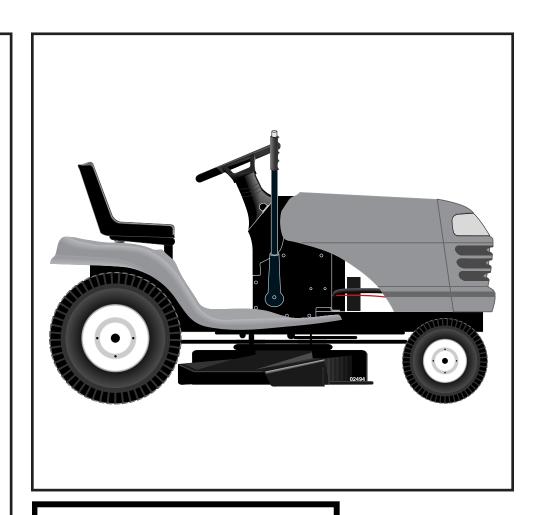


MODEL NO. 944.604931

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



# **CRAFTSMAN®**

## 16.5 HP ELECTRIC START 42" MOWER AUTOMATIC LAWN TRACTOR

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

### **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
- 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.



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



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



WARNING: 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:	4 GALLONS UNLEADED REGULAR		
OIL TYPE (API: SF-SJ):	SAE 10W30 (above 32°F) SAE 5W-30 (below 32°F)		
OIL CAPACITY:	W/FILTER W/O FILTER		
SPARK PLUG: (GAP: .030")	NGK BPR5ES	3	
GROUND SPEED (MPH):	FORWARD: REVERSE:		
TIRE PRESSURE:	FRONT: REAR:	14 PSI 10 PSI	
CHARGING SYSTEM:	15 Amps @ 3	600RPM	
BATTERY:	AMP/HR: MIN. CCA: CASE SIZE:	280	
BLADE BOLT TORQUE:	27-35 FT. LBS	).	

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

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

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

#### MAINTENANCE AGREEMENT

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

#### CUSTOMER RESPONSIBILITIES

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

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

A spark arrester for the muffler is available through your nearest authorized service 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:

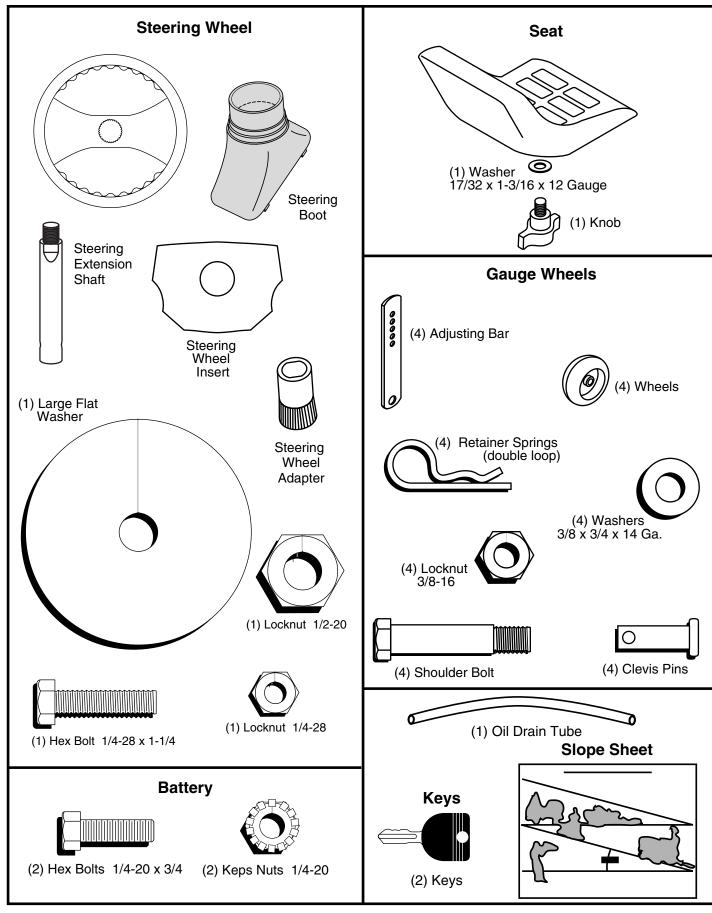
- 1. Pre-delivery set-up.
- 2. Tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass).
- 3. Expendable items which become worn during normal use, such as blades, spark plug, air cleaners and belts.
- 4. Repairs necessary because of operator abuse 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**



## **ASSEMBLY**

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

#### TOOLS REQUIRED FOR ASSEMBLY

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

(1) 3/4" wrenche Pliers

(2) 7/16" wrenches Tire pressure gauge

Utility knife

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

## TO REMOVE TRACTOR FROM CAR-

#### UNPACK CARTON

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

## BEFORE REMOVING TRACTOR FROM SKID

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

ASSEMBLE EXTENSION SHAFT AND BOOT

 Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 1/4 hex bolt and locknut. Tighten securely.

**IMPORTANT**: TIGHTEN BOLT AND NUT SECURELY TO 10-12 FT. LBS TORQUE.

 Place tabs of steering boot over tab slots in dash and push down to secure.

#### **INSTALL STEERING WHEEL**

- Position front wheels of the tractor so they are pointing straight forward.
- Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 1/2 hex nut and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

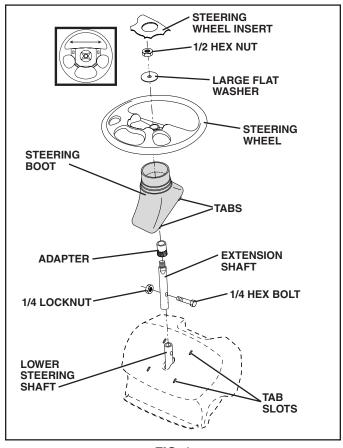


FIG. 1

### **HOW TO SET UP YOUR TRACTOR**

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

### **ASSEMBLY**

Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

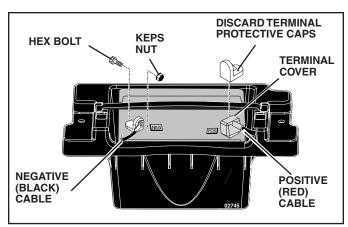


FIG. 2

#### **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.

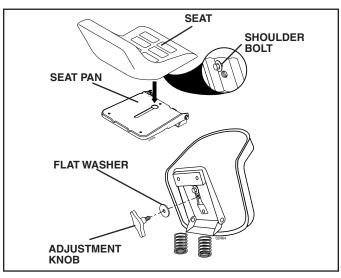


FIG. 3

**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 disengaged position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor forward off skid.
- Remove banding holding the deflector shield up against tractor.

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

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

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

Continue with the instructions that follow.

### **ASSEMBLY**

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

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

- Slide gauge wheel bar down into bracket channel, Be sure that gauge wheel bar aligning holes are on top. Assemble gauge wheels as shown using shoulder bolts, 3/8 washers and 3/8-16 center locknuts and tighten securely.
- Adjust gauge wheels before operating mower. See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual.

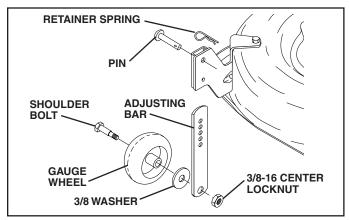


FIG. 4A

## INSTALL MULCHER PLATE (See Fig. 4B) (If previously removed)

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



CAUTION: Do not remove deflector shield from mower.

## TO CONVERT TO BAGGING OR DISCHARGING

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

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

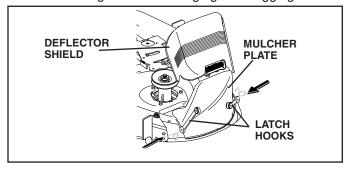


FIG. 4B

#### **CHECK TIRE PRESSURE**

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

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

#### **CHECK DECK LEVELNESS**

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

## CHECK FOR PROPER POSITION OF ALL BELTS

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

#### **CHECK BRAKE SYSTEM**

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

#### ✓ CHECKLIST

BEFOREYOU 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.
- ✓ 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 the Operation section of this manual).

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





HIGH



















**LIGHTS ON** 

**ENGINE ON** 

**ENGINE START** 

**PARKING BRAKE** 

**LOCKED** 

PARKING BRAKE PARKING BRAKE **UNLOCKED** 

















**OVER TEMP** LIGHT



**OIL PRESSURE** 

**BATTERY** 

**REVERSE** 

**FORWARD** 

**MOWER HEIGHT** 

MOWER LIFT







**ATTACHMENT** 



DANGER, KEEP HANDS







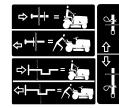


ATTACHMENT CLUTCH ENGAGED CLUTCH DISENGAGED

**AND FEET AWAY** 

**KEEP AREA CLEAR** 

**SLOPE HAZARDS** (SEE SAFETY RULES SECTION)



FREE WHEEL (Automatic Models only)



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



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



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



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

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



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



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

#### **KNOW YOUR TRACTOR**

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

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

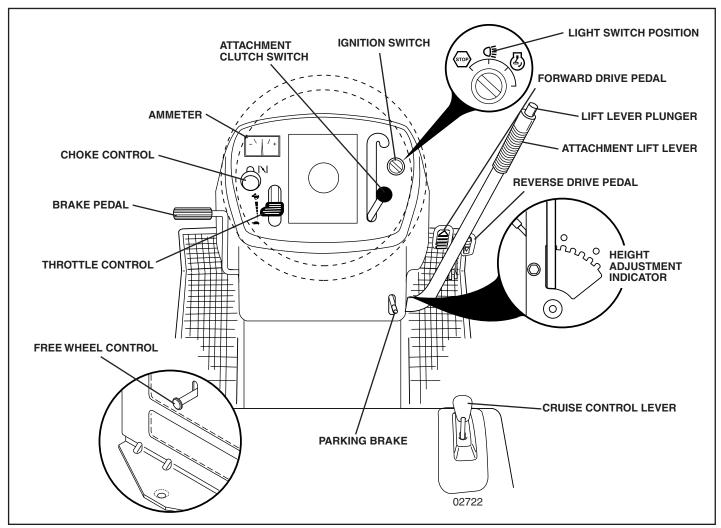


FIG. 5

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

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

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

**THROTTLE CONTROL** - Used to control engine speed. **CHOKE CONTROL** - Used when starting a cold engine. **BRAKE PEDAL** - Used for braking the tractor and starting the engine.

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

**FREEWHEEL CONTROL** - Disengages transmission for pushing or slowly towing the tractor with the engine off. **AMMETER** - Indicates charging (+) or discharging (-) of battery. **ATTACHMENT LIFT LEVER** - Used to raise, lower, and adjust the mower deck or other attachments mounted to your tractor.

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

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

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

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

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



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

#### **HOW TO USE YOUR TRACTOR**

#### TO SET PARKING BRAKE (See Fig. 6)

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

- Depress 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.

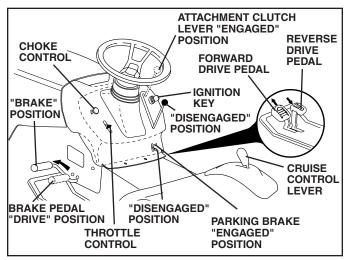


FIG. 6

#### STOPPING (See Fig. 6)

MOWER BLADES -

 To stop mower blades, move attachment clutch lever to "DISENGAGED" position.

**GROUND DRIVE -**

 To stop ground drive, depress brake pedal into full "BRAKE" position.

**IMPORTANT**: FORWARD AND REVERSE DRIVE PEDALS RETURN TO NEUTRAL POSITION WHEN NOT 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 THROTTLE CONTROL (See Fig. 6)

Always operate engine at full throttle.

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

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

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

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

## TO MOVE FORWARD AND BACKWARD (See Fig. 6)

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

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

#### TO USE CRUISE CONTROL

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

#### SYSTEM CHARACTERISTICS

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

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

## TO ADJUST MOWER CUTTING HEIGHT (See Fig. 6)

The position of the attachment lift lever determines the cutting height.

- Grasp lift lever.
- Press plunger with thumb and move lever to desired position.

The cutting height range is approximately 1-1/2 to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

#### TO ADJUST GAUGE WHEELS (See Fig. 7)

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

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

- Adjust mower to desired cutting height (See "TO AD-JUST 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 SURETO READJUST GAUGE WHEELS IF YOU CHANGE THE CUTTING HEIGHT OF THE MOWER DECK.

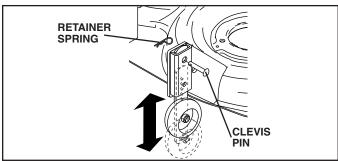


FIG. 7

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

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



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

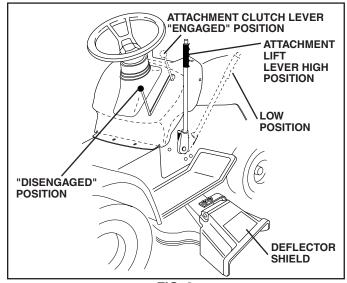


FIG. 8

#### TO OPERATE ON HILLS



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

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

### TO TRANSPORT (See Figs. 5 and 9)

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.).

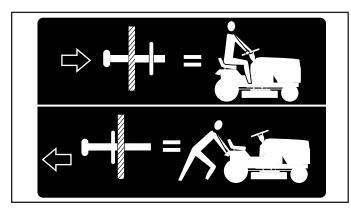


FIG. 9

#### 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 Maintenance section of this manual).
- To change engine oil, see the Maintenance section in this manual.

#### ADD GASOLINE

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



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

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

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

#### TO START ENGINE (See Fig. 5)

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

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress brake pedal and set parking brake.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to fast position
- Pull choke control out for a cold engine start attempt.
   For a warm engine start attempt the choke control may not be needed.

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

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

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

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

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

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

#### **AUTOMATIC TRANSMISSION WARM UP**

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - Release the parking brake and let the brake slowly return to operating position.
  - Allow one minute for transmission to warm up. This
    can be done during the engine warm up period.
- The attachments can be used during the engine warmup 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 "TOTRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position.
   Disengage parking brake
- Depress forward drive pedal to full forward position, hold for five (5) seconds and release pedal. Depress reverse drive pedal to full reverse position, hold for five (5) seconds and release pedal. Repeat this procedure three (3) times.

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

- Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. Disengage parking brake.

 Drive tractor forward for approximately five feet then backwards for five feet. Repeat this driving procedure three times.

Your transmission is now purged and now ready for normal operation.

#### **MOWING TIPS**

- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 10).

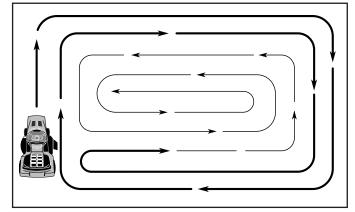


FIG. 10

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

#### **MULCHING MOWING TIPS**

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

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried, the newly cut area will not be exposed to direct sunlight.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 11). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.

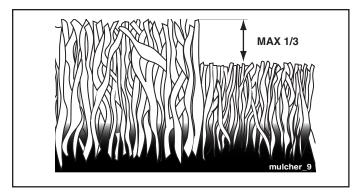


FIG. 11

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

AS	MAINTENANCE SCHEDUL L IN DATES YOU COMPLETE GULAR SERVICE	E /«	EFORE	EACHUS WERY 8	HOURS HOURS	S HOUR'S	OHOUP VERY	S HOU	EASON EASON EFORES	ORAGE SERVIC	CE DATES
	Check Brake Operation	<b>V</b>	<b>V</b>								
	Check Tire Pressure	1	1								
Т	Check Operator Presence and Interlock Systems	~									
R	Check for Loose Fasteners	1				<b>1</b> 5		<b>/</b>			
A	Sharpen/Replace Mower Blades			<b>1</b> 3							
C	Lubrication Chart			<b>/</b>				<b>/</b>			
l ö	Check Battery Level			<b>1</b> 4							
R	Clean Battery and Terminals			<b>/</b>				<b>/</b>			
	Check Transaxle Cooling			<b>/</b>							
	Check V-Belts					<b>/</b>					
	Check Engine Oil Level	1	<b>/</b>								
	Change Engine Oil (with oil filter)				<b>1</b> ,2			<b>/</b>			
lΕ	Change Engine Oil (without oil filter)			1,2				<b>/</b>			
N	Clean Air Filter			<b>✓</b> 2							
Ģ	Clean Air Screen			<b>√</b> 2							
I	Inspect Muffler/Spark Arrester				<b>/</b>						
ΙË	Replace Oil Filter (If equipped)					1,2					
-	Clean Engine Cooling Fins					<b>1</b> 2					
	Replace Spark Plug					1	<b>/</b>				
	Replace Air Filter Paper Cartridge					<b>1</b> 2					
	Replace Fuel Filter						1				

- Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 Replace blades more often when mowing in sandy soil.
- 4 Not required if equipped with maintenance-free battery.
- 5 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

#### GENERAL RECOMMENDATIONS

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

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

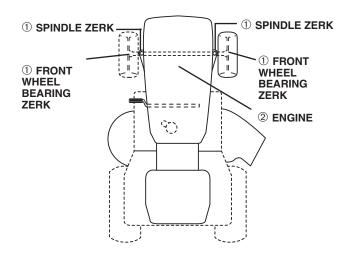
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

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

#### **BEFORE EACH USE**

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

#### LUBRICATION CHART



- **① GENERAL PURPOSE GREASE**
- **② REFER TO MAINTENANCE "ENGINE" SECTION**

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

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

If tractor requires more than 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. 12)**

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

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

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

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

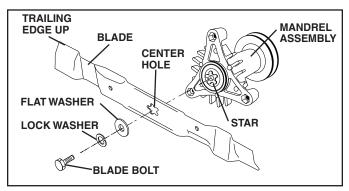


FIG. 12

#### TO SHARPEN BLADE (See Fig. 13)

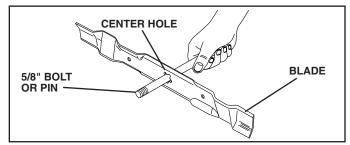
**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

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. 13** 

#### **BATTERY**

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

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

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

#### TO CLEAN BATTERY AND TERMINALS

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

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

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

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

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

#### TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

#### **ENGINE**

#### **LUBRICATION**

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

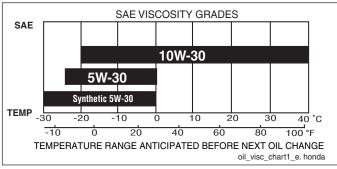


FIG. 14

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.

TO CHANGE ENGINE OIL (See Figs. 14 and 15)

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 yellow cap from end of drain valve and install the drain tube onto the fitting.

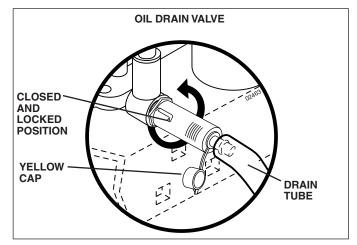


FIG. 15

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

#### **CLEAN AIR SCREEN**

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

#### CLEAN AIR INTAKE/COOLING AREAS

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

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

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

#### **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. 16)

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

Service air cleaner more often under dusty conditions.

Loosen knobs and remove cover.

#### TO SERVICE PRE-CLEANER

- Remove foam pre-cleaner from cover.
- · 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 PPAER CARTRIDGE

 Replace a dirty, bent, or damaged cartridge. Handle new cartridge carefully; do not use if the rubber seal is damaged.

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

- Carefully remove cartridge and grid to prevent debris from entering carburetor. Clean base carefully to prevent debris from entering carburetor.
- Separate the grid from paper cartridge and gently tap pleated side of cartridge to dislodge dirt. Never try to brush off dirt; brushing will force dirt into the fibers of the paper element.
- Install the grid over the paper cartridge, then install the assembly into the air cleaner base. The grid must be placed between the foam pre-cleaner and the paper cartridge to prevent oil from transferring to the paper element.
- Reinstall the pre-cleaner (cleaned and oiled) into the cover.
- Reinstall air cleaner cover and secure by tightening knobs.

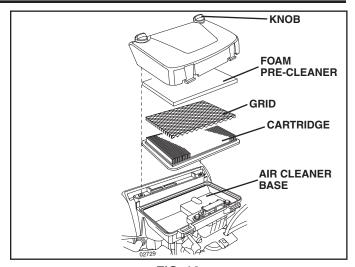


FIG. 16

#### **MUFFLER**

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

#### **SPARK PLUGS**

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

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

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

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

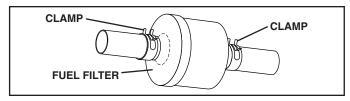


FIG. 17

#### **CLEANING**

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

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



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

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

#### **TRACTOR**

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

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

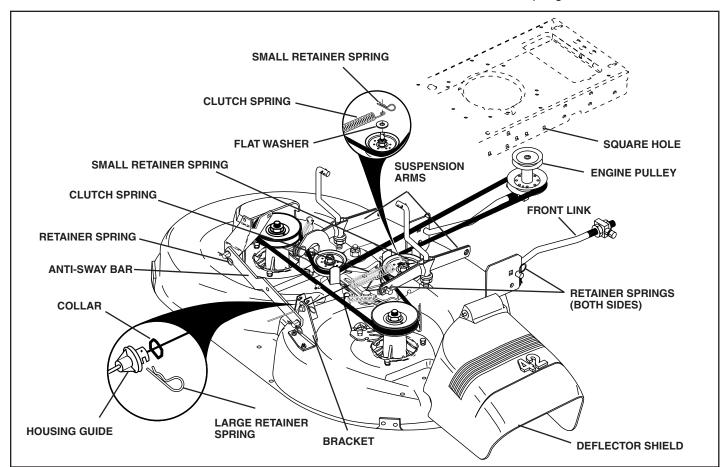
- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Remove small retainer spring, and remove clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing guide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

- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

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

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

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with deflector shield to right side of tractor.
- Lower lift lever to its lowest position.
- Connect front links to mower deck and secure with retainer springs..
- Connect suspension arms to rear deck brackets and secure with retainer springs.



- Connect anti-swaybar to chassis bracket and secure with retainer spring.
- Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- Place flat washer and clutch spring on idler pulley bolt and secure with small retainer spring.
- Install belt onto engine pulley.

#### TO LEVEL MOWER HOUSING

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

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

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

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

Recheck measurements after adjusting.

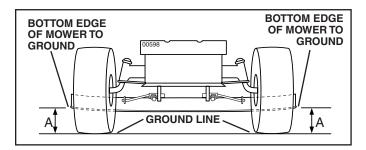


FIG. 19

SUSPENSION ARM

01553

LIFT LINK ADJUSTMENT NUT

FIG. 20

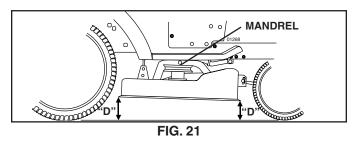
FRONT-TO-BACK ADJUSTMENT (See Figs. 21 and 22)

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

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

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

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



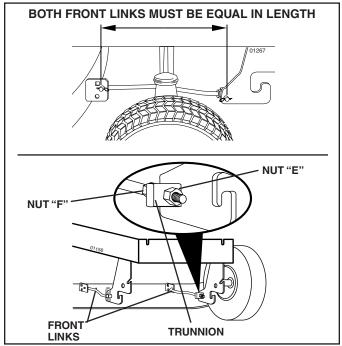


FIG. 22

21

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

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

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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

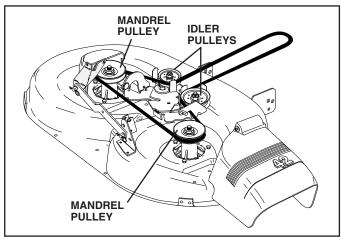


FIG. 23

## TO CHECK AND ADJUST BRAKE (See Fig. 24)

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

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

#### TO CHECK BRAKE

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

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

#### TO ADJUST BRAKE

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

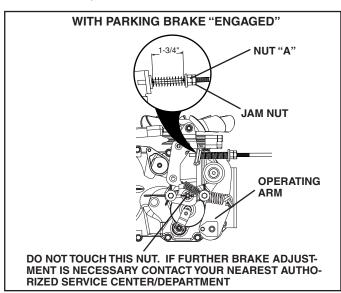


FIG. 24

## TO REPLACE MOTION DRIVE BELT (See Fig. 25)

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

#### **BELT REMOVAL -**

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

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

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

#### **BELT INSTALLATION -**

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

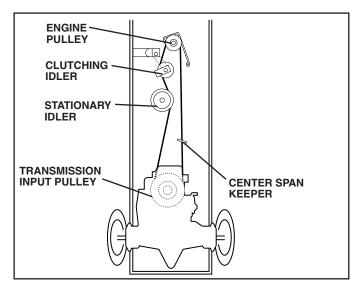


FIG. 25

#### TRANSMISSION REMOVAL/REPLACEMENT

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

#### TO ADJUST STEERING WHEEL ALIGN-MENT

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

#### FRONT WHEEL TOE-IN/CAMBER

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

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

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

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

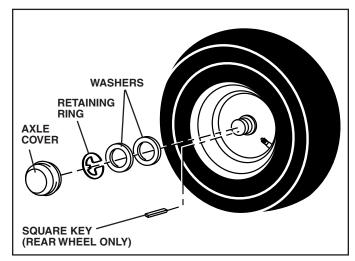


FIG. 26

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



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

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

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

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

#### TO ATTACH JUMPER CABLES -

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

#### TO REMOVE CABLES, REVERSE ORDER -

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

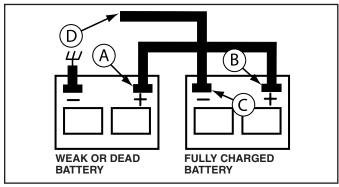


FIG. 27

#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

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

#### TO REPLACE FUSE

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

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

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

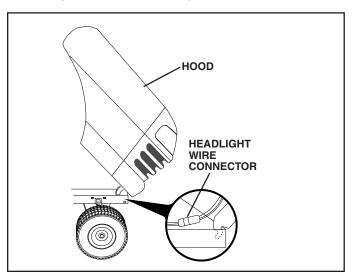


FIG. 28

#### **ENGINE**

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

#### **CARBURETOR**

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your tractor to a Sears or other qualified service center for repair and/or adjustment. High speed stop is factory adjusted. Do not adjust - damage may result.

IMPORTANT: NEVERTAMPERWITHTHE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT A SEARS OR OTHER QUALIFIED SERVICE CENTER, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

### **STORAGE**

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



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

#### TRACTOR

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

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

#### **BATTERY**

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

#### **ENGINE**

#### **FUEL SYSTEM**

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

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

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

#### **ENGINE OIL**

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

#### CYLINDER(S)

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

#### **OTHER**

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

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

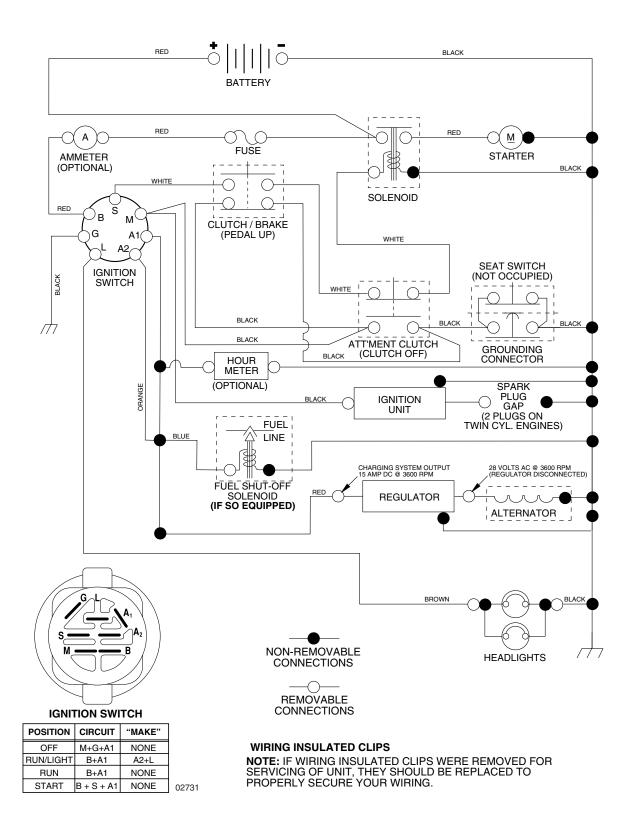
## TROUBLESHOOTING POINTS

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

## **TROUBLESHOOTING POINTS**

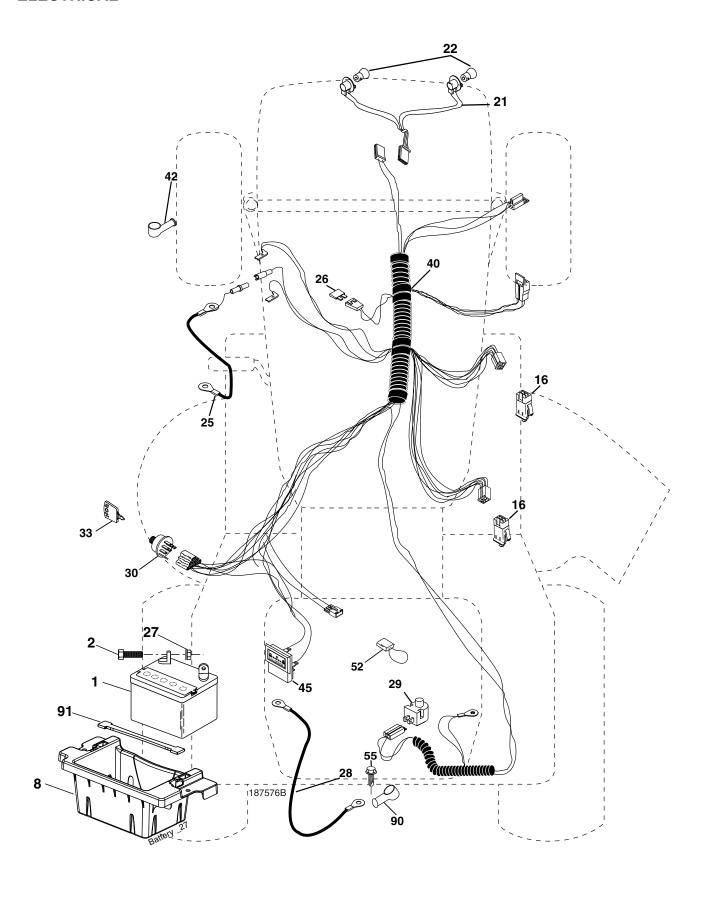
PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol> <li>Worn, bent or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

#### **SCHEMATIC**



## **TRACTOR - - MODEL NUMBER 944.604931**

## **ELECTRICAL**



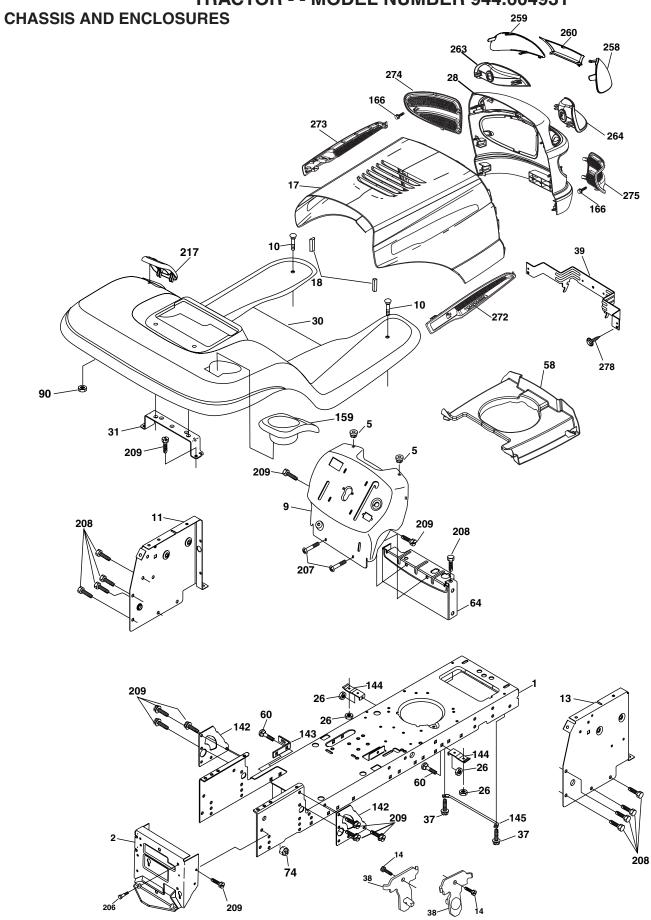
## TRACTOR - - MODEL NUMBER 944.604931

#### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
16 21 22 25 26 27 28 29 30 33 40 42 45 52 55	178909 175158 73510400 145491 121305X 175566 140403 187576 154336 122822X	Battery 12 Volt 35 Amp Bolt Hex Hd 1/4-20unc x 3/4 Box Battery Switch Interlock Harness Asm Light W/4152J Bulb Light #1156 Cable Battery 6 Ga Red 25" Intsole Fuse Nut Keps Hex 1/4-20 Unc Cable Ground 6 Ga 21" black Switch Plunger Nc Gray Switch Ign 3 Key Ign Harness Ign Cover Terminal Red Ammeter Protection Wire Loop (Hourmeter) Screw Thdrol 5/16-18 x 1/2 Cover Terminal Strap Battery Mount Front

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

## TRACTOR - - MODEL NUMBER 944.604931

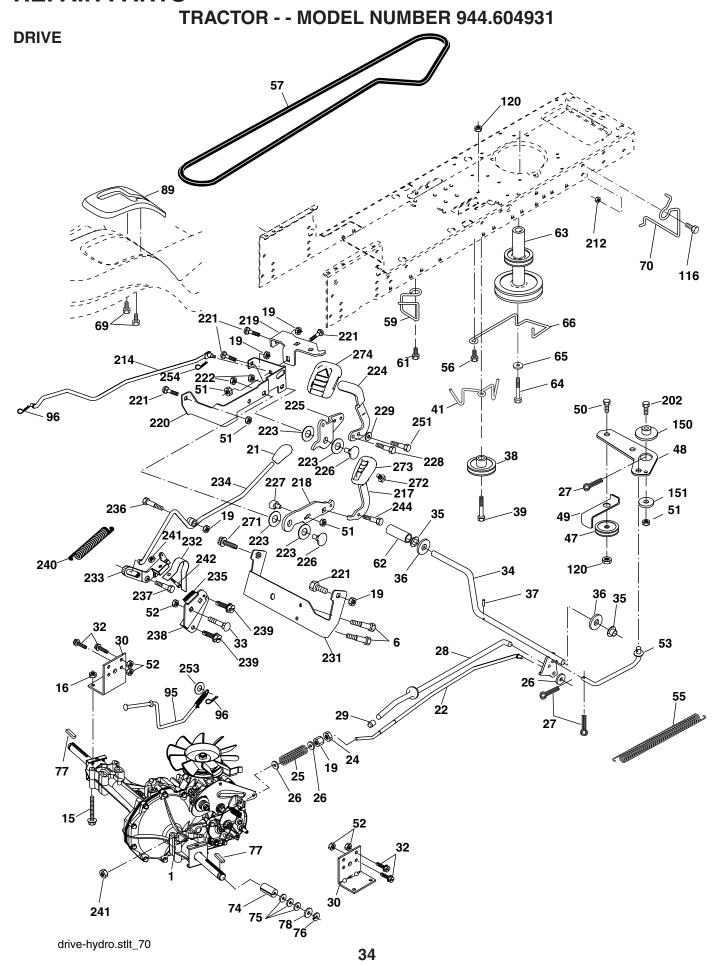


### TRACTOR - - MODEL NUMBER 944.604931

#### **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION
1 2 3 5	174619 176554 17060612 155272	Chassis Stl Stamping Drawbar, Stretch Screw 3/8-16x3/4 Bumper Hood/Dash
9 10 11 13	STD533710 174996	Dash P/L STL Bolt Carriage 3/8-16 x 1 Panel Dash Lh Panel Dash Rh
14 17 18	17490608 184272X615 184921	Screw Thdrol 3/8-16 x 1/2
26 28 30	73800600 184259	Nut Lock Hex W/Ins. 3/8-16 unc Grille/Lens Asm (Key Nos. 166, 258-260, 263, 264, 274, 275) Fender Footrest STLT
31 37 38	139976 17490508 175710	Bracket Support Fender Screw Thdrol 5/16-18 X1/2 Bracket Asm. Pivot Mower Rear
39 58 60 64	174714 187145 STD533707 154798	Bracket Pivot Laser LT Air Duct Bolt Rdhd Sqnk 3/8-16unc x 3/4 Dash Lower STLT
74 90 142	STD541437 124346X 175702	Nut Crownlock 3/8-16 Unc Nut Self-Thd Wsh-Hd 1/4 Plate Reinforcement STLT
143 144 145	186689 175582 156524	Bracket Swaybar Chassis Bracket Pnt Footrest STLT Rod Pivot Chassis/Hood
159 166 206	179950X428 171875 170165	Screw HWHD Hi-Lo #13-16 x 3/4 Bolt Shoulder 5/16-18 TT
207 208 209 217	17670508 17670608 17000612 179132X428	Screw Thdrol 5/16-18 x 1/2 Screw Thdrol 3/8-16 x 1/2 Screw Hexwsh Thdr 3/8-16 x 3/4 Console Fuel Window
258 259 260	184264X599	Lens Laser RH Lens Laser LH
263 264 272		Bezel Grille LH Bezel Grille RH Hood Vent RH
273 274 275 278	184260X428	Hood Vent LH Insert Grille LH Insert Grille RH Screw 10 x 3/4 Single Lead-Hex
	5479J	Plug Button

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



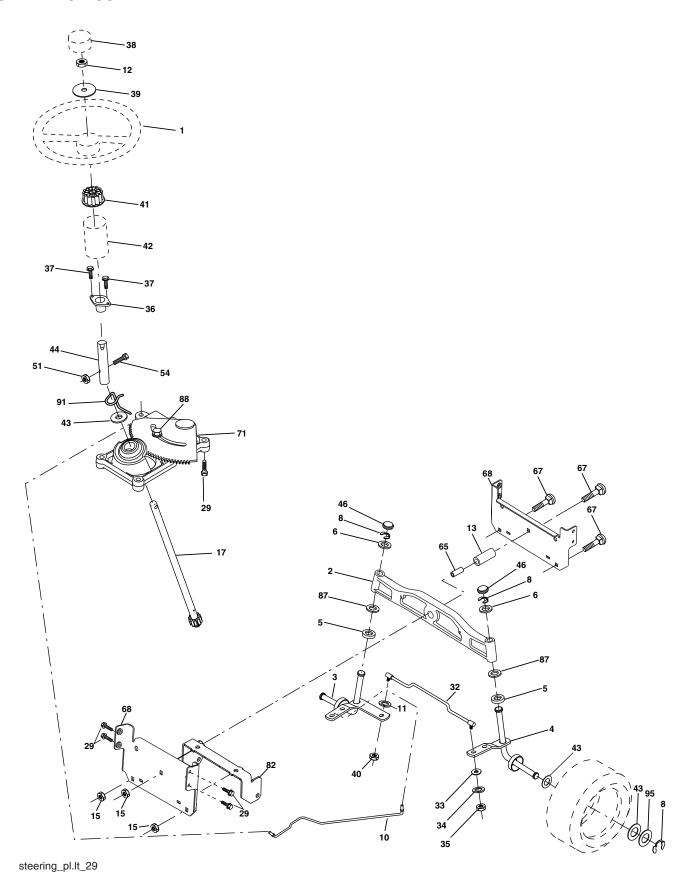
## **TRACTOR - - MODEL NUMBER 944.604931**

### **DRIVE**

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 6 17060512 15 74490544 16 73800500 19 73800600 21 175036X428 22 175896 24 73350600 25 106888X 26 19131316 27 76020412 28 175765 29 71673 30 169592 32 74760512 33 72140506 34 175578 35 120183X 36 19211616 37 1572H 38 179114 39 72110622 41 175556 47 127783 48 154407 49 123205X 50 72110612 51 73680600 52 73680500 53 105710X 55 105709X 56 17060620 57 140294 59 169691 61 17120614 62 8883R 63 175410 64 173937 65 10040700 66 154778 69 142432 70 134683 74 137057 75 121749X 76 12000001 77 123583X	Transaxle (See Breakdown) Hydro gear Model 336-0510 Screw 5/16-18 x 3/4 Bolt Hex Flghd 5/16-18 Gr. 5 Nut Lock Hex W/Ins. 5/16-18 unc Nut Lock Hex W/Wsh 3/8-16 unc Knob Control Cruise Rod, Brake Nut, Hex Jam 3/8-16 unc Spring, Brake Rod Washer Pin Cotter 1/8 x 3/4 CAD. Rod, Parking Brake Cap, Brake, Park Bracket, Transaxle Bolt Hex Hd 5/16-18 unc x 3/4 Bolt Rdhd. Sqnk. 5/16-18 unc x 3/4 Shaft, Foot Pedal Bearing, Nylon Washer Pin, Roll Pulley, Composite, Flat Bolt RDHD 3/8-16 unc x 2-3/4 Gr.5 Keeper, Belt Idler Flat Pulley, Idler, V-Groove Bellcrank Clutch Grnd Drw Stl Retainer, Belt Bolt Nut Crownlock 3/8-16 unc Nut, Crownlock 5/16-18 unc Link, Clutch Spring, Return, Clutch Screw 3/8-16 x 1-1/4 V-Belt, Ground Drive Keeper, Center Span Screw 3/8-16 x .875 Cover, Pedal Pulley, Engine Bolt Hex 7/16-20 x 4. Gr. 5 Washer Keeper Belt Engine Screw Hex Wsh Hi-Lo 1/4-1/2 unc Guide Belt Mower Drive RH Spacer, Axle Washer 25/32 x 1-1/4 x 16 Ga. E-Ring Key, Square	95	Washer 25/32 x 1-5/8 x 16 Ga. Console Shift Rod Bypass Retainer Spring 1" Zinc/Cad Bolt RDHD SQNK 3/8-16 unc x 1 Nut Lock Flg 3/8-16 unc Spacer Retainer Washer 13/32 x 2 x 10 Ga. Bolt Carr Sh 3/8-16 x 1-3/4 Gr. 5 Nut HexFlange Lock Link Transaxle Pedal Assy, Reverse, with Pad Arm Control Pedal Reverse Bracket Frest Pdl Ctrl. Hyd Bracket Mtg. Pedal Control Bolt Rdhd Sqnk 3/8-16 unc x 3/4 Nut Crownlock 7/16-14 unc Washer Nylon 11/16 ID x .060 Pedal Forward Arm Control Pedal Forward Bolt Pivot Spacer Cam Reverse Pedal LT Bolt Shoulder 5/16-18 Washer Serrated 5/16 x .75 Strap Torque Actuator Cruise Pawl Control Cruise Lever Control Cruise Sector Control Cruise Sector Control Cruise Sector Control Cruise Sector Screw Thdrol. 5/16-18 Arm Mtg. Cruise Sector Screw Thdrol. 5/16-18 Arm Mtg. Cruise Sector Screw Thdrol. 5/16 x 1/2 Spring Return Cruise Control Nut Centerlock 1/4-20 unc Bolt Fin. Hex 1/4-20 unc Bolt Fin. Hex 1/4-20 unc Bolt Fin. Hex 1/4-20 unc Solt Fin. Hex 1/4-20 unc Bolt Fin. Hex 1/4-20 unc Bolt Fin. Hex 1/4-10 unc Bolt Fin. Hex 1/4-20 unc Bolt Fin.
1200001	1.03, 044410	1 111011 = 2	

## **TRACTOR - - MODEL NUMBER 944.604931**

### STEERING ASSEMBLY



## TRACTOR - - MODEL NUMBER 944.604931

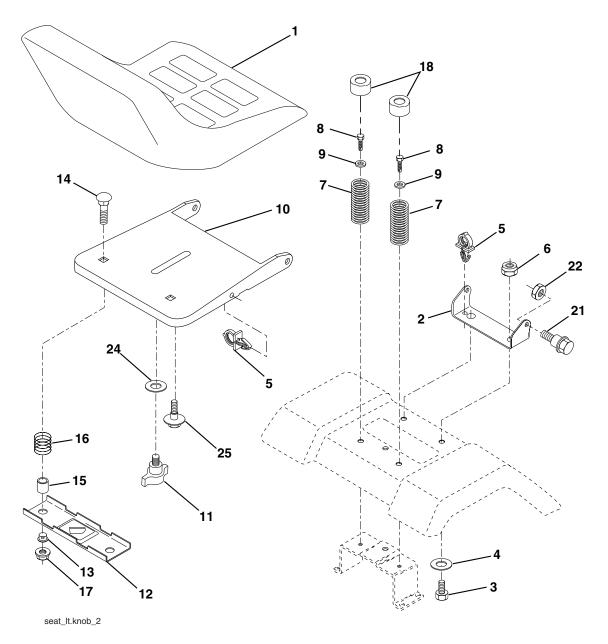
### STEERING ASSEMBLY

	PART NO.	DESCRIPTION
1 2 3 4 5 6 8 10 11 12 13 15 17 29 32 33 34 35 36 37 38 39 40 41 42 43 44 46 57 67 67 67 67 67 67 67 67 67 67 67 67 67	159944X428 184706 169840 169839 6266H 121748X 12000029 175121 STD551137 73940800 136518 145212 180641 17000612 171888 19111216 10040500 73540500 155099 152927 159946X428 19182411 73540600 159945 145054X428 121749X 180640 184946X505 73540400 71130420 160367 72110618 169827 175146 169835 173966 175118 175553 188967	Washer Nut Crownlock 3/8-24 Adaptor Wheel Strg Boot Steering Shaft Washer 25/32 X 1 1/4 X 16 Ga. Extension Steering Shaft LR/LT

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

## TRACTOR - - MODEL NUMBER 944.604931

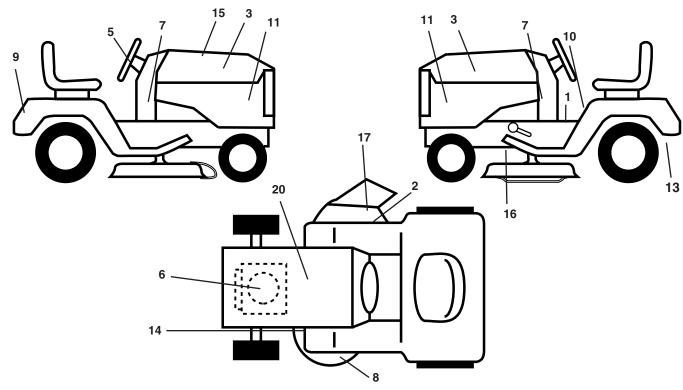
### **SEAT ASSEMBLY**



KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	188719	Seat	13	121248X	Bushing Snap Blk Nyl 50 Id
2	140551	Bracket Pivot Seat 8 720	14	72050412	Bolt Rdhd Sqnk 1/4-20x1-1/2
3	71110616	Bolt Fin Hex 3/8-16unc X 1	15	134300	Spacer Split 28x 96 Yel Zinc
4	19131610	Washer 13/32 X 1 X 10 Ga	16	121250X	Spring Cprsn 1 27 Blk Pnt
5	145006	Clip Push-In	17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
6	STD541437	Nut Hex w/lns. 3/8-16 Unc	18	124238X	Cap Spring seat Blk 1.75 x 1.0
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	21	171852	Bolt Shoulder 5/16-18 Unc
8	17000616	Screw 3/8-16 X 1-1/2	22	STD541431	Nut Hex Lock W/Ins 5/16-18
9	19131614	Washer 13/32 X 1 X 14 Ga.	24	19171912	Washer 17/32 X 1-3/16 X 12 Ga.
10	182493	Pan Seat	25	127018X	Bolt Shoulder 5/16-18 x .62
11	166369	Knob Seaat 1/2-13 Unc Blk	NOTI	E: All compon	ent dimensions given in U.S. inches
12	121246X	Bracket Mounting Switch		1 inch = 25	

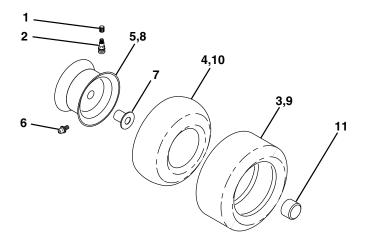
## TRACTOR - - MODEL NUMBER 944.604931

### **DECALS**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	177982	Decal Fend STLT Oper	14	160396	Decal V-Belt Schematic
2	170563	Decal Mower Warn Keep Hand Away	15	190141	Decal Replacement Parts
3	186366	Decal Hood RH/LH	16	146046	Decal V-Belt Drive Sch
5	164065	Decal Strng Whl Domed Prem.	17	179128	Decal Deck "B" "42"
6	186741	Decal HP Engine	20	149517	Decal Bat Dan/Psn
7	186478	Decal Dash Pnl		174998X428	Pad Footrest LH STLT
8	172331	Decal Deck		175542X428	Pad Footrest RH STLT
9	186572	Decal Craftsman		138311	Decal Handle Lft Height Adjust
10	157140	Decal Fender Danger Eng/Fr		191883	Manual Owner's (English)
11	186367	Decal Hood Side Panel		191884	Manual Owner's (French)
13	166960	Decal By Pass			,

### **WHEELS & TIRES**

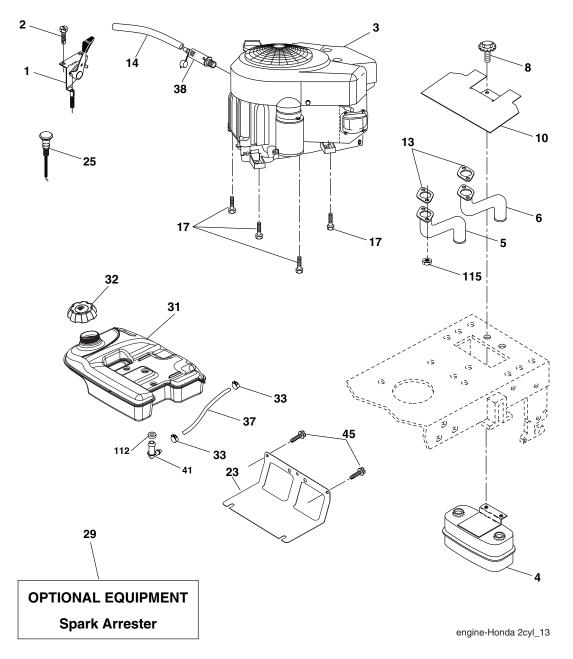


KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire F Ts 15 X 6 0 - 6 Service
4	59904	Tube Front (Service Item Only)
5	106732X624	Rim Asm 6"front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel Only)
8	106108X624	Rim Asm 8"rear Service
9	122082X	Tire R Ts 20x10-8 C Service
10	7152J	Tube Rear (Service Item Only)
11	104757X428	
	144334	Sealant, Tire ( 10 oz. Tube)

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

# **TRACTOR - - MODEL NUMBER 944.604931**

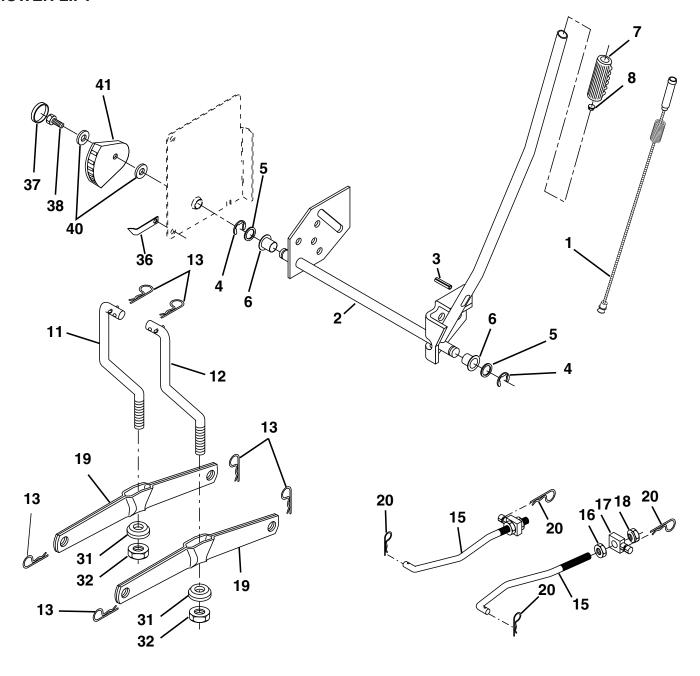
### **ENGINE**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	170546	Control Throt Paddle	25	187766X428	Control Choke
2	17720408	Screw Hex Thd Cut 1/4-20x5/8 T	29	137180	Arrestor Spark
3		Engine (See Breakdown)	31	179022	Tank Fuel 4.0
		Honda Model GXV530-ÉXA2	32	179124X428	Cap Fuel Gauge
4	149723	Muffler Exhaust	33	123487X	Clamp Hose Blk
5	175484	Exhaust Asm. Left	37	8543R	Line Fuel
6	175485	Exhaust Asm. Right	38	181654	Plug Drain Oil Easy
8	171877	Bolt 5/16-18unc x 3/4	41	139277	Stem Tank Fuel
10	146629	Heat Shield	45	17000612	Screw Hex Wsh Thdrol 3/8-16 x 3/4
13		Gasket (Order from engine	112	3645J	Bushing
		Manufacturer)	115		Nut Exhaust (Order from engine
14	148456	Tube Drain Oil Easy			Manufacturer)
17 23	17120616 169837	Screw Thdrol 3/8-16x1-1/2 Tytt Shield BRN/DBR Guard	NOTE	E: All compon 1 inch = 25	ent dimensions given in U.S. inches .4 mm

## TRACTOR - - MODEL NUMBER 944.604931

### **MOWER LIFT**

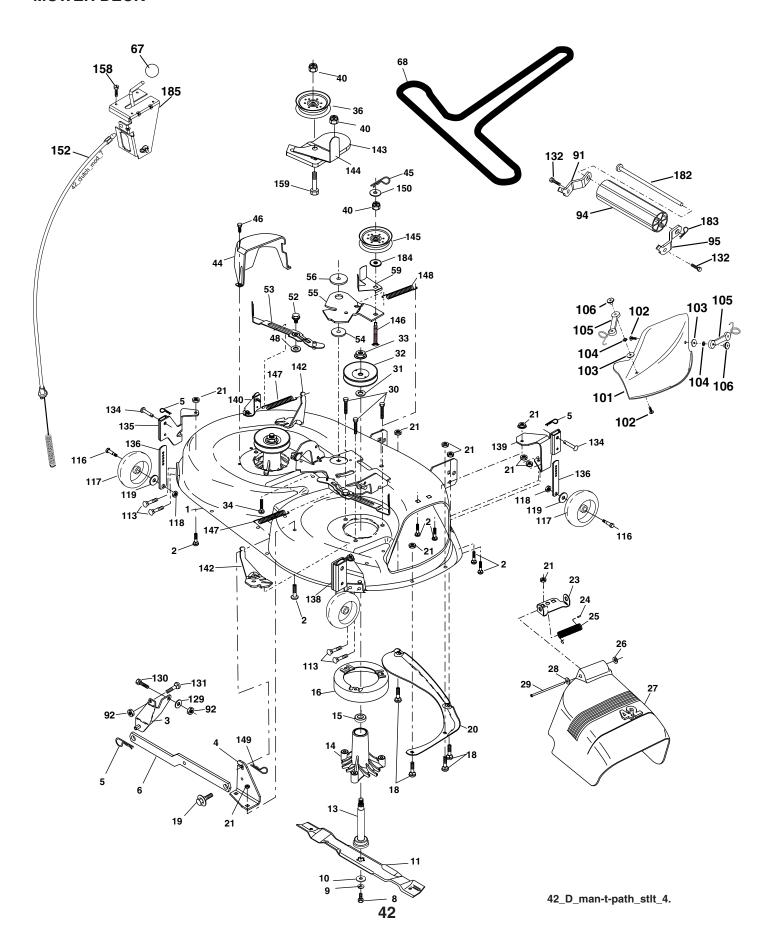


KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	159460	Wire Asm Inner W/Plunge5r	17	175689	Trunnion Blk Zinc
2	159471	Shaft Asm Lift	18	73800800	Nut Lock w/Wsh 1/2-13 Unc
3	105767X	Pin Groove	19	139868	Arm Suspension Rear
4	STD581062	E Ring #5133-62	20	163552	Spring Retainer
5	19211621	Washer 29/32 x 1-1/4 x 21 Ga.	31	169865	Bearing Pvt. Lift
6	120183X	Bearing Nylon Blk .629 ID	32	73540600	Nut Lock 3/8-24
7	125631X	Grip Handle Fluted	36	155097	Pointer Height Indicator
8	122365X	Button, Plunger	37	123935X	Plug Hole
11	139865	Link Lift Lh Fixed Length	38	17060516	Screw 5/16-18 x 1
12	139866	Link Lift Rh Fixed Length	40	19112410	Washer 11/32 x 1-1/2 x 10 Ga.
13	STD624008	Retainer Spring	41	155098	Indicator Height
15 16	173288 73350800	Link Front Nut Jam Hex 1/2-13 Unc	NOTE	E: All compor	nent dimensions given in U.S. inches

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

# **TRACTOR - - MODEL NUMBER 944.604931**

### **MOWER DECK**

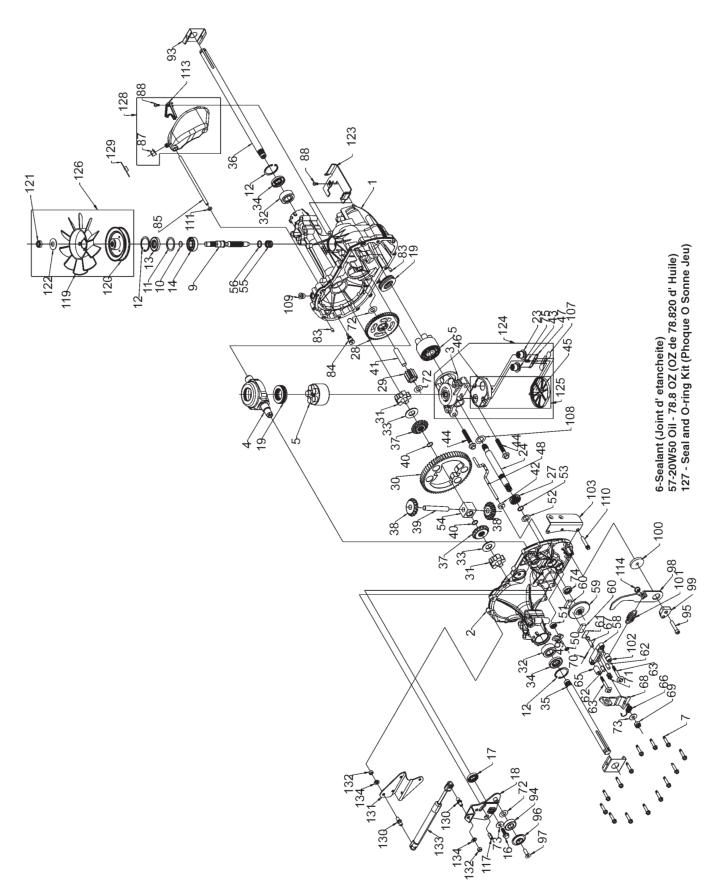


## TRACTOR - - MODEL NUMBER 944.604931

### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	182032	Mower Deck Assembly, 42"	101	136420	Mulcher Cover
2	STD533107	Bolt	102	71081010	Screw
3	138017	Bracket Assembly, Sway Bar, Front	103	19061216	Washer #10
4	165460	Bracket Sway Bar 38/42" Deck	104	STD551110	Washer, Lock
5	STD624008	Retainer Spring	105	160793	Latch Assembly, Bagger
6	178024	Bar Sway Deck	106	2029J	Nut, Weld
8	850857	Bolt, Hex 3/8-24 x 1.25 Gr. 8	113	17060512	Screw 5/16-18 x 3/4
9	STD551137		116	184219	Bolt, Shoulder
10	140296	Washer, Hardened	117	174873	Wheel, Gauge
		(The following blades are available)	118	73930600	Nut, Centerlock 3/8-16
11	134149	Blade, 42" Mulching Std	119	STD551037	Washer 3/8 x 7/8 x 14 Ga.
		(For mulching mowers only)	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
	139775	Blade, 42" Mulching Premium	130	STD523710	Bolt, Fin Hex 3/8-16 Unc x 1 Gr. 5
		(For better wear when mulching)	131	STD533710	Bolt, Rdhd Sqnk 3/8-16 Unc x 1
	138971	Blade, 42" Hi-Lift	132	17000612	Screw Hexwsh 3/8-16 x 3/4
		(For bagging or discharging)	134	156941	Pin Head Rivet
13	137645	Shaft Assembly, Mandrel, Vented	135	159765	Bracket Asm. Whl. Ga. Rear LH
14	128774	Housing, Mandrel, Vented	136	155986	Bar Adjusting Ga. Whl.
15	110485X	Bearing, Ball, Mandrel	138	159763	Bracket Asm. Whl. Ga. Rear RH
16	174493	Stripper, Vented Mower Deck	139	159767	Bracket Asm. Whl. Ga. Front RH
18	72140505	Bolt, Carriage 5/16-18 x 5/8	140	159768	Bracket Asm. Whl. Ga. Front LH
19	132827	Bolt, Shoulder	142	165890	Arm Spring Brake Mower
20	159770	Baffle, Vortex	143	157109	Bracket Arm Idler 42"
21	STD541431	Nut Crownlock 5/16-18 UNC	144	158634	Keeper Belt 42" Clutch Cable
23	177563	Bracket, Deflector	145	165888	Pulley Idler Flat
24	105304X	Cap, Sleeve	146	171977	Bolt Ćarriage Idler
25	123713X	Spring, Torsion, Deflector	147	131335	Spring Extension
26	110452X	Nut, Push	148	169022	Spring Return Idler
27	130968X428		149	165898	Retainer Spring Yellow Zinc
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
29	131491	Rod, Hinge	151	169670	Bracket Clutch
30	173984	Screw Thdrol Washer Head	152	169676	Cable Clutch 42 In
31	187690	Washer, Spacer	153	169674	Washer Flat 3/8" Type B
32	153535	Pulley, Mandrel	154	169675	Spring Retainer
33	178342	Nut, Toplock, Flanged	155	169671	Spring Retention Lever
34	72110612	Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5	156	169672	Spacer
36	131494	Pulley, Idler, Flat	157	169669	Rod Clutch
40	73900600	Nut Lock Flg 3/8-16 unc	158	17720408	Screw Hex Thd Cut 1/4-20 x 5/8
44	140088	Guard, Mandrel, L.H.	159	72140614	Bolt Rdhd Sqn 3/8-16 Unc x 1-3/4
45	STD624003	Retainer	182	179126	Rod Nose Roller
46	137729	Screw, Thd. Roll 1/4-20 x 5/8	183	163552	Retainer Spring
48	133944	Washer, Hardened	184	19131410	Washer 13/32 x 7/8 x 10 Ga.
52	139888	Bolt, Shoulder 5/16-18 UNC	185	188234	Head Asm Cable Clutch
53	184907	Arm Assembly, Pad, Brake		130794	Mandrel Assembly (Includes Hous-
54	178515	Washer, Hardened			ing, Shaft and Shaft Hardware Only
55	155046	Arm, Idler			- Pulley Not Included)
56	165723	Spacer, Retainer		186917	Replacement Mower, Complete
59	141043	Guard, TUV Idler			(Std. Deck-Order separately nose
67	149846	Knob Custom Oval			roller, mulcher cover and gauge
68	144959	V-Belt			wheel components key nos. 91, 94,
91	180532	Bracket Nose Roller LH			95, 132, 182 & 183, 101 - 106, 116
92	STD541437	Nut			- 119, 5, 134, 136)
94	132264	Roller Nose	NAT	<b>-</b> All -	
95	180533	Bracket Nose Roller RH	NOTE		ent dimensions given in U.S. inches
				1 inch = 25	.4 111111

# TRACTOR - - MODEL NUMBER 944.604931 HYDRO GEAR TRANSAXLE - MODEL NUMBER 336-0510

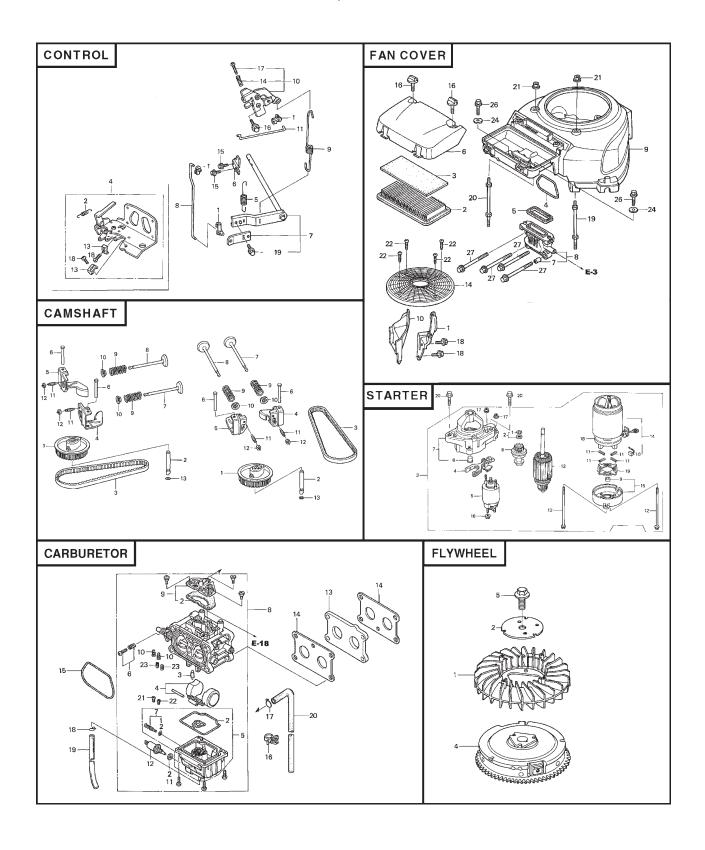


# TRACTOR - - MODEL NUMBER 944.604931

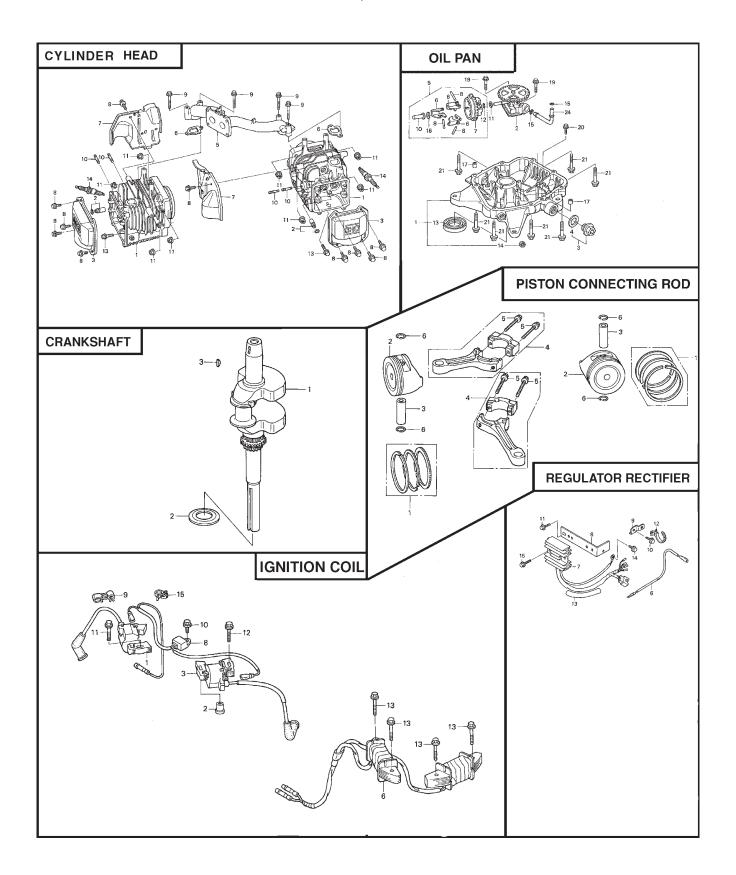
### **HYDRO GEAR TRANSAXLE - MODEL NUMBER 336-0510**

	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	170351	Main Housing, Assembly	68	178782	Arm, Brake
2	170352	Side Housing, Assembly		170415	Slotted Hex Nut 5/16-24
3	170353	Center Section, Assembly		170416	Cotter Pin 3/32 X 3/4
4	170354	Swashplate, Trunion Machined	71 72	170417 170418	Compression Spring Brake Anti-Drag
5	169898	Block - Assembly	72 73	142884	Washer, Ht .5 I.D. X 1 O.D. X .032 Flat - Washer 11/32 I.D. X 7/8 O.D
6	170355	Sealant 10.5 Oz	74	170419	Oil Seal .625 X 1.0 X .25
7 8	170356 170357	Hex Flange Screw 1/4-20 X 1.25 Stud, 5/16-24 Hex Double End	75	170420	Check Plug Assembly, .027, Washer
9	170357	Shaft, Input	76	170421	Stud, 5/16-24 Friction Pack
10	170359	Ring - Retaining	77	170422	Puck, .330 X 1.50 X .0975
11	170360	Spacer	78	142969	Spring, Helical Comp
12	169870	Ring - Retaining	79	142980	Spacer
13	170361	Seal, Lip .67 X 1.58 X .276	80	150778	Hex Lock Nut 5/16-24Unjf(Nylon Insert)
14	169869	Ball Brg 17mm ld X 40mm Od X 12mm	81	170423	Wedge, Friction Pack
16	170362	Hex Flange Head Screw 5/16-24X0.75	82	170424	Clip, Washer .316x1.50x.1046 (Plated)
17	170363	Lip Seal 18 X 32 X 7	83	161168	Pin, Standard Headless
18	178781	Arm, Control	84 85	170425 170426	Fitting, 5/16 Sae 5/32 Tube
19	150771	Bearing, 30x52x13 Thrust	87	142917	Hose, Expansion Tank Cap - Poppet Valve
23 24	170365 170366	Check Plug Assembly, Washer Shaft, Motor	88	170429	Bolt, Self Tapping 10-32 X 1/2
27	170367	Gear - Pinion, 13t	90	170430	Puck, Inner Wedge
28	170368	10t/48t Gear	93	170431	Spring Clip - Housing Thrust
29	170369	Gear, 10t Jackshaft	94	178783	Bearing, Ball
30	170370	60t Bull Gear	95	178784	Screw, Socket Head Cap 5/16-24X1-1/2
31	170371	Sleeve Bearing .75 X 1.575 X .625	96	178786	Spacer, Locating
32	170389	SleeveBearing(Outboard) .75x1.750x.625	97	178787	Screw, SFHCS 5/16-18 X1
33	142991	Washer, 3/4 ld X 1-1/2 Od X .13 Thk	98	178789	Arm Return
34	170390	Lip Seal Axle Seal		178792 178793	Puck, Adjusting
35	170391	Shaft, Axle .75 X 11.39 (Key, R.H.)		178793	Washer, .24 ID X 1.60 OD X .239 Spring, Extension
36	170392	Shaft, Axle .75 X 16.99 (Key, L.H.)		178795	Spacer .260 ID X .560 OD X .870
37 38	150792 150793	Miter Gear (Splined) Miter Gear 15t (0.5 ld)		178796	Bracket, Torque
39	150809	Shaft		170432	Deflector
40	170393	Ring, Spiral Retaining		170433	Washer, Motor Shaft .71idx1.15odx.030thk
41	170394	Pin, Jackshaft		170434	Plug, Sae #6
42	170395	Magnet, Ring		170435	O-Ring .07 X .301 I.D.
43	170396	Spring, Bypass		170437	Bracket, Support Expansion Tank
44	150797	Hydro Mtg Screw 3/8-24 X 2.5 Long		178797 170438	Spring Silicon Spongo
45	170397	Filter		178799	Silicon Sponge Pin, Spring
46 47	170398 170399	Base, Filter Actuator, Bypass		170439	Fan, 7 In.
48	170399	Rod, Bypass Actuator		170440	Pulley
49	170401	Arm, Bypass		170441	Hex Lock Nut 1/2-20 (Nylon Insert)
	170402	Retaining Ring .250 External		170442	Washer, Belleville
51	170403	Seal, Lip .741 X .250 X .250 Tc		178800	Belt Keeper
52	170404	Flat Washer, 5/8 ld X 1.0 Od X .05 Thk		170444	Center Section-Filter-Bypass Assembly
53	170405	Retaining Ring		170445	Filter Assembly
54	170406	Bearing, Center Block		170446 170447	Fan - Pulley Service Assembly Seal - O-Ring Kit
55 56	142977	Spring - Helical Compression		173165	Kit, Expansion Tank
56 57	142978 150798	Washer 20w-50 Oil		178802	Stud Ball
58	170407	Brake Yoke		178803	Bracket, Cruise Damper
59	170408	Rotor, Brake		178804	Hex Nut 5/16-18 NC
60	142883	Brake Puck		184227	Damper
61	142882	Puck Plate		178808	Washer, Helical Spring Lock 5/16
62	142887	Brake Actuating Pin	900	173839	Transaxle Complete
63	170410	Hfhcs 1/4-20x2 W/Patch, Special Flange	NOT	E. All	anant dimanajana aiyan in LLC inchas
64 65	142892	Bolt, 1/4-20 X 1 W/Patch		<b>E:</b> All complich = 25.4 ml	onent dimensions given in U.S. inches
65 66	170411 170412	Spacer Spring, Brake Arm Bias	1 111	15.1 – 25.7 1111	
67	170412	Sq. Hd. Bolt 5/16-24-Ribbed			
٥,		5q			

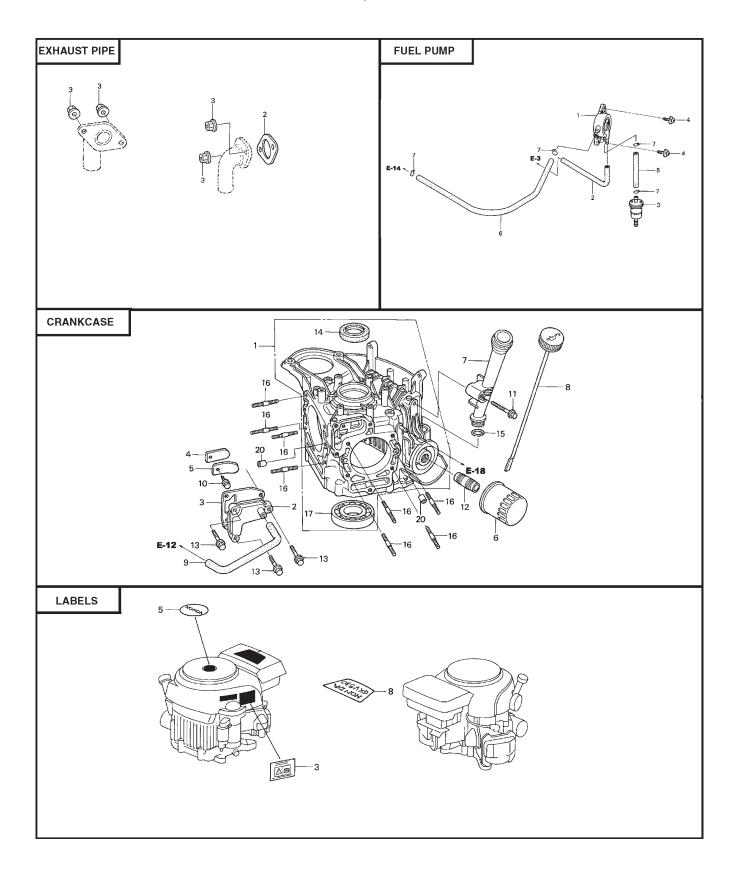
# TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2



# TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2



# TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2



### TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2

CONT	ROL		CARE	BURETOR	
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19	6605034 6605042 6605067 6605125 6605133 6605141 6605158 6605166 6605174 6605182 0800466 0636431 0928051 6607147 4755427 0145557 2410876	Rod, Joint Spring, Choke Return Control Assy. (2-lever) Spring, Starter Fork, Governor Arm, Governor Rod, Governor Spring, Governor Link, Governor Rod, Governor Link Holder, Cable. Spring, Control Adjusting1 Bolt, Flange (5x10) Bolt, Flange (6mm) (Ct200) Screw, Recessed (5x25). Screw, Pan (5x16) Bolt, Flange (6x10)	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	6604847 6604854 6604862 6604888 6604896 6604904 6662423 6604979 6604987 6604995 6605000 6605018 6605026 6605273 1965425 0250647 0315705	Gasket Set Valve, Float Float Set Chamber Set, Float Screw Set Screw Set, Drain Carburetor Assy. Cover Set, Air Vent Cap Gasket Valve Assy., Solenoid Insulator, Carburetor Gasket, Insulator. Gasket, Air Cleaner Clip, Wire Harness Clip, Tube (B8) Clip, Tube (B6.5)
FAN C	COVER		19 20	4750725 4983714	Bulk Hose, Vinyl (4x7x8000) (4x7x300) Bulk Hose, Vacuum (4.5x1000)(4.5x400)
KEY NO.	PART NO.	DESCRIPTION	21   22	6607261 6607279 6607287 6607279	Jet, Main (#82.5) Jet, Main (#85). Jet, Main (#87.5) Jet, Main (#85).
1 2 3 4	6605208 6605257 6605265 6605273	Stay, Fuel Pump Element, Air Cleaner Filter (Outer) Gasket, Air Cleaner	  23	6607287 6607295 6607311	Jet, Main (#87.5) Jet, Main (#90). Jet, Pilot (#37.5).
5	6605281 6605299	Seal, Air Cleaner Housing Cover, Air Cleaner	STAR	TER MOTOR	
7 8 9	6224752 6605307 7088206	Collar A, Air Cleaner Elbow, Air Cleaner Cover, Fan *nh1* (Black)	KEY NO.	PART NO.	DESCRIPTION
10 14 16 17 18 19 20 21 22 24 26 27	6605471 6662381 6607121 5889365 0803619 6607154 6607162 6478812 6607212 0629824 2105799 2533883	Plate, Side Grid, Screen *nh1* (Black) Bolt, Air Cleaner (6mm) Bolt, Flange (6x14) (Ct200) Bolt, Flange (6x14) Bolt, L. Stud (Ignition Coil) Bolt, R. Stud (Ignition Coil) Nut, Flange (6mm). Screw, Tapping (4x30) (P0) Washer, Plain (6mm) Bolt, Flange (6x12) Bolt, Flange (6x100)	1 2 3 4 5 6 7 8 9 10 11 12 13	3508322 4840666 6605596 4840831 3508405 6605604 6605612 5267588 3508413 3620366 3508439 3508454 6605620	Ring, Snap (Denso). Collar Set, Clutch Stop Motor Assy., Starter Lever, Pinion Drive Switch Assy., Magnetic Clutch, Overrunning Housing, Drive Side. Bearing A Bearing B Brush. Spring, Brush Bolt, Through Armature
CAMS	SHAFT		14 15	4840898 6605638	Yoke Frame, Commutator End
KEY NO.	PART NO.	DESCRIPTION	16 17 18	3508470 0839688 3508496	Nut, Hex. (8mm) Nut, Flange (5mm) Holder, Brush
1 2 3 4 5	6604714 5580063 6604722 6604730 6604748	Pulley, Camshaft Shaft, Cam Pulley Belt, Timing (97hu8 G-200) Arm, In. Valve Rocker Arm, Ex. Valve Rocker	19 20	3508504 2756310 /HEEL	Insulator, Brush Holder Bolt, Flange (10x40)
6 7 8	6604755 6604763 6604771	Shaft, Rocker Arm Valve, In. Valve, Ex.	KEY NO.	PART NO.	DESCRIPTION
9 10 11 12 13	1426972 1426980 0294819 0004598 6315873	Spring, Valve . Retainer, In. Valve Spring Screw, Tappet Adj. Nut, Tappet Adj. O-ring (6.8x1.9).	1 2 4 5	6605430 6605448 6605588 6607139	Fan, Cooling Plate, Cooling Fan Setting1 Flywheel (6p). Bolt, Flange (16x35)

### TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2

#### **CYLINDER HEAD**

KEY NO.	PART NO.	DESCRIPTION
1	6684989	Cylinder
2	0688887	Seal, Valve Stem
3	6604524	Cover, Head
5	6605232	Manifold, In
6	6605240	Gasket, In. Manifold
7	6605489	Shroud
8	0636845	Bolt, Flange (6x12) (Ct200)
9	2488187	Bolt, Flange (6x45)
10	0866103	Bolt, Stud (6x28)
11	6607170	Nut, Flange (8mm)
13	2401222	Bolt, Flange (6x30)
14	1521756	Spark Plug (Bpr4es) (Ngk)
	1521764	Spark Plug (W14epr-u) (Denso).
	1672443	Spark Plug (Bpr5es) (Ngk)
	1672450	Spark Plug (W16epr-u) (Denso)

#### **OIL PAN**

KEY NO.	PART NO.	DESCRIPTION
1	6853386	Pan Assy., Oil
2	6853428	Pump Assy., Oil
3	6853469	Cap Assy., Drain
4	4497947	Gasket, Oil Filler Cap
5	6605075	Governor Assy.
6	6605083	Weight, Governor
7	6605091	Holder, Governor Weight
8	2025971	Pin, Governor Weight
10	6605117	Slider, Governor
11	0465591	Washer (6x16)
12	2456697	Clip, Governor Holder
13	6607196	Oil Seal (31x50x8)
14	1775170	Oil Seal (10x16x4.5)
15	6698815	O-ring (7.5x2.3)
16	0345900	Washer, Plain (6mm)
17	0069310	Pin A, Dowel (8x14)
19	2401222	Bolt, Flange (6x30)
20	2105823	Bolt, Flange (6x22)
21 24	2298404	Bolt, Flange (8x40)
2 <del>4</del> 25	6853436	Pipe, Oil Pump
_	6853444	Pipe, Oil Supply
26 27	6853451	Holder, Oil Pipe
28	6698823 2105799	O-ring (5.8x2)
20	2105/99	Bolt, Flange (6x12)

#### **CRANKSHAFT**

KEY NO.	PART NO.	DESCRIPTION
1	6853410	Crankshaft
2	6607188	Washer, Thrust
3	2027159	Key, Special Woodruff (25x18)

#### **PISTON CONNECTING ROD**

KEY NO.	PART NO.	DESCRIPTION
1	6695571	Ring Set, Piston (Std) (Nippon)
	6656425	Ring Set, Piston
2	6604672	Piston (Std)
3	6223994	Pin, Piston
4	6853402	Rod Assy., Connecting
5	6226963	Bolt, Connecting Rod (6x37)
6	2539120	Clip, Piston Pin (18mm)

#### **IGNITION COIL**

<b>KEY</b>	PART	
NO.	NO.	DESCRIPTION
1	6605547	Coil Assy., Ignition (#1)
2	6605554	Collar, Ignition Coil
3	6605562	Coil Assy., Ignition (#2)
	7246903	Coil Assy., Ignition (#2)
6	6605695	Coil Assy., Charge (12v-12a)
8	6605703	Diode Assy., Engine Stop
9	3687019	Clamp, Center Cord
10	0636845	Bolt, Flange (6x12) (Ct200)
11	2105849	Bolt, Flange (6x28)
12	2488187	Bolt, Flange (6x45)
13	2105856	Bolt, Flange (6x32)
14	0812834	Washer, Tank Setting
15	1640424	Clip, Wire Harness (6mm) (White)
16	3191921	Clip, Wire Harness

### **REGULATOR RECTIFIER • SUB WIRE HARNESS**

KEY NO.	PART NO.	DESCRIPTION
6	6605745	Sub-wire Harness Assy.
7	6853568	Rectifier Assy., Regulator
8	6853576	Bracket, Regulator
9	2557312	Base, Clip
10	0636845	Bolt, Flange (6x12) (Ct200)
11	0803619	Bolt, Flange (6x14)
12	1685536	Strap, Cable (105mm) *nh1* (Black)
13	4618690	Tube, Wire
14	2581353	Bolt, Flange (6x8)
15	2105815	Bolt, Flange (6x20)
17	0748111	Bolt(6x25)
18	2105831	Bolt (6x25)

### TRACTOR - - MODEL NUMBER 944.604931 HONDA ENGINE - MODEL NUMBER GXV530, TYPE NUMBER EXA2

#### **EXHAUST PIPE**

KEY NO.	PART NO.	DESCRIPTION
2	6605398 0471623	Gasket, Ex. Pipe Nut, Flange (6mm)

#### **FUEL PUMP**

Key No.	Part No	Description
1	5611298	Pump Assy., Fuel
2	6605216	Tube, Diaphragm
3	4432233	Filter, Fuel
4	1226299	Screw-washer (5x16)
5	2449593	Bulk Hose, Fuel (5.5x8000) (5.5x100)
6	2449593	Bulk Hose, Fuel (5.5x8000) (5.5x350)
7	0250985	Clip, Tube (B10)

#### CRANKCASE

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 19 17 20	6853311 6604540 6604557 2515195 6604565 6388482 6604805 6853477 6604821 0928051 2488187 3509528 0748111 2108595 2280006 3141769 6698807 1169275 0997320 0069310	Crankcase Assy. Cover, Breather 1 Gasket, Breather Cover Plate, Valve Stopper, Valve Filter, Oil Extension, Oil Filler Dipstick, Oil Tube, Breather Bolt, Flange (5x10) Bolt, Flange (6x45) Holder, Oil Filter Bolt, Flange (6x25) Oil Seal (35x52x8) O-ring (22.5x2.2) Bolt 2, Stud (8x28) Switch Asm-oil Pressure Bolt Bearing, Radial Ball (6207) Pin A, Dowel (8x14)

### **LABELS**

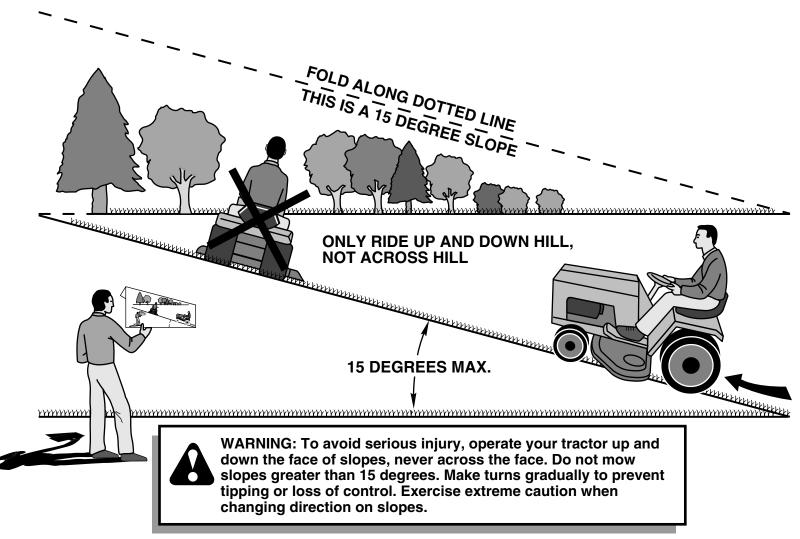
KEY NO.	PART NO.	DESCRIPTION
3 5	6607097 6607105	Mark, Operator Caution (Ec) Mark, Honda
8	6853766	Mark, Emblem (Gxv530)

# **SERVICE NOTES**

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## SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

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