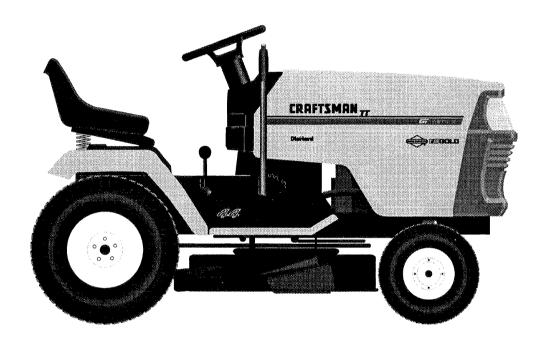
SEARS

# IRAFTS MEN

## 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.



### **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	
DATEOFPUR	CHASE
	ND SERIAL NUMBERS WILL BE FOUND UNDER THE SEAT.
	RECORD BOTH SERIAL NUMBER AND RCHASE AND KEEP IN A SAFE PLACE REFERENCE

#### **MAINTENANCE AGREEMENT**

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

#### **CUSTOMER RESPONSIBILITIES**

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

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	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):	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.

**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

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## **ACCESSORIES AND ATTACHMENTS**

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

# SPARK PLUG GAS CAN ENGINE OIL FUEL STABILIZER

# MAINTENANCE BLADES BELTS

#### PERFORMANCE

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

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

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

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.

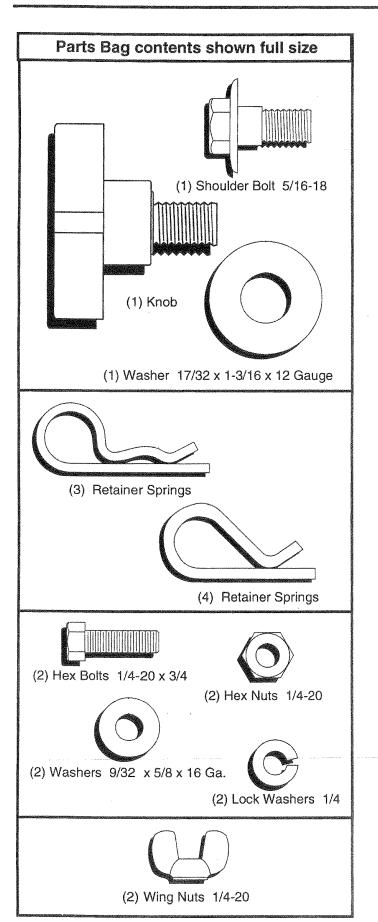
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered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

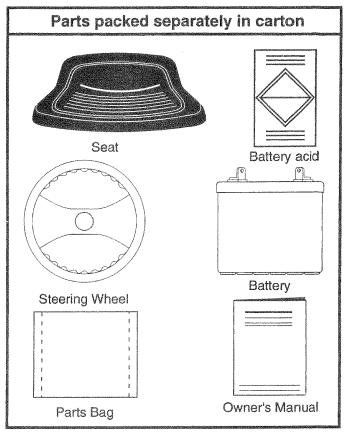
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

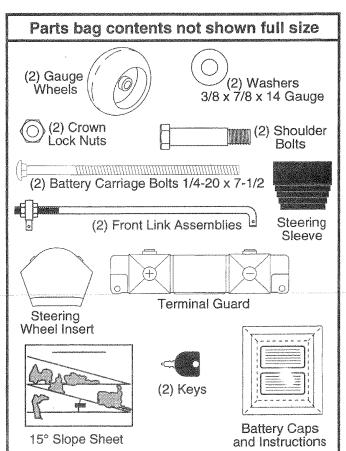
**WEIGHT BRACKET** for drawbar for snow removal applications. Can be mounted on front of tractor for plowing applications. Uses (1) 55 lb. weight.

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

## **CONTENTS OF HARDWARE PACK**







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

Tire pressure gauge

(1) 1/2" wrench

Utility knife

- (1) 9/16" wrench
- (1) 3/4" socket with drive ratchet

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

#### TO REMOVETRACTOR FROM CARTON

#### **UNPACK CARTON**

- Remove all accessible loose parts and parts cartons from carton (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 ROLLINGTRACTOR 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.

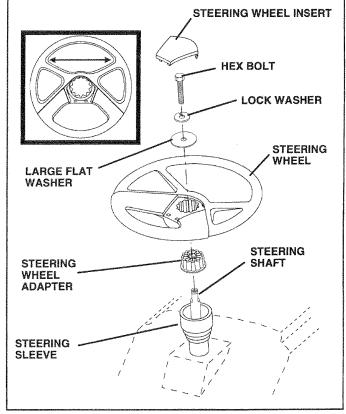


FIG. 1

#### **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.

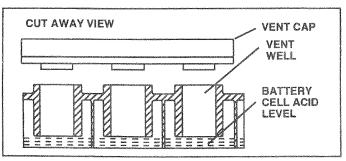


FIG. 2

#### **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.

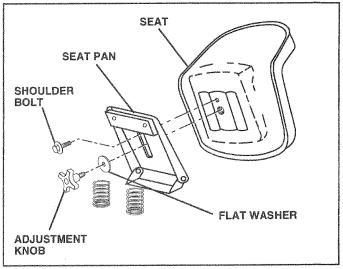


FIG. 3

#### 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.

# 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.

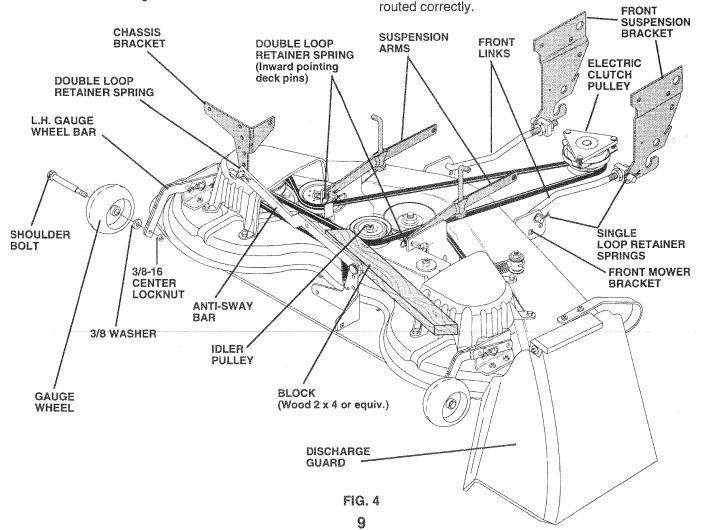
- Place the suspension arms on inward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- 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



#### **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.

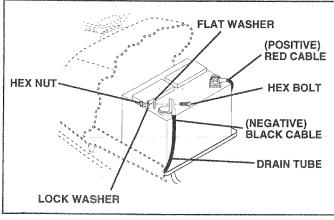


FIG. 5

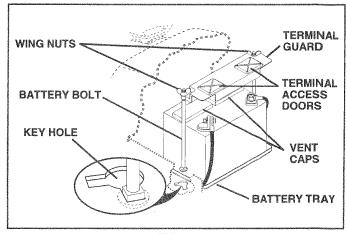


FIG. 6

#### J 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.

#### **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.

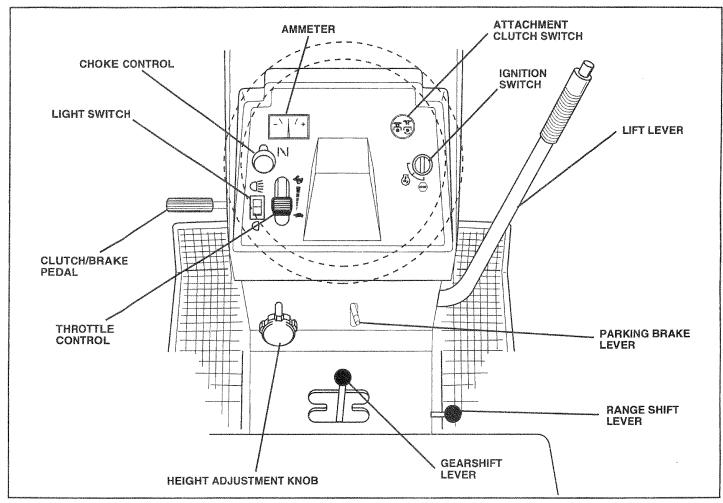


FIG. 7

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.

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

**HEIGHT ADJUSTMENT KNOB** - Used to adjust the mower height.



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.

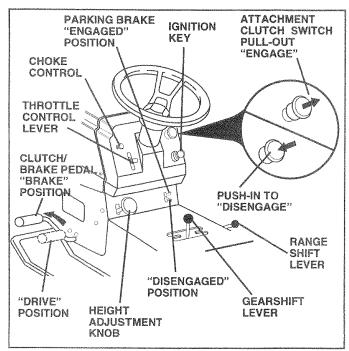


FIG. 8

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

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

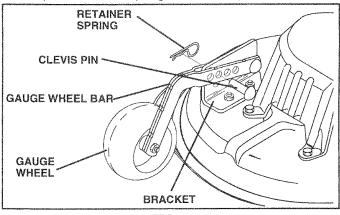


FIG. 9

#### 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 quard in place.

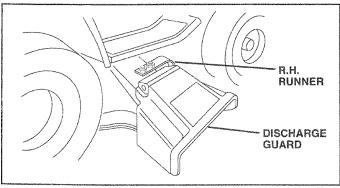


FIG. 10

#### 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.

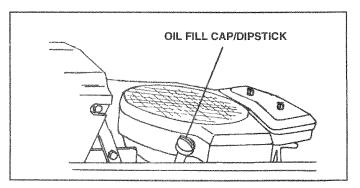


FIG. 11

#### 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 (|\|) 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.

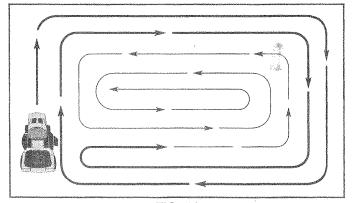


FIG. 12

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE		ELORE	EACH)	HOURS HOURS	HOUR	S HOUR EVERY S	O HOUP	S HOUS	LASON EASONE EFORE	SEF	GE IVICE	E DA	TES
	Check Brake Operation	1	-	8										
	Check Tire Pressure			Barre										
T	Check for Loose Fasteners	Care and the same					<b>6</b> 7		<b>W</b>					
R	Sharpen/Replace Mower Blades				<b>V</b> 4									
A	Lubrication Chart				Barata .				W					
Ť	Check Battery Level/Recharge				<b>1</b> 6									
0	Clean Battery and Terminals				Bases				Quanto .					
R	Check Transaxle Cooling		of Company		V									
	Adjust Blade Belt(s) Tension						<b>1</b> 5							
	Adjust Motion Drive Belt(s) Tension						<b>1</b> 5							
	Check Engine Oil Level	W		8/										
	Change Engine Oil		84		1,2,3				V					
E	Clean Air Filter				2									
IN	Clean Air Screen				<b>2</b>									
G	Inspect Muffler/Spark Arrester					W								
NAME OF THE PERSON OF THE PERS	Replace Oil Filter (If equipped)						1,2							
N	Clean Engine Cooling Fins						<b>2</b>							
E	Replace Spark Plug						W	8/						
	Replace Air Filter Paper Cartridge						<b>1</b> 2							
	Replace Fuel Filter							V						

- 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.

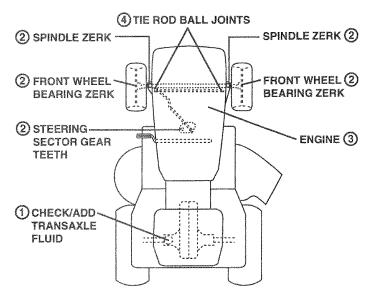
 Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

#### 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)

#### 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 "PROD-UCT 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.

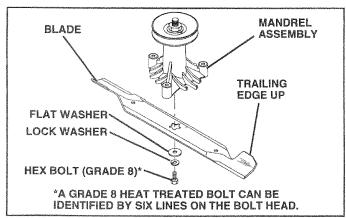


FIG. 13

### 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.

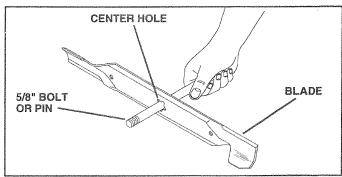


FIG. 14

#### 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 SPECIFI-CATIONS" on page 3 of this manual.

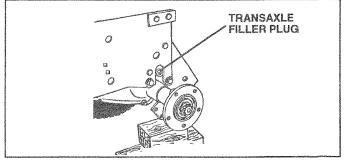


FIG. 15

#### BATTERY (See Fig. 16)

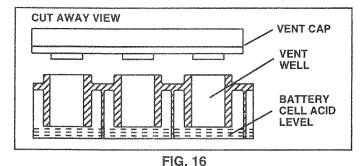
Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- 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 quard.
- 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).



#### **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.

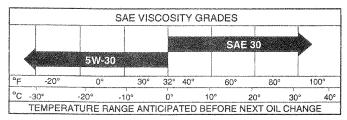


FIG. 17

**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.

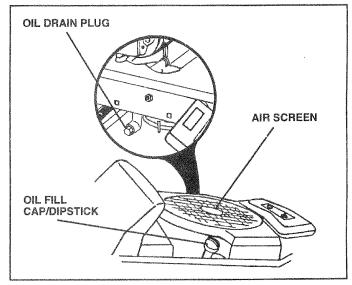


FIG. 18

#### **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).

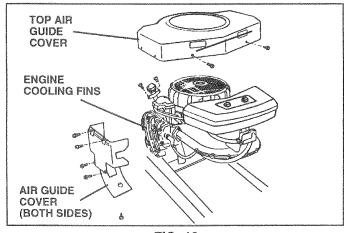


FIG. 19

#### 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, precleaner, 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.

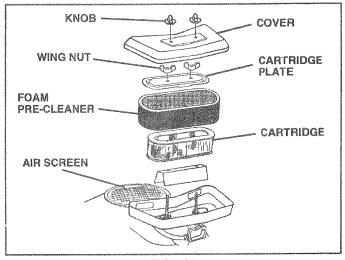


FIG. 20

#### 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.

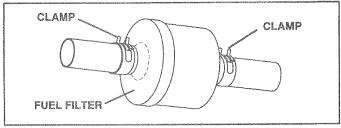


FIG. 21

#### **CLEANING**

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

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

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



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

#### TO LEVEL MOWER HOUSING

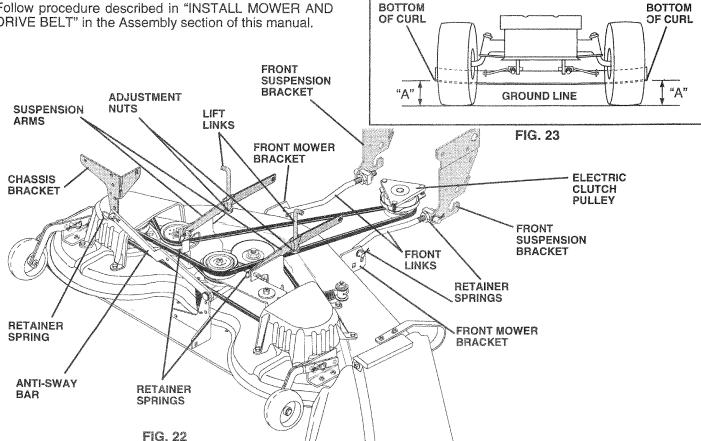
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

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.



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.

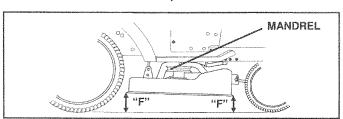


FIG. 24

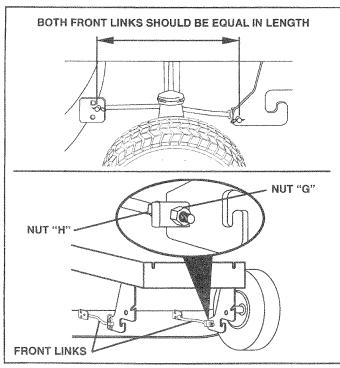


FIG. 25

#### 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.

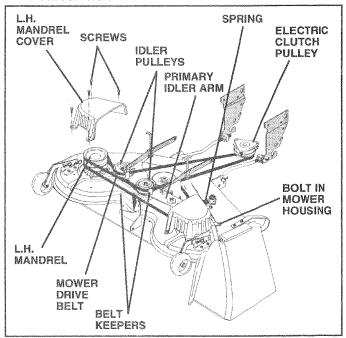


FIG. 26

## 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).

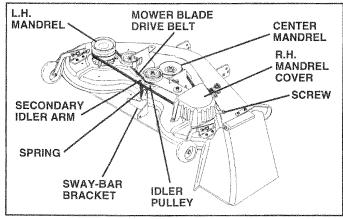


FIG. 27

# 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.

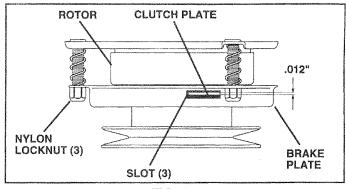


FIG. 28

#### 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.

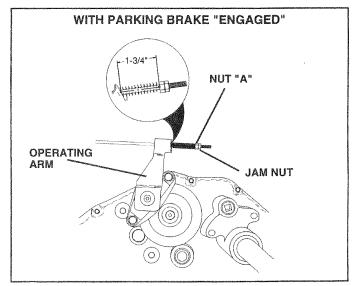


FIG. 29

# 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.

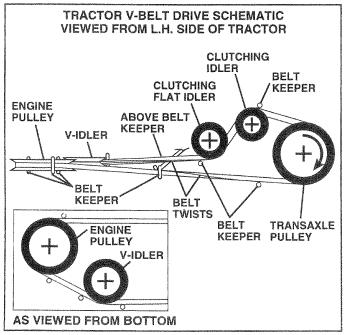


FIG. 30

#### 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.

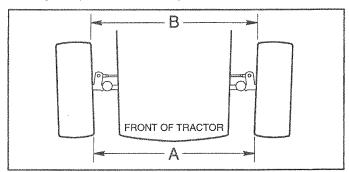


FIG. 31

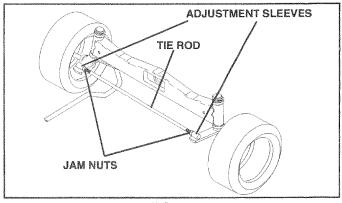


FIG. 32

#### 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.

#### 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.

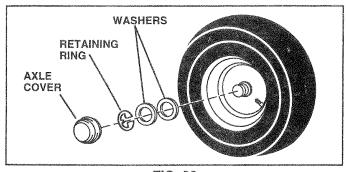


FIG. 33

#### **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 GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

#### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) 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.

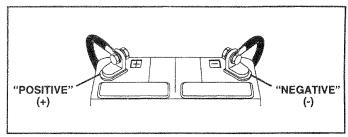


FIG. 34

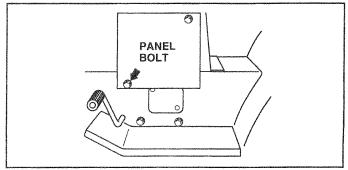


FIG. 35

#### 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.

# 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.

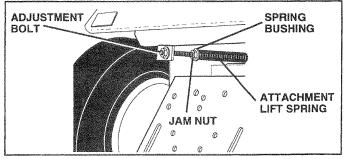


FIG. 36

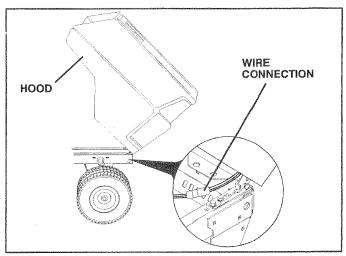


FIG. 37

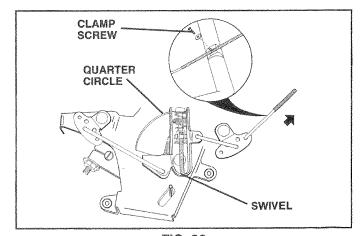


FIG. 38

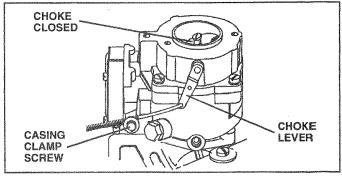


FIG. 39

# 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.

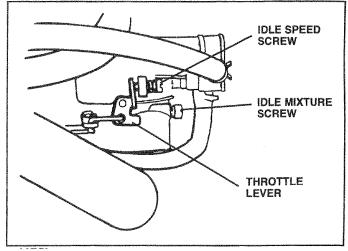


FIG. 40

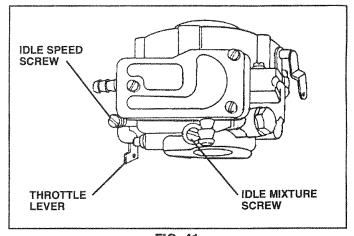


FIG. 41

## 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 AREAS ARE STILL WARM.

# **SERVICE NOTES**

# TROUBLESHOOTING POINTS

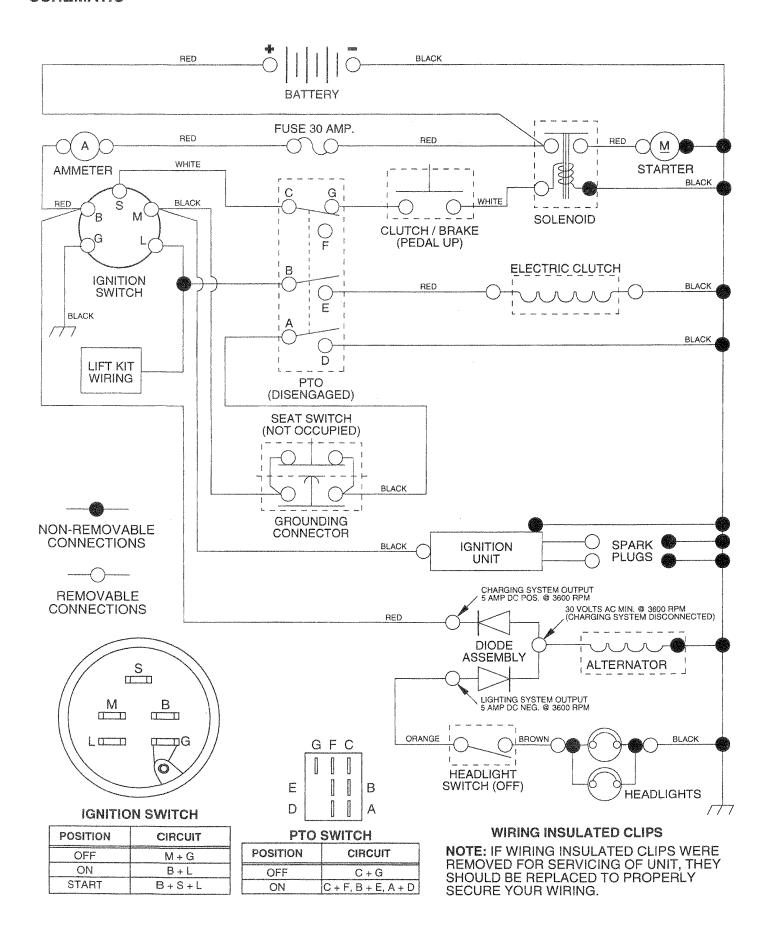
Will not start  Hard to start	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel.  8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment.	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Hard to start	4 Diskusia filas	
	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ol>	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine clicks but will not start	Weak or dead battery.     Corroded battery terminals.     Loose or damaged wiring.     Faulty solenoid or starter.	Recharge or replace battery.     Clean battery terminals.     Check all wiring.     Check/replace solenoid or starter.
Loss of power	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Dirty engine air screen/fins.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Excessive vibration  1. Worn, bent or loose blade. 2. Bent blade mandrel. 3. Loose/damaged part(s).		1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged µarts.

# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION			
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.			
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>			
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.			
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>			
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	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> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	Replace battery.     Check/clean all connections.     Replace regulator.     Replace alternator.			
Engine "backfires" when turning engine	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.			

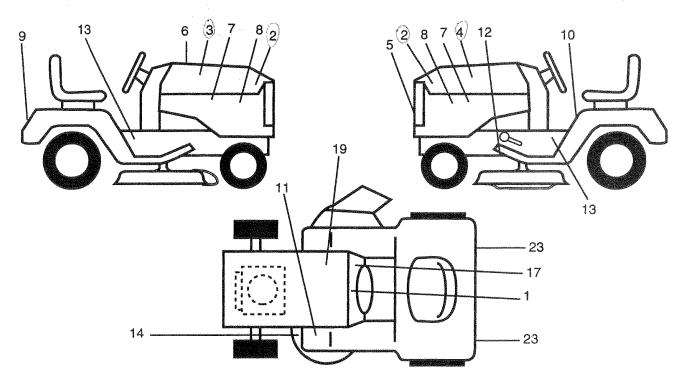
#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### SCHEMATIC



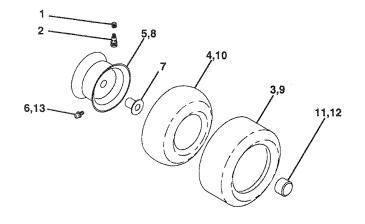
#### 18 HP 44" TRACTOR - - MODEL NUMBER 917.257711

#### DECALS



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	-	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8	138955 142245 142265 142266 142253 133644 138049 142248	Decal, Operating Instruction Decal, Ins. Hood GT 18HP TW Blk Decal, Hood, Craftsman, RH Decal, Hood, Craftsman, LH Decal, Grille, Craftsman Decal, Maintenance Decal, Side Panel Decal, Side Panel	11 12 13 14 17 19 23	13 10 13 13 13	900J 38435 05567X 39346 38834 38047 06202X 38311	Decal, Clutch/Brake Decal, V-Belt Drive Schematic Decal, Chassis, 6 Speed/44" Decal, V-Belt Schematic Decal, Dash Decal, Battery Reflector, Taillight Decal, Handle Lift (Lift Handle)
9 10	125880X 137537	Decal, Fender, Craftsman Decal, Caution		-	14163 14164	Manual, Owner's (Eng) Manual, Owner's (Span)

#### WHEELS & TIRES

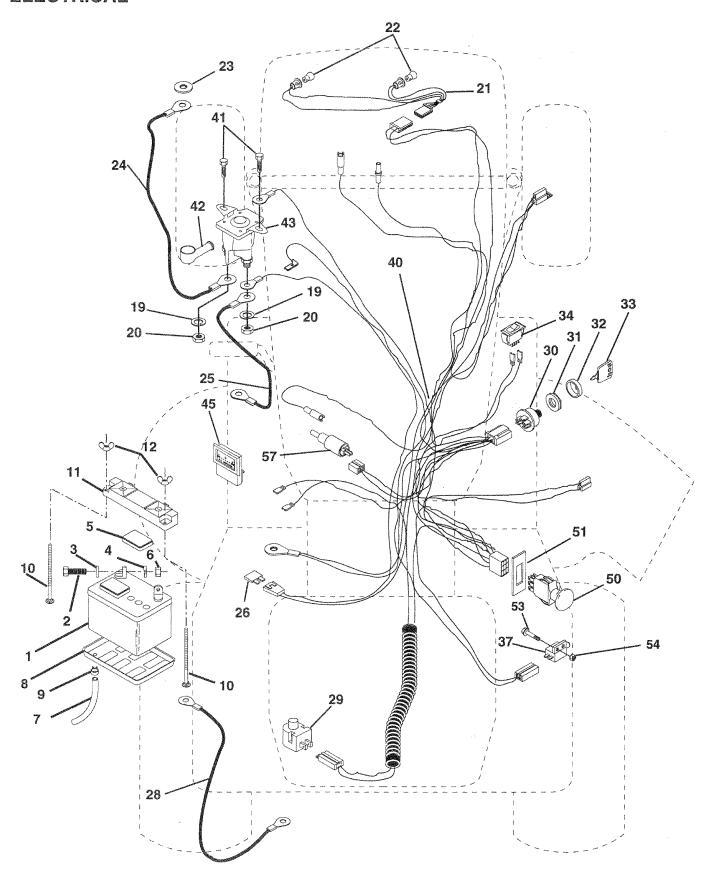


NO.	NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2 3	65139	Stem, Valve
3	106230X	Tire, Front
4	8134H	Tube, Front (Service Item Only)
5	106228X417	Rim Assembly, Front
6	278H	Fitting, Grease (Front Wheel Only
7	9040H	Bearing, Flange (Front Wheel Onl
8	106277X417	Rim Assembly, Rear
9	105588X	Tire, Rear
10	7154J	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

## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### ELECTRICAL



## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

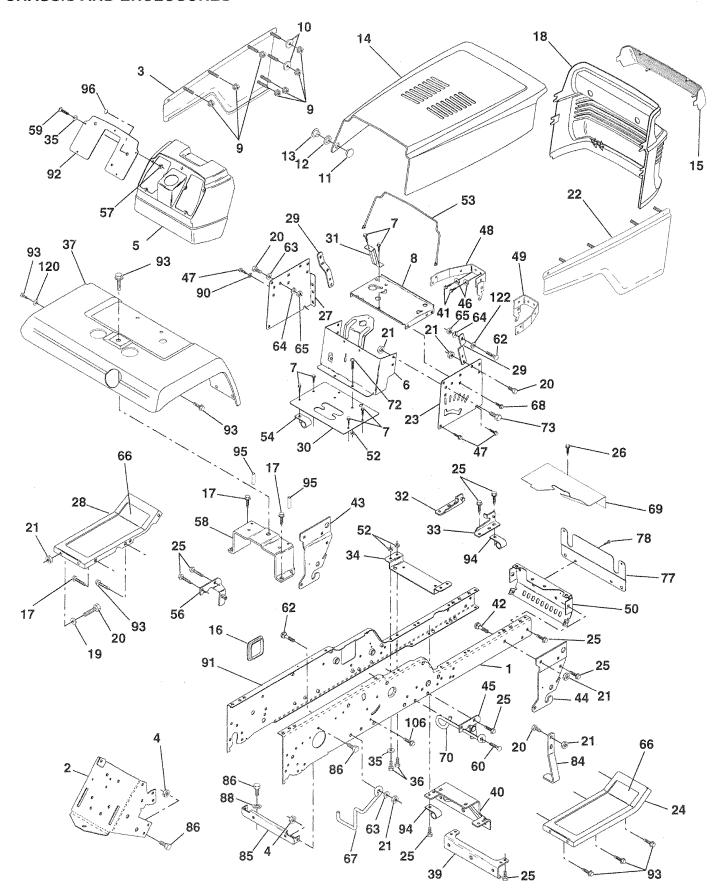
## ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
20 21 22 23 24 25 26 28 29 30 31 32 33 34 45 50 51 53 54	4152J 11150400 4799J 4799J 108824X 121080X 121305X 140399 140400 141226 140403 110712X 104445X 141762 17720408 131563 138406 121433X 140404 140405 71031008 73951000	Battery Bolt Hex Head 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Ga Washer, Lock 1/4 Caps, Battery Nut Fin Hex 1/4-20 Tube Plastic Tray, Battery Clamp, Hose Bolt, Carriage 1/4-20 x 7-1/2 Guard Terminal Nut, Wing 1/4-20 Washer, Lock 1/4 Nut, Jam Hex 1/4-20 Harness Socket Light Bulb Light Washer, Lock Int. Tooth 1/4 Cable, Battery Cable, Battery Fuse Cable, Ground Switch, Plunger Switch, Ign Nut, Ignition Switch Cover Switch Key Key Switch, Light Switch Intlk Harness, Ignition Screw 1/4-20 x 1/2 Cover, Terminal Red Solenoid Ammeter Switch, PTO Ring Retainer PTO Screw Hex Washer Hd #10-32 x 1 Nut Keps #10-32 Diode Asm. Heavy Duty
28 29 31 32 33 47 41 42 45 51 55	121080X 121305X 140399 140400 141226 140403 110712X 104445X 141762 17720408 131563 138406 121433X 140404 140405 71031008	Switch, Plunger Switch, Ign Nut, Ignition Switch Cover Switch Key Key Switch, Light Switch Intlk Harness, Ignition Screw 1/4-20 x 1/2 Cover, Terminal Red Solenoid Ammeter Switch, PTO Ring Retainer PTO Screw Hex Washer Hd #10-32 x

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

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### **CHASSIS AND ENCLOSURES**



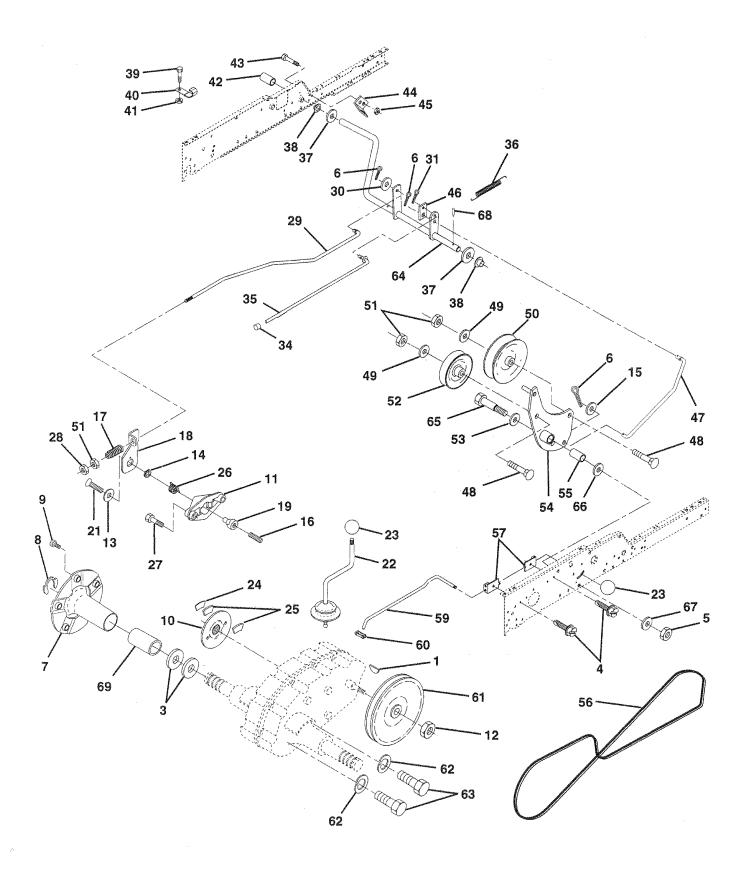
#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1 2 3	140505 140506 136671X417	Rail, Frame RH Drawbar, Gt Panel Asm., Side LH	45 46 47	138460 10040400 17490608	Bracket Asm., Susp Chassis Rh Washer, Lock Hvy Helical 1/4 Screw, Thdrol. 3/8-16 x 1/2
4	73800700	Nut, Lock Hex 7/16 Unc	48	136814	Bracket Asm., Pivot Hood Lh
5 6	136696 139420	Dash, Plastic Black	49 50	136813 136575	Bracket Asm., Pivot Hood Rh
7	17720408	Dash Asm., Lower Screw, Thd Cut 1/4-20 x 1/2	50 51	72140506	Bracket, Chassis Front Bolt, Carriage 5/16-18 x 3/4
8	140229	Support, Battery	52	73800500	Locknut, Hex W/Ins 5/16-18 Unc
9 10	108067X 19092016	Nut, Pal Washer 9/32 x 1-1/4 x 16 Ga.	53 54	137304 126470X	Rod, Support Hood Clip, Insulated
11	137270	Rivet, Ratchet Male	56	138461	Bracket Asm., Susp Chassis Lh
12 13	137269 137271	Washer, Nylon Rivet, Ratchet Female	57 58	73510400 137113	Nut, Keps Hex 1/4-20 Bracket Asm., Fender
14	136673X417	Hood Asm., Pnt	59	74180412	Screw, Mach Cr 1/4-20 x 3/4
15 16	136374 121794X	Lens, Bar Clear Cover, Access	60 62	17490620 72110608	Screw, Thdrol. 3/8-16 x 3/4
17	17490612	Screw, Thdrol 3/8-16 x 3/4	63	19131614	Bolt, Carriage 3/8-16 x 1 Gr. 5 Washer 13/32 x 1 x 14 Ga.
18 19	136373X440	Grille	64	10040600	Washer, Lock Hvy Hlcl Spr 3/8
20	19131312 74760616	Washer 13/32 x 13/16 x 12 Ga. Bolt, Fin Hex 3/8-16 x 1	65 66	73220600 105466X	Nut, Fin Hex 3/8-16 Unc Pad, Footrest
21	73800600	Nut, Lock Hex W/Wsh 3/8-16 Unc	67	140737	Guide, Belt T/A
22 23	136670X417 121045X	Panel Asm., Side RH Panel, Dash Side RH	68 69	17490508 140023	Screw, Thdrol. 5/16-18 x 1/2 Shield, Heat
24	105464X417	Footrest, RH	70	137159	Guide, Belt Mid Span
25 26	17490612 17490512	Screw, Thdrol 3/8-16 x 3/4 Screw, Thdrol 5/16-18 x 3/4	72 73	74180512 74780616	Screw, Mach Trhd 5/16-18 x 3/4 Bolt, Fin Hex 3/8-16 x 1 Gr. 5
27	121046X	Panel, Dash Side LH	77	137308	Shield, Front
28 29	105465X417 138193	Footrest, LH	78 84	17720408	Screw, Thd. Cut 1/4-20 x 1/2
30	137143X014	Bracket, Support Dash Saddle, Slkscr Vgt	85	142992 120404X	Stop, Over Center Mower Bracket, Support Transaxle
31	137556	Brace, Support Steering	86	74760716	Bolt, Fin Hex 7/16-14 Unc x 1
32 33	141315 141314	Bracket Asm., Frame Pivot Lh Bracket Asm., Frame Pivot Rh	88 90	10040700 11050600	Washer, Lock Hvy Hlcl Spr 7/16 Washer, Lock External Tooth 3/8
34	142131	Bracket, Engine Support Rear	91	140504	Rail, Frame Lh
35 36	19111116 74780512	Washer 11/32 x 11/16 x 16 Ga. Bolt, Fin Hex 5/16-18 x 3/4	92 93	140941X013 17490608	Plate, Silkscreen Dash Screw, Thdrol 3/8-16 x 1/2
37	121642X417	Fender, Pnt.	94	100207K	Clip, Fuel Line
38 39	19091216 136961	Washer 9/32 x 3/4 x 16 Ga. Bracket, Axle Front	95 96	105531X 8022J	Push Nut, Nylon Plug, Hole
40	142132	Bracket, Support Axle/Engine	106	17580520	Bolf 5/16-18 x 1.25
41 42	74760408 72140608	Bolt, Fin Hex 1/4-20 Unc x 1/2	120	19131616	Washer 13/32 x 1 x 1 Ga.
43 44	136939 136940	Bolt, Carriage 3/8-16 x 1 Bracket, Spnsn Front Lh Bracket, Spnsn Front Rh	NOT	E: All compor 1 inch = 25	nent dimensions given in U.S. inches i.4 mm

## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### **GROUND DRIVE**



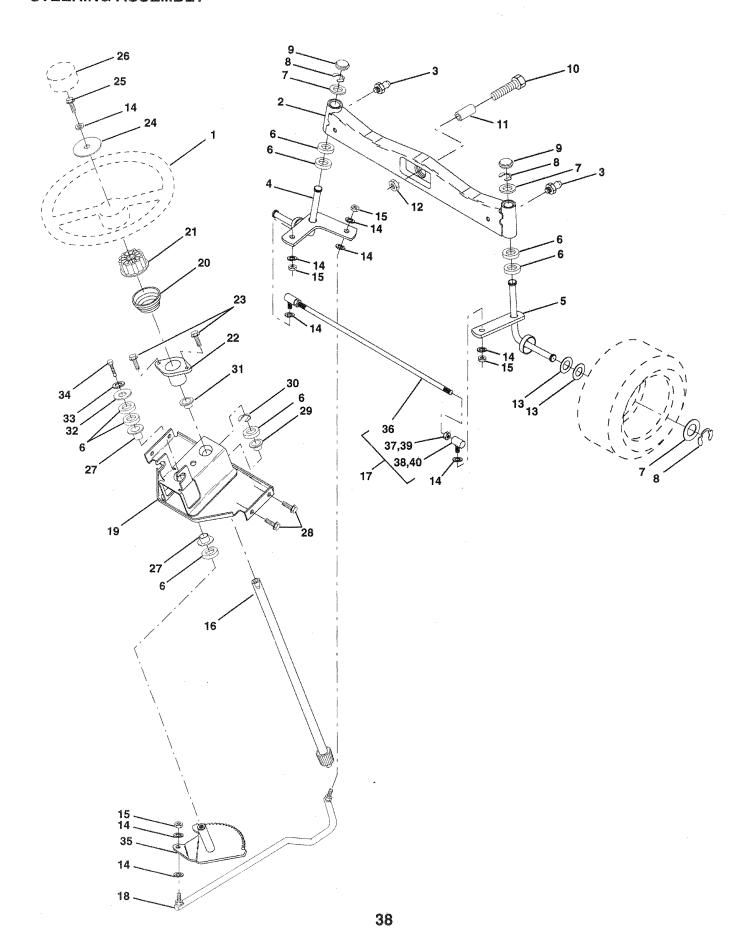
## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### **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	
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	
22	633A109	Gearshift Lever Assembly	59	122253X	Shift RodHi-Lo
23 24	106932X	Knob	60	122268X	Spring Clip Connecting Link
24 25	136925	Support Puck Brake	61	137524	Pullery Transaxle
26 26	136923 137552	Puck Brake Top	62 63	10040700	Washer Lock 7/16
27	17490528	Spring Return Screw Hex Wsh Thd 5/16-18 x 1-3/4	64	74760720 137649	Bolt Fin Hex 7/16-14 x 1-1/4
28	73350600	Nut Hex Jam 3/8-16	65	67609	Shaft Clutch/Brake Pedal
29	137213	Brake Rod	66	140296	
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	03	100021	I IUD OOVEI
36	138364	Spring Extension		rion a.s.	
37	121749X	Washer 25/32 x 1-1/4 x 16 Gauge	NOT		onent dimensions given in U.S. inches
38	110895X	Nyliner		1 inch = 2	5.4 mm

## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### STEERING ASSEMBLY



#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

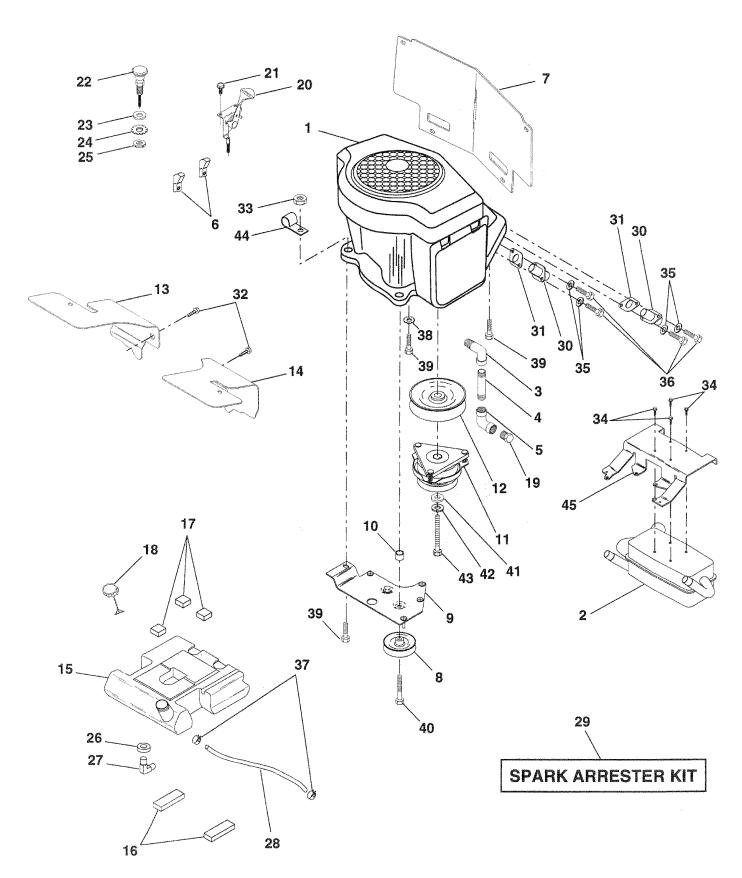
#### STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
123456789011234567	10040600 73610600 102458X	Wheel, Steering Axle Asm., Front Fitting, Grease Spindle Asm, LH Spindle Asm., RH Bearing, Race Thrust Harden Washer 25/32 x 1-5/8 x 16 Ga. Ring, Klip #T5304-75 Cap, Spindle Bolt, Fin Hex 5/8-11 x 2-3/4 Spacer, Brg. Axle Front Nut, Lock Flange 5/8-11 Unc Washer 25/32 x 1-1/4 x 16 Ga. Washer, Lock Hvy Hlcl Spr 3/8 Nut, Fin Hex 3/8-24 Unf Shaft Asm., Steering
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	137155 143119 139811 100711L 1554J 17431008 19133808 74780616 139769 3366R 17490612 104239X 12000034 138136 19111610 10040500 74760512 138059 137156 73360600 109850X	Rod Asm., Tie Ball J Ball Vgt (Inc Key No. 36-40) Draglink, Ball Joint Solid Vgt Support Asm., Steering Vgt Column, Steering Adapter, Wheel Steering Bushing, Strg. Blk Screw, Slftp #10-16 x 1/2 Ty-b Washer 13/32 x 2-3/8 x 8 Ga. Bolt, Fin Hex 3/8-16 x 1 Gr. 5 Cap, Wheel Steering Bearing, Col. Strg. Screw, Thdrol 3/8-16 x 3/4 Ty-tt Bearing, Flange Ring, Klip Truarc #5304-75 Bushing, Nyliner Snap Washer 11/32 x 1 x 10 Ga. Washer, Lock Hvy Hlcl Spr 5/16 Bolt, Hex Hd 5/16-18 x 3/4 Gear, Sector Steering Tie Rod Jam Nut RH Thread Joint Asm. Ball RH Thread Joint Asm. Ball LH Thread Joint Asm. Ball LH Thread

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

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### **ENGINE**



#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

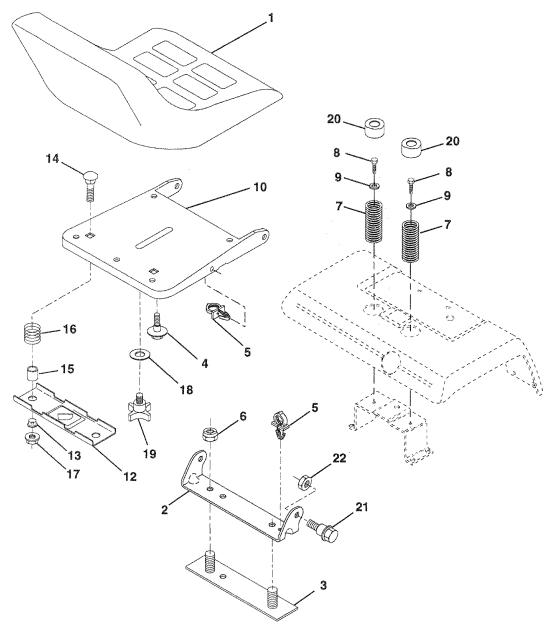
#### ENGINE

KEY		DECODIDATION	KEY NO.		DESCRIPTION
NO.	NO.	DESCRIPTION	140.	140.	
1	143851	Engine B&S 18, Model No. 422707- 1267-01	24 25	11050600 73610600	Washer Ext Tooth 3/8 Nut Fin Hex 3/8 - 24 UNF
2	139217	Muffler Asm Briggs (Inc. Key No. 29 & 34)	26 27	3645J 139227	Bushing Stem Tank Fuel
3	13240300	Elbow Street 3/8 NPT	28	7834R	Fuel Line
<b>4</b> 5 6	13280328 13200300	Nipple Pipe 3/8NPT X 3 - 1/2 Elbow STD 90 Degree 3/8 - 18 NPT	29	132920	Kit, Spark Arrester (Optional Accessory)
6	138129	Clamp Tube Double Engine	30	139365	Port Liner
7	141864	Baffle Engine B&S VGT	31	139367	Gasket
8	121361X	Pulley V-Idler	32	17490508	Screw Thdrol 5/16 - 18 X 1/2
9	138559	Stop Keeper Asm VGT	33	73800600	Nut Lock Hex W/Wash 3/8 - 16
10	105432X	Bushing			UNC
11 12	137140 136907	Clutch Electric Pulley Engine VGT Elect Clutch	34	17190408	Screw Hex Whs Thd Cut 1.4 - 20 UNC
13	138486	Baffle Air ĽH Koh VGT	35	10040500	Washer Lock 5/16
14	138487	Baffle Air RH Koh VGT	36	74570512	Screw Hex 5/16 - 16 UNC X 3/4
15	141069	Tank Fuel W/Sym Vented	37	123487X	Clamp Hose
16	109227X	Pad Spacer	38	11050600	Lockwasher Ext Tooth 3/8
17	106082X	Pad Spacer	39	17490624	Screw Thdrol 3/8 - 16 X 1 - 1/2 TT
18	123549X	Cap Asm Fuel W/Sym Vented	40	17490652	Screw Thdrol 3/8 - 16 X 3 - 1/4
19	13290300	Plug Oil Drain (Order From Engine Manufacturer)	41 42	126197X 10040700	Washer 1-1/2 OD X 15/32 ID X .250 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			

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

## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### SEAT ASSEMBLY

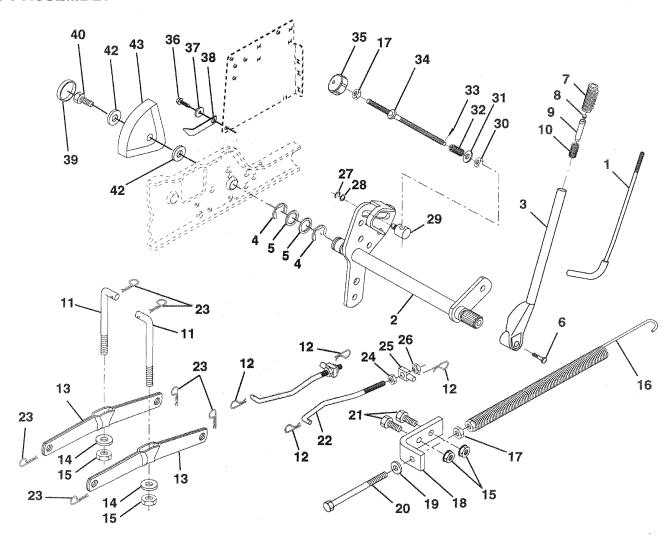


KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	127438X	Seat	13	121248X	Bushing, Snap
2	140551	Bracket, Pivot Seat	14	72050411	Bolt, Carriage 1/4-20 x 1-3/8
3	140674	Strap, Fender	15	134300	Spacer, Split
4	127018X	Bolt, Shoulder 5/16-18 x .62	16	121250X	Spring, Cprsn.
5	140407	Clip, Push-In	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

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

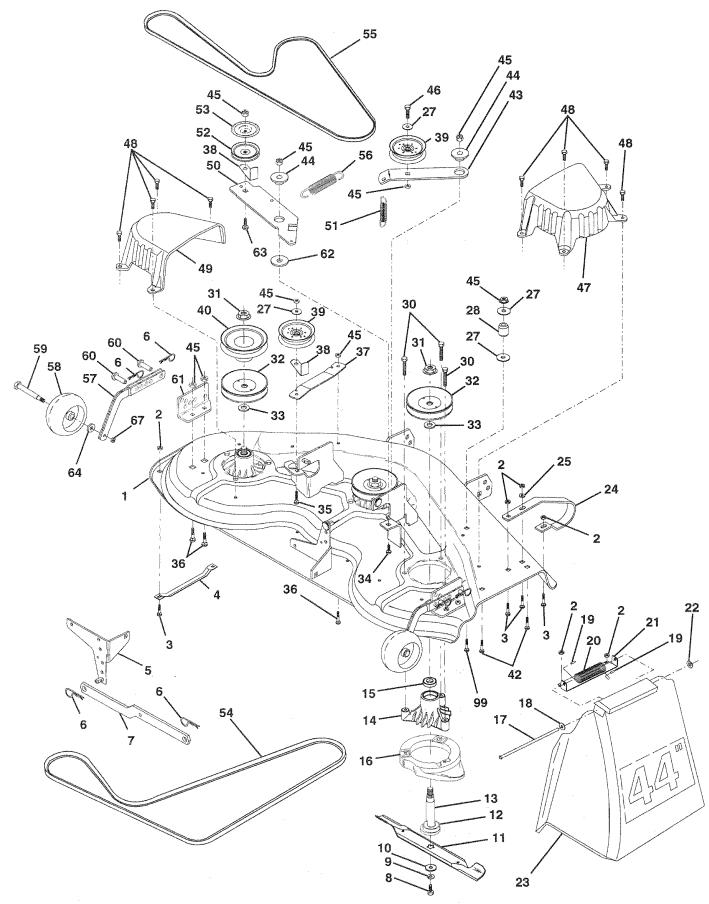
#### LIFT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3	121006X 137295 121002X	Rod Asm., Lever Shaft Asm., Lift Vgt Lever Asm., Lift Rh	24 25 26	73350800 130171 73800800	Nut, Jam Hex 1/2-13 Unc Trunnion Nut, Lock W/Wsh 1/2-13 Unc
4 5 6	12000022 19292016 74780624	E-Ring Truarc #5133-87 Washer 29/32 x 1-1/4 x 16 Ga. Bolt, Fin Hex 3/8-16 x 1-1/2	27 28 29	12000037 19151216 110810X	Ring, Klip #T5304-37 Washer 15/32 x 3/4 x 16 Ga. Trunnion, Dp Stop Dbl Thds Plt
7 8 9	125631X 122365X	Grip, Handle Fluted Button, Plunger	30 31	110807X 19131016	Nut, Special Washer 13/32 x 5/8 x 16 Ga.
10 11	122364X 2876H 142369	Plunger, Lever Lift Spring 2-1/8" Link Lift	32 33 34	137150 76020308 137167	Spring, Compression Inf Hgt Pin, Cotter 3/32 x 1/2 Rod, Adj Lift
12 13 14	3146R 139867 140302	Retainer, Spring Arm, Suspension Vgt	35 36	138057 17490608	Knob, Inf 3/8-16 Unc Screw, Thdrol 3/8-16 x 1/2
15 16	73800600 674A247	Bearing Nut, Lock Hex W/Wsh 3/8-16 Unc Spring Asm., Assist Lift	37 38 39	120529X 123933X505 123935X	Washer, Nylon Pointer, Pnt Height Indicator Plug, Hole
17 18 19	73350600 143363 19131316	Nut, Hex Jam 3/8-16 Unc Bracket, Spring Assist Washer 13/32 x 13/16 x 16 Ga.	40 41 42	74780516 10040500 19112410	Bolt, Fin Hex 5/16-18 x 1 Washer, Lock Hvy Hlcl Spr 5/16 Washer 11/32 x 1-1/2 x 10 Ga.
20 21	5328J 74760616	Bolt, Adjust Spring Assist Bolt, Fin Hex 3/8-16 x 1	43	123934X	Scale, Indicator Height
22 23	127218 4939M	Link, Front Retainer, Spring	NOT	E: All compon 1 inch = 25	ent dimensions given in U.S. inches .4 mm

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### 44" MOWER DECK



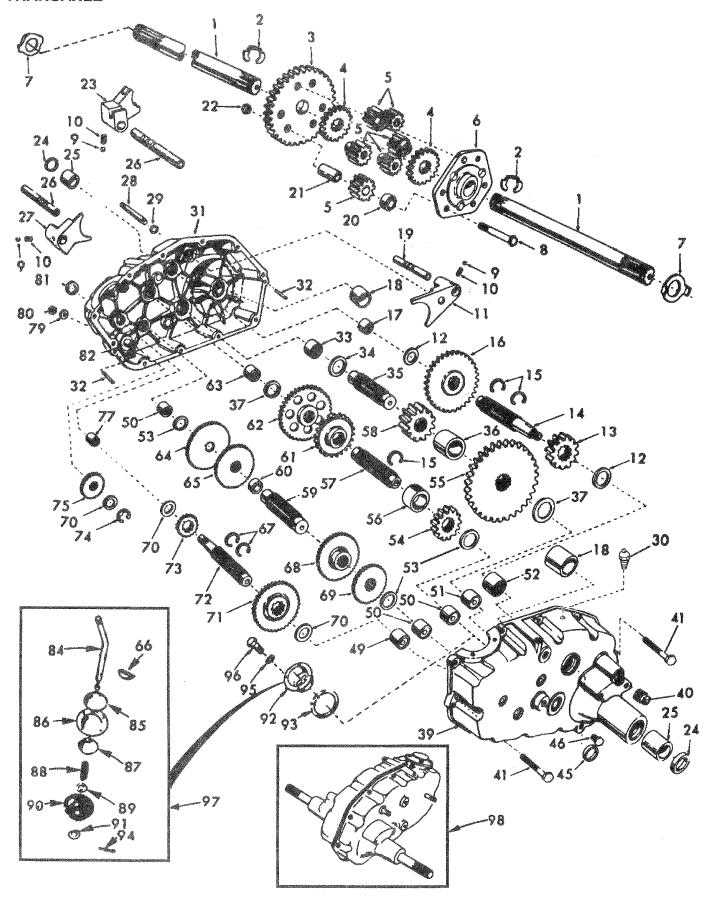
## 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### 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		137166	Stiffener, Arm Idler
3	72110506	Bolt, Carriage 5/16-18 x 3/4		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		73680600	Nut, Crownlock 3/8-16 Unc
10	140296	Washer, Hard Blade Mower Vented		74760628	Bolt, Fin Hex 3/8-16 Unc x 1-3/4
11	130652	Blade		137200	Cover, Mandrel RH
12	129895	Bearing, Ball #6204 (Mandrel)		137729	Screw, Thd Roll 1/4-20 x 5/8
13	137553	Shaft Asm., W/Lower Brg (Includes		136574	Cover, Mandrel LH
		Key No. 12)		137272	Arm, Idler Primary
14	137152	Housing, Mandrel 44" Vent		137273	Spring, Secondary
15	110485X	Bearing, Ball Mandrel		139245	Pulley, Idler V Groove
16	140329	Stripper, Mower Vented		137789	Shield, Idler
17	106735X	Rod, Hinge		131264	V-Belt, Mower Primary
18	19111016	Washer 11/32 x 5/8 x 16 Ga.		131290	V-Belt, Mower Secondary
19	105304X	Cap, Sleeve	56	138687	Spring, Primary
20	123713X	Spring, Torsion Deflector		136577	Bar Asm., Wheel Gauge
21	137607	Bracket, Deflector		133957	Wheel, Gauge
22	110452X	Nut, Push	59	137644	Bolt, Shoulder
23	109785X	Shield, Deflector Mower	60	139031	Pin, Clevis
24	136321	Runner, RH	61	136573	Bracket, Wheel Gauge
25	19111216	Washer 11/32 x 3/4 x 16 Ga.		133943	Washer Hardened
26	72110614	Bolt, Carriage 3/8-16 x 1-3/4 Gr. 5		72110612	Bolt, Carriage 3/8-16 x 1-1/2
27	19131316	Washer 13/32 x 13/16 x 16 Ga.		19121414	Washer 3/8 x 7/8 x 14 Ga.
	132823	Spacer, Spring Stop Idler		73930600	Nut, Centerlock 3/8-16
29	73800600	Nut, Lock Hex W/Wsh 3/8-16 Unc		143651	Mandrel AsmService (Includes Key
30	138776	Screw, Thdrol. Hex Head		4 4 4 6 7 5	Nos. 8-10, 12-15, 31 and 33)
31	137266	Nut, Fig Top Lock Cntr 9/16		144075	Mower AsmService (Std. Deck-
	129861	Pulley, Mandrel			Order all Gauge Wheel Components
	129963	Washer, Spacer Mower Vented		gom . All	separately)
34 35	72140610	Bolt, Carriage 3/8-16 x 1-1/4	NUI		nent dimensions given in U.S. inches
33	72110616	Bolt, Carriage 3/8-16 x 2		1 inch = 25	o.4 mm

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

#### TRANSAXLE

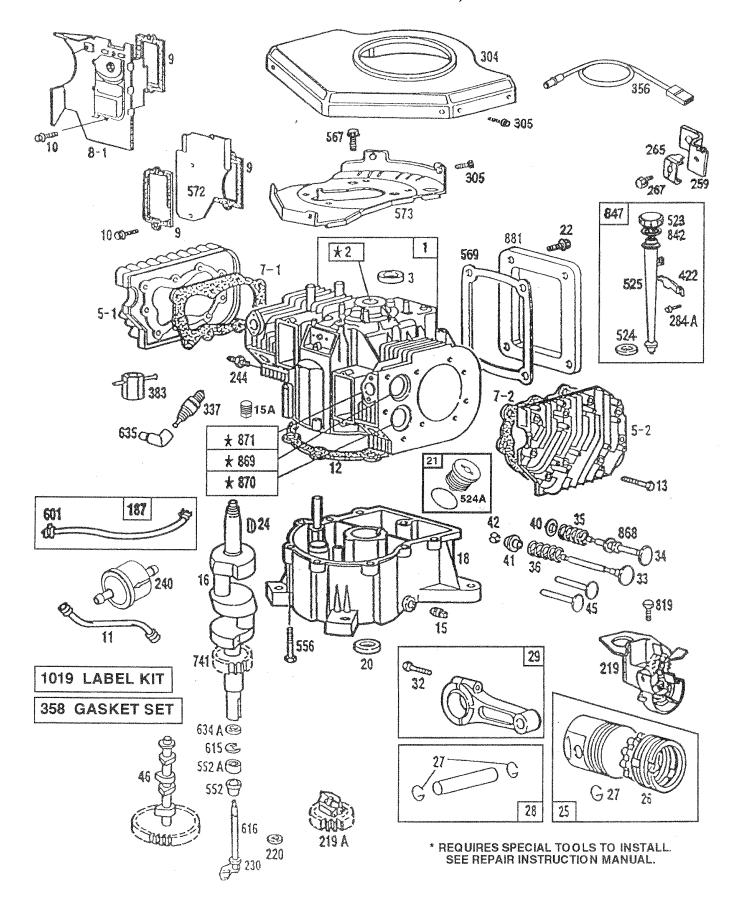


#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

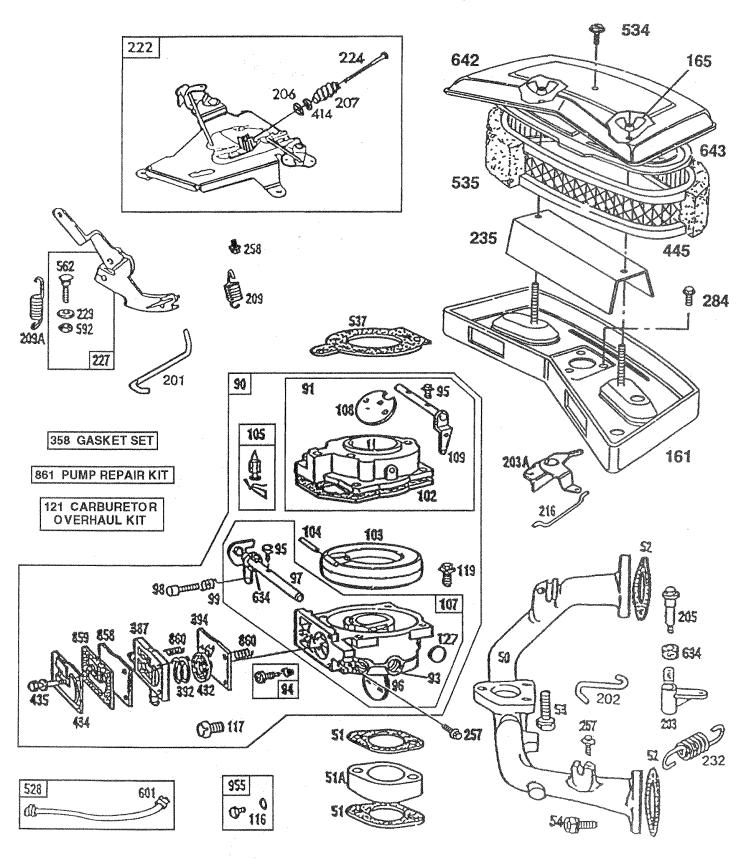
#### TRANSAXLE

	PART NO.	DESCRIPTION		PART 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	59	4194R	1st Reduction Gear Shaft
	****	(1" Thread Length)	60	7528R	1st Reduction Shaft Spacer
9	7392M	Steel Ball	61	4208R	3rd Reduction Plnion High
10	137261	Spring Shift Fork Detent	62	4207R	2nd Reduction Gear
11	4985R	Shift Fork, High-Low Range	63	7398H	Needle Bearing
12 13	6266H 4212R	Thrust Bearing Race	64	4203R	Low Speed Gear and 2nd
14	137125	4th Reduction Pinion	~=	40045	Reduction Pinion Cluster
15	6276H	Shaft, Brake Snap Ring, Crescent Type	65	4204R	Reverse Gear
16	633A63	High-Low Range Gears	66 67	2898J 12000033	Key, Hi-Pro 1/8 x 17/32
17	8118M	Needle Bearing	67 68		Klip Ring
18	8740H1	Sintered Iron Bearing	69	4205R 4206R	Intermediate Speed Gear 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
21	6252H1	Differential Pinion Bushing	, ,	OOOMOO,	Cluster Pinions
22	7810H	Gripco Centerlock Nut 3/8-24	72	139120	Input Shaft
23	6262H	Shift Fork, R.H.	73	4201R	Low Speed Pinion
24	<b>7</b> 393R	Oil Seal	74	12000008	E-Ring
25	992R1	Sintered Iron Bearing	75	1153R	Reverse Idler Gear
26	139111	Shift Fork Shaft	77	6803J	Needle Bearing
27	4986R	Shift Fork, L.H.	79	1167R	Sealing Washer
28	122254X	Shift Shaft, High-Low Range	80	73360700	Nut, Hex, Jam 7/16-20
29	6269H	Oil Seal	81	6270H	Oil Seal
30	5855H	Pressure Relief Valve	82	136984	Reverse Idler Shaft
31	139538	Gearcase, Reverse Idler Shaft and	84	5384J	Gearshift Lever, Bent
		Bearings, R.H. (Includes Key No.'s	85	2978J	Gearshift Cap
32	6277H	17,18, 25, 33, 50, 63, 77 and 82) Dowel Pin	86	633A85	Gearshift Ball Cover and Pin
33	4225R	Needle Bearing	87 88	8739H1 4924H	Shift Lever Guide Ball, Keyed
34	7396H	Thrust Bearing Race		19151516	Spring Washer 15/32 x 15/16 x 16 Gauge
35	4198R	4th Reduction Gear Shaft	90	110542X	Shift Mechanism Seal
36	4200R	4th Reduction Gear Spacer	91	19181511	Washer 9/16 x 15/16 x 12 Gauge
37	7395H	Thrust Bearing Race	92	75J	Gearshift Gate and Reinforcement
39	139536	Gearcase and Bearings, L.H.	93	6274H	Shift Ball Cover Gasket
		(Includes Key Numbers 18, 25, 49,	94	76020412	Cotter Pin 1/8 x 3/4
		50 (2), 51 and 52)	95	10040500	Washer, Lock 5/16
40	13320400	Pipe Plug 1/2-14 N.P.T.	96	74760514	Bolt, Hex Head 5/16-18 UNC x 7/8
41	17580520	Bolt, Hex 5/16-18 UNC x 1-1/4	97	633A109	Gearshift Lever Assembly
45	6271H	Oil Seal	98	140332	Transaxle, 6 Speed,
46	13060200	Pipe Plug 1/4-18 N.P.T.			Complete Assembly
49 50	4895H	Needle Bearing	مر عدد سم	19822 N. 5.3	
50 51	4222R 1529R	Needle Bearing	NOT		ent dimensions given in U.S. inches
01	102311	Needle Bearing		1 inch = 25	.4 mm

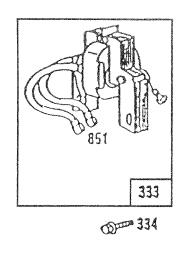
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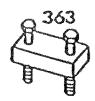


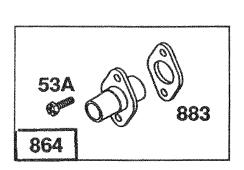
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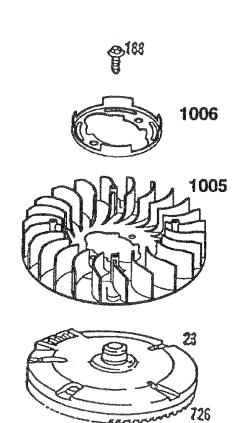


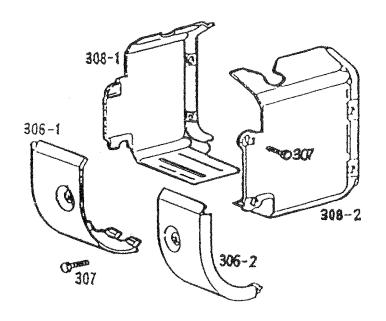
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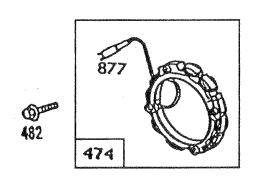


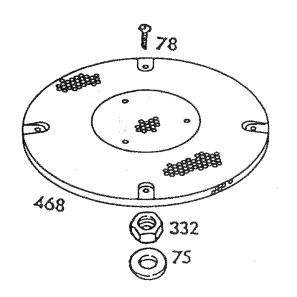




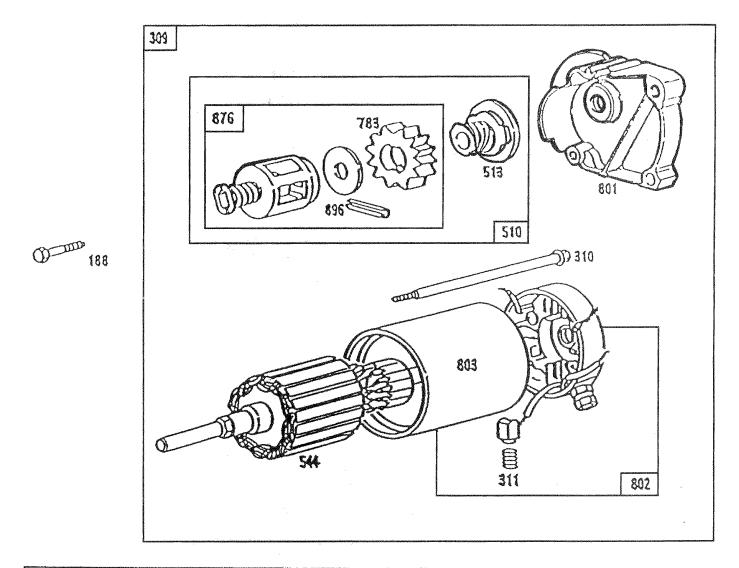








# 18 HP 44" TRACTOR - MODEL NUMBER 917.257711 BRIGGS & STRATTON ENGINE - MODEL NUMBER 422707, TYPE NUMBER 1267-01



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

<sup>\*</sup>Includes Brush Set

Reference Number	510	513	783	876	896
Starter	Starter Drive	Clutch	Gear	Pinion	Roll
Motor Mfr.	Group	Assembly		Spring Kit	Pin
Briggs & Stratton	·				
12V	49 <b>5</b> 878	398003	280104	495877	94288(Copper)

ga

#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

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

KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1 2	494533 491756	Cylinder Assembly Bearing, Cylinder	51 51Δ	271412 281411	*** Gasket, Carburetor & Intake Elbow Spacer, Carburetor
3		* Seal, Oil	52		* Gasket, Intake Manifold Mounting
5-1	493457	Head, Cylinder Number 1	53		Screw, Sems, Carburetor Mounting
5-2	493458	Head, Cylinder Number 2		93415	Screw, Sems
7-1		* Gasket, Cylinder Head Number 1	54	93208	Screw, Sems,
		* Gasket, Cylinder Head Number 2	- 1		Intake Manifold Mounting
8-1	495754	Breather Assembly Number 1	75	222511	Washer, Spring
8-2	222892	Cover, Breather, Cylinder Number 2	78	94834	Screw, Sems
		(Use with Key Number 572,	90	495181	Carburetor Assembly
		Air Baffle with Mounting Holes)	91	495035	Body Assembly, Upper Carburetor
9		* Gasket, Valve Cover	93		Bushing, Throttle Shaft
10	94830	Screw, Sems	94		** Valve Assembly, Carburetor Idle
11	280225	Tube, Breather	95	93499	Screw, Sems,
12		Gasket, Crankcase Cover, 1/64"	00	004000	Throttle and Choke Valve Mounting
		* Gasket, Crankcase Cover, .005"	96	221939	Valve, Throttle
10		* Gasket, Crankcase Cover, .009"	97	392672	Shaft and Lever, Throttle
13 15	94565 942 <b>3</b> 9	Screw, Cylinder Head	98 99	91920 26157	Screw, Machine, Fillister Head Spring, Throttle Adjustment
	94497	Plug, Oil Drain Plug, Pipe		271607	** Gasket, Carburetor Body
16	394028	Crankshaft		298514	Float, Carburetor
, 0	94196	Key, Timing Gear		230896	** Pin, Float Hinge
18	493304	Base Assembly, Crankcase		394683	** Valve, Fuel Inlet
20		* Seal, Oil		491543	Body, Lower Carburetor
21	399195	Seal Assembly, Cylinder Plug		223534	Valve, Choke
22	94724	Screw, Sems,		392673	Shaft and Lever, Choke
	404400	Crankcase Cover Mounting		280474	O-Ring
23	491180	Flywheel and Ring Gear Assembly,		231338	Jet, Needle Valve
24	222698	Magneto Koy Flywhool		94152 491539	Screw, Sems, Hex Head Carburetor Overhaul Kit
25	394955	Key, Flywheel Piston Assembly, Standard Size		223472	Plug, Welch
20	394956	Piston Assembly, .010" Oversize		496599	Body, Air Cleaner
	394957	Piston Assembly, .020" Oversize		94289	Nut, Wing
	394958	Pision Assembly, .030" Oversize		299146	Line, Fuel, 28" (Cut to Suit)
26	394959	Ring Set, Piston, Standard Size	188	93535	Screw, Hex Head
	394960	Ring Set, Piston, .010" Oversize		262683	Link, Governor
	394961	Ring Set, Piston, .020" Oversize		262684	Link, Throttle
	394962	Ring Set, Piston, .030" Oversize		280997	Crank, Bell
27	260924	Lock, Piston Pin		490207	Crank, Bell
28	299691	Pin Assy., Piston, Standard Size		93971	Screw, Shoulder
20	391286	Pin Assy., Piston .005" Oversize		94298	Nut, Square
29	394306 397158	Rod Assembly, Connecting Rod Assembly, Connecting,		262337 262352	Spring, Compression Spring, Governor
	037 100	.020" Undersize Crankpin Bore		261563	Spring, Governor Idle
32	94671	Screw, Connecting Rod	216	262375	Link
33	390420	Valve, Exhaust	219	393415	Oil Slinger Assembly
34	261528	Valve, Intake		394348	Gear, Governor
		Uses: 393606 Seal Assembly and			
		Retainer (Key Number 868)	*	Included in	Gasket Set (495868)
35	65906	Spring, Intake Valve	**	Imalizate et !	Continuator Overther (184 (404 mon)
36 40	26828	Spring, Exhaust Valve	~ *	included in	Carburetor Overhaul Kit (491539)
40 41	221596 292260	Retainer, Intake Valve Rotocoil, Exhaust Valve	***	Included in	both Gasket Set (495868), and
	93630	Retainer, Exhaust Valve Rotocoil(2)			Overhaul Kit (491539)
45	261368	Tappet, Valve		30.20.00	with the first to the control of the
46	213421	Gear, Cam	NOT	E: All comp	onent dimensions given in U.S. inches
50	213290	Manifold, Intake			25.4 mm

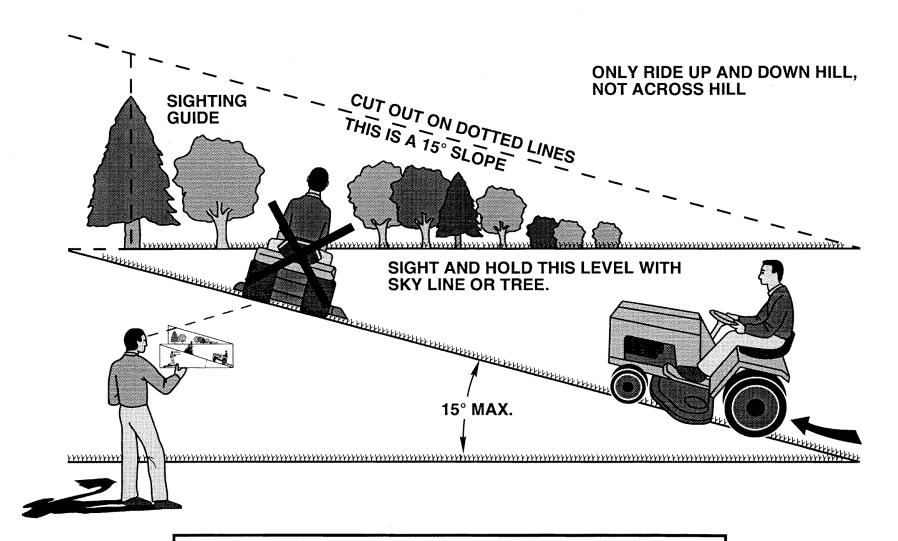
#### 18 HP 44" TRACTOR - MODEL NUMBER 917.257711

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

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
220 222773 222 491282 224 94297 227 491297 229 62199	Washer, Thrust Plate Assembly, Governor Control Screw, Pan Head Lever Assembly, Governor Washer	552A 262331 556 93585 562 93853 567 93777	Upper Bushing, Governor Screw, Sems, Hex Head Bolt, Governor Lever Screw, Hex Head, Back Plate to Cylinder
230 223882 232 262539 235 224995 240 493629	Washer, Governor Crank, Inside Spring, Governor Control Shield, Spitback Filter, Fuel (In Fuel Line to Tank)	569 272645 572 224580 573 491304 592 92278	* Gasket, Crankcase Baffle, Air, Cylinder Number 2 Back Plate Assembly Nut, Hex
244 230318 257 93897 258 93949 259 223890 265 221535	Connector, Impulse Pump Screw, Sems Screw, Sems Bracket, Cable Clamp, Casing	601 93053 615 94296 616 491530 634 271013 634A 491287	Clamp, Fuel Line Retainer, E-Ring Crank, Governor  ** Washer, Throtte Shaft * Seal, Governor Shaft
267 93496 284 94264 284A 93469 304 495587 305 94608	Screw, Hex Head Screw, Hex Head Screw, Hex Head Housing, Blower Screw, Sems 1/2	635 66538 642 225008 643 496700 726 391362	Elbow, Spark Plug Cover, Air Cleaner Cartridge Plate, Air Cleaner Gear, Flywheel Ring (Includes Mounting Parts)
306-1 222846 306-2 223734 307 94386 308-1 224774 308-2 224775	Shield, Cylinder Shield, Cylinder Screw, Sems Cover, Air Guide Cover, Air Guide	741 262694 819 94675 842 270920 847 495715 851 493880	Gear, Timing Screw, Hex Head * Seal, Oil Filler Cap Dipstick and Tube Assembly
332 230674	Motor, Starting (See Chart on Illustrated Pages for Replacement Parts for Starting Motors) Nut, Hex	858 270989 *** 859 271025 *** 860 261358 *** 861 393397	Terminal, Ignition Cable  ** Diaphragm, Damping  ** Gasket, Carburetor Pump  ** Spring (2)  Repair Kit, Pump
333 394891 334 93381 337 802592 356 494705	Armature Group, MAGNETRON® Ignition Screw, Sems, Armature Mounting Plug, Spark, Resistor (with Gasket) Wire, Ground	864 398349 868 393606 869 261463 870 213316 871 261961	Liner, Exhaust Port Seal Assembly and Retainer Seat, Intake Valve, Standard Seat, Exhaust Valve, Standard Guide, Exhaust Valve
358 495868 363 19203 383 89838 387 280197 392 261395 **	Gasket Set Puller, Flywheel (Optional Accy.) Wrench, Spark Plug Body, Pump *** Spring, Pump	231218 877 393537 881 495901 883 272250	Guide, Intake Valve (See Manual) Connector Assembly, Tri-Circuit Cover Plate, Crankcase (Includes Gasket - Key #569) * Gasket, Muffler
394 272638 ** 414 220680 422 222875 432 221377 ** 434 223688	*** Diaphragm Washer Clamp, Oil Filler *** Cap, Spring Cover, Diaphragm	955 397882 1005 281053 1006 224413 1019 491262	Plug and Seal, Solenoid Fan, Flywheel Retainer, Fan Decal Kit
435 93829 445 394019	Screw, Diaphragm Cover Cartridge, Air Cleaner	RPM Settings: Lo	ow: 1100-1400, High: 3200-3400
468 224521 474 392595	Screen, Flush Rotating Stator, Alternator, Tri-Circuit		asket Set (495868)
482 93621 523 494927 524 280860	Screw, Sems Cap and Dipstick, Oil Filler * Seal, Filler Tube	*** Included in bo	arburetor Overhaul Kit (491539) oth Gasket Set (495868), and
524A 271485 525 495348 528 393815 534 94823	Seal, Tube Tube, Oil Filler Impulse Line and Clamp Assembly Screw, Round Head	**** Included in bo	verhaul Kit (491539) oth Carburetor Overhaul Kit (491539), epair Kit (393397)
535 271271 537 271411 * 552 262332	Element, Air Cleaner  *** Gasket, Air Cleaner  Lower Bushing, Governor	NOTE: All compor	nent dimensions given in U.S. inches 5.4 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

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