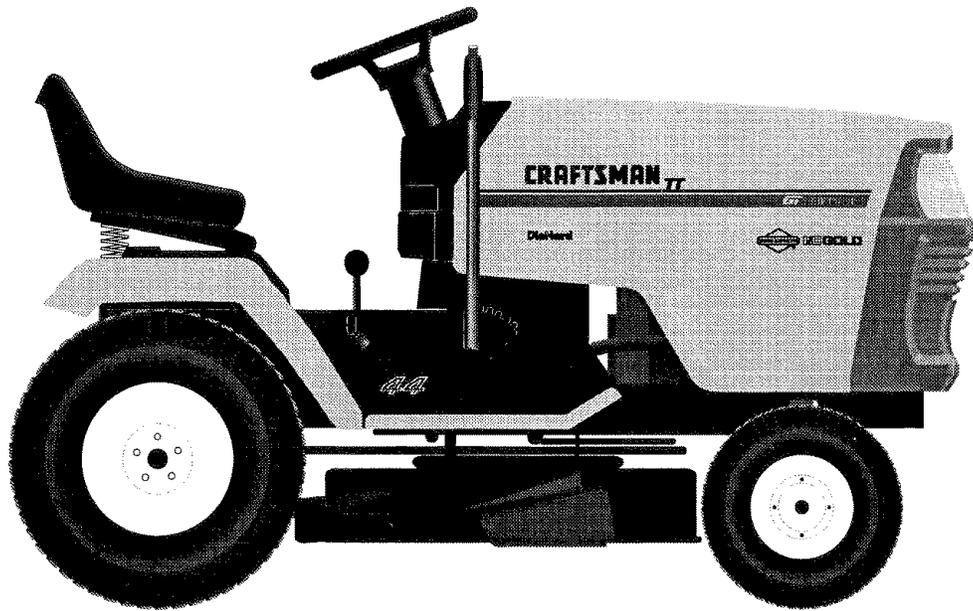


SEARS

CRAFTSMAN[®]

MODEL NUMBER 917.257711 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.

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.

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	917.257711
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.	

PRODUCT SPECIFICATIONS

HORSEPOWER:	18.0															
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS 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 RJ-19LM STD361458															
VALVE CLEARANCE:	INTAKE: .004" - .006" EXHAUST: .007" - .009"															
GROUND SPEED (MPH):	<table border="1"> <tr> <td>Forward</td> <td>LO</td> <td>HI</td> </tr> <tr> <td>1st</td> <td>0.8</td> <td>1.8</td> </tr> <tr> <td>2nd</td> <td>1.4</td> <td>3.4</td> </tr> <tr> <td>3rd</td> <td>2.4</td> <td>5.6</td> </tr> <tr> <td>Reverse</td> <td>0.9</td> <td>2.2</td> </tr> </table>	Forward	LO	HI	1st	0.8	1.8	2nd	1.4	3.4	3rd	2.4	5.6	Reverse	0.9	2.2
Forward	LO	HI														
1st	0.8	1.8														
2nd	1.4	3.4														
3rd	2.4	5.6														
Reverse	0.9	2.2														
TRANSAXLE OIL CAPACITY AND TYPE:	4 QUARTS SAE 30 API-SF/SG															
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI															
CHARGING SYSTEM:	5 AMPS BATTERY 5 AMPS HEADLIGHTS															
BLADE BOLT TORQUE:	30-35 FT. LBS.															

MAINTENANCE AGREEMENT

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

CUSTOMER RESPONSIBILITIES

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

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

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 ELECTRIC START RIDING EQUIPMENT

For two (2) years from the date of purchase, if this 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 and belts.
- 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.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE RIDING EQUIPMENT TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

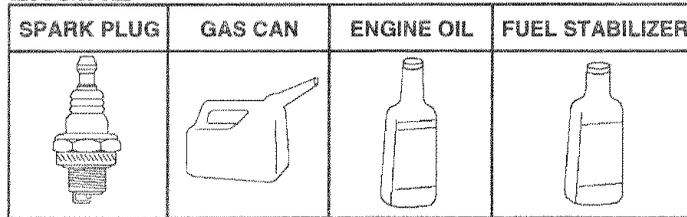
This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

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

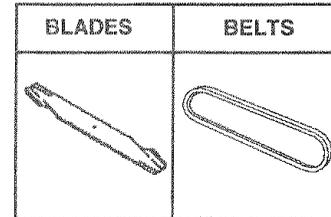
ACCESSORIES AND ATTACHMENTS

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



MAINTENANCE



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.

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.

DISC HARROW has 2 gangs of 4 steel blades that angle from 10 to 20 degrees, 40 inches wide. Can hook 2 units in tandem. (Requires sleeve hitch.)

DOZER BLADE removes snow; grades dirt, sand and gravel. 48 inches wide, 17 inches high, clears 44-inch path when angled. Master lift control lever for operator ease. Spring trip for snow removal on uneven pavement; built-in float for blade to follow ground contour. Reversible, replaceable scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

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).

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.

PLOW turns soil 6 inches deep, cuts 10-inch furrow. Crank adjustment controls depth, 3-position yoke sets width. Heavy steel landside for straight furrowing. (Requires sleeve hitch.)

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

REAR GRADER BLADE is 42 inches wide and operated from driver's seat. Reversible steel blade can be angled at 30 degrees for grading. Reverses for pushing snow backwards. (Requires sleeve hitch.)

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.

SLEEVE CULTIVATOR is 43 inches wide. Prepares ground for seeding, helps weed control. Steel frame holds 5 adjustable sweeps. Adjusts vertically, horizontally. (Requires sleeve hitch.) **Optional accessory:** steel furrow opener for wider openings for potatoes, corn, and other deep-seeded crops.

SLEEVE HITCH for use with master lift system. Single pin couples/uncouples.

SNOWTHROWER has 42-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 de-icers and sand.

SWEEPERS let you collect grass clippings and leaves.

TILLER has 8 hp engine to prepare seed beds, cultivate, and compost garden residue. Chain-drive transmission. Six 11-inch diameter one piece heat-treated steel tines. Tills 30-inch path. (Requires sleeve hitch.) Or use 5 hp tow-behind **TILLER** with 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** for 5 hp tiller 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.

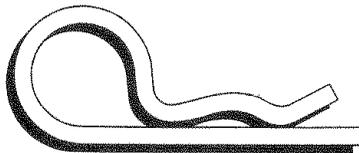
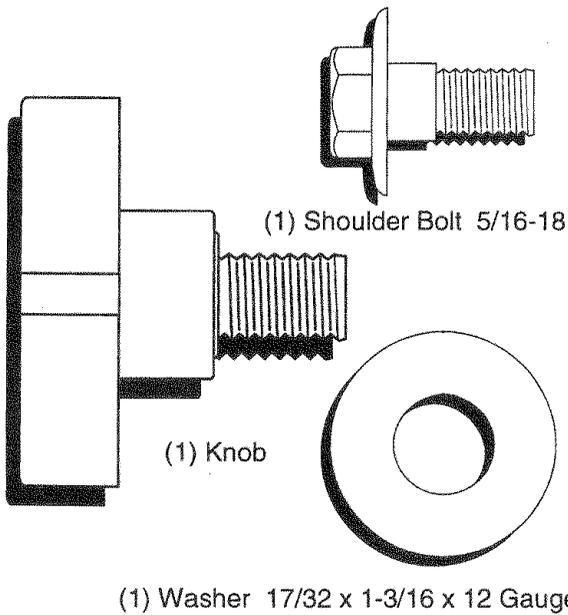
VACS for powerful collection of heavy grass clippings and leaves. **Optional wand attachment** to pick up debris in hard-to-reach places. **VAC/CHIPPER** includes a chipper-shredder.

WEIGHT BRACKET for drawbar for snow removal applications. Can be mounted on front of tractor for plowing applications. Uses (1) 55 lb. weight.

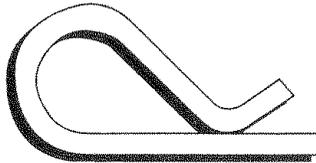
WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

CONTENTS OF HARDWARE PACK

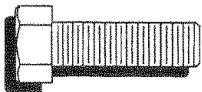
Parts Bag contents shown full size



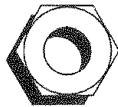
(3) Retainer Springs



(4) Retainer Springs



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



(2) Hex Nuts 1/4-20



(2) Washers 9/32 x 5/8 x 16 Ga.

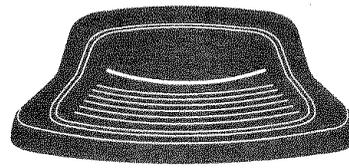


(2) Lock Washers 1/4

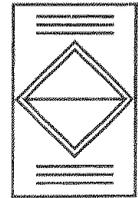


(2) Wing Nuts 1/4-20

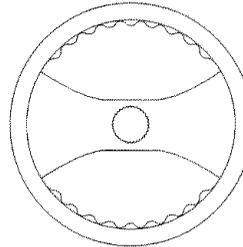
Parts packed separately in carton



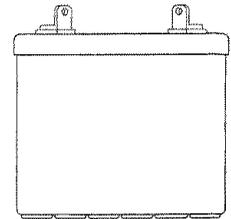
Seat



Battery acid



Steering Wheel



Battery

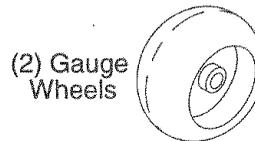


Parts Bag



Owner's Manual

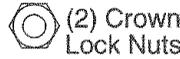
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(2) Gauge Wheels



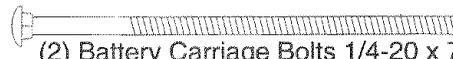
(2) Washers 3/8 x 7/8 x 14 Gauge



(2) Crown Lock Nuts



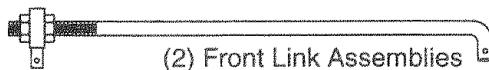
(2) Shoulder Bolts



(2) Battery Carriage Bolts 1/4-20 x 7-1/2



Steering Sleeve



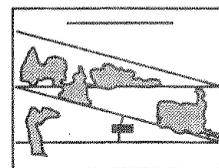
(2) Front Link Assemblies



Steering Wheel Insert



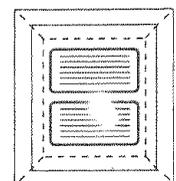
Terminal Guard



15° Slope Sheet



(2) Keys



Battery Caps and Instructions

ASSEMBLY

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

TOOLS REQUIRED FOR ASSEMBLY

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

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

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

TO REMOVE TRACTOR FROM 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.
- Remove mower and packing materials.
- Check for any additional loose parts or cartons and remove.

BEFORE ROLLING TRACTOR OFF SKID

ATTACH STEERING WHEEL (See Fig. 1)

- Remove hex bolt, lock washer and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with hex bolt, lock washer and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective 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 Fig. 7)

- 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.

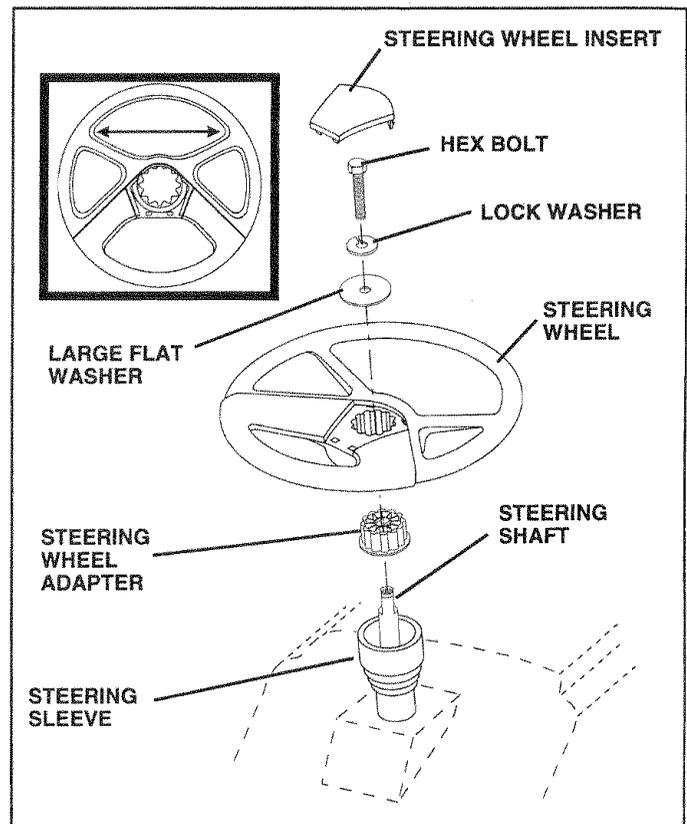


FIG. 1

ASSEMBLY

HOW TO SET UP YOUR TRACTOR

PREPARE BATTERY (See Fig. 2)

CAUTION: Wear eye and face shield.



Wash hands or clothing immediately if accidentally in contact with battery acid.

Do not smoke. Fumes from charged battery acid are explosive.

Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

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.

- See instructions packed with vent caps in parts bag.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the battery cell acid level. If below the vent wells, add more acid until the correct level is reached.

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

IMPORTANT: TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to two gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.

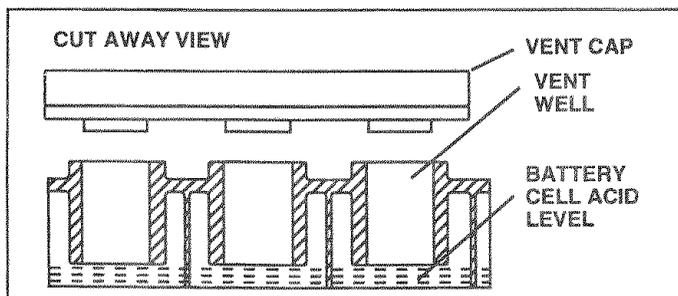


FIG. 2

INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment knob 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 knob securely.

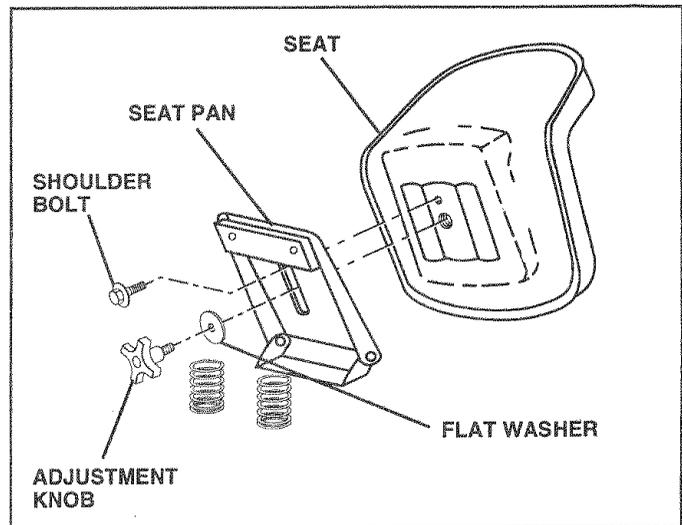


FIG. 3

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 7)

Be sure tractor is on level surface. Engage parking brake.

- Cut and remove tie down securing anti-sway bar. Swing anti-sway bar to left side of mower deck.
- Relieve idler tension from belt. Push idler forward and place a block (standard wood 2 x 4 or equivalent) behind idler pulley.
- Slide mower under tractor with discharge guard to right side of tractor.
- Swing L.H. gauge wheel bar forward by removing rear retainer spring and pin.
- 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.
- Slide right side of mower deck forward, toward R.H. front tire.

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

- Install second front link in the top hole of the R.H. front mower bracket and R.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Carefully remove block from behind idler pulley.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift lever.

- Place the suspension arms on inward 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.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Swing L.H. gauge wheel bar back towards rear of mower and secure with pin and retainer spring removed earlier.
- Assemble gauge wheels as shown using long shoulder bolts, 3/8 washers, and 3/8-16 center locknuts. Tighten securely.
- Adjust gauge wheels before operating mower as shown in the Operation section of this manual.

CHECK DECK LEVELNESS

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

CHECK FOR PROPER POSITION OF ALL BELTS

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

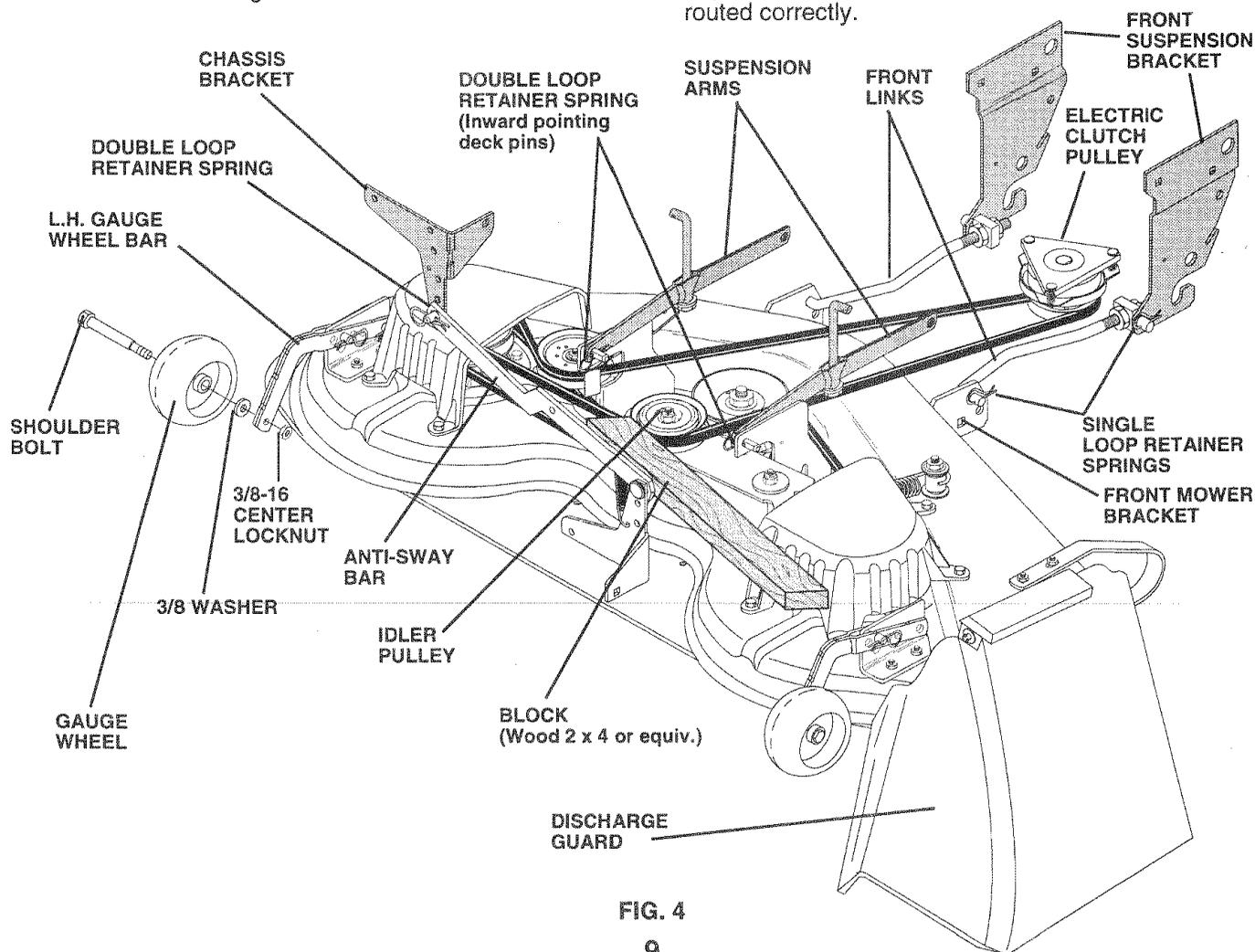


FIG. 4

ASSEMBLY

INSTALL BATTERY (See Figs. 5 and 6)



CAUTION: Do not short battery terminals. Before installing 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.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- Lower battery into battery tray with terminals to front of tractor.
- 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.
- Slide the two battery bolts through the terminal guard and start the wing nuts onto the threads.
- Position terminal guard over battery as shown, lower battery bolts into key holes and slide square shafts of battery bolts into slots of key holes.
- Tighten wing nuts by hand making sure battery bolts remain in slots of the key holes in the battery support.
- Be sure terminal access doors are closed.

Use terminal access doors for:

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

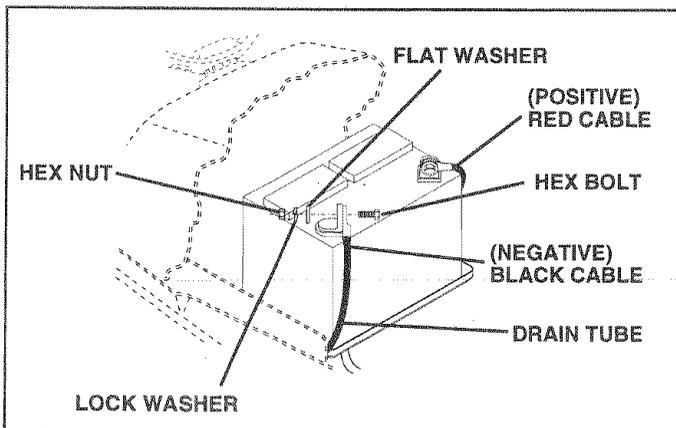


FIG. 5

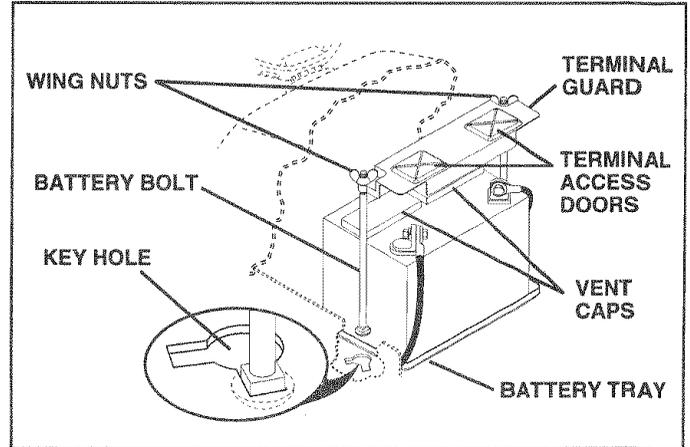


FIG. 6

✓ 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

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.

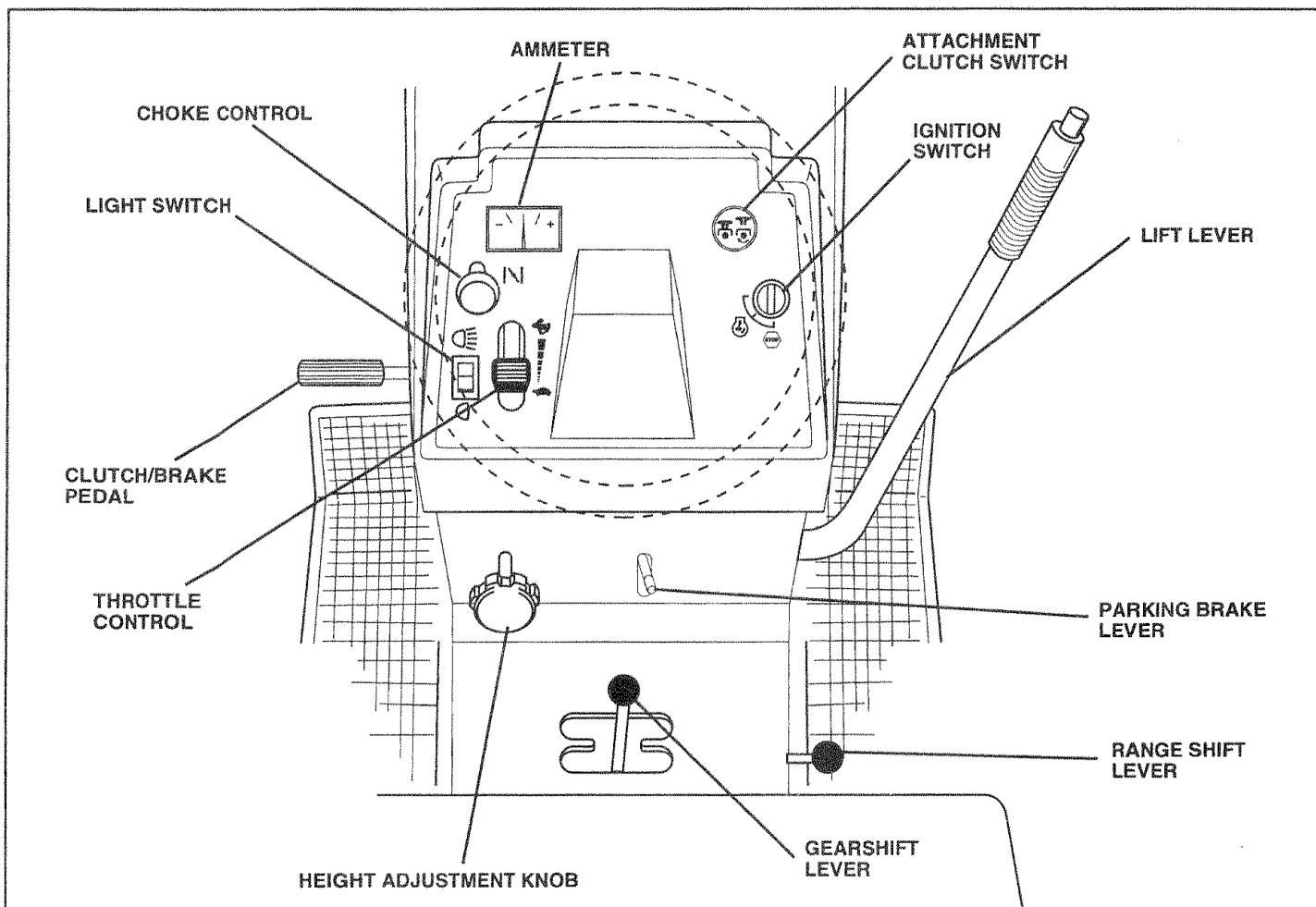


FIG. 7

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

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

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

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

GEARSHIFT LEVER - Selects the speed and direction of tractor.

THROTTLE CONTROL - Used to control engine speed.

RANGE SHIFT LEVER - Allows high (H) or low (L) speed for all forward and reverse gears.

IGNITION SWITCH - Used to start and stop the engine.

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

LIGHT SWITCH - Turns the headlights on and off.

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

CHOKER CONTROL - Used when starting a cold engine.

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

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 for over the spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR

TO SET PARKING BRAKE (See Fig. 8)

- 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 vehicle secure.

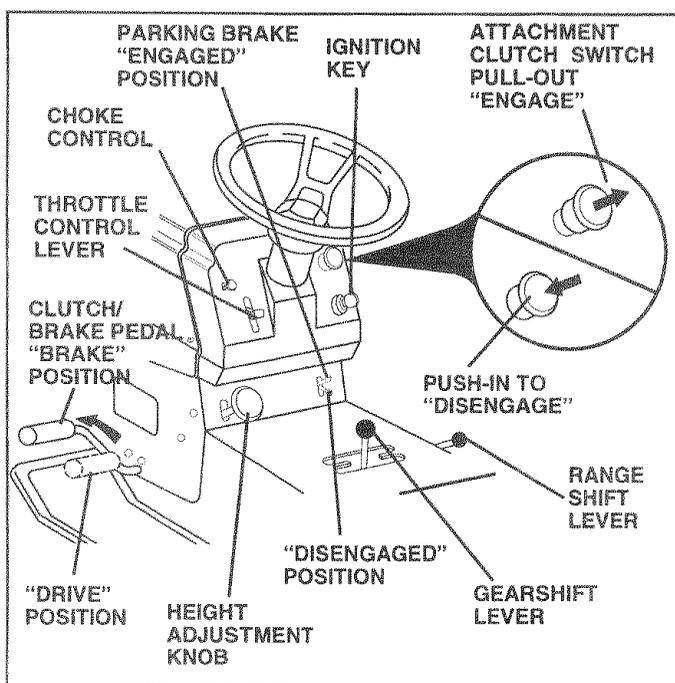


FIG. 8

STOPPING (See Fig. 8)

MOWER BLADES -

- Move attachment clutch switch to "DISENGAGED" position.

GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to neutral (N) position.

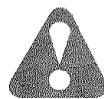
ENGINE -

- 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. 8)

Always operate engine at full throttle.

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

TO USE CHOKE CONTROL (See Fig. 8)

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

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

TO MOVE FORWARD AND BACKWARD (See Fig. 8)

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 and range shift levers 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. 8)

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

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

The cutting height range is approximately 1-1/4" to 4-1/4". 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 ADJUST GAUGE WHEELS (See Fig. 9)

- Adjust mower to desired cutting height.
- Lower mower with lift control. Remove rear retainer spring and clevis pin which secure each gauge wheel.
- Lower gauge wheels to ground. Raise gauge wheels slightly to align holes in bracket and gauge wheel bar and insert clevis pins. Gauge wheels should be slightly off the ground.
- Replace retainer springs into clevis pins.

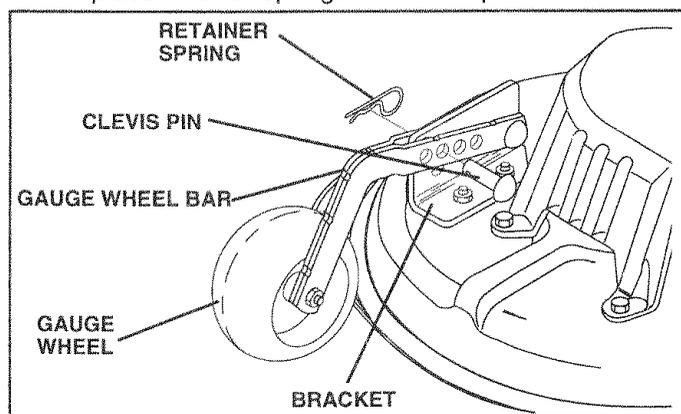


FIG. 9

TO OPERATE MOWER (See Figs. 7 and 8)

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

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



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

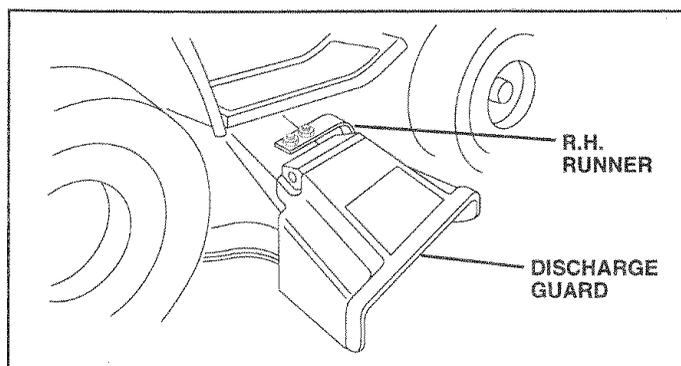


FIG. 10

TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If 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 and range shift lever to low (L) position. 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. 11)

- 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.

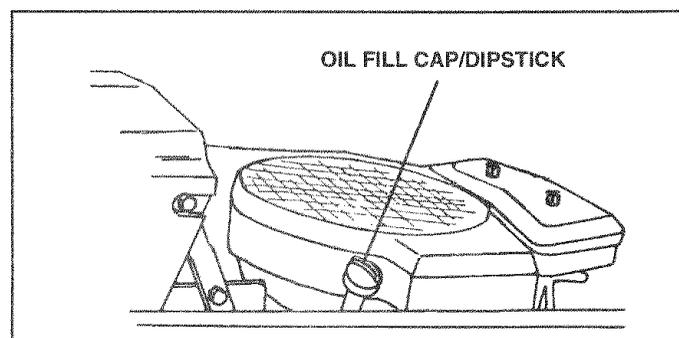


FIG. 11

OPERATION

ADD GASOLINE

- Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

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

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



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

TO START ENGINE (See Fig. 8)

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 (|X|) 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. 10).
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 12).
- 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.

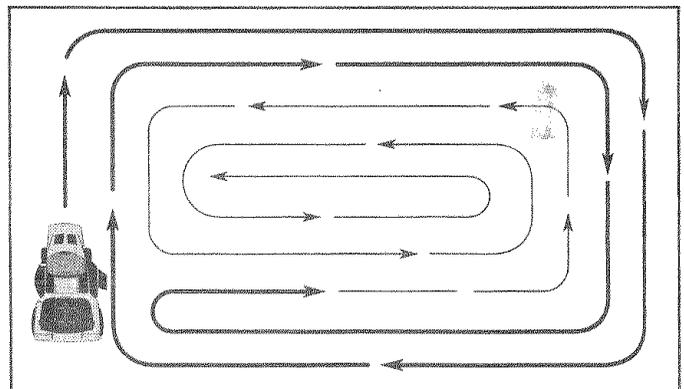


FIG. 12

CUSTOMER RESPONSIBILITIES

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

- 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.

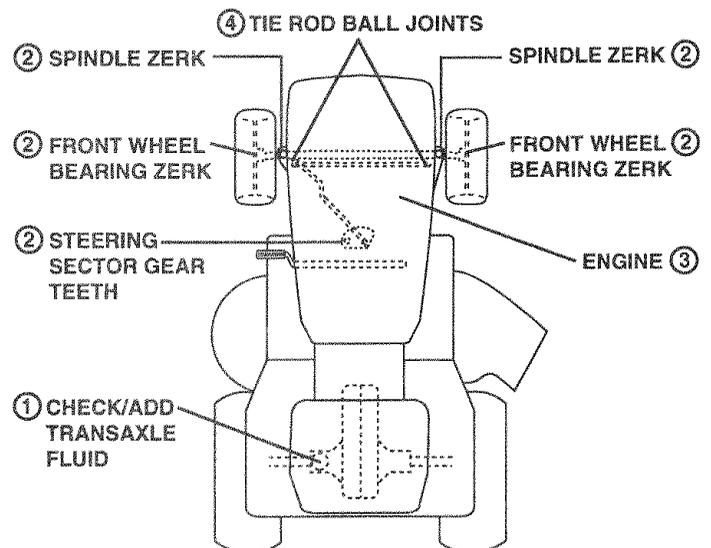
- Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

BEFORE EACH USE

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

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.

LUBRICATION CHART



- ① SAE 30 MOTOR OIL API - SF/SG
 ② GENERAL PURPOSE GREASE
 ③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION
 ④ SPRAY SILICONE LUBRICANT (MOVE BOOTS TO LUBRICATE)

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. 13)

- 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.

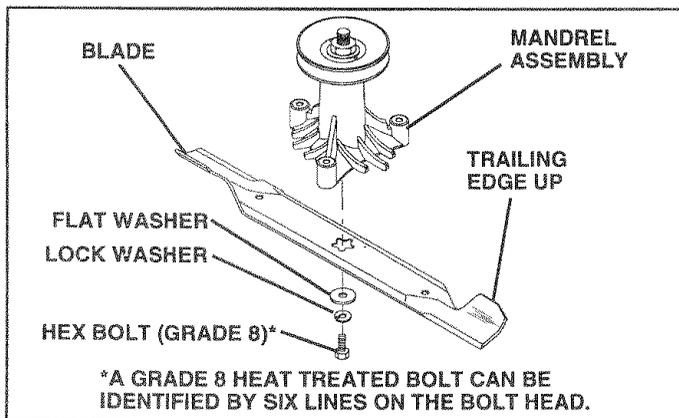


FIG. 13

TO SHARPEN BLADE (See Fig. 14)

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.

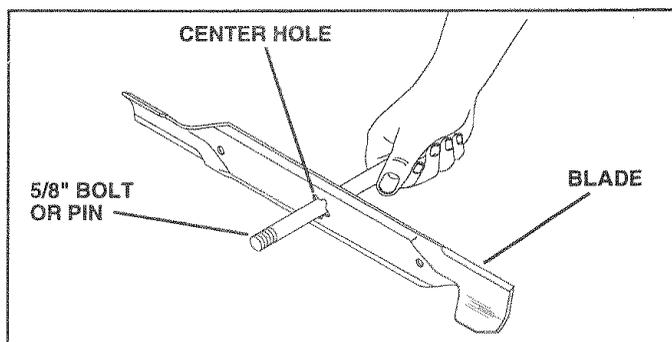


FIG. 14

V-BELTS

Check V-belts for deterioration and wear after 100 hours 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.

CHECK TRANSAXLE OIL LEVEL (See Fig. 15)

- Block up rear axle securely or use a tractor jack.
- Remove left rear wheel by removing hub bolts.
- Remove filler plug from transaxle. Oil level must be even with plug threads. If necessary, fill with SAE 30 motor oil, API-SF or SG. Replace filler plug.
- Reassemble wheel to hub.
- For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.

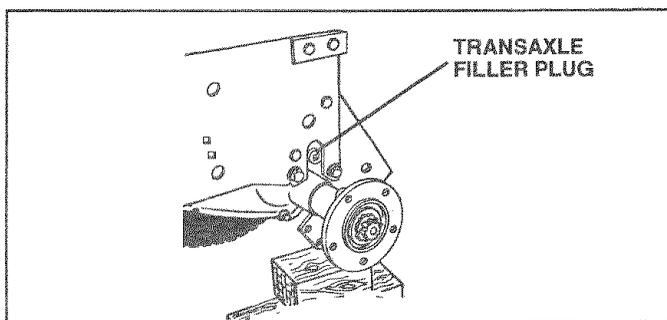


FIG. 15

CUSTOMER RESPONSIBILITIES

BATTERY (See Fig. 16)

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.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 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.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- 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 "INSTALL BATTERY" in the Assembly section of this manual).

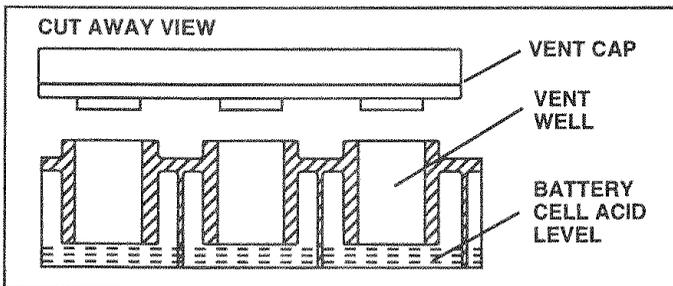


FIG. 16

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.

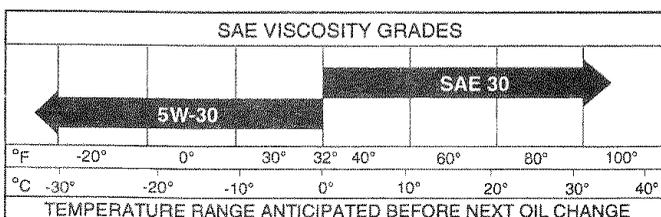


FIG. 17

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 Fig. 18)

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.

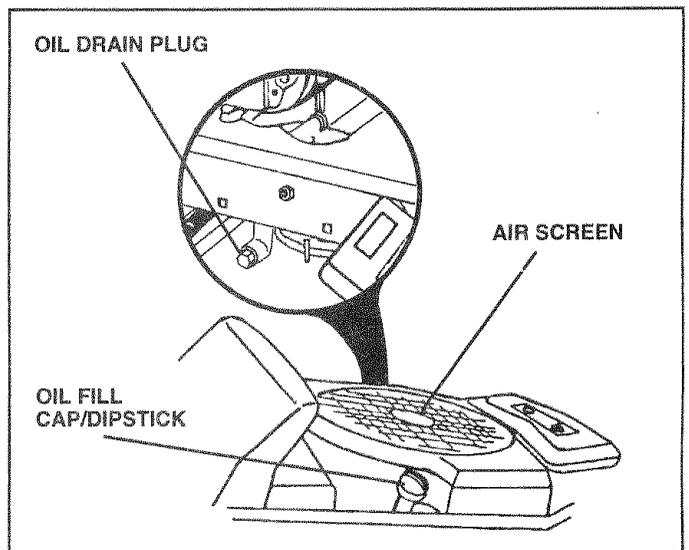


FIG. 18

CUSTOMER RESPONSIBILITIES

CLEAN AIR SCREEN (See Fig. 18)

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

ENGINE COOLING FINS (See Fig. 19)

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

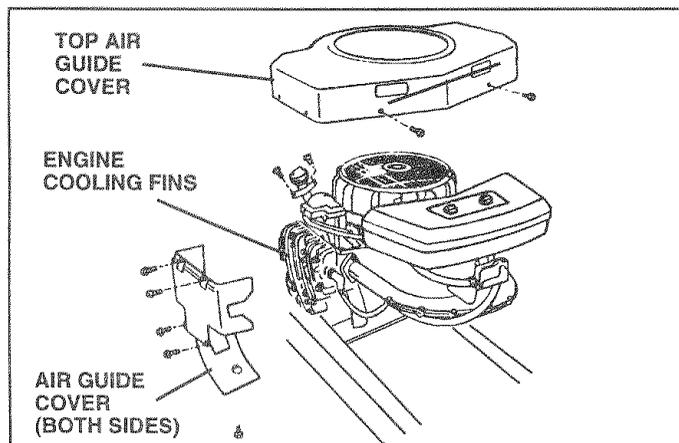


FIG. 19

AIR FILTER (See Fig. 20)

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).

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.

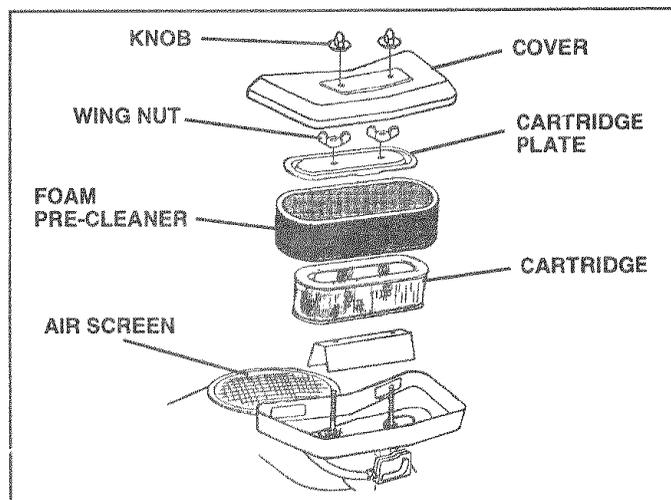


FIG. 20

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 comes first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

IN-LINE FUEL FILTER (See Fig. 21)

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.

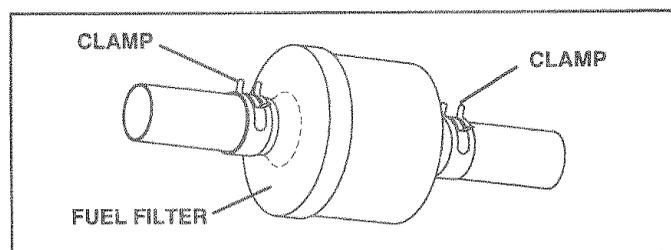


FIG. 21

CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of a. 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.

TRACTOR

TO REMOVE MOWER (See Fig. 22)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove 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 electric clutch 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.

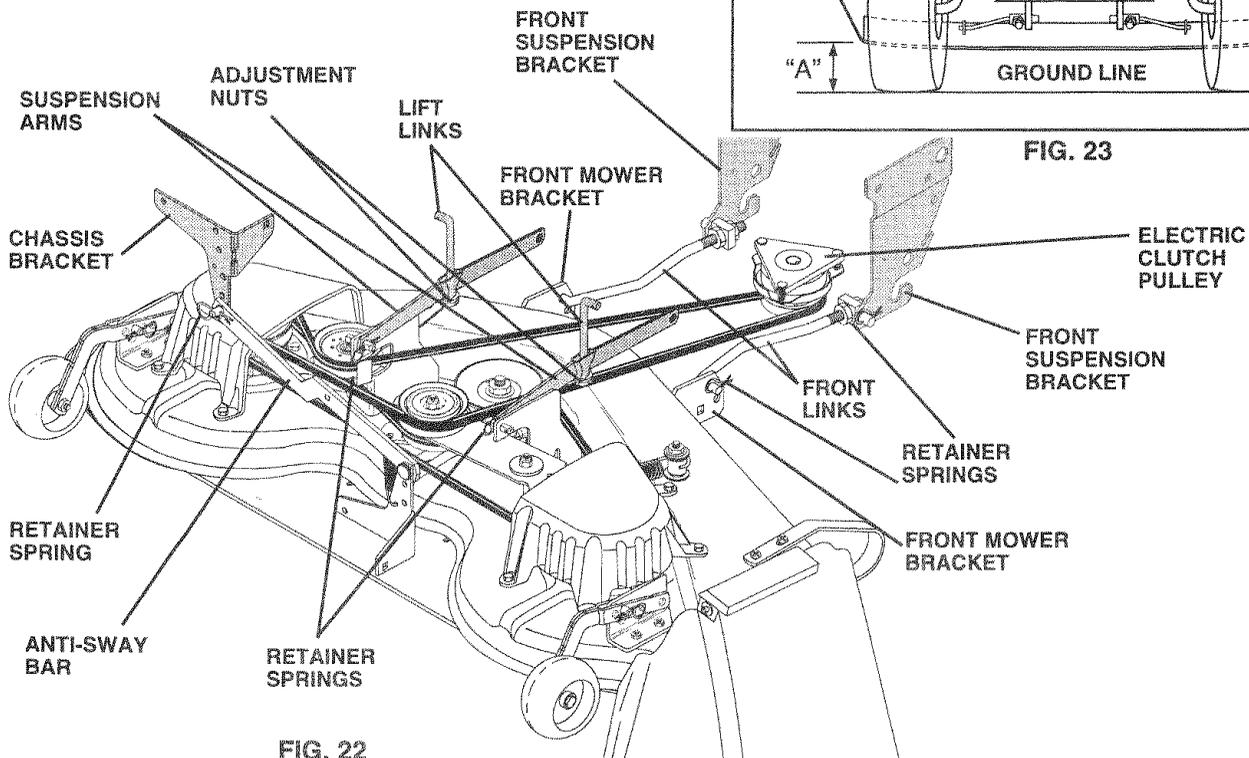


FIG. 22

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. 22 and 23)

- Raise mower to its highest position.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" should be the same.
- If distance "A" needs to be changed, make adjustment on one side of mower only.
- Raise one side of mower by tightening lift link adjustment nut on that side.
- Lower one side of mower by loosening lift link adjustment nut on that side.

NOTE: Each half turn of adjustment nut will change deck level about 3/16".

- Recheck level after adjusting.

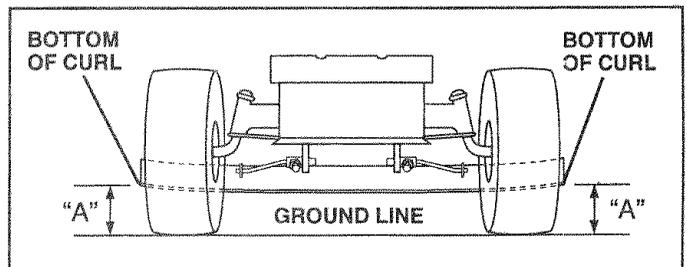


FIG. 23

SERVICE AND ADJUSTMENTS

FRONT-TO-BACK ADJUSTMENT (See Figs. 24 and 25) - **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.

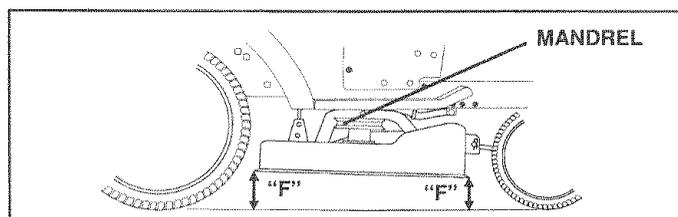


FIG. 24

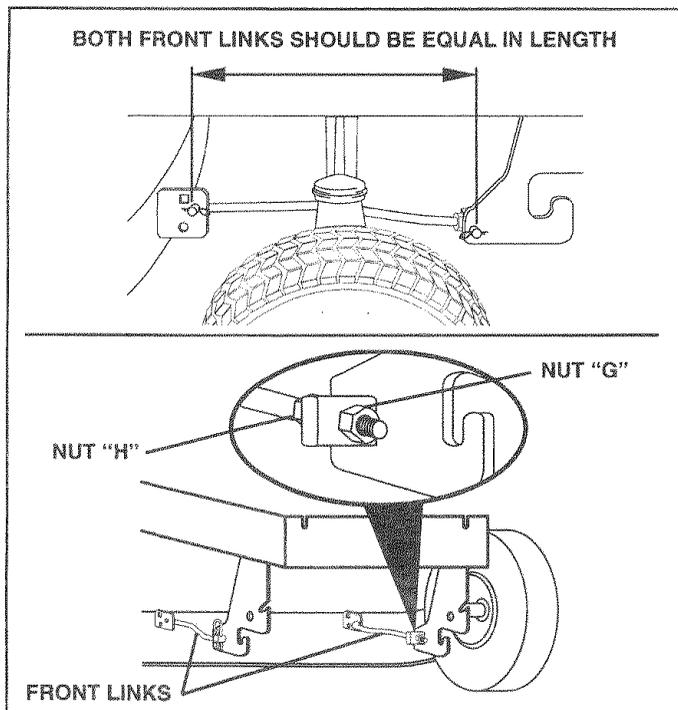


FIG. 25

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 26) -

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

MOWER DRIVE BELT INSTALLATION (See Fig. 26) -

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

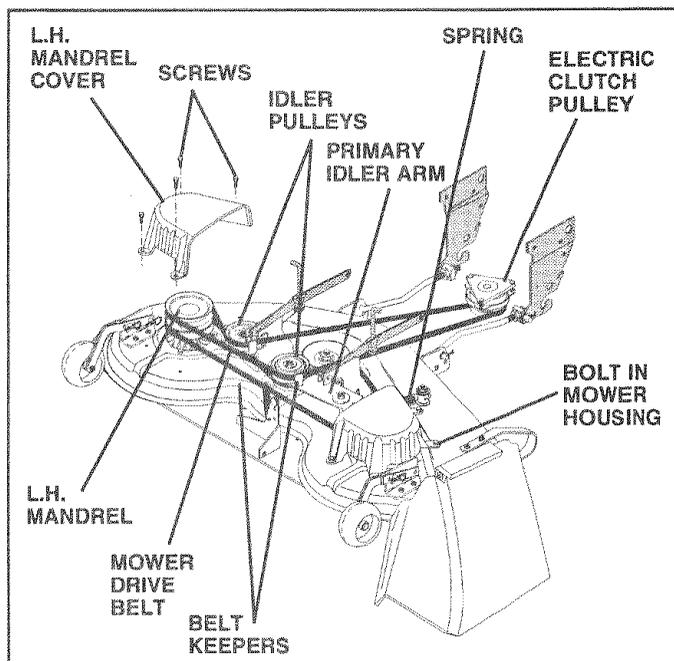


FIG. 26

SERVICE AND ADJUSTMENTS

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 27)

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. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect spring to bolt in mower housing and reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "TO INSTALL MOWER" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

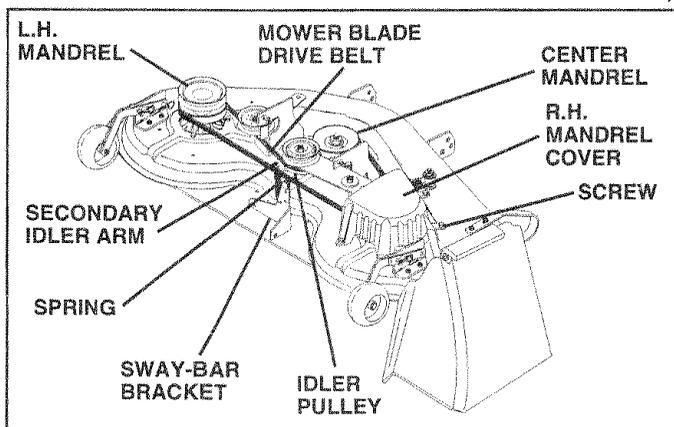


FIG. 27

TO ADJUST ATTACHMENT CLUTCH (See Fig. 28)

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

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

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

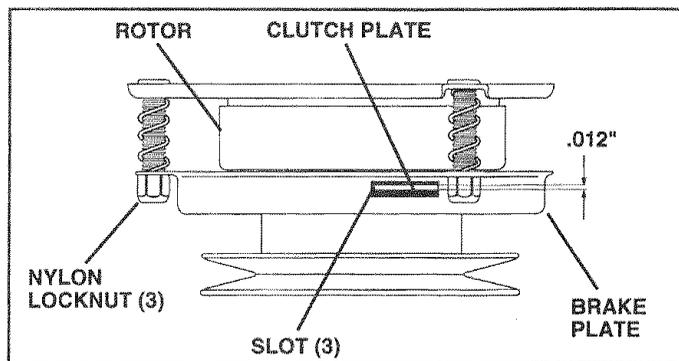


FIG. 28

TO ADJUST BRAKE (See Fig. 29)

Your tractor is equipped with an adjustable brake system which is mounted on the left 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 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". 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.

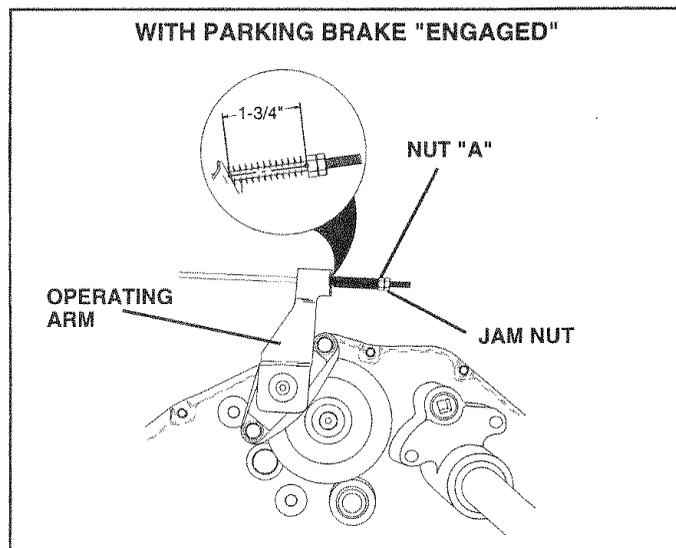


FIG. 29

SERVICE AND ADJUSTMENTS

TO REPLACE MOTION DRIVE BELT (See Fig. 30)

Park the tractor on level surface. Engage parking brake. For ease of service there is a belt installation guide decal on bottom of left footrest. It is not necessary to remove mower.

BELT REMOVAL -

- Remove mower drive belt from electric clutch pulley only (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Roll motion drive belt off transaxle pulley.
- Roll belt off clutching idler pulleys, then off engine pulley and front V-idler pulley.
- Pull belt out of all belt keepers.

BELT INSTALLATION -

- Place V part of belt into grooves on engine pulley and front V-idler, making sure to route belt inside of belt keepers.
- Put belt coming from V-idler above midspan belt keeper, then onto clutching idler pulleys as shown.
- Make sure "V" part of belt engages "V" idler.
- Place belt around transaxle pulley, beginning at top. "V" part of belt should engage transaxle pulley.
- Place long lower section of belt through loop in midspan belt keeper.
- Check to be sure belt is on proper side of all belt keepers.
- Reinstall mower drive belt onto electric clutch pulley.

IMPORTANT: CHECK BRAKE ADJUSTMENT.

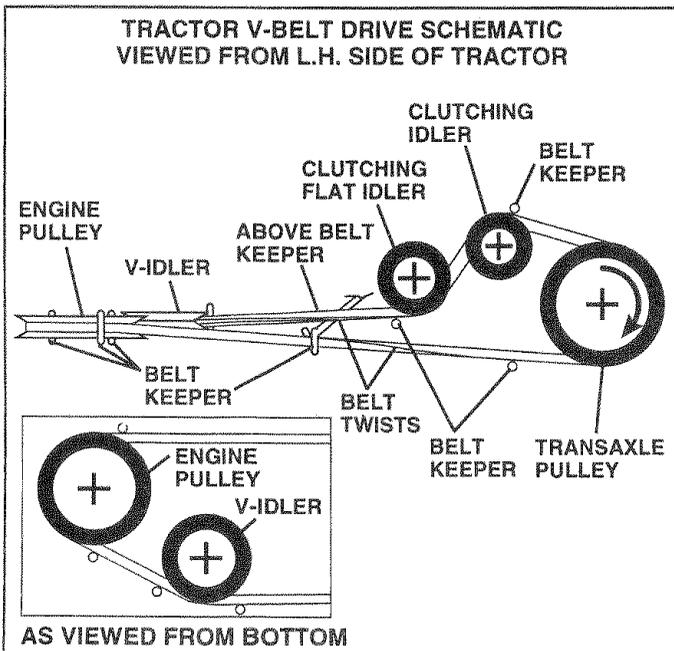


FIG. 30

TO ADJUST STEERING WHEEL ALIGNMENT

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

FRONT WHEEL TOE-IN ADJUSTMENT

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

TO CHECK TOE-IN (See Fig. 31) -

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

TO ADJUST TOE-IN (See Figs. 31 and 32) -

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

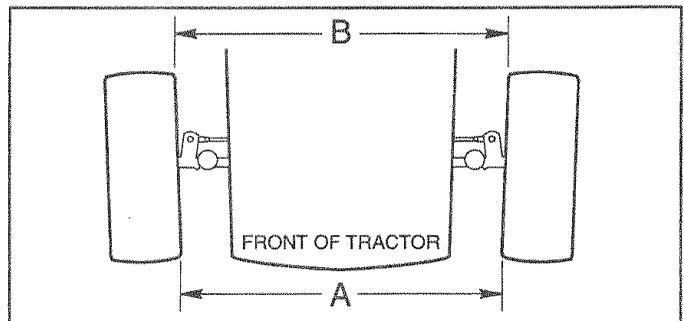


FIG. 31

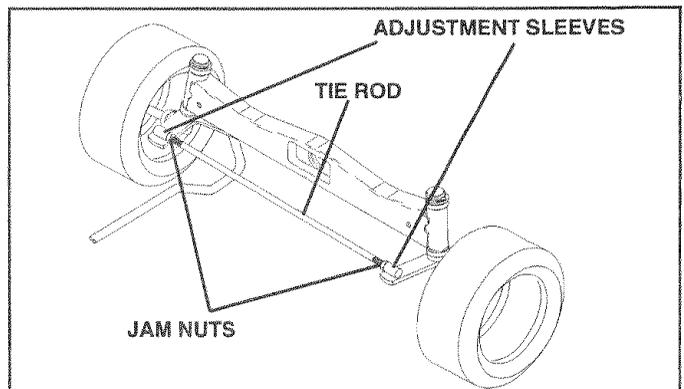


FIG. 32

FRONT WHEEL CAMBER

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

SERVICE AND ADJUSTMENTS

TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 33) -

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

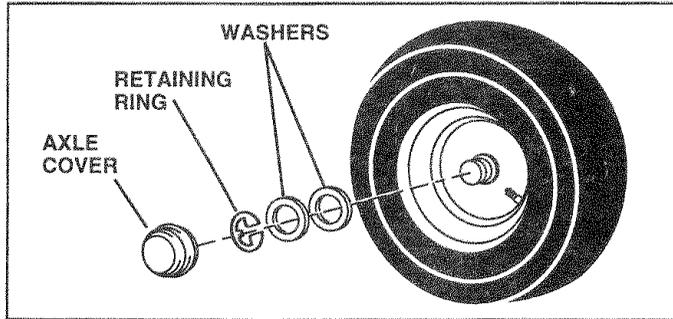


FIG. 33

REAR WHEEL -

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

TO START ENGINE WITH A WEAK BATTERY (See Figs. 34 and 35)



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 a panel bolt on the left side of the tractor, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

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

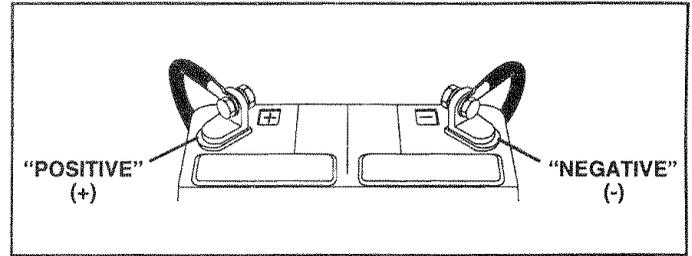


FIG. 34

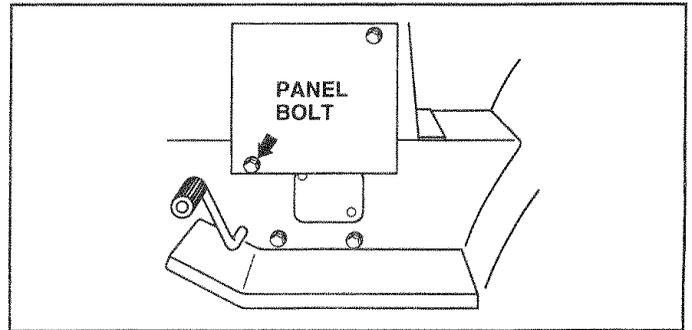


FIG. 35

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 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.

SERVICE AND ADJUSTMENTS

TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 36)

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

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

TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 37)

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

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 38)

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.

TO ADJUST CHOKE CONTROL (See Fig. 39)

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

- With engine not running, move choke control (located on dash panel) to full choke (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.

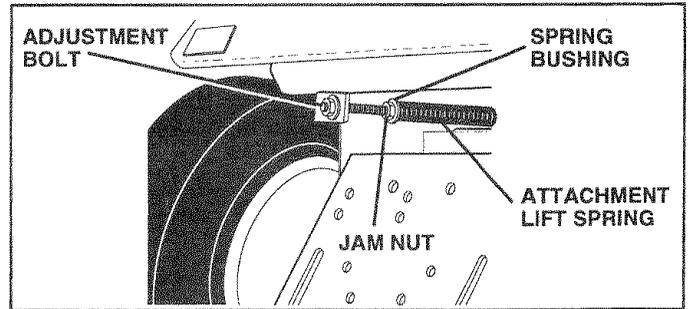


FIG. 36

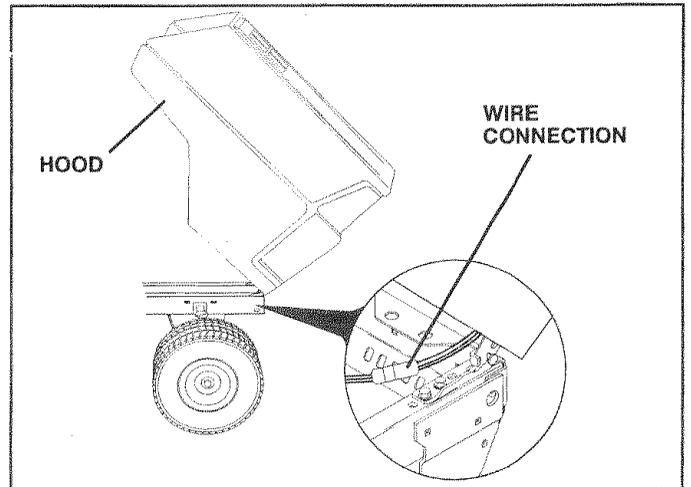


FIG. 37

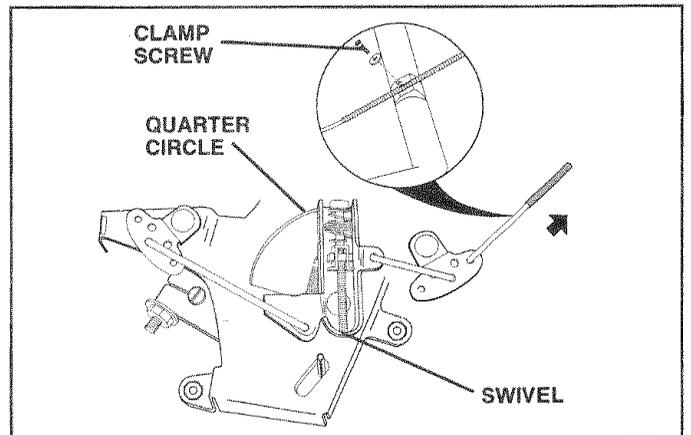


FIG. 38

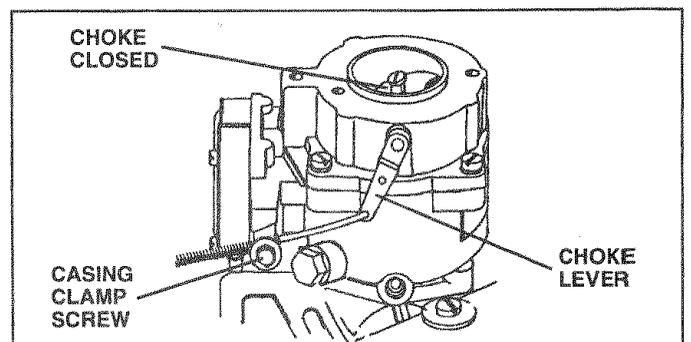


FIG. 39

SERVICE AND ADJUSTMENTS

TO ADJUST CARBURETOR

(See Figs. 40 & 41)

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 (☞) 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 (☞) to fast (☛) 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.

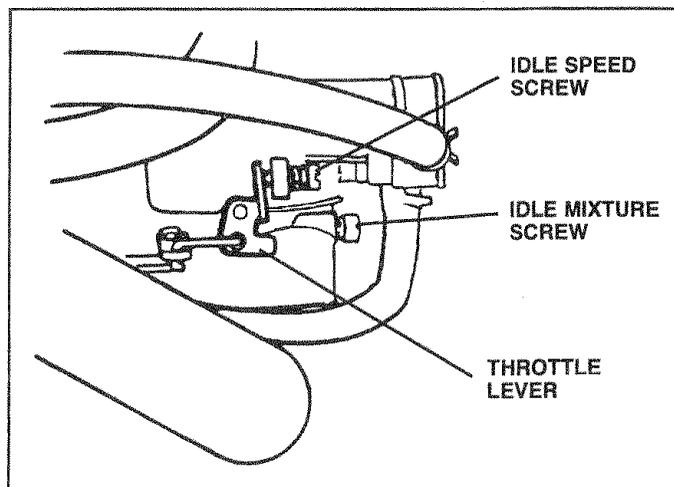


FIG. 40

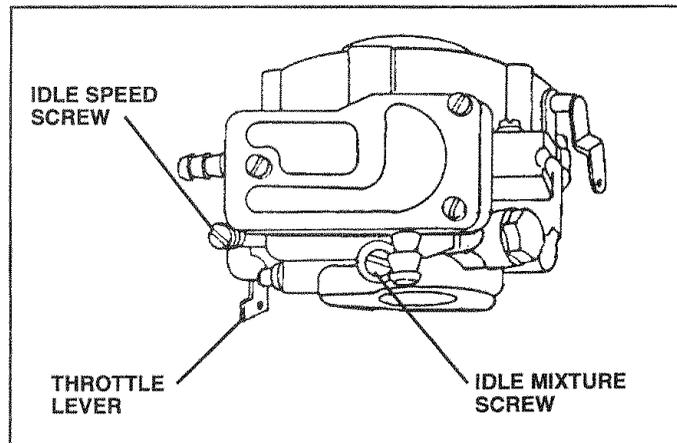


FIG. 41

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 ARE STILL WARM.

SERVICE NOTES

TROUBLESHOOTING POINTS

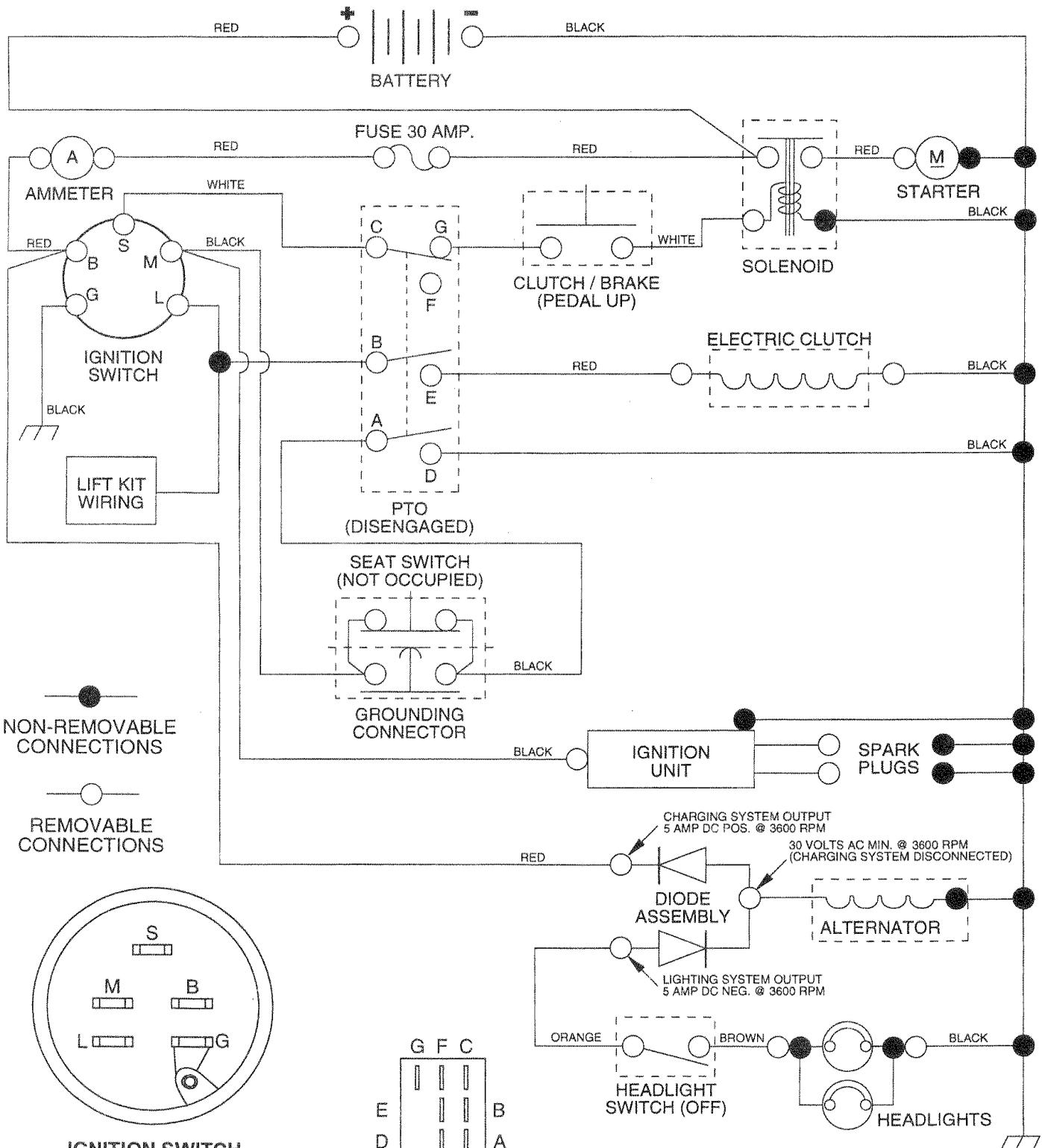
PROBLEM	CAUSE	CORRECTION
Will not start	<ol style="list-style-type: none"> 1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. Contact an authorized service center/department. 10. Contact an authorized service center/department.
Hard to start	<ol style="list-style-type: none"> 1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery. 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring. 7. Carburetor out of adjustment. 8. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Clean/replace air filter. 2. Replace spark plug. 3. Recharge or replace battery. 4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline. 6. Check all wiring. 7. Contact an authorized service center/department. 8. Contact an authorized service center/department.
Engine will not turn over	<ol style="list-style-type: none"> 1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Weak or dead battery. 4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch. 8. Faulty solenoid or starter. 9. Faulty operator presence switch(es). 	<ol style="list-style-type: none"> 1. Depress clutch/brake pedal. 2. Disengage attachment clutch. 3. Recharge or replace battery. 4. Replace fuse. 5. Clean battery terminals. 6. Check all wiring. 7. Check/replace ignition switch. 8. Check/replace solenoid or starter. 9. Contact an authorized service center/department.
Engine clicks but will not start	<ol style="list-style-type: none"> 1. Weak or dead battery. 2. Corroded battery terminals. 3. Loose or damaged wiring. 4. Faulty solenoid or starter. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. 2. Clean battery terminals. 3. Check all wiring. 4. Check/replace solenoid or starter.
Loss of power	<ol style="list-style-type: none"> 1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oil level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Set in "Higher Cut" position/reduce speed. 2. Adjust throttle control. 3. Clean underside of mower housing. 4. Clean/replace air filter. 5. Check oil level/change oil. 6. Clean and regap or change spark plug. 7. Replace fuel filter. 8. Drain fuel tank and refill with fresh gasoline. 9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 10. Connect and tighten spark plug wire. 11. Clean engine air screen/fins. 12. Clean/replace muffler. 13. Check all wiring. 14. Contact an authorized service center/department. 15. Contact an authorized service center/department.
Excessive vibration	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Bent blade mandrel. 3. Loose/damaged part(s). 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged parts.

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	<ol style="list-style-type: none"> 1. Faulty operator-safety presence control system. 	<ol style="list-style-type: none"> 1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.
Poor cut - uneven	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes.
Mower blades will not rotate	<ol style="list-style-type: none"> 1. Obstruction in clutch mechanism. 2. Worn/damaged mower drive belt. 3. Frozen idler pulley. 4. Frozen blade mandrel. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.
Poor grass discharge	<ol style="list-style-type: none"> 1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure. 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 9. Blades improperly installed. 10. Improper blades used. 11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	<ol style="list-style-type: none"> 1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	<ol style="list-style-type: none"> 1. Switch is "OFF". 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse. 	<ol style="list-style-type: none"> 1. Turn switch "ON". 2. Replace bulb(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.
Battery will not charge	<ol style="list-style-type: none"> 1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator. 	<ol style="list-style-type: none"> 1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.
Engine "backfires" when turning engine "OFF"	<ol style="list-style-type: none"> 1. Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine. 	<ol style="list-style-type: none"> 1. Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

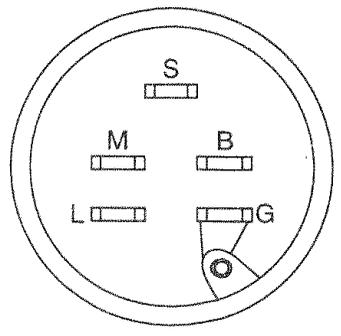
18 HP 44" TRACTOR - MODEL NUMBER 917.257711

SCHEMATIC



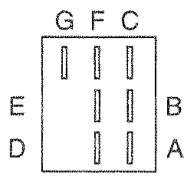
NON-REMOVABLE CONNECTIONS

REMOVABLE CONNECTIONS



IGNITION SWITCH

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



PTO SWITCH

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

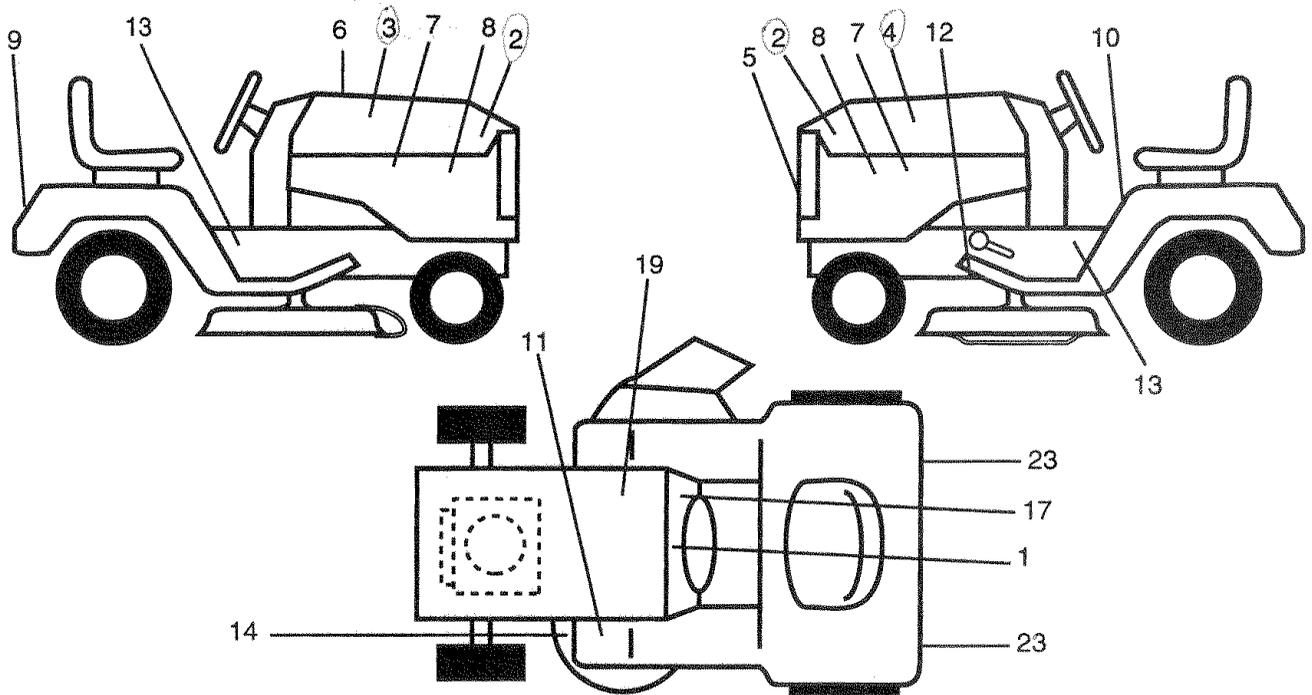
WIRING INSULATED CLIPS

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

REPAIR PARTS

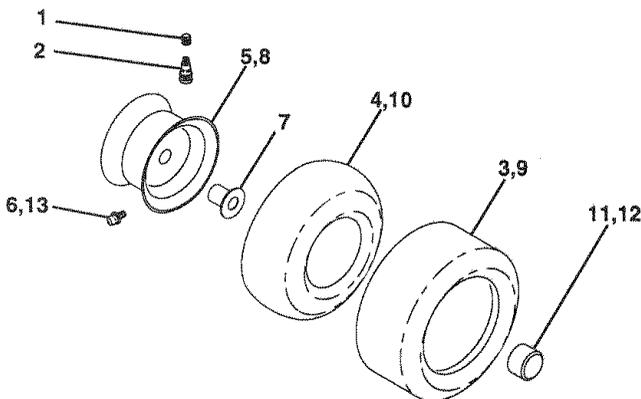
18 HP 44" TRACTOR -- MODEL NUMBER 917.257711

DECALS



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	138955	Decal, Operating Instruction	11	4900J	Decal, Clutch/Brake
2	142245	Decal, Ins. Hood GT 18HP TW Blk	12	138435	Decal, V-Belt Drive Schematic
3	142265	Decal, Hood, Craftsman, RH	13	105567X	Decal, Chassis, 6 Speed/44"
4	142266	Decal, Hood, Craftsman, LH	14	139346	Decal, V-Belt Schematic
5	142253	Decal, Grille, Craftsman	17	138834	Decal, Dash
6	133644	Decal, Maintenance	19	138047	Decal, Battery
7	138049	Decal, Side Panel	23	106202X	Reflector, Taillight
8	142248	Decal, Side Panel	--	138311	Decal, Handle Lift (Lift Handle)
9	125880X	Decal, Fender, Craftsman	--	144163	Manual, Owner's (Eng)
10	137537	Decal, Caution	--	144164	Manual, Owner's (Span)

WHEELS & TIRES



KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106230X	Tire, Front
4	8134H	Tube, Front (Service Item Only)
5	106228X417	Rim Assembly, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Rear Wheel Only)
8	106277X417	Rim Assembly, Rear
9	105588X	Tire, Rear
10	7154J	Tube, Rear (Service Item Only)
11	104757X	Cover, Axle (Front Wheel Only)
12	136327	Cover, Axle (Rear Wheel Only)
13	6856M	Fitting, Grease

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

REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

ELECTRICAL

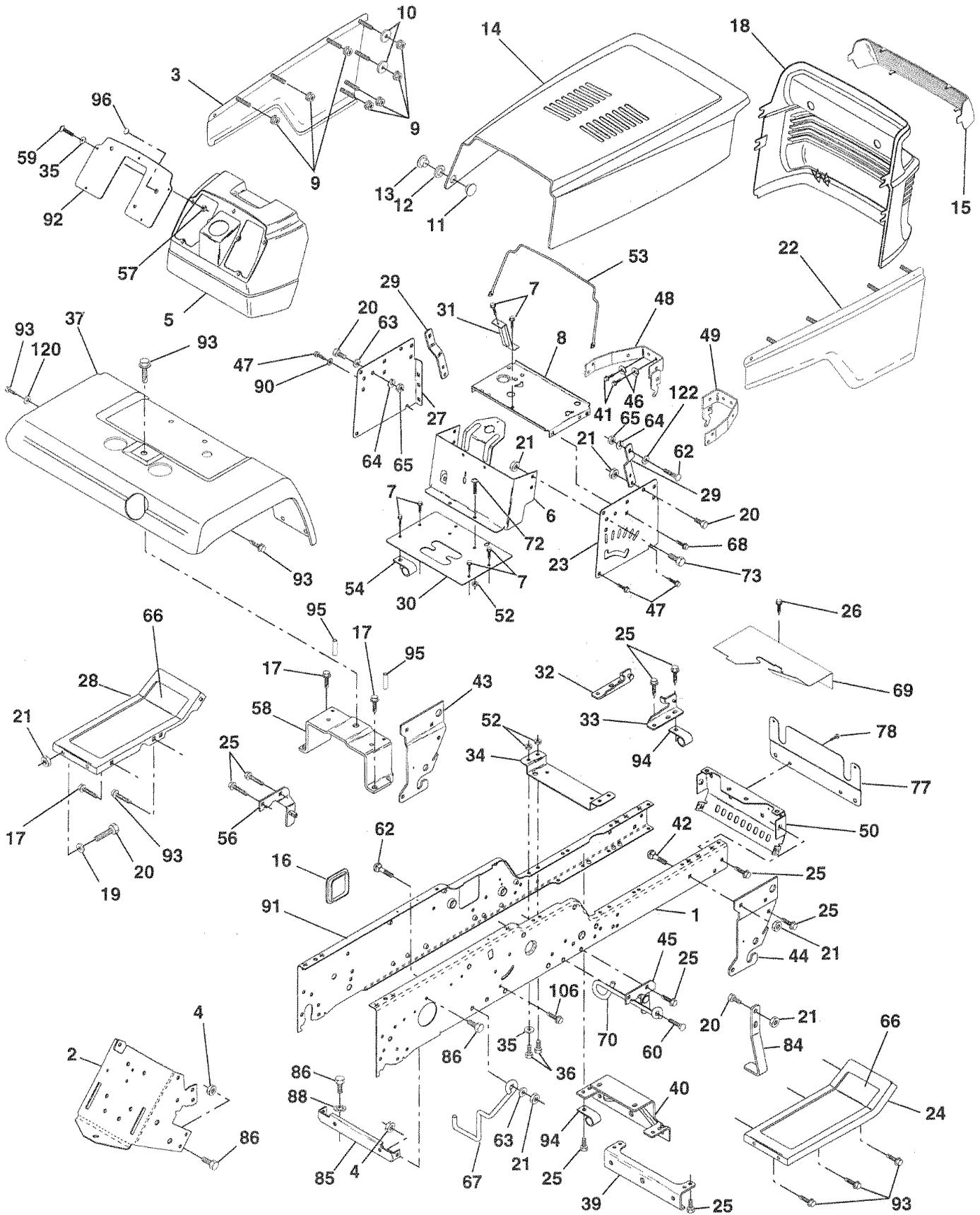
KEY NO.	PART NO.	DESCRIPTION
1	121537X	Battery
2	74760412	Bolt Hex Head 1/4-20 x 3/4
3	STD 551025	Washer 9/32 x 5/8 x 16 Ga
4	STD551125	Washer, Lock 1/4
5	121264X	Caps, Battery
6	STD541025	Nut Fin Hex 1/4-20
7	7697J	Tube Plastic
8	7603J	Tray, Battery
9	109596X	Clamp, Hose
10	72240460	Bolt, Carriage 1/4-20 x 7-1/2
11	102476X	Guard Terminal
12	123198X	Nut, Wing 1/4-20
19	10090400	Washer, Lock 1/4
20	73350400	Nut, Jam Hex 1/4-20
21	127441X	Harness Socket Light
22	4152J	Bulb Light
23	11150400	Washer, Lock Int. Tooth 1/4
24	4799J	Cable, Battery
25	4799J	Cable, Battery
26	108824X	Fuse
28	121080X	Cable, Ground
29	121305X	Switch, Plunger
30	140399	Switch, Ign
31	140400	Nut, Ignition Switch
32	141226	Cover Switch Key
33	140403	Key
34	110712X	Switch, Light
37	104445X	Switch Intlk
40	141762	Harness, Ignition
41	17720408	Screw 1/4-20 x 1/2
42	131563	Cover, Terminal Red
43	138406	Solenoid
45	121433X	Ammeter
50	140404	Switch, PTO
51	140405	Ring Retainer PTO
53	71031008	Screw Hex Washer Hd #10-32 x 1
54	73951000	Nut Keps #10-32
57	135665	Diode Asm. Heavy Duty

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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

CHASSIS AND ENCLOSURES



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

CHASSIS AND ENCLOSURES

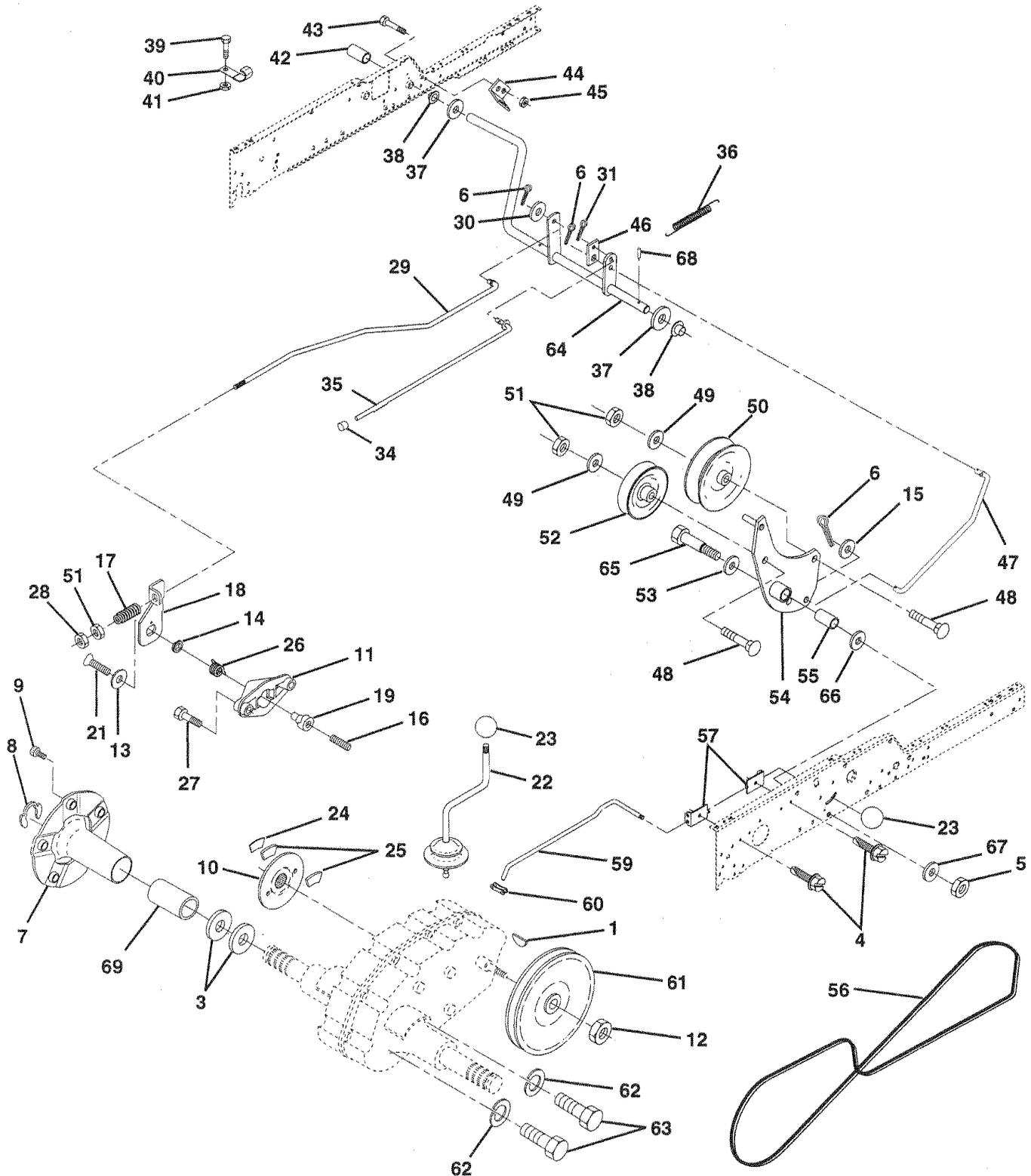
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140505	Rail, Frame RH	45	138460	Bracket Asm., Susp Chassis Rh
2	140506	Drawbar, Gt	46	10040400	Washer, Lock Hvy Helical 1/4
3	136671X417	Panel Asm., Side LH	47	17490608	Screw, Thdrol. 3/8-16 x 1/2
4	73800700	Nut, Lock Hex 7/16 Unc	48	136814	Bracket Asm., Pivot Hood Lh
5	136696	Dash, Plastic Black	49	136813	Bracket Asm., Pivot Hood Rh
6	139420	Dash Asm., Lower	50	136575	Bracket, Chassis Front
7	17720408	Screw, Thd Cut 1/4-20 x 1/2	51	72140506	Bolt, Carriage 5/16-18 x 3/4
8	140229	Support, Battery	52	73800500	Locknut, Hex W/Ins 5/16-18 Unc
9	108067X	Nut, Pal	53	137304	Rod, Support Hood
10	19092016	Washer 9/32 x 1-1/4 x 16 Ga.	54	126470X	Clip, Insulated
11	137270	Rivet, Ratchet Male	56	138461	Bracket Asm., Susp Chassis Lh
12	137269	Washer, Nylon	57	73510400	Nut, Keps Hex 1/4-20
13	137271	Rivet, Ratchet Female	58	137113	Bracket Asm., Fender
14	136673X417	Hood Asm., Pnt	59	74180412	Screw, Mach Cr 1/4-20 x 3/4
15	136374	Lens, Bar Clear	60	17490620	Screw, Thdrol. 3/8-16 x 3/4
16	121794X	Cover, Access	62	72110608	Bolt, Carriage 3/8-16 x 1 Gr. 5
17	17490612	Screw, Thdrol 3/8-16 x 3/4	63	19131614	Washer 13/32 x 1 x 14 Ga.
18	136373X440	Grille	64	10040600	Washer, Lock Hvy Hlcl Spr 3/8
19	19131312	Washer 13/32 x 13/16 x 12 Ga.	65	73220600	Nut, Fin Hex 3/8-16 Unc
20	74760616	Bolt, Fin Hex 3/8-16 x 1	66	105466X	Pad, Footrest
21	73800600	Nut, Lock Hex W/Wsh 3/8-16 Unc	67	140737	Guide, Belt T/A
22	136670X417	Panel Asm., Side RH	68	17490508	Screw, Thdrol. 5/16-18 x 1/2
23	121045X	Panel, Dash Side RH	69	140023	Shield, Heat
24	105464X417	Footrest, RH	70	137159	Guide, Belt Mid Span
25	17490612	Screw, Thdrol 3/8-16 x 3/4	72	74180512	Screw, Mach Trhd 5/16-18 x 3/4
26	17490512	Screw, Thdrol 5/16-18 x 3/4	73	74780616	Bolt, Fin Hex 3/8-16 x 1 Gr. 5
27	121046X	Panel, Dash Side LH	77	137308	Shield, Front
28	105465X417	Footrest, LH	78	17720408	Screw, Thd. Cut 1/4-20 x 1/2
29	138193	Bracket, Support Dash	84	142992	Stop, Over Center Mower
30	137143X014	Saddle, Silkscr Vgt	85	120404X	Bracket, Support Transaxle
31	137556	Brace, Support Steering	86	74760716	Bolt, Fin Hex 7/16-14 Unc x 1
32	141315	Bracket Asm., Frame Pivot Lh	88	10040700	Washer, Lock Hvy Hlcl Spr 7/16
33	141314	Bracket Asm., Frame Pivot Rh	90	11050600	Washer, Lock External Tooth 3/8
34	142131	Bracket, Engine Support Rear	91	140504	Rail, Frame Lh
35	19111116	Washer 11/32 x 11/16 x 16 Ga.	92	140941X013	Plate, Silkscreen Dash
36	74780512	Bolt, Fin Hex 5/16-18 x 3/4	93	17490608	Screw, Thdrol 3/8-16 x 1/2
37	121642X417	Fender, Pnt.	94	100207K	Clip, Fuel Line
38	19091216	Washer 9/32 x 3/4 x 16 Ga.	95	105531X	Push Nut, Nylon
39	136961	Bracket, Axle Front	96	8022J	Plug, Hole
40	142132	Bracket, Support Axle/Engine	106	17580520	Bolt 5/16-18 x 1.25
41	74760408	Bolt, Fin Hex 1/4-20 Unc x 1/2	120	19131616	Washer 13/32 x 1 x 1 Ga.
42	72140608	Bolt, Carriage 3/8-16 x 1			
43	136939	Bracket, Spnsn Front Lh			
44	136940	Bracket, Spnsn Front Rh			

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

GROUND DRIVE



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

GROUND DRIVE

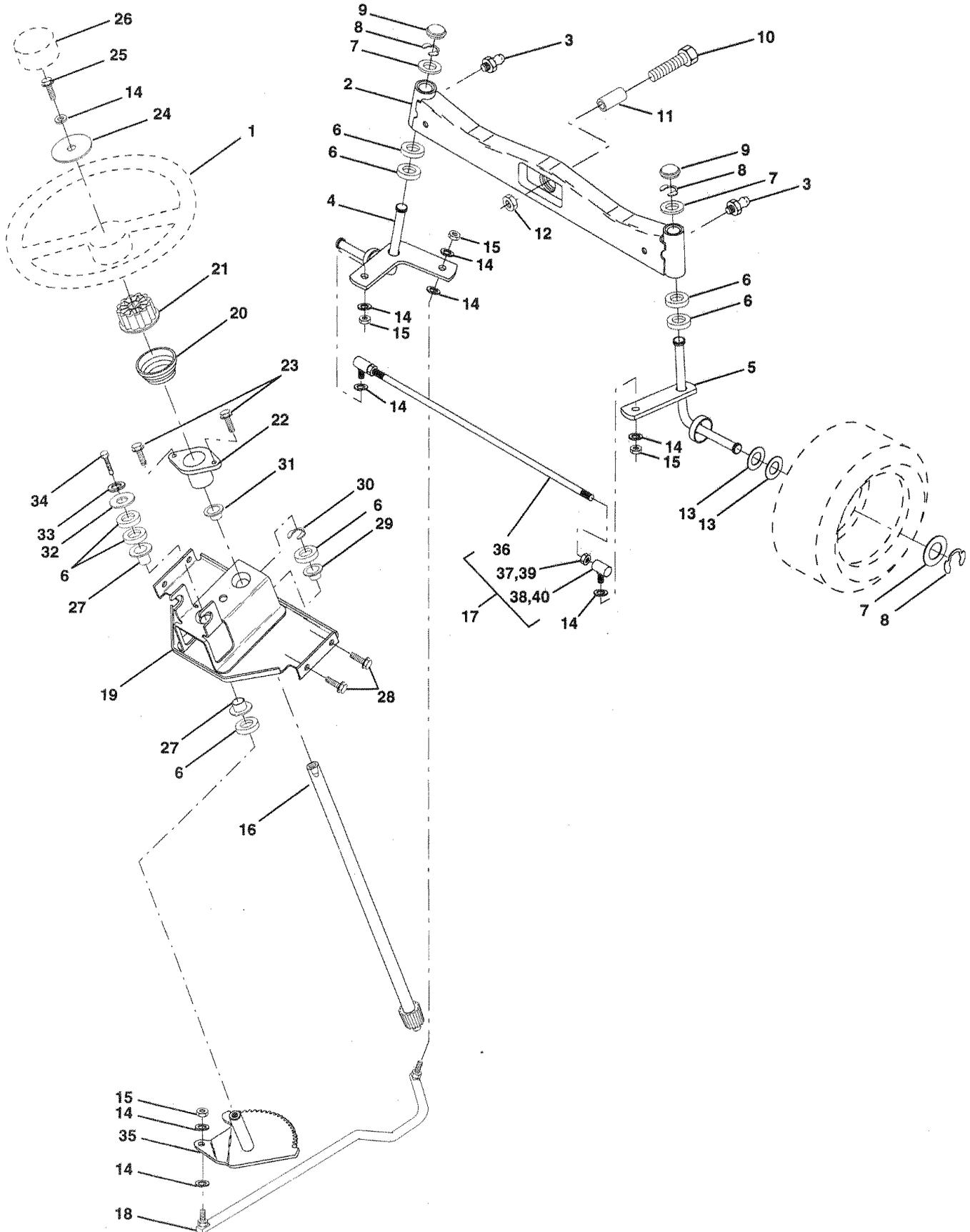
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	9858M1	Key Woodruff	39	74321016	Screw Fin #10-24 x 1
3	7563R	Washer Thrust Axle Harden	40	5304J	Actuator Interlock Switch
4	17490508	Screw, Thdrol 5/16-18 x 1/2	41	73631000	Nut Lock #10-24
5	73680600	Nut Crownlock 3/8-16	42	8883R	Cover Pedal
6	76020412	Pin Cotter 1/8 x 3/4	43	74760412	Bolt Hex Head 1/4-20 x 3/4
7	135758	Wheel Hub Asm.	44	104601X	Bracket Interlock
8	12000034	Ring Klip	45	73800400	Nut Lock W/Insert 1/4-20
9	140080	Bolt Hub	46	121358X	Retainer Spring
10	143046	Disc Brake	47	138228	Clutch Rod
11	136927	Yoke Brake Disc	48	72110614	Bolt Carriage 3/8-16 x 1-3/4 Gr 5
12	9204H	Locknut 1/2-20	49	19131413	Washer 13/32 x 7/8 x 13 Ga
13	139419	Washer Special	50	131494	Pulley Idler Flat
14	138901	Bushing	51	73800600	Nut Lock Hex 3/8-16
15	19131316	Washer 13/32 x 13/16 x 16 Ga	52	139123	Pulley Idler Grooved
16	143012	Set Screw 1/4-28 x 3/4	53	207J	Washer Hardened
17	126909X	Spring	54	138390	Clutch Arm Asm
18	137104	Lever Brake	55	105706X	Bearing, Idler
19	136926	Cam Brake Disc	56	137153	V-Belt
21	23260412	Screw Flat Head 1/4-28 x 3/4	57	141756	Bracket Shift Rod Hi-Lo
22	633A109	Gearshift Lever Assembly	59	122253X	Shift RodHi-Lo
23	106932X	Knob	60	122268X	Spring Clip Connecting Link
24	136925	Support Puck Brake	61	137524	Pullery Transaxle
25	136923	Puck Brake Top	62	10040700	Washer Lock 7/16
26	137552	Spring Return	63	74760720	Bolt Fin Hex 7/16-14 x 1-1/4
27	17490528	Screw Hex Wsh Thd 5/16-18 x 1-3/4	64	137649	Shaft Clutch/Brake Pedal
28	73350600	Nut Hex Jam 3/8-16	65	67609	Bolt Shoulder
29	137213	Brake Rod	66	140296	Washer Hardened
30	19131614	Washer 13/32 x 1 x 14Ga	67	19131312	Washer 13/32 x 13/16 x 12 Ga.
31	76020312	Pin Cotter 3/32 x 3/4	68	5142H	Pin Roll
34	124236X	Cap Plunger	69	136327	Hub Cover
35	137648	Rod Parking Brake			
36	138364	Spring Extension			
37	121749X	Washer 25/32 x 1-1/4 x 16 Gauge			
38	110895X	Nyliner			

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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

STEERING ASSEMBLY



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

STEERING ASSEMBLY

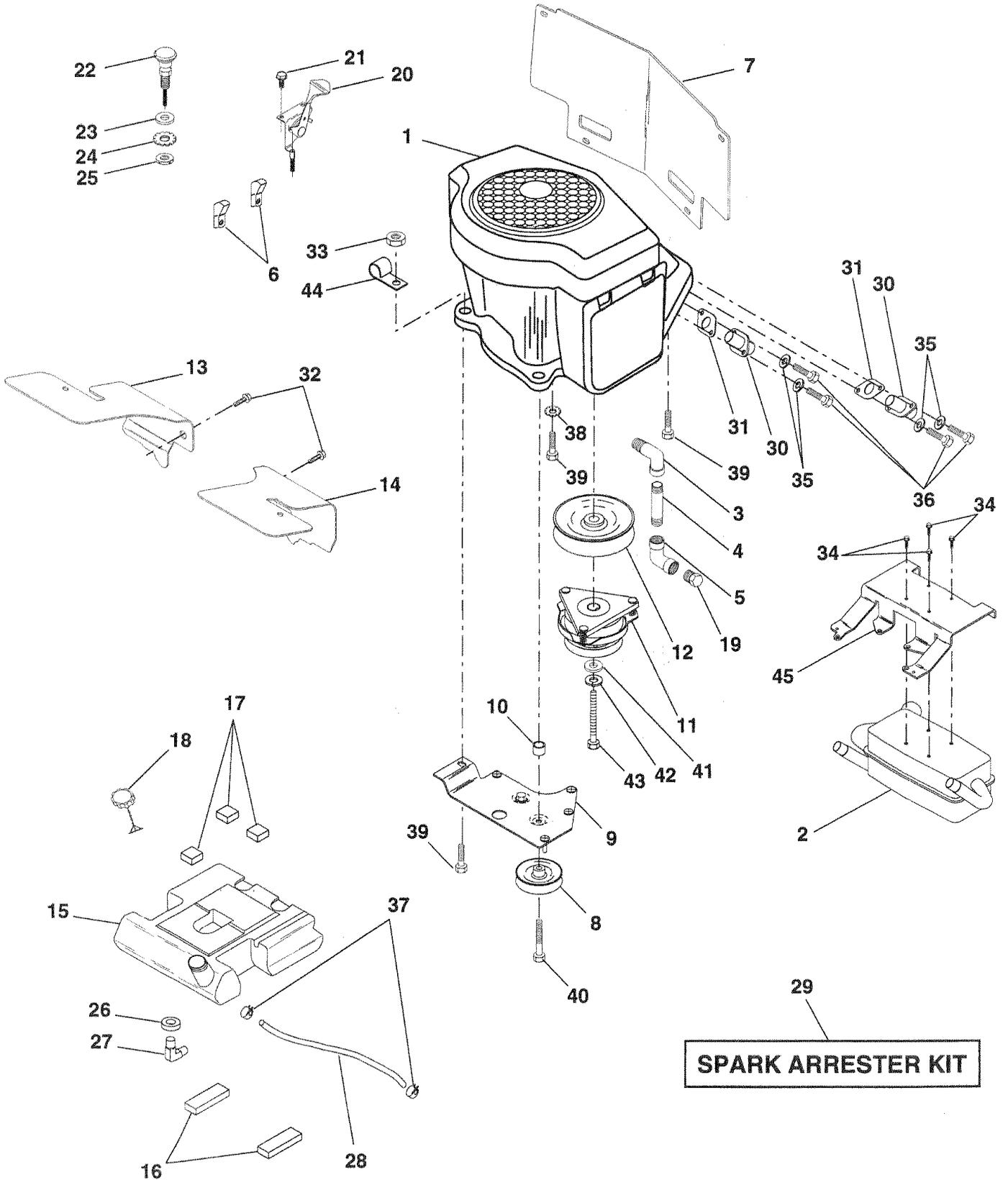
KEY NO.	PART NO.	DESCRIPTION
1	139768	Wheel, Steering
2	674A243	Axle Asm., Front
3	6855M	Fitting, Grease
4	136960	Spindle Asm, LH
5	136959	Spindle Asm., RH
6	6266H	Bearing, Race Thrust Harden
7	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
8	12000029	Ring, Klip #T5304-75
9	121232X	Cap, Spindle
10	74781044	Bolt, Fin Hex 5/8-11 x 2-3/4
11	136518	Spacer, Brg. Axle Front
12	73901000	Nut, Lock Flange 5/8-11 Unc
13	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
14	10040600	Washer, Lock Hvy Hlcl Spr 3/8
15	73610600	Nut, Fin Hex 3/8-24 Unf
16	102458X	Shaft Asm., Steering
17	137347	Rod Asm., Tie Ball J Ball Vgt (Inc. Key No. 36-40)
18	137155	Draglink, Ball Joint Solid Vgt
19	143119	Support Asm., Steering Vgt
20	139811	Column, Steering
21	100711L	Adapter, Wheel Steering
22	1554J	Bushing, Strg. Blk
23	17431008	Screw, Slftp #10-16 x 1/2 Ty-b
24	19133808	Washer 13/32 x 2-3/8 x 8 Ga.
25	74780616	Bolt, Fin Hex 3/8-16 x 1 Gr. 5
26	139769	Cap, Wheel Steering
27	3366R	Bearing, Col. Strg.
28	17490612	Screw, Thdrol 3/8-16 x 3/4 Ty-tt
29	104239X	Bearing, Flange
30	12000034	Ring, Klip Truarc #5304-75
31	138136	Bushing, Nyliner Snap
32	19111610	Washer 11/32 x 1 x 10 Ga.
33	10040500	Washer, Lock Hvy Hlcl Spr 5/16
34	74760512	Bolt, Hex Hd 5/16-18 x 3/4
35	138059	Gear, Sector Steering
36	137156	Tie Rod
37	73360600	Jam Nut RH Thread
38	109850X	Joint Asm. Ball RH Thread
39	73700600	Jam Nut LH Thread
40	109851X	Joint Asm. Ball LH Thread

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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

ENGINE



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

ENGINE

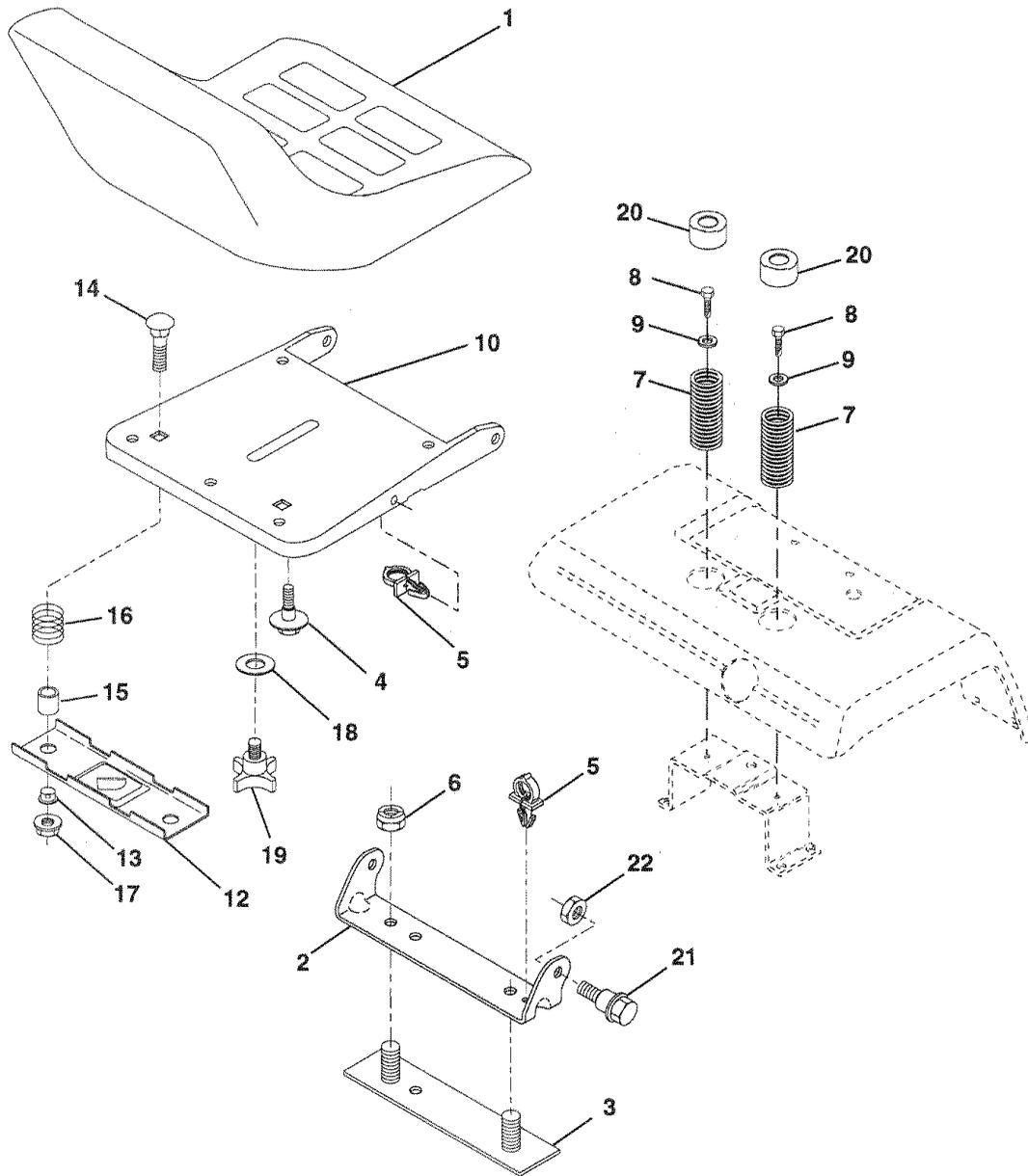
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	143851	Engine B&S 18, Model No. 422707-1267-01	24	11050600	Washer Ext Tooth 3/8
2	139217	Muffler Asm Briggs (Inc. Key No. 29 & 34)	25	73610600	Nut Fin Hex 3/8 - 24 UNF
3	13240300	Elbow Street 3/8 NPT	26	3645J	Bushing
4	13280328	Nipple Pipe 3/8NPT X 3 - 1/2	27	139227	Stem Tank Fuel
5	13200300	Elbow STD 90 Degree 3/8 - 18 NPT	28	7834R	Fuel Line
6	138129	Clamp Tube Double Engine	29	132920	Kit, Spark Arrester (Optional Accessory)
7	141864	Baffle Engine B&S VGT	30	139365	Port Liner
8	121361X	Pulley V-Idler	31	139367	Gasket
9	138559	Stop Keeper Asm VGT	32	17490508	Screw Thdrol 5/16 - 18 X 1/2
10	105432X	Bushing	33	73800600	Nut Lock Hex W/Wash 3/8 - 16 UNC
11	137140	Clutch Electric	34	17190408	Screw Hex Whs Thd Cut 1.4 - 20 UNC
12	136907	Pulley Engine VGT Elect Clutch	35	10040500	Washer Lock 5/16
13	138486	Baffle Air LH Koh VGT	36	74570512	Screw Hex 5/16 - 16 UNC X 3/4
14	138487	Baffle Air RH Koh VGT	37	123487X	Clamp Hose
15	141069	Tank Fuel W/Sym Vented	38	11050600	Lockwasher Ext Tooth 3/8
16	109227X	Pad Spacer	39	17490624	Screw Thdrol 3/8 - 16 X 1 - 1/2 TT
17	106082X	Pad Spacer	40	17490652	Screw Thdrol 3/8 - 16 X 3 - 1/4
18	123549X	Cap Asm Fuel W/Sym Vented	41	126197X	Washer 1-1/2 OD X 15/32 ID X .250
19	13290300	Plug Oil Drain (Order From Engine Manufacturer)	42	10040700	Washer Lock 7/16
20	138673	Control Throttle	43	71170768	Bolt Hex 7/16 - 20 X 4 - 1/4 Ga 5
21	17720410	Screw Hex Thd Cut 1/4 - 20 X 5/8	44	2751R	Clip Fuel Line
22	132779	Control Choke	45	139364	Muffler Mounting Brkt.
23	19132616	Washer 13/32 X 1 - 5/8 X 16 Ga			

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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

SEAT ASSEMBLY



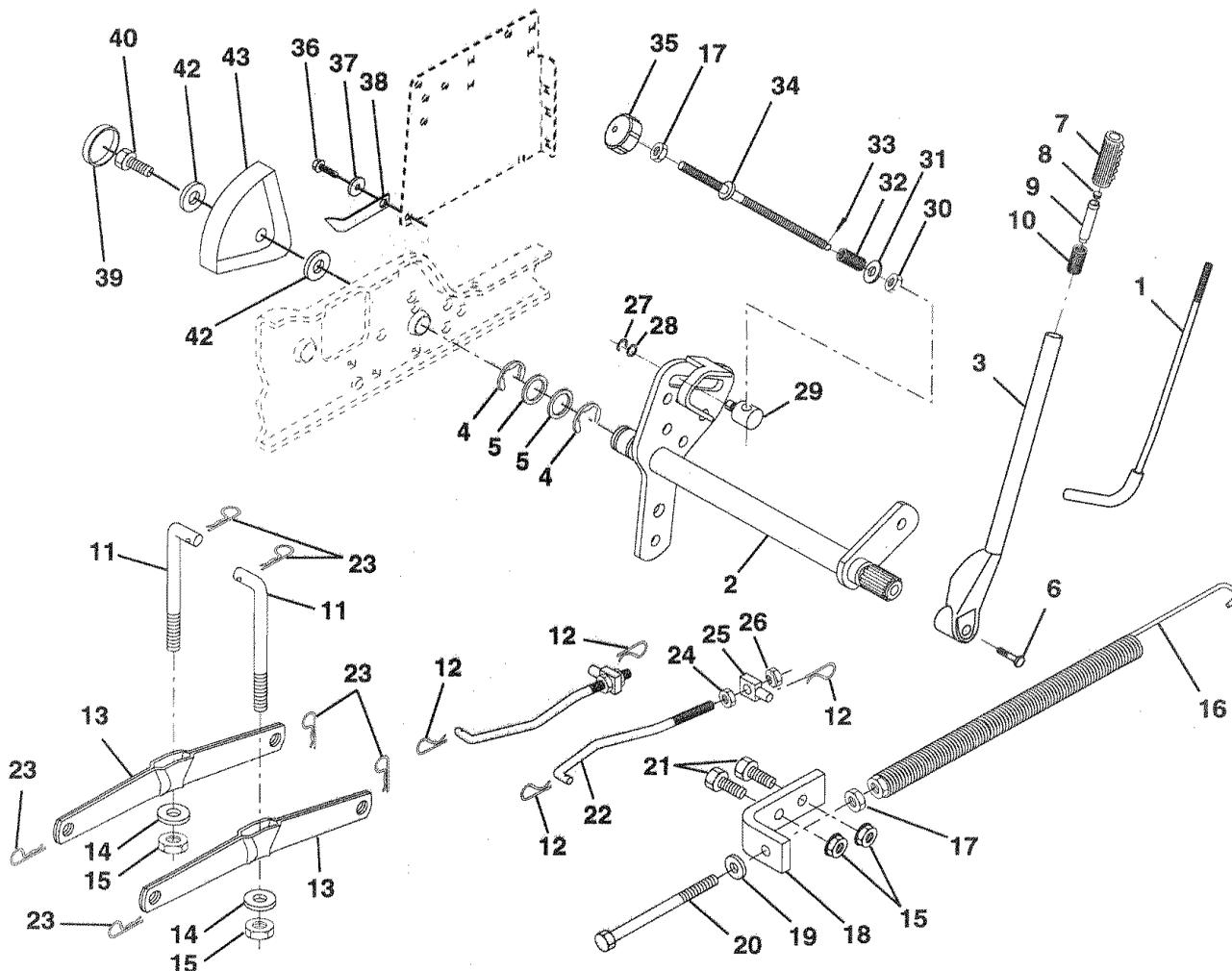
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	127438X	Seat	13	121248X	Bushing, Snap
2	140551	Bracket, Pivot Seat	14	72050411	Bolt, Carriage 1/4-20 x 1-3/8
3	140674	Strap, Fender	15	134300	Spacer, Split
4	127018X	Bolt, Shoulder 5/16-18 x .62	16	121250X	Spring, Cprsn.
5	140407	Clip, Push-In	17	123976X	Nut, Lock 1/4 Lg. Flg. Gr. 5
6	73680600	Nut, Crownlock 3/8-16	18	19171912	Washer 17/32 x 1-3/16 x 12 Ga.
7	124181X	Spring, Seat Cprsn.	19	120068X	Knob, Seat
8	17490508	Screw, Thdrol. 5/16-18 x 1/2	20	124238X	Cap, Spring Seat Blk
9	19131614	Washer 13/32 x 1 x 14 Ga.	21	139888	Bolt 5/16-18
10	140552	Pan, Seat	22	73680500	Nut, Crownlock 5/16-18
12	121246X	Bracket, Mounting Switch			

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

REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

LIFT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION
1	121006X	Rod Asm., Lever
2	137295	Shaft Asm., Lift Vgt
3	121002X	Lever Asm., Lift Rh
4	12000022	E-Ring Truarc #5133-87
5	19292016	Washer 29/32 x 1-1/4 x 16 Ga.
6	74780624	Bolt, Fin Hex 3/8-16 x 1-1/2
7	125631X	Grip, Handle Fluted
8	122365X	Button, Plunger
9	122364X	Plunger, Lever Lift
10	2876H	Spring 2-1/8"
11	142369	Link Lift
12	3146R	Retainer, Spring
13	139867	Arm, Suspension Vgt
14	140302	Bearing
15	73800600	Nut, Lock Hex W/Wsh 3/8-16 Unc
16	674A247	Spring Asm., Assist Lift
17	73350600	Nut, Hex Jam 3/8-16 Unc
18	143363	Bracket, Spring Assist
19	19131316	Washer 13/32 x 13/16 x 16 Ga.
20	5328J	Bolt, Adjust Spring Assist
21	74760616	Bolt, Fin Hex 3/8-16 x 1
22	127218	Link, Front
23	4939M	Retainer, Spring

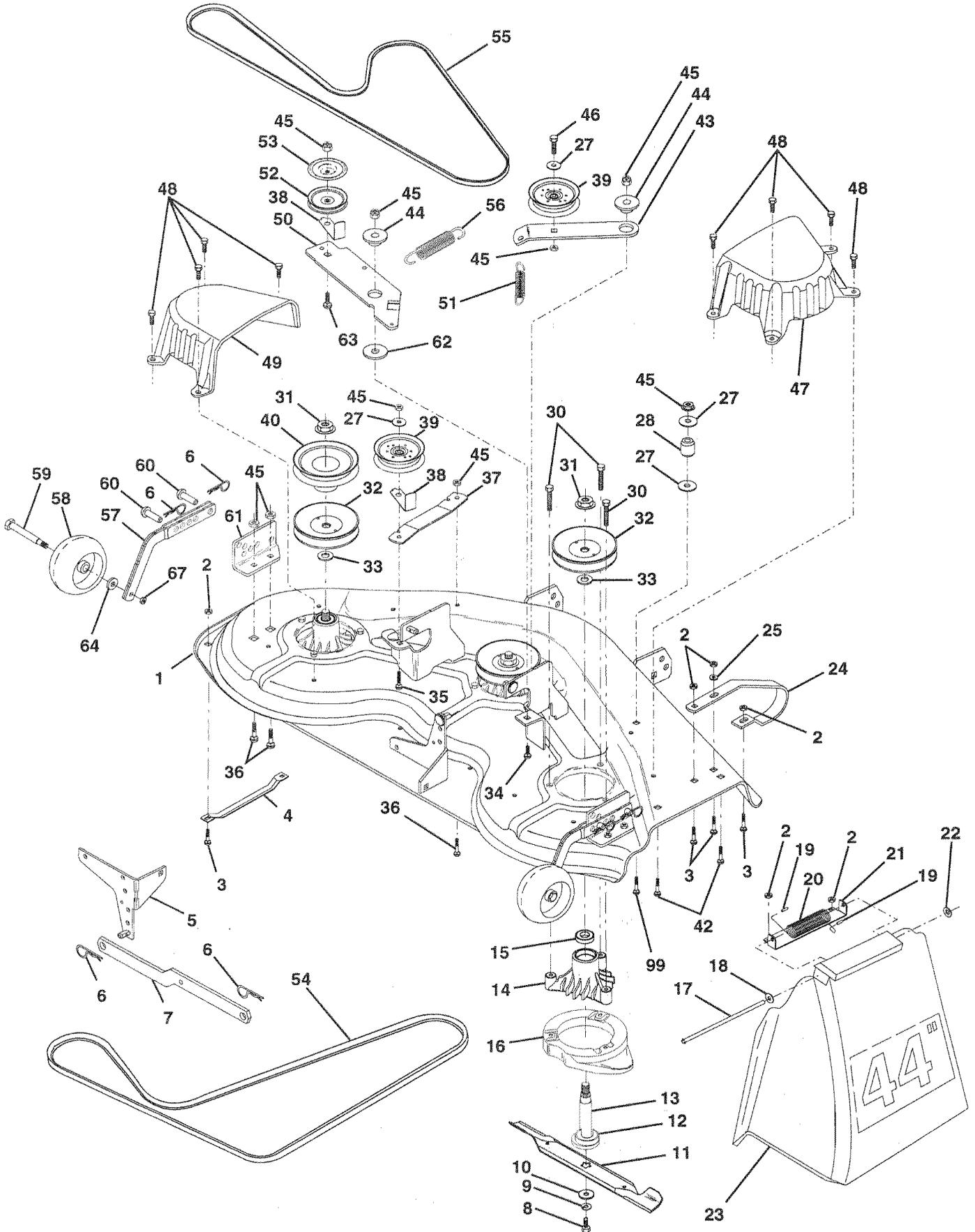
KEY NO.	PART NO.	DESCRIPTION
24	73350800	Nut, Jam Hex 1/2-13 Unc
25	130171	Trunnion
26	73800800	Nut, Lock W/Wsh 1/2-13 Unc
27	12000037	Ring, Klip #T5304-37
28	19151216	Washer 15/32 x 3/4 x 16 Ga.
29	110810X	Trunnion, Dp Stop Dbl Thds Plt
30	110807X	Nut, Special
31	19131016	Washer 13/32 x 5/8 x 16 Ga.
32	137150	Spring, Compression Inf Hgt
33	76020308	Pin, Cotter 3/32 x 1/2
34	137167	Rod, Adj Lift
35	138057	Knob, Inf 3/8-16 Unc
36	17490608	Screw, Thdrol 3/8-16 x 1/2
37	120529X	Washer, Nylon
38	123933X505	Pointer, Pnt Height Indicator
39	123935X	Plug, Hole
40	74780516	Bolt, Fin Hex 5/16-18 x 1
41	10040500	Washer, Lock Hvy Hlcl Spr 5/16
42	19112410	Washer 11/32 x 1-1/2 x 10 Ga.
43	123934X	Scale, Indicator Height

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

44" MOWER DECK



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

44" MOWER DECK

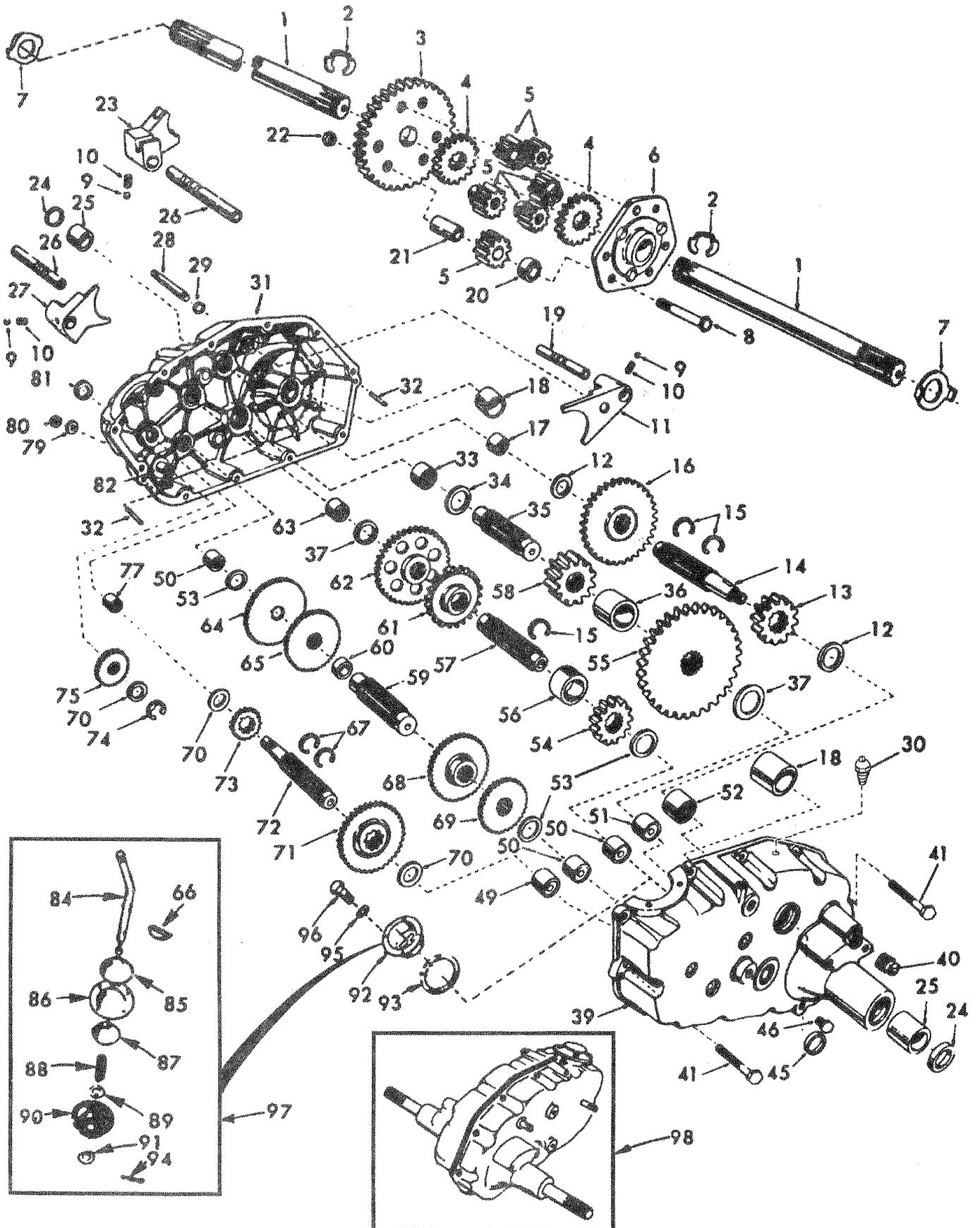
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140579	Deck Asm., Mower 44" Vented	36	72110608	Bolt, Carriage 3/8-16 x 1 Gr. 5
2	73800500	Locknut, Hex W/Ins 5/16-18 Unc	37	137166	Stiffener, Arm Idler
3	72110506	Bolt, Carriage 5/16-18 x 3/4	38	137554	Keeper, Belt Idler
4	7631J	Runner, Mower LH	39	131494	Pulley, Idler Flat
5	138457	Bracket Asm., Sway Bar	40	136572	Pulley, Driven
6	4939M	Retainer, Spring	42	72140506	Bolt, Carriage 5/16-18 Unc x 3/4
7	130832	Arm Suspension, Rear	43	136460	Arm, Idler Secondary
8	850857	Bolt 3/8-24 x 1.25 Gr. 8 Patched	44	122052X	Spacer, Retainer
9	10030600	Washer, Lock Hvy 3/8 Unplated	45	73680600	Nut, Crownlock 3/8-16 Unc
10	140296	Washer, Hard Blade Mower Vented	46	74760628	Bolt, Fin Hex 3/8-16 Unc x 1-3/4
11	130652	Blade	47	137200	Cover, Mandrel RH
12	129895	Bearing, Ball #6204 (Mandrel)	48	137729	Screw, Thd Roll 1/4-20 x 5/8
13	137553	Shaft Asm., W/Lower Brg (Includes Key No. 12)	49	136574	Cover, Mandrel LH
14	137152	Housing, Mandrel 44" Vent	50	137272	Arm, Idler Primary
15	110485X	Bearing, Ball Mandrel	51	137273	Spring, Secondary
16	140329	Stripper, Mower Vented	52	139245	Pulley, Idler V Groove
17	106735X	Rod, Hinge	53	137789	Shield, Idler
18	19111016	Washer 11/32 x 5/8 x 16 Ga.	54	131264	V-Belt, Mower Primary
19	105304X	Cap, Sleeve	55	131290	V-Belt, Mower Secondary
20	123713X	Spring, Torsion Deflector	56	138687	Spring, Primary
21	137607	Bracket, Deflector	57	136577	Bar Asm., Wheel Gauge
22	110452X	Nut, Push	58	133957	Wheel, Gauge
23	109785X	Shield, Deflector Mower	59	137644	Bolt, Shoulder
24	136321	Runner, RH	60	139031	Pin, Clevis
25	19111216	Washer 11/32 x 3/4 x 16 Ga.	61	136573	Bracket, Wheel Gauge
26	72110614	Bolt, Carriage 3/8-16 x 1-3/4 Gr. 5	62	133943	Washer Hardened
27	19131316	Washer 13/32 x 13/16 x 16 Ga.	63	72110612	Bolt, Carriage 3/8-16 x 1-1/2
28	132823	Spacer, Spring Stop Idler	64	19121414	Washer 3/8 x 7/8 x 14 Ga.
29	73800600	Nut, Lock Hex W/Wsh 3/8-16 Unc	67	73930600	Nut, Centerlock 3/8-16
30	138776	Screw, Thdrol. Hex Head	--	143651	Mandrel Asm.-Service (Includes Key Nos. 8-10, 12-15, 31 and 33)
31	137266	Nut, Fig Top Lock Cntr 9/16	--	144075	Mower Asm.-Service (Std. Deck-Order all Gauge Wheel Components separately)
32	129861	Pulley, Mandrel			
33	129963	Washer, Spacer Mower Vented			
34	72140610	Bolt, Carriage 3/8-16 x 1-1/4			
35	72110616	Bolt, Carriage 3/8-16 x 2			

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

TRANSAXLE



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

TRANSAXLE

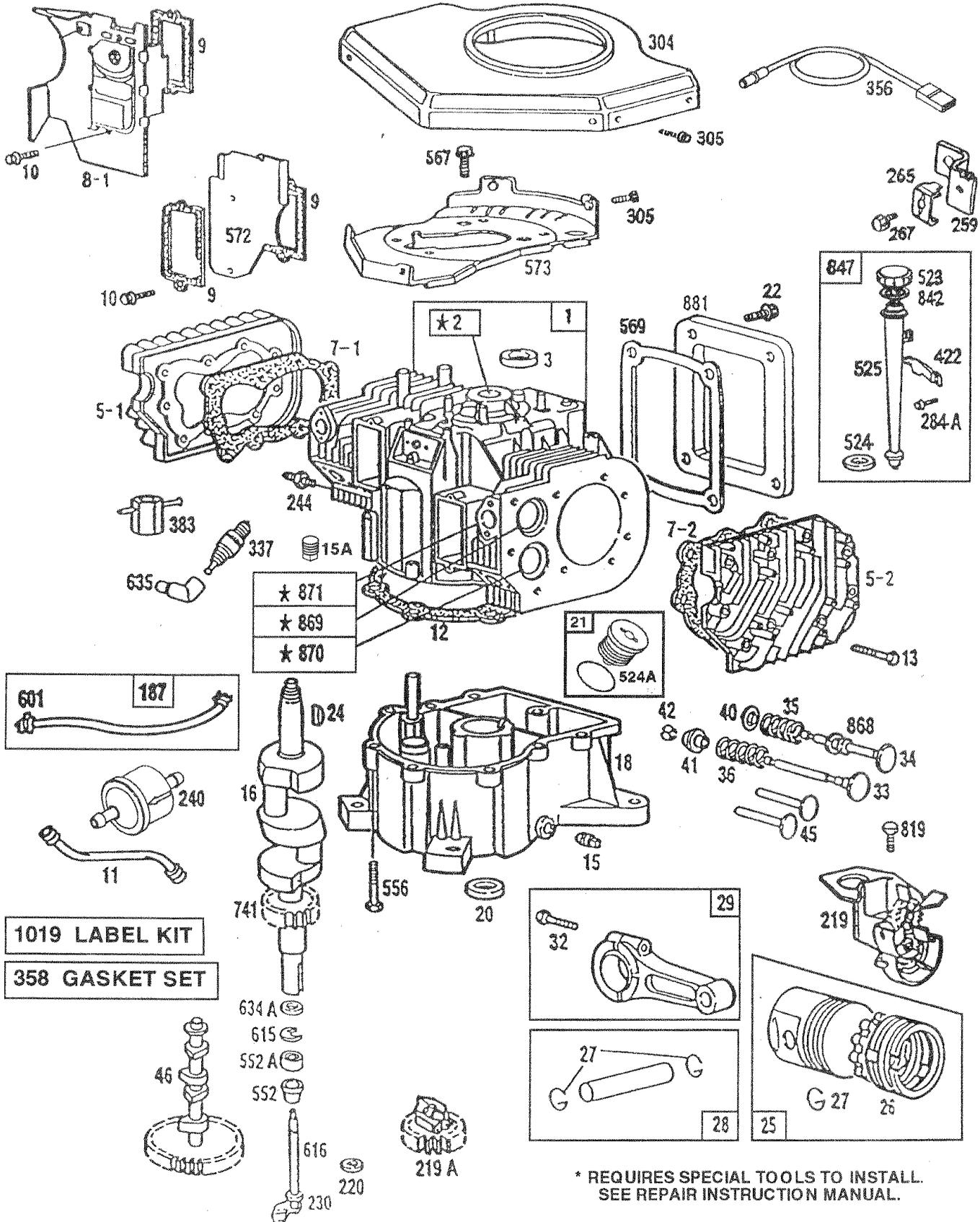
KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 4197R	Axle Shaft	52 8119M	Needle Bearing
2 12000034	Retaining Ring	53 4220R	Thrust Bearing Race
3 4199R	Final Drive Gear	54 4209R	3rd Reduction Pinion, Low
4 4216R	Differential Gear	55 4213R	4th Reduction Gear
5 4215R	Differential Pinion	56 4442R	3rd Reduction Pinion Spacer
6 4217R	Differential Carrier	57 4195R	2nd Reduction Gear Shaft
7 6256H	Axle Thrust Washer	58 4214R	Final Drive Pinion
8 74020652	Bolt, Hex Head 3/8-24 x 3-1/4 (1" Thread Length)	59 4194R	1st Reduction Gear Shaft
9 7392M	Steel Ball	60 7528R	1st Reduction Shaft Spacer
10 137261	Spring Shift Fork Detent	61 4208R	3rd Reduction Pinion High
11 4985R	Shift Fork, High-Low Range	62 4207R	2nd Reduction Gear
12 6266H	Thrust Bearing Race	63 7398H	Needle Bearing
13 4212R	4th Reduction Pinion	64 4203R	Low Speed Gear and 2nd Reduction Pinion Cluster
14 137125	Shaft, Brake	65 4204R	Reverse Gear
15 6276H	Snap Ring, Crescent Type	66 2898J	Key, Hi-Pro 1/8 x 17/32
16 633A63	High-Low Range Gears	67 12000033	Klip Ring
17 8118M	Needle Bearing	68 4205R	Intermediate Speed Gear
18 8740H1	Sintered Iron Bearing	69 4206R	High Speed Gear
19 122238X	Shift Fork Shaft, High-Low Range	70 1370H	Thrust Bearing Race
20 4218R	Differential Pinion Spacer	71 633A69	Intermediate and High Speed Cluster Pinions
21 6252H1	Differential Pinion Bushing	72 139120	Input Shaft
22 7810H	Gripco Centerlock Nut 3/8-24	73 4201R	Low Speed Pinion
23 6262H	Shift Fork, R.H.	74 12000008	E-Ring
24 7393R	Oil Seal	75 1153R	Reverse Idler Gear
25 992R1	Sintered Iron Bearing	77 6803J	Needle Bearing
26 139111	Shift Fork Shaft	79 1167R	Sealing Washer
27 4986R	Shift Fork, L.H.	80 73360700	Nut, Hex, Jam 7/16-20
28 122254X	Shift Shaft, High-Low Range	81 6270H	Oil Seal
29 6269H	Oil Seal	82 136984	Reverse Idler Shaft
30 5855H	Pressure Relief Valve	84 5384J	Gearshift Lever, Bent
31 139538	Gearcase, Reverse Idler Shaft and Bearings, R.H. (Includes Key No.'s 17, 18, 25, 33, 50, 63, 77 and 82)	85 2978J	Gearshift Cap
32 6277H	Dowel Pin	86 633A85	Gearshift Ball Cover and Pin
33 4225R	Needle Bearing	87 8739H1	Shift Lever Guide Ball, Keyed
34 7396H	Thrust Bearing Race	88 4924H	Spring
35 4198R	4th Reduction Gear Shaft	89 19151516	Washer 15/32 x 15/16 x 16 Gauge
36 4200R	4th Reduction Gear Spacer	90 110542X	Shift Mechanism Seal
37 7395H	Thrust Bearing Race	91 19181511	Washer 9/16 x 15/16 x 12 Gauge
39 139536	Gearcase and Bearings, L.H. (Includes Key Numbers 18, 25, 49, 50 (2), 51 and 52)	92 75J	Gearshift Gate and Reinforcement
40 13320400	Pipe Plug 1/2-14 N.P.T.	93 6274H	Shift Ball Cover Gasket
41 17580520	Bolt, Hex 5/16-18 UNC x 1-1/4	94 76020412	Cotter Pin 1/8 x 3/4
45 6271H	Oil Seal	95 10040500	Washer, Lock 5/16
46 13060200	Pipe Plug 1/4-18 N.P.T.	96 74760514	Bolt, Hex Head 5/16-18 UNC x 7/8
49 4895H	Needle Bearing	97 633A109	Gearshift Lever Assembly
50 4222R	Needle Bearing	98 140332	Transaxle, 6 Speed, Complete Assembly
51 1529R	Needle Bearing		

NOTE: All component dimensions given in U.S. inches
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REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

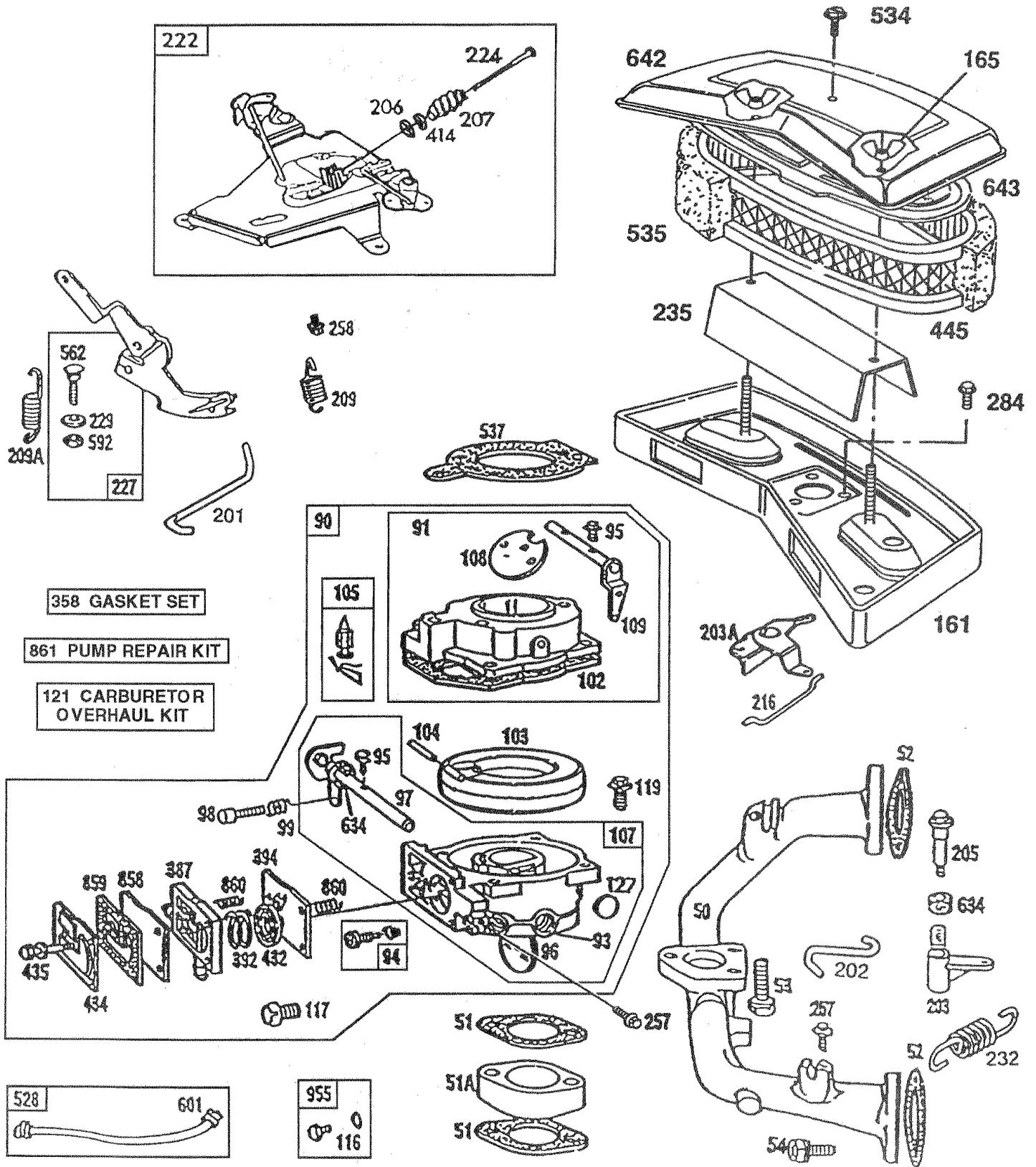
BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

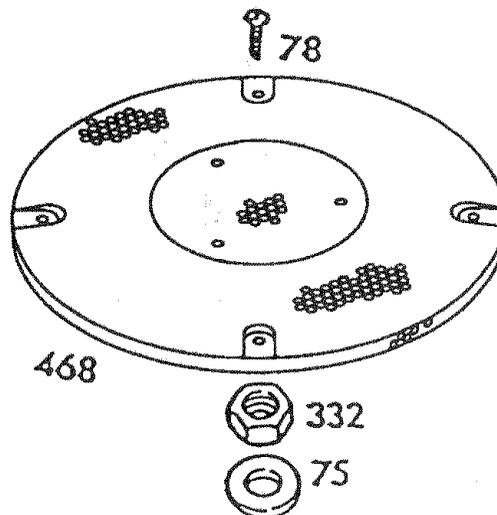
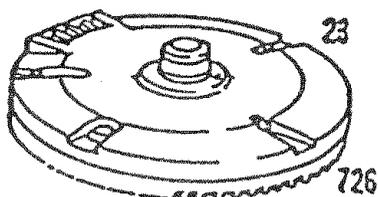
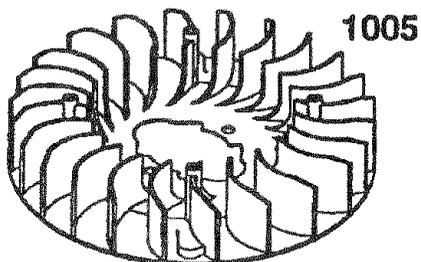
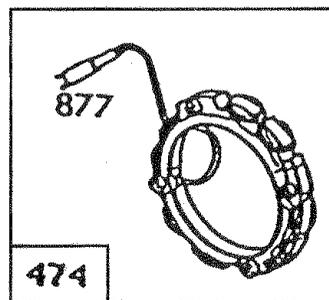
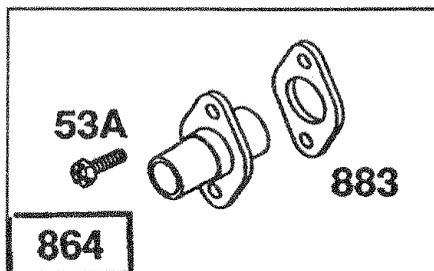
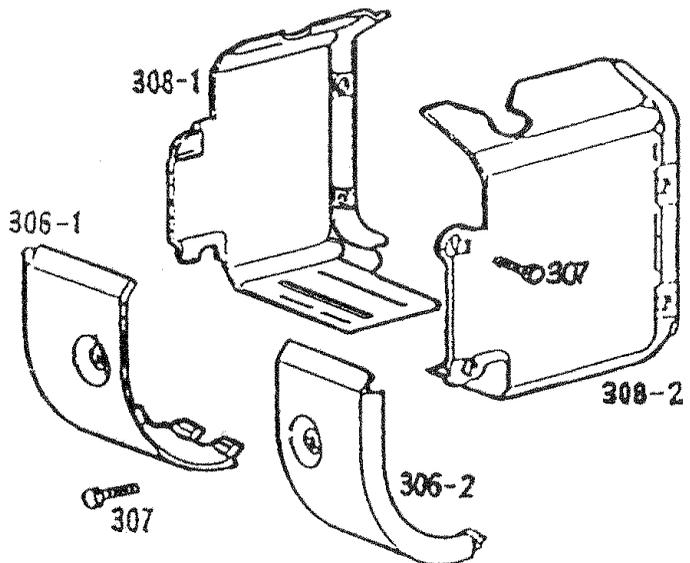
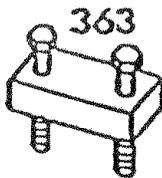
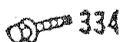
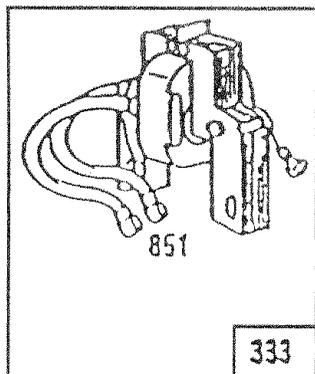
BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

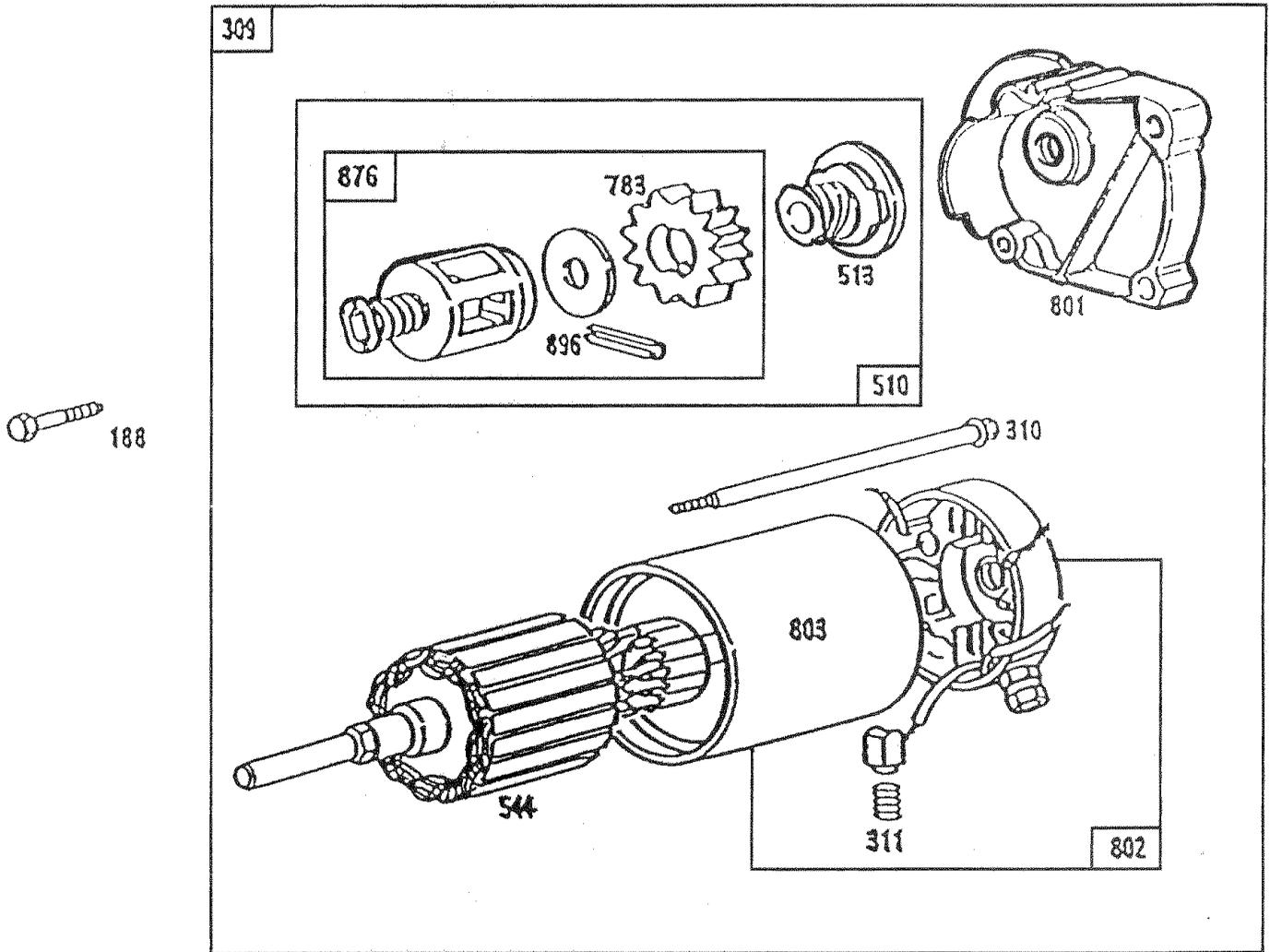
BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01



REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01



Reference Number		309	310	311	544	801	802	803
		Motor and Drive Ass'y.	Thru Bolt Assembly	Brush Assembly	Armature Assembly	Drive End Cap Assembly	End Cap Ass'y. Commutator	Housing Assembly
Briggs & Stratton	Housing Length							
12V	3-5/8"	394808	94003	395538	390837	394860	395537*	398159

*Includes Brush Set

Reference Number	510	513	783	876	896
Starter Motor Mfr.	Starter Drive Group	Clutch Assembly	Gear	Pinion Spring Kit	Roll Pin
Briggs & Stratton					
12V	495878	398003	280104	495877	94288(Copper)

REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 494533	Cylinder Assembly	51 271412	*** Gasket, Carburetor & Intake Elbow
2 491756	Bearing, Cylinder	51A 281411	Spacer, Carburetor
3 391086	* Seal, Oil	52 270884	* Gasket, Intake Manifold Mounting
5-1 493457	Head, Cylinder Number 1	53 93970	Screw, Sems, Carburetor Mounting
5-2 493458	Head, Cylinder Number 2	53A 93415	Screw, Sems
7-1 271867	* Gasket, Cylinder Head Number 1	54 93208	Screw, Sems,
7-2 271868	* Gasket, Cylinder Head Number 2		Intake Manifold Mounting
8-1 495754	Breather Assembly Number 1	75 222511	Washer, Spring
8-2 222892	Cover, Breather, Cylinder Number 2 (Use with Key Number 572, Air Baffle with Mounting Holes)	78 94834	Screw, Sems
		90 495181	Carburetor Assembly
9 27803	* Gasket, Valve Cover	91 495035	Body Assembly, Upper Carburetor
10 94830	Screw, Sems	93 231209	Bushing, Throttle Shaft
11 280225	Tube, Breather	94 491538	** Valve Assembly, Carburetor Idle
12 271703	* Gasket, Crankcase Cover, 1/64"	95 93499	Screw, Sems,
271188	* Gasket, Crankcase Cover, .005"		Throttle and Choke Valve Mounting
271189	* Gasket, Crankcase Cover, .009"	96 221939	Valve, Throttle
13 94565	Screw, Cylinder Head	97 392672	Shaft and Lever, Throttle
15 94239	Plug, Oil Drain	98 91920	Screw, Machine, Fillister Head
15A 94497	Plug, Pipe	99 26157	Spring, Throttle Adjustment
16 394028	Crankshaft	102 271607	** Gasket, Carburetor Body
94196	Key, Timing Gear	103 298514	Float, Carburetor
18 493304	Base Assembly, Crankcase	104 230896	** Pin, Float Hinge
20 291675	* Seal, Oil	105 394683	** Valve, Fuel Inlet
21 399195	Seal Assembly, Cylinder Plug	107 491543	Body, Lower Carburetor
22 94724	Screw, Sems,	108 223534	Valve, Choke
	Crankcase Cover Mounting	109 392673	Shaft and Lever, Choke
23 491180	Flywheel and Ring Gear Assembly, Magneto	116 280474	O-Ring
24 222698	Key, Flywheel	117 231338	Jet, Needle Valve
25 394955	Piston Assembly, Standard Size	119 94152	Screw, Sems, Hex Head
394956	Piston Assembly, .010" Oversize	121 491539	Carburetor Overhaul Kit
394957	Piston Assembly, .020" Oversize	127 223472	Plug, Welch
394958	Piston Assembly, .030" Oversize	161 496599	Body, Air Cleaner
26 394959	Ring Set, Piston, Standard Size	165 94289	Nut, Wing
394960	Ring Set, Piston, .010" Oversize	187 299146	Line, Fuel, 28" (Cut to Suit)
394961	Ring Set, Piston, .020" Oversize	188 93535	Screw, Hex Head
394962	Ring Set, Piston, .030" Oversize	201 262683	Link, Governor
27 260924	Lock, Piston Pin	202 262684	Link, Throttle
28 299691	Pin Assy., Piston, Standard Size	203 280997	Crank, Bell
391286	Pin Assy., Piston .005" Oversize	203A 490207	Crank, Bell
29 394306	Rod Assembly, Connecting	205 93971	Screw, Shoulder
397158	Rod Assembly, Connecting, .020" Undersize Crankpin Bore	206 94298	Nut, Square
32 94671	Screw, Connecting Rod	207 262337	Spring, Compression
33 390420	Valve, Exhaust	209 262352	Spring, Governor
34 261528	Valve, Intake	209A 261563	Spring, Governor Idle
	Uses: 393606 Seal Assembly and Retainer (Key Number 868)	216 262375	Link
35 65906	Spring, Intake Valve	219 393415	Oil Slinger Assembly
36 26828	Spring, Exhaust Valve	219A 394348	Gear, Governor
40 221596	Retainer, Intake Valve		
41 292260	Rotocoil, Exhaust Valve	* Included in Gasket Set (495868)	
42 93630	Retainer, Exhaust Valve Rotocoil(2)	** Included in Carburetor Overhaul Kit (491539)	
45 261368	Tappet, Valve	*** Included in both Gasket Set (495868), and Carburetor Overhaul Kit (491539)	
46 213421	Gear, Cam		
50 213290	Manifold, Intake		

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1 inch = 25.4 mm

REPAIR PARTS

18 HP 44" TRACTOR - MODEL NUMBER 917.257711

BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
220 222773	Washer, Thrust	552A 262331	Upper Bushing, Governor
222 491282	Plate Assembly, Governor Control	556 93585	Screw, Sems, Hex Head
224 94297	Screw, Pan Head	562 93853	Bolt, Governor Lever
227 491297	Lever Assembly, Governor	567 93777	Screw, Hex Head, Back Plate to Cylinder
229 62199	Washer		
230 223882	Washer, Governor Crank, Inside	569 272645	* Gasket, Crankcase
232 262539	Spring, Governor Control	572 224580	Baffle, Air, Cylinder Number 2
235 224995	Shield, Spitback	573 491304	Back Plate Assembly
240 493629	Filter, Fuel (In Fuel Line to Tank)	592 92278	Nut, Hex
244 230318	Connector, Impulse Pump	601 93053	Clamp, Fuel Line
257 93897	Screw, Sems	615 94296	Retainer, E-Ring
258 93949	Screw, Sems	616 491530	Crank, Governor
259 223890	Bracket, Cable	634 271013	** Washer, Throtte Shaft
265 221535	Clamp, Casing	634A 491287	* Seal, Governor Shaft
267 93496	Screw, Hex Head	635 66538	Elbow, Spark Plug
284 94264	Screw, Hex Head	642 225008	Cover, Air Cleaner
284A 93469	Screw, Hex Head	643 496700	Cartridge Plate, Air Cleaner
304 495587	Housing, Blower	726 391362	Gear, Flywheel Ring (Includes Mounting Parts)
305 94608	Screw, Sems 1/2		
306-1 222846	Shield, Cylinder	741 262694	Gear, Timing
306-2 223734	Shield, Cylinder	819 94675	Screw, Hex Head
307 94386	Screw, Sems	842 270920	* Seal, Oil Filler Cap
308-1 224774	Cover, Air Guide	847 495715	Dipstick and Tube Assembly
308-2 224775	Cover, Air Guide	851 493880	Terminal, Ignition Cable
309 ---	Motor, Starting (See Chart on Illustrated Pages for Replacement Parts for Starting Motors)	858 270989	**** Diaphragm, Damping
		859 271025	**** Gasket, Carburetor Pump
		860 261358	**** Spring (2)
332 230674	Nut, Hex	861 393397	Repair Kit, Pump
333 394891	Armature Group, MAGNETRON® Ignition	864 398349	Liner, Exhaust Port
		868 393606	Seal Assembly and Retainer
334 93381	Screw, Sems, Armature Mounting	869 261463	Seat, Intake Valve, Standard
337 802592	Plug, Spark, Resistor (with Gasket)	870 213316	Seat, Exhaust Valve, Standard
356 494705	Wire, Ground	871 261961	Guide, Exhaust Valve
358 495868	Gasket Set		Guide, Intake Valve (See Manual)
363 19203	Puller, Flywheel (Optional Accy.)	877 393537	Connector Assembly, Tri-Circuit
383 89838	Wrench, Spark Plug	881 495901	Cover Plate, Crankcase (Includes Gasket - Key #569)
387 280197	Body, Pump		
392 261395	**** Spring, Pump	883 272250	* Gasket, Muffler
394 272638	**** Diaphragm	955 397882	Plug and Seal, Solenoid
414 220680	Washer	1005 281053	Fan, Flywheel
422 222875	Clamp, Oil Filler	1006 224413	Retainer, Fan
432 221377	**** Cap, Spring	1019 491262	Decal Kit
434 223688	Cover, Diaphragm		
435 93829	Screw, Diaphragm Cover		
445 394019	Cartridge, Air Cleaner		
468 224521	Screen, Flush Rotating		
474 392595	Stator, Alternator, Tri-Circuit		
482 93621	Screw, Sems		
523 494927	Cap and Dipstick, Oil Filler		
524 280860	* Seal, Filler Tube		
524A 271485	Seal, Tube		
525 495348	Tube, Oil Filler		
528 393815	Impulse Line and Clamp Assembly		
534 94823	Screw, Round Head		
535 271271	Element, Air Cleaner		
537 271411	**** Gasket, Air Cleaner		
552 262332	Lower Bushing, Governor		

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

* Included in Gasket Set (495868)

** Included in Carburetor Overhaul Kit (491539)

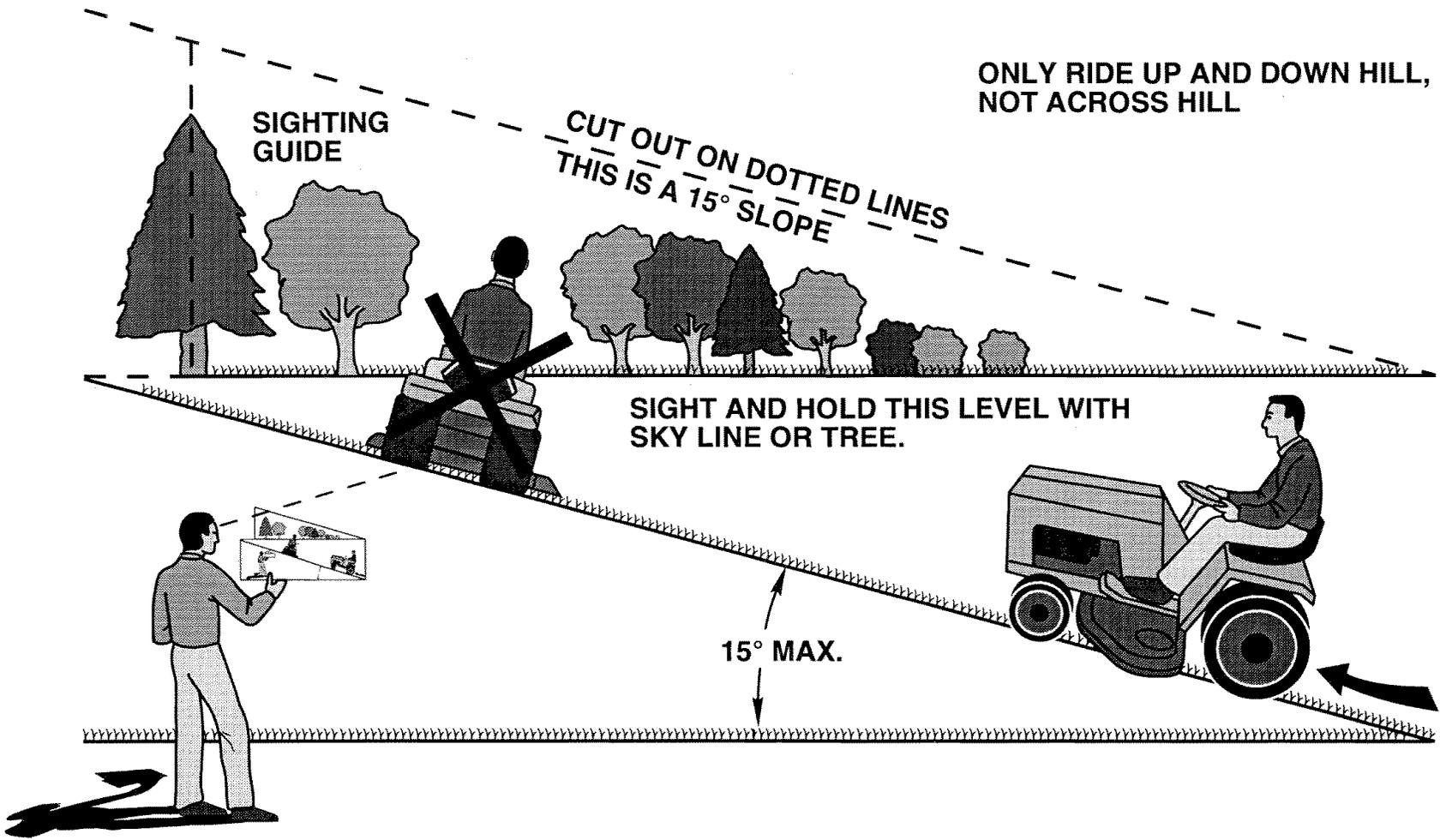
*** Included in both Gasket Set (495868), and Carburetor Overhaul Kit (491539)

**** Included in both Carburetor Overhaul Kit (491539), and Pump Repair Kit (393397)

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

SERVICE NOTES

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



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

SEARS

**OWNER'S
MANUAL**

**MODEL NO.
917.257711**

**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)

CRAFTSMAN®

**18.0 HP IC
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 - 917.257711**
- **ENGINE MODEL NO. - 422707, TYPE NO. 1267-01**
- **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.