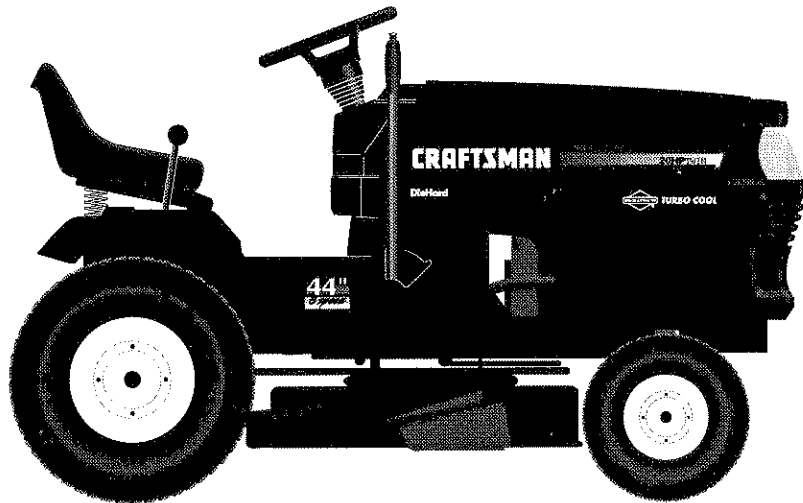


**SEARS**

# **CRAFTSMAN<sup>®</sup>**

**MODEL NUMBER 917.251471 OWNER'S MANUAL**

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



**CAUTION: Read and follow all safety rules and instructions before operating this equipment.**  
FOR CONSUMER ASSISTANCE HOT LINE, CALL THIS TOLL FREE NUMBER: 1-800-659-5917

**Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.**



# 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.

### 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.



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



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

## WARNING

**The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.**

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

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Authorized Service 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".

MODEL NUMBER	917.251471
SERIAL NUMBER	_____
DATE OF PURCHASE	_____
THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.	
YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.	

**MAINTENANCE AGREEMENT**

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

**CUSTOMER RESPONSIBILITIES**

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

**PRODUCT SPECIFICATIONS**

HORSEPOWER:	20.0
GASOLINE CAPACITY AND TYPE:	5 QUARTS UNLEADED REGULAR
OIL TYPE (API-SF/SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	3.0 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RJ19LM
VALVE CLEARANCE:	INTAKE: .004" - .006" EXHAUST: .007" - .009"
GROUND SPEED (MPH):	FORWARD: 1st 1.1 2nd 1.4 3rd 2.3 4th 3.5 5th 4.4 6th 5.7 REVERSE: 1.7
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:	30-35 FT. LBS.

**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.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center/Department (See REPAIR PARTS section of this manual).

**LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT**

For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts, etc.
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the equipment according to the instructions contained in the owner's manual.
- Riding equipment used for commercial or rental purposes.

**LIMITED 90 DAY WARRANTY ON BATTERY**

For ninety (90) days 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.

IN-HOME WARRANTY SERVICE ON YOUR CRAFTSMAN RIDING EQUIPMENT IS AVAILABLE AT NO-CHARGE FOR 30 DAYS FROM THE DATE OF PURCHASE. PLEASE CONTACT YOUR NEAREST SERVICE CENTER. AFTER 30 DAYS FROM THE DATE OF PURCHASE, WARRANTY SERVICE IS AVAILABLE BY TAKING YOUR CRAFTSMAN RIDING EQUIPMENT TO YOUR NEAREST SEARS SERVICE CENTER. (IN-HOME WARRANTY SERVICE WILL STILL BE AVAILABLE AFTER 30 DAYS FROM THE DATE OF PURCHASE BUT A STANDARD TRIP CHARGE WILL APPLY.) THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS IN THE UNITED STATES.

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, IL 60179

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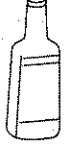

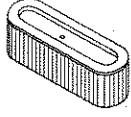
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# ACCESSORIES AND ATTACHMENTS

These accessories and attachments were available through most Sears retail outlets and service centers when the tractor was purchased. Most Sears stores can order these items for you when you provide the model number of your tractor.

## ENGINE

SPARK PLUG	GAS CAN	ENGINE OIL	FUEL STABILIZER	AIR FILTER
				

## MAINTENANCE

BLADES	BELTS
	

## PERFORMANCE

Sears offers a wide variety of attachments that fit your tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years - more attachments may be added, changes may be made in these attachments, or some may no longer be available or fit your model. **Contact your nearest Sears store for the accessories and attachments that are available for your tractor.**

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching.

**AERATOR** promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in. Steel weight tray for increased penetration.

**BAGGER** lets you collect grass clippings and leaves for a healthier, neater looking lawn. Two Permanex containers hold 30-gallon plastic bags.

**BUMPER** protects front end of tractor from damage.

**CARTS** make hauling easy. Variety of sizes available, plus accessories such as side panel kits, tool caddy, cart cover, protective mat and dolly.

**CORING AERATOR** takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips. 150 lb. capacity weight tray.

**EASY OIL DRAIN VALVE** makes oil changes easier, faster.

**FRONT NOSE ROLLER** canters in front of mower deck to reduce chances of "scalping" on uneven terrain.

**GANG HITCH** lets you tow 2 or 3 pull-behind attachments at once, such as sweepers, dethatchers, aerators (not for use with rollers, carts or other heavy attachments).

**GAUGE WHEELS** on both sides of the mower deck reduce chances of "scalping" on uneven terrain. For mower decks not so equipped.

**MULCH RAKE/DETHATCHER** loosens soil and flips thatch and matted leaves to lawn surface for easy pickup. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting. **HIGH PERFORMANCE REEL-ACTION SPRING TINE DETHATCHER** covers 36-inch wide path and tosses thatch into large hopper. Mounts behind tractor.

**MULCHING CLOSE-OUT PLATE KIT**, once installed, lets you mulch, discharge or bag clippings (bagger optional) without changing blades. For models not equipped as 3-in-1 Convertible mowers. See "MOWER" in the Repair Parts section of this manual.

**RAMP TOPS AND FEET** let you load and unload tractor from a pickup truck. Use with 2 x 8 or 2 x 10 lumber.

**ROLLER** for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lbs. of weight. Rounded edges prevent harm to turf. Adjustable scraper automatically cleans drum.

**SNOW BLADE** for snow removal only. 14-inch high, 48-inch wide blade clears 42-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

**SNOWTHROWER** has 40-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

**SPRAYERS** use 12-volt DC electric motor that connects to the tractor battery or other 12-volt source. Includes booms for automatic spraying and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides and liquid fertilizers.

**SPREADER/SEEDERS** make seeding, fertilizing, and weed killing easy. Broadcast spreaders are also useful for granular deicers and sand.

**SWEEPERS** let you collect grass clippings and leaves.

**TILLER** has 5 hp engine and 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard or garden tractor. Simply hook up to the tractor drawbar and go! **Optional accessories** convert unit for dethatching, aerating, hilling...without tools.

**TIRE CHAINS** are heavy duty; closely spaced extra-large cross links give smooth ride, outstanding traction.

**TRACTOR CAB** has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. **Optional accessories include:** tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top.

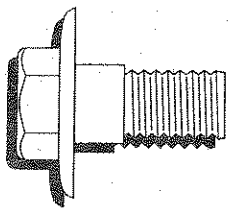
**VACS** for powerful collection of heavy grass clippings and leaves. **Optional wand attachment** to pick up debris in hard-to-reach places. **VAC/CHIPPER** includes a chipper-shredder.

**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

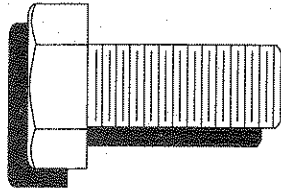
**WHEEL WEIGHTS** for rear wheels provide needed traction for snow removal or dozing heavy materials.

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## Parts Bag contents shown full size

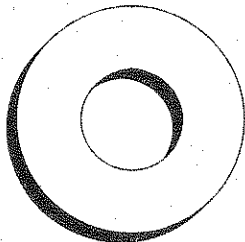
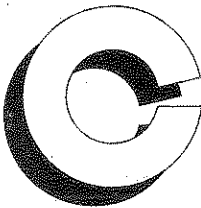


(1) Shoulder Bolt 5/16-18

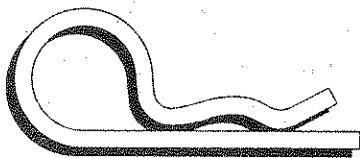


(1) Hex Bolt 1/2-13 x 1

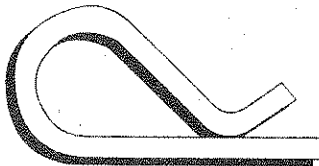
(1) Lock Washer 1/2



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



(3) Retainer Springs (double loop)



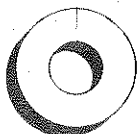
(4) Retainer Springs (single loop)



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



(2) Hex Nuts 1/4-20

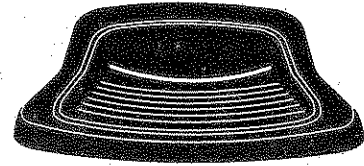


(2) Lock Washers 1/4

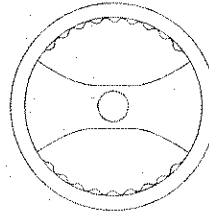


(2) Washers 9/32 x 5/8 x 16 Gauge

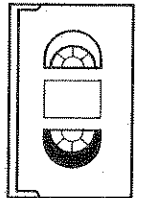
## Parts packed separately in carton



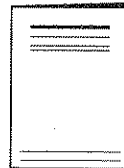
Seat



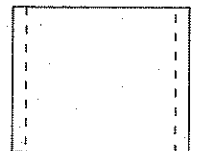
Steering Wheel



Video Cassette

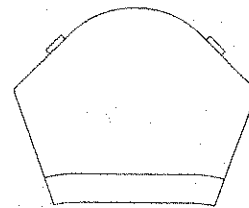


Manual

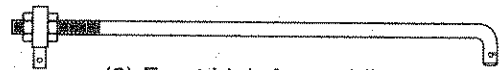


Parts Bag

## Parts bag contents not shown full size



Steering Wheel Insert



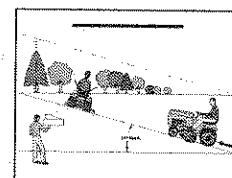
(2) Front Link Assemblies



Steering Sleeve



(2) Keys



Slope Sheet

# ASSEMBLY

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

## TOOLS REQUIRED FOR ASSEMBLY

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

- (2) 7/16" wrenches      Utility knife
- (1) 1/2" wrench        Tire pressure gauge
- (1) 3/4" wrench

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

## TO REMOVE TRACTOR FROM CARTON

### UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 6).
- 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 ROLLING TRACTOR OFF SKID

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

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

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

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in neutral (N) position.
- Roll tractor backwards off skid.

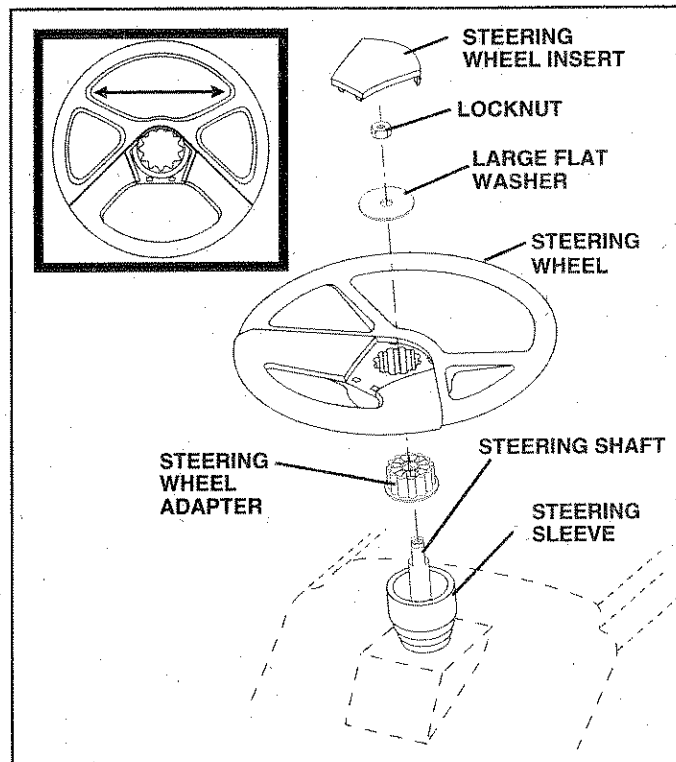


FIG. 1

### CONNECT BATTERY (See Fig. 2)



**CAUTION:** Do not short battery terminals. 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, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Close terminal access doors.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).

# ASSEMBLY

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

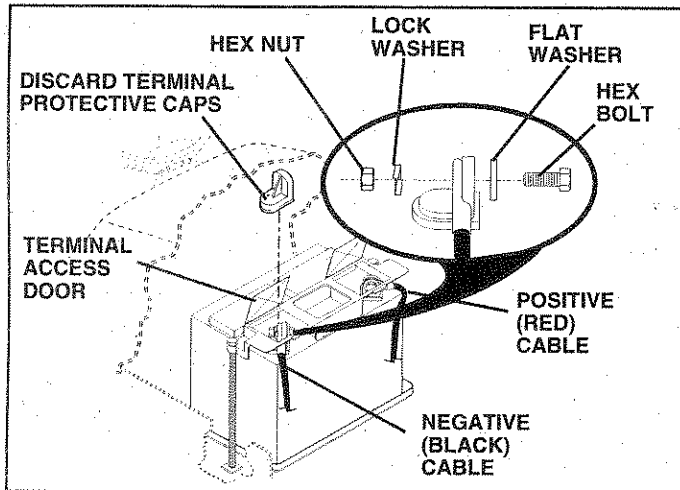


FIG. 2

## INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment bolt.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment bolt, lock washer and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- 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 bolt securely.

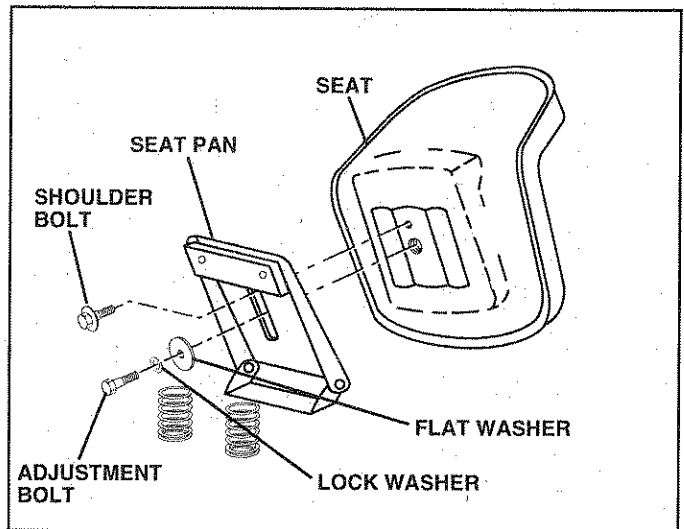


FIG. 3

## 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" on page 3 of this manual.

## 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.



# ASSEMBLY

## INSTALL MOWER AND DRIVE BELT (See Figs. 4 and 5)

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

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

**IMPORTANT: CHECK BELT FOR PROPER ROUTING IN ALL MOWER PULLEY GROOVES. INSTALL BELT INTO ENGINE PULLEY GROOVE.**

- Install one front link in top hole of the L.H. front mower bracket and L.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Install second front link in R.H. front suspension bracket and retain with single loop retainer spring as shown.
- Slide right side of mower back and install link in top hole of R.H. front mower bracket. Retain with single loop retainer spring as shown.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift control.

- Place the suspension arms on outward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Install clutch rod in clutch lever. Secure with retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.

## CHECK MOWER LEVELNESS

For best cutting results, mower 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, mower drive, and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

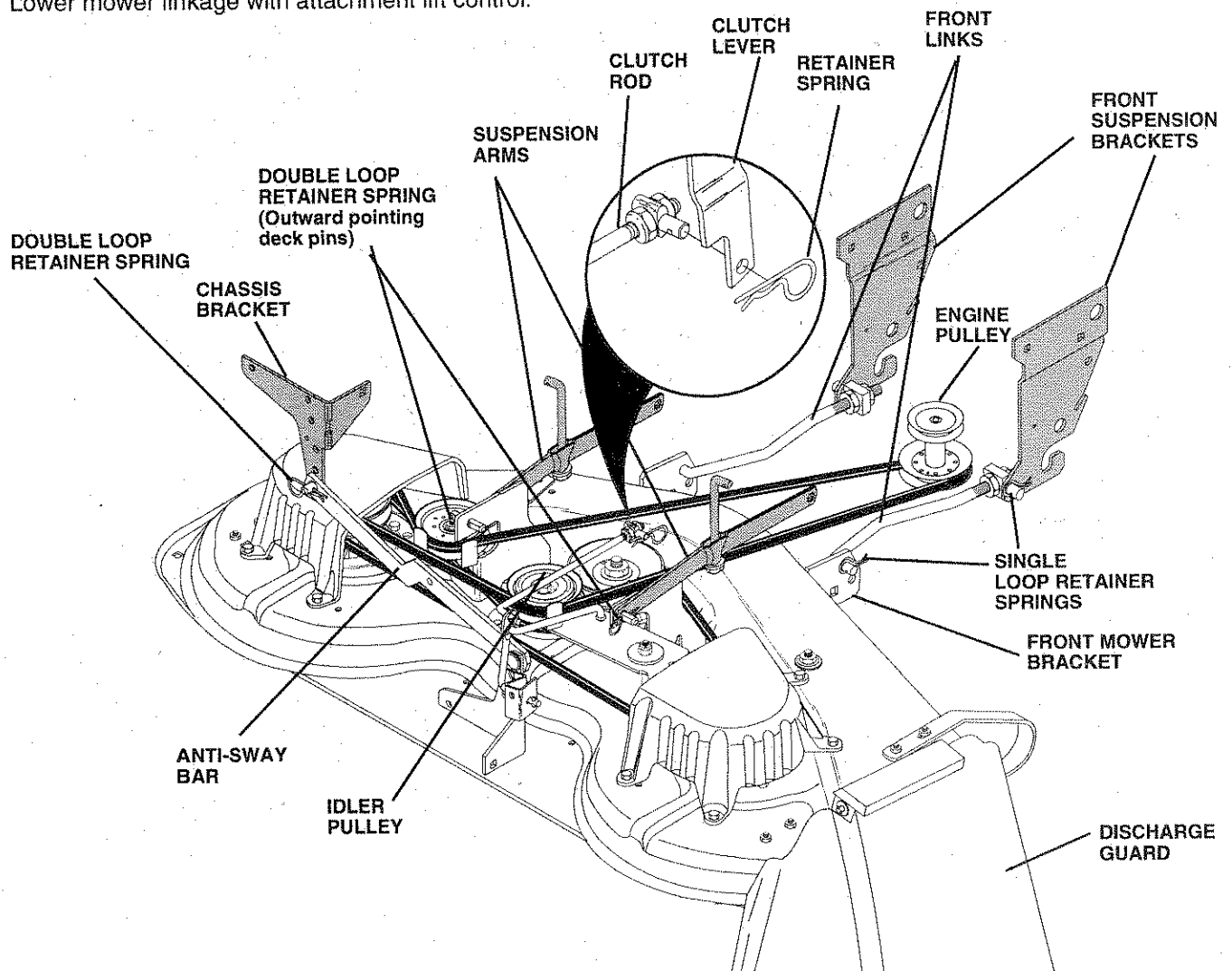


FIG. 4

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# ASSEMBLY

---

## ✓ 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.

# OPERATION

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



BATTERY



CAUTION OR WARNING



REVERSE



FORWARD



FAST



SLOW



ENGINE ON



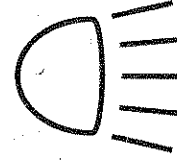
ENGINE OFF



OIL PRESSURE



CLUTCH



LIGHTS ON



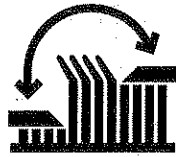
LIGHTS OFF



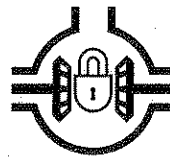
FUEL



CHOKE



MOWER HEIGHT



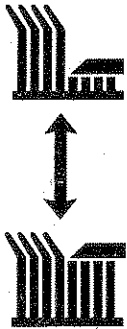
DIFFERENTIAL LOCK



PARKING BRAKE LOCKED



UNLOCKED



MOWER LIFT

**R**

REVERSE

**N**

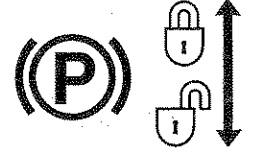
NEUTRAL

**H**

HIGH

**L**

LOW



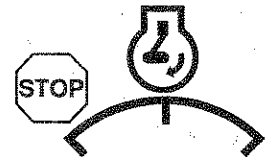
PARKING BRAKE



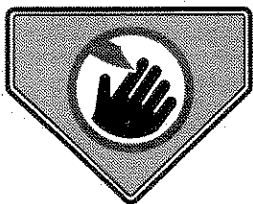
ATTACHMENT CLUTCH ENGAGED



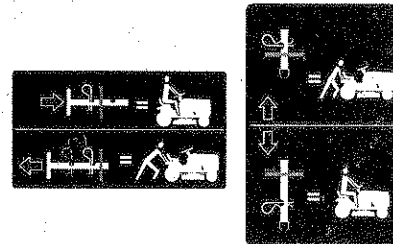
ATTACHMENT CLUTCH DISENGAGED



IGNITION



DANGER, KEEP HANDS AND FEET AWAY



HYDROSTATIC FREE WHEEL  
(Hydro Models only)

# OPERATION

## KNOW YOUR TRACTOR

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

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

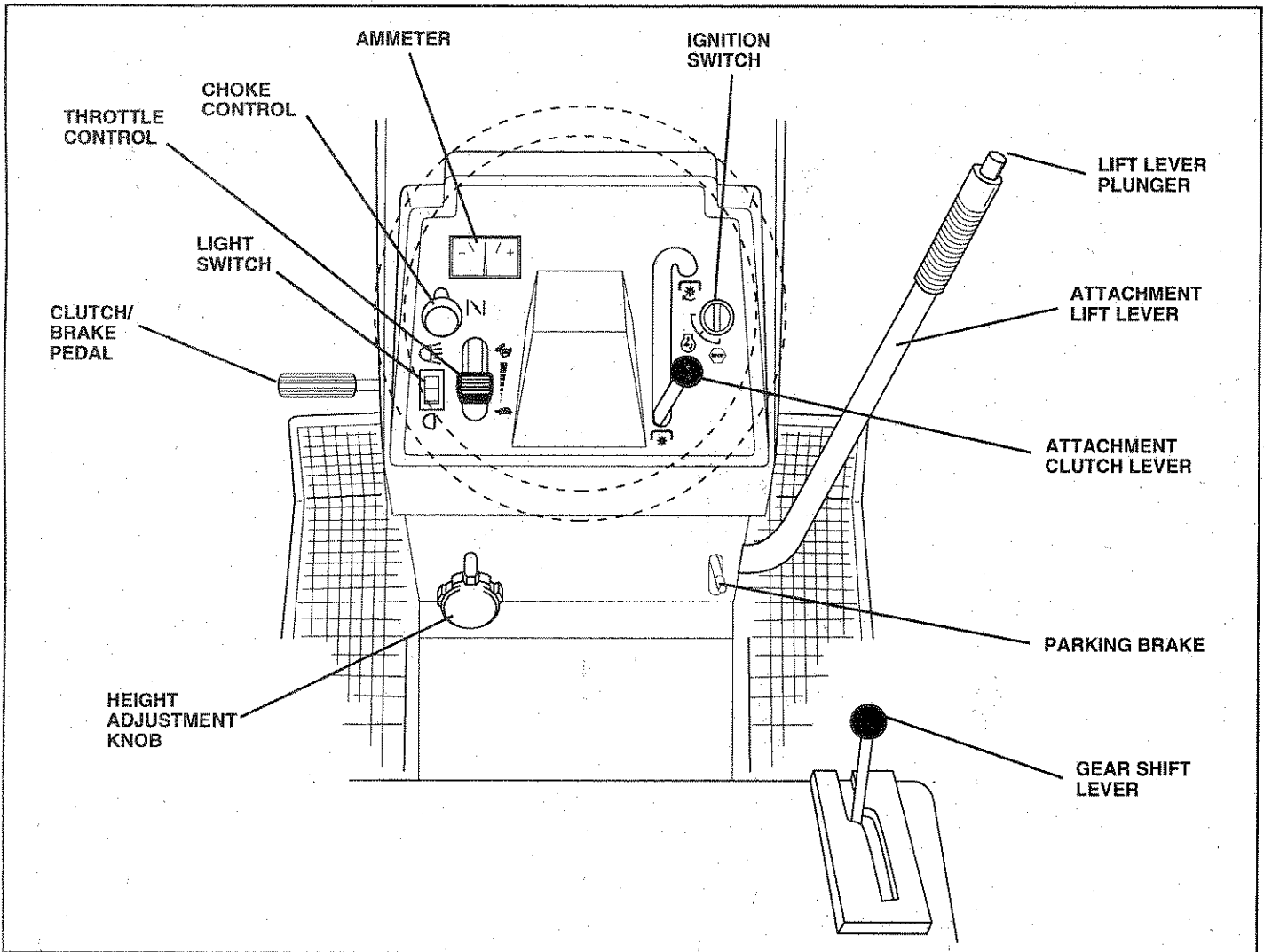


FIG. 5

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

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

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

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

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

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

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

**GEAR SHIFT LEVER** - Selects the speed and direction of the tractor.

**ATTACHMENT LIFT LEVER:** Used to raise and lower the mower deck or other attachments mounted to your tractor.

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

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

**HEIGHT ADJUSTMENT KNOB:** Used to adjust the mower cutting height.

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

# OPERATION



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

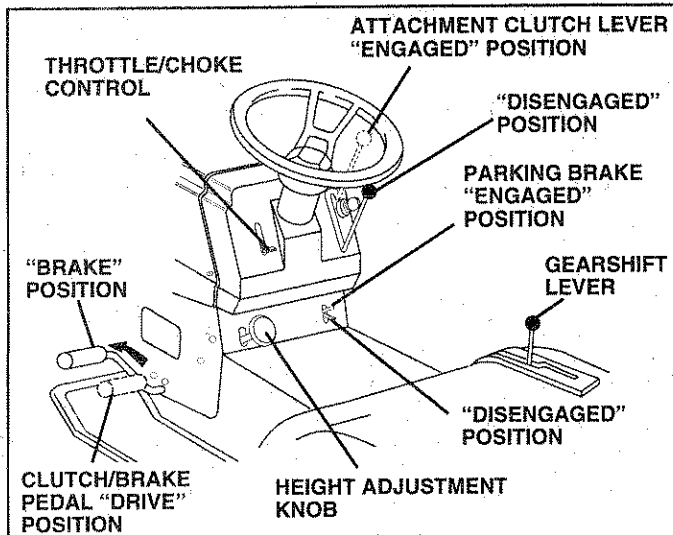


FIG.6

### STOPPING (See Fig. 6)

#### MOWER BLADES -

- Move attachment clutch lever to "DISENGAGED" position.

#### 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.

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

- Turn knob clockwise (↻) to raise cutting height.
- Turn knob counterclockwise (↺) to lower cutting height.

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

# OPERATION

## 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.
- Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES - disengage attachment clutch control.



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

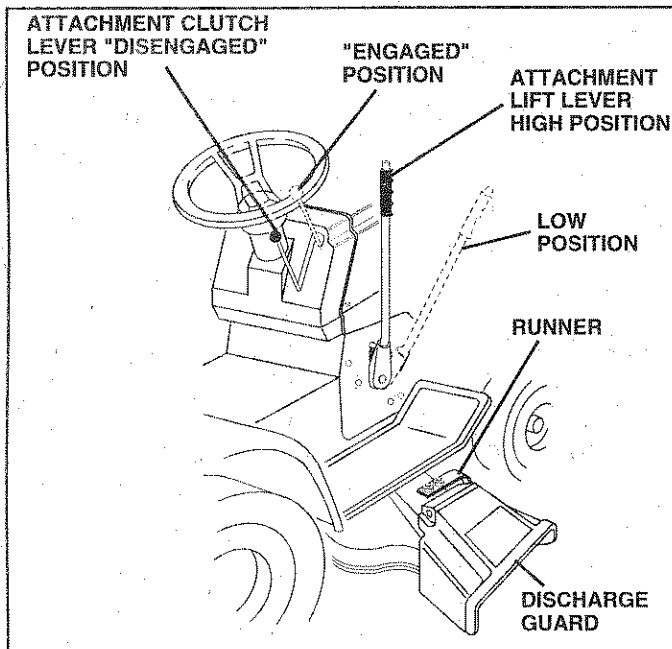


FIG. 7

## 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 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 to tractor (rope, cord, etc.).

## BEFORE STARTING THE ENGINE

### CHECK ENGINE OIL LEVEL (See Fig. 12)

- 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.

# OPERATION

## TO START ENGINE (See Fig. 7)

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

- Depress clutch/brake pedal and set parking brake.
- Place gearshift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (| \ |) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (☛) and slow (☞) positions.
- 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 engine does not start after several attempts, move throttle control to fast (☛) position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (☛) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

**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

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- Use the runner on the right hand side of mower as a guide. The blade cuts approximately an inch outside the runner (See Fig. 7).
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 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.

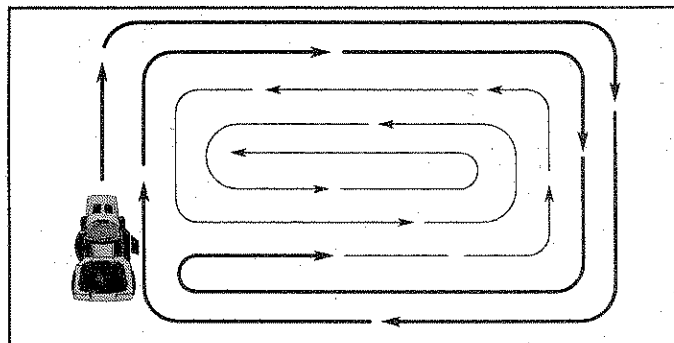


FIG. 8

# CUSTOMER RESPONSIBILITIES

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		SERVICE DATES																
		BEFORE EACH USE	FIRST 2 HOURS	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	BEFORE STORAGE										
TRACTOR	Check Brake Operation	✓		✓														
	Check Tire Pressure	✓		✓														
	Check for Loose Fasteners	✓						✓ <sub>7</sub>		✓								
	Sharpen/Replace Mower Blades					✓ <sub>4</sub>												
	Lubrication Chart					✓				✓								
	Check Battery Level/Recharge					✓ <sub>6</sub>												
	Clean Battery and Terminals					✓				✓								
	Check Transaxle Cooling					✓												
	Adjust Blade Belt(s) Tension								✓ <sub>5</sub>									
	Adjust Motion Drive Belt(s) Tension								✓ <sub>5</sub>									
ENGINE	Check Engine Oil Level	✓		✓														
	Change Engine Oil		✓		✓ <sub>1,2,3</sub>					✓								
	Clean Air Filter				✓ <sub>2</sub>													
	Clean Air Screen				✓ <sub>2</sub>													
	Inspect Muffler/Spark Arrester						✓											
	Replace Oil Filter (If equipped)								✓ <sub>1,2</sub>									
	Clean Engine Cooling Fins								✓ <sub>2</sub>									
	Replace Spark Plug								✓		✓							
	Replace Air Filter Paper Cartridge								✓ <sub>2</sub>									
	Replace Fuel Filter									✓								

- 1 - Change more often when operating under a heavy load or in high ambient temperatures.
- 2 - Service more often when operating in dirty or dusty conditions.
- 3 - 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.

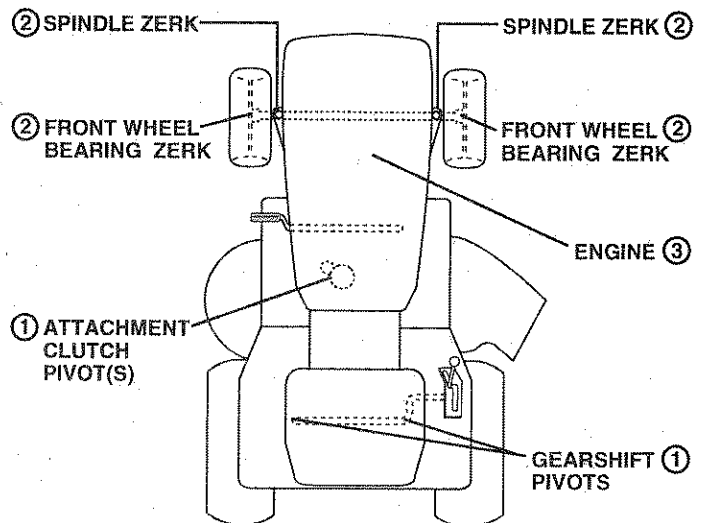
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- 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 for loose fasteners.

## LUBRICATION CHART



- ① SAE 30 OR 10W30 MOTOR OIL
- ② GENERAL PURPOSE GREASE
- ③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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



# CUSTOMER RESPONSIBILITIES

## TRACTOR

Always observe safety rules when performing any maintenance.

## BRAKE OPERATION

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

## TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" on page 3 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.

## BLADE CARE

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

## BLADE REMOVAL (See Fig. 9)

- 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.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

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

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

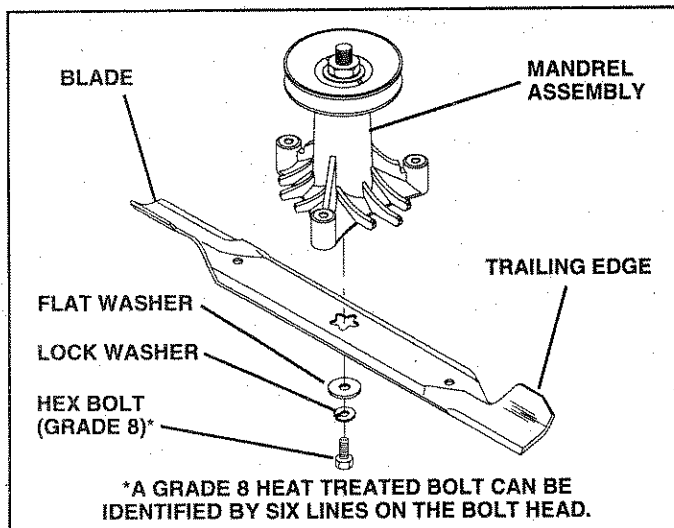


FIG. 9

## TO SHARPEN BLADE (See Fig. 10)

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).
- 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.

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

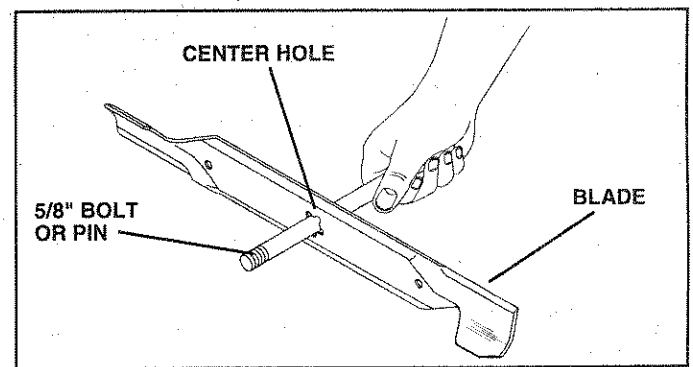


FIG. 10

## 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.

## 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).

# CUSTOMER RESPONSIBILITIES

## 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 or SG. Select the oil's SAE viscosity grade according to your expected operating temperature.

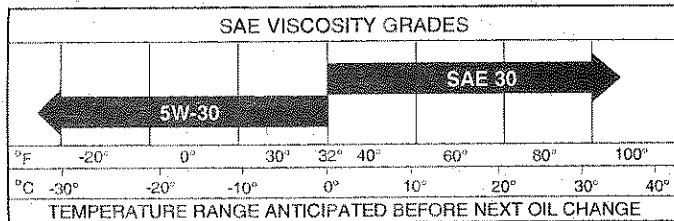


FIG. 11

**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after the first two hours of operation and every 25 hours thereafter 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 Figs. 11 and 12)

Determine temperature range expected before oil change. All oil must meet API service classification SF or SG.

- 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 drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 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.

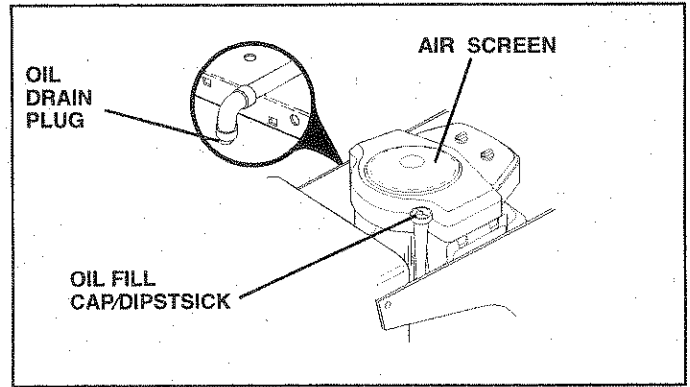


FIG. 12

### CLEAN AIR SCREEN (See Fig. 12)

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 knob(s) and cover.

#### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- 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.
- Reinstall pre-cleaner over cartridge.
- Reinstall cover and secure with knob(s).

#### TO SERVICE CARTRIDGE

- Remove wing nuts and cartridge plate.
- Carefully remove cartridge to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge plate, wing nuts, pre-cleaner, cover and secure with knob(s).

# CUSTOMER RESPONSIBILITIES

**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.

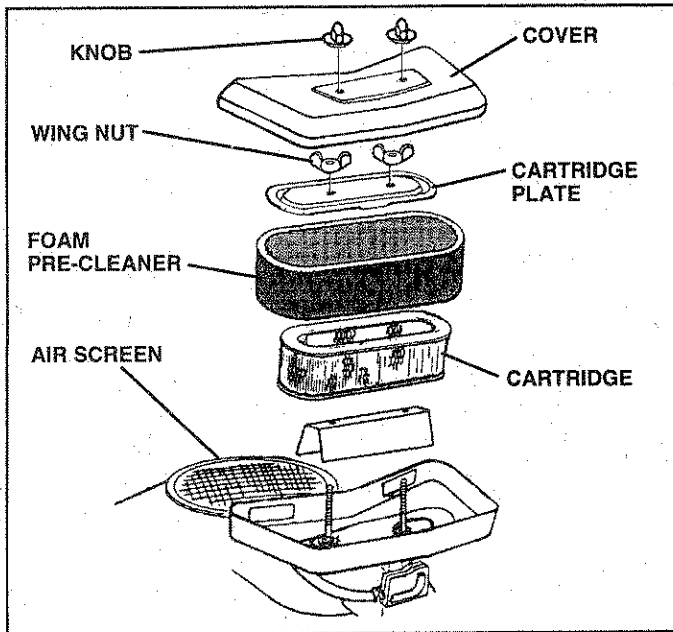


FIG. 13

## ENGINE COOLING FINS (See Fig. 14)

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).

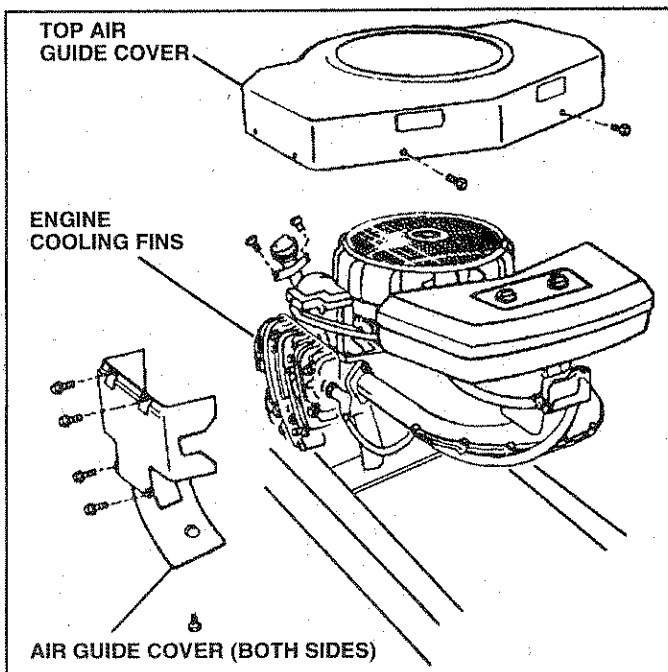


FIG. 14

## 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" on page 3 of this manual.

## IN-LINE FUEL FILTER (See Fig. 15)

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.

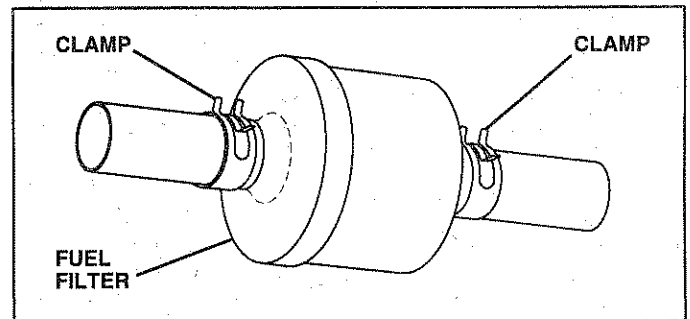


FIG. 15

## CLEANING

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

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

# SERVICE AND ADJUSTMENTS



## CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress clutch/brake pedal fully and set parking brake.
- 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.

## TO REMOVE MOWER (See Fig. 16)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Disconnect clutch rod from clutch lever by removing retainer spring.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Remove two retainer springs from each front link and remove links.
- Slide mower forward and remove belt from engine pulley.
- Slide mower out from under right side of tractor.

**IMPORTANT:** IF AN ATTACHMENT OTHER THAN THE MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

## TO INSTALL MOWER

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

## TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 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.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" on both sides of mower should be the same.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

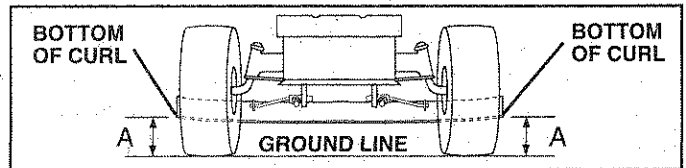


FIG. 17

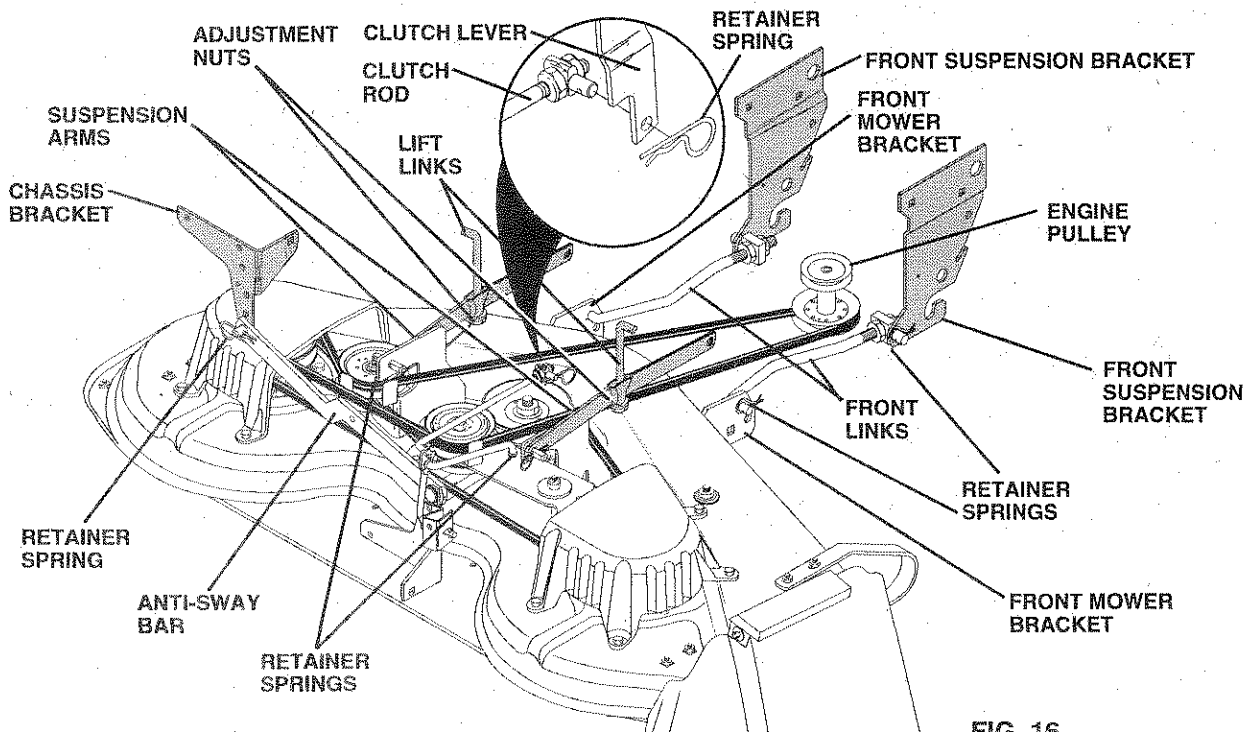


FIG. 16

# SERVICE AND ADJUSTMENTS

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

- Recheck measurements after adjusting.

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-TO-SIDE.

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

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

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

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

- Recheck side-to-side adjustment.

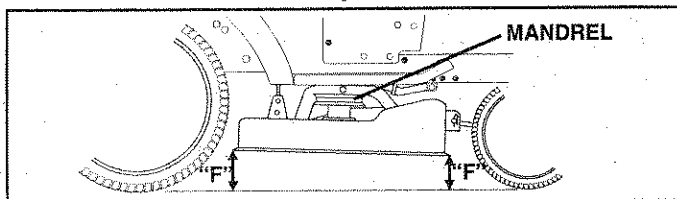


FIG. 18

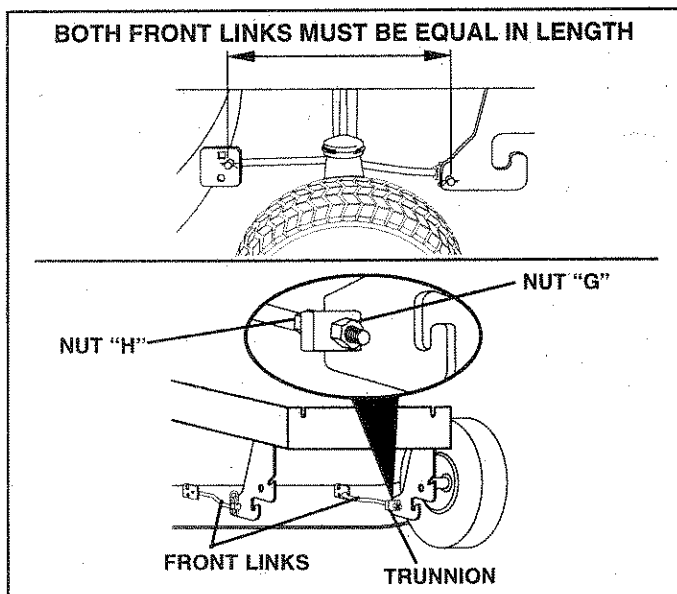


FIG. 19

## TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 20) -

- Park tractor on a level surface. Engage parking brake. Disengage attachment clutch control.
- Remove four screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from engine pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.

MOWER DRIVE BELT INSTALLATION (See Fig. 20) -

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

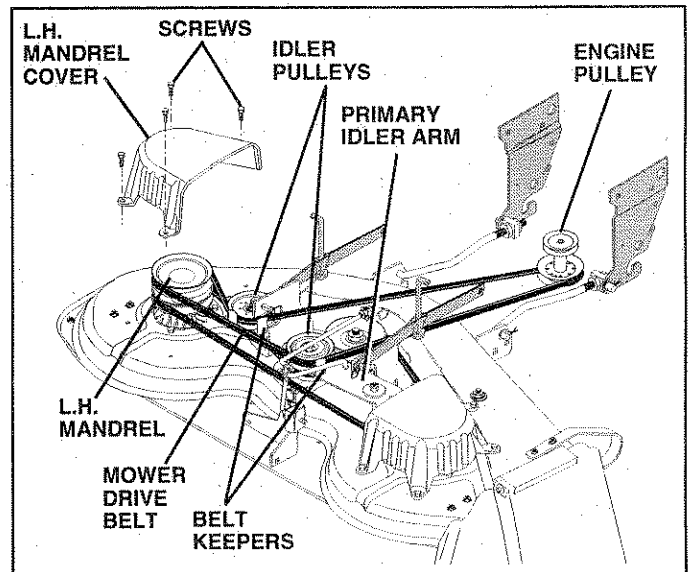


FIG. 20

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 21)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove four screws from R.H. mandrel cover and remove cover.
- Disconnect secondary clutch rod from pivot rod by removing retainer spring.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.

# SERVICE AND ADJUSTMENTS

- Check secondary idler arm and idler to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect secondary clutch rod to pivot rod with retainer spring.
- Reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

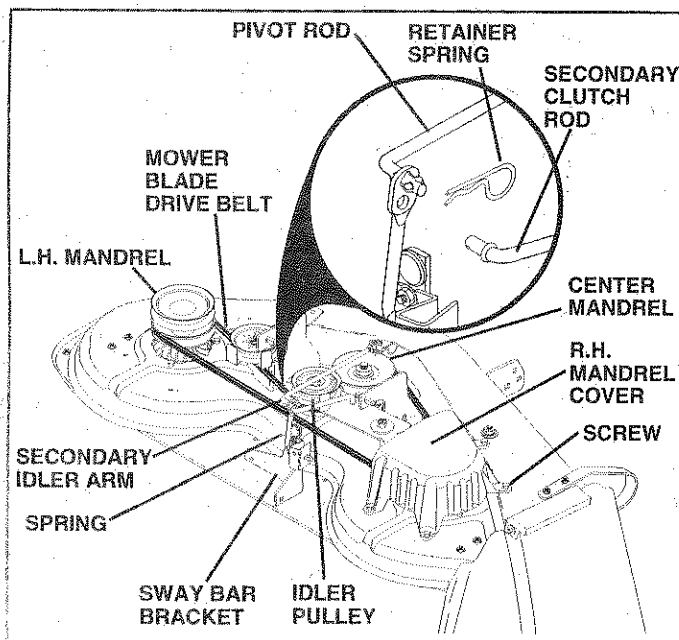


FIG. 21

## TO ADJUST BRAKE (See Fig. 22)

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, 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.

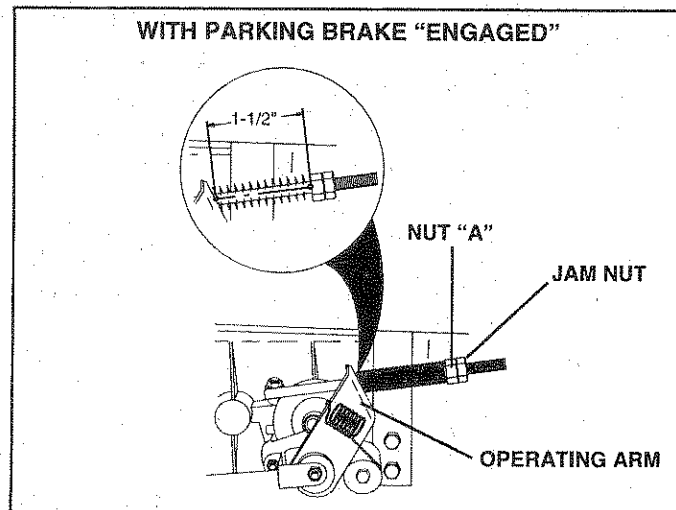


FIG. 22

## TO REPLACE MOTION DRIVE BELT (See Fig. 23)

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 upper belt keeper.
- 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.

**IMPORTANT:** MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS.

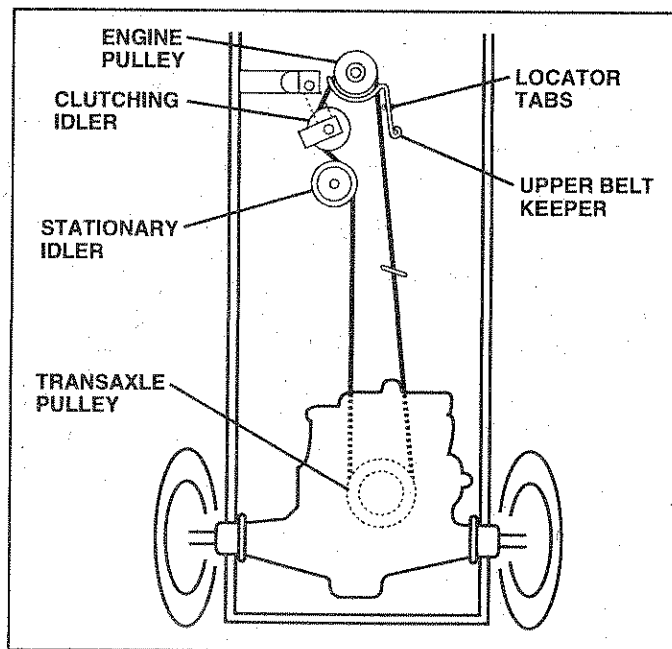


FIG. 23

# SERVICE AND ADJUSTMENTS

## TRANSAXLE SHIFTER LINKAGE AND ADJUSTMENT (See Figs. 24 and 25)

The transaxle should be in neutral when the gear shift lever is in the 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).
- Loosen two locknuts on tie rod.
- Turn center rod until gearshift lever falls into neutral lock gate on fender console.
- Tighten locknuts securely.

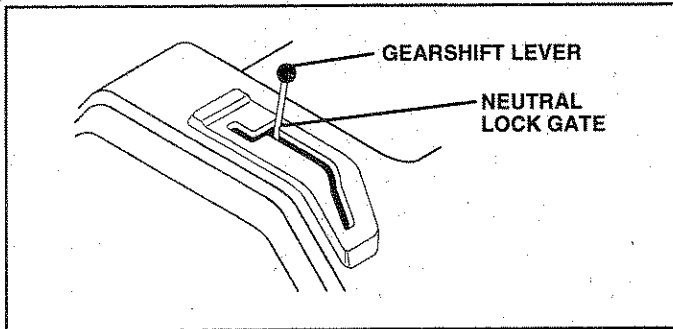


FIG. 24

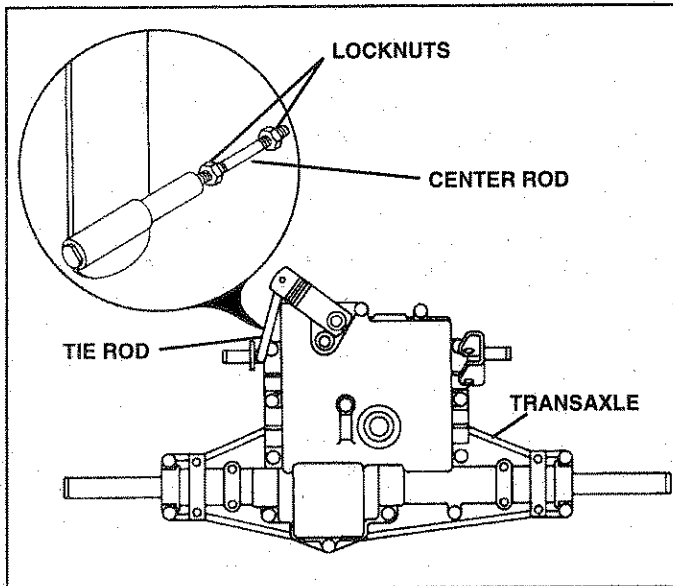


FIG. 25

## 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. 26)

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

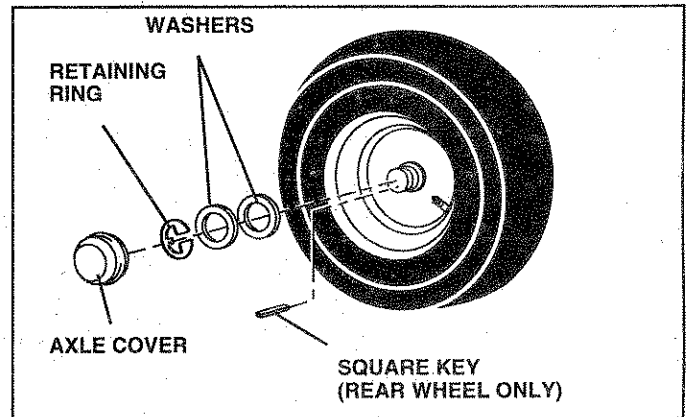


FIG. 26

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



**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 GROUND SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUND 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.

# SERVICE AND ADJUSTMENTS

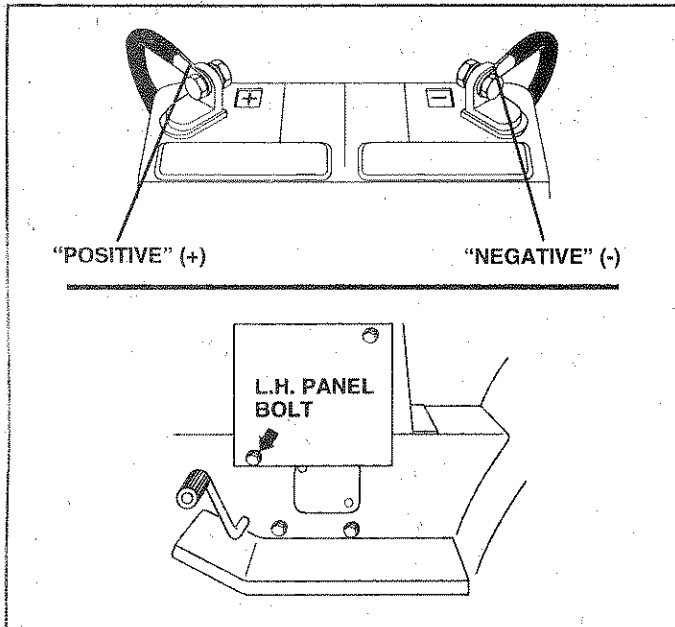


FIG. 27

## TO REPLACE HEADLIGHT BULB

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

## INTERLOCKS AND RELAYS

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

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

## TO REPLACE FUSE

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

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

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

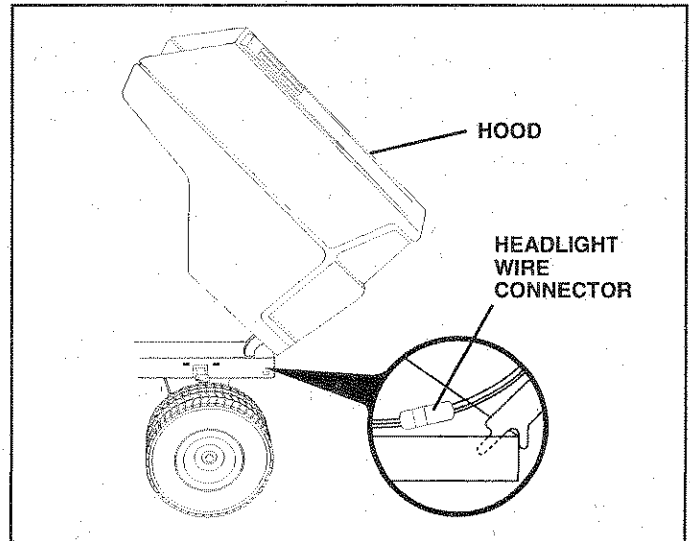


FIG. 28

## ENGINE

### TO ADJUST THROTTLE CONTROL CABLE (See Fig. 29)

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 side of quarter circle. If it is not, loosen cable clamp screw and pull cable back until swivel is against quarter circle. Tighten cable clamp screw securely.

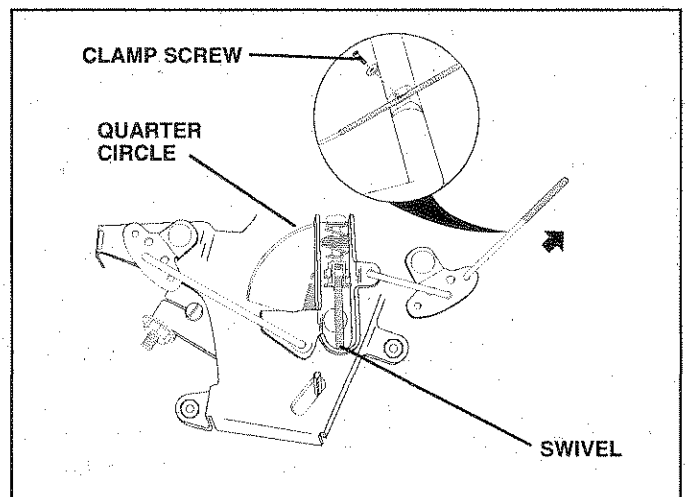


FIG. 29

### TO ADJUST CHOKE CONTROL (See Fig. 30)

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:



# SERVICE AND ADJUSTMENTS

- With engine not running, move choke control (located on dash panel) to full choke (N) position.
- Remove air cleaner cover, filter and cartridge plate to expose carburetor choke (see "AIR FILTER" in the Customer Responsibilities section of this manual).
- 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.
- Reassemble air cleaner.

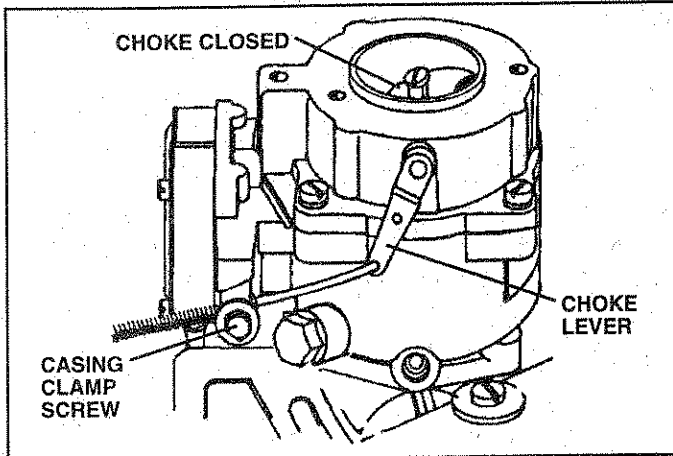


FIG. 30

## TO ADJUST CARBURETOR (See Figs. 31 & 32)

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the mixture screw **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the mixture screw **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

### PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable and choke are adjusted properly (see above).
- With engine off turn idle mixture screw **in** (clockwise) closing it finger tight and then turn **out** (counterclockwise) 1-1/4 to 1-1/2 turns.

### FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/ motion control lever in neutral (N) position.
- With throttle control lever in slow (S) position, hold throttle lever against idle speed screw and adjust idle speed screw to obtain 1200 to 1400 RPM.

- While still holding throttle lever against idle speed screw, turn idle mixture screw **in** (clockwise) until engine begins to die and then turn **out** (counterclockwise) until engine runs rough. Turn screw to a point midway between those two positions.
- Continue to hold throttle lever against idle speed screw and adjust idle speed screw to obtain 900 to 1200 RPM. Release throttle lever.

### ACCELERATION TEST -

- Move throttle control lever from slow (S) to fast (F) position. If engine hesitates or dies, turn idle mixture screw **out** (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

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.

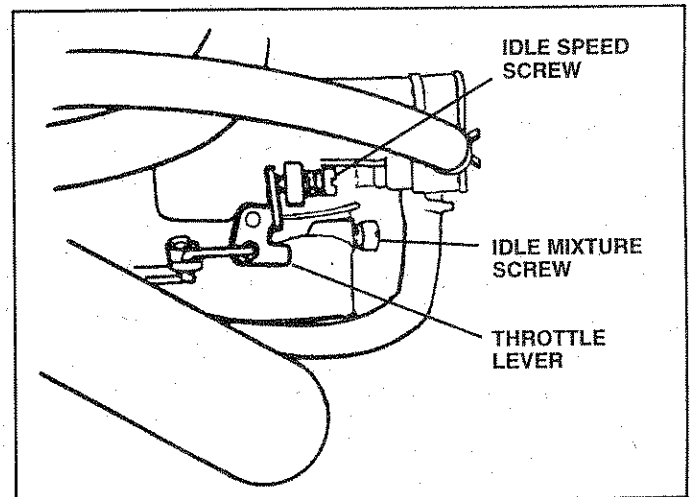


FIG. 31

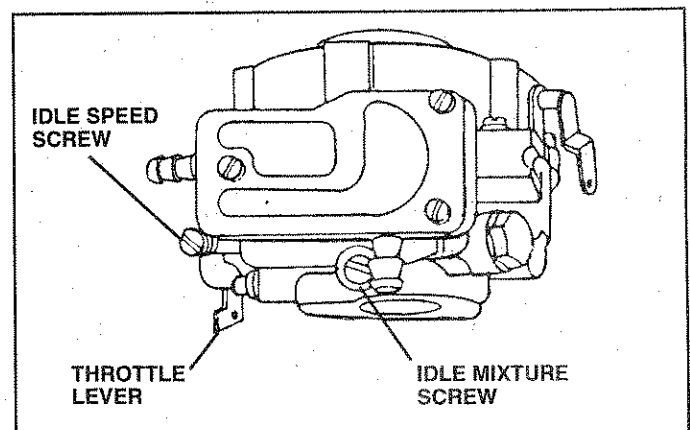


FIG. 32

# 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.
- Be sure battery drain tube is securely attached.
- 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).

### CYLINDERS

- 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

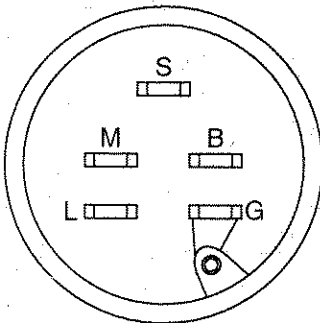
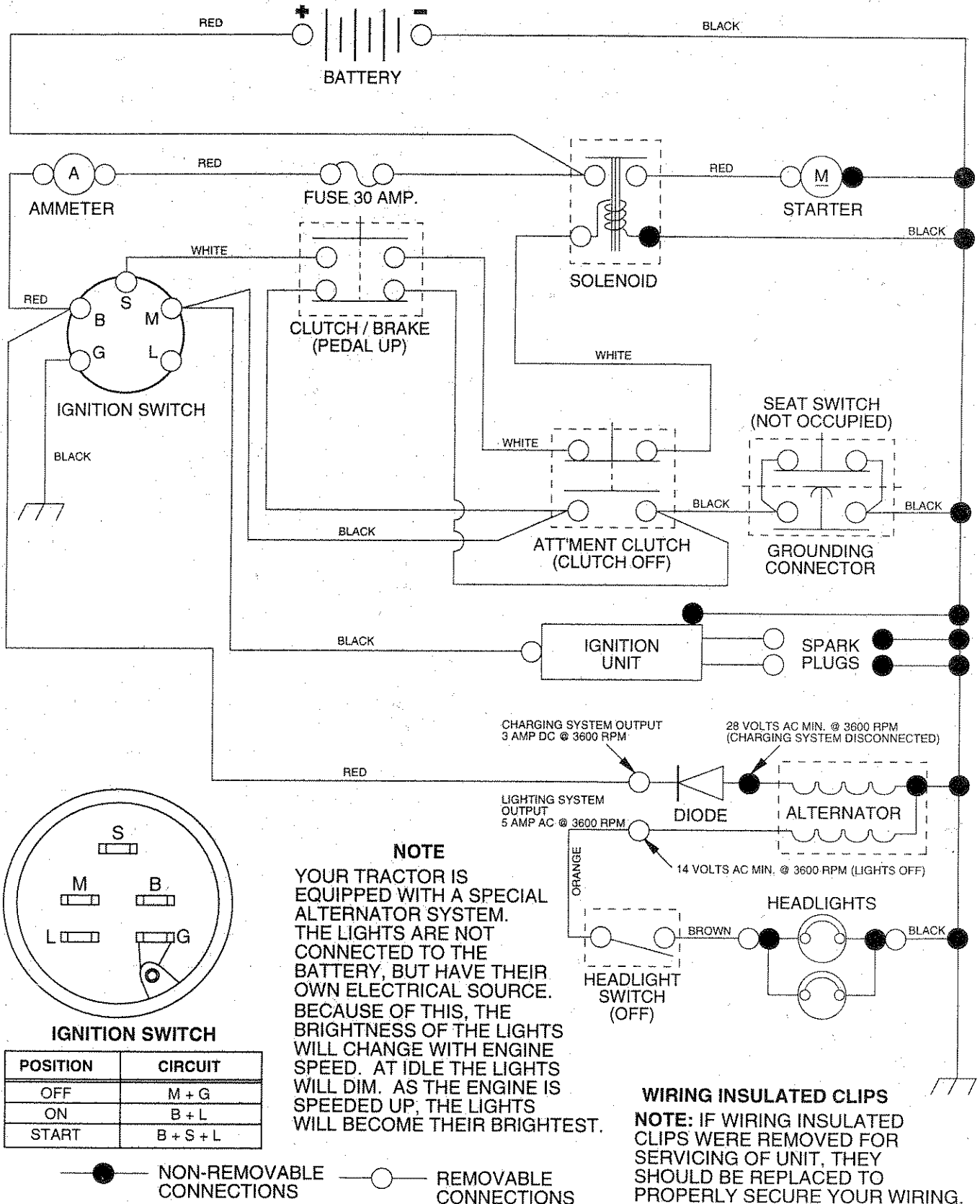
PROBLEM	CAUSE	CORRECTION
<b>Will not start</b>	<ol style="list-style-type: none"> <li>1. Out of fuel.</li> <li>2. Engine not "CHOKED" properly.</li> <li>3. Engine flooded.</li> <li>4. Bad spark plug.</li> <li>5. Dirty air filter.</li> <li>6. Dirty fuel filter.</li> <li>7. Water in fuel.</li>   <li>8. Loose or damaged wiring.</li> <li>9. Carburetor out of adjustment.</li> <li>10. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill fuel tank.</li> <li>2. See "TO START ENGINE" in Operation section.</li> <li>3. Wait several minutes before attempting to start.</li> <li>4. Replace spark plug.</li> <li>5. Clean/replace air filter.</li> <li>6. Replace fuel filter.</li> <li>7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>8. Check all wiring.</li> <li>9. Contact an authorized service center/department.</li> <li>10. Contact an authorized service center/department.</li> </ol>
<b>Hard to start</b>	<ol style="list-style-type: none"> <li>1. Dirty air filter.</li> <li>2. Bad spark plug.</li> <li>3. Weak or dead battery.</li> <li>4. Dirty fuel filter.</li> <li>5. Stale or dirty fuel.</li> <li>6. Loose or damaged wiring.</li> <li>7. Carburetor out of adjustment.</li> <li>8. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean/replace air filter.</li> <li>2. Replace spark plug.</li> <li>3. Recharge or replace battery.</li> <li>4. Replace fuel filter.</li> <li>5. Drain fuel tank and refill with fresh gasoline.</li> <li>6. Check all wiring.</li> <li>7. Contact an authorized service center/department.</li> <li>8. Contact an authorized service center/department.</li> </ol>
<b>Engine will not turn over</b>	<ol style="list-style-type: none"> <li>1. Clutch/brake pedal not depressed.</li> <li>2. Attachment clutch is engaged.</li> <li>3. Weak or dead battery.</li> <li>4. Blown fuse.</li> <li>5. Corroded battery terminals.</li> <li>6. Loose or damaged wiring.</li> <li>7. Faulty ignition switch.</li> <li>8. Faulty solenoid or starter.</li> <li>9. Faulty operator presence switch(es).</li> </ol>	<ol style="list-style-type: none"> <li>1. Depress clutch/brake pedal.</li> <li>2. Disengage attachment clutch.</li> <li>3. Recharge or replace battery.</li> <li>4. Replace fuse.</li> <li>5. Clean battery terminals.</li> <li>6. Check all wiring.</li> <li>7. Check/replace ignition switch.</li> <li>8. Check/replace solenoid or starter.</li> <li>9. Contact an authorized service center/department.</li> </ol>
<b>Engine clicks but will not start</b>	<ol style="list-style-type: none"> <li>1. Weak or dead battery.</li> <li>2. Corroded battery terminals.</li> <li>3. Loose or damaged wiring.</li> <li>4. Faulty solenoid or starter.</li> </ol>	<ol style="list-style-type: none"> <li>1. Recharge or replace battery.</li> <li>2. Clean battery terminals.</li> <li>3. Check all wiring.</li> <li>4. Check/replace solenoid or starter.</li> </ol>
<b>Loss of power</b>	<ol style="list-style-type: none"> <li>1. Cutting too much grass/too fast.</li> <li>2. Throttle in "CHOKE" position.</li> <li>3. Build-up of grass, leaves and trash under mower.</li> <li>4. Dirty air filter.</li> <li>5. Low oil level/dirty oil.</li> <li>6. Faulty spark plug.</li> <li>7. Dirty fuel filter.</li> <li>8. Stale or dirty fuel.</li> <li>9. Water in fuel.</li>   <li>10. Spark plug wire loose.</li> <li>11. Dirty engine air screen/fins.</li> <li>12. Dirty/clogged muffler.</li> <li>13. Loose or damaged wiring.</li> <li>14. Carburetor out of adjustment.</li> <li>15. Engine valves out of adjustment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Set in "Higher Cut" position/reduce speed.</li> <li>2. Adjust throttle control.</li> <li>3. Clean underside of mower housing.</li> <li>4. Clean/replace air filter.</li> <li>5. Check oil level/change oil.</li> <li>6. Clean and regap or change spark plug.</li> <li>7. Replace fuel filter.</li> <li>8. Drain fuel tank and refill with fresh gasoline.</li> <li>9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>10. Connect and tighten spark plug wire.</li> <li>11. Clean engine air screen/fins.</li> <li>12. Clean/replace muffler.</li> <li>13. Check all wiring.</li> <li>14. Contact an authorized service center/department.</li> <li>15. Contact an authorized service center/department.</li> </ol>
<b>Excessive vibration</b>	<ol style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Bent blade mandrel.</li> <li>3. Loose/damaged part(s).</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Replace blade mandrel.</li> <li>3. 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	<ol style="list-style-type: none"> <li>1. Faulty operator-safety presence control system.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.</li> </ol>
Poor cut - uneven	<ol style="list-style-type: none"> <li>1. Worn, bent or loose blade.</li> <li>2. Mower deck not level.</li> <li>3. Buildup of grass, leaves, and trash under mower.</li> <li>4. Bent blade mandrel.</li> <li>5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade. Tighten blade bolt.</li> <li>2. Level mower deck.</li> <li>3. Clean underside of mower housing.</li> <li>4. Replace blade mandrel.</li> <li>5. Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol style="list-style-type: none"> <li>1. Obstruction in clutch mechanism.</li> <li>2. Worn/damaged mower drive belt.</li> <li>3. Frozen idler pulley.</li> <li>4. Frozen blade mandrel.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove obstruction.</li> <li>2. Replace mower drive belt.</li> <li>3. Replace idler pulley.</li> <li>4. Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol style="list-style-type: none"> <li>1. Engine speed too slow.</li> <li>2. Travel speed too fast.</li> <li>3. Wet grass.</li> <li>4. Mower deck not level.</li> <li>5. Low/uneven tire air pressure.</li> <li>6. Worn, bent or loose blade.</li> <li>7. Buildup of grass, leaves and trash under mower.</li> <li>8. Mower drive belt worn.</li> <li>9. Blades improperly installed.</li> <li>10. Improper blades used.</li> <li>11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place throttle control in "FAST" position.</li> <li>2. Shift to slower speed.</li> <li>3. Allow grass to dry before mowing.</li> <li>4. Level mower deck.</li> <li>5. Check tires for proper air pressure.</li> <li>6. Replace/sharpen blade. Tighten blade bolt.</li> <li>7. Clean underside of mower housing.</li> <li>8. Replace mower drive belt.</li> <li>9. Reinstall blades sharp edge down.</li> <li>10. Replace with blades listed in this manual.</li> <li>11. Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)	<ol style="list-style-type: none"> <li>1. Switch is "OFF".</li> <li>2. Bulb(s) burned out.</li> <li>3. Faulty light switch.</li> <li>4. Loose or damaged wiring.</li> <li>5. Blown fuse.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn switch "ON".</li> <li>2. Replace bulb(s).</li> <li>3. Check/replace light switch.</li> <li>4. Check wiring and connections.</li> <li>5. Replace fuse.</li> </ol>
Battery will not charge	<ol style="list-style-type: none"> <li>1. Bad battery cell(s).</li> <li>2. Poor cable connections.</li> <li>3. Faulty regulator (if so equipped).</li> <li>4. Faulty alternator.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery.</li> <li>2. Check/clean all connections.</li> <li>3. Replace regulator.</li> <li>4. Replace alternator.</li> </ol>
Engine "backfires" when turning engine "OFF"	<ol style="list-style-type: none"> <li>1. Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.</li> </ol>	<ol style="list-style-type: none"> <li>1. Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.</li> </ol>

# TRACTOR - - MODEL NUMBER 917.251471

## SCHEMATIC



**IGNITION SWITCH**

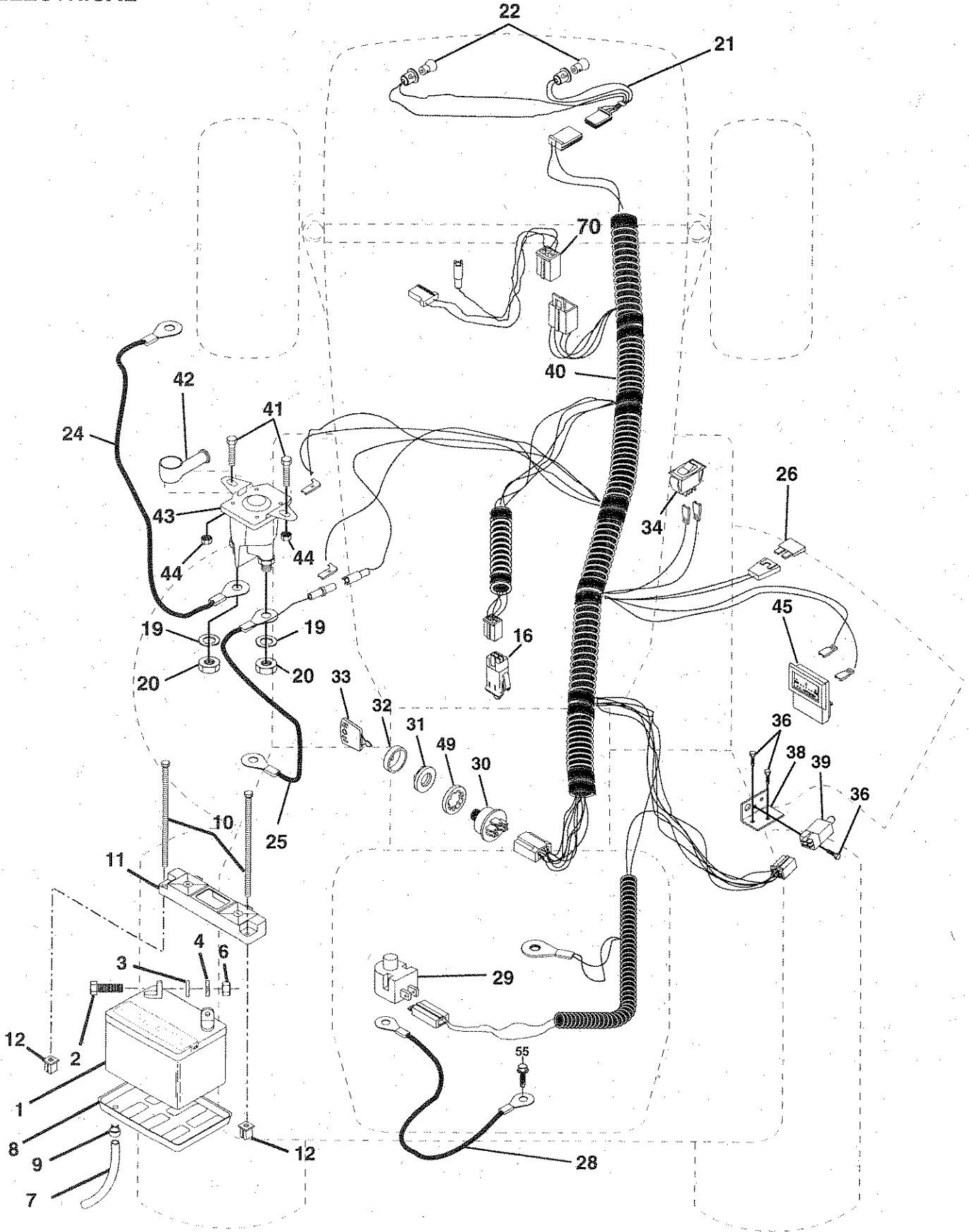
POSITION	CIRCUIT
OFF	M + G
ON	B + L
START	B + S + L

● NON-REMOVABLE CONNECTIONS      ○ REMOVABLE CONNECTIONS

# REPAIR PARTS

## TRACTOR -- MODEL NUMBER 917.251471

### ELECTRICAL



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## ELECTRICAL

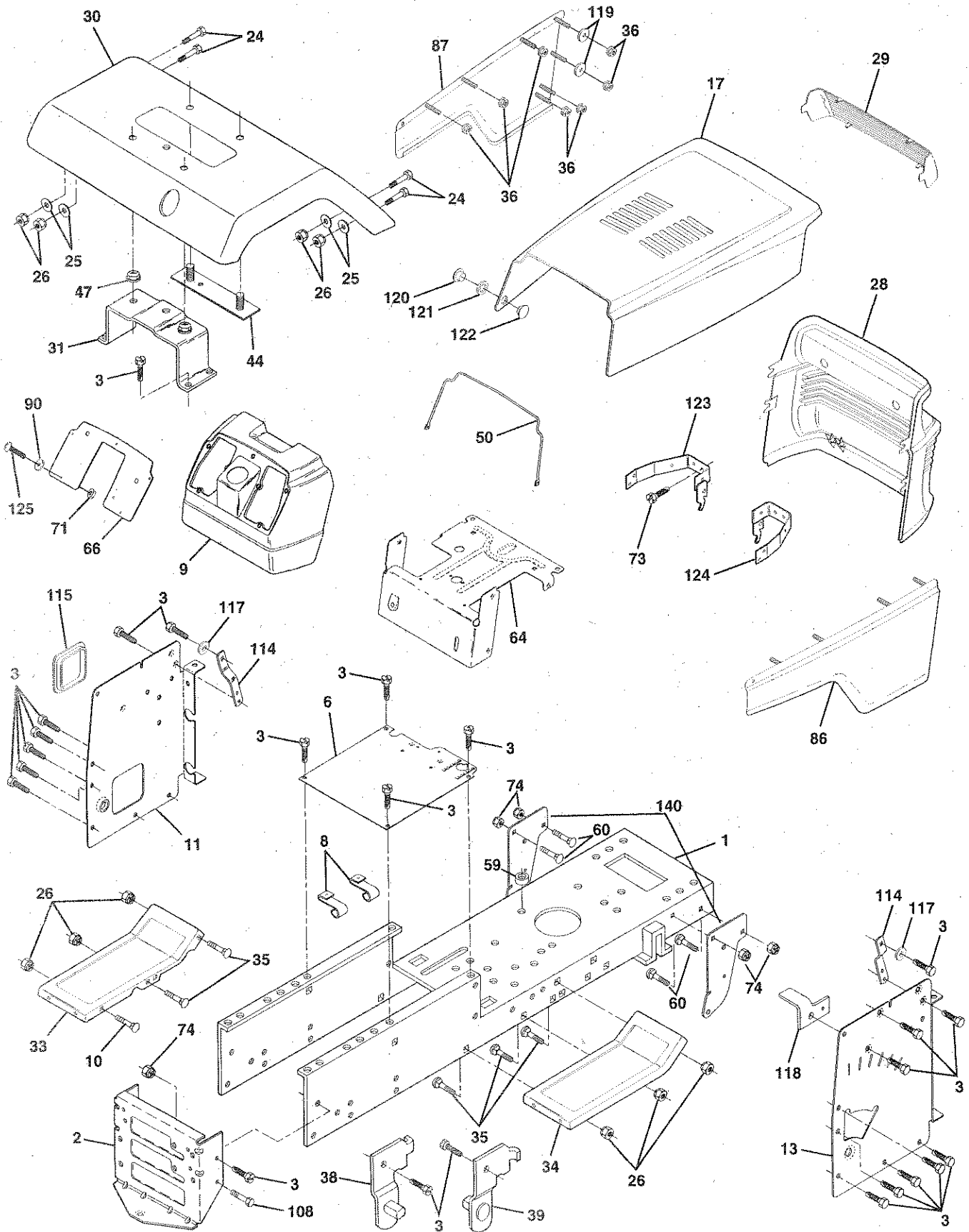
KEY NO.	PART NO.	DESCRIPTION
1	146140	Battery 12 Volt 30 amp
2	74760412	Bolt Hex Hd 1/4-20unc X 3/4
3	STD551025	Washer 9/32 X 5/8 X 16 Ga
4	STD551125	Washer Lock Hvy Helical 1/4
6	STD541025	Nut Fin Hex 1/4-20 Unc
7	7697J	Tube Plastic 46"
8	7603J	Tray Battery 7 80 X 5 25 Blk
9	109596X	Clamp Hose Olive
10	145411	Bolt RdHd Sqnk 1/4-20 x 7-1/2
11	145209	Guard Terminal Blk
12	145769	Nut Push Nylon 1/4 Battery
16	153664	Switch Interlock Push-In
19	STD551125	Washer Lock 1/4
20	73350400	Nut Jam Hex 1/4-20 Unc
21	136850	Harness Asm Light W/4152j
22	4152J	Bulb Light #1156
24	4799J	Cable Ground 6 Ga black
25	146148	Cable Battery 6 Ga 22" red
26	108824X	Fuse 30 AMP Auto Green
28	145491	Cable Battery 6 Ga 21" black
29	121305X	Switch Plunger
30	144921	Switch Ign 3 pos
31	140400	Nut Ignition
32	141226	Cover Sw Key Blk 1 25 Text SLT
33	140403	Key Ign Molded Craftsman Delta
34	110712X	Switch Light Blk Blk Red
35	108236X	Bracket Switch Clutch
36	STD601005	Screw Tap Hex #10-24unc X 1/2
38	140336	Bracket Switch Interlock
39	109553X	Switch Intlk Clutch Red 4 Term
40	145489	Harness Ign B&S Dash HI Amm
41	71110408	Bolt Fin Hex 1/4-20uncx1/2 Gr5
42	131563	Cover Terminal Red
43	145673	Solenoid
44	73640400	Nut Keps Hex 1/4-20 Unc
45	121433X	Ammeter Rectangular
49	153249	Washer Pinned Delta
55	17490508	Screw Thdrol 5/16-18 x 1/2 Tyt
70	140413	Harness Engine B&S

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## CHASSIS





# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 917.251471

### CHASSIS

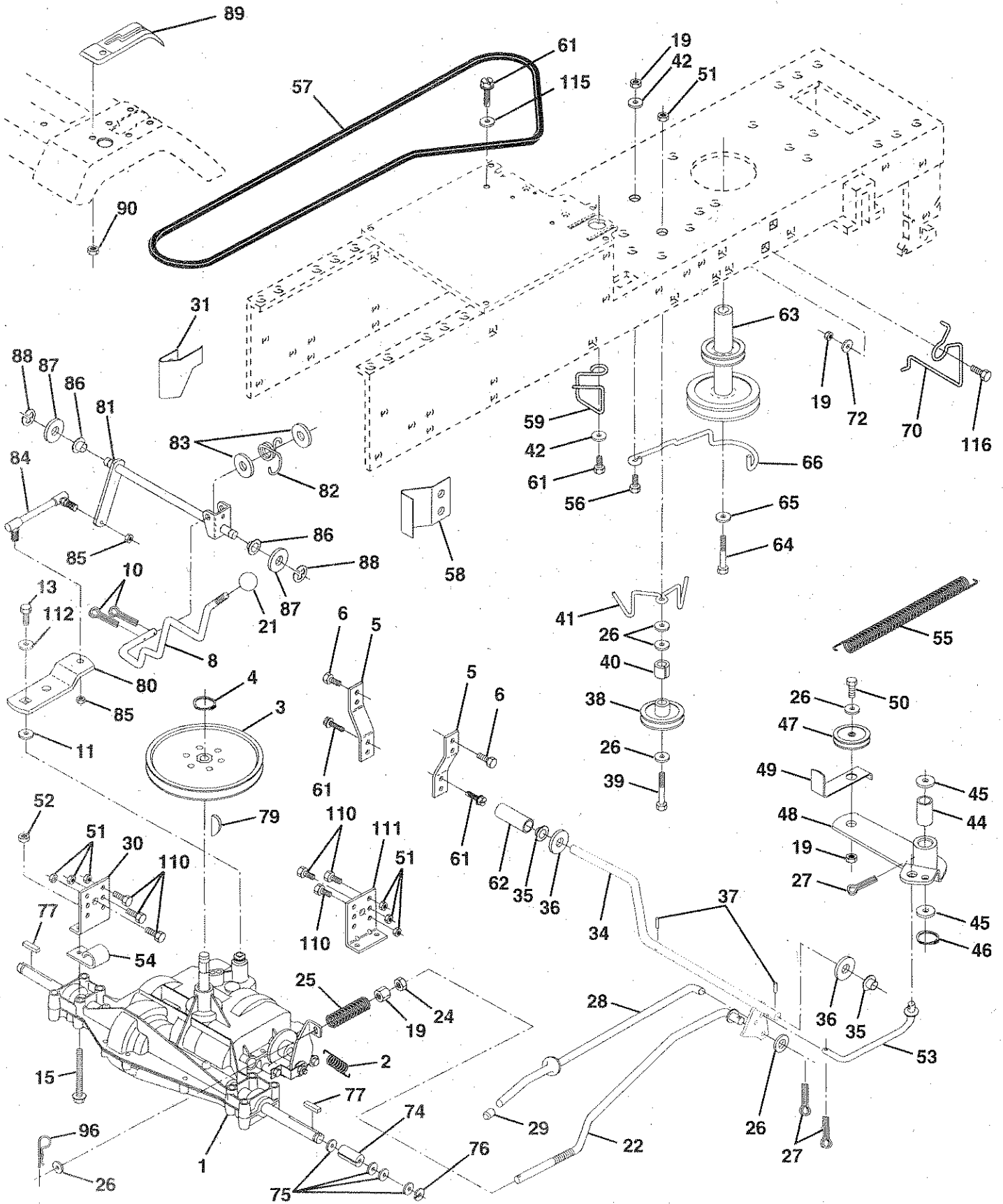
KEY NO.	PART NO.	DESCRIPTION
1	151169	Chassis Weldment
2	140356	Draw Bar
3	17490612	Screw Thdrol. 3/8-16 x 3/4 Ty-tt
6	145206	Saddle
8	126471X	Clip Insulated
9	145203	Dashboard
10	STD533710	Bolt Carriage 3/8-16 x 1
11	145222	Panel Dashboard LH
13	145221	Panel Dashboard RH
17	136673X574	Hood Asm Pnt Srs YTGT Ms 574
24	STD523710	Bolt Hex 3/8-16 x 1 Gr. 5
25	19131312	Washer 13/32 x 13/16 x 12 Ga.
26	STD541437	Nut Lock Hex W/Washer 3/8-16 UNC
28	136373X428	Grille YTGT 1-Pc
29	136374	Lens Grille Bar
30	140002X574	Fender
31	137113	Bracket Fender
33	145244X574	Footrest LH
34	145243X574	Footrest RH
36	108067X	Nut Pal
38	139886	Bracket Assy Pivot LH
39	139887	Bracket Assy Pivot RH
44	140675	Strip Asm Fender
47	105531X	Nut Push
50	137304	Rod Support Hood 1-Pc Zinc
59	110436X	Bushing Snap Split
60	STD533707	Bolt Carriage 3/8-16 x 3/4
64	150272	Dash Lower
66	140942X013	Plate
71	73640400	Nut Keps Blk Hex 1/4-20 UNC
73	17580408	Screw Tap Tite 1/4-20 X 1/2
74	STD541437	Nut Crownlock 3/8-16 UNC
86	136670X574	Assy Panel Side RH
87	136671X574	Assy Panel Side LH
90	STD551025	Washer 9/32 x 3/4 x 16 Ga.
108	STD523707	Bolt Fin Hex 3/8-16 x 3/4
114	145349	Bracket Support Dashboard
115	121794X	Cover Access
117	144283	Washer Serrated
118	145595	Bracket Clutch Mower
119	19092016	Washer 9/32 X 1-1/4 X 16 Ga.
120	137271	Rivet Ratchet Female
121	137269	Washer Nylon
122	137270	Rivet Ratchet Male
123	136814	Bracket LH
124	136813	Bracket RH
125	74180412	Screw Machine Thrd 1/4-20 UNC x 3/4
140	150556	Bracket Chassis Front

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

# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

## DRIVE



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 917.251471

### DRIVE

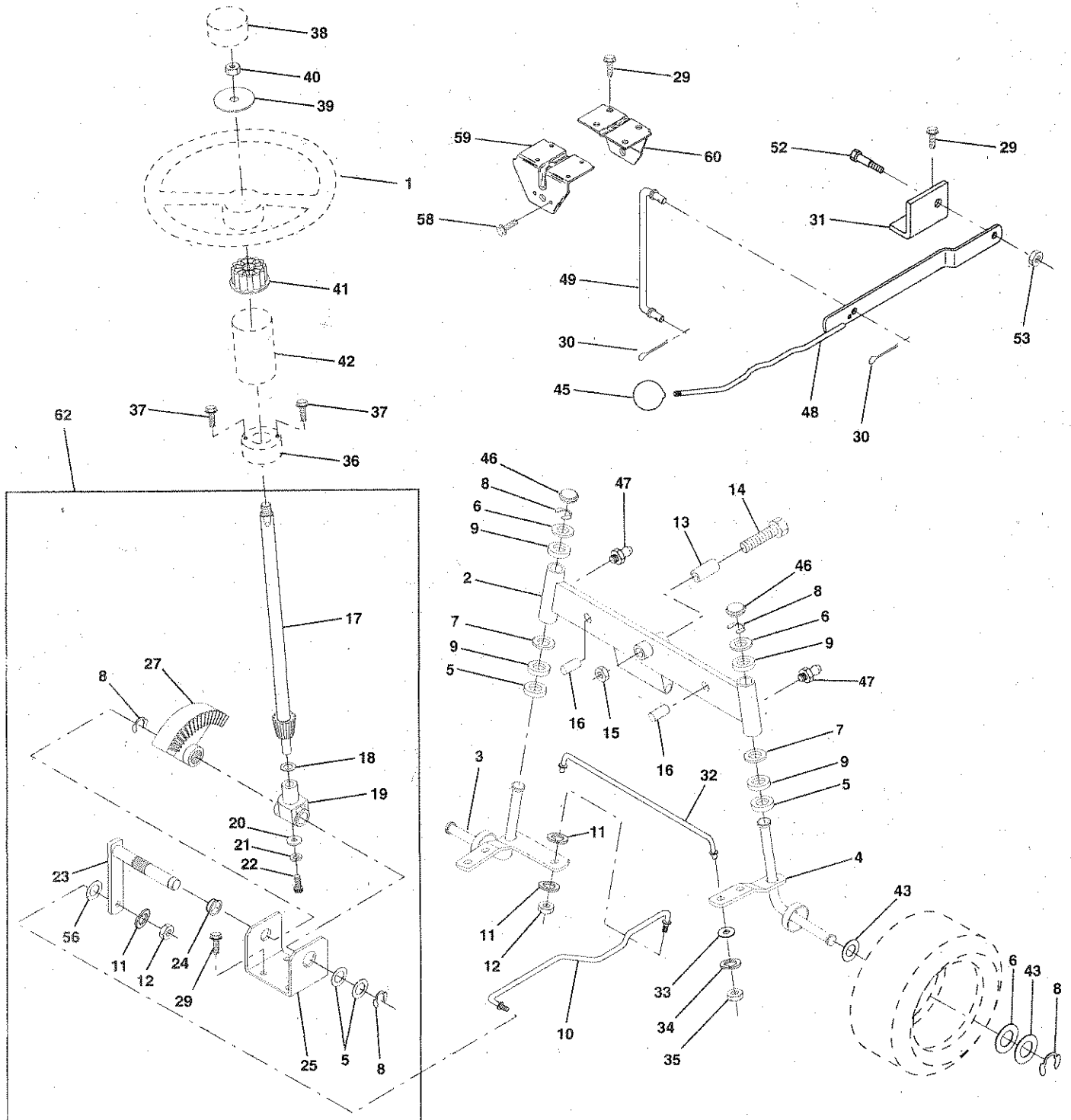
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	138788	Transaxle, Peerless, 6 Speed, Model Number 820-016B	53	105710X	Link, Clutch
2	110422X	Spring, Brake Return	54	126471X	Clip, Fuel Line
3	121327X	Pulley, Transaxle	55	105709X	Spring, Return, Clutch
4	STD582075	Ring, Retainer	56	STD523712	Bolt, Fin Hex 3/8-16 UNC x 1-1/4
5	123787X	Strap, Torque	57	123796X	V-Belt, Drive
6	17490512	Screw, Hex Washer Head, Thd., Roll. 5/16-18 x 3/4	58	123792X	Keeper, Belt, Transaxle, R.H.
8	123781X	Rod, Shifter	59	140312	Keeper, Chassis, Center Span
10	STD561210	Pin, Cotter 1/8 x 1	61	17490612	Screw, Hex Washer Head, Thd., Roll. 3/8-16 x 3/4
11	105701X	Washer, Shift Plate	62	8883R	Cover, Foot Pedal
13	74550412	Bolt 1/4-28 UNF Gr. 8 W/Patch	63	140186	Pulley, Engine
15	74490544	Bolt, Hex Flghd 5/16-18 Gr. 5	64	71170764	Bolt, Hex Head 7/16-20 x 4 Gr. 5
19	STD541437	Locknut 3/8-16	65	STD551143	Washer, Lock
21	106933X	Knob	66	153400	Keeper, Belt, Engine, Mch Flproof
22	145340	Rod, Brake	70	134683	Guide, Belt, Mower Drive
24	STD541237	Nut, Hex, Jam 3/8-16 UNC	72	19132012	Washer 13/32 x 1-1/4 x 12 Ga.
25	126909X	Spring, Brake Rod	74	108097X	Spacer, Split
26	STD551037	Washer 13/32 x 13/16 x 16 Ga.	75	123800X	Washer 1-1/32 x 1-5/8 x 16
27	STD561210	Pin, Cotter 1/8 x 3/4	76	12000053	E-Ring
28	145204	Rod, Parking Brake	77	9396E	Key, Square 1/4 x 2
29	124236X	Cap Brake Parking	79	STD580025	Key, Woodruff #9
30	123780X	Bracket, Transaxle, L.H.	80	123794X	Shift Arm
31	123791X	Keeper, Belt, Transaxle, L.H.	81	123772X	Shaft Assembly, Shifter
34	151128	Shaft, Foot Pedal	82	123782X	Spring, Torsion
35	120183X	Bearing, Nylon	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
36	STD551062	Washer 21/32 x 1 x 16 Gauge	84	123793X	Rod Link Shift Adm. Non/Stretch
37	STD571810	Pin, Roll 3/16 x 1	85	150360	Nut, Lock Center 1/4-28 Fnthd
38	123674X	Idler, Flat	86	71208	Bushing, Steering Rod
39	STD523727	Bolt, Hex Head 3/8-16 x 2-3/4	87	19212016	Washer 21/32 x 1-1/4 x 16 Ga.
40	4470J	Spacer	88	12000008	Ring, Klip
41	153399	Keeper, Belt Idler	89	139992	Console 6sp GTV
42	19131312	Washer 13/32 x 13/16 x 12 Ga.	90	124346X	Nut Self-Thd Wash-Hd 1/4 Zinc
44	105706X	Bearing	96	STD624003	Retainer Spring
45	110812X	Washer, Hardened	110	STD523707	Bolt, Hex Head 3/8-16 x 3/4
46	12000039	Ring, Clip	111	123776X	Bracket, Transaxle, RH.
47	127783	Pulley, Idler, V-Groove	112	STD551025	Washer 9/32 x 3/4 x 16 Ga.
48	123789X	Bellcrank Asm. Clutch	115	19132203	Washer 13/32 x 1-3/8 x 3 Ga.
49	123205X	Retainer, Belt	116	72110610	Bolt Rdhd Sq. Neck 3/8-16 x 1-1/4
50	STD523715	Bolt, Hex Head 3/8-16 X 1-1/2			
51	STD541437	Nut, Crownlock 3/8-16			
52	STD541431	Nut, Crownlock 5/16-18			

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## STEERING ASSEMBLY



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## STEERING ASSEMBLY

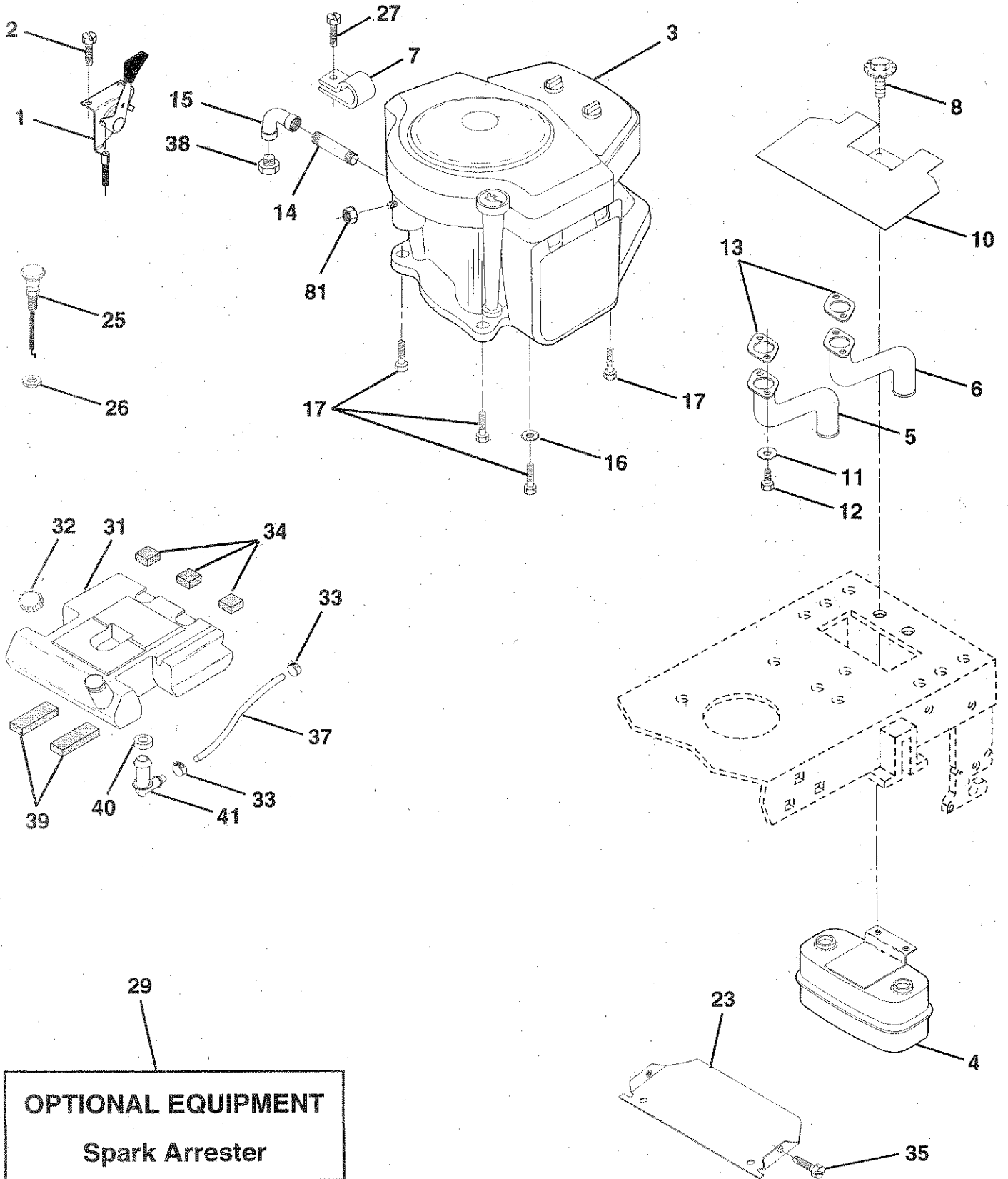
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	139768	Wheel Steering Ayp/kelch Blk	31	138171	Bracket Pvt Ma Cl Lvr
2	142033	Axle Asm Fr LT	32	139929	Tie Rod
3	135227	Spindle Asm LH	33	19111216	Washer 11/32 x 3/4 x 16 Ga.
4	135228	Spindle Asm RH	34	STD551131	Washer Lock Hvy Hlcl Spr 5/16
5	6266H	Bearing Race Thrust Harden	35	STD541531	Locknut 5/16-24 UNF
6	121748X	Washer 25/32 X 1-5/8 X 16ga	36	145207	Bushing Strg Blk 3/4 angle
7	19272016	Washer 27/32 X 1-1/4 X 16 Ga	37	17541008	Screw Slftp #10-24 x 1/2 Tt-B
8	12000029	Ring Klip #t5304-75	38	139769	Cap Wheel Steer
9	3366R	Bearing Col Strg Blk	39	100712K	Washer 53 X 2 25 X 160 Zinc
10	130468	Link Drag Sol Ball Jt 20 064	40	STD541350	Nut Hex Jam Toplock 1/2-20 Unf
11	STD551137	Washer Lock Hvy Hlcl Spr 3/8	41	100711L	Adapter Wheel Strg 758/ 753id
12	73610600	Nut Fin Hex 3/8-24 Unf	42	140216	Column Steering
13	110438X	Spacer Bearing Axle Front	43	121749X	Washer 25/32 X 1 1/4 X 16 Ga
14	74761060	BOLT Hex 5/8-11 Unc X 3-3/4	45	106933X	Knob Rd 1/2-13 Plstc Thds
15	73901000	Nut Lock Flange 5/8-11 Unc	46	121232X	Cap Spindle Fr Top Blk
16	132624	Pin Axle 5/8 X 1 55/1 54 Lg	47	6855M	Fitting Grease
17	128758	Shaft Asm Strg	48	146841	Lever Asm. Clutch Mower
18	57079	Washer Thrust 515x 750x 033	49	131291	Link Clutch W/Nibs
19	124035X	Support Shaft	52	106451X	Bolt Shoulder
20	126684X	Washer Shim 1/4 X 5/8 X 062	53	STD541437	Nut, Crownlock 3/8-16 UNC
21	STD551125	Washer Lock Hvy Helical 1/4	56	19131210	Washer 13/32 x 3/4 x 10 Ga.
22	71100410	Screw Cap Sckt Hd Phos & Oil	58	17490508	Screw Thdrol 5/16-18 x 1/2 TT
23	127501	Shaft Asm Pittman	59	105663X	Support Saddle Rear 10 Ga.
24	109816X	Nyliner Snap In	60	105664X	Support Saddle Front
25	124036X	Bracket Steering	62	149682	Kit Steer Asm. 18.31 x 3/4
27	136874	Gear Sector 22 Teeth			
29	17490612	Screw Thdrol 3/8-16x3/4 Ty-tt			
30	STD561210	Pin Cotter 1/8 x 3/4			

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## ENGINE



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

## ENGINE

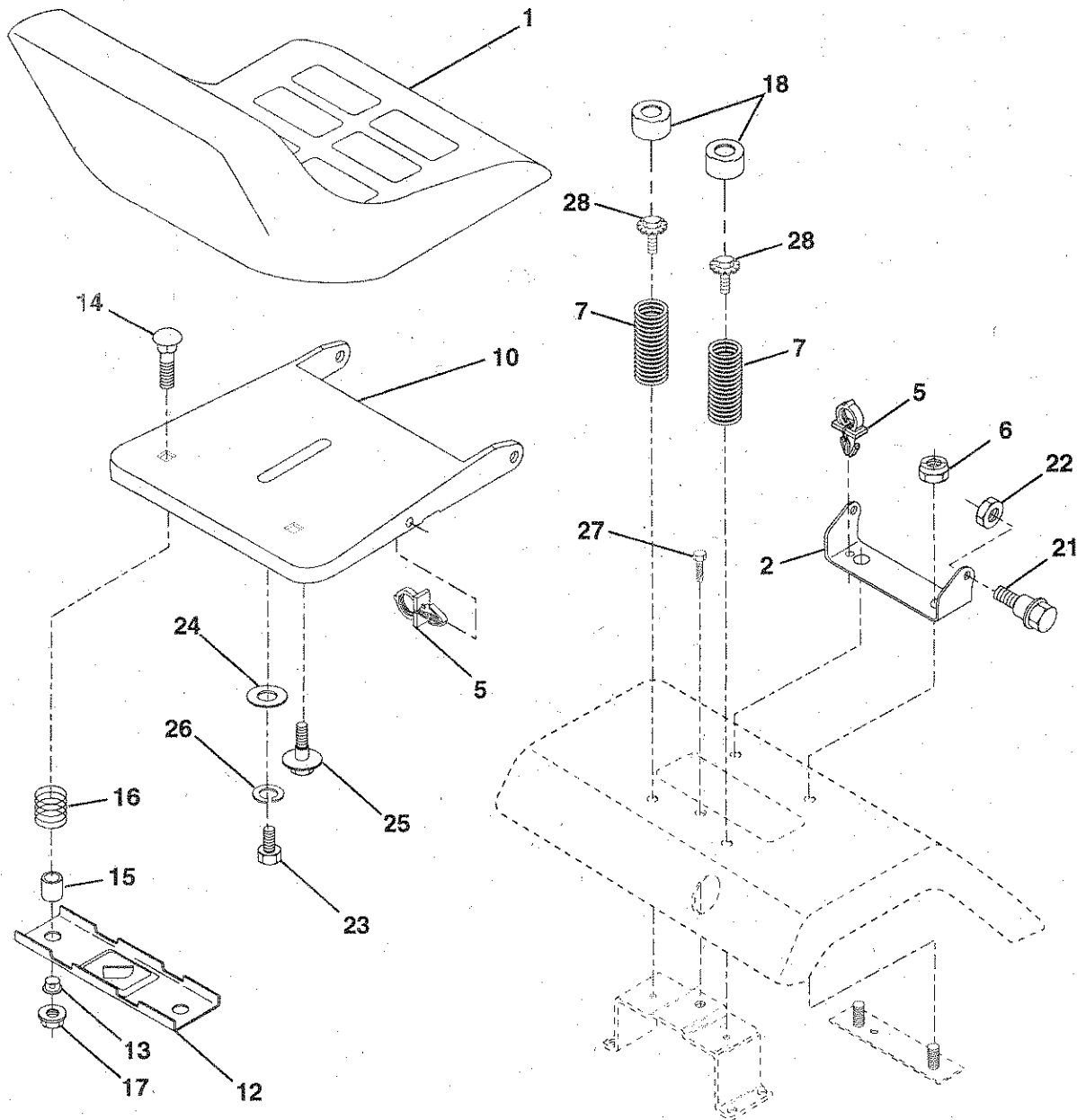
KEY NO.	PART NO.	DESCRIPTION
1	132755	Control Throt RH Blk Pdl 36 60
2	17720410	Screw Hex Thd Cut 1/4-20x5/8 T
3	150469	Engine B&S, 20 HP, Model No. 460777, Type Number 1297-01
4	149723	Muffler Asm Twin Lo-Tone
5	144068	Exhaust Asm RH B&S 18 HP Vert
6	144069	Exhaust Asm LH B&S 18 HP Vert
7	138129	Clamp Tube Double Engine
8	150716	Bolt 5/16-18 UNC x 3/4 w/ Sems
10	145552	Shield Heat
11	STD551125	Washer Lock Hvy Helical 1/4
12	STD522507	Bolt Fin Hex 1/4-20unc X 75
13	272250	Gasket Muffler #272250
14	13280336	Nipple Pipe 4-1/2"
15	13200300	Elbow Std 90 Degree 3/8-18 Npt
16	STD551237	Washer Lock Ext Tooth 3/8
17	17490624	Screw Thdrol 3/8-16 X 1-1/2 Tt
23	150554	Shield Browning
25	138672	Control Choke 51.00 Blk W/bend
26	73920600	Nut Keps 3/8-24 Unf
27	17541008	Screw
29	137180	Kit Spark Arrestor
31	151346	Tank Fuel
32	151296	Cap Asm Fuel w/Gauge Vented
33	123487X	Clamp Hose Blk
34	106082X	Pad Spacer
35	17490512	Screw Thdrol 5/16-18 x 3/4
37	8543R	Line Fuel 54"
38	-----	Plug Oil Drain (Order From Engine Manufacturer)
39	109227X	Pad Idler
40	3645J	Bushing
41	139277	Stem Fuel Tank
81	128861	Nut Flange 1/4-20 Starter Nut

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

# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

## SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	140122	Seat
2	140551	Bracket Pnt Pivot Seat (blk)
5	145006	Clip Push-In
6	STD541437	Nut Lock Hex W/Ins 3/8 -16 UNC
7	124181X	Spring Seat Cprsn 2 250 Blk Zi
10	140552	Pan Pnt Seat (blk)
12	121246X	Bracket Pnt Mounting Switch
13	121248X	Bushing Snap Blk Nyl 50 Id
14	72050411	Bolt Rdhd Sht Nk 1/4-20x1-3/8
15	134300	Spacer Split 28 X 96
16	121250X	Spring Cprsn
17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc

KEY NO.	PART NO.	DESCRIPTION
18	124238X	Cap Spring Seat
21	153236	Bolt Shoulder 5/16-18 Unc Blkz-2A
22	STD541431	Nut Lock Hex W/Ins 5/16-18
23	74780814	Bolt Fin Hex 1/2-13 X 7/8 Gr 5
24	19171912	Washer 17/32 X 1-3/16 X 12 Ga
25	127018X	Bolt Shoulder 5/16-18 X 62
26	STD551150	Washer Lock Hvy Hlcl Spr 1/2
27	17490608	Screw Thdrol. 3/8-16 x 1/2
28	150176	Bolt 5/16 -18 UNC X 3/4 W/Sems

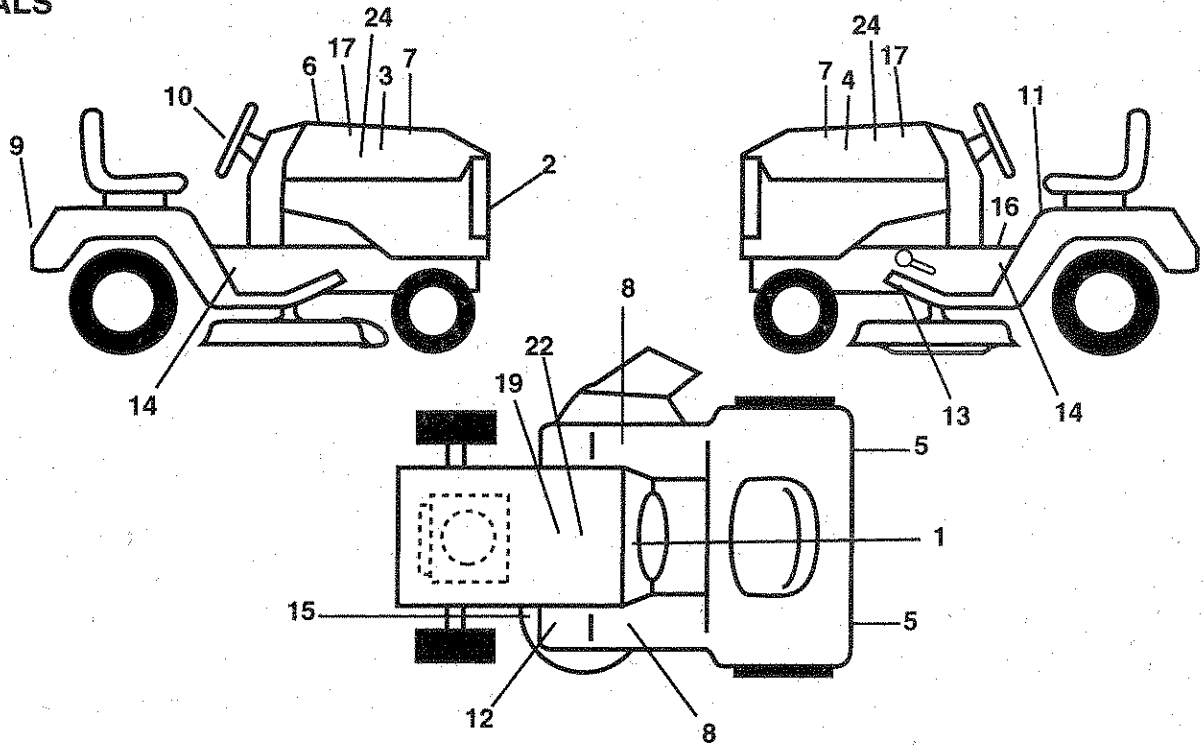
**NOTE:** All component dimensions given in U.S. inches.  
1 inch = 25.4 mm



# REPAIR PARTS

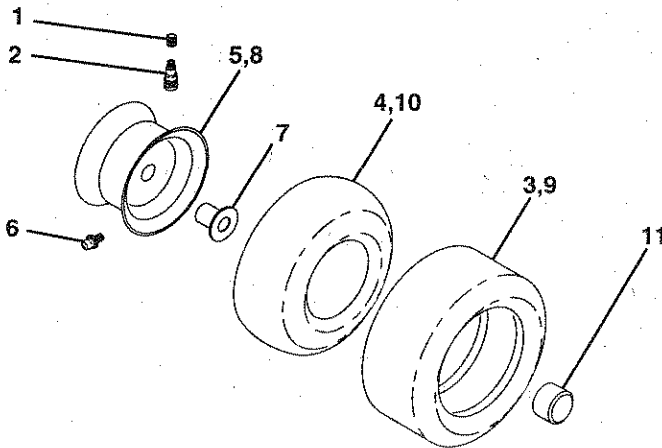
## TRACTOR -- MODEL NUMBER 917.251471

### DECALS



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	138955	Decal, Dash Instruction Operat Eng	13	146046	Decal, V-belt Dr Sch Tractor E
2	151696	Decal, Grille Lawn Tractor Dov	14	151695	Decal, Chassis 6 Sp 44"
3	151693	Decal, Hood Rh Craftsman	15	139346	Decal, Mower Drive Schematic
4	151694	Decal, Hood Lh Craftsman	16	140837	Decal, Saddle Brake Parking
5	106202X	Reflector, Taillight Red/ Amber	17	151795	Decal, Insert, Hood
6	133644	Decal, Maint Customer Sears Dom	19	138047	Decal, Battery Diehard Sears
7	151799	Decal, Panel Side B&S	22	149516	Decal, Battery
8	145245	Pad, Footrest	24	138048	Decal, Panel Side Diehard White
9	128314	Decal, Fender Craftsman White	--	138311	Decal, Lift Handle
10	150333	Decal, Cap CNSMR Help Line SRS	--	145247	Fastener, Pop-In Footrest
11	137537	Decal, Caution English/Spanish	--	153959	Manual, Owner's (English)
12	4900J	Decal, Clutch/brake English	--	153960	Manual, Owner's (Spanish)

### WHEELS & TIRES



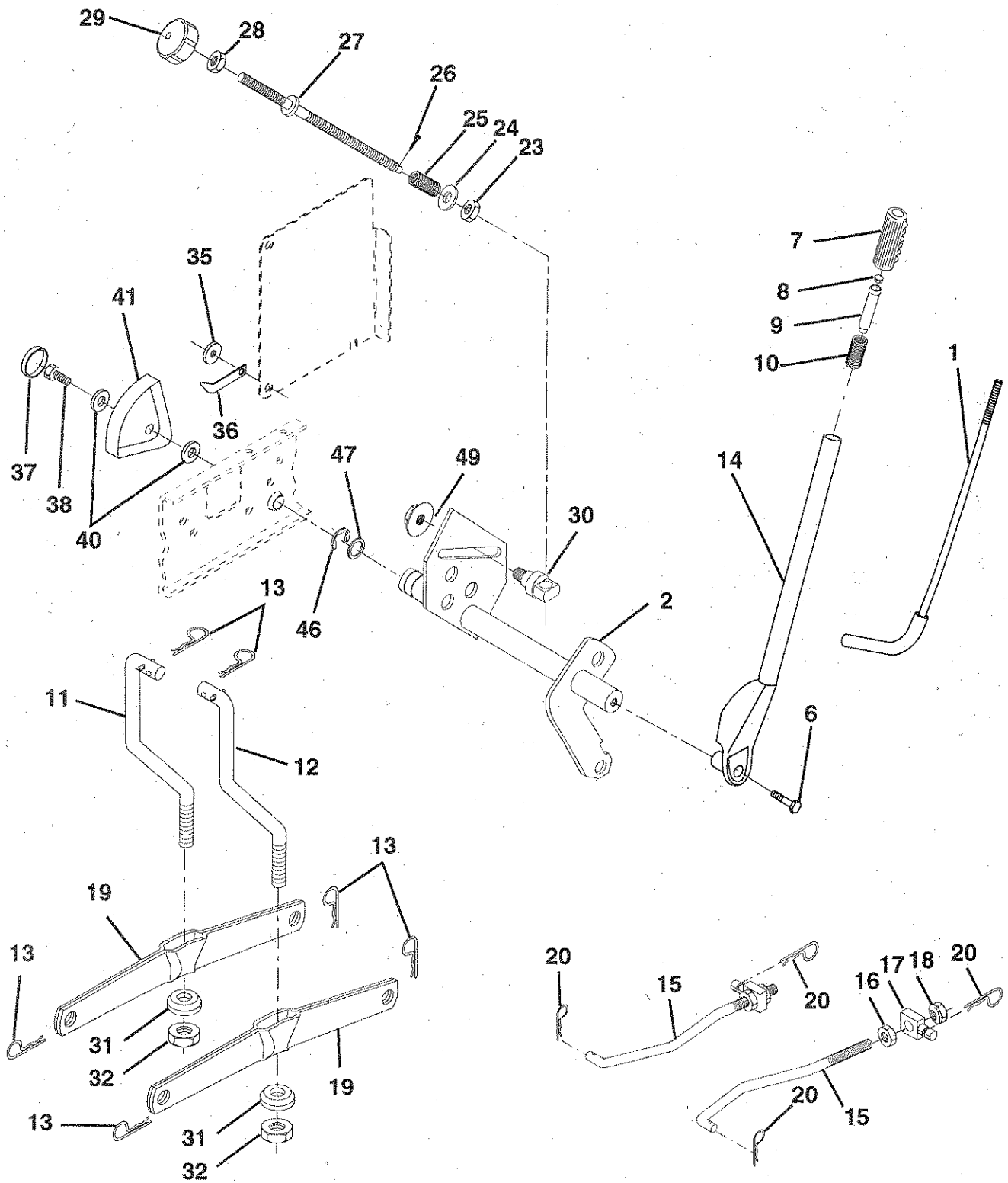
KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap Value Tire
2	65139	Stem Value
3	106222X	Tire F Ts 15 X 6 0 - 6 Service
4	59904	Tube Inner Front #35060
5	106732X427	Rim Asm 6"front White Service
6	278H	Fitting Grease
7	9040H	Bearing Flange
8	124074X427	Rim Asm 12"rear White Service
9	124106X	Tire R Ts 23 x 8.5-12 Service
10	7154J	Tube Rear 10 x 12 Service
11	104757X	Cap Axle Blk 1 50 X 1 00
--	144334	Sealant, Tire (10 oz. Tube)

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

# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

## MOWER LIFT



# REPAIR PARTS

## TRACTOR -- MODEL NUMBER 917.251471

### MOWER LIFT

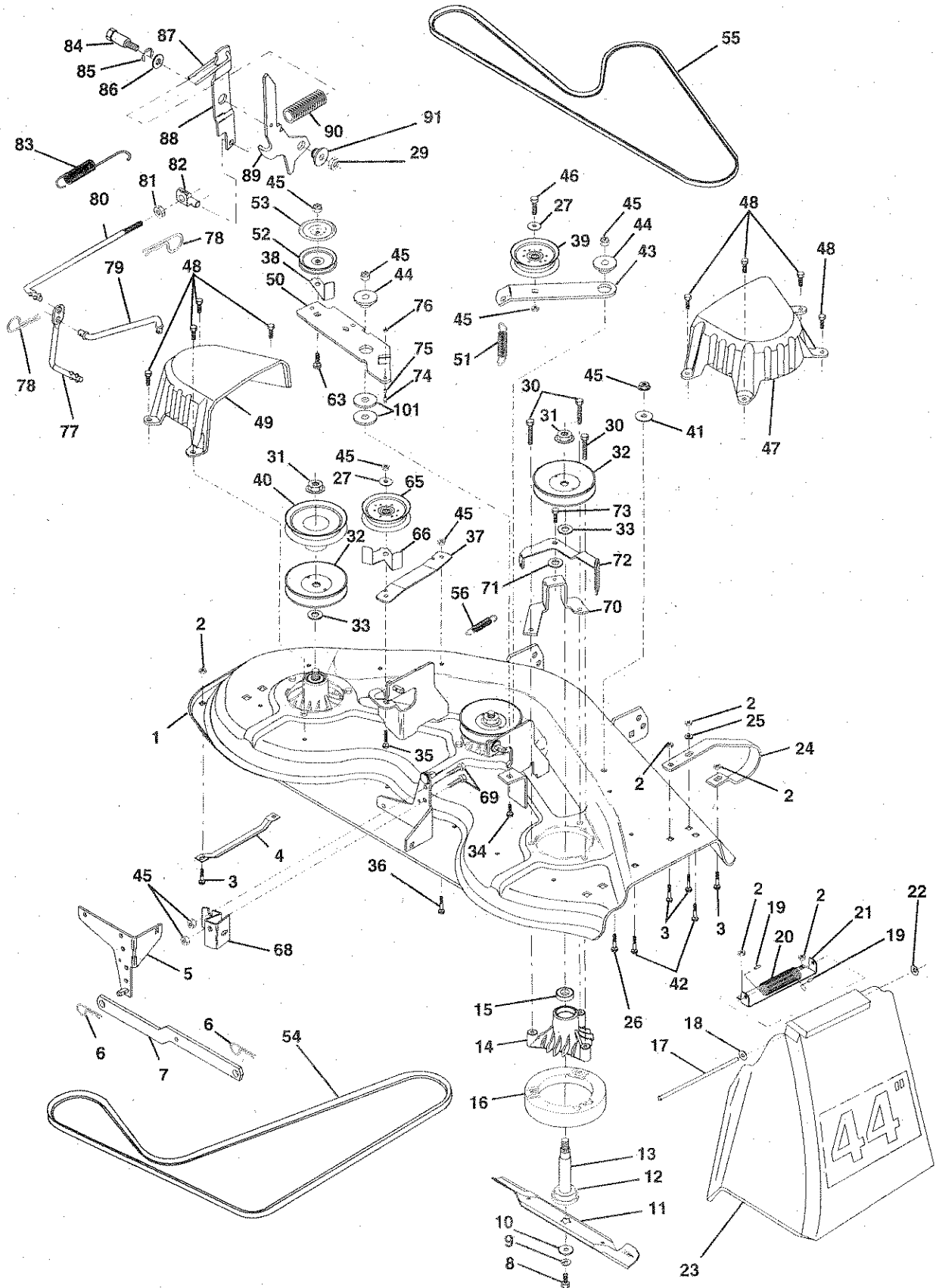
KEY NO.	PART NO.	DESCRIPTION
1	121006X	Rod, Lever
2	140673	Shaft, Lift
6	74780624	Bolt Hex 3/8-16 x 1-1/2
7	125631X	Grip, Handle
8	122365X	Button, Plunger
9	122364X	Plunger, Lever
10	2876H	Spring
11	145537	Link, Lift, LH
12	145536	Link, Lift, RH
13	STD624008	Retainer, Spring
14	121002X	Lever, Lift (Includes Key No. 1)
15	127218	Link Front
16	73350800	Nut, Hex, Jam 1/3-13 UNC
17	130171	Trunnion, Blk Zinc
18	STD541450	Nut, Lock W/Wsh 1/2-13
19	139868	Arm, Suspension
20	STD624008	Retainer Spring
23	110807X	Nut, Hex, Special
24	STD551037	Washer 13/32 x 5/8 x 16 Gauge
25	137150	Spring
26	STD560907	Pin, Cotter 3/32 x 1/2
27	137167	Rod, Adjust, Lift
28	STD541237	Nut, Hex, Jam 3/8-16
29	138057	Knob, Infinite Height Adjustment
30	150233	Trunnion
31	140302	Bearing Pvt Lift Spherical
32	73540600	Nut, Crownlock 3/8-24
35	120529X	Washer Nylon .44 x .75 x .032
36	123933X505	Pointer Pnt Height Ind
37	123935X	Plug Hole Blk
38	17490512	Screw, Thdrol 5/16-18 x 3/4
39	142992	Stop Over Center
40	19112410	Washer 11/32 x 1-1/2 x 10 Ga.
41	123934X	Scale Ind. Height Blk
42	STD541437	Nut Crownlock 3/8-16 UNC
43	19131612	Washer 13/32 x 1 x 12 Ga.
44	STD533710	Bolt Carriage 3/8-16 x 1.00
46	12000022	E-Ring
47	19292016	Washer 29/32 x 1-1/4 x 16 Gauge
49	145212	Nut Hex Flange Lock

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

# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

## MOWER DECK



# REPAIR PARTS

## TRACTOR - - MODEL NUMBER 917.251471

### MOWER DECK

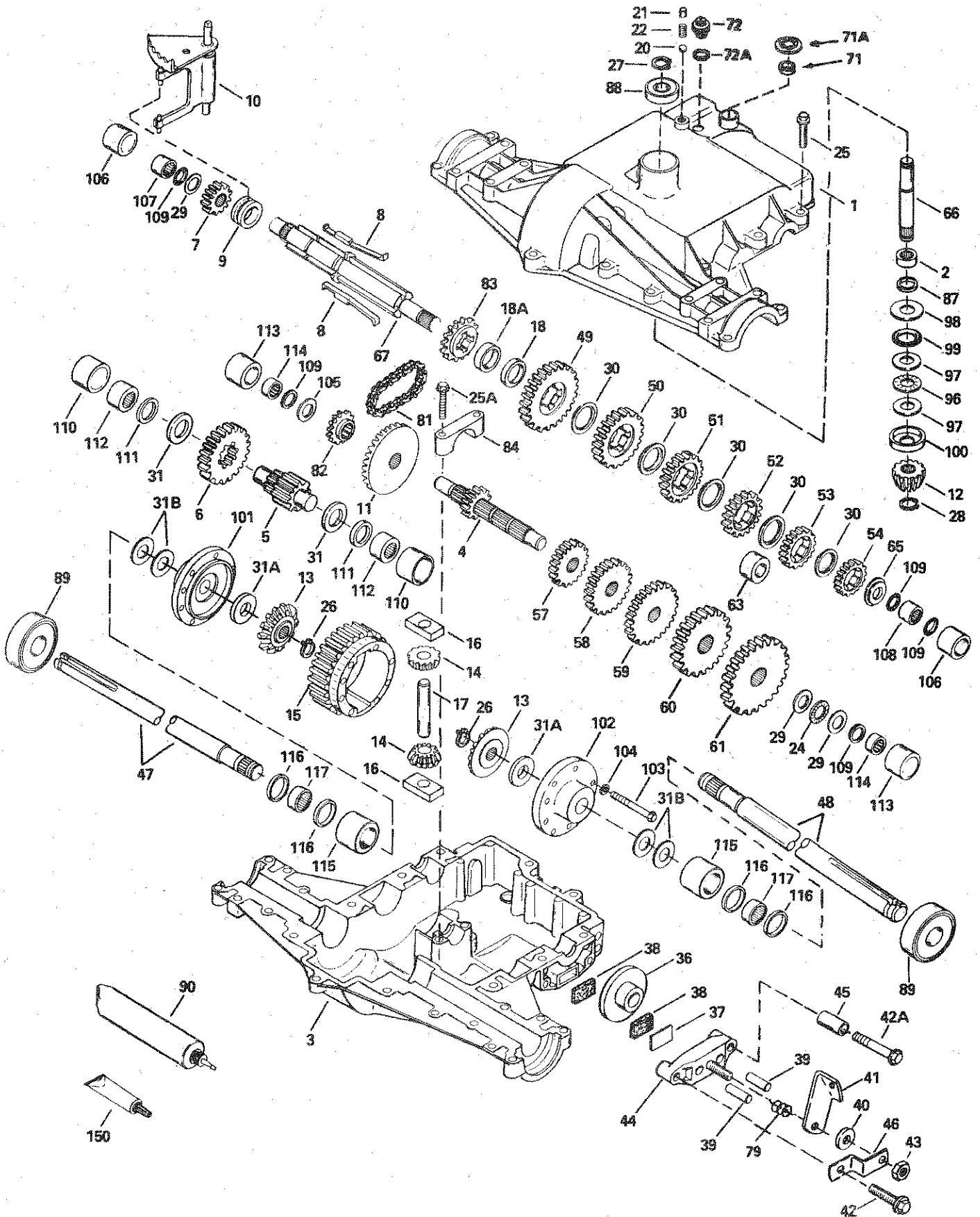
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140579	Deck Asm., Mower 44" Vented	47	137200	Cover, Mandrel RH
2	STD541431	Nut Crownlock 5/16-18	48	137729	Screw, Thd Roll 1/4-20 x 5/8
3	STD533107	Bolt, Carriage 5/16-18 x 3/4	49	136574	Cover, Mandrel LH
4	7631J	Runner, Mower LH	50	137272	Arm, Idler Primary
5	138457	Bracket Asm., Sway Bar	51	137273	Spring, Secondary
6	STD624008	Retainer, Spring	52	139245	Pulley, Idler V Groove
7	130832	Arm Suspension, Rear	53	137789	Shield, Idler
8	850857	Bolt 3/8-24 x 1.25 Gr. 8 Patched	54	142686	V-Belt, Mower Primary
9	STD551137	Washer, Lock Hvy 3/8 Unplated	55	131290	V-Belt, Mower Secondary
10	140296	Washer, Hard Blade Mower Vented	56	126910X	Spring, Extension
11	130652	Blade (3 Required)	63	72110612	Bolt Carriage 3/8-16 x 1-1/2
12	129895	Bearing, Ball #6204 (Mandrel)	65	151831	Pulley Idler Falt Mower
13	137553	Shaft Asm., W/Lower Brg (Includes Key No. 12)	66	139622	Keeper Belt Idler 50 Vent Dr.
14	137152	Housing, Mandrel 44" Vent	68	140364	Bracket Pvt 44" Mech.
15	110485X	Bearing, Ball Mandrel	69	STD523707	Bolt Fin Hex 3/8-16 UNC x 3/4
16	140329	Stripper, Mower Vented	70	140361	Bracket Support Brake 44" Mech.
17	106735X	Rod, Hinge	71	133944	Washer Hardened
18	19111016	Washer 11/32 x 5/8 x 16 Ga.	72	140367	Arm Asm Brake
19	105304X	Cap, Sleeve	73	139888	Bolt Shld 5/16-18 Type TT
20	123713X	Spring, Torsion Deflector	74	133940	Roller Asm Cam Follower
21	137607	Bracket, Deflector	75	131340	Bolt Shldr 10-24 Zinc Gr. 5 42"
22	110452X	Nut, Push	76	69180	Nut Lock #10-24 UNC
23	109785X	Shield, Deflector Mower	77	133551	Rod Pivot W/Nibs
24	136321	Runner, RH	78	STD624003	Retainer Spring
25	19111216	Washer 11/32 x 3/4 x 16 Ga.	79	140363	Rod Clutch Secondary 44" Mech
26	STD533707	Bolt RDHD Sht SQNK 3/8-16 x 3/4	80	143354	Rod Clutch Primary 44" Mech
27	STD551037	Washer 13/32 x 13/16 x 16 Ga.	81	STD541237	Nut Hex Jam 3/8-16 UNC
29	STD541437	Nut Crownlock 3/8-16 UNC	82	142028	Trunnion Adj. '94
30	138776	Screw, Thdrol. Hex Head	83	146927	Spring Return
31	137266	Nut, Flg Top Lock Cntr 9/16	84	128903	Bolt Shoulder 3/8-16 UNC
32	153535	Pulley, Mandrel	85	12000029	Ring Klip
33	129963	Washer, Spacer Mower Vented	86	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
34	STD533712	Bolt, Carriage 3/8-16 x 1-1/4	87	127845	Keeper Spring
35	STD533720	Bolt, Carriage 3/8-16 x 2	88	127847	Arm Clutch Secondary
36	STD533710	Bolt, Carriage 3/8-16 x 1 Gr. 5	89	140333	Arm Clutch Primary
37	137166	Stiffener, Arm Idler	90	128759	Spring Clutch
38	140365	Keeper, Belt Idler	91	127498	Bushing
39	131494	Pulley, Idler Flat	101	106513X	Washer Wear 16 Ga. Harden
40	136572	Pulley, Driven	--	143419	Complete Mower (Standard Deck - Order separately all gauge wheel components)
41	STD551050	Washer 17/32 x 1 x 16 Ga.	--	143651	Mandrel Asm Servcie (Includes 8-10, 12-15, 31 and 33)
42	STD533107	Bolt, Carriage 5/16-18 Unc x 3/4			
43	136460	Arm, Idler Secondary			
44	122052X	Spacer, Retainer			
45	STD541437	Nut, Crownlock 3/8-16 Unc			
46	74760628	Bolt, Fin Hex 3/8-16 Unc x 1-3/4			

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

# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

PEERLESS TRANSAXLE - MODEL NUMBER 820-016B



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

PEERLESS TRANSAXLE - MODEL NUMBER 820-016B

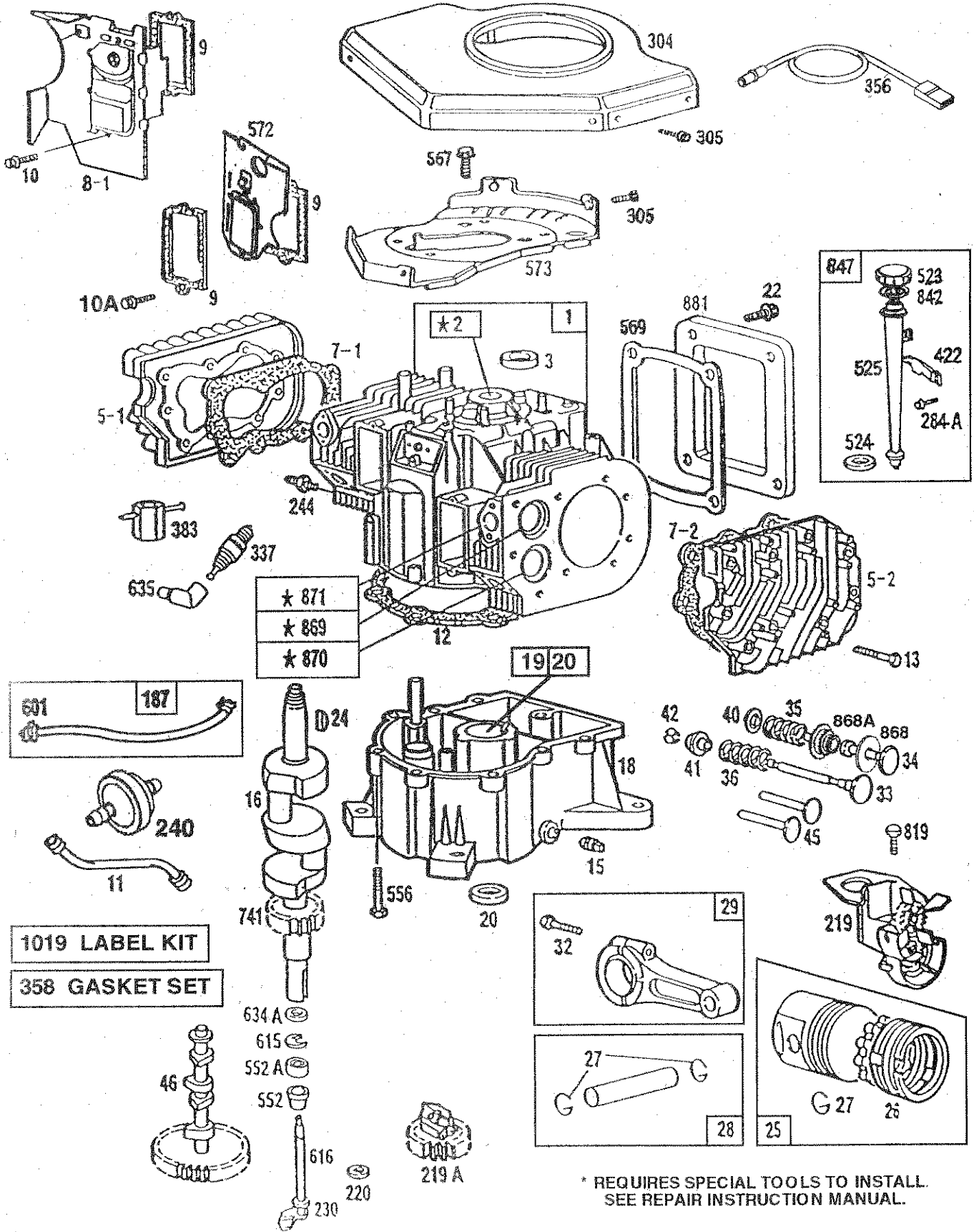
REF PART NO. NO.	DESCRIPTION	REF PART NO. NO.	DESCRIPTION
-- 794513	Transaxle, Complete	53 778203A	Spur Gear, Steel, 22 Teeth (5-)
1 772098A	Transaxle Cover	54 778273	Spur Gear, Steel, 19 Teeth (6-)
2 780155	Needle Bearing	57 778199	Spur Gear, Steel, 15 Teeth (2-)
3 770088	Transaxle Case	58 778200	Spur Gear, Steel, 20 Teeth (3-)
4 776291	Countershaft and 1- Gear, 9 Teeth	59 778201	Spur Gear, Steel, 25 Teeth (4-)
5 776275	Output Shaft	60 778202	Spur Gear, Steel, 28 Teeth (5-)
6 778247	Output Gear, Steel, 35 Teeth	61 778208	Spur Gear, Steel, 31 Teeth (6-)
7 778253	Spur Gear, Steel, 15 Teeth	65 780139	Washer
8 792138	Shift Key	66 776274	Input Shaft
9 784216	Shift Collar	67 776313	Shifter and Brake Shaft
10 784342	Shift Fork	71 788069	Square Cut Ring
11 778246	Bevel Gear, Steel, 33 Teeth	71A 792145	Pushnut
12 778245	Input Bevel Pinion, Steel, 13 Teeth	72 792165	Threaded Plug 9/16-18
13 778198	Bevel Gear, Steel, 16 Teeth	72A 788091	"O" Ring
14 778197	Bevel Pinion, Steel, 10 Teeth	79 792144	Spring
15 778248	Ring Gear	81 786081	Roller Chain (Number 41 Chain, 24 Links)
16 786027	Drive Block	82 786082	Sprocket, 9 Teeth (Reverse)
17 786019	Drive Pin	83 786123	Sprocket, 18 Teeth (Reverse)
18 786121	Neutral Spacer, .350/.340 Thick	84 786131	Bearing Cap
18A 786122	Natural Spacer, .276/.268 Thick	87 788042	Oil Seal 3/4
20 792077	Steel Ball, 5/16" Diameter	88 780119	Ball Bearing
21 792078	Set Screw, 3/8-16 x 3/8"	89 780050	Ball Bearing
22 792079	Spring	90 788067B	Grease, Bentonite, 32 Ounce Bottle
24 780071	Thrust Bearing	96 780084	Thrust Bearing
25 792129	Screw 5/16-18 x 1-1/4"	97 780051	Washer
25A 792073	Screw 1/4-20 x 1-1/4"	98 780165	Washer
26 792018	Retaining Ring	99 788077	"O" Ring
27 792018	Retaining Ring	100 780166	Cupped Washer
28 788040	Retaining Ring	101 774833	Differential Carrier
29 780072	Washer	102 774834	Differential Carrier
30 780108	Washer	103 792020	Screw 1/4-20 x 2-1/4
31 780128	Washer	104 792006	Lock Washer
31A 780107	Washer	105 780153	Washer
31B 780042	Washer	106 786144	Sleeve
36 790043	Brake Disk	107 780152	Needle Bearing
37 790007	Brake Pad Plate	108 780150	Needle Bearing
38 799021	Brake Pad (Package of 2)	109 792001	"O" Ring
39 786026	Dowel Pin	110 786142	Sleeve
40 792076A	Washer	111 788071	Square Cut Ring
41 790047	Brake Lever	112 780168	Needle Bearing
42 792073	Screw 1/4-20 x 1-1/4"	113 786143	Sleeve
42A 792085A	Screw 1/4-20 x 2-1/4"	114 780151	Needle Bearing
43 792075	Locknut 5/16-24	115 786145	Sleeve
44 790025	Brake Pad Holder	116 788070	Square Cut Ring
45 786067	Spacer	117 780031	Needle Bearing
46 786086	Brake Lever Bracket	150 510334	Gasket Eliminator (Loctite Number 515)
47 774832	Axle, 12-5/16" Long		
48 774831	Axle, 16-3/16" Long		
49 778216A	Spur Gear, Steel, 41 Teeth (1-)		
50 778206A	Spur Gear, Steel, 35 Teeth (2-)		
51 778205A	Spur Gear, Steel, 30 Teeth (3-)		
52 778204A	Spur Gear, Steel, 25 Teeth (4-)		

Parts must be ordered from Tecumseh Products Co.  
**NOTE:** All component dimensions given in U.S. inches  
 1 inch = 25.4 mm

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01

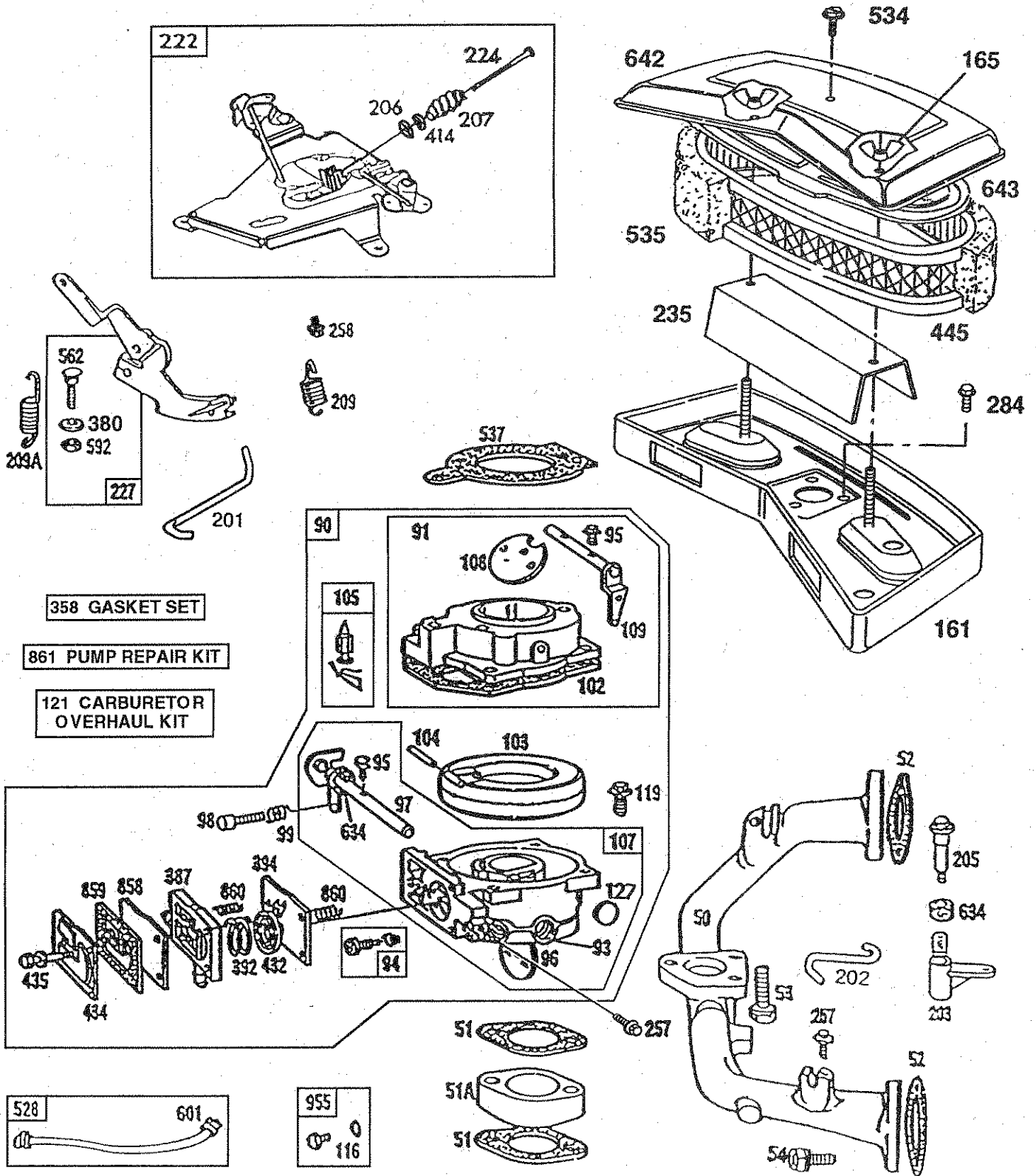




# REPAIR PARTS

TRACTOR -- MODEL NUMBER 917.251471

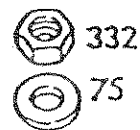
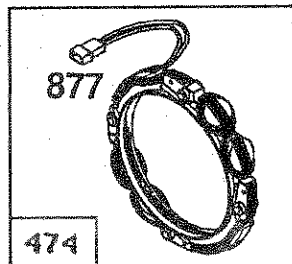
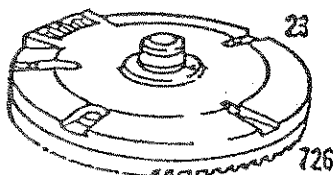
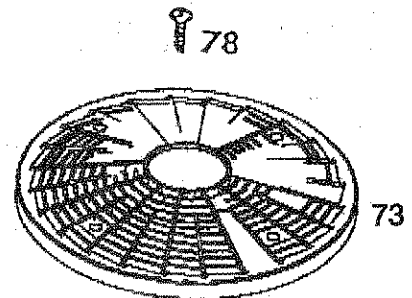
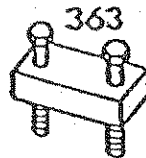
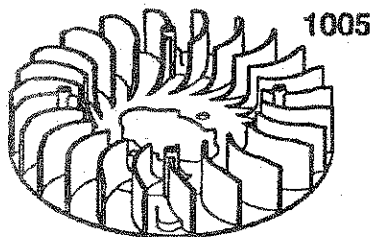
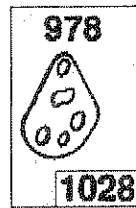
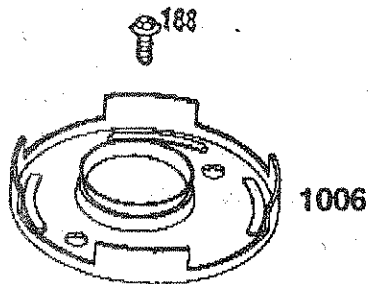
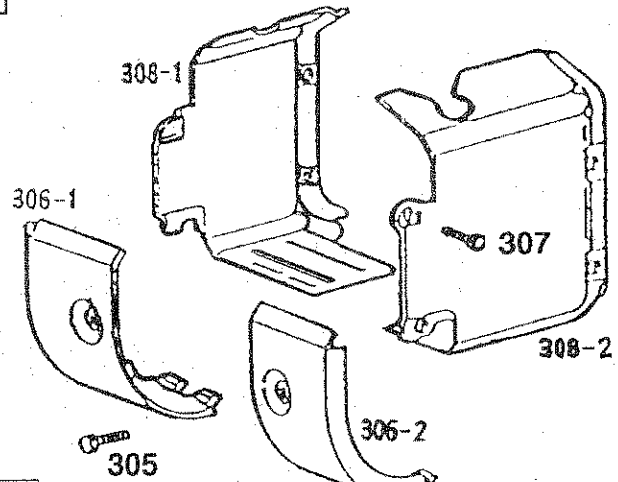
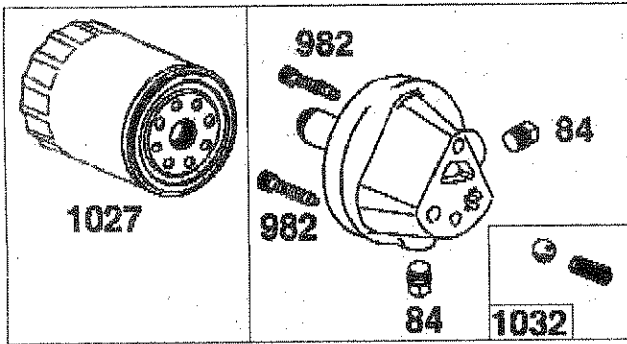
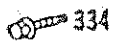
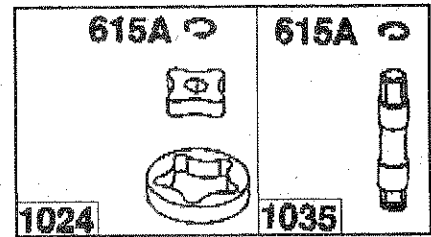
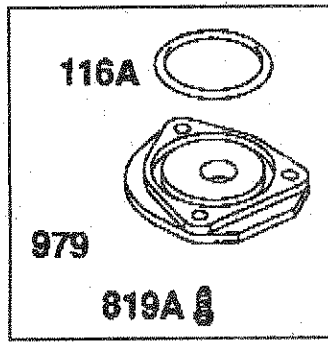
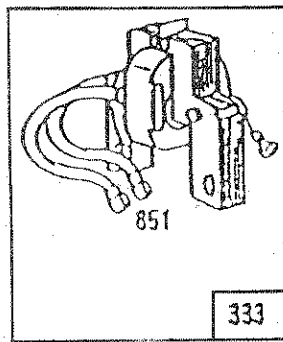
ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

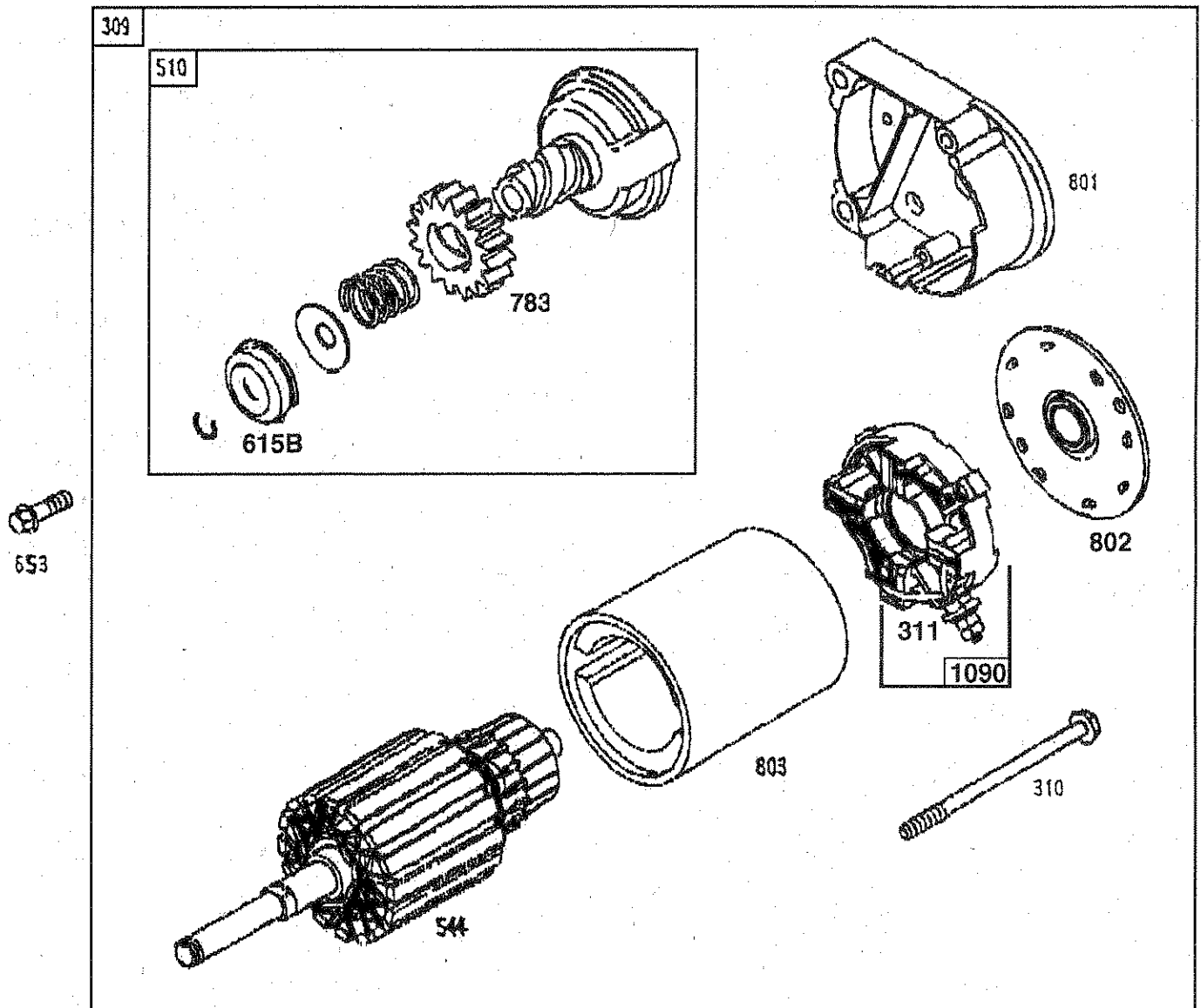
ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01



# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 498583	Cylinder Assembly	53 93970	Screw, Sems, Carburetor Mounting
2 397265	Bearing, Cylinder	54 93208	Screw, Sems, Intake Manifold Mounting
3 391086	* Seal, Oil	73 497908	Screen, Rotating
5-1 214517	Head, Cylinder Number 1	75 222511	Washer, Spring
5-2 214518	Head, Cylinder Number 2	78 95039	Screw, Sems
7-1 271867	***** Gasket, Cylinder Head Number 1	84 91488	Plug, Pipe
7-2 271868	***** Gasket, Cylinder Head Number 2	90 495009	Carburetor Assembly
8-1 495754	Breather Assembly Number 1	91 495035	Body Assembly, Upper Carburetor
8-2 222892	Cover, Breather, Cylinder Number 2 (Use with Key Number 572, Air Baffle with Mounting Holes)	93 231209	Bushing, Throttle Shaft
9 27803	***** Gasket, Valve Cover	94 491538	** Valve Assembly, Carburetor Idle
10 94382	Screw, Hex, Head	95 93499	Screw, Sems, Throttle and Choke Valve Mounting
10A 94830	Screw, Sems	96 221939	Valve, Throttle
11 280225	Tube, Breather	97 393469	Shaft and Lever, Throttle
12 271703	* Gasket, Crankcase Cover, 1/64"	98 91920	Screw, Machine, Fillister Head
271188	* Gasket, Crankcase Cover, .005"	99 26157	Spring, Throttle Adjustment
271189	* Gasket, Crankcase Cover, .009"	102 271607	** Gasket, Carburetor Body
13 94565	Screw, Cylinder Head	103 298514	Float, Carburetor
15 94239	Plug, Oil Drain	104 230896	** Pin, Float Hinge
16 498129	Crankshaft	105 394683	** Valve, Fuel Inlet
94196	Key, Timing Gear	107 491543	Body, Lower Carburetor
18 492575	Base Assembly, Crankcase	108 223534	Valve, Choke
20 291675	* Seal, Oil	109 392673	Shaft and Lever, Choke
22 94724	Screw, Sems, Crankcase Cover Mounting	116 280474	O-Ring
23 491180	Flywheel and Ring Gear Assembly, Magneto	119 94152	Screw, Sems, Hex Head
24 222698	Key, Flywheel	121 491539	Carburetor Overhaul Kit
25 498584	Piston Assembly, Standard Size	127 223472	Plug, Welch
498585	Piston Assembly, .010" Oversize	161 496599	Body, Air Cleaner
498586	Piston Assembly, .020" Oversize	165 94289	Nut, Wing
498587	Piston Assembly, .030" Oversize	187 299146	Line, Fuel, 28" (Cut to Suit)
26 394959	Ring Set, Piston, Standard Size	188 94627	Screw, Hex Head
394960	Ring Set, Piston, .010" Oversize	201 262683	Link, Governor
394961	Ring Set, Piston, .020" Oversize	202 262684	Link, Throttle
394962	Ring Set, Piston, .030" Oversize	203 280997	Crank, Bell
27 263129	Lock, Piston Pin	205 93971	Screw, Shoulder
28 498319	Pin Assy., Piston, Standard Size	206 94298	Nut, Square
29 498314	Rod Assembly, Connecting	207 262337	Spring, Compression
32 95017	Screw, Connecting Rod	209 262352	Spring, Governor
33 390420	Valve, Exhaust	209A 261563	Spring, Governor Idle
34 263137	Valve, Intake	219 393415	Oil Slinger Assembly
	Uses: 393606 Seal Assembly and Retainer (Key Number 868)	219A 394348	Gear, Governor
35 65906	Spring, Intake Valve	220 222773	Washer, Thrust
36 26828	Spring, Exhaust Valve	222 491282	Plate Assembly, Governor Control
40 221596	Retainer, Intake Valve		* Included in Gasket Set (495868)
41 292260	Rotocoil, Exhaust Valve		** Included in Carburetor Overhaul Kit (491539)
42 494553	Retainer, Exhaust Valve Rotocoil(2)		*** Included in both Gasket Set (495868), and Carburetor Overhaul Kit (491539)
45 261368	Tappet, Valve		**** Included in both Carburetor Overhaul Kit (491539), and Pump Repair Kit (393397)
46 214287	Gear, Cam		***** included in valve overhaul Gasket set (498047)
50 213290	Manifold, Intake		
51 271412	*** Gasket, Carburetor & Intake Elbow		
51A 281411	Spacer, Carburetor		
52 270884	***** Gasket, Intake Manifold Mounting		

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

# REPAIR PARTS

TRACTOR - - MODEL NUMBER 917.251471

ENGINE B&S - MODEL NUMBER 460777, TYPE NUMBER 1297-01

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
224 94297	Screw, Pan Head	615A 94900	Retainer, E-Ring
227 491297	Lever Assembly, Governor	615B 263080	Retainer
230 223882	Washer, Governor Crank, Inside	616 491530	Crank, Governor
235 224995	Shield, Spitback	634 271013	** Washer, Throtte Shaft
240 394358	Filter, Fuel (In Fuel Line to Tank)	634A 491287	* Seal, Governor Shaft
244 230318	Connector, Impulse Pump	635 66538	Elbow, Spark Plug
257 93897	Screw, Sems	642 225008	Cover, Air Cleaner
258 94623	Screw, Sems	643 496700	Cartridge Plate, Air Cleaner
267 93897	Screw, Hex Head	653 93585	Screw, Hex Head
284 94264	Screw, Hex Head	726 391362	Gear, Flywheel Ring (Includes Mounting Parts)
284A 94910	Screw, Hex Head	741 262989	Gear, Timing
304 495587	Housing, Blower	801 394860	Cap, Drive
305 94786	Screw, Sems	802 497607	Cap, End
306-1 222846	Shield, Cylinder	803 497604	Housing, Starter
306-2 223734	Shield, Cylinder	819 94675	Screw, Hex Head
308-1 224774	Cover, Air Guide	819A 94410	Screw, Hex Head
308-2 224775	Cover, Air Guide	842 270920	* Seal, Oil Filler Cap
309 497596	Motor, Starter	847 495715	Dipstick and Tube Assembly
310 94003	Bolt, Thru	851 493880	Terminal, Ignition Cable
311 497608	Brush set	858 270989	**** Diaphragm, Damping
332 230674	Nut, Hex	859 271025	**** Gasket, Carburetor Pump
333 394891	Armature Group, MAGNETRON® Ignition	860 261358	**** Spring (2)
334 93381	Screw, Sems, Armature Mounting	861 393397	Repair Kit, Pump
337 802592	Plug, Spark, Resistor (with Gasket)	868 273312	Seal, Intake Valve
356 494705	Wire, Ground	868A 497656	Seal, Intake Valve
358 495868	Gasket Set	869 261463	Seat, Intake Valve, Standard
363 19203	Puller, Flywheel (Optional Accessory)	870 213316	Seat, Exhaust Valve, Standard
380 62199	Washer	871 261961	Guide, Exhaust Valve
383 89838	Wrench, Spark Plug	231218	Guide, Intake Valve (See Manual)
387 280197	Body, Pump	877 393456	Connector Assembly, Dual-Circuit
392 261395	**** Spring, Pump	881 495901	Cover Plate, Crankcase (Includes Gasket - Key #569)
394 272638	**** Diaphragm	955 397882	Plug and Seal, Solenoid
414 220680	Washer	978 272060	* Gasket, Adapter
422 222875	Clamp, Oil Filler	979 492197	Cover, Oil Pump
432 221377	**** Cap, Spring	982 94362	Screw, Hex Head
434 223688	Cover, Diaphragm	1005 281544	Fan, Flywheel
435 93829	Screw, Diaphragm Cover	1006 224901	Retainer, Fan
445 394019	Cartridge, Air Cleaner	1024 492196	Pump, Oil
474 393474	Stator, Alternator, Dual-Circuit	1027 492932	Filter, Oil
482 93621	Screw, Sems	1028 491721	Starter, Oil Filter
510 497606	Drive, Starter	1032 491710	Ball, Oil Pump
523 494927	Cap and Dipstick, Oil Filler	1035 492509	Shaft, Pump
524 280860	* Seal, Filler Tube	1090 497605	Retainer, Brush
525 495348	Tube, Oil Filler		
528 393815	Impulse Line and Clamp Assembly		
534 94823	Screw, Round Head		
535 272490	Element, Air Cleaner		
537 271411	*** Gasket, Air Cleaner		
544 497603	Armature, Starter		
552 262332	Lower Bushing, Governor		
552A 262331	Upper Bushing, Governor		
556 93585	Screw, Sems, Hex Head		
562 93853	Bolt, Governor Lever		
567 94811	Screw, Hex Hd, Back Plate to Cylinder		
569 272645	* Gasket, Crankcase		
572 224816	Baffle, Air, Cylinder Number 2		
573 491304	Back Plate Assembly		
592 92278	Nut, Hex		
601 93053	Clamp, Fuel Line		
615 94296	Retainer, E-Ring		

RPM Settings: Low: 1100-1400, High: 3200-3400

- \* Included in Gasket Set (495868)
- \*\* Included in Carburetor Overhaul Kit (491539)
- \*\*\* Included in both Gasket Set (495868), and Carburetor Overhaul Kit (491539)
- \*\*\*\* Included in both Carburetor Overhaul Kit (491539), and Pump Repair Kit (393397)
- \*\*\*\*\* Included in valve overhaul Gasket set (498047)

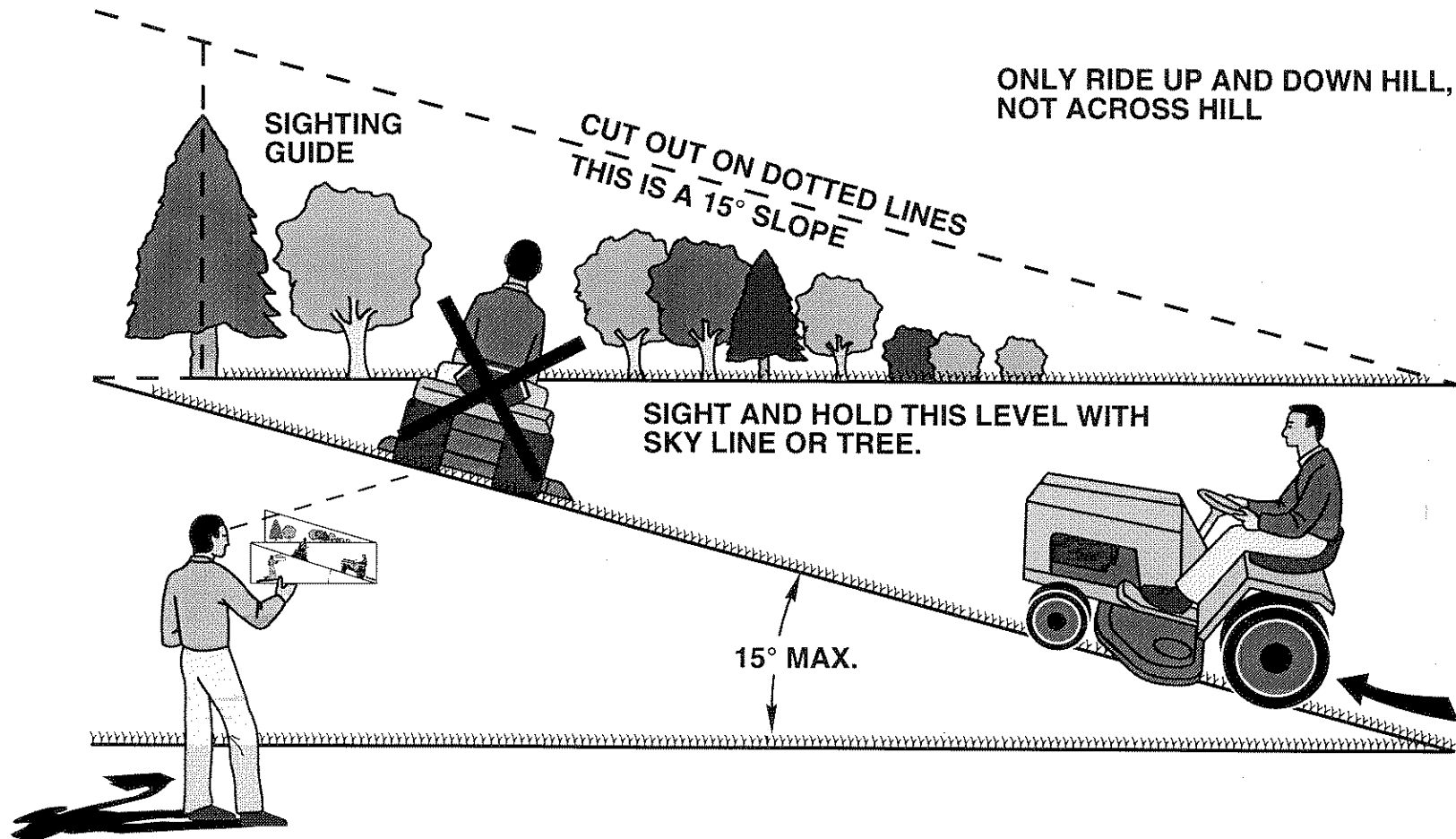
**NOTE:** All component dimensions given in U.S. inches  
1 inch = 25.4 mm

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# SERVICE NOTES

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# 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.

**SEARS**

**OWNER'S  
MANUAL**

**MODEL NO.  
917.251471**

**IF YOU NEED  
REPAIR SERVICE  
OR PARTS:**

FOR REPAIR SERVICE, CALL  
THIS TOLL FREE NUMBER:

**1-800-4-REPAIR**  
(1-800-473-7247)

FOR REPLACEMENT PARTS  
INFORMATION AND  
ORDERING, CALL THIS  
TOLL FREE NUMBER:

**1-800-FON-PART**  
(1-800-366-7278)

FOR CONSUMER ASSISTANCE  
HOT LINE, CALL THIS  
TOLL FREE NUMBER:

**1-800-659-5917**

**CRAFTSMAN®**

**20.0 HP  
ELECTRIC START  
44" MOWER  
6 SPEED TRANSAXLE  
GARDEN TRACTOR**

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

The model number for your engine will be found on the blower housing of the engine.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center/Department and most Retail Stores.

**WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE  
FOLLOWING INFORMATION:**

- **PRODUCT - TRACTOR**
- **MODEL NUMBER - 917.251471**
- **ENGINE MODEL NO. - 460777, TYPE NO. 1297-01**
- **PART NUMBER**
- **PART DESCRIPTION**

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.