (2)
	24 108 09-S	Ring Set (.25) (2)
	24 108 10-S	Ring Set (.50) (2)
8.	24 018 01-S	Retainer, piston pin (4)
9.	12 422 09-S	Shim, camshaft (A.R.) red
	12 422 13-S	Shim, camshaft (A.R.) black
	12 422 07-S	Shim, camshaft (A.R.) white
	12 422 08-S	Shim, camshaft (A.R.) blue
	12 422 10-S	Shim, camshaft - yellow
	12 422 11-S	Shim, camshaft (A.R.) green
	12 422 12-S	Shim, camshaft (A.R.) gray
10.	66 012 04-S	Camshaft
11.	66 032 03-S	Seal, camshaft
12.	X-42-2-S	Key, woodruff
13.	66 093 01-S	Sprocket, camshaft
14.	X-25-52-S	Washer, plain 3/4"
15.	M-651020-S	Screw, hex. flange M6x1.0x20
16.	52 139 09-S	Plug, cup
17.	M-545010-S	Screw, hex. flange M5x0.8x10 (2)
18.	66 018 01-S	Retainer, reed (2)
19.	66 402 01-S	Reed, breather (2)
20.	12 153 01-S	O-Ring, lower oil fill tube
21.	66 123 02-S	Tube, oil fill
22.	12 153 02-S	O-Ring, upper oil fill tube
23.	66 038 01-S	Dipstick assembly (Includes 24,25)
24.	25 755 13-S	Kit, oil fill cap (Includes 22)
25.	12 153 03-S	O-Ring, dipstick
26.	X-599-4-S	Pin, drive-loc (6)
27.	24 144 33-S	Shaft, governor cross
28.	24 468 15-S	Washer, flat 1/4"
29.	28 032 09-S	Seal, oil governor shaft
30.	M-931010-S	Washer, plain 9 mm
31.	24 018 09-S	Ring, retainer

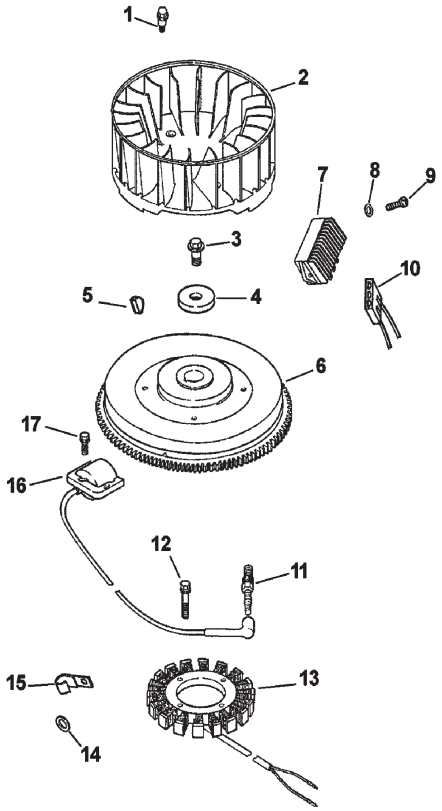
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

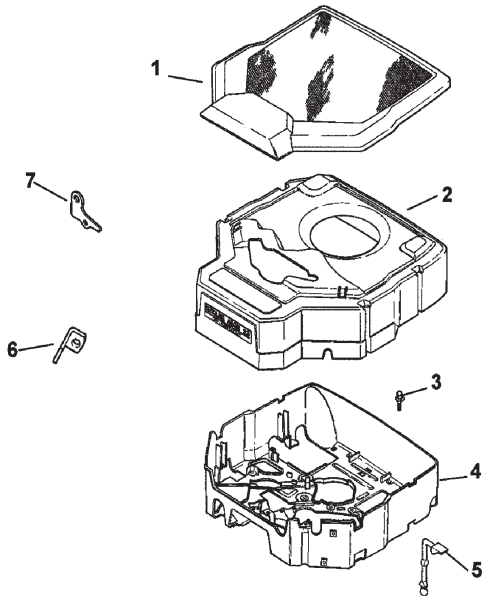
TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

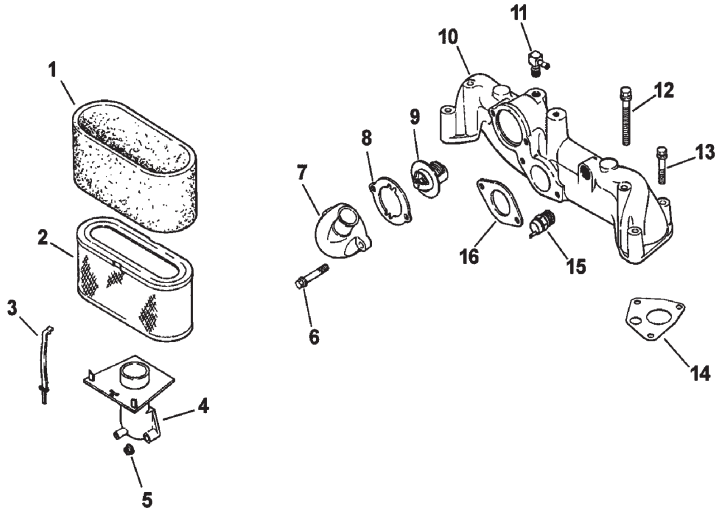
IGNITION/ELECTRICAL



BLOWER HOUSING AND BAFFLES



AIR INTAKE



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

IGNITION/CHARGING

KEY NO.	PART NO.	DESCRIPTION
1.	66 086 02-S	Screw, shoulder (4)
2.	66 157 01-S	Fan
3.	12 086 14-S	Screw, hex. flange M10x1.5x46
4.	12 468 03-S	Washer, plain 3/8"
5.	X-42-15-S	Key
6.	66 025 01-S	Flywheel
7.	25 403 03-S	Rectifier-regulator 15 amp
8.	X-25-92-S	Washer, plain 3/16"
9.	66 086 04-S	Screw, hex. ctsk. K90x2.69x25
10.	236602-S	Connector (3 contact)
11.	66 132 01-S	Spark Plug (2)
12.	M-548025-S	Screw, hex. cap M5x0.8x25 (2)
13.	66 085 01-S	Stator
14.	X-25-63-S	Washer, plain 1/4"
15.	235173-S	Clip, cable
16.	66 584 04-S	Module, ignition #2 cylinder (2)
17.	M-545020-S	Screw, thread forming M5x0.8x20 (4)
NOT ILLUSTRATED		
	X-22-11-S	Washer, plain 1/4" (3) (to ground rectifier-regulator)
	66 176 08-S	Harness, wiring (6-pin)
	25 454 03-S	Tie, cable (2)

BLOWER HOUSING & BAFFLES

KEY NO.	PART NO.	DESCRIPTION
1.	66 162 02-S	Screen
2.	66 081 07-S	Housing assembly, upper
3.	M-645020-S	Screw, hex. flange M6x1.0x20 (8)
4.	66 081 02-S	Housing assembly, lower
5.	66 445 03-S	Retaining Strap
6.	47 445 02-S	Strap, hanging
7.	12 445 06-S	Strap, lifting

AIR INTAKE/FILTRATION

KEY NO.	PART NO.	DESCRIPTION
1.	66 083 03-S	Element, precleaner
2.	66 083 01-S	Element, air cleaner
3.	66 445 02-S	Strap, filter element retainer
4.	66 054 01-S	Elbow, air intake
6.	M-651025-S	Screw, hex. flange M6x1.0x25 (2)
7.	66 081 01-S	Housing, thermostat
8.	66 041 01-S	Gasket, thermostat housing
9.	66 453 01-S	Thermostat
10.	66 164 01-S	Manifold, intake
11.	45 155 01-S	Connector, hose
12.	M-651090-S	Screw, hex. flange M6x1.0x90 (2)
13.	M-651050-S	Screw, hex. flange M6x1.0x50 (4)
14.	66 041 05-S	Gasket, intake manifold
15.	66 099 02-S	Switch, temperature
16.	24 041 14-S	Gasket, air cleaner base
NOT ILLUSTRATED		
	66 113 01-S	Decal, cover on

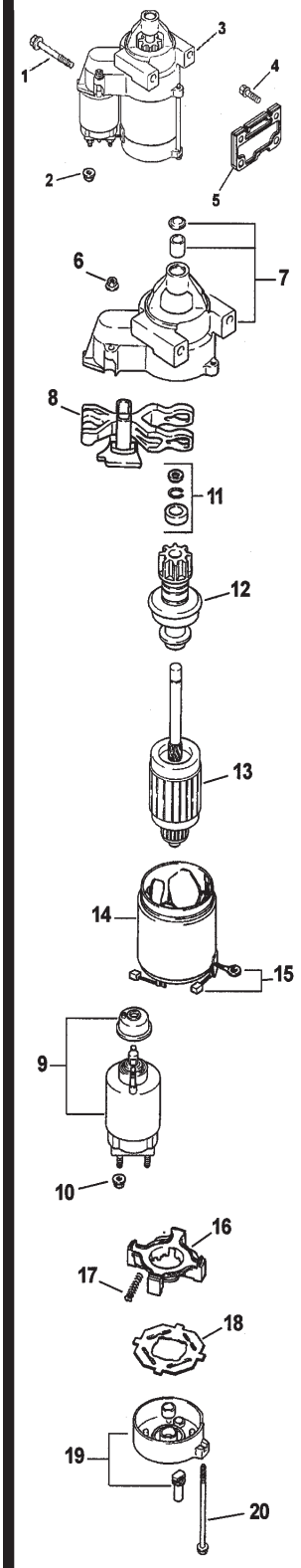
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

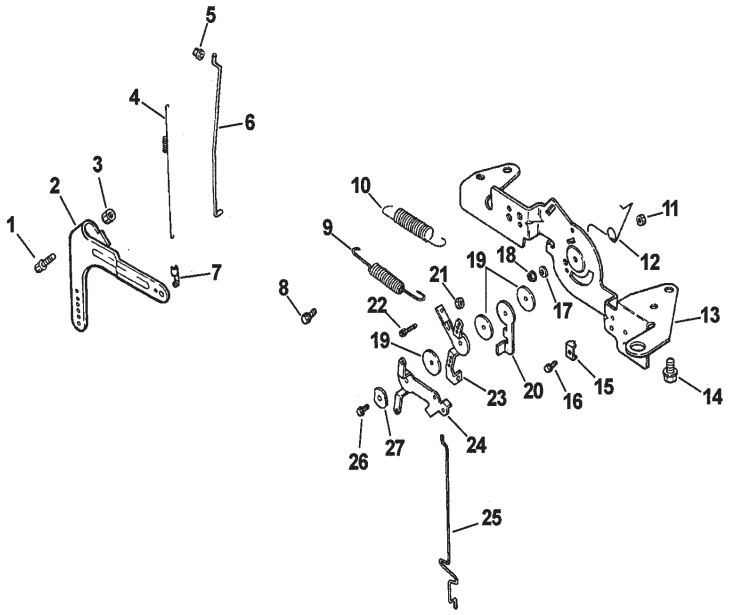
TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

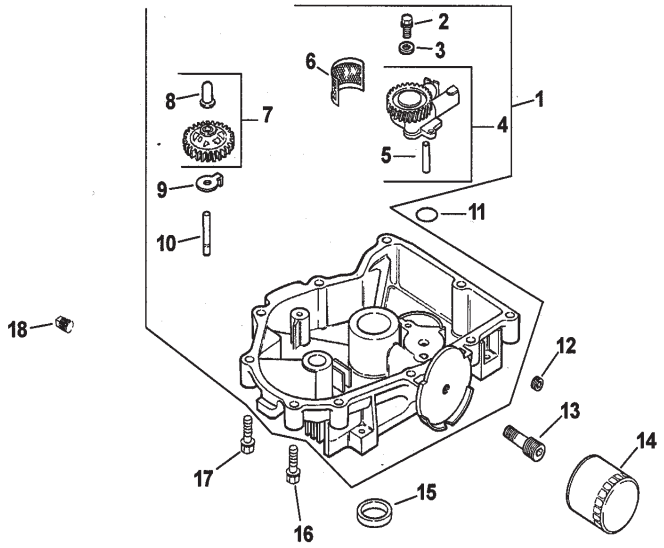
STARTING SYSTEM



ENGINE CONTROLS



OIL PAN / LUBRICATION



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

STARTING SYSTEM

KEY NO.	PART NO.	DESCRIPTION
1.	M-839080-S	Screw, hex. flange M8x1.25x80 (2)
2.	M-841080-S	Nut, hex. flange M8x1.25
3.	12 098 03-S	Starter, solenoid shift (Includes 6-20)
4.	M-851030-S	Screw, hex. flange M8x1.25x30 (2)
5.	66 146 10-S	Plate, starter
6.	52 100 10-S	Nut, starter (2)
7.	12 081 02-S	Drive, end cap
8.	12 090 10-S	Lever, starter drive
9.	52 435 02-S	Solenoid
10.	52 100 09-S	Nut, starter
11.	24 755 84-S	Kit, starter repair
12.	12 239 01-S	Drive, pinion
13.	12 170 03-S	Armature, starter
14.	12 471 01-S	Frame
15.	52 221 01-S	Kit, brush (Includes 17)
16.	52 323 03-S	Holder, brush
17.	52 089 09-S	Spring, brush (4)
18.	52 168 01-S	Insulator
19.	12 301 01-S	Commutator, end cap
20.	52 211 05-S	Bolt, thru M5x0.8x99 (2)

ENGINE CONTROLS

KEY NO.	PART NO.	DESCRIPTION
1.	24 211 03-S	Bolt, rd. hd. sq. neck M6x1.0x16
2.	24 090 33-S	Lever, governor
3.	M-641060-S	Nut, hex. flange M6x1.0
4.	24 089 01-S	Spring, linkage
5.	25 158 08-S	Bushing, linkage retaining
6.	25 158 11-S	Linkage, throttle
7.	25 158 11-S	Bushing, throttle linkage
8.	M-545016-S	Screw, hex. flange M5x0.8x16
9.	24 089 51-S	Spring, throttle limiter
10.	24 089 47-S	Spring, governor
11.	24 089 03-S	Nut, hex. M5x0.8
12.	24 089 03-S	Spring, choke return
13.	24 126 56-S	Bracket, control
14.	M-645016-S	Screw, hex. flange M6x1.0x16 (4)
15.	12 237 01-S	Clamp, cable (2)
16.	24 086 43-S	Screw, (2)
17.	X-20-1-S	Washer, lock
18.	M-545010-S	Nut, hex. flange M5x0.8
19.	24 468 01-S	Washer, (3)
20.	24 090 07-S	Lever, throttle actuator
21.	M-446030-S	Nut, hex.
22.	M-403025-S	Screw, hex. cap M4x0.7x25
23.	24 090 13-S	Lever, throttle control
24.	24 090 05-S	Lever, choke
25.	24 079 05-S	Linkage, choke
26.	M-545020-S	Screw, hex. flange M5x0.8x20
27.	41 468 03-S	Washer, wave

OIL PAN/LUBRICATION

KEY NO.	PART NO.	DESCRIPTION
1.	24 199 07-S	Oil pan assembly (Includes 2-10)
2.	M-645025-S	Screw, hex. flange M6x1.0x25 (2)
3.	M-631005-S	Washer, plain 6 mm (2)
4.	24 393 08-S	Oil pump assembly (Includes 5)
5.	24 123 05-S	Tube, oil pickup
6.	24 162 26-S	Screen, oil
7.	24 043 12-S	Kit, governor gear (Includes 8)
8.	12 380 01-S	Pin, governor regulating
9.	52 448 02-S	Tab, locking
10.	12 144 02-S	Shaft, governor gear
11.	24 153 08-S	O-Ring
12.	X-75-32-S	Plug, hex. ctsk. 3/8"
13.	24 136 01-S	Nipple, oil filter
14.	52 050 02-S	Filter, oil
15.	52 032 08-S	Seal, oil (PTO end)
16.	24 086 16-S	Screw, hex. flange M8x1.25x45 (9)
17.	24 086 17-S	Screw, hex. flange M8x1.25x45
18.	X-75-10-S	Plug, pipe 3/8"

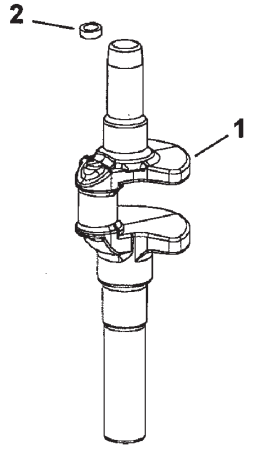
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

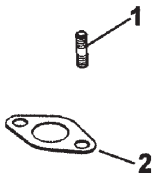
TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

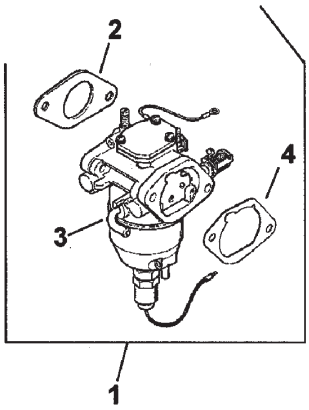
CRANKSHAFT

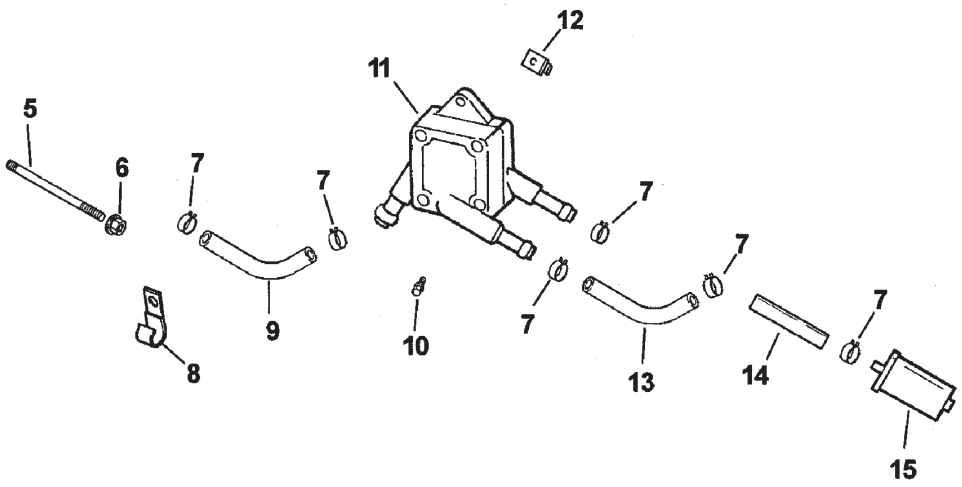


EXHAUST



FUEL SYSTEM





REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

CRANKSHAFT

KEY NO.	PART NO.	DESCRIPTION
1.	66 014 42-S	Crankshaft (Includes 2)
2.	52 139 09-S	Plug, cup

FUEL SYSTEM

KEY NO.	PART NO.	DESCRIPTION
1.	66 853 02-S	Kit, carburetor w/gaskets (Includes 2-4)
2.	24 041 15-S	Gasket, carburetor
3.	66 053 02	Carburetor assembly (For information only not available separately) (Includes 24 757 20-S, 24 757 07-S, 24 757 19-S & 24 757 18-S)
4.	24 041 14-S	Gasket, air cleaner base
5.	M-629116-S	Stud M6x1.0x116 (2)
6.	M-641060-S	Nut, hex. flange M6x1.0 (2)
7.	X-426-9-S	Clamp, hose (6)
8.	47 154 01-S	Clip, cable
9.	24 353 03-S	Line, fuel 10-5/8"
10.	24 086 12-S	Screw, hex. cap. M6x1.7x18 (2)
11.	24 393 16-S	Pump, fuel - pulse
12.	24 100 01-S	Nut, plastic (2)
13.	28 353 01-S	Line, fuel 13"
14.	15 353 04-S	Line, fuel 11-1/2"
15.	24 050 02-S	Filter, fuel
NOT ILLUSTRATED		
	28 757 07-S	Kit, solenoid repair w/gaskets
	24 757 19-S	Kit, choke repair w/gaskets
	24 757 18-S	Kit, overhaul w/gaskets
	24 757 20-S	Kit, gasket

EXHAUST

KEY NO.	PART NO.	DESCRIPTION
1.	25 072 08-S	Stud, M6x16x33 (4)
2.	24 041 02-S	Gasket, exhaust (2)

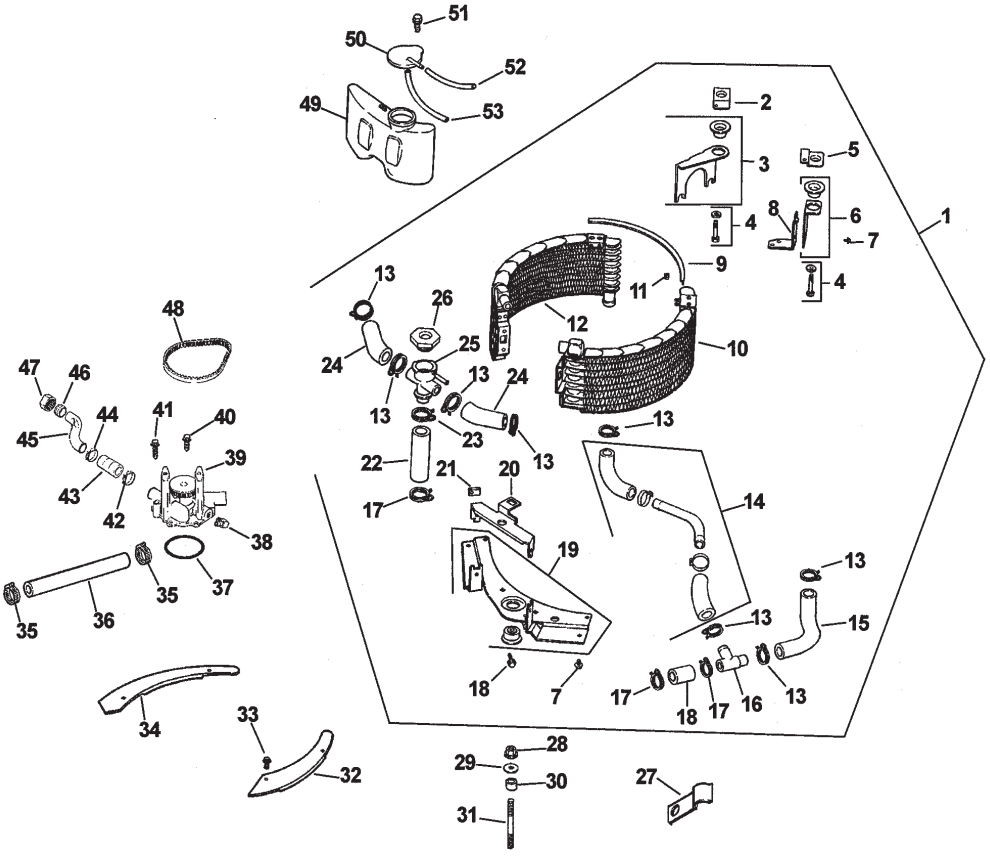
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

Coolant System



REPAIR PARTS

TRACTOR - - MODEL NUMBER 944.601931

KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

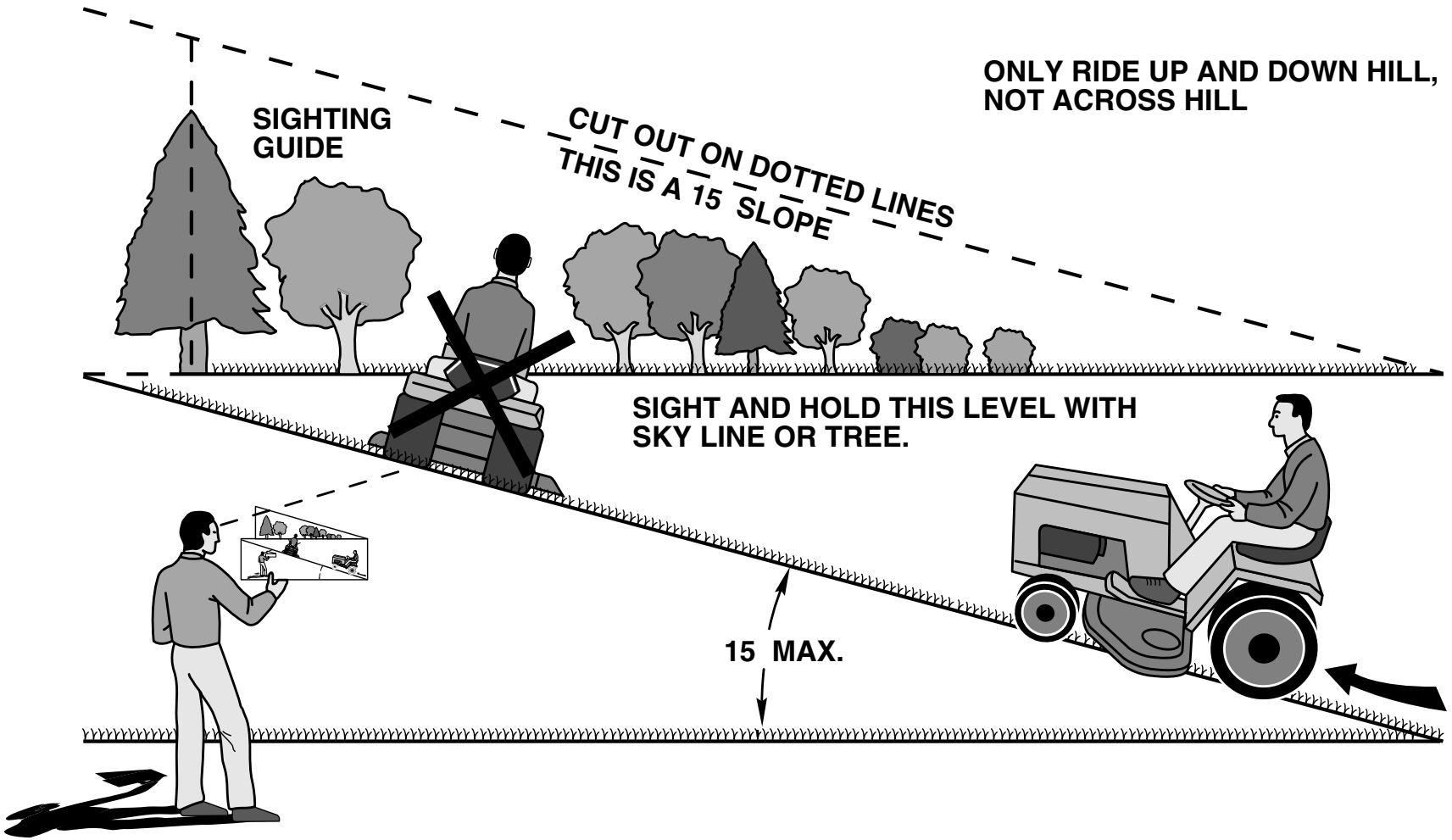
COOLING SYSTEM

KEY NO.	PART NO.	DESCRIPTION
1.	66 398 01-S	Radiator assembly (Includes 2-26)
2.	66 126 24-S	Bracket, right kidney
3.	66 126 01-S	Bracket, solenoid
4.	M-639010-S	Screw, hex. hd. M6x1.0x10 (2)
5.	66 126 23-S	Bracket, left kidney
6.	66 126 08-S	Bracket, “Z”
7.	66 086 09-S	Screw, (3)
8.	66 126 02-S	Bracket, “Z”
9.	66 442 01-S	Bracket, tie
10.	66 397 02-S	Cooler assembly, right
11.	M-647060-S	Nut, hex. lock M6x1.0 (4)
12.	66 397 01-S	Cooler assembly, left
13.	66 237 09-S	Clamp, spring (8)
14.	66 326 03-S	Hose assembly, 19 mm
15.	66 326 04-S	Hose, cooler 19 mm
16.	66 451 01-S	Connector, T-Barb
17.	66 237 19-S	Clamp, hose 1"
18.	M-639016-S	Screw, hex. hd. M6x1.0x16 (4)
19.	66 126 08-S	Bracket, bottom
20.	66 126 07-S	Bracket, top
21.	66 154 02-S	U-Clip (4)
22.	66 326 01-S	Hose, inlet 23 mm
23.	66 237 17-S	Hose, wire clamp
24.	66 326 02-S	Hose, inlet 19 mm
25.	66 440 01-S	Neck, filler
26.	66 173 01-S	Cap, pressure
27.	66 154 04-S	Clip, lower radiator hose
28.	M-647060-S	Nut, hex. lock M6x1.0
29.	X-25-52-S	Washer, plain 1/4"
30.	66 431 02-S	Sleeve, intake manifold
31.	66 072 02-S	Stud, radiator support
32.	66 146 09-S	Plate, right core block-off
33.	66 086 05-S	Screw, hex. cap M6x1.0x10 (4)
34.	66 146 08-S	Plate, left core block-off
35.	25 237 11-S	Clamp, hose (2)
36.	66 326 09-S	Hose, by-pass
37.	66 153 01-S	O-Ring
38.	45 155 01-S	Connector, hose
39.	66 393 01-S	Pump assembly, water
40.	M-651020-S	Screw, hex. flange M6x1.0x20 (5)
41.	M-639040-S	Screw, hex. flange M6x1.0x40
42.	66 237 08-S	Clamp, water pump outlet
43.	66 123 01-S	Hose, crossover
44.	66 237 07-S	Clamp, water jacket
45.	66 123 03-S	Tube, crossover
46.	66 203 01-S	Belt, water pump
47.	66 065 01-S	Bottle, overflow
48.	24 086 42-S	Screw, hex. flange M6x1.0x16 (2)
NOT ILLUSTRATED		
	25 454 03-S	Tie, wire (3)
	66 454 01-S	Tie, wire - lower radiator hose
	66 782 01	Miniblock
	66 755 01-S	Gasket Set

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

SERVICE NOTES

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

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