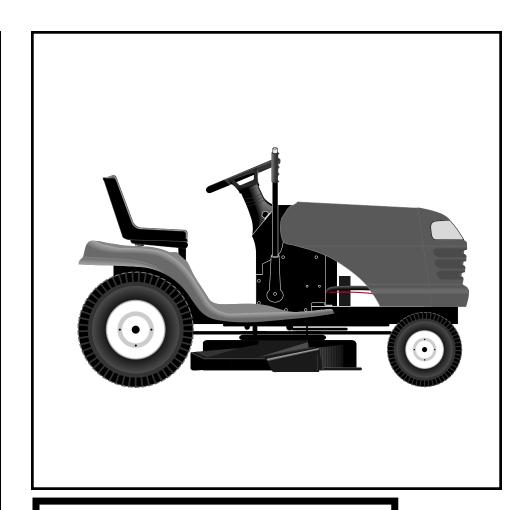


MODEL NO. 944.601181

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



# **CRAFTSMAN®**

## 20 HP ELECTRIC START 42" MOWER 6 SPEED TRANSAXLE LAWN TRACTOR

- Assembly
- Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts

# SAFETY RULES Safe Operation Practices for Ride-On Mowers

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

#### I. GENERAL OPERATION

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

#### **II. SLOPE OPERATION**

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

#### DO:

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

#### DO NOT

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

#### III. CHILDREN

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

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

#### IV. SERVICE

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

### SAFETY RULES

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













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



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



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



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



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

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PARTS ORDERING/SERVICE	BACK COVER

### PRODUCT SPECIFICATIONS

TROBOOT OF LO	II IOATIONO
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF-SJ):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F) SYNTHETIC (below 0°F)
Your tractor was shipped from 10W-30 motor oil.	the factory with non-synthetic SAE
OIL CAPACITY:	W/FILTER 4.0 PINTS W/O FILTER 3.75 PINTS
SPARK PLUG: (GAP: .040")	CHAMPION RC12YC
GROUND SPEED (MPH):	FORWARD:  1st 1.2  2nd 1.5  3rd 2.4  4th 3.5  5th 4.8  6th 5.3  REVERSE: 1.5
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R
BLADE BOLT TORQUE:	27-35 FT. LBS.

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

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

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

### MAINTENANCE AGREEMENT

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

### **CUSTOMER RESPONSIBILITIES**

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

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

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

### **WARRANTY**

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

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

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

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

### **COMMERCIAL OR RENTAL USE**

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

#### This Warranty does **NOT** cover:

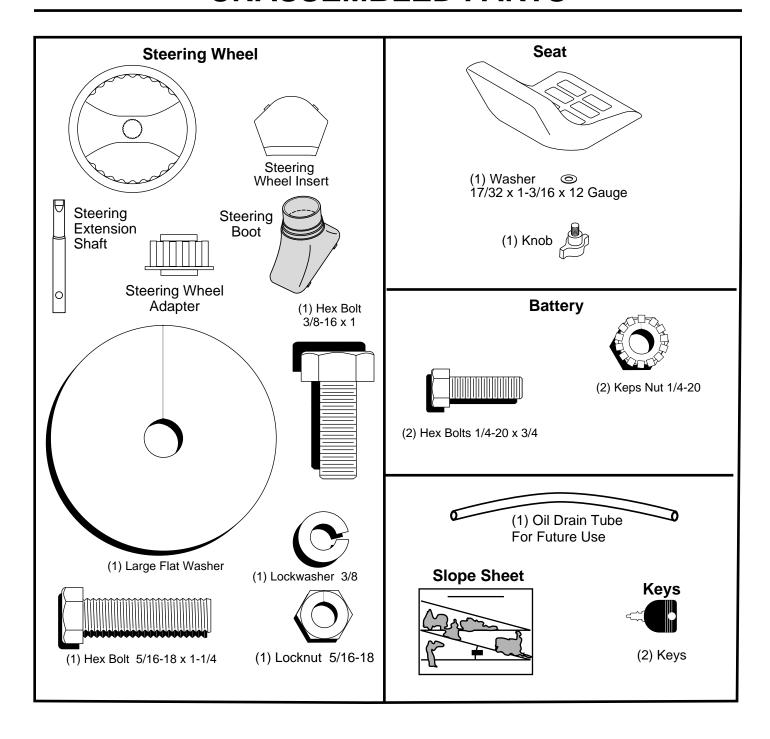
- 1. Pre-delivery set-up.
- 2. Tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass).
- 3. Expendable items which become worn during normal use, such as blades, spark plug, air cleaners and belts.
- 4. Repairs necessary because of operator abuse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

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

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

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

## **UNASSEMBLED PARTS**



### **ASSEMBLY**

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

### TOOLS REQUIRED FOR ASSEMBLY

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

(1) 9/16" wrench Pliers

(2) 7/16" wrenches Tire pressure gauge

(2) 1/2" wrench Utility knife

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

### TO REMOVETRACTOR FROM CARTON

#### **UNPACK CARTON**

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

# BEFORE REMOVING TRACTOR FROM SKID

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

ASSEMBLE EXTENSION SHAFT AND BOOT

- Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.
- 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 straightforward.
- 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, 3/8 lock washer, 3/8 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.

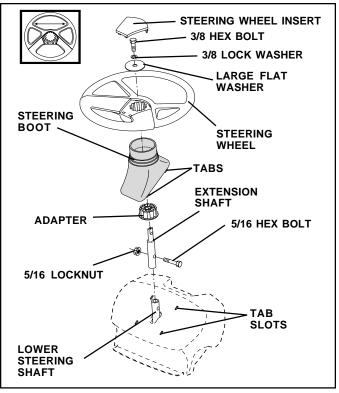


FIG. 1

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

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



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

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

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

### **ASSEMBLY**

Use terminal access doors for:

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

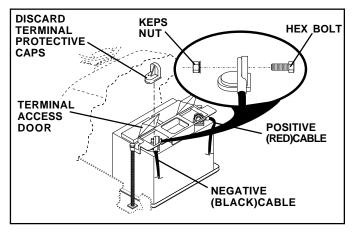


FIG. 2

### **INSTALL SEAT (See Fig. 3)**

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

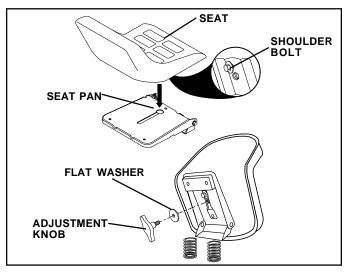


FIG. 3

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

# TO ROLL TRACTOR OFF SKID(See Operation section, page 10 for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in neutral (N) position.
- · Roll tractor forward off skid.
- Remove banding holding discharge guard up against tractor.

# TO DRIVE TRACTOR OFF SKID(See Operation section, page 10 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.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place gear shift lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Depress clutch/brake pedal into full "BRAKE" position and hold. Move gearshift lever to 1st gear.
- Slowly release clutch/brake pedal and slowly drive tractor off skid.
- Apply brake to stop tractor, set parking brake and place gearshift lever in neutral position.
- Turn ignition key to "OFF" position.

Continue with the instructions that follow.

### **ASSEMBLY**

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

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



CAUTION: Do not remove deflector shield from mower. Raise and hold shield when attaching mulcher plate and allow it to rest on plate while in operation.

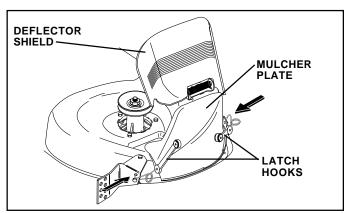


FIG. 4

# 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 in "PRODUCT SPECIFICATIONS" section of this manual.

#### CHECK DECK LEVELNESS

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

# CHECK FOR PROPER POSITION OF ALL BELTS

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

### **CHECK BRAKE SYSTEM**

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

### **✓ CHECKLIST**

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

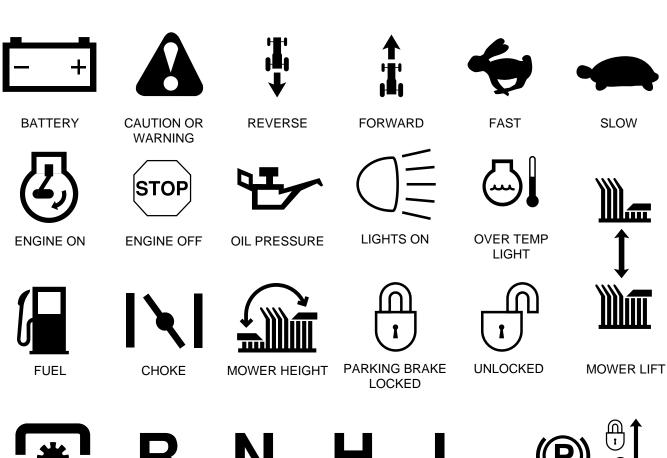
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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.

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





**ATTACHMENT CLUTCH ENGAGED** 



**REVERSE** 





**NEUTRAL** 



HIGH



LOW





PARKING BRAKE





**ATTACHMENT CLUTCH DISENGAGED** 



**KEEP AREA CLEAR** 





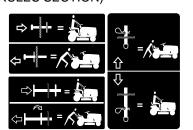




SLOPE HAZARDS (SEE SAFETY RULES SECTION)



DANGER, KEEP HANDS AND FEET AWAY



FREE WHEEL (Automatic Models only)

### KNOW YOUR TRACTOR

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

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

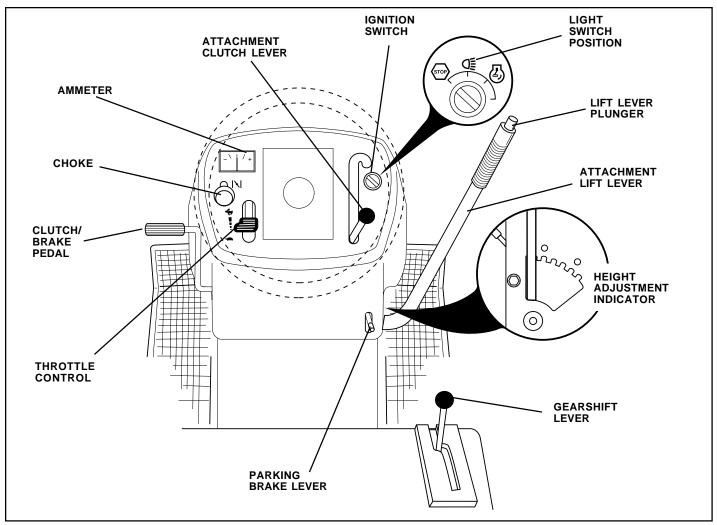


FIG. 5

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

**THROTTLE CONTROL**: Used for starting and controlling engine speed.

**CHOKE CONTROL:** Used for starting a cold engine.

**CLUTCH/BRAKE PEDAL**: Used for clutching and braking the tractor and starting the engine.

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

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

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

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

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

**ATTACHMENT LIFT LEVER**: Used to raise and lower the mower deck or other attachments mounted to your tractor. **PARKING BRAKE LEVER**: Locks Clutch/Brake Pedal into the brake position.

**GEARSHIFT LEVER:** Selects the speed and direction of tractor.



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

### HOW TO USE YOUR TRACTOR

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

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

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

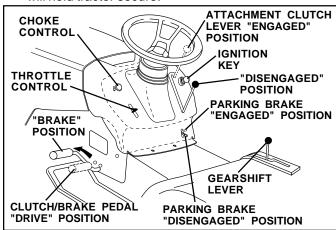


FIG. 6

### STOPPING (See Fig. 6)

MOWER BLADES -

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

#### GROUND DRIVE -

- To stop ground drive, depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

#### **ENGINE** -

Move throttle control to slow position.

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

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

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

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



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

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

Always operate engine at full throttle.

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

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

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

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

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

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

- Start tractor with clutch/brake pedal depressed and gearshift lever in neutral (N) position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement. **IMPORTANT:** BRING TRACTOR TO A COMPLETE STOP BEFORE SHIFTING OR CHANGING GEARS. FAILURE TO DO SO WILL SHORTEN THE USEFUL LIFE OF YOUR TRANSAXLE.

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

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

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

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

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

### TO ADJUST GAUGE WHEELS (See Fig. 6B)

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.

- Adjust gauge wheels with tractor on a flat level surface.
- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- 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 with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

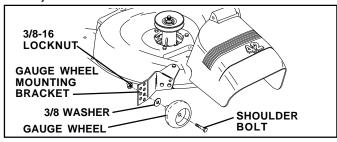


FIG. 6B

### TO OPERATE MOWER (See Fig. 7)

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

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



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

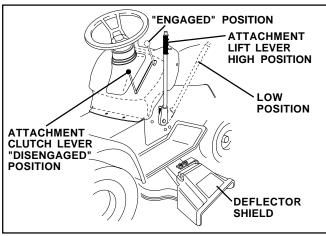


FIG. 7

#### 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 slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

to tractor (rope, cord, etc.).

#### TO TRANSPORT

- Raise attachment lift to highest position with attachment lift control.
- When pushing or towing your tractor, be sure gearshift lever is in neutral (N) position.
- Do not push or tow tractor at more than five (5) MPH. **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

### TOWING CARTS AND OTHER ATTACH-MENTS

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 Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

#### ADD GASOLINE

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

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

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next

season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



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

### TO START ENGINE (See Fig. 6)

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.

- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- Place gear shift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to fast position
- Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

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

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

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

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

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

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

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

### **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. 8).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

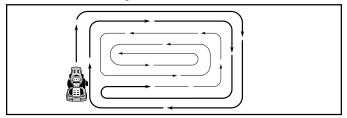


FIG. 8

### **MULCHING MOWING TIPS**

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

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

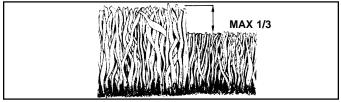


FIG. 9

AS	MAINTENANCE SCHEDUL L IN DATES YOU COMPLETE GULAR SERVICE	E	EFORE	EACHUS EVERY 8	HOURS WERY S	5 HOUR 5 HOUR 5 VERY 5	HOUR VERY	S HOUR OD HOUR OVERY ST	S ON LASON	STORA SER	G <sup>E</sup> VICE	DA <sup>-</sup>	TES
	Check Brake Operation	<b>V</b>	1										
	Check Tire Pressure	1	1										
Т	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	<b>V</b>				1/7		<b>/</b>					
AC	Sharpen/Replace Mower Blades			<b>1</b> / <sub>4</sub>									
Ι¥	Lubrication Chart			/				<b>/</b>					
Ö	Check Battery Level			<b>1</b> 6									
R	Clean Battery and Terminals			<b>V</b>				<b>/</b>					
	Check Transaxle Cooling			<b>V</b>									
	Adjust Blade Belt(s) Tension					<b>1</b> 5							
	Adjust Motion Drive Belt(s) Tension					<b>1</b> 5							
	Check Engine Oil Level	/	1										
	Change Engine Oil			1,2,3				<b>/</b>					
lε	Clean Air Filter			<b>1</b> 2									
Ν	Clean Air Screen			<b>1</b> 2									
Ģ	Inspect Muffler/Spark Arrester				1								
Ι'n	Replace Oil Filter (If equipped)					1,2							
ΙË	Clean Engine Cooling Fins					<b>✓</b> 2							
-	Replace Spark Plug					1	/						
	Replace Air Filter Paper Cartridge					<b>1</b> 2							
	Replace Fuel Filter						1						

- $\ensuremath{\text{1}}$  Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours.
- 4 Replace blades more often when mowing in sandy soil.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum.Do not overtighten.

### GENERAL RECOMMENDATIONS

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

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

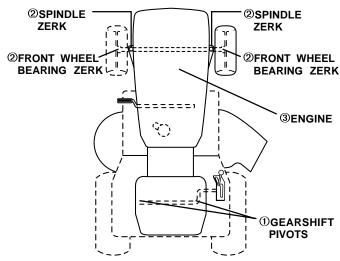
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

### **BEFORE EACH USE**

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

### **LUBRICATION CHART**



- **①SAE 30 OR 10W30 MOTOR OIL**
- *QGENERAL PURPOSE GREASE*
- **®REFER TO CUSTOMER RESPONSIBILITIES "ENGINE"**SECTION

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

### **TRACTOR**

Always observe safety rules when performing any maintenance.

### **BRAKE OPERATION**

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

#### TIRES

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

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

### OPERATOR PRESENCE SYSTEM

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

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

### **BLADE CARE**

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

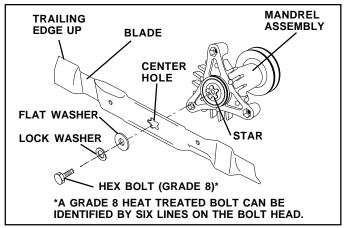
### **BLADE REMOVAL (See Fig. 10)**

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

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

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

**IMPORTANT:** BLADE BOLT IS GRADE 8 HEAT TREATED.



**FIG. 10** 

### TO SHARPEN BLADE (See Fig. 11)

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

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

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

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

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

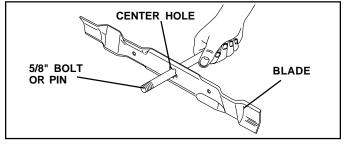


FIG. 11

#### **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.

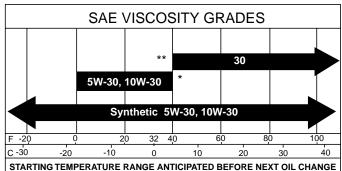
#### TRANSAXLE COOLING

Keep transaxle free from build-up of dirt and chaff which can restrict cooling.

### **ENGINE**

### LUBRICATION

Only use high quality detergent oil rated with API service classification SF-SJ. Select the oil's SAE viscosity grade according to your expected operating temperature. When operating in temperatures below 0° 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° F (4° 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 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.

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

#### TO CHANGE ENGINE OIL (See Fig. 12)

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

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- · Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove cap from bottom fitting of drain valve and install the drain tube onto the fitting.
- Unlock drain valve by pushing inward and turning counterclockwise.
- To open, pull out on the drain valve.
- After oil has drained completely, close and lock the drain valve by pushing inward and turning clockwise until the pin is in the locked position as shown.
- Remove the drain tube and replace the cap onto to the bottom fitting of the drain valve.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCTSPECIFICATIONS" 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.

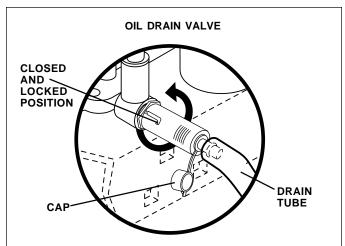


FIG. 12

#### **ENGINE COOLING FINS**

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Air guide covers must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

#### 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. 13)

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 knobs and 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 with knobs.

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.

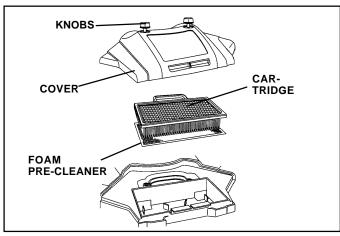


FIG. 13

#### **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. 14)

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

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

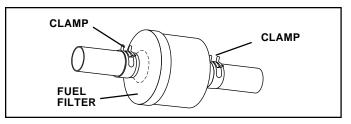


FIG. 14

### CLEANING

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

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

#### CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

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

### **TRACTOR**

### TO REMOVE MOWER (See Fig. 15)

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

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

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

### TO INSTALL MOWER (See Fig. 15)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

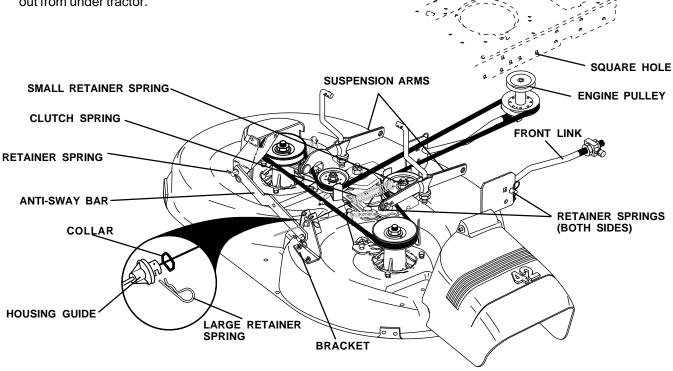


FIG. 15

### TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 16 and 17)

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

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

Recheck measurements after adjusting.

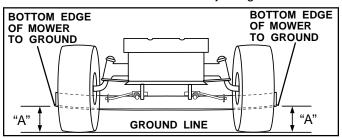


FIG. 16

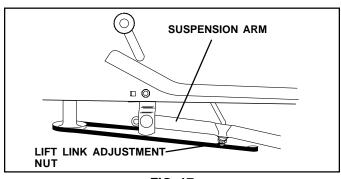


FIG. 17

FRONT-TO-BACK ADJUSTMENT (See Figs. 18 and 19)

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

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position. Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

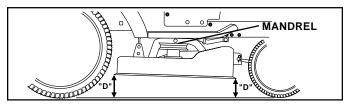


FIG. 18

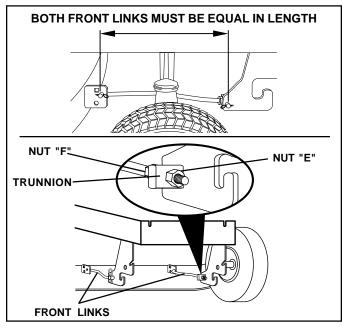


FIG. 19

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 20)

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 this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

#### **BELTINSTALLATION**

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower in reverse order of removal instructions.

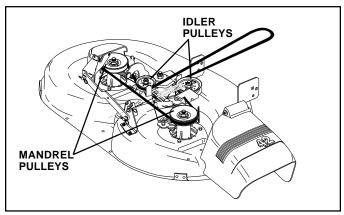


FIG. 20

### TO ADJUST BRAKE (See Fig. 21)

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

If tractor requires more than six (6) feet stopping distance at high speed in highest gear on a level dry concrete or paved surface, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

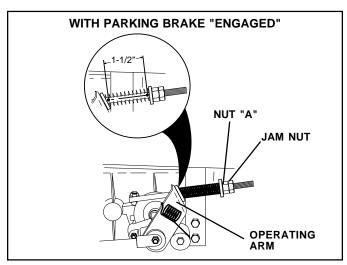


FIG. 21

# TO REPLACE MOTION DRIVE BELT (See Fig. 22)

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

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Remove belt upwards from transaxle pulley by deflecting belt keepers.
- Pull belt toward front of tractor and remove downwards from around engine pulley.
- Install new belt by reversing above procedure.

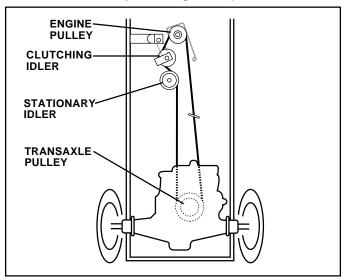


FIG. 22

# TRANSAXLE GEAR SHIFT LEVER NEUTRAL ADJUSTMENT (See Fig. 23)

The transaxle should be in neutral when the gear shift lever is in neutral (N) (lock gate) position. The adjustment is preset at the factory; however, if adjustment is needed, proceed as follows:

Make sure transaxle is in neutral (N).

**NOTE:** When the tractor rear wheels move freely, the transaxle is in neutral.

- Loosen adjustment bolt in front of the right rear wheel.
- Position the gear shift lever in the neutral (N) position.
- Tighten adjustment bolt securely.

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

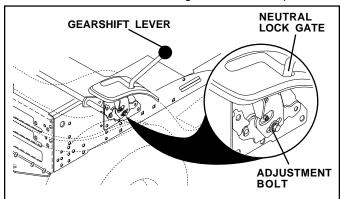


FIG. 23

### 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. 24)

- 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.

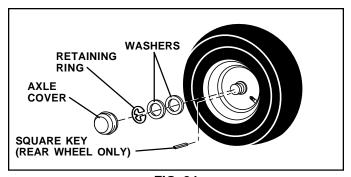


FIG. 24

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 25)



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

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

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

### TO ATTACH JUMPER CABLES

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

#### TO REMOVE CABLES. REVERSE ORDER

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

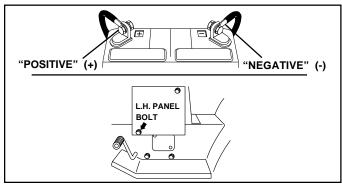


FIG. 25

### 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. 26)

- · 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.

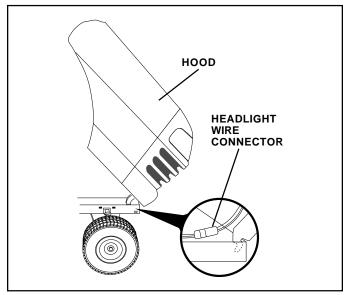


FIG. 26

### **ENGINE**

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 27)

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

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

### TO ADJUST CHOKE CONTROL (See Fig. 28)

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

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

### TO ADJUST CARBURETOR

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

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

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

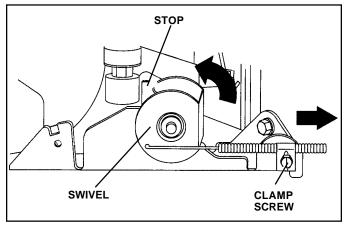


FIG. 27

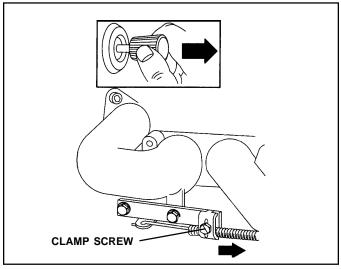


FIG. 28

### **STORAGE**

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



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

### TRACTOR

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

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

#### **BATTERY**

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

#### **ENGINE**

#### **FUEL SYSTEM**

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

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

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

#### **ENGINE OIL**

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

### 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**

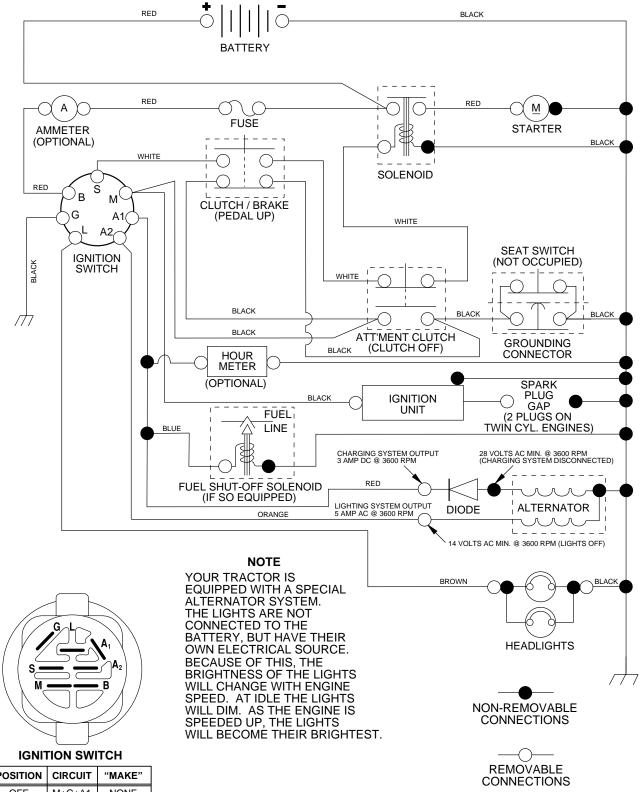
PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain 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> </ol> 8. Engine valves out of adjustment.	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh 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>Clutch/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 clutch/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> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Set in "Higher Cut" position/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>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in 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 continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s).</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>	Replace battery.     Check/clean all connections.     Replace regulator.     Replace alternator.
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

### TRACTOR - - MODEL NUMBER 944.601181

### **SCHEMATIC**



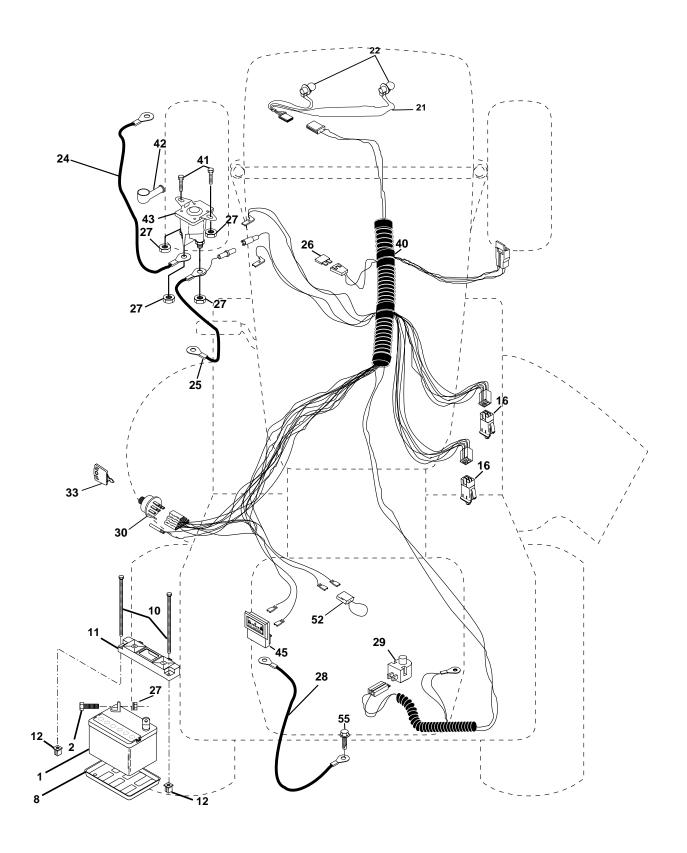
l	POSITION	CIRCUIT	"MAKE"
ĺ	OFF	M+G+A1	NONE
	RUN/LIGHT	B+A1	A2+L
l	RUN	B+A1	NONE
	START	B + S + A1	NONE

#### **WIRING INSULATED CLIPS**

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

### TRACTOR - - MODEL NUMBER 944.601181

### **ELECTRICAL**



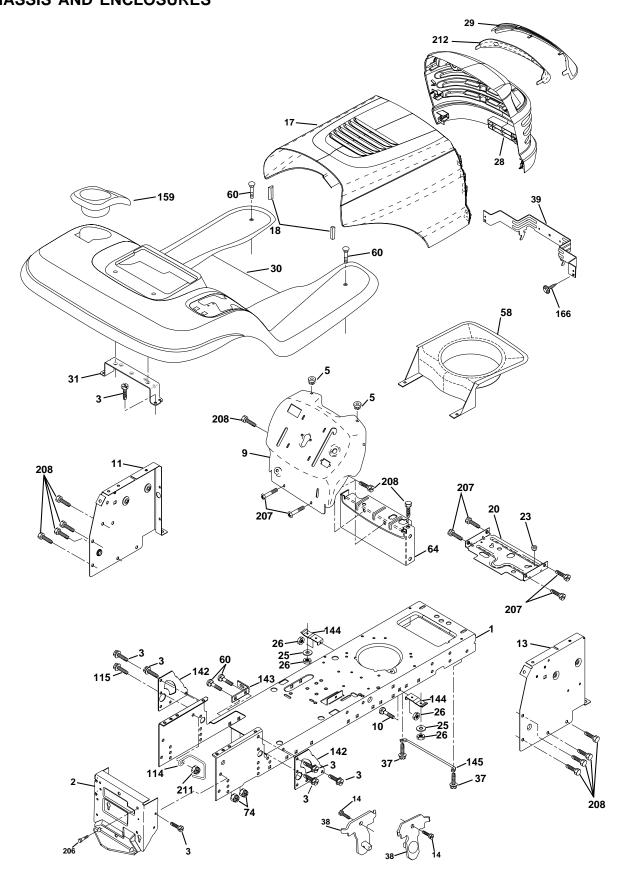
### TRACTOR - - MODEL NUMBER 944.601181

### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
1	163465	Battery
2	74760412	Bolt Hex Hd 1/4-20unc X 3/4
8	7603J	Case Battery
10	145211	Bolt Btr Frt 1/4-20 x 7.5
11	150109	Hold down Battery Front
12	145769	Nut Push Nylon 1/4 Batt Frt
16		Switch Interlock Push-In
21	175688	Harness Asm Light W/4152J
22	4152J	Bulb Light #1156
24	4799J	Cable Battery 6 Ga 11"red
25	146148	Cable Battery
26	175158	Fuse 20 AMP
27	73510400	Nut, Keps Hex 1/4-20 UNC
28 29	145491	Cable Ground
	121305X	Switch Plunger Nc Gray
30	175566	Switch Ign Key Ign
33 40	140403 170217	
40 41	71110408	Harness Ign Bolt Blk Fin Hex 1/4-20unc X 1/2
42	131563	Cover Terminal Red
43	175141	Solenoid
45	121433X	Ammeter
52	141940	Protection Wire Loop (Hourmeter)
55	17490508	Screw Thrd Roll 5/16-18 x 1/2
50	100000	33.3 / markon 6/10 10 / 1/2

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

# TRACTOR - - MODEL NUMBER 944.601181 CHASSIS AND ENCLOSURES



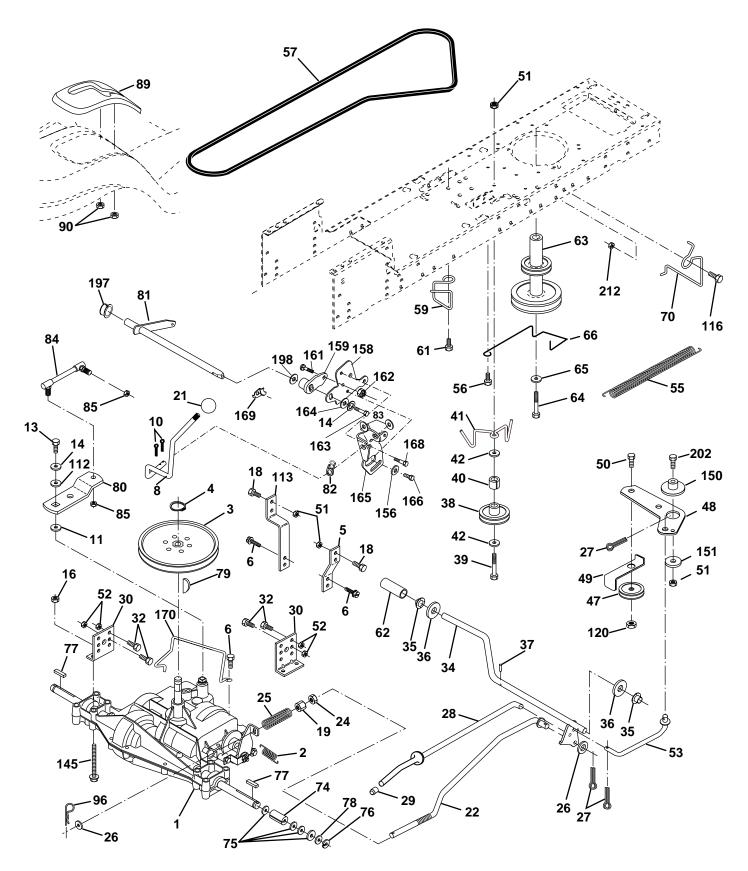
# TRACTOR - - MODEL NUMBER 944.601181 CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
1	174619	Chassis
2	176554	Drawbar
3	17060612	Screw 3/8-16x3/4
5	155272	Bumper Hood/Dash
9	168337X011	Dash
10	STD533710	Bolt Carriage 3/8-16 x 1
11	155927	Panel Dash Lh
13 14	172107X010 <b>17490608</b>	Panel Dash Rh Screw Thdrol 3/8-16 x 1/2
17	174330X558	Hood
18	126938X	Bumper Hood
20	156437	Plate Mtg Batt
23	124028X	Bushing Snap
25	19131312	Washer 13/32 X 13/16 X 12 Ga
26	STD541437	Nut Lock Hex W/Ins 3/8-16 Unc
28	175049	Grille
29	174332X599	Lens Grille
30	164919X558	Fender Footrest
31	139976	Bracket Support Fender
37	17490508	Screw Thdrol 6/16-18 x 1/2 TYT
38	175710	Bracket, Asm. Pivot, Mower Rear
39	174714	Bracket Pivot Laser Lt
58 60	174930	Air Duct
64	STD533707 154798	Bolt Rdhd Sqnk 3/8-16unc x 3/4 Dash Lower STLT
74	STD541437	Nut Crownlock 3/8-16 UNC
114	158112	Keeper Belt Rear LH
115	17060620	Screw 3/8-16 x 1-1/4
142	165867	Plate Reinforcement STLT
143	154966	Bracket Swaybar Chassis
144	154207	Bracket Pnt Footrest STLT
145	156524	Rod Pivot Chassis/Hood
159	155123X428	Cupholder Stlt Black
166	164863	Screw Hwhd Hi-Lo #13-16 x 3/4
206	170165	Bolt Shoulder 5/16-18 TT
207	17670508	Screw Thdrol 3/8-16 x 1/2
208	17670608	Screw Thdrol 3/8-16 x 1/2
211	145212	Nut Hexflange Lock
212	175143	Insert Lens Reflective
-	5479J	Plug Button

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

### TRACTOR - - MODEL NUMBER 944.601181

### **DRIVE**



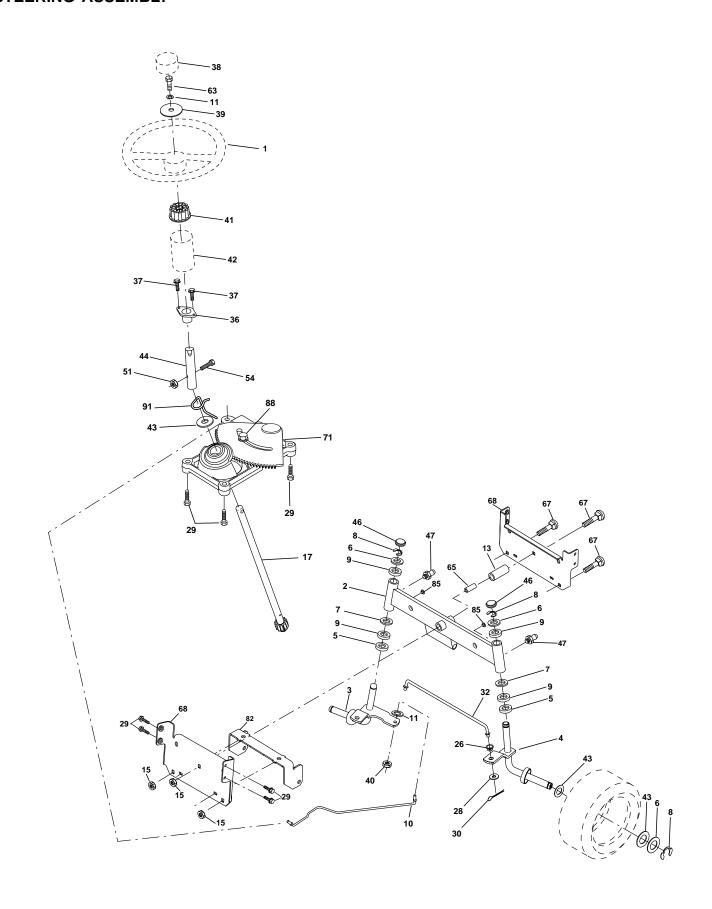
### TRACTOR - - MODEL NUMBER 944.601181

### **DRIVE**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle (See Breakdown)	62	8883R	Cover Pedal Blk Round
_		Peerless 206-545C	63	175410	Engine Pulley LT/YT
2	146682	Spring Return Brake T/a Zinc	64	71170764	Bolt Hex
3	123666X	Pulley Transaxle 18" tires	65	STD55143	Washer Lock Hvy Hlcl Spr 7/16
4	12000028	Ring Retainer#5100-62	66	154778	Keeper Belt Engine Foolproof
5	121520X	Strap Torque 30 Degrees	70	134683	Guide Belt Mower Drive RH
6	17060512	Screw 5/16-18 X 3/4	74 75	137057	Spacer Axle
8	165866	Rod Shifter Fender Adj Lt	75 70	121749X	Washer 25/32 X 1 1/4 X 16 Ga
10	STD561210	Pin Cotter 1/8 X 1 Cad	76 77	STD581075	E-ring#5133-75
11	105701X	Washer Plate Shf 388 Sq Hole	77 70	123583X	Key Square 2 0 X 1845/ 1865
13 14	74550412 10040400	Bolt 1/4-28 Unf Gr 8 W/Patch	78 79	121748X 2228M	Washer 25/32 X 1-5/8 X 16 Ga
16	STD541431	Washer Lock Hvy Helical 1/4 Nut Lock Hx W/Ins 5/16-18 Unc	80	145090	Key Woodruff Arm Shift
18	STD541431 STD523710	Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5	81	165592	Shaft Asm Cross Tapered 20"t
19	STD523710	Nut Lock 3/8-16 Unc	82	165711	Spring Torsion T/a
21	106933X	Knob	83	19171216	Washer 17/32 X 3/4 X 16 Ga
22	130804	Rod Brake Blk Zinc 26 840	84	166231	Link Transaxle
24	STD541237	Nut Hex Jam 3/8-16 Unc	85	150360	Nut Lock Center 1/4 - 28 FNTHD
25	106888X	Spring Rod Brake 2 00 Zinc	89	158391X428	Console Shift STLT
26	STD551037	Washer 13/32 X 13/16 X 16 Ga	90	124346X	Nut Self-thd Wsh-hd 1/4 Zinc
27	STD561210	Pin Cotter 1/8 X 3/4 Cad	96	4497H	Retainer Spring
28	175765	Rod Brake Parking LT/YT	112	19091210	Washer 9/32 x 3/4 x 10 Ga.
29	71673	Cap Brake Parking	113	127285X	Strap Torque Lh
30	169592	Bracket Mtg Transaxle	116	72140608	Bolt Rdhd Sq Neck 3/8-16 x 1
32	STD523107	Bolt Hex Hd 5/16-18unc X 3/4	120	73900600	Nut Lock Flg 3/8-16
34	175578	Shaft Asm Pedal Foot	145	74490540	Bolt Hex 5/16-18 Gr. 5
35	120183X	Bearing Nylon Blk 629 Id	150	175456	Spacer Retainer
36	STD551062	Washer 21/32 X 1 X 16 Ga	151	19133210	Washer 13/32 x 2 x 10
37	STD571810	Pin Roll 3/16 X 1"	156	166002	Washer Strted 5/16 ID x 1.125
38	165936	Pulley Flat Composite	158	165589	Bracket Shift Mount
39	74760648	Bolt Fin Hex 3/8-16 X 3	159	165494	Hub Tapered Flange Shift It
40	175461	Spacer Split	161	72140406	Bolt Rdhd Sqnk 1/4-20 x 3/4 Gr 5
41	175556	Keeper Belt Idler	162	73680400	Nut Crownlock 1/4-20 Unc
42	19131312	Washer 13/32 X 13/16 X 12 Ga	163	74780416	Bolt Hex Fin 1/4-20 Unc x 1 Gr 5
47 49	127783 154407	Pulley Idler V Groove Plastic	164	19091010	Washer5/8 x .281 x 10 Ga
48 40	123205X	Bellcrank Asm	165 166	165623 166880	Bracket Pivot Lever Screw 5/16-18 x 5/8
49 50	STD523715	Retainer Belt Style Spring Bolt Hex Hd 3/8-16unc X 1-1/2	168	165492	Bolt Shoulder 5/16-18 x .561
51	STD523713	Nut Crownlock 3/8-16 Unc	169	165580	Plate Fastening Lt
52	STD541431	Nut Crownlock 5/16-18 Unc	170	173898	Keeper Belt Transaxle
53	105710X	Link Clutch	197	169613	Nyliner Snap-In
55 55	105710X 105709X	Spring Return Clutch 6 75	198	169593	Washer Nyliner
56	17060616	Screw 3/8-16 X 1.0	202	<b>72110614</b>	Bolt Carr. Sh 3/8-16 x 1-3/4 Gr. 5
57	130801	V-Belt Ground Drive	212	145212	Nut Hex Flange Lock
59 61	169691 17060612	Keeper Belt Span Ctr Screw 3/8-16x3/4	NOTE	E: All compone	ent dimensions given in U.S. inches
			i ilici	n = 25.4  mm	

### TRACTOR - - MODEL NUMBER 944.601181

### STEERING ASSEMBLY



### TRACTOR - - MODEL NUMBER 944.601181

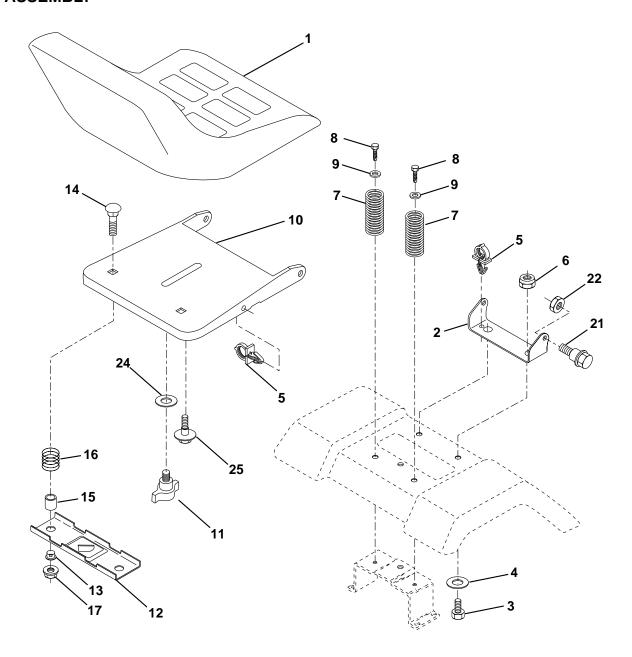
### STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	139768	Wheel Steering
2	154427	Axle Asm STMP Dropped STL
3	169840	Spindle Asm LH
4	169839	Spindle Asm RH
5	6266H	Bearing Race Thrust Harden
6	121748X	Washer 25/32 X 1-5/8 X 16 Ga
7	19272016	Washer 27/32 X 1-1/4 X 16 Ga
8	12000029	Ring Klip #t5304-75
9	3366R	Bearing Col Strg Blk
10	175121	Link Drag
11	STD551137	Washer Lock Hvy Hlcl Spr 3/8
13	136518	Spacer Bearing Axle
15	145212	Nut Hexflange Lock
17	177876	Shaft Asm Strg
26	126847X	Bushing Link Drag Blk LR
28	19131416	Washer 13/32 X 7/8 X 16 Ga
29	17060612	Screw 3/8-16x3/4
30	STD561210	Pin Cotter 1/8 X 3/4 Cad
32	130465	Rod Tie Wire Form 19 75 Mech
36	155099	Bushing Strg
37 38	152927	Screw
39	139769	Insert Cap Strg Wh Au Washer 13/32 X 2-3/8 X 12 Ga
39 40	19133812 STD541537	Lock nut
41	100711L	Adaptor Wheel Strg
42	145054X428	Boot Steering Shaft
43	121749X	Washer 25/32 X 1 1/4 X 16 Ga
44	153720	Extension Steering Shaft LR/LT
46	121232X	Cap Spindle Fr Top Blk
47	6855M	Fitting Grease
51	STD541431	Nut Lock Hex w/Ins 5/16-18
54	STD523112	Bolt Fin Hex 5/16-18 Unc x 1-1/4
63	STD523710	Bolt Fin Hex 3/8-16unc x 1 Gr. 5
65	160367	Spacer Brace Axle
67	72140618	Bolt, Rdhd Sq 3/8-16 UNC x 2-1/4
68	169827	Axle, Brace
71	175146	Steering Asm
82	169835	Bracket Susp Chassis Front
85	133835	Fastener Christmas tree
88	175118	Bolt Shoulder 7/16-20
91	175553	ClipSteering

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

### TRACTOR - - MODEL NUMBER 944.601181

### **SEAT ASSEMBLY**

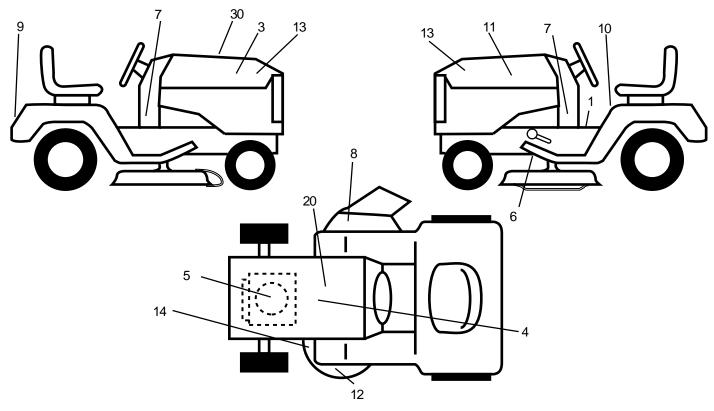


KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	140123	Seat	12	121246X	Bracket Mounting Switch
2	140551	Bracket Pivot Seat 8 720	13	121248X	Bushing Snap Blk Nyl 50 ld
3	71110616	Bolt Fin Hex 3/8-16unc X 1	14	72050412	Bolt Rdhd Sqnk 1/4-20x1-1/2
4	19131610	Washer 13/32 X 1 X 10 Ga	15	134300	Spacer Split 28x 96 Yel Zinc
5	145006	Clip Push-In	16	121250X	Spring Cprsn 1 27 Blk Pnt
6	STD541437	Nut Hex w/Ins. 3/8-16 Unc	17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	21	171852	Bolt Shoulder 5/16-18 Unc
8	17000616	Screw 3/8-16 X 1.5	22	STD541431	Nut Hex Lock W/Ins 5/16-18
9	19131614	Washer 13/32 X 1 X 14 Ga.	24	19171912	Washer 17/32 X 1-3/16 X 12 Ga.
10	174894	Pan Seat	25	127018X	Bolt Shoulder 5/16-18 X 62
11	166369	Knob Seat	NOTE	=• All compon	ent dimensions given in LLS, inches

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

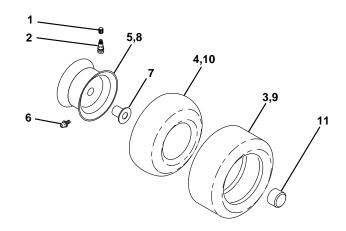
### TRACTOR - - MODEL NUMBER 944.601181

#### **DECALS**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 3 4 5 6 7 8 9 10 11 12	156369 177278 138047 165407 146046 177284 170563 163204 157140 177279 172331	Decal Fend STLT Oper Decal Hood RH Decal Batt Diehard Decal Engine Decal V Belt Drive Sch Decal Dash Pnl Decal Warning Decal Craftsman Decal Fender Danger Eng/Fr Decal Mower Srs Heavy Duty 12	13 14 20 30 	177253 160396 149517 172268 165800X428 165799X428 138311 178152 178153	Ga Decal Hood Side Decal V-Belt Schematic Decal Bat Dan/Psn Decal Replacement Parts Pad Footrest LH STLT Pad Footrest RH STLT Decal Handle Lft Height Adjust Manual Owner's (English) Manual Owner's (French)

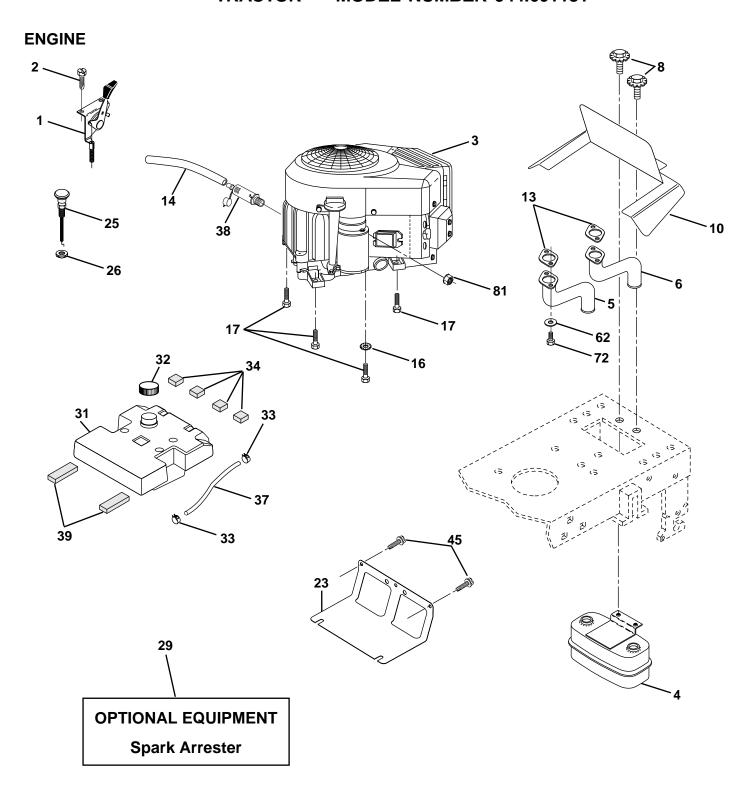
#### **WHEELS & TIRES**



KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	106222X	Tire Front
4	59904	Tube Front (Service Item Only)
5	106732X427	Rim Asm 6"front Service
6	278H	Fitting Grease (Front Wheel Only)
7	9040H	Bearing Flange (Front Wheel nly)
8	106108X427	Rim Asm 8"rear Service
9	122082X	Tire Rear
10	7152J	Tube Rear (Service Item Only)
11	104757X428	Cap Axle Blk 1 50 x 1 00
	144334	Sealant, Tire (10 oz. Tube)

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

### TRACTOR - - MODEL NUMBER 944.601181



### TRACTOR - - MODEL NUMBER 944.601181

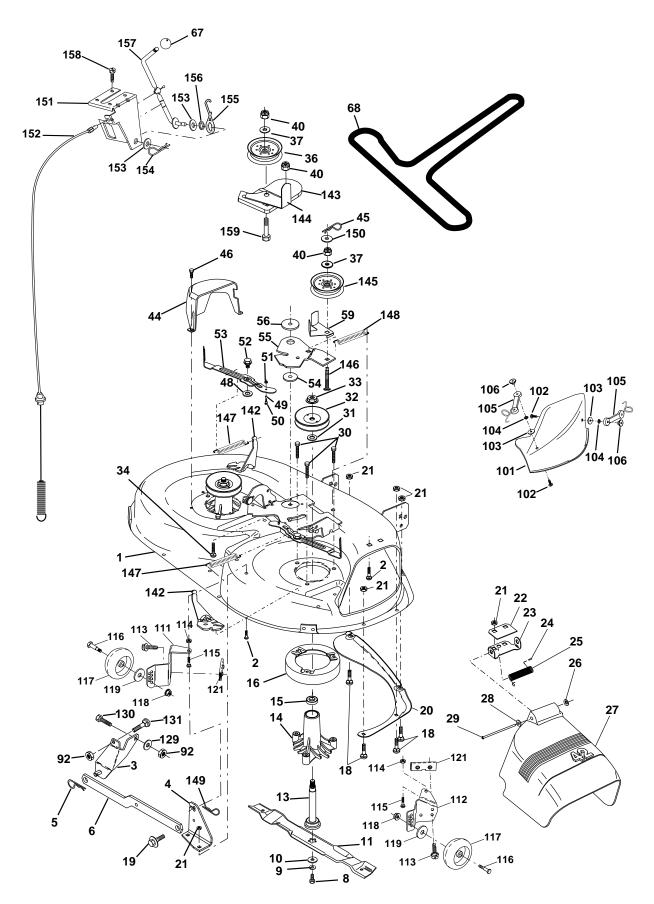
#### **ENGINE**

KEY NO.	PART NO.	DESCRIPTION
1	170546	Control Throt Paddle
2	17720410	Screw Hex Thd Cut 1/4-20x5/8 T
3		Engine (See Breakdown) B&S Model No. 407777-0119-E3
4	149723	Muffler Exhaust
5	159955	Exhaust Asm. Left
6	160589	Exhaust Asm. Right
8 10	171877 162797	Bolt 5/16-18unc x 3/4 w/sems Heat Shield Lt
13	165391	Gasket Muffler
14	148456	Tube Drain Oil Easy
16	STD551237	
17	17490624	Screw Thdrol 3/8-16x1-1/2 Tytt
23	169837	Shield BRN/DBR Guard
25	145996	Control Choke
26	73920600	Nut Keps 3/8-24 UNF
29	137180	Arrestor Spark
31	157103	Tank Fuel 3.5 STL W/O Sensor
32	161696	Cap Fuel Gauge
33	123487X	Clamp Hose Blk
34	106082X	Strip Foam
37	8543R	Line Fuel
38 39	148315 109227X	Plug Drain Oil Easy Pad Spacer
39 45	17000612	Screw Hexwsh Thdrol 3/8-16 x 3/4
81	73510400	
62 72	10040500 71070512 73510400	Washer Lock Hvy Hlcl Spr 5/16 Screw Hex Hd Cap 5/16-18 x 3/4 Nut Keps Hex 1/4-20 UNC

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

#### TRACTOR - - MODEL NUMBER 944.601181

#### **MOWER DECK**

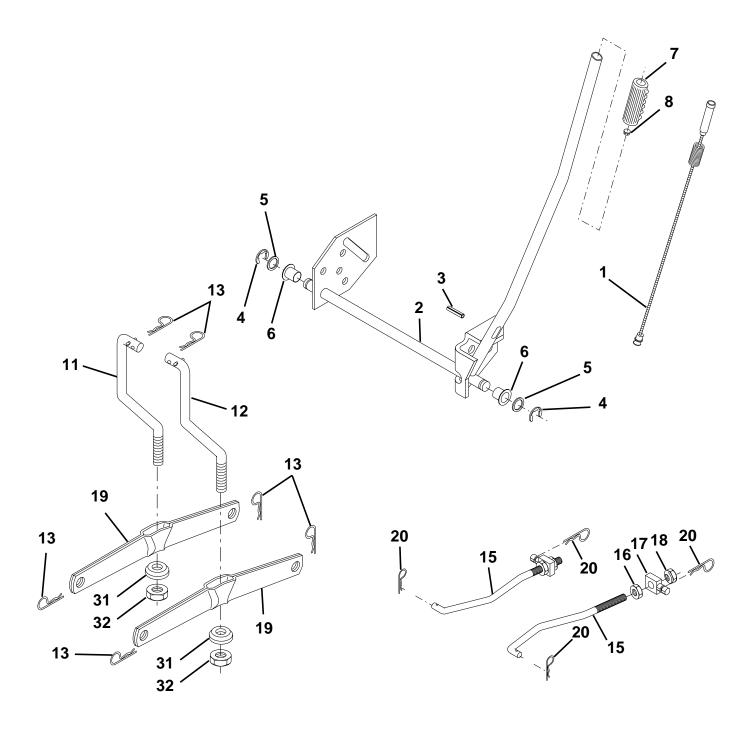


### TRACTOR - - MODEL NUMBER 944.601181

#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	165892	Mower Deck Assembly, 42"	53	131845	Arm Assembly, Pad, Brake
2	STD533107	Bolt	54	133943	Washer, Hardened
3	138017	Bracket Assembly, Sway Bar, Front	55	155046	Arm, Idler
4	165460	Bracket Sway Bar 38/42" Deck	56	165723	Spacer, Retainer
5	STD624008	Retainer Spring	59	141043	Guard, TUV Idler
6	130832	Arm, Suspension, Rear	67	149846	Knob Custom Oval
8	850857 0TD554407	Bolt, Hex 3/8-24 x 1.25 Gr. 8	68	144959	V-Belt
9	STD551137	Washer, Lock	92	STD541437	Nut Mulabar Cavar
10 11	140296	Washer, Hardened	101 102	136420 71081010	Mulcher Cover
11	134149	Blade Mulching 42" (Originally Equipped With)	102	19061216	Screw Washer #10
	138498	Blade Mower 42" Hi-Lift Std (For	103	STD551110	Washer, Lock
	100400	Better Bagging, Especially In Wet	105	160793	Latch Assembly, Bagger
		Conditions)	106	2029J	Nut, Weld
	139775	Blade Mulching 42" Premium (For	111	155197	Bracket, Ga. Wheel LH
		Better Wear When Mulching)	112	155198	Bracket, Ga. Wheel RH
	138971	Blade Mower 42" Hi-Lift Premium	113	17060514	Screw Tapping 5/16-18
		(For Better Wear When Bagging In	114	STD541431	Nut, Hex, Keps 5/16-18 UNC
		Heavy or Wet Conditions)	115	72110504	Bolt, Carriage 5/16 UNC x 1/2
13	137645	Shaft Assembly, Mandrel, Vented	116	4898H	Bolt Shoulder
14	128774	Housing, Mandrel, Vented	117	165746	Wheel Gauge
15	110485X	Bearing, Ball, Mandrel	118	73930600	Nut, Centerlock 3/8-16
16	174493	Stripper, Vented Mower Deck	119	STD551037	Washer 3/8 x 7/8 x 14 Gauge
18	72140505	Bolt, Carriage 5/16-18 x 5/8	121	143723	Bracket
19	132827	Bolt, Shoulder	129	19131312	Washer 13/32 x 13/16 x 12 Ga.
20	159770 CTD544424	Baffle, Vortex	130	STD523710	Bolt, Fin Hex 3/8-16 UNC x 1 Gr. 5
21 22	STD541431 134753	Nut Crownlock 5/16-18 UNC Stiffener Bracket	131 142	STD533710 165890	Bolt, Rdhd Sqnk 3/8-16 UNC
23	131267	Bracket, Deflector	143	157109	Arm Spring Brake Mower Bracket Arm Idler 42"
24	105304X	Cap, Sleeve	144	158634	Keeper Belt 42" Clutch Cable
25	123713X	Spring, Torsion, Deflector	145	165888	Pulley Idler Flat
26	110452X	Nut, Push	146	171977	Bolt Carriage Idler
27	130968X428	Shield, Deflector	147	131335	Spring Extension
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	148	169022	Spring Return Idler
29	131491	Rod, Hinge	149	165898	Retainer Spring Yellow Zinc
30	157722	Screw Thdrol Washer Head	150	19091216	Washer 9/32 x 3/4 x 16 Ga.
31	129963	Washer, Spacer	151	169670	Bracket Clutch
32	153535	Pulley, Mandrel	152	169676	Cable Clutch 42 In
33	137266	Nut, Toplock, Flanged	153	169674	Washer Flat 3/8" Type B
34	STD533717	Bolt	154	169675	Spring Retainer
36	131494	Pulley, Idler, Flat	155	169671	Spring Retention Lever
37	STD551037	Washer 13/32 x 13/16 x 16 Gauge	156	169672	Spacer
40 44	STD541437	Nut Crownlock 3/8-16 UNC	157 150	169669	Rod Clutch Screw Hex Thd Cut 1/4-20 x 5/8
44 45	140088 STD624003	Guard, Mandrel, L.H. Retainer	158 159	17720410 72140614	Bolt Rdhd Sqn 3/8-16unc x 1-3/4
46 46	137729	Screw, Thd. Roll 1/4-20 x 5/8		130794	Mandrel Assembly (Includes Key
48	133944	Washer, Hardened		130734	Numbers 8-10, 13-15, 31 and 32)
49	174284	Roller Assembly, Cam Follower		169583	Mower Deck, Complete
50	131340	Bolt, Shoulder #10-24 Grade 5		.00000	
51	STD541410	Locknut			
52	139888	Bolt, Shoulder 5/16-18 UNC			nent dimensions give in U.S.inches
			1 inch	n = 25.4  mm.	

LIFT



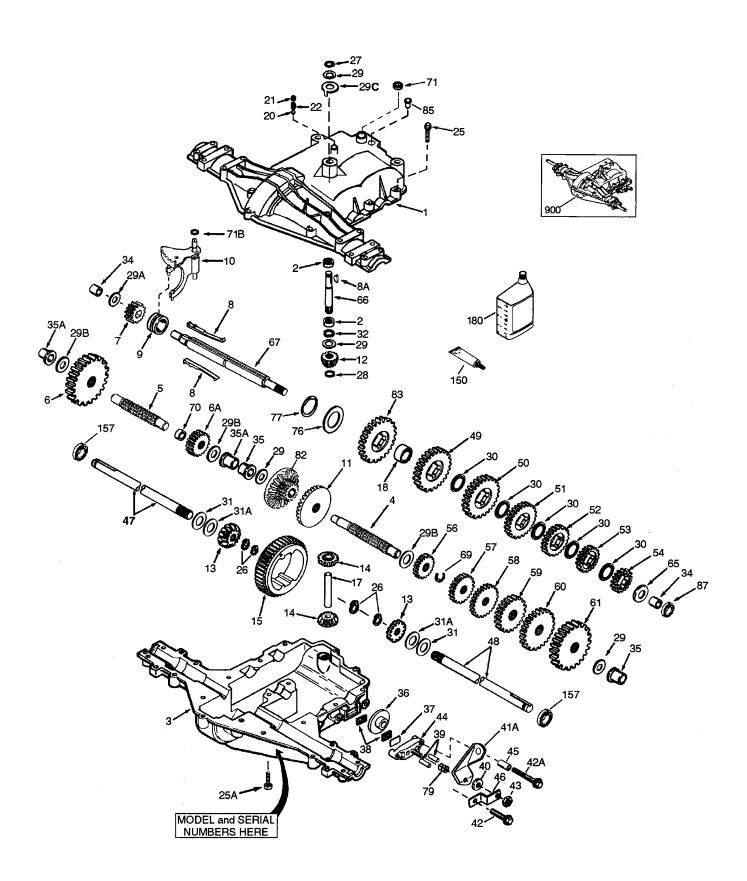
### TRACTOR - - MODEL NUMBER 944.601181

LIFT

KEY NO.	PART NO.	DESCRIPTION
1	159460	Wire Asm Inner W/Plunge5r
2	159471	Shaft Asm Lift
3	105767X	Pin Groove
4	STD581062	E Ring
5	19211621	Washer 29/32 x 1-1/4 x 21 Ga.
6	120183X	Bearing Nylon Blk .629 ID
7	125631X	Grip Handle Fluted
8	122365X	Button, Plunger
11	139865	Link Lift Lh Fixed Length
12	139866	Link Lift Rh Fixed Length
13	STD624008	Retainer Spring
15	173288	Link Front
16	73350800	Nut Jam Hex 1/2-13 Unc
17	130171	Trunnion Blk Zinc
18	73800800	Nut Lock w/Wsh 1/2-13 Unc
19	139868	Arm Suspension Rear
20	163552	Spring Retainer
31	169865	Bearing Pvt. Lift
32	73540600	Nut Lock 3/8-24

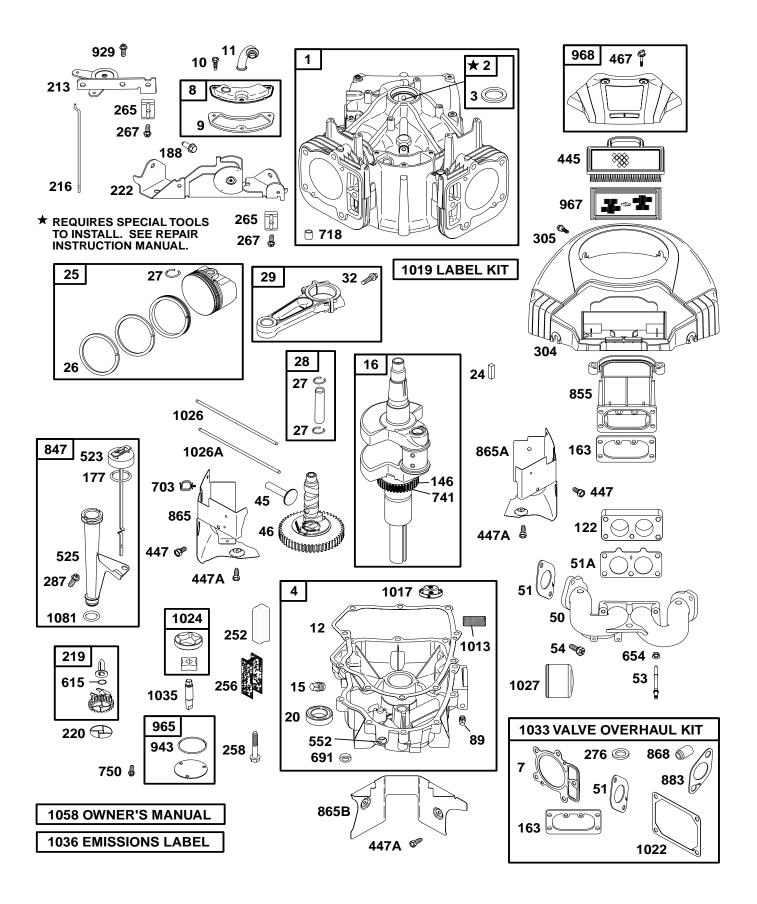
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

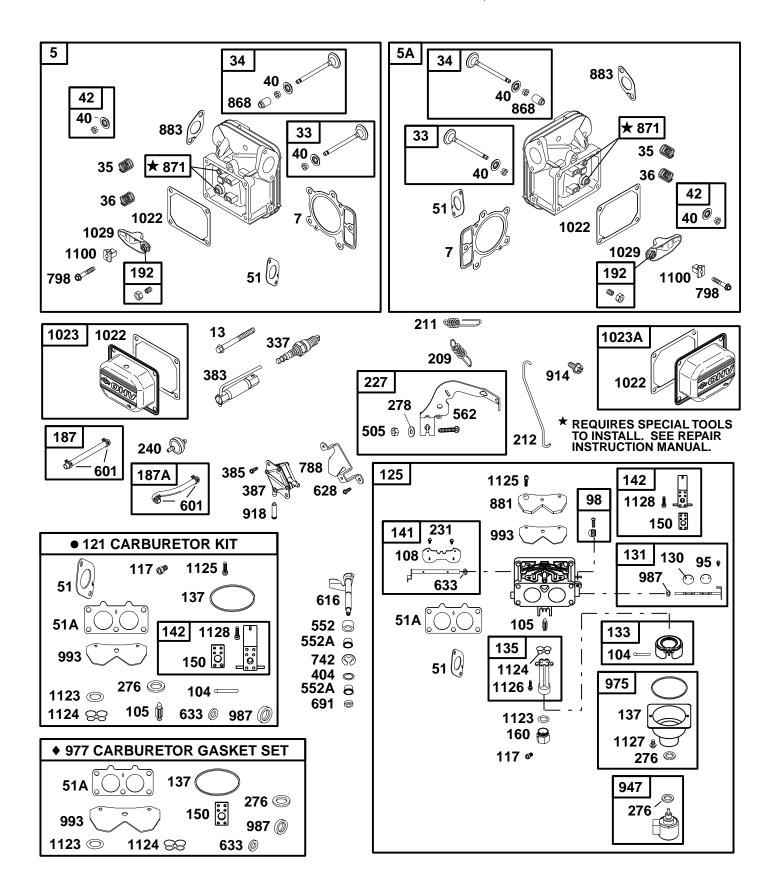
## TRACTOR - - MODEL NUMBER 944.601181 PEERLESS PMST TRANSAXLE - MODEL NUMBER 206-545C

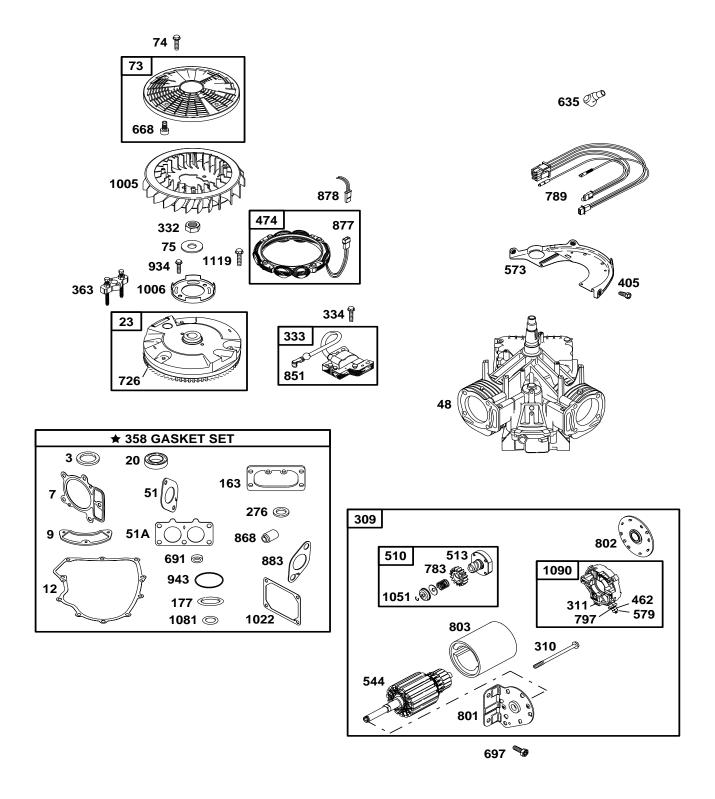


## TRACTOR - - MODEL NUMBER 944.601181 PEERLESS PMST TRANSAXLE - MODEL NUMBER 206-545C

1       772147       Transaxle Cover       41A       790079       Brake Lever         2       780086A       Needle Bearing 5/8"       42       792073A       Screw 1/4 - 20 x 1-1 /4"         3       770128       Transaxle Case       42A       792085A       Screw 1/4 - 20 x 2 1/4"         4       776395       Countershaft       43       792075       Locknut 5 / 16 - 24         5       776409       Output Shaft       44       790025       Brake Pad Holder         6       778364       Spur Gear (38 teeth)       45       786066       Spacer .2625 x 1.0         6A       778369       Spur Gear (15 teeth)       46       786086       Brake Lever Bracket         7       778330       Spur Gear (11 teeth)       47       774690       Axle (11-15 / 16" Long)         8A       792047       Woodruff Key #9       48       774691       Axle (16 - 1 / 2" long)         8A       792047       Woodruff Key #9       49       778356       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778354       Spur Gear (23 teeth)         11       778309       Input Bevel Pinion (13 teeth)       52       778352       Spur Gear (16 teeth)         13
2       780086A       Needle Bearing 5/8"       42       792073A       Screw 1/4 - 20 x 1-1 /4"         3       770128       Transaxle Case       42A       792085A       Screw 1/4 - 20 x 2 1/4"         4       776395       Countershaft       43       792075       Locknut 5 / 16 - 24         5       776409       Output Shaft       44       790025       Brake Pad Holder         6       778364       Spur Gear (38 teeth)       45       786066       Spacer .2625 x 1.0         6A       778369       Spur Gear (15 teeth)       46       786086       Brake Lever Bracket         7       778330       Spur Gear (11 teeth)       47       774690       Axle (11-15 / 16" Long)         8       792180       Shift Key       48       774691       Axle (16 - 1 / 2" long)         8A       792047       Woodruff Key #9       49       778356       Spur Gear (29 teeth)         9       784352       Shift Collar       50       778338       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778352       Spur Gear (19 teeth)         11       778330       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (15 teeth)         13 </td
3         770128         Transaxle Case         42A         792085A         Screw 1/4 - 20 x 2 1/4"           4         776395         Countershaft         43         792075         Locknut 5 / 16 - 24           5         776409         Output Shaft         44         790025         Brake Pad Holder           6         778364         Spur Gear (38 teeth)         45         786086         Spacer .2625 x 1.0           6A         778369         Spur Gear (15 teeth)         46         786086         Brake Lever Bracket           7         778330         Spur Gear (11 teeth)         47         774690         Axle (11-15 / 16" Long)           8         792180         Shift Key         48         774691         Axle (16 - 1 / 2" long)           8A         792047         Woodruff Key #9         49         778356         Spur Gear (29 teeth)           9         784352         Shift Rod & Fork         51         778354         Spur Gear (27 teeth)           10         784378         Shift Rod & Fork         51         778352         Spur Gear (19 teeth)           11         778339         Input Bevel Pinion (13 teeth)         53         778350         Spur Gear (16 teeth)           13         778368         Bevel P
4       776395       Countershaft       43       792075       Locknut 5 / 16 - 24         5       776409       Output Shaft       44       790025       Brake Pad Holder         6       778364       Spur Gear (38 teeth)       45       786066       Spacer .2625 x 1.0         6A       778369       Spur Gear (15 teeth)       46       786086       Brake Lever Bracket         7       778330       Spur Gear (11 teeth)       47       774690       Axle (11-15 / 16" Long)         8       792180       Shift Key       48       774691       Axle (16 - 1 / 2" long)         8A       792047       Woodruff Key #9       49       778356       Spur Gear (29 teeth)         9       784352       Shift Collar       50       778338       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778352       Spur Gear (23 teeth)         11       778334       Bevel Gear (30 teeth)       52       778352       Spur Gear (19 teeth)         12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (15 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778366       Spur Gear (11 teeth)
5         776409         Output Shaft         44         790025         Brake Pad Holder           6         778364         Spur Gear (38 teeth)         45         786066         Spacer .2625 x 1.0           6A         778369         Spur Gear (15 teeth)         46         786086         Brake Lever Bracket           7         778330         Spur Gear (11 teeth)         47         774690         Axle (11-15/16" Long)           8         792180         Shift Key         48         774691         Axle (16 - 1/2" long)           8A         792047         Woodruff Key #9         49         778356         Spur Gear (29 teeth)           9         784352         Shift Collar         50         778338         Spur Gear (27 teeth)           10         784378         Shift Rod & Fork         51         778354         Spur Gear (23 teeth)           11         778334         Bevel Gear (30 teeth)         52         778352         Spur Gear (19 teeth)           12         778309         Input Bevel Pinion (13 teeth) (Include. 14)         54         778346         Spur Gear (15 teeth)           14         778368         Bevel Pinion (13 teeth) (Include. 13)         56         778355         Spur Gear (11 teeth)           15
6         778364         Spur Gear (38 teeth)         45         786066         Spacer .2625 x 1.0           6A         778369         Spur Gear (15 teeth)         46         786086         Brake Lever Bracket           7         778330         Spur Gear (11 teeth)         47         774690         Axle (11-15 / 16" Long)           8         792180         Shift Key         48         774691         Axle (16 - 1 / 2" long)           8A         792047         Woodruff Key #9         49         778356         Spur Gear (29 teeth)           9         784352         Shift Collar         50         778338         Spur Gear (27 teeth)           10         784378         Shift Rod & Fork         51         778354         Spur Gear (23 teeth)           11         778334         Bevel Gear (30 teeth)         52         778352         Spur Gear (19 teeth)           12         778309         Input Bevel Pinion (13 teeth)         53         778350         Spur Gear (16 teeth)           13         778368         Bevel Pinion (13 teeth) (Include. 14)         54         778346         Spur Gear (11 teeth)           15         778370         Ring Gear (43 teeth)         57         778337         Spur Gear (17 teeth)           17
6A         778369         Spur Gear (15 teeth)         46         786086         Brake Lever Bracket           7         778330         Spur Gear (11 teeth)         47         774690         Axle (11-15 / 16" Long)           8         792180         Shift Key         48         774691         Axle (16 - 1 / 2" long)           8A         792047         Woodruff Key #9         49         778356         Spur Gear (29 teeth)           9         784352         Shift Collar         50         778338         Spur Gear (27 teeth)           10         784378         Shift Rod & Fork         51         778354         Spur Gear (23 teeth)           11         778334         Bevel Gear (30 teeth)         52         778352         Spur Gear (19 teeth)           12         778309         Input Bevel Pinion (13 teeth)         53         778350         Spur Gear (16 teeth)           13         778368         Bevel Gear (13 teeth) (Include. 14)         54         778346         Spur Gear (15 teeth)           15         778370         Ring Gear (43 teeth)         57         778337         Spur Gear (13 teeth)           17         786188         Drive Pin         58         778351         Spur Gear (21 teeth)           18         78
7       778330       Spur Gear (11 teeth)       47       774690       Axle (11-15/16" Long)         8       792180       Shift Key       48       774691       Axle (16 - 1/2" long)         8A       792047       Woodruff Key #9       49       778356       Spur Gear (29 teeth)         9       784352       Shift Collar       50       778338       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778354       Spur Gear (23 teeth)         11       778334       Bevel Gear (30 teeth)       52       778352       Spur Gear (19 teeth)         12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (16 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778351       Spur Gear (21 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
8       792180       Shift Key       48       774691       Axle (16 - 1 / 2" long)         8A       792047       Woodruff Key #9       49       778356       Spur Gear (29 teeth)         9       784352       Shift Collar       50       778338       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778354       Spur Gear (23 teeth)         11       778334       Bevel Gear (30 teeth)       52       778352       Spur Gear (19 teeth)         12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (16 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778351       Spur Gear (21 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
8A       792047       Woodruff Key #9       49       778356       Spur Gear (29 teeth)         9       784352       Shift Collar       50       778338       Spur Gear (27 teeth)         10       784378       Shift Rod & Fork       51       778354       Spur Gear (23 teeth)         11       778334       Bevel Gear (30 teeth)       52       778352       Spur Gear (19 teeth)         12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (16 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778351       Spur Gear (21 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
9 784352 Shift Collar 50 778338 Spur Gear (27 teeth) 10 784378 Shift Rod & Fork 51 778354 Spur Gear (23 teeth) 11 778334 Bevel Gear (30 teeth) 52 778352 Spur Gear (19 teeth) 12 778309 Input Bevel Pinion (13 teeth) 53 778350 Spur Gear (16 teeth) 13 778368 Bevel Gear (13 teeth) (Include. 14) 54 778346 Spur Gear (15 teeth) 14 778368 Bevel Pinion (13 teeth) (Include. 13) 56 778355 Spur Gear (11 teeth) 15 778370 Ring Gear (43 teeth) 57 778337 Spur Gear (13 teeth) 17 786188 Drive Pin 58 778353 Spur Gear (17 teeth) 18 786102 Spacer 1.130 X .695 59 778351 Spur Gear (21 teeth)
10       784378       Shift Rod & Fork       51       778354       Spur Gear (23 teeth)         11       778334       Bevel Gear (30 teeth)       52       778352       Spur Gear (19 teeth)         12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (16 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778368       Bevel Pinion (13 teeth) (Include. 13)       56       778355       Spur Gear (11 teeth)         15       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778351       Spur Gear (21 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
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12       778309       Input Bevel Pinion (13 teeth)       53       778350       Spur Gear (16 teeth)         13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778368       Bevel Pinion (13 teeth) (Include. 13)       56       778355       Spur Gear (11 teeth)         15       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778353       Spur Gear (17 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
13       778368       Bevel Gear (13 teeth) (Include. 14)       54       778346       Spur Gear (15 teeth)         14       778368       Bevel Pinion (13 teeth) (Include. 13)       56       778355       Spur Gear (11 teeth)         15       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778353       Spur Gear (17 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
14       778368       Bevel Pinion (13 teeth) (Include. 13)       56       778355       Spur Gear (11 teeth)         15       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778353       Spur Gear (17 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
15       778370       Ring Gear (43 teeth)       57       778337       Spur Gear (13 teeth)         17       786188       Drive Pin       58       778353       Spur Gear (17 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
17       786188       Drive Pin       58       778353       Spur Gear (17 teeth)         18       786102       Spacer 1.130 X .695       59       778351       Spur Gear (21 teeth)
18 786102 Spacer 1.130 X .695 59 778351 Spur Gear (21 teeth)
20 792077A Ball 5/16" dia 60 778349 Spur Gear (24 teeth)
21 792078 Set Screw 3/8 - 16 x 3/8" 61 778345 Spur Gear (25 teeth)
22 792079 Spring .310 OD x .625 L 65 780189 Flat Washer .563 ID x .062W
25 792073A Screw 1/4 - 20 x 1-1/4" 66 776422 Input Shaft
25A 792177 Screw 1/4-20 x 1-3/8" 67 776396 Shifter & Brake Shaft
26 792125 Retaining Ring (pkg of 2) 69 792170 Retaining Ring
27 792035 Retaining Ring 70 786187 Spacer .890
28 788040 Retaining Ring 71 788069 Square Cut Ring
29 780072 Thrust Washer .627 ID x .031W 71B 788092 "O" Ring
29A 780160 Thrust Washer .762 ID x .031W 76 780090 Flat Washer 1.128 ID x .058W
29B 780051 Thrust Washer .762 ID x .031W 77 788078A Inverted Retaining Ring
29C 780199 Anti-Rotation Washer .632 79 792144 Spring .430 OD x .5000 L
30 780108 Cup Washer 1.127 ID x .032W 82 778333 Bevel & Spur Gear (30 & 13 teeth)
31 780001 Flat Washer .750 ID x .056W (Use 83 778338 Spur Gear (27 teeth)
As Needed)  85 792154 Oil Fill Plug
31A 780195 Flat Washer .750 ID x .062W 87 788089A Oil Seal 9 / 16"
32 788083 Oil Seal 5/8" 150 788093A Liquid Gasket RTV Silicone
34 780194 Bushing .563 157 788088A Oil Seal 3 /4"
35 780193 Flanged Bushing 5 / 8" ID 180 730229A Gear Oil 80W90
35A 780197 Flanged Bushing .751 900 794712 Replacement MST - 206-545C
36 790075 Brake Disk Transaxle
37 790007 Brake Pad Plate
38 799021 Brake Pad (pkg of 2)
39 786026 Dowel Pin NOTE: All component dimensions given in U.S. inches
40 792076A Flat Washer .312 ID x .059W 1 inch = 25.4 mm



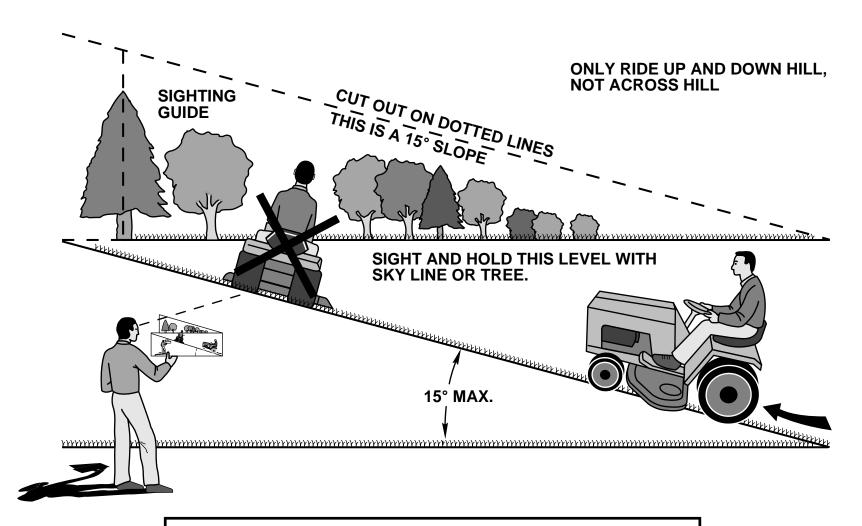




KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	690231	Cylinder Assembly	135	499803	Fuel Transfer Tube
2	499585	Bushing-Cylinder	137		Ø Gasket-Float Bowl
3	690926	Seal-Oil	141	499807	Choke Shaft Kit
4	690069	Sump-Engine	142	499808	Ø Nozzle-Carburetor
5	499587	Head-Cylinder No. 1	146	94388	Key-Timing
5A	499595	Head-Cylinder No. 2	150		Ø Gasket-Nozzle
7		+• Gasket-Cylinder Head	160	690996	Retainer-Solenoid
8 9	499601 690937	Breather Assembly  Gasket-Breather	163 177	691001 691031	<ul><li>+• Gasket-Air Cleaner</li><li>• O-Ring Seal (Dipstick)</li></ul>
10	690960	Screw (Breather Assy.)	187	691050	Line-Fuel (Cut to Required Length)
11	690942	Tube-Breather	187A	691049	Line-Fuel
12	690945	Gasket-Crankcase	188	690960	Screw (Control Bracket)
13	690360	Screw (Cylinder Head)	192	690083	Adjuster-Rocker Arm
15	690946	Plug-Oil Drain	209	690018	Spring-Governor
16	691046	Crankshaft	211	690019	Spring-Governed Idle
20	690947	Seal-Oil (PTO Side)	212	691020	Link-Throttle
23	691054	Flywheel	213	691021	Bracket-Choke Control
24	690974	Key-Flywheel	216	691022	Link-Choke
25	499588 499589	Piston Assembly (Std.)	219 220	394348 690412	Gear-Governor Washer (Governor Lover)
	499590	Piston Assembly (.010 "O.S.) Piston Assembly (.020" O.S.)	222	691023	Washer (Governor Lever) Bracket-Control
	499591	Piston Assembly (.030" O.S.)	227	691048	Control Lever-Governor
26	499604	Ring Set-Piston (Std.)	231	690718	Screw (Choke Valve)
	499605	Ring Set-Piston (.010 "O.S.)	240	691035	Filter-Fuel
	499606	Ring Set-Piston (.020 "O.S.)	252	690956	Element-Breather
	499607	Ring Set-Piston (.030 "O.S.)	256	690957	Retainer-Element
27	690975	Lock-Piston Pin	258	690308	Screw (Engine Sump)
28	499582	Pin-Piston	265	691024	Clamp-Casing
29 32	499583	Rod-Connecting	267	95348	Screw (Casing Clamp)
32 33	690976 499596	Screw (Connecting Rod) Valve-Exhaust	276 278	690997 Ø	+• Sealing Washer Washer (Gov. Control Lever)
34	499597	Valve-Intake	287	690960	Screw (Dipstick Tube)
35	690963	Spring-Valve (Intake)	304	691004	Housing-Blower
36	690963	Spring-Valve (Exhaust)	305	691005	Screw (Blower Housing)
40	690964	Retainer-Valve	309	691262	Motor-Starter
42	499586	Keeper-Valve	310	691263	Bolt-Starter Motor
45	690977	Valve Tappet	311	691264	Brush Set
46	690978	Cam Shaft	332	690059	Nut (Flywheel)
48	692714	Short Block	333	691060	Armature-Magneto
50 51	690948	Manifold-Intake Ø• Gasket-Intake	334 337	691061 691043	Screw (Armature) Spark Plug
51A		Ø• Gasket-Intake	358	499889	Gasket Set
53	690951	Stud (Carburetor)	363	691062	Flywheel Puller
54	690953	Screw (Intake Manifold)	383	690966	Wrench-Spark Plug
73	691055	Screen-Rotating	385	690960	Screw (Fuel Pump)
74	691057	Screw (Rotating Screen)	387	691034	Pump-Fuel
75	691056	Washer (Flywheel)	404	690442	Washer (Governor Crank)
89	690238	Plug-Oil	5514	<b>.</b>	
95	690718	Screw (Throttle Valve)	RPM :	Settings:	Low Speed: 1900-2100
98 104	499802 690984	Idle Speed Kit Ø Pin-Float Hinge			High Speed: 3000-3200
104	690985	Ø Valve-Float Needle	•	Included in	Gasket Set, Ref. No. 358
103	690986	Valve-Choke	Ø		Gasket Set, Ref. No. 121
117	690232	Ø Jet-Main (Standard)	Ĭ		Gasket Set, Ref. No. 977
	690989	Jet-Main High Altitude)	+		Gasket Set, Ref. No. 1033
121	499811	Carburetor Overhaul Kit			•
122	690952	Spacer-Carburetor			nent dimensions given in U.S. inches
125	499804	Carburetor	1 inch	= 25.4 mm	
130	690993	Valve-Throttle			
131	499805	Throttle Shaft Kit			
133	499806	Float-Carburetor			

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
405	690960	Screw (Back Plate)	883	690970	+• Gasket-Exhaust
445	691007	Filter-Air Cleaner Cartridge	914	690960	Screw (Rocker Cover)
447	691003	Screw (Air Guide Cover)	918	691040	Hose-Vacuum
447A	690960	Screw (Air Guide Cover)	929	691003	Screw (Choke Control Bracket)
462 474	691261 691063	Knob-Air Cleaner Alternator	934 943	691058 690589	Screw (Fan Retainer)
505	691029	Nut (Gov. Control Lever)	943	499809	<ul> <li>O-Ring Seal (Oil Pump Cover)</li> <li>Solenoid-Fuel</li> </ul>
510	497606	Drive-Starter	965	499613	Oil Pump Cover
513	692024	Clutch-Drive	967	691016	Filter-Pre-Cleaner
523	691036	Dipstick	968	499788	Cover-Air Cleaner
525	691037	Dipstick Tube	975	499810	Bowl-Float
544		Armature-Starter (Service with 691262	977	499812	Gasket Set-Carburetor
		Starter Motor)	987	691000	‡Ø Seal-Throttle Shaft
552	690552	Bushing-Governor Crank	993	690234	‡Ø Gasket-Plate
552A	690553	Bushing-Governor Crank	1005	691243	Fan-Flywheel
562	690311	Bolt (Gov. Control Lever)	1006	691247	Retainer-Fan
573	691009	Plate-Back	1013	690954	Nipple-Oil Filter
579 601	691029 691038	Nut (Starter Cable)	1017 1019	690770 690103	Oil Pump Screen Label Kit
615	690317	Clamp-Hose Retainer-Governor Shaft	1019	690971	+• Gasket-Rocker Cover
616	691045	Crank-Governor	1022	499599	Cover-Rocker (Cyl. No. 1)
628	690960	Screw (Fuel Pump Bracket)		499600	Cover-Rocker (Cyl. No. 2)
633		Ø Seal-Choke Shaft	1024	499054	Pump-Oil
635	691210	Boot-Spark Plug	1026	690981	Rod-Push (Steel)
654	690958	Nut (Carburetor)	1026A	690982	Rod-Push (Aluminum)
668	691215	Spacer	1027	690041	Filter-Oil
691		Governor Shaft Seal	1029	690972	Rocker Arm
697	690372	Screw (Drive Cap)	1033	499890	Valve Overhaul Kit
703	690010	Clip	1035	691042	Shaft-Pump
718	690959	Pin-Locator	1036	499783	Emissions Label
726 741	499612 690980	Gear-Ring Gear-Timing	1051 1058	691265 273694	Ring-Retaining Owner's Manual
742	690328	E-Ring Retainer	1081	691032	O-Ring Seal (Dipstick Tube)
750	691033	Screw (Oil Pump Cover)	1090	691293	Retainer-Brush
783	693058	Gear-Pinion	1100	690973	Rocker Arm Pivot
788	691039	Fuel Pump Bracket	1119	93621	Screw (Alternator)
789	694209	Harness-Wiring	1123	690987	‡Ø O-Ring Seal (Solenoid Retainer)
797	693167	Screw (Brush Retainer)	1124	690988	‡Ø O-Ring Seal-Fuel Transfer Tube
798	690967	Screw (Rocker Arm)	1125	690990	Ø Screw (Cover Plate)
801	691283	Cap-Drive	1126	690991	Screw (Fuel Transfer Tube
802	691286	Cap-End	1127	690992	Screw (Float Bowl)
803		Housing-Starter (Service with 691262 Starter Motor)	1128 ——	690990 407777-0	Ø Screw (Carburetor Nozzle) 0027-E1 Replacement Engine
847	499602	Dipstick/Tube Assembly			
851	691234	Terminal-Cable	RPM S	Settings:	Low Speed: 1900-2100
855	691011	Adapter-Air			High Speed: 3000-3200
865 865A	691012	Cover-Air Guide Cover-Air Guide		Included	in Gasket Set, Ref. No. 358
865B	691014 691015	Cover-Air Guide Cover-Air Guide	ø		in Gasket Set, Ref. No. 121
868		• Seal-Valve	‡		in Gasket Set, Ref. No. 121
871	690969	Bushing-Guide	+		in Gasket Set, Ref. No. 1033
877	399916	Alternator Connector/Wire	•		
878	691237	Harness-Alternator			onent dimensions given in
881	690999	Plate-Cover			n = 25.4 mm

### SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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



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