



## SAFETY RULES



Safe Operation Practices for Ride-On Mowers

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



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



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



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

### **I. GENERAL OPERATION**

- Read, understand, and follow all instructions on the machine and in the manual before starting.
- Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blades.
- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blades when crossing gravel surfaces.
- Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Disengage blades when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
- Operate machine only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Always wear eye protection when operating machine.

- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights or counterweights.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

## **II. SLOPE OPERATION**

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

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

## **III. CHILDREN**

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

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

**SAFETY RULES** 





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

#### **IV. TOWING**

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

### V. SERVICE

#### SAFE HANDLING OF GASOLINE

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

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

#### **GENERAL SERVICE**

- Never operate machine in a closed area.
- Keep all nuts and bolts tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage and remove any fuelsoaked debris. Allow machine to cool before storing.
- If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.

- Never make any adjustments or repairs with the engine running.
- Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.
- Maintain or replace safety and instruction labels, as necessary.



- Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children, even with the blades shut off. They may fall off and be seriously injured or interfere with safe machine operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
- Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.
- Be alert and turn machine off if a child enters the area.
- Before and while backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Choose a low ground speed so that you will not have to stop or shift while on the slope.
- Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

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## PRODUCT SPECIFICATIONS

Gasoline Capacity and type:	1.50 Gallons Unleaded Regular		
Oil Type (API-SG-SL): Your tractor was shippe SAE 10W30 motor oil	SAE 30 (above 32°F) SAE 5W-30 (below 32°F) Synthetic (below 0°F) of from the factory with non-synthetic		
Oil Capacity:	W/Filter: 56 oz W/O Filter: 48 oz		
Spark Plug:	Champion RC12YC (Gap: .030")		
Ground Speed (MPH):	Forward: 0-5.5 Reverse: 0-2.4		
Charging System:	3 Amps Battery 5 Amps Headlights		
Battery:	AMP/HR: 28 Min. CCA: 230 Case Size: U1R		
Blade Bolt Torque:	45-55 FT. LBS.		

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

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

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

## MAINTENANCE AGREEMENT

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

#### **CUSTOMER RESPONSIBILITIES**

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

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

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

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

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

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

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

#### COMMERCIAL OR RENTAL USE

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

#### This Warranty does NOT cover:

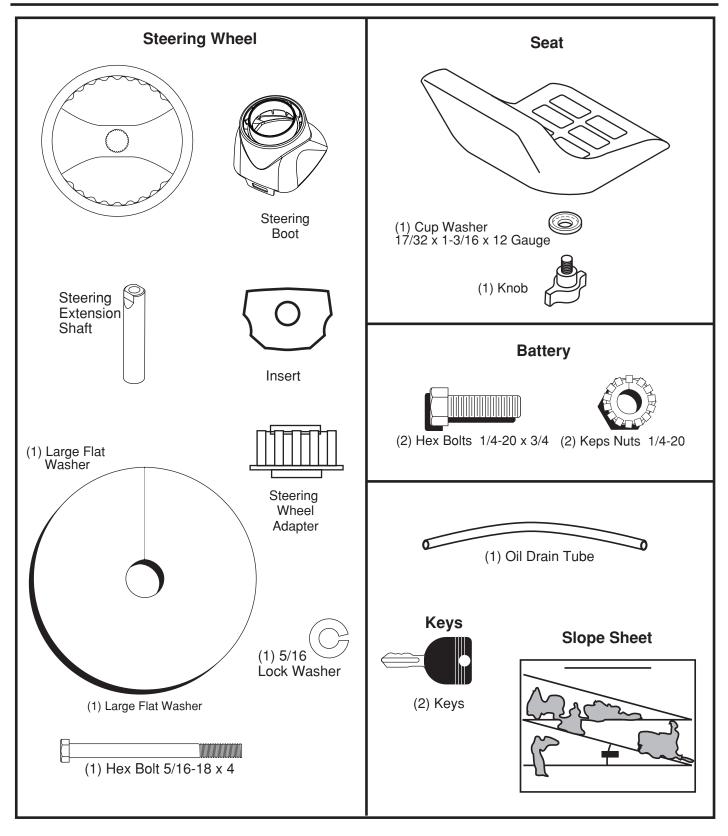
- 1. Pre-delivery set-up.
- 2. Tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass).
- 3. Expendable items which become worn during normal use, such as blades, spark plug, air cleaners and belts.
- 4. Repairs necessary because of operator abuse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

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

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

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

## **UNASSEMBLED PARTS**



## ASSEMBLY

Your new tractor has been assembled at the factory with the exception of those parts left unassembled for shipping purposes.

## TOOLS REQUIRED FOR ASSEMBLY

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

(2) 7/16" wrenches

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

## TO REMOVE TRACTOR FROM CARTON

## UNPACK CARTON

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

# BEFORE REMOVING TRACTOR FROM SKID

## ATTACH STEERING WHEEL (See Fig. 2)

### ASSEMBLE EXTENSION SHAFT AND BOOT

- Slide extension shaft onto lower steering shaft.
- Place tabs of steering boot over tab slots in dash and push down to secure.

#### INSTALL STEERING WHEEL

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

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

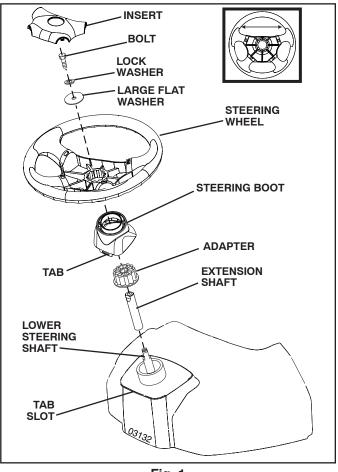


Fig. 1

#### **CHECK BATTERY (See Fig. 2)**

- Lift seat pan to raised position and open battery box door.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in Maintenance section of this manual for charging instructions).

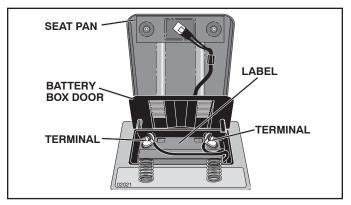


Fig. 2

# ASSEMBLY

## INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and cup washer securing seat to cardboard packing and set aside.
- Remove seat from the cardboard packing and set seat aside. Remove the cardboard packing and discard.
- Place seat on seat pan so all three (3) bottom pads are positioned over large slotted holes in pan.
- Push down on seat to engage pads in slots and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and cup washer loosely. Do not tighten.
- Lower seat into operating position and sit in 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.

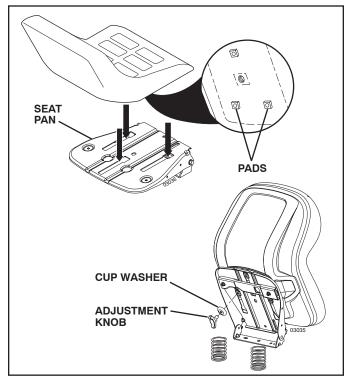


Fig. 3

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

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

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

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in "transmission disengaged position" (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)

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

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

Continue with the instructions that follow.

# ASSEMBLY

#### INSTALL MULCHER PLATE (See Fig. 4) (IF PREVIOUSLY REMOVED)

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

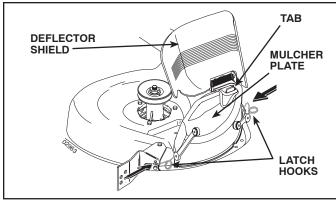


CAUTION: Do not remove deflector shield from mower.

#### TO CONVERT TO BAGGING OR DISCHARGING

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

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





## **CHECK TIRE PRESSURE**

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

Reduce tire pressure to PSI shown on tires.

## CHECK DECK LEVELNESS

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

## CHECK FOR PROPER POSITION OF ALL BELTS

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

## CHECK BRAKE SYSTEM

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

## ✓ CHECKLIST

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

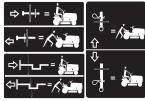
- ✓ All assembly instructions have been completed.
- No remaining loose parts in carton.
- Battery is properly prepared and charged.
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- Be sure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

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

- Engine oil is at proper level.
- Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls, their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- Be sure Operator Presence System and Reverse Operation System (ROS) are working properly (See the Operation and Maintenance sections in this manual).
- It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

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





FREE WHEEL (Automatic Models only)



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

**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.

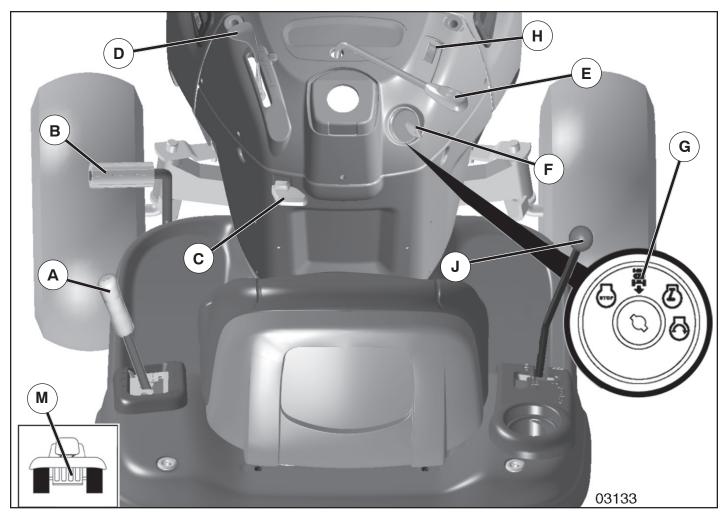


Fig. 5

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

(A) ATTACHMENT LIFT LEVER - Used to raise and lower the mower or other attachments mounted to your tractor.

**(B) CLUTCH/BRAKE PEDAL** - Used for braking the tractor and starting the engine.

(C) PARKING BRAKE - Locks clutch/brake pedal into the brake position.

**(D) THROTTLE/CHOKE CONTROL** - Used for starting and controlling engine speed.

(E) ATTACHMENT CLUTCH LEVER - Used to engage the mower blades, or other attachments mounted to your tractor. (F) IGNITION SWITCH - Used for starting and stopping the engine.

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

(H) LIGHT SWITCH - Turns the headlights on and off.

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

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

	WEAR YOUR
	SAFETY GLASSES
F	ORESIGHT IS BETTER THAN NO SIGHT

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

## HOW TO USE YOUR TRACTOR

## TO SET PARKING BRAKE (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.

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

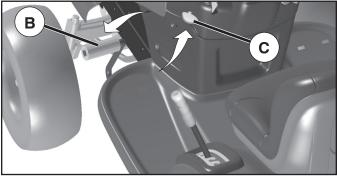




Fig. 6

MOWER BLADES (See Fig. 7) -

 To stop mower blades, move attachment clutch lever to disengaged position (m).

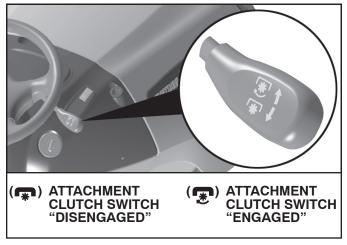


Fig. 7

**GROUND DRIVE -**

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

ENGINE -

 Move throttle control (D) between half and full speed (fast) position.

**NOTE:** Failure to move throttle control between half and full speed (fast) position, before stopping, may cause engine to "backfire".

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

**IMPORTANT:** Leaving the ignition switch in any position other than "STOP" will cause the battery to discharge and go dead.

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



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position.

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

Always operate engine at full speed (fast).

- Operating engine at less than full speed (fast) reduces engines operating efficiency.
- Full speed (fast) offers the best bagging and mower performance.

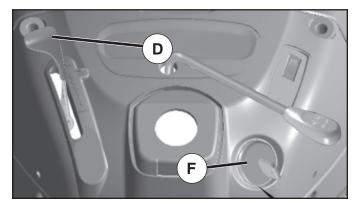


Fig. 8

## TO MOVE FORWARD AND BACKWARD (See Fig. 9)

The direction and speed of movement is controlled by the motion control lever. (J)  $% \left( J^{\prime}\right) =0$ 

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

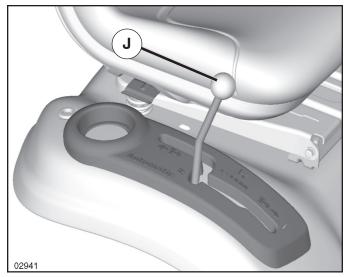


Fig. 9

## TO ADJUST MOWER CUTTING HEIGHT (See Fig. 10)

The position of the attachment lift lever (A) determines the cutting height.

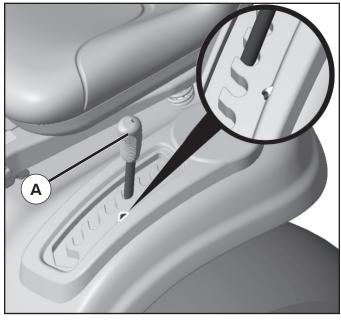


Fig. 10

• Put attachment lift lever in desired cutting height slot.

The cutting height range is approximately 1" 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. 11)

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 this section of manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole. Tighten securely.
- Repeat for all, installing gauge wheel in same adjustment hole.

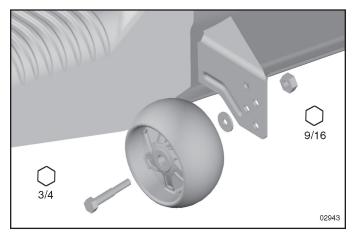


Fig. 11

## TO OPERATE MOWER (SEE FIG. 12)

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 with attachment lift lever.
- 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 (S) in place.

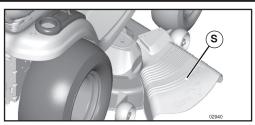


Fig. 12

### **REVERSE OPERATION SYSTEM (ROS)**

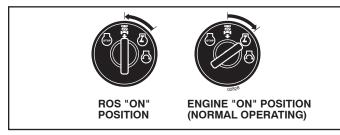
Your tractor is equipped with a Reverse Operation System (ROS). Any attempt by the operator to travel in the reverse direction with the attachment clutch engaged will shut off the engine unless ignition key is placed in the ROS "ON" position.

AWARNING: Backing up with the attachment clutch engaged while mowing is strongly discouraged. Turning the ROS "ON", to allow reverse operation with the attachment clutch engaged, should only be done when the operator decides it is necessary to reposition the machine with the attachment engaged. **Do not mow in reverse unless absolutely necessary**.

#### USING THE REVERSE OPERATION SYSTEM -

Only use if you are certain no children or other bystanders will enter the mowing area.

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



## TO OPERATE ON HILLS



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

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

**IMPORTANT:** THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

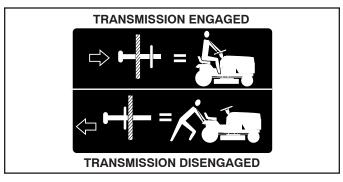
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

## TO TRANSPORT (See Figs. 5 and 13)

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 down into the slot and release so it is held in the disengaged position.
- Do not push or tow tractor at more than two (2) MPH.
- To 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.).





## TOWING CARTS AND OTHER ATTACHMENTS

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

## **BEFORE STARTING THE ENGINE**

## CHECK ENGINE OIL LEVEL

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

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

## ADD GASOLINE

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

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

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

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

## TO START ENGINE (See Fig. 2)

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 clutch/brake pedal and set parking brake.
- Place motion control lever in neutral position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to choke position.

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

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

WARM WEATHER STARTING (50° F and above)

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

COLD WEATHER STARTING ( 50° F and below)

• When engine starts, allow engine to run with the throttle control in the choke position until the engine runs roughly, then move throttle control to fast position. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

#### AUTOMATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - · Be sure the tractor is on level ground.
  - Place the motion control lever in neutral. Release the parking brake and let the clutch/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 also be used during the engine warm-up period after the transmission has been warmed up.

**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 a level surface that is clear and open with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. With motion control lever in neutral position, slowly disengage clutch/brake pedal.



## CAUTION: At any time there may be movement of the drive wheels.

- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.
- Move motion control lever to neutral position. Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in engaged 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. With motion control lever in neutral position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral position. Repeat this procedure with the motion control lever three (3) 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. 14).

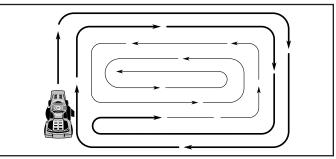


Fig. 14

- 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 (See Fig. 15)

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

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried, yet the newly cut area will not be exposed to direct sunlight.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 14). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.

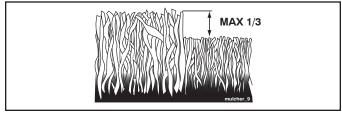


Fig. 15

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

	MAINTENANCE SCHEDULE	BEFORE EACH USE	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	EVERY SEASON	BEFORE STORAGE
Г	Check Brake Operation	~	V					
Ι-	Check Tire Pressure	~	~					
ľĸ	Check Operator Presence & ROS Systems							
A	Check for Loose Fasteners							<b>V</b>
C	Check/Replace Mower Blades			✔3				
Т	Lubrication Chart			<b>/</b>				<b>V</b>
0	Check Battery Level			4				
R	Clean Battery and Terminals			<b>V</b>				<b>V</b>
	Check Transaxle Cooling							
	Check Mower Levelness							
	Check V-Belts							
Γ	Check Engine Oil Level	~	~					
	Change Engine Oil (with oil filter)				1,2			
۱.	Change Engine Oil (without oil filter)			1,2				<b>V</b>
E N	Clean Air Filter			2				
G	Clean Air Screen							
	Inspect Muffler/Spark Arrester							
N	Replace Oil Filter (If equipped)					1,2		
E	Clean Engine Cooling Fins					2		
	Replace Spark Plug					~		
	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.

## **GENERAL RECOMMENDATIONS**

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

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

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

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

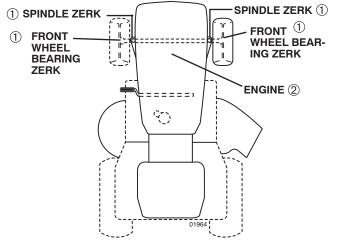
#### **BEFORE EACH USE**

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

3 - Replace blades more often when mowing in sandy soil.

4 - Not required if equipped with maintenance-free battery.

#### 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 SHORTENTHE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

## TRACTOR

Always observe safety rules when performing any maintenance.

## BRAKE OPERATION

If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be serviced. (See "TO CHECK BRAKE" in the Service and Adjustments section of this manual).

## TIRES

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

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

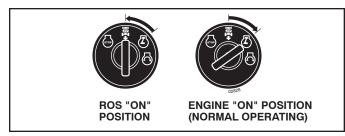
#### OPERATOR PRESENCE SYSTEM AND REVERSE OP-ERATION SYSTEM (ROS)

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

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

#### CHECK OPERATOR PRESENCE SYSTEM

- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

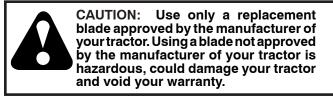


#### CHECK REVERSE OPERATION (ROS) SYSTEM

- When the engine is running with the ignition switch in the engine "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should shut off the engine.
- When the engine is running with the ignition switch in the ROS "ON" position and the attachment clutch engaged, any attempt by the operator to shift into reverse should NOT shut off the engine.

## **BLADE CARE**

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



### BLADE REMOVAL (See Fig. 16)

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

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

- Remove blade bolt by turning counterclockwise.
- Install new blade with stamped "GRASS SIDE" facing the ground.

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

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

**IMPORTANT**: Special blade bolt is heat treated.

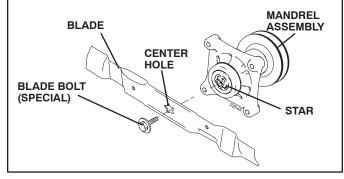


Fig. 16

## BATTERY

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

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

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

#### TO CLEAN BATTERY AND TERMINALS

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

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

### **V-BELTS**

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

## TRANSAXLE COOLING

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

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

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

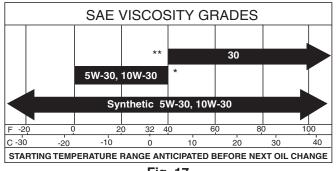
## TRANSAXLE PUMP FLUID

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

## ENGINE

## LUBRICATION

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





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

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



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

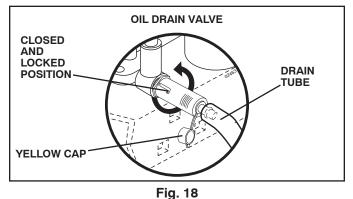
Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year.

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

TO CHANGE ENGINE OIL (See Figs. 17 and 18)

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

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



- 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. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

### **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.

#### AIR FILTER (See Fig. 19)

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

Service air cleaner more often under dusty conditions.

- Remove cover.
- TO SERVICE PRE-CLEANER
- · Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.
- TO SERVICE CARTRIDGE
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall precleaner cartridge, cover and secure.

**IMPORTANT:** PETROLEUM SOLVENTS, SUCH AS KEROSENE, ARE NOT TO BE USED TO CLEAN THE CARTRIDGE. THEY MAY CAUSE DETERIORATION OF THE CARTRIDGE. DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.

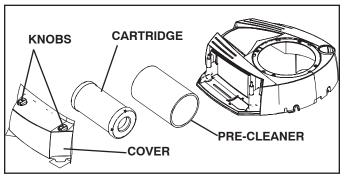


Fig. 19

## **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.

#### 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. 20)

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.

CLAMP CLAMP FUEL FILTER

## CLEANING

 Clean engine, battery, seat, finish, etc. of all foreign matter.

Fig. 20

- 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 motion control lever in neutral position.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key to "STOP" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

### TO REMOVE MOWER (See Fig. 21)

- Place attachment clutch in "DISENGAGED" position.
- Lower attachment lift lever to its lowest position.
- Remove mower belt from engine pulley (M).
- Remove retainer spring (K), slide collar (L) off and push housing guide (P) out of bracket.
- Remove clutch cable spring (Q) from idler arm (R).
- Disconnect front link (E) from mower remove retainer spring and washer.
- Go to either side of mower and disconnect mower suspension arm (A) from chassis and rear lift link (C) from rear mower bracket (D) - remove retainer springs and washers.
- Go to other side of mower and disconnect the suspension arm and rear lift link.

CAUTION: After rear lift links are disconnected, the attachment lift lever will be spring loaded. Have a tight grip on lift lever when changing position of the lever.

Slide mower out from under right side of tractor.

**IMPORTANT:** IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINK (E) AND REAR LIFT LIKS (C) FROM TRACTOR AND HOOK THE CLUTCH SPRING (Q) INTO THE CABLE GUIDE ON FRONT EDGE OF LÓWER DASH.

## TO INSTALL MOWER (See Figs. 21-26)

Be sure tractor is on level surface and engage parking brake.

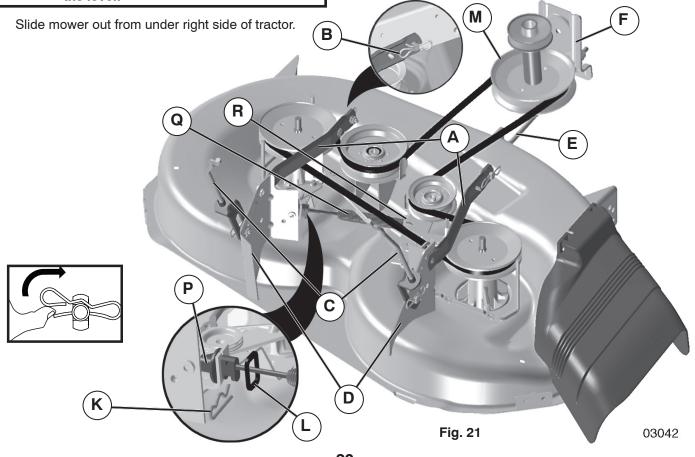
Lower attachment lift lever to it's lowest position.



CAUTION: Lift lever is spring loaded. Have a tight grip on lift lever, lower it slowly and engage in lowest position.

NOTE: Be sure mower side suspension arms (A) are pointing forward before sliding mower under tractor.

Slide mower under tractor until it is centered under tractor.



- ATTACH MOWER SIDE SUSPENSION ARMS (A) TO CHASSIS - Position hole in arm over pin (B) on outside of tractor chassis and secure with retainer spring.
- Repeat on opposite side of tractor.

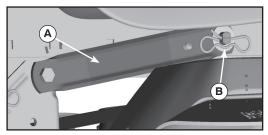


Fig. 22

- ATTACH REAR LIFT LINKS (C) Lift rear corner of • mower and position slot in link assembly over pin (D) on rear mower bracket and secure with washer and retainer spring.
- Repeat on opposite side of tractor.

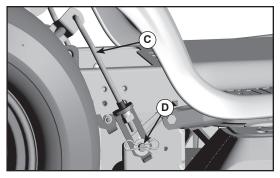
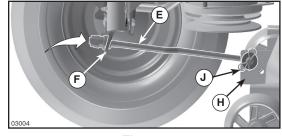


Fig. 23

ATTACH FRONT LINK (E) - Work from left side of trac-• tor. Insert rod end of link assembly through front hole in tractor front suspension bracket (F).

Insert end of link (E) into hole in front mower bracket and secure with washer and retainer spring (J).





- Hook end of clutch cable spring (Q) into hole in idler arm (R).
- Push clutch cable housing guide (P) into bracket, slide collar (L) onto guide and secure with retainer spring (K).
- Install belt on engine pulley (M).

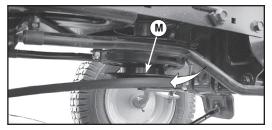
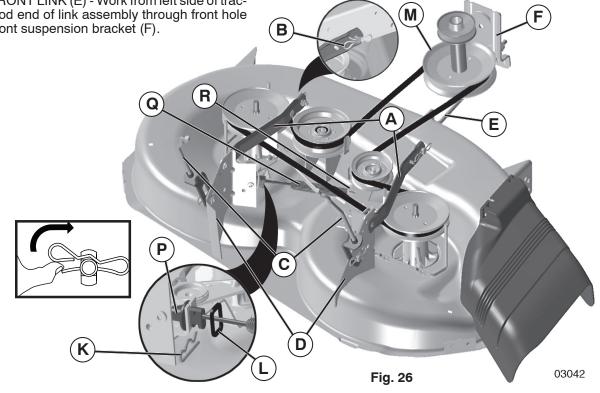


Fig. 25

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

- Raise attachment lift lever to highest position.
- If necessary, adjust gauge wheels before operating mower as shown in the Operation section of this manual.



## **TO LEVEL MOWER**

Make sure tires are properly inflated to the PSI shown on tires. If tires are over or under inflated, it may affect the appearance of your lawn and lead you to think the mower is not adjusted properly.

VISUAL SIDE-TO-SIDE ADJUSTMENT (See Fig. 27)

• With all tires properly inflated and if your lawn appears unevenly cut, determine which side of mower is cutting lower.

**NOTE:** As desired, you can raise the low side of mower or lower the high side.

- Go to side of mower you wish to adjust.
- With a 3/4" or adjustable wrench, turn lift link adjustment nut (A) to the left to lower the mower, or, to the right to raise the mower.

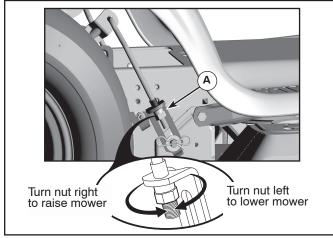


Fig. 27

**NOTE**: Each full turn of adjustment nut will change mower height about 3/16".

 Test your adjustment by mowing some uncut grass and visually checking the appearance. Readjust, if necessary, until you are satisfied with the results.

PRECISION SIDE-TO-SIDE ADJUSTMENT (See Fig. 28)

 With all tires properly inflated, park tractor on level ground or driveway.



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

- Raise mower to its highest position.
- At both sides of mower, position blade at side and measure the distance (A) from bottom edge of blade to the ground. The distance should be the same on both sides.

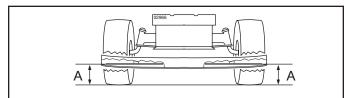


Fig. 28

- If adjustment is necessary, see steps in Visual Adjustment instructions above.
- Recheck measurements, adjust if necessary until both sides are equal.

FRONT-TO-BACKADJUSTMENT (See Figs. 29A and 29B) **IMPORTANT:** Deck must be level side-to-side.

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



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

- Raise mower to highest position.
- Position any blade so the tip is pointing straight forward. Measure distance (B) to the ground at front and rear tip of the blade.
- If front tip of blade is not 1/8" to 1/2" lower than the rear tip, go to the front of tractor.
- With an 11/16" or adjustable wrench, loosen jam nut A several turns to clear adjustment nut B.
- With a 3/4" or adjustable wrench, turn front link adjustment nut (B) clockwise (ltighten) to raise the front of mower, or, counterclockwise (loosen) to lower the front mower.

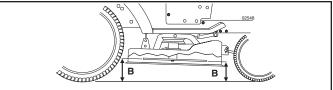


Fig. 29A

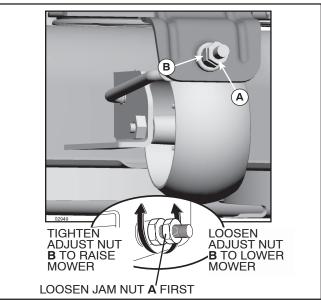


Fig. 29B

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

- Recheck measurements, adjust if necessary until front tip of blade is 1/8" to 1/2" lower than the rear tip.
- Hold adjustment nut in position with wrench and tighten jam nut securely against adjustment nut.

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 30)

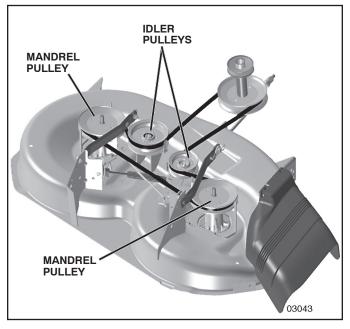
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### 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).





## TO CHECK BRAKE

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

You may also check brake by:

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

The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, then the brake needs to be serviced. Contact a Sears or other qualified service center.

# TO REPLACE MOTION DRIVE BELT (See Fig. 31)

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 (A) and clutching idler (B).
- Remove belt from centerspan idler (C).
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle input pulley (D).
- Remove belt downward from engine pulley (E).
- Slide belt toward rear of tractor, off the steering plate (F) and remove from tractor.

**BELT INSTALLATION -**

- Install new belt from tractor rear to front, over the steering plate (F) and above clutch brake pedal shaft (G).
- Pull belt toward front of tractor and roll belt onto engine pulley (E).
- Pull belt toward rear of tractor. Carefully work belt down around transaxle input pulley (D). Be sure belt is inside the belt keeper.

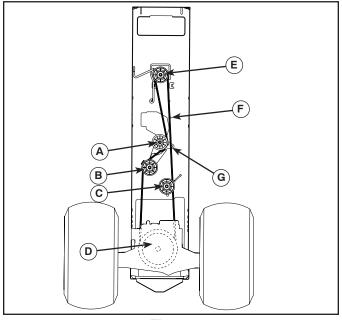


Fig. 31

- Install belt on centerspan idler (C).
- Install belt through stationary idler (A) and clutching idler (B).
- 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).

## TO ADJUST STEERING WHEEL ALIGNMENT

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

### FRONT WHEEL TOE-IN/CAMBER

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

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 32)

- 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.

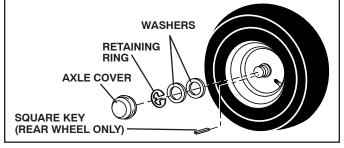


Fig. 32

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 33)



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.

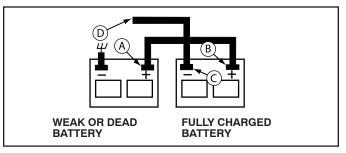


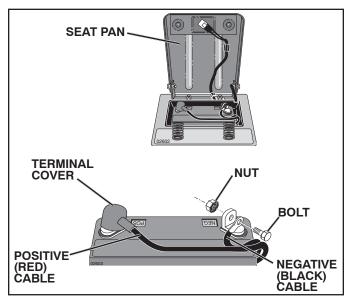
Fig. 33

## **REPLACING BATTERY (See Fig. 34)**



WARNING: Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc. Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift seat pan to raised position.
- Disconnect BLACK battery cable first then RED battery cable and carefully remove battery from tractor.
- Install new battery with terminals in same position as old battery.
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.





## 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. 35)

- 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.

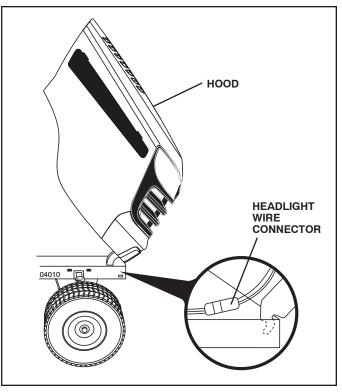


Fig. 35

## ENGINE

## TO ADJUST THROTTLE CONTROL CABLE

The throttle control has been preset at the factory and adjustment should not be necessary. If adjustment is necessary, see engine manual.

## TO ADJUST CARBURETOR

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

# STORAGE

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



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

## TRACTOR

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

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

### BATTERY

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

## ENGINE

### **FUEL SYSTEM**

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

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

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

### **ENGINE OIL**

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

#### CYLINDER(S)

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

#### OTHER

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

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

# **TROUBLESHOOTING POINTS**

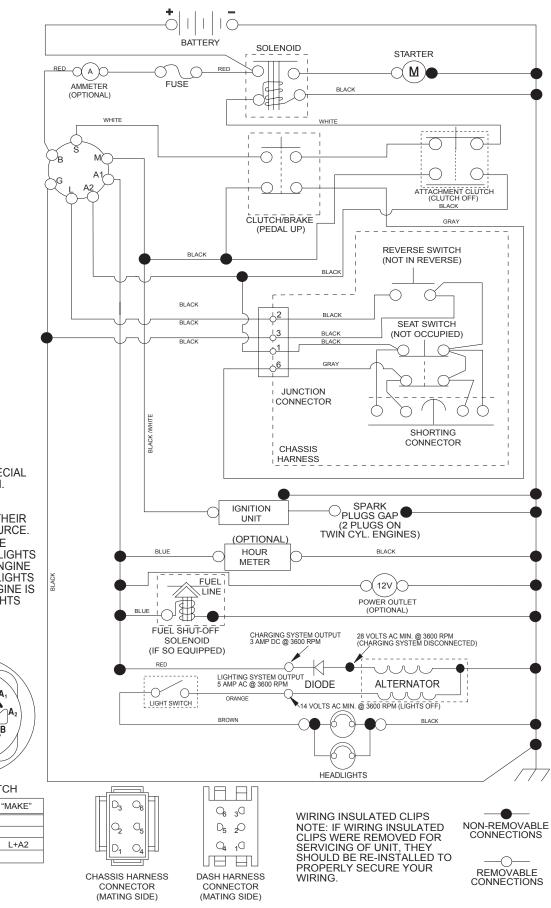
PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</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 Service 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> <li>Engine valves out of adjustment.</li> </ol>	<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, clean gasoline.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service 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	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ol>	<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> </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/replace muffler.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department.</li> </ol>
Excessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	<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**

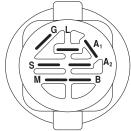
PROBLEM	CAUSE	CORRECTION		
Engine dies when tractor is shifted into reverse	<ol> <li>Reverse operation system (ROS) is not "ON" while mower or other attachment is engaged.</li> </ol>	1. Turn ignition key to ROS "ON" position. See Operation section.		
Engine continues to run when operator leaves seat with attachment clutch engaged	1. Faulty operator-safety presence control system.	<ol> <li>Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.</li> </ol>		
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>		
<i>l</i> lower blades will not otate	<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 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>		
leadlight(s) not working if so equipped)	<ol> <li>Light 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 light 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>		
oss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>	<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"	<ol> <li>Engine throttle control not set between half and full speed (fast) position before stopping engine.</li> </ol>	<ol> <li>Move throttle control between half and full speed (fast) position before stopping engine.</li> </ol>		

### TRACTOR - - MODEL NUMBER 944.607931

SCHEMATIC SCH11



NOTE YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.

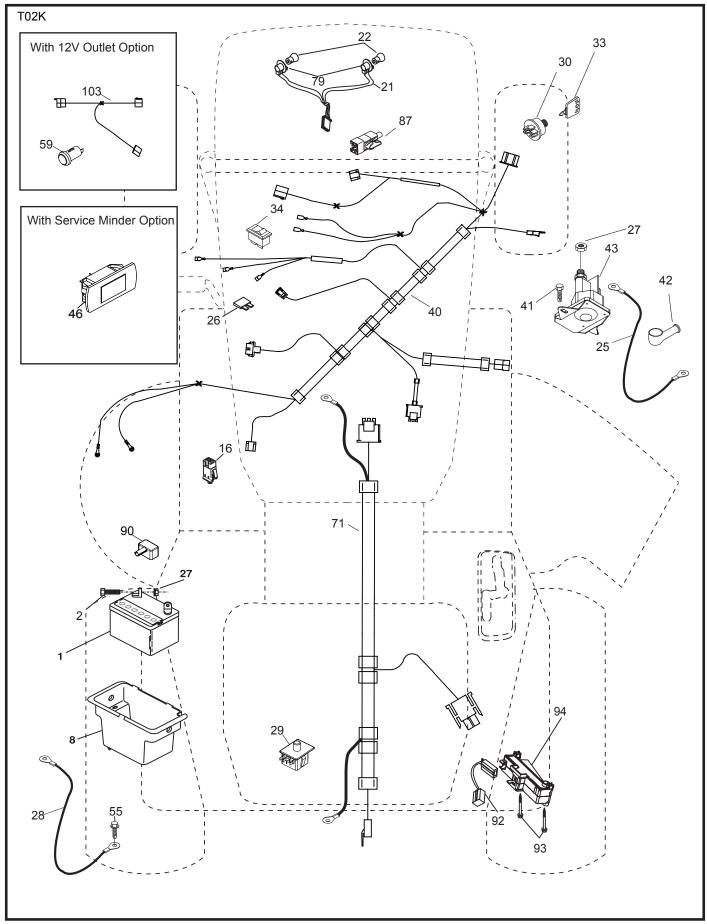


#### IGNITION SWITCH

POSITION	CIRCUIT	"MAKE"
OFF	M+G+A1	
RUN/OVERRIDE	B+A1	
RUN	B+A1	L+A2
START	B + S + A1	

## TRACTOR - - MODEL NUMBER 944.607931

## ELECTRICAL

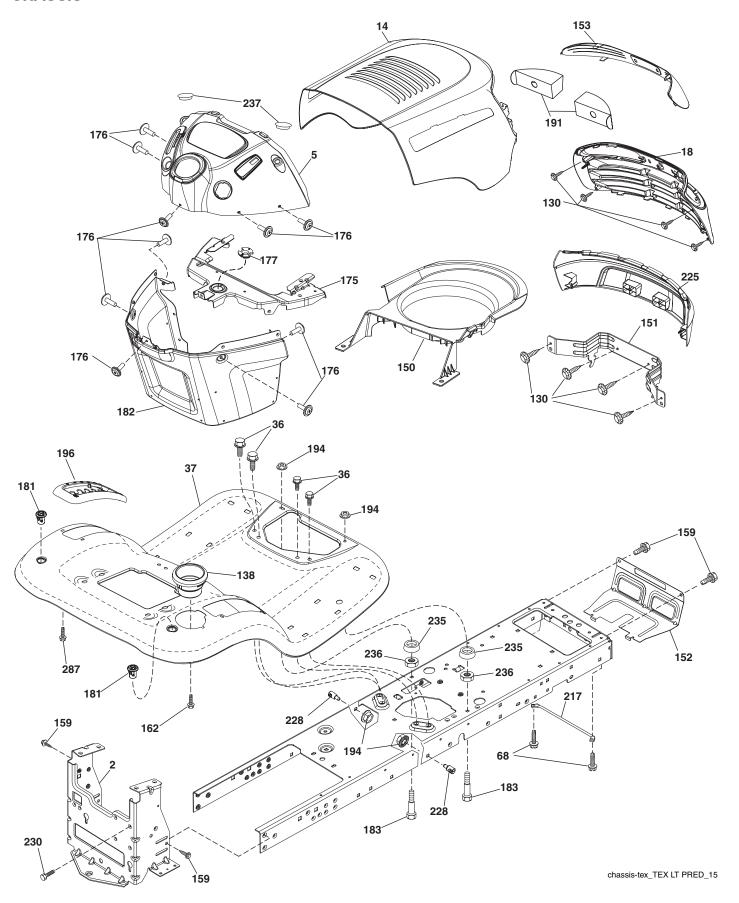


ELECTRICAL

KEY NO.	Part No.	DESCRIPTION
1	163465	Battery
	74760412	Bolt Hex Hd 1/4-20 unc x 3/4
-	193228	Box Battery
16	176138	Switch Interlock Push-In
	400252	Harness Socket Light W/4152J
	4152J	Bulb Light
25		Cable Starter
	175158	Fuse
	73510400	Nut Keps Hex 1/4-20 unc
	198885	Cable, Ground
29		Switch, Seat
	193350 411934	Switch, Ign Key/Chain
	110712X	
	401098	Switch Light / Reset Harness Ign. Dash
	17720408	Screw Thd Cut 1/4-20 x 1/2
	131563	Cover, Terminal
	192507	Solenoid
	17060512	Screw Thdrol 5/16-18 x 3/4 TYTT
71		Harness Ign.
79		Bulbholder Asm. Incan Descent
	197802	Switch Interlock Clutch Cable
	400725	Cover Terminal Battery
92	196615	Harness Pigtail
	192540	Screw Plastite 10-14 x 2.0
94	191834	Module Reverse ROS

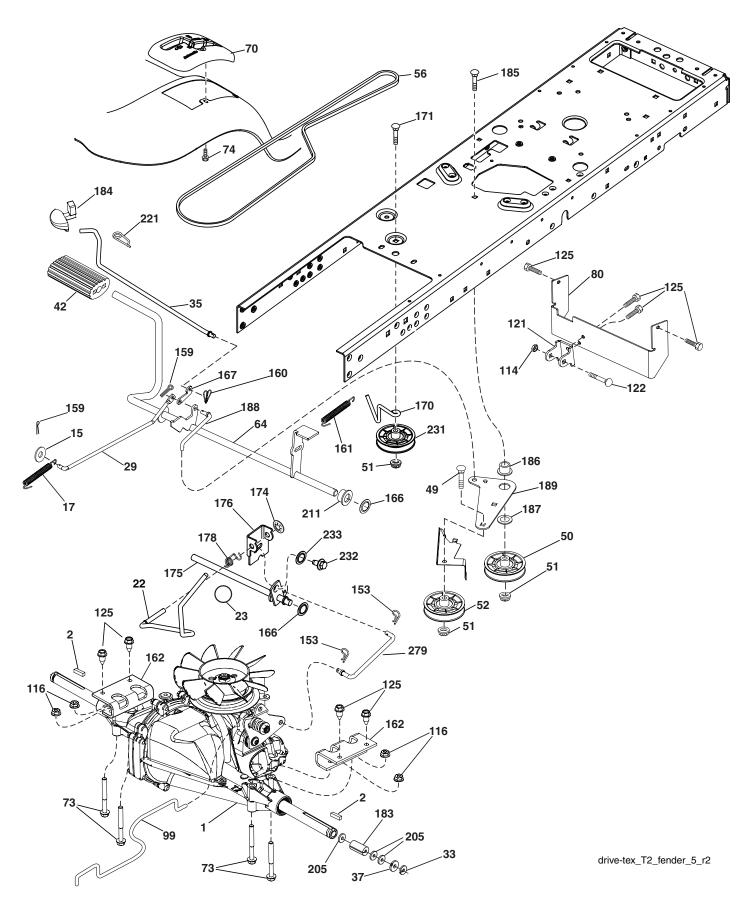
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

**CHASSIS** 



KEY NO.	PART NO.	DESCRIPTION
NO. 2 5 14 18 36 37 68 130 138 150 151 152 153 159 162 175 176 177	NO. 194263 400801X428 197665X615 400551 17060512 414872X615 17490508 416358 193224X428 408310 187568 194329 400550X599 17000612 142432 199472 400776 195228	Drawbar Dash Hood Grille Screw 5/16-18 x 3/4 Fender Screw Thdrol 5/16-18 x 1/2 Screw #10 x0.750 Cupholder Duct Air Bracket Pivot Shield Browning/Debris Lens Bar Screw Hexwsh Thdrol 3/8-16 x 3/4 Screw Hex Wsh Hi-Lo 1/4 x 1/2 Crossmember Screw 10-24 x 5/8 Wshd Qdrx Bushing Steering
180 181 182 183	194260 193102X428 407176	Chassis
183 191 194 196 217 225 228 230 235 236 237 287	401827 73900500 414579 409167 400549X615 195161 170165 406129 73930500	Reflector Insert Nut Lock Hex Flange 5/16-18 Console Asm. Deck Lift Rod Pivot Chassis Bumper Stud Fastener Bolt Shoulder 5/16-18 Spacer Fender Nut Center Lock 5/16-18 Plug Mount Cargo Screw 1/4-20 x 3/8
		· · ·

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



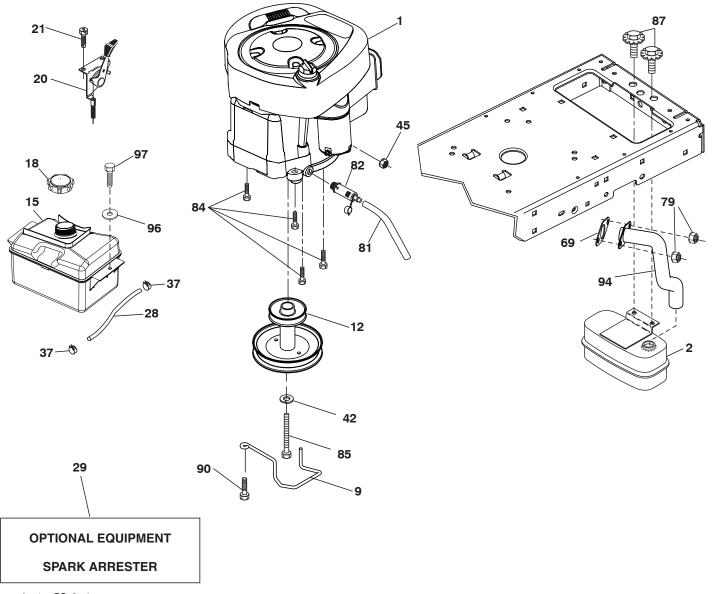
#### DRIVE

## TRACTOR - - MODEL NUMBER 944.607931

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 15 17 22 33 35 37 42 49 51 52 56 64 70 73 74 80 99 114 121 122 125	418219 123583X 19131316 197296 197660 130564 408391 12000001 401031 121749X 8883R 72110614 194327 73900600 194326 125907X 196200 193220X428 74490544 142432 408393 408418 73800500 73900500 175611 72010520 17000512	Transaxle, Hydro T2 (See Transaxle Breakdown) Key Square Washer 13/32 x 13/16 x 16 Ga. Spring, Brake Rod Shift Knob Rod, Brake Ring E Rod, Brake, Park Washer 25/32 x 1-1/4 x 16 Ga. Cover, Foot Pedal Bolt Pulley Idler Flat Lock Nut 3/8-16 Idler V-Groove 910" Offset V-Belt, Drive Shaft Asm. Pedal Brake Control Console Bolt 5/16-18 Gr. 5 Screw 1/4 x 1/2 Strap Torque Rod Asm Bypass Nut Lock 5/16-18 unc Nut Lock Hex Flange 5/16-18 Bracket Strap Torque Bolt 5/16-18 x 2.5 Screw 5/16-18 x 3/4	162 166 167 169 170 171 172 173 174 175 176 178 183 184 185 186 187 188 189 190	NO. 408784 197290 405257 74490560 413430 72110622 197656 197655 197289 408539 196214 197456 156972 199996X505 72110620 194321 19133210 194323 194317 194318 121748X 196212 403187 407287 74780716 405296 408358	DESCRIPTION Adapter Transaxle Nut Push .625 Latch Brake Parking Bolt Hex 5/16-18x 3.75 Keeper Belt Centerspan Bolt Strap Torque LH Strap Torque RH Nut Push Shaft Asm Shift Arm Clevis Rod Shift Spring Shift Spacer Axle Handle Parking Brake Bolt Spacer Retainer Washer Link Clutch Ground Drive Bellcrank Ground Drive Keeper Bellcrank Ground Drive Washer 25/32 x 1-5/8 x 16 Ga. Bushing Retainer Spring Clip Idler V-Groove 688" Offset Bolt Fin Hex 7/16-14 Washer Serrated Link Shift
153 159 160 161	4497H 76020412 169484 105709X	Retainer Spring Pin Cotter 1/8 x 3/4 Retainer Clip Spring, Return, Clutch	NOTE	: All compone 1 inch = 25.4	ent dimensions given in U.S. inches 4 mm

TRACTOR - - MODEL NUMBER 944.607931

### ENGINE



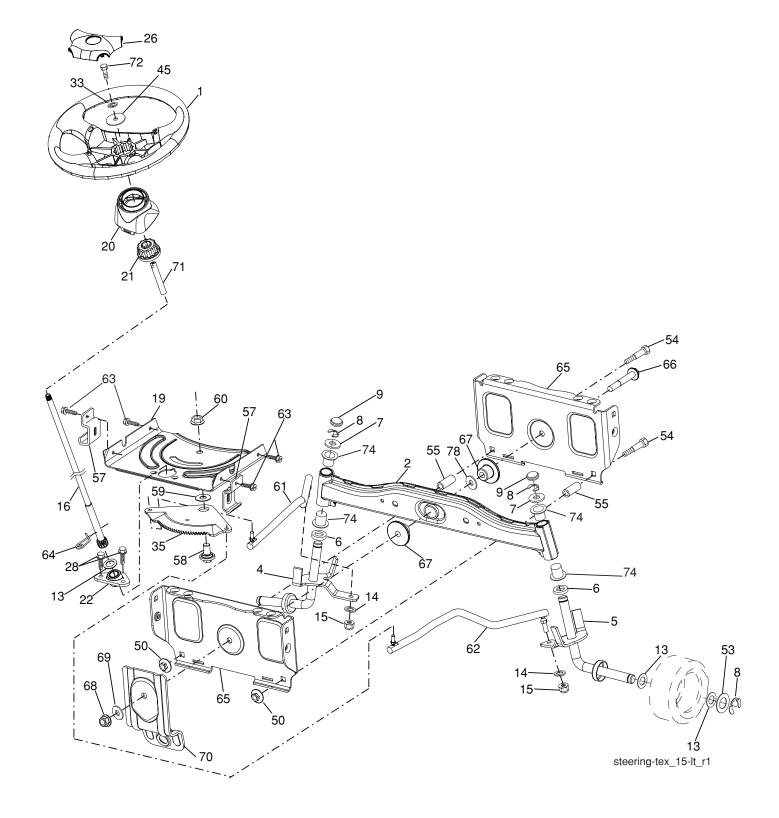
engine-tex-BS\_2\_r1

KEY NO.	Part No.	DESCRIPTION
1		Engine B&S Model No. 331777-0956-B1 (See Engine Breakdown)
2	188655	Muffler
9	194319	Keeper Belt Engine
12	401985	Pulley Engine
15		Tank Fuel
18		Cap Asm
20	176636X428	Control Throttle/Choke
21	416358	Screw #10 x0.750
28		Fuel Line
29		Spark Arrester Kit
37		Clamp Hose
42		Washer Lock 7/16
	73510400	Nut Keps Hex 1/4-20 unc
69		Gasket
79		Screw Socket Hd 5/16-18 x .75
81		Tube Drain Oil Easy
82		Plug Drain Oil
84		Screw 3/8-16 x 1-1/4
85		Bolt Hex 7/16-20 x 4 x Gr. 5-1.5
87		Bolt 5/16 UNC x 3/4
90		Screw 3/8-16 x 1.0
94		Exhaust Tube
	19091416	Washer 9/32 x 7/8 x 16
97	17670412	Screw Hexwsh Thdrol 1/4-20 x 3/4

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

#### **Engine Power Rating Information**

The gross power rating for individual gas engine models is labeled in accordance with SAE (Society of Automotive Engineers) code J11940 (Small Engine Power & Torque Rating Procedure), and rating performance has been obtained and corrected in accordance with SAE J1995 (Revision 2002-5). Actual gross engine power will be lower and is affected by, among other things, ambient operating conditions and engine-to-engine variability. Given both the wide array of products on which engines are placed and the variety of environmental issues applicable to operating the equipment, the gas engine will not develop the rated gross power when used in a given piece of power equipment (actual "on-site" or net horsepower). This difference is due to a variety of factors including, but not limited to, accessories (air cleaner, exhaust, charging, cooling, carburetor, fuel pump, etc.), application limitations, ambient operating conditions (temperature, humidity, altitude), and engine-to-engine variability. Due to manufacturing and capacity limitations, Briggs & Stratton may substitute an engine of higher rated power for this Series engine. TRACTOR - - MODEL NUMBER 944.607931 STEERING ASSEMBLY

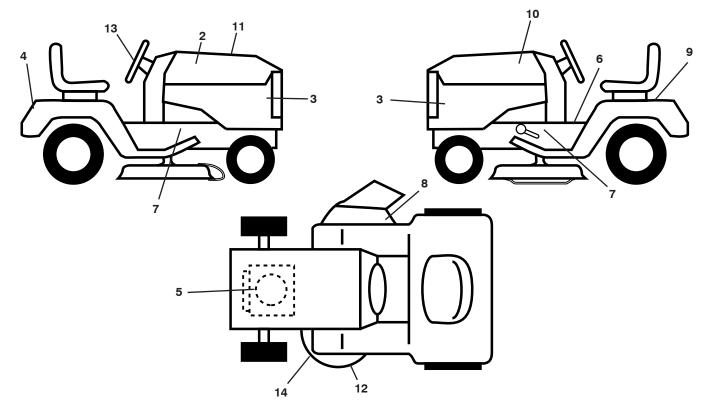


STEERING ASSEMBLY

KEY NO		DESCRIPTION
NO. 1 2 4 5 6 7 8 9 13 14 15 16 19 20 21 22 6 28 33 54 55 7 8 9 0 12 20 28 33 54 55 7 8 9 0 14 15 16 19 20 21 22 6 28 33 54 55 7 8 9 0 16 20 12 26 28 33 54 55 7 8 9 0 16 20 17 20 21 22 6 28 33 54 55 7 8 9 0 16 20 16 20 17 20 21 22 6 28 33 54 55 7 8 9 0 16 20 16 20 17 20 21 22 6 28 33 54 55 7 8 9 0 16 20 16 20 17 20 17 20 21 22 26 28 33 54 55 7 58 59 60 162 63 64 65 66 7 78 77 78 70 71 72 78 78 70 71 72 78 78 70 71 72 78 78 78 70 71 72 78 78 78 78 70 71 72 78	NO. 186093X428 184706 403087 403088 6266H 121748X 12000029 184946X505 121749X 10040600 73540600 408220 194729 400803X428 186737 194845 186095X428 17000612 10040500 194732 19183812 73900600 188967 74760636 414736 407465 194747 194748 73971000 184747 194748 73971000 194740 194741 17000512 199849 194734 71020748 194737 73900700 199162 196075 74780572 57079	DESCRIPTION Wheel, Steering Axle Asm., Front Spindle Asm., LH Spindle Asm., RH Bearing, Race Thrust Harden Washer 25/32 x 1-5/8 x 16 Ga. Ring, Klip #T5304-75 Cap, Spindle Washer 25/32 x 1-1/4 x 16 Ga. Washer, Lock Hvy HIcl Spr 3/8 Nut, Crown Lock 3/8-24 unf Shaft Steering Plate Steering Boot, Steering Adapter, Wheel Steering Bushing, Strg. Blk Insert, Wheel Steering Screw 3/8-16 x 3/4 Washer Lock HVY HLSL SPR 5/16 Gear, Sector Plate Washer 9/16 ID x 2-3/8 OD x 12 Ga. Nut Lock 3/8-16 unc Washer Hardened .793 x 1.637 x .060 Bolt Hex 3/8-16 unc x 2-1/4 Spacer Brace Axle Bracket Upstop Bolt Shoulder Sector Pivot CFM Washer Thrust Sector Steering Nut Flange Lock 5/8-11 Draglink, RH Screw 5/16-18 x 3/4 Retainer Clip Spring Steering Brace Axle Front Bolt Hex Fghd 7/16-14 x 3 Serr Bushing PM Front Axle Nut Lock Flange 7/16-14 Gr. 5 Washer 1.5 x .505 x .118 Bracket Deck Susp. Front Shaft Exten. Strg. Bolt Fin Hex 5/16-18 Washer Thrust

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

#### DECALS

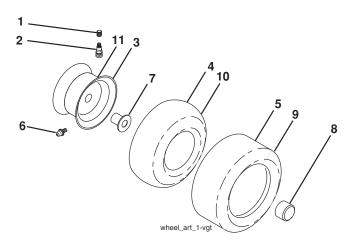


KEY NO.		DESCRIPTION	KEY NO.
1	199135	Decal, Mower V-Belt Sch	10
2	412605	Decal, Hood RH	11
3	409079	Decal, Side Panel	13
4	411697	Decal, Fender	14
5	416475	Decal, Engine	
6	411658	Decal, Fender Warning	
7	409080	Decal, Chas	
8	170563	Decal, Warning	
9	149517	Decal, Battery Dnge/Poi	

NO.	NO.	DESCRIPTION
10	412606	Decal, Hood LH
11	419368	Decal, Replacement
13	164065	Decal, Steering Wheel
14	160396	Decal, Mower Schematic
	193227X428	Pad, Footrest, RH
	166960	Decal, Bypass
	193226X428	Pad, Footrest, LH
	415615	Manual, Owner's English
	415616	Manual, Owner's French

PART

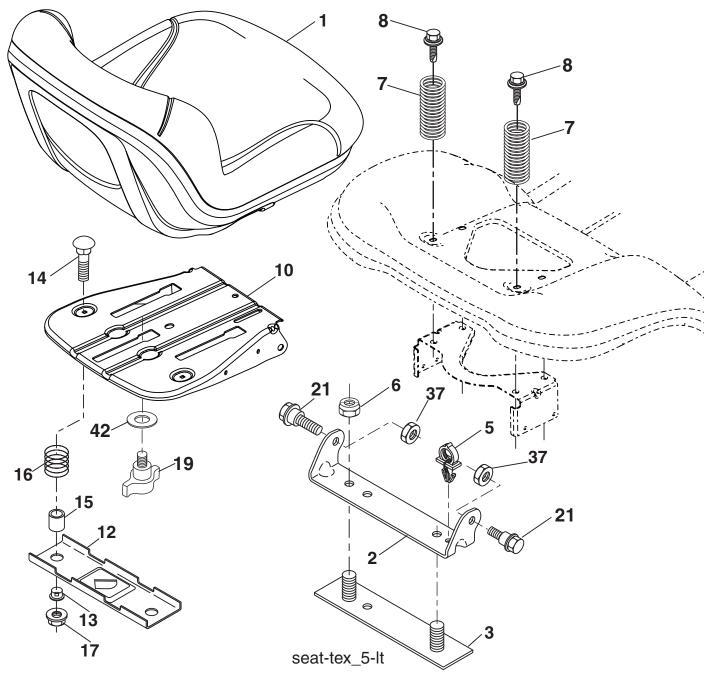
#### WHEELS AND TIRES



KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106732X645	Rim Assembly, Front
4	59904	Tube, Front
5	106222X	Tire, Front
6	278H	Fitting, Grease
7	9040H	Bearing, Flange
8	104757X645	Cap, Axle (Front Wheel Only)
9	106268X	Tire, Rear
10	7152J	Tube, Rear
11	106108X645	Rim Assembly, Rear
	144334	Sealant, Tire (10 oz. Tube)

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

#### SEAT ASSEMBLY

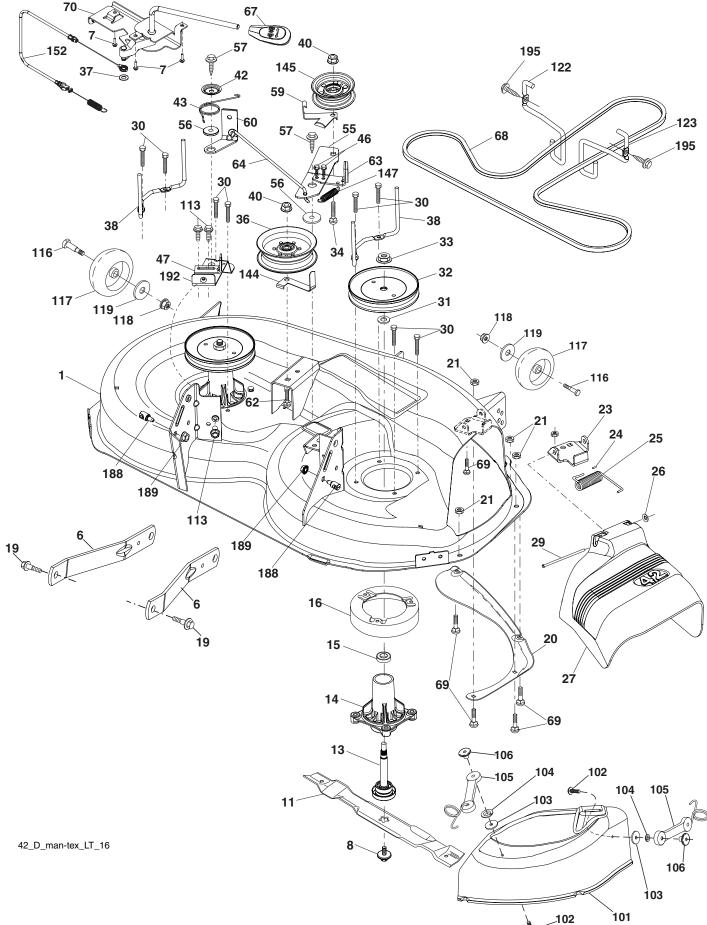


KEY	PART	DESCRIPTION	KEY
NO.	NO.		NO.
1 2 3 5 6 7 8 10	197520 180166 140675 145006 73800600 124181X 171877 199180	Seat Bracket Pivot Fender Strap, Asm Fender Clip, Push In, Hinged Nut, Lock W/Ins. 3/8-16 unc Spring, Seat Cprsn Bolt 5/16-18 uncx 3/4 w/Sems	15 16 17 19 21 37 42
10	199180	Pan, Seat	NOT
12	199370	Bracket Mnt Opc Seat	
13	121248X	Bushing Snap	
14	72050412	Bolt Rdhd Sh Nk 1/4-20 x 1-1/2	

KEY NO.	PART NO.	DESCRIPTION			
15	134300	Spacer Split .28 x .96			
16	123740X	Spring			
17	123976X	Nut Lock 1/4 Lrg Flg Gr. 5			
19	199372	Knob Seat			
21	171852	Bolt, Shoulder 5/16-18			
37	73800500	Nut, Lock 5/16-18 unc			
42	199371	Washer			
<b>NOTE:</b> All component dimensions given in U.S. inc					

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

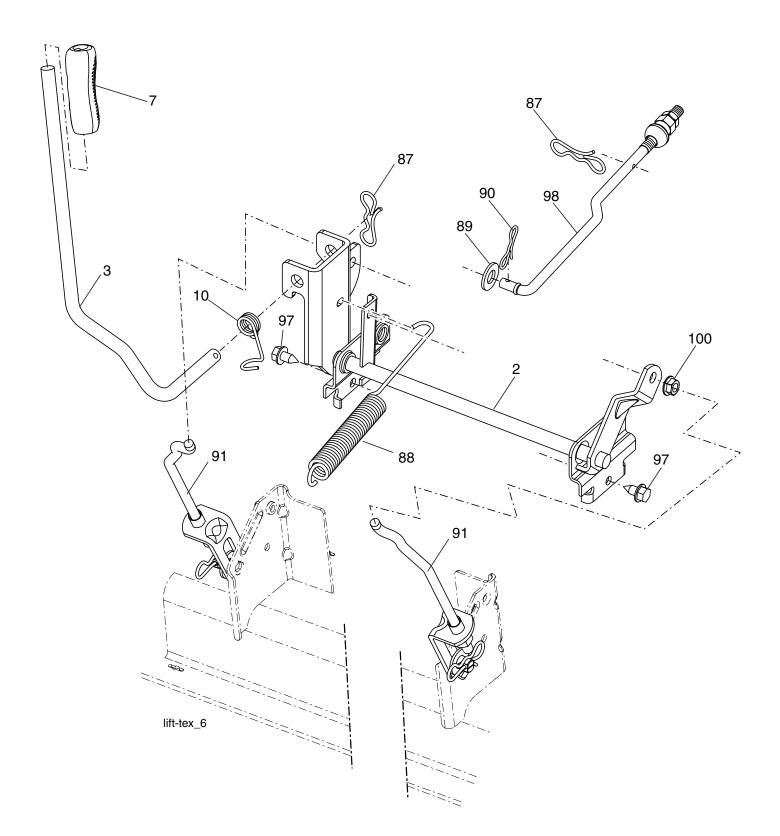
MOWER DECK



#### **MOWER DECK**

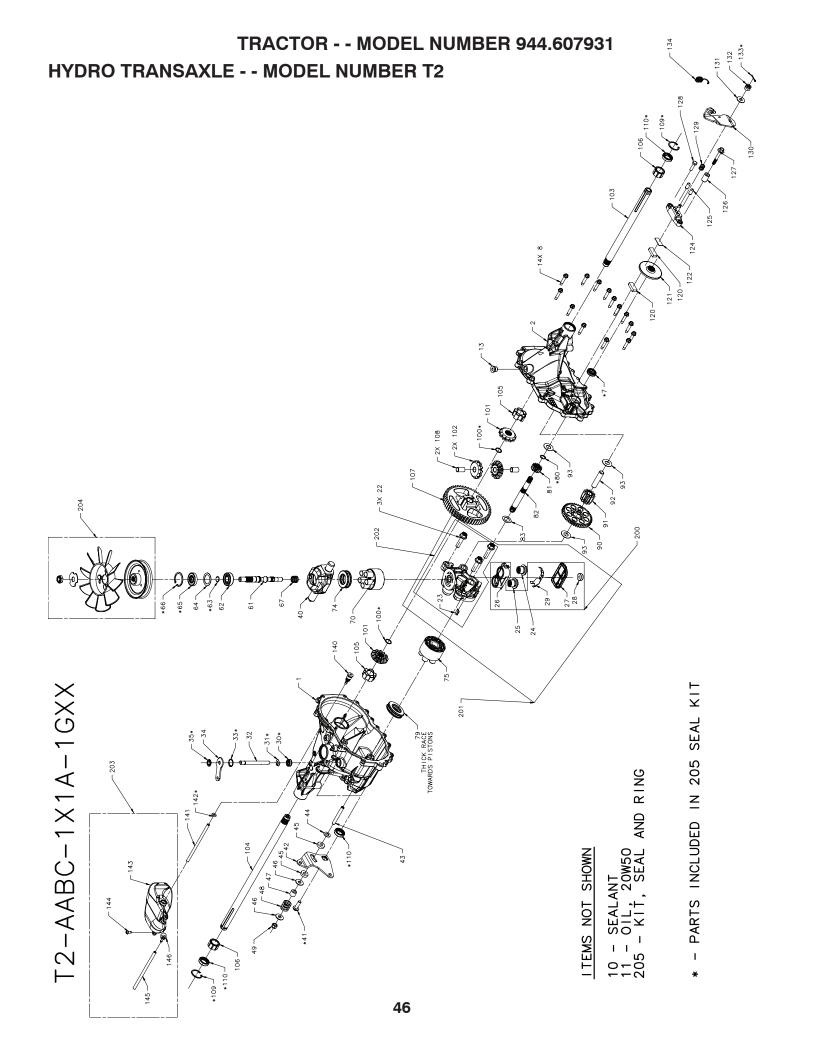
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	196495	Deck Weldment Mower	64	199790	Link Brake Asm
6	195186	Arm Suspension	67		Handle Clutch Cable
7	416358	Screw #10 x0.750	68	197253	V-Belt
8	193003	Bolt/Washer asm 7/16-20 unf	69	72140505	Bolt
11	134149	Blade, 42" Mulching Std	70	401246	Clutch Asm Manual
•••		(For mulching mowers only)	101	193107	Cover Mulching
	138971	Blade, 42" Hi-Lift	102	71081010	Screw Pan Hd Phillips 10-24 x 5/8
	100071	(For bagging or discharge)	102	19061216	Washer #10
	139775	Blade, 42" Mulching Premium	104	10071000	Washer Lock #10
	100770	(For better wear when mulching)	105	160793	Latch Asm
13	192872	Shaft Assembly, Mandrel	106	2029J	Nut Weld .327304 #10-24
14	187281	Housing, Mandrel	113	17000510	Bolt 5/16-18
15	110485X	Bearing, Ball, Mandrel	116	4898H	Bolt, Shoulder
16	174493	Stripper, Mower Deck	117	188606	Wheel, Gauge
19	196539	Bolt, Shoulder	118	73930600	Nut, Crownlock 3/8-1
20	159770	Baffle, Vortex	119	19121414	Washer 13/32 x 7/8 x 14 Ga.
21	73680500	Nut, Crownlock 5/16-18 unc	122	197258	Keeper Belt Engine LH
23	192557	Bracket, Deflector	123	197259	Keeper Belt Engine RH
24	105304X	Cap, Sleeve	144	199204	Keeper Belt
25	197026	Spring, Torsion, Deflector	145	193197	Pulley Idler
26	110452X	Nut, Push	147	401971	Spring Return
27		Shield, Deflector	151	401244	Bracket Clutch
29	131491	Rod, Hinge	152	408714	Manual Clutch Cable
30	173984	Screw Thdrol Rolling Wsh Hd	188	195161	Stud Fastener
31	187690	Washer, Spacer	189	73900500	Nut Lock Hex Flange
32	197473	Pulley, Mandrel	192	197260	Bracket Brake Stand LH
33	400234	Nut, Toplock, Flanged	195	17000612	Screw Hex Wsh Thdr 3/8-16 x 3/4
34	72110612	Bolt Carr Sh. 3/8-16 x 1-1/2 Gr. 5		192870	Mandrel Assembly (Includes hous-
36	197379	Pulley, Idler, Flat			ing, shaft assembly, and bearing
37	19131316	Washer			only - pulley/nut/washer and blade
38	199189	Keeper Belt LH Mandrel			bolt/washers not included)
40	73900600	Nut, Lock Flg. 3/8-16 unc		405126	Replacement Mower, Complete
42	198410	Spring Torsion Brake			
43	197256	Spring Torsion Retainer			
46	137729	Screw Thd Roll 1/4-20 x 5/8			
47	197250	Bracket Clutch Cable			
55 56	197249	Arm, Idler			
56 57	199092	Spacer, Retainer			
57 59	17000616	Screw 3/8-16 x 1 Guard, Tuv Idler			
59 60	141043 197261	Arm Brake Mower			
60 62	72110616	Bolt Rd Hd Sq Nk 3/8-16 unc x 2	NOTE		ent dimensions given in U.S. inches
62 63	199477	Arm Brake Mower		1  inch = 25.	4 mm
00	133411				

#### MOWER LIFT



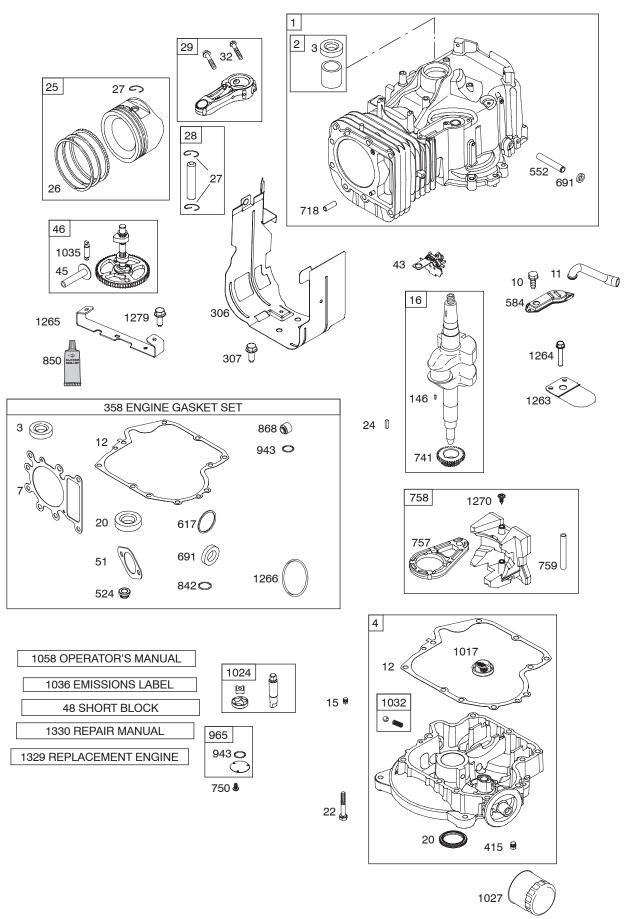
KEY NO.	PART NO.	DESCRIPTION
2	195223	Shaft Asm., Lift
3	195231	Lever Asm., Lift Rh
7	196492X428	Grip, Lever
10	196314	Spring Torsion
87	194209	Pin Cotter 7/16 Bow Tie Lock
88	410710	Spring Lift Assist
89	19191912	Washer Clear Zinc
90	194208	Pin Cotter 5/16 Bow Tie Lock
91	195181	Link Asm. Lift Rear
97	17000612	Screw 3/8-16 x 3/4
98	195270	Link Lift Susp. Front Mower
100	73930600	Nut Centerlock 3/8-16

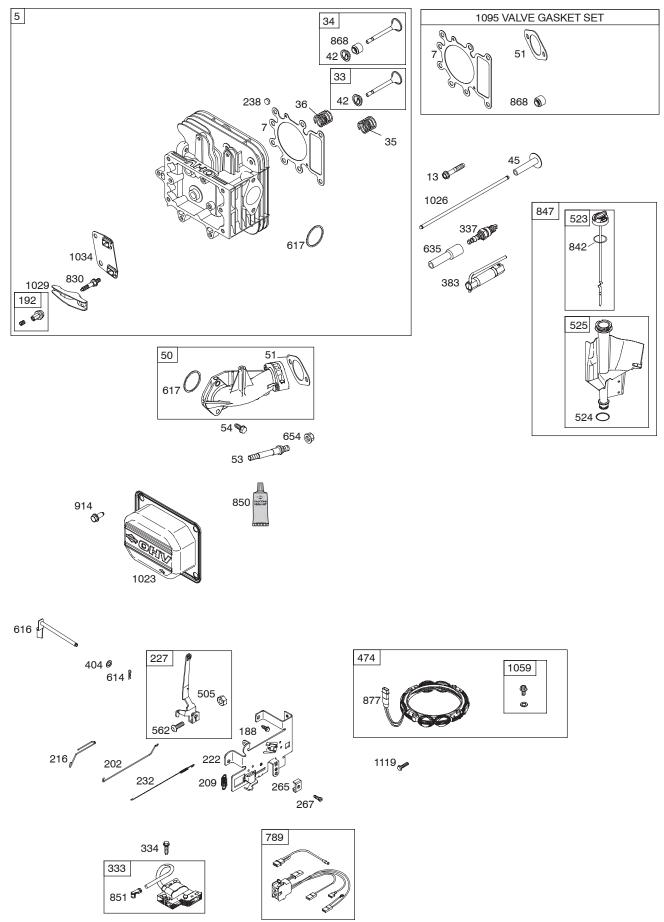
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

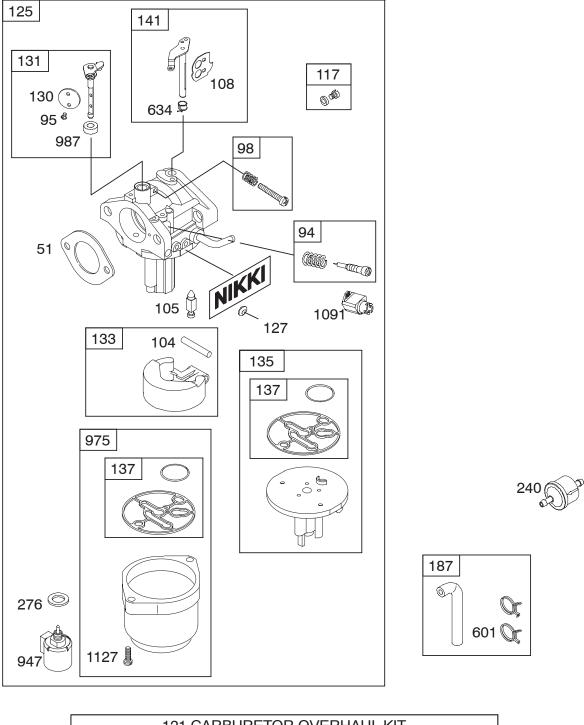


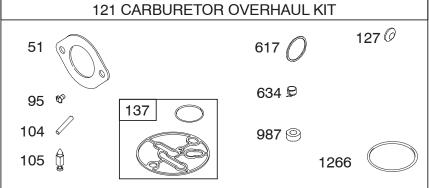
### HYDRO TRANSAXLE - - MODEL NUMBER T2

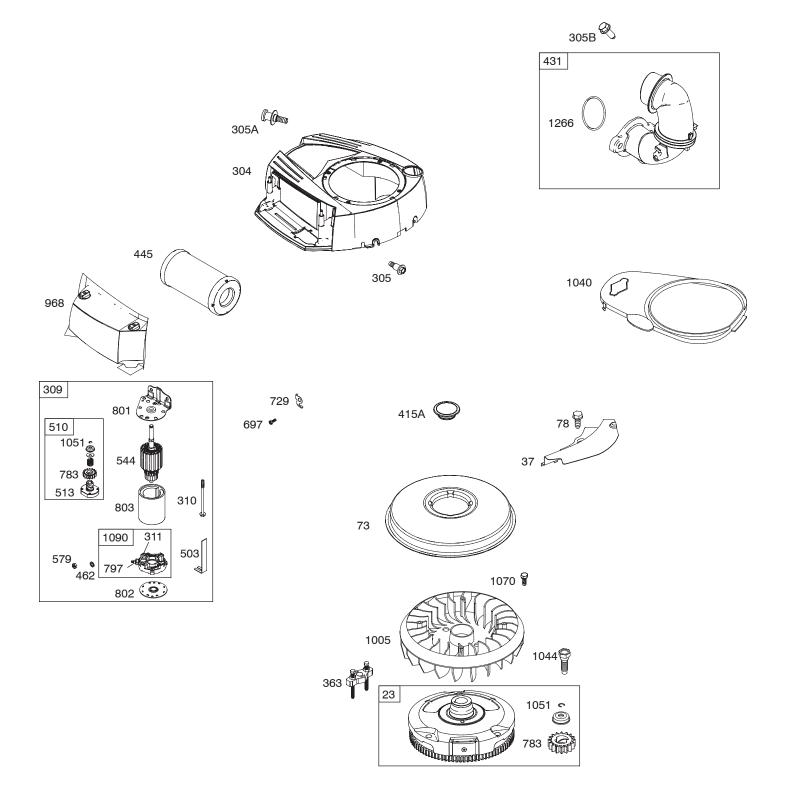
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	412015	Kit, Hsg, Main	90	412048	Gear, 11t/48t
2	412016	Kit, Hsg, Side	91	412049	Gear, Jackshaft 11t
7	412018	Seal, Lip .50xl.0x.25 Tc	92	412050	Jack Shaft (P1n)
8	170356	Hfhcs 1/4-20 X 1 .25"	93	170418	Washer.51x1.10x.03
10	178322	Sealant	100	170393	Ring, Ret - Spiral .625 Ext
11	HOOLL	Oil, 20w50	101	401260	Gear, Bevel 12t Spline Id
13	170434	Plug 9/16-18 (Metal)	102	401261	Gear, Bevel 12t .50 ld
20	412020	C-section Mach	103	170391	Shaft, Axle, Keyed, 11.39 X 0.75
21	412021	Brg, Jrnl 15mm X 17mm X 15mm L	104	170392	Shaft. Axle, Keyed, 16.99 X 0.75
22	412022	Bolt, Hex Flange. 3/8-16, C/s	105	412052	Bushing, Inboard
23	412023	Plate, Bypass	106	412053	Bushing, Outboard
24	170420	Assembly, Check Plug W/ Washer.	107	412054	Gear, 53t Bull
	110120	,027	108	421055	Pin. Differential
25	412024	Assembly, Check Plug W/ Washer,	109	412056	Ring, Ret, Int Axle
20	112021	,027, Spring	110	142961	Seal, Lip.75x1.125x.25 Tc
26	412025	Base, Filter	120	142883	Puck, Brake
27	412026	Cover, Filter	121	412057	Rotor, Brake
28	170395	Ring, Magnet	122	142882	Plate, Puck
29	412027	Deflector	124	142929	Yoke, Brake
30	412028	Seal, Lip.375x.75x.25 Tc	125	142887	Pin. Brk .31x.73 Plated
31	412029	Ring, Ret .375 Ext	126	161174	Spacer .26x.57x.87
32	412030	Rod, Actuator Bypass	127	170410	Hfhcs 1/4-20 X 2.0 W/patch
33	412031	Ring, Ret .750 Int	128	142892	Hhcs 1/4-20x1 (Patch)
34	412032	Arm. Bypass	129	161181	Spring. Comp Brake Anti-drag
35	412033	Ring, Ret .375 Ext	130	142954	Arm, Brake
40	412034	Trunnion. Swash Plate	131	142884	Washer .34x.88x.06
41	412035	Screw 5/16-18x1	132	142885	Nut, Castle 5/16-24 Pl
42	412036	Arm, Cntrl	133	142886	Pin, Cotter 3/32x3/4
43	412037	Screw. Set 3/16-24 X 2.50	134	189386	Spring, Brake Arm Bias
44	412038	Washer, Belleville	140	170425	5/16 Sae, 5/32 Tube
45	412039	Washer,plastic, .32x.80x.21	141	412058	Hose
46	142884	Washer .34x.88x.06	142	170435	O-ring .103x.299 Id
47	142980	Spacer .32x.59x.50	143	412059	Tank. Expansion
48	142969	Spring, Helical Comp	144	161175	Bolt, Self-tapping 10-32x1/2
49	150778	Nut, Hex 5/16-24 Nylon Lnsert	146	401264	Cap, Barbed Vent
61	412040	Shaft, Lnput	147	412060	Fastener, Ratchet
62	142934	Ball Bear L Ng 15x35x 1 1	150	170439	Fan, 7', 10 Blade
63	142928	Ring, Ret Wire .512 Id	151	412061	Pulley, Flanged, 4.13"
64	161125	Washer 1.23x1.56x.04	152	170441	Nut, Hex Lock, 1/2-20 (Nylon Insert)
65	142932	Seal, Lip 15x35x7	153	170442	Washer, Od Slotted .53x1.63x.06
66	142933	Ring, Ret 1.56 Int	200	412062	Kit, Filter
67	412041	Spring. Helical	201	412063	Kit, Center Section W/filter
70	412042	Kit, Block, Cyl 8cc	202	412064	Kit, Center Section
74	412043	Brg, Thrust Ball 27x47x14	203	412065	Kit, Tank Expansion
75	169898	Kit, Block, Cyl 10cc Rm	204	412066	Kit, Fan & Pulley
79	150771	Brg, Thrust Ball 30x52x13	205	412067	Kit, Seal
80	412044	Ring, Ret .50 Ext			
81	412045	Gear. 13t Pinion			
82	412046	Shaft, Motor	NOT	E: All compo	nent dimensions given in U.S. inches
83	412047	Washer .60x1.00x.03	1 inc	h = 25.4 mm	-











KEYPARTNO.NO.DESCRIPTIONNO.NO.NO.DESCRIPTION	ı
1 794128 Cylinder Assembly 127 690727 Ø Plug-Welch	
2 399265 Kit-Bushing/Seal (Magneto Side) 130 792747 Valve-Throttle	e
3 391086s • Seal-Oil (Magneto Side) 131 792765 Kit-Throttle S	
4 697188 Sump-Engine 133 694914 Float-Carbur	
5 794123 Head-Cylinder 135 698780 Tube-Fuel Tra	
7 794114 •+ Gasket-Cylinder Head 137 698781 Ø Gasket-Float	
10 697157 Screw (Breather Assembly) 141 792777 Kit-Choke Sh	
11 697113 Tube-Breather 146 691639 Key-Timing	lan
12 697110 • Gasket-Crankcase 187 791805 Line-Fuel	
13 793988 Screw (Cylinder Head) 188 691693 Screw (Contr	rol Bracket)
15 690946 Plug-Oil Drain 192 691986 Adjuster-Roc	
	ical Governor
	mor
	tral
23 693557 Flywheel 222 694042 Bracket-Cont	
24 222698s Key-Flywheel 227 691374 Lever-Goveri	
25 794124 Piston Assembly (Standard) 232 691842 Spring-Gove	mor
25 794125 Piston Assembly (.020" Oversize) 238 691843 Cap-Valve	
26 794126 Ring Set (Standard) 240 394358s Filter-Fuel	
26         794127         Ring Set (.020" Oversize)         265         691024         Clamp-Casin	
27         698469         Lock-Piston Pin         267         794904         Screw (Casir	
28 794143 Pin-Piston 276 695410 Ø Washer-Seal	
29 794571 Rod-Connecting 304 794142 Housing-Blov	
32 791118 Screw (Connecting Rod) 305 697102 Screw (Blow	
33 792868 Valve-Exhaust 305A 793376 Screw (Blow	
	er Housing to Elbow)
35 691279 Spring-Valve (Intake) 306 794953 Shield-Cylind	
36 691279 Spring-Valve (Exhaust) 307 691003 Screw (Cylin	
37 699882 Guard-Flywheel 309 693551 Motor-Starter	
42 499586 Retainer-Valve 310 690323 Bolt (Starter	Motor)
43 691968 Slinger-Governor/Oil 311 497608 Brush Set	
45 690564 Tappet-Valve 333 795315 Armature-Ma	
	neto Armature)
48 N/A Short Block 337 491055s Plug-Spark	
50 690193 Manifold-Intake 358 794150 Gasket Set-E	
51 692137 •Ø+ Gasket-Intake 363 19203 Flywheel Pul	
53         690227         Stud (Carburetor)         383         89838s         Wrench-Spail	
54 691148 Screw (Intake Manifold) 404 691691 Washer (Gov	/ernor Crank)
73 794357 Screen-Rotating 415 690283 Plug	
78 691003 Screw (Flywheel Guard) 415A 794129 Plug (Rotatin	
94 793610 Kit-Idle Mixture 431 794145 Elbow-Intake	
	aner Cartridge
98 695408 Kit-Idle Speed 462 691261 Washer (Star	rter Cable)
104 694918 Ø Pin-Float Hinge 474 696459 Alternator	
105 696136 Ø Valve-Float Needle 503 691532 Strap-Starter	
	or Control Lever)
117 791501 Jet-Main (Standard) 510 693699 Drive-Starter	
121 792369 Kit-Carburetor Overhaul 513 692024 Clutch-Drive	
125 794136 Carburetor 523 699908 Dipstick	

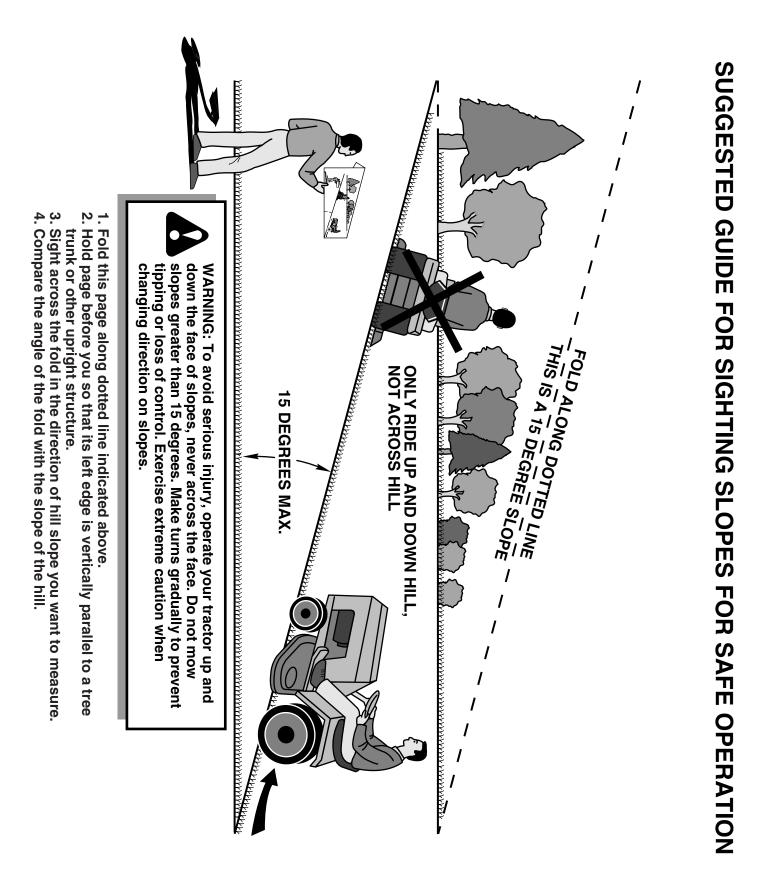
KEY NO.	PART NO.	I	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
524	691032	•	Seal-Dipstick Tube	1023	791079	Cover-Rocker Arm
525	697184		Tube-Dipstick	1024	794644	Pump-Oil
544	692034		Starter-Armature	1026	692003	Rod-Push (Intake)
552	697144		Bushing-Governor Crank		692011	Rod-Push (Exhaust)
562	691119		Bolt (Governor Control Lever)	1027	696854	Filter-Oil
579	691029		Nut (Starter Cable)	1029	691751	Arm-Rocker
584	794682		Cover-Breather Passage	1032	491710	Ball-Oil Pump
601	791850		Clamp-Hose	1034	690822	Guide-Push Rod
614	691620		Pin-Cotter	1036		Label-Emissions (Available from
616	692012	~	Crank-Governor			an Authorized Briggs & Stratton
617	692138	Ø•	5 ( )	1010		Service Dealer)
634	698779	Ø	Spring/Seal Assembly (Choke A	1040	698368	Plate-Trim
005	001000		Matic)	1044	698139	Screw (Flywheel)
635	691909		Boot-Spark Plug	1051	691265	Ring-Retaining
654	690958	_	Nut (Carburetor)	1058	MS3898	Operator's Manual
691 607	692407	•	Seal-Governor Shaft	1059	698516	Kit-Screw/Washer
697 718	690372		Screw (Drive Cap)	1070	690363	Screw (Flywheel Fan)
729	690959 691224		Pin-Locating Clip-Wire	1090 1091	691293 691333	Retainer-Brush Cap-Limiter
741	697128		Gear-Timing	1091	794152	Gasket Set-Valve
750	790832		Screw (Oil Pump Cover)	1119	691183	Screw (Alternator)
757	793242		Link-Counterweight	1127	695407	Screw (Float Bowl)
758	697134		Counterweight	1263	697124	Reed-Breather
759	697392		Pin-Counterweight	1264	697104	Screw (Breather Reed)
783	693713		Gear-Pinion	1265	794151	Support-Blower Housing)
789	698329		Harness-Wiring	1266	691917 •Ø	
797	693167		Nut (Brush Retainer)	1270	793243	Plug-AVS Čounterweight
801	691283		Cap-Drive	1279	691108	Screw (Blower Housing Support)
802	691286		Cap-End	1329	331877-0036	8 Replacement Engine (Transfer Muf-
803			Housing-Starter (For service			fler and/or Spark Arrester Assembly
			order complete starter motor			from the original engine if suitable
			reference 309)			for additional service or add new
830	691095		Stud (Rocker Arm)			parts as required)
842	691031	•	Seal-O Ring (Dipstick Tube)	1330	272147	Repair Manual
847	790442		Dipstick/Tube Assembly			
850	100100		Sealant-Liquid			
851	692424		Terminal-Spark Plug			
868	690968	•+				
877	393456		Wire/Connector-Alternator			
914 043	691108 600580	•	Screw (Rocker Cover)			
943 947	690589 699915	•	Seal-O Ring (Oil Pump Cover) Solenoid-Fuel	•	Included in Er	gine Gasket Set, Key. No. 358
947 965	499613		Cover-Oil Pump	-		igine Gasker Ser, Ney. NO. 350
905 967	793685		Filter-Pre Cleaner	Ø	Included in Ca	arburetor Overhaul Kit, Key. No. 121
968	794140		Cover-Air Cleaner	<u> </u>		
975	699502		Bowl-Float	+	Included in Va	lve Gasket Set, Key. No. 1095
987	698777	Ø	Seal-Throttle Shaft			
1005	70/121	~	Ean Elympool	NOTE		nt dimensions given in LLS inches

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

Fan-Flywheel Screen-Oil Pump

10057941211017690770

# **SERVICE NOTES**



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