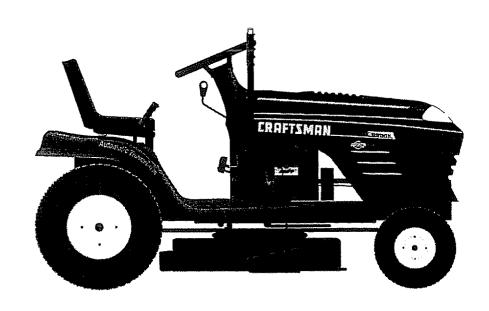
SEARS

# CRAFISMEN.

MODEL NUMBER 917.258671 OWNER'S MANUAL



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



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

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



#### **SAFETY RULES**

Safe Operation Practices for Ride-On Mowers



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

#### I. GENERAL OPERATION

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

#### II. SLOPE OPERATION

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

#### no.

- · 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 slowand gradual. Do not
- 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.



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

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

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Authorized Service Center/Department 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 SERIAL	917.258671
NUMBER	
DATEOFPURG	CHASE
THEMODELAN	ND SERIAL NUMBERS WILL BE FOUND
ON A PLATE	UNDER THE SEAT.
YOUSHOULD	RECORD BOTH SERIAL NUMBER AND
DATE OF PUR	CHASE AND KEEP IN A SAFE PLACE
FOR FUTURE	REFERENCE.

#### MAINTENANCE AGREEMENT

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

#### **CUSTOMER RESPONSIBILITIES**

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

**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-cov-

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	19.5
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG/SH):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	3.0 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RJ19LM
VALVE CLEARANCE:	INTAKE: .004"006" EXHAUST: .007"009"
GROUND SPEED (MPH):	FORWARD: 0 - 5.5 REVERSE: 0 - 2.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R
BLADE BOLT TORQUE:	30-35 FT. LBS.

ered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

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

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

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

This Warranty does not cover:

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

#### LIMITED 90 DAY WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

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

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

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

# **TABLE OF CONTENTS**

CAFETY DIN EC	2 OPERATION	11-16
PRODUCT SPECIFICATIONS	3 MAINTENANCE S	SCHEDULE17
CUSTOMER RESPONSIBILITIES	3 17-20 SERVICE AND A	DJUSTMENTS21-27
WARRANTY		28
TABLE OF CONTENTS	TROUBLESHOO	TING29-30
INDEX	4 REPAIR PARTS -	· TRACTOR32-47
TRACTOR ACCESSORIES	5 REPAIR PARTS ·	ENGINE48-53
ASSEMBLY	7-10 PARTS ORDERIN	NG/SERVICE BACK PAGE
INDEX		
Α	E	Ο
Accessories 5	Electrical:	Oil:
Adjustments:	Interlocks and Relays 26	Cold Weather Conditions 14,19
Brake 24	Schematic31	Engine
Carburetor	Wiring Diagram	Storage
Mower:	Engine:	Operation11-16
Front-To-Back22	Air Filter 19	Operating Mower14
Side-To-Side	Air Screen	Options:
Throttle Control Cable26-27	Cooling Fins, Engine	Accessories
Air Filter, Engine 19	Oil Change	Spark Arrester 3,40
Arr Screen, Engine	Oil Level	Р
Assembly7-10	Oil Type 19	Parking Brake 12-13
В	Preparation 14	Parts Bag 6
Battery:	Repair Parts	Parts, Replacement/Repair32-47
Charging 18	Starting 14 Storage 28	Product Specifications3
Cleaning	•	R
Starting with Weak Battery 26	<b>F</b>	Repair Parts 32-47
Storage Carrier and Storage 28	Filters:	S
Terminals 18	Air 19	Safety Rules 2
Belts:  Motion Drive	Fuel 20	Seat
Removal/Replacement24	Fuel: Type14	Service and Adjustments21-27
Mower Drive	Storage	Brake 24
Removal/Replacement 23	Fuse	Carburetor 27
Mower Blade Drive	G	Fuse 26
Removal/Replacement23	<del></del>	Hood Removal/Installation 26
Blade:	Gauge Wheels 9,14	Motion Drive Belt
Sharpening	H	Removal/Replacement 24
Replacement	Hood Removal/Installation 26	Mower Drive
Brake Adjustment 24	L.	Removal/Replacement 23
C	Leveling Mower Deck21-22	Mower Blade Drive Belt
Carburetor Adjustment	Lubrication Chart 17	Removal/Replacement 23
Controls, Tractor	M	Mower Adjustment:
Customer Responsibilities3,17-20	Maintenance Schedule	Front-to-Back
Engine:	Mower:	Side-to-Side
Air Filter ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Adjustment, Front-to-Back 22	Mower Installation 21 Mower Removal 21
Air Screen, Engine19	Adjustment, Side-to-Side 22	Tire Care
Battery 18	Blade Sharpening	Slope Guide Sheet
Cooling Fins, Engine19	Blade Replacement18	Spark Plugs
Engine Oil20	Cutting Height13	Specifications 3
Fuel Filter	Installation	Starting the Engine14-15
_ Spark Plugs 18	Operation11-16	Steering Wheel
Tractor:	Removal 21	Stopping the Tractor
Blades Chort	Mowing Tips	Storage
Lubrication Chart	Muffler 20	T
Tire Care	Spark Arrester 3,40	Throttle Control Cable Adjustment 26
Cutting Height, Mower	Mulcher Plate	Tires
County Freight, Mowel Company Comments 10		Trouble Shooting Chart29-30
		Transaxle Repair Parts 46-47
		W
		Warranty 3
	_	Wiring Diagram
	4	Wiring Schematic31

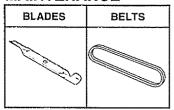
# **ACCESSORIES AND ATTACHMENTS**

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

#### **ENGINE**

# SPARK PLUG GAS CAN ENGINE OIL FUEL STABILIZER AIR FILTER

#### MAINTENANCE



#### PERFORMANCE

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

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

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

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

BUMPER protects front end of tractor from damage.

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

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

EASY OIL DRAIN VALVE makes oil changes easier, faster.

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

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

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

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

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

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

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

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

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

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

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

SWEEPERS let you collect grass clippings and leaves.

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

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

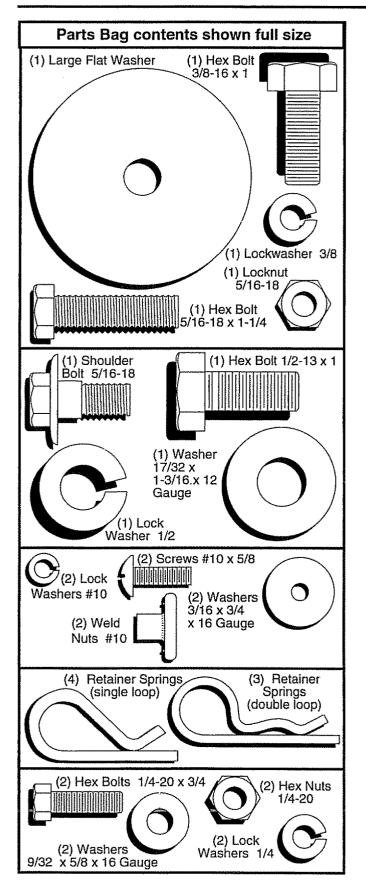
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered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

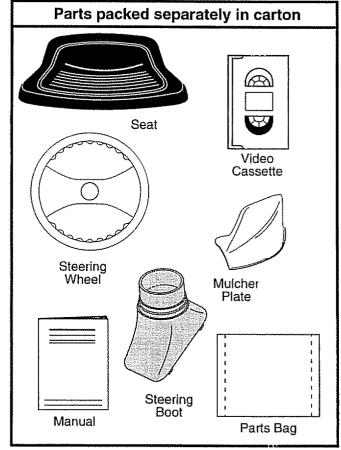
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

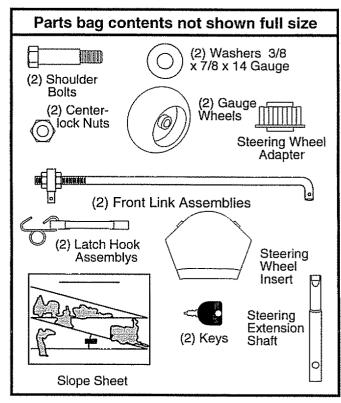
**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

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

# **CONTENTS OF HARDWARE PACK**







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

#### **TOOLS REQUIRED FOR ASSEMBLY**

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

(1) 9/16" wrench

(1) 3/4" Socket w/drive rachet

(2) 7/16" wrenches

Phillips Screwdriver

(2) 1/2" wrench

Tire pressure gauge

(1) 3/4" wrench

Utility knife

Pliers

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

# TO REMOVE TRACTOR FROM CARTON UNPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- · Remove mower and package materials.
- Check for any additional loose parts or cartons and remove.

#### BEFORE ROLLING TRACTOR OFF SKID

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

ASSEMBLE EXTENSION SHAFT AND BOOT

 Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.

**IMPORTANT:** TIGHTEN BOLT AND NUT SECURELY TO 18-22 FT. LBS TORQUE.

 Place tabs of steering boot over tab slots in dash and push down to secure.

#### **INSTALL STEERING WHEEL**

- Position front wheels of the tractor so they are pointing straight forward.
- Slide steering wheel adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 3/8 lock washer, 3/8 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

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

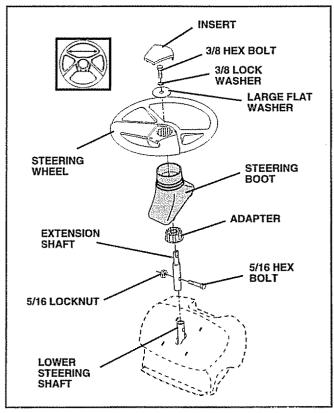


FIG. 1

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

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- · Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

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

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



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

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

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

Use terminal access doors for:

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

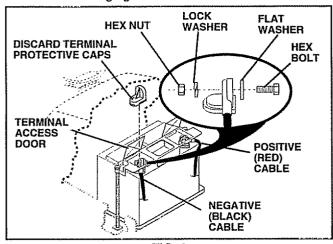


FIG. 2

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

Adjust seat before tightening adjustment bolt.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment bolt, lock washer and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment bolt securely.

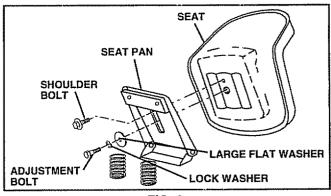


FIG. 3

#### **CHECK TIRE PRESSURE**

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

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### CHECK BRAKE SYSTEM

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

#### INSTALL MOWER AND DRIVE BELT (See Figs. 4 and 7)

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

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

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

- Install one front link in top hole of the L.H. front mower bracket and L.H. front suspension bracket. Retain with two single loop retainer springs as shown
- Install second front link in R.H. front suspension bracket and retain with single loop retainer spring as shown.
- Slide right side of mower back and install link in top hole of R.H. front mower bracket. Retain with single loop retainer spring as shown.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift control.
- Place the suspension arms on outward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms down as shown.

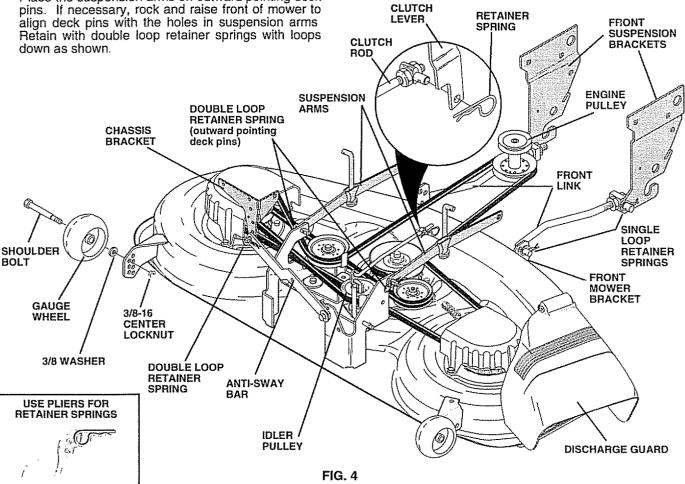
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Install clutch rod in clutch lever. Secure with retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Assemble gauge 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 MOWER LEVELNESS

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

#### CHECK FOR PROPER POSITION OF ALL BELTS

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



# INSTALL MULCHER PLATE (See Figs. 5 and 6)

 Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

**NOTE:** Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

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



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

# TO CONVERT TO BAGGING OR DISCHARGING

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

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

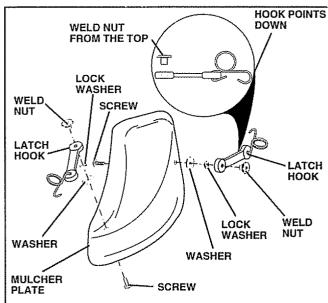


FIG. 5

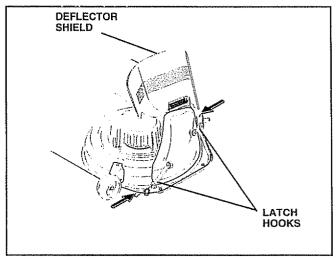


FIG. 6

#### ✓ CHECKLIST

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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.
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

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



**BATTERY** 



CAUTION OR WARNING



**REVERSE** 



**FORWARD** 



FAST



SLOW



**ENGINE ON** 



**ENGINE OFF** 



**OIL PRESSURE** 



CLUTCH



LIGHTS ON



LIGHTS OFF



**FUEL** 



CHOKE



MOWER HEIGHT



DIFFERENTIAL LOCK



PARKING BRAKE LOCKED



UNLOCKED



MOWER LIFT



**REVERSE** 



**NEUTRAL** 



HIGH



LOW



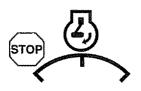
PARKING BRAKE



ATTACHMENT CLUTCH ENGAGED



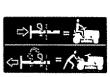
ATTACHMENT CLUTCH DISENGAGED

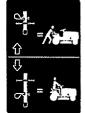


IGNITION



DANGER, KEEP HANDS AND FEET AWAY



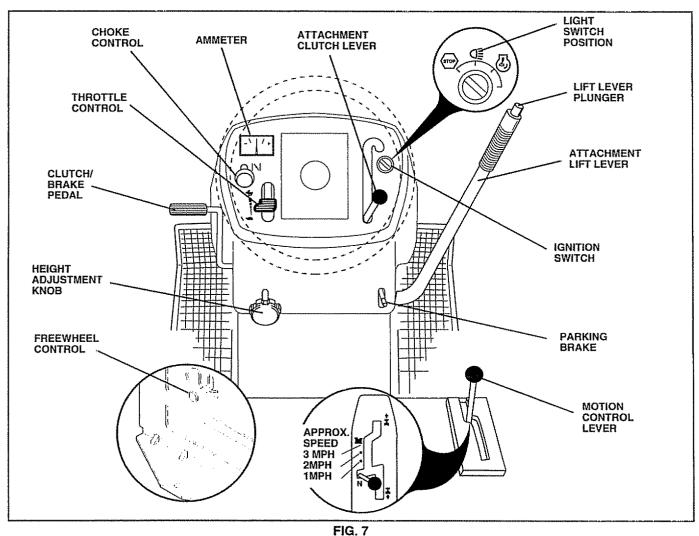


HYDROSTATIC FREE WHEEL (Hydro Models only)

#### KNOW YOUR TRACTOR

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

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



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

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

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

THROTTLE CONTROL: Used to control engine speed.

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

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

**FREEWHEEL CONTROL**: Disengages transmission for pushing or slowly towing the tractor with the engine off.

CHOKE CONTROL: Used when starting a cold engine.

**MOTION CONTROL LEVER:** Selects the speed and direction of the tractor.

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

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

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

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

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



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

#### **HOW TO USE YOUR TRACTOR**

#### TO SET PARKING BRAKE (See Fig. 8)

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

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

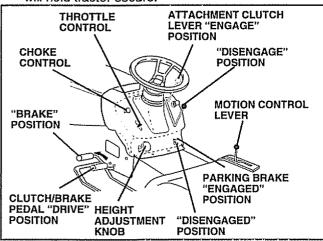


FIG. 8

#### STOPPING (See Fig. 8)

**MOWER BLADES -**

Move attachment clutch Lever to "DISENGAGED" position.

#### **GROUND DRIVE -**

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

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

#### 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 bagging and 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 motion control lever.

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- Slowly move motion control lever to desired position.

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

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

#### TO ADJUST GAUGE WHEELS (See Fig. 9)

Gauge wheels are properly adjusted when they are slightly off the ground when mower is at the desired cutting height in operating position. Gauge wheels then keep the deck in proper position to help prevent scalping in most terrain conditions.

- Adjust gauge wheels with tractor on a flat level surface.
- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).

- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

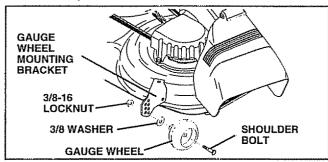


FIG. 9

#### TO OPERATE MOWER (See Fig. 10)

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

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



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

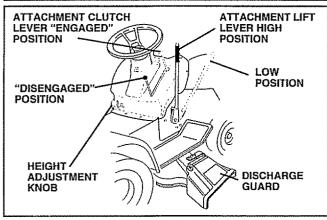


FIG. 10

#### TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.

- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move motion control lever to neutral (N) position.
   IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

#### TO TRANSPORT (See Fig. 11)

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control knob out and hold in position by inserting retainer spring into forward hole of control rod.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

**NOTE**: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

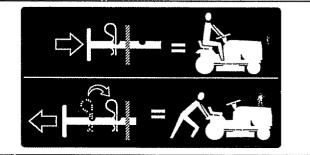


FIG. 11

# BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL (See Fig. 15)

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

#### ADD GASOLINE

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

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

14

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

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

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

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

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

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

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

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

#### HYDROSTATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - Place the motion control lever in neutral.
     Release the parking brake and let the clutch/brake slowly return to operating position.
  - Allow one minute for transmission to warm up. This can be done during the engine warm up period.
- The attachments can be used during the engine warmup period after the transmission has been warmed up and may require the choke control be pulled out slightly.

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

#### **PURGE TRANSMISSION**



CAUTION: Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

oped during shipping of your tractor.

IMPORTANT: SHOULD YOUR TRANSMISSION REQUIRE
REMOVAL FOR SERVICE OR REPLACEMENT, IT
SHOULD BE PURGED AFTER REINSTALLATION
BEFORE OPERATING THE TRACTOR.

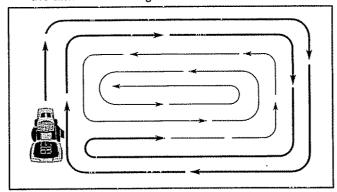
- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

**NOTE:** During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

- Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TOTRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.
- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

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

#### MULCHING MOWING TIPS

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

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action.
   The best time to mow your lawn is the early afternoon.
   At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 12B). For extremely heavy mulching, reduce your width of cut and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

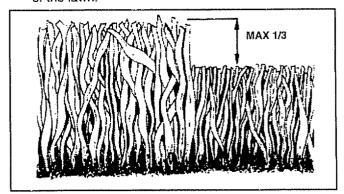


FIG. 12B

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE		EFORE	EACHUS WERY &	YERY ?	5 HOURS	HOUR HOUR ERY 10	S HOUR O HOUR WERY'S	S EASON EFORE	SER	(GE VICE	DAT	ES
	Check Brake Operation	4	8										
	Check Tire Pressure	<b>V</b>	<b>V</b>										
IT	Check for Loose Fasteners	9/				<b>6</b> /7		8/					
Ŗ	Sharpen/Replace Mower Blades			0/4									
	Lubrication Chart		Ī	1/				<b>V</b>					
lΥ	Check Battery Level/Recharge			1/6									
0	Clean Battery and Terminals			6/				9/					
R	Check Transaxle Cooling			6/									
	Adjust Blade Belt(s) Tension					1/5							
	Adjust Motion Drive Belt(s) Tension					1/5							
	Check Engine Oil Level	6/	<b>V</b>										
	Change Engine Oil			1,2,3				V					
E	Clean Air Filter			1/2									
N	Clean Air Screen			1/2									
G	Inspect Muffler/Spark Arrester				<b>V</b>								
	Replace Oil Filter (If equipped)					1,2							
N	Clean Engine Cooling Fins					1/2							
E	Replace Spark Plug					4	<b>V</b>						
	Replace Air Filter Paper Cartridge				***************************************	W 2							
	Replace Fuel Filter						<b>V</b>						

- 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 moving in sandy soil

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

#### GENERAL RECOMMENDATIONS

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

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

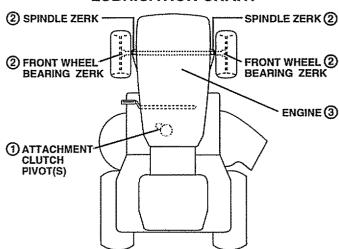
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

#### **BEFORE EACH USE**

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

#### **LUBRICATION CHART**



- (1) SAE 30 OR 10W30 MOTOR OIL
- (2) GENERAL PURPOSE GREASE
- ③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

17

#### 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.

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

#### **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.

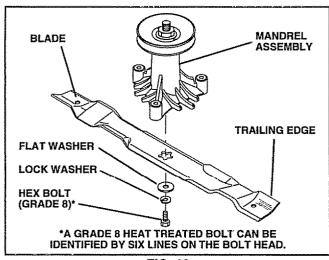


FIG. 13

#### 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.

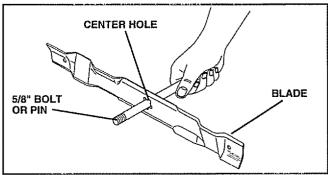


FIG. 14

#### BATTERY

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

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

#### TO CLEAN BATTERY AND TERMINALS

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

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

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

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

#### TRANSAXLE PUMP FLUID

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

#### **ENGINE**

#### **LUBRICATION**

Only use high quality detergent oil rated with API service classification SF, SG or SH. Select the oil's SAE viscosity grade according to your expected operating temperature.

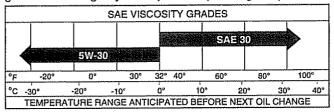


FIG. 15

**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 every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.

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

#### TO CHANGE ENGINE OIL (See Figs. 15 and 16)

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

- 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.

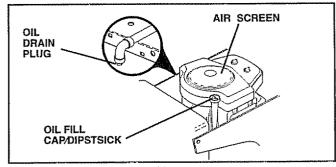


FIG. 16

#### **CLEAN AIR SCREEN (See Fig. 16)**

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

#### AIR FILTER (See Fig. 17)

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.

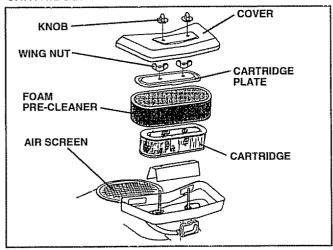


FIG. 17

#### **ENGINE COOLING FINS (See Fig. 18)**

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

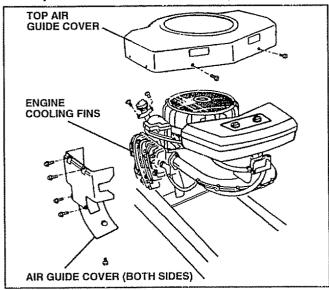


FIG. 18

#### MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

#### SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### IN-LINE FUEL FILTER (See Fig. 19)

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.

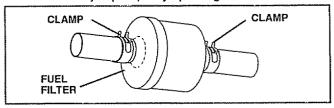


FIG. 19

#### **CLEANING**

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

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



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

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

#### TO REMOVE MOWER (See Fig. 20)

- · Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Disconnect clutch rod from clutch lever by removing retainer spring.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.

- Slide mower forward and remove belt from engine pulley.
- Slide mower out from under right side of tractor.

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

#### TO INSTALL MOWER

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

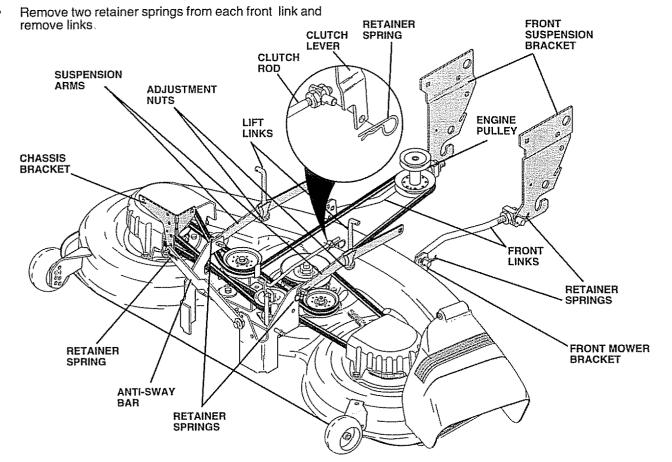


FIG. 20

#### 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. 21 and 22)

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

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

Recheck measurements after adjusting.

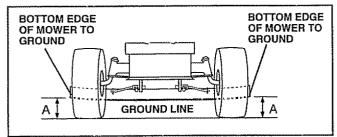


FIG. 21

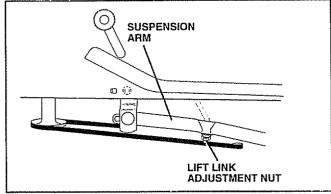


FIG. 22

FRONT-TO-BACK ADJUSTMENT (See Figs. 23 and 24)

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

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

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

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

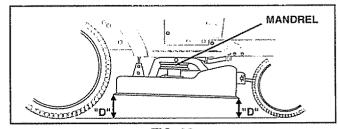
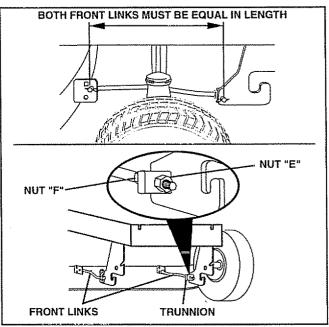


FIG. 23



#### TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 25)

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

#### MOWER DRIVE BELT INSTALLATION (See Fig. 25)

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

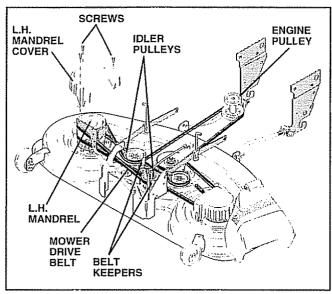


FIG. 25

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 26)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove four screws from R.H. mandrel cover and remove cover.
- Disconnect secondary clutch rod from pivot rod by removing retainer spring.
- Carefully roll belt off A.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 secondary clutch rod to pivot rod with retainer spring.
- Reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

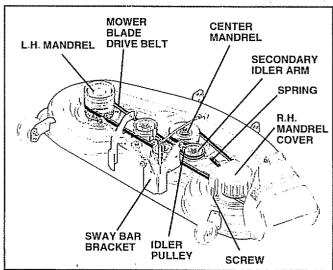


FIG. 26

#### TO ADJUST BRAKE (See Fig. 27)

Your tractor is equipped with an adjustable brake system which is mounted on the 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.

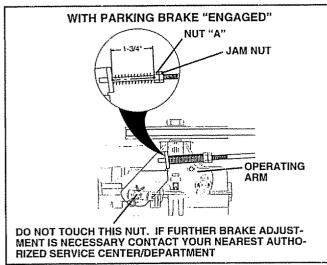


FIG. 27

# TO REPLACE MOTION DRIVE BELT (See Fig. 28)

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

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- · Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

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

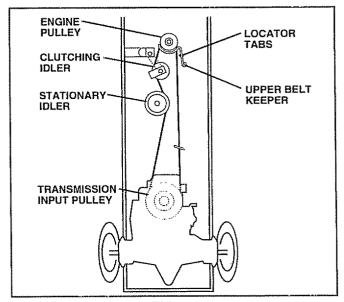


FIG. 28

# TO ADJUST MOTION CONTROL LEVER (See Fig. 29)

The motion control lever has been preset at the factory and adjustment should not be necessary.

If for any reason the motion control lever will not hold its position while at a selected speed, it may be adjusted at the friction pack located on the right side of transmission.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position, and engage parking brake.
- Adjust motion control lever by tightening adjustment locknut one half (1/2) turn.

**NOTE:** If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 to 1/2 turn. Road test tractor after adjustment and repeat procedure if necessary.

#### TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in the Operation section of this manual.

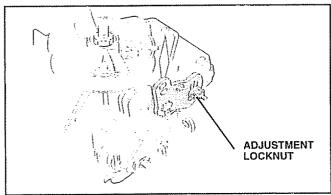


FIG. 29

#### TO ADJUST STEERING WHEEL ALIGNMENT

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

#### FRONT WHEEL TOE-IN/CAMBER

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

# TO REMOVE WHEEL FOR REPAIRS (See Fig. 30)

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

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

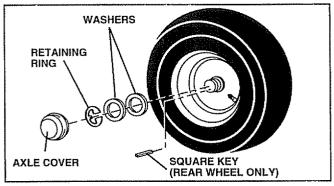


FIG. 30

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 31)



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 good CHASSIS GROUND, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

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

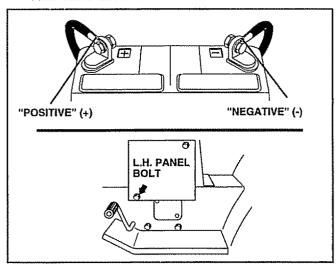


FIG. 31

#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

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

#### TO REPLACE FUSE

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

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 32)

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

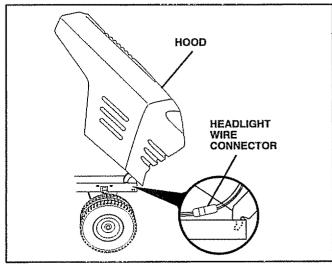


FIG. 32

#### **ENGINE**

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 33)

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

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

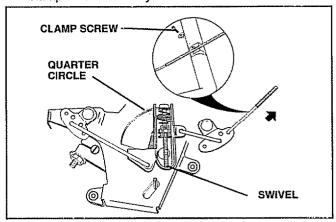


FIG. 33

#### TO ADJUST CHOKE CONTROL (See Fig. 34)

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

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

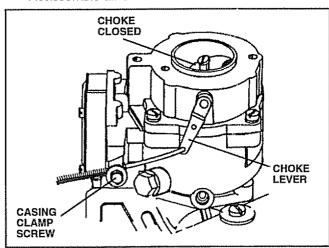


FIG. 34

# TO ADJUST CARBURETOR (See Figs. 35 & 36)

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.

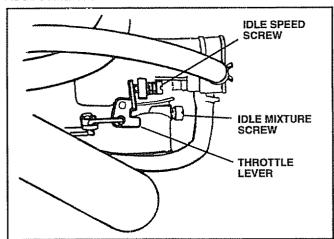


FIG. 35

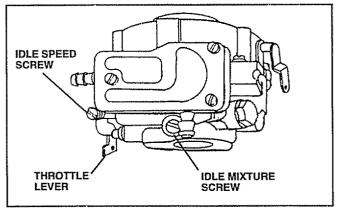


FIG. 36

# **STORAGE**

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



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

#### TRACTOR

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

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

#### **BATTERY**

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

#### **ENGINE**

#### **FUEL SYSTEM**

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

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

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

#### ENGINE OIL

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

#### **CYLINDERS**

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

#### OTHER

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

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

# TROUBLESHOOTING POINTS

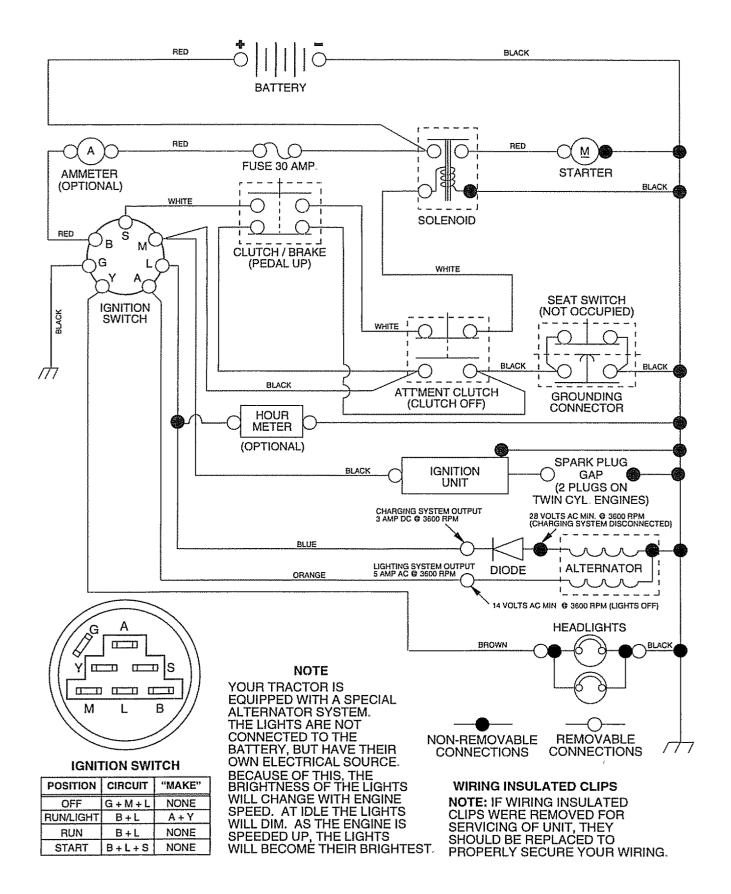
PROBLEM	CAUSE	CORRECTION			
Will not start	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment.	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department</li> </ol>			
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> </ol> 8. Engine valves out of adjustment.	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department.</li> </ol>			
Engine will not turn over	1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Weak or dead battery. 4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch. 8. Faulty solenoid or starter. 9. Faulty operator presence switch(es).	<ol> <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	1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oil level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department.</li> </ol>			
Excessive vibration	Worn, bent or loose blade.     Bent blade mandrel.     Loose/damaged part(s)	Replace blade . Tighten blade bolt.     Replace blade mandrel.     Tighten loose part(s). Replace damaged parts.			

# **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>	1. Replace blade. Tighten blade bolt 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes				
Mower blades will not rotate	Obstruction in clutch mechanism.     Worn/damaged mower drive belt.     Frozen idler pulley.     Frozen blade mandrel.	Remove obstruction.     Replace mower drive belt     Replace idler pulley.     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>	1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive beit. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.				
Headlight(s) not working (if so equipped)	1. Switch is "OFF". 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring 5. Blown fuse.	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	Bad battery cell(s).     Poor cable connections.     Faulty regulator (if so equipped).     Faulty alternator.	Replace battery,     Check/clean all connections.     Replace regulator.     Replace alternator,				
Loss of drive	Freewheel control in "disengaged" position.     Motion drive belt worn, damaged, or broken.     Air trapped in transmission during shipment or servicing.	Place freewheel control in "engaged" position.     Replace motion drive belt     Purge transmission.				
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW"     position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.				
		1				

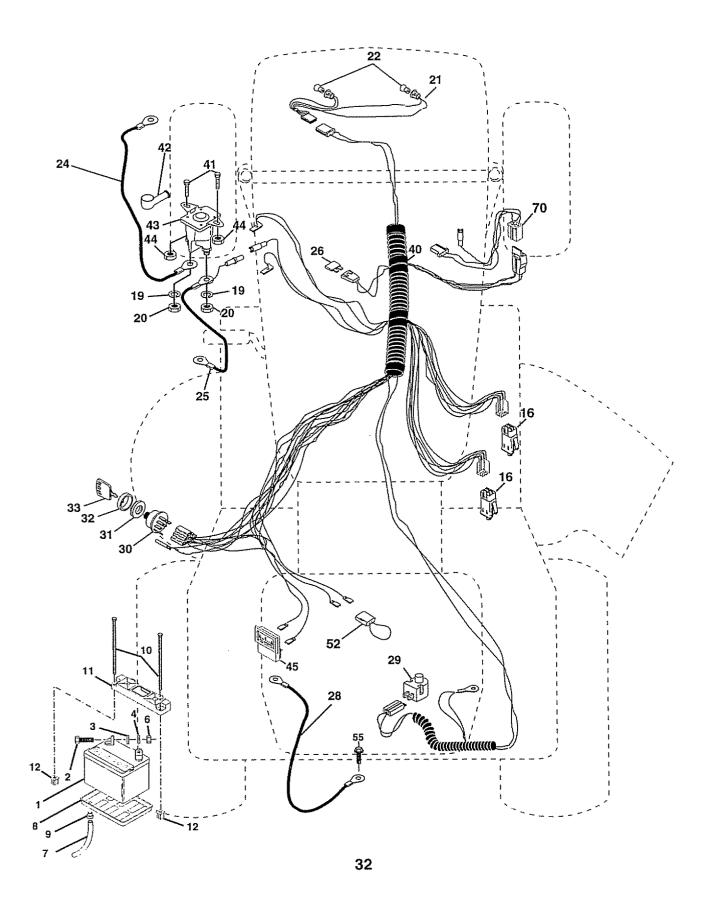
#### TRACTOR - - MODEL NUMBER 917,258671

#### **SCHEMATIC**



## **TRACTOR - - MODEL NUMBER 917.258671**

#### **ELECTRICAL**



## TRACTOR - - MODEL NUMBER 917.258671

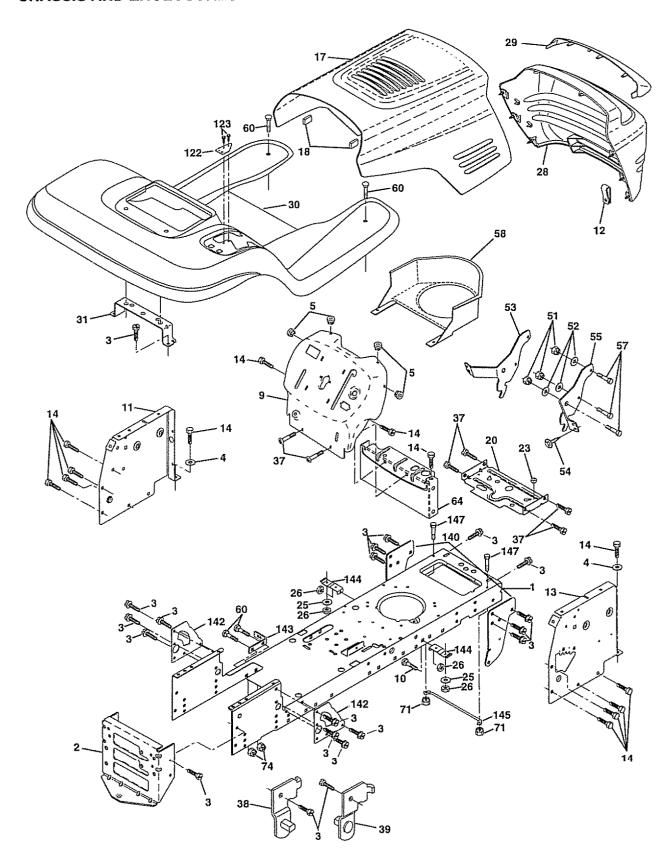
#### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
19 20 21 22 24 25 28 29 30 31 32 33 40 41 42 43 44 45 52	4152J 4799J 146148 108824X 145491 121305X 140301 124211X 141226 109310X 156442 71110408 131563 145673 73640400 121433X 141940 17490508	Battery Bolt, Hex 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Gauge Washer, Lock 1/4 Nut, Hex 1/4-20 Tube Tray, Battery Clamp, Hose Bolt, Btr Front 1/4-20 x 7-1/2 Holddown Battery Front Mount Nut, Push Nylon Battery Front 1/4 Switch Interlock Push-In Washer, Lock 1/4 Nut, Hex, Jam 1/4-20 Harness, Light Socket (w/4152J) Light Bulb Cable, Battery Cable, Battery Fuse Cable, Ground Switch, Seat Switch, Ignition 4 Position Nut, Ignition Cover, Ignition Switch Key, Molded, Craftsman Harness, Ignition Bolt Blk Fin Hex 1/4-20 UNC x 1/2 Cover, Terminal Solenoid Nut Keps Blk Hex 1/4-20 UNC Ammeter Rectangular 6 Amp Protection Wire Loop (Hour Meter) Screw Thdrol 5/16-18 x 1/2 Harness Engine B&S/Tec Dual

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

#### TRACTOR - - MODEL NUMBER 917.258671

## **CHASSIS AND ENCLOSURES**



## TRACTOR - - MODEL NUMBER 917.258671

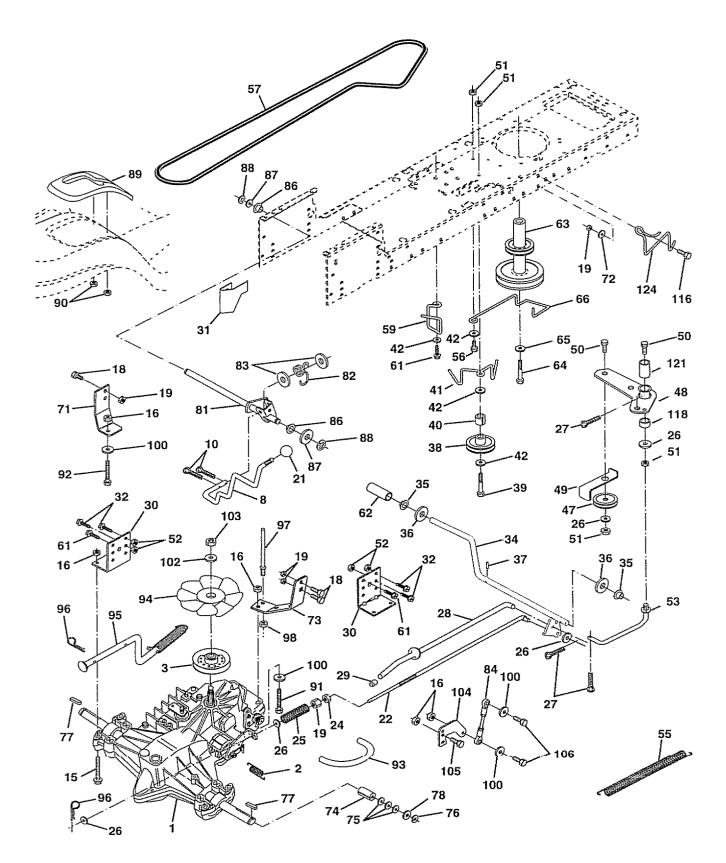
#### **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION
1 2 3	153871 159527 17490612	Chassis Drawbar Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
4 5 9 10 11 12 13 14	STD551025 155272 150156X011 STD533710 155927 145660 155936 17490608	Washer 13/32 x 3/4 x 16 Gauge Bumper Hood/Dash Dash, Silkscreened Bolt, Carriage 3/8-16 x 1 Panel, Dash, LH Clip Tinnerman Grille P/L Panel, Dash, RH Screw, Thd., Roll. 3/8-16 x 1/2 Type TT
17 18 20 23 25 26	144983X558 126938X 156437 124028X 19131312 STD541437	Hood Assembly Bumber Hood Plate Mtg Battery Fuel Tank Bushing, Snap, Nylon, Fuel Line Washer 13/32 x 13/16 x 12 Gauge Locknut, Hex, with Insert 3/8-16 UNC
28 29 30 31 37 38	145198X558 145200 151287X558 139976 17490508 139886	Grille, W/Clips MS-558 Lens, Grille Fender/Footrest Bracket, Fender/Support Screw, Thdrol. 5/16-18 x 1/2 TYT Pivot Bracket Assembly, LH, Mower,
39 51 52	139887 73800400 19091416	Rear Pivot Bracket Assembly, RH, Mower, Rear Nut Lock W/Insert 1/4 - 20 UNC Washer 9/32 X 7/8 X 16 Ga.
53 54	145201 17030814	Bracket Grille Pickoff LH Screw, Hex Head, Spiderlock #8 x 7/8 AB
55 57 58 60 64 71 74 122 123 140 142 143 144 145 147	152927 158418 156095 154966 154207	Bracket Grille Pickoff RH Bolt FinHex 1/4 -20 UNC X.75 Air Duct P/L 18HP B&S Opp. Twin Bolt Rdhd Sqnk 3/8-16 UNC x 3/4 Dash Lower STLT Nut Crownlock 1/4-20unc x 3/4 Nut Crownlock 3/8-16 UNC Bracket, Shift STLT Screw TT #10-32 . 5 . 3/8 Flange Bracket Suspension Front Plate Reinforcement STLT Backrest Swaybar Chassis Bracket Footrest STLT Rod Pivot Chassis/Hood Bolt Hex Hd 1/4-20unc x 3/4

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

#### TRACTOR - - MODEL NUMBER 917.258671

DRIVE



## TRACTOR - - MODEL NUMBER 917.258671

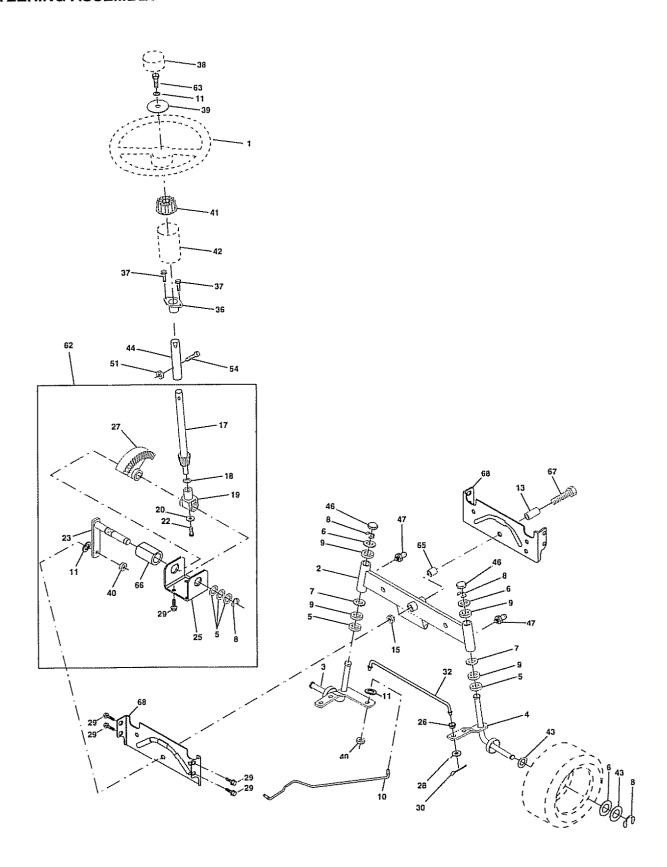
#### DRIVE

KEY No.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1 238015689122456789012456789014278901555555555555555555555555555555555555	150071  142431 143995 154792 STD561210 74490544 STD541431 STD523710 STD541437 130564 145627 73350600 106888X STD551037 STD561210 145204 124236X 130807 127275X 74760512 155071 120183X 19211616 1572H 123674X STD523727 4470J 154777 19131312 127783 154604 123205X STD523715 STD541437 STD541431 105710X 105709X STD523712 140294 140312	Transaxle ( See Breakdown) Hydro Gear Model No. 310-0650 Spring, Return, Brake Pulley, Transaxle Rod Shift Fender STLT Pin Cotter 1/8 x 1 CAD Bolt Hex Flghd 5/16-18 Gr. 5 Nut Lock Hex W/Ins. 5/16-18 Unc Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5 Nut Lock Hex W/Wsh 3/8-16 Unc Knob, Deluxe 1/2-13 Rod, Brake Hydro Nut, Hex Jam 3/8-16 Unc Spring, Brake Rod Washer Pin Cotter 1/8 x 3/4 CAD. Rod, Parking Brake Cap, Parking Brake Bracket, Transaxle Keeper Belt Lh Bolt Hex Hd 5/16-18 Unc x 3/4 Shaft, Foot Pedal Bearing, Nylon Washer Pin, Roll Pulley, Idler, Flat Bolt Spacer, Split Keeper, Belt Idler Washer 13/32 x 13/16 x 12 Gauge Pulley, Idler, V-Groove Bellcrank Assembly Retainer, Belt Bolt Nut Crownlock 3/8-16 UNC Nut, Crownlock 5/16-18 Unc Link, Clutch Spring, Return, Clutch Bolt Hex 3/8-16 x 1-1/4 V-Belt, Ground Drive Keeper, Center Span	62 63 64 65 66 71 72 73 74 75 77 78 81 82 83 84 88 99 91 92 93 94 95 96 97 98 100 101 101 101 101 101 101 101 101 10	8883R 140186 71170764 STD551143 154778 140158 19132012 156347 121199X 121749X STD581075 123583X 121748X 156046 123782X 19171216 140548 71208 19212016 12000008 154882 124346X 74780536 74780524 142564 140462 144643 4497H 140469 73510600 19111216 141322 73940800 140156 71070516 74780520 72110610 154774 154419 156470	Cover, Pedal Pulley, Engine Bolt Hex 7/16-20 x 4 Gr. 5 Washer Keeper Belt Engine Full-Proof Strap Torque Lh Hydro 18/20" T Washer 13/32 x 1-1/4 x 12 Ga. Strap Torque Rh Hydro 0650 Spacer, Split Washer 25/32 x 1-1/4 x 16 Gauge E-Ring Key, Square Washer 25/32 x 1-5/8 x 16 Gauge Shaft Asm. Cross Hydro 20" Tires Spring Torsion T/A Washer 17/32 x 3/4 x 16 Ga. Rod, Tie Hydro 20" Tires Bushing Rod Strig. 629/632 ID Washer 21/32 x 1-1/4 x 16 Ga. Ring Klip #5304-62 Console, Shift Nut Self-Thd Wsh-hd 1/4 Zinc Bolt Fin Hex 5/16-18 x 2-1/4 Bolt Fin Hex 5/6-18 Unc x 1-1/2 Line Fuel Hydro 4" Fan, Hydro 7" Control Bypass Hydro 20" Tires Retainer Spring 1" Zinc/Cad Keeper Bolt Rh Hydro 0750, 18/20" Nut Keps Hex 3/8-16 Unc Washer 11/32 x 3/4 x 16 Ga. Washer Bellville .501D x 1.50D Nut Hex Jam Toplock 1/4-20 Unf Arm, Control Hydro Screw Cap Hex 5/16-18 Unc x 1-1/4 Bolt Fin Hex 5/16-18 Unc x 1-1/4 Bolt Fin Hex 5/16-18 Unc x 1-1/4 Bolt Fin Hex 5/16-18 Unc x 1-1/4 Bolt Carr. 3/8-16 x 1.25 Spacer Bellcrank Myliner Clutching STL Guide Belt RH Engine
			124	156470	Guide Belt RH Engine

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

## TRACTOR - - MODEL NUMBER 917.258671

#### STEERING ASSEMBLY



## TRACTOR - - MODEL NUMBER 917.258671

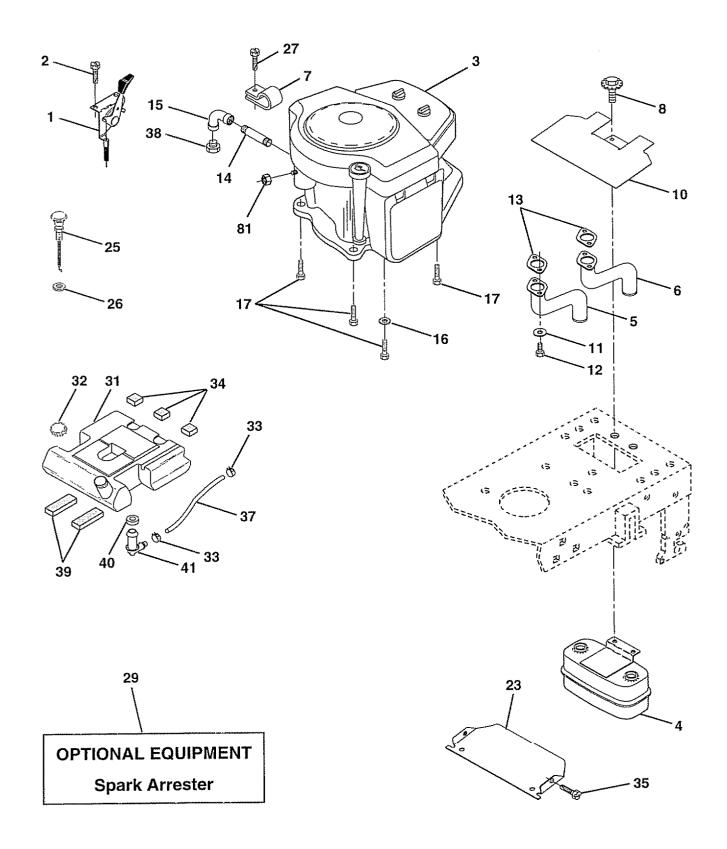
#### STEERING ASSEMBLY

KEY PART NO. NO.	DESCRIPTION
1 139768 2 154427 3 156483 4 157473 5 6266H 6 121748X 7 19272016 8 12000029 9 3366R 10 156438 11 STD551137 13 154779 15 73901000 17 156546 18 57079 19 124035X 20 126684X 21 STD551125 22 71100410 23 127501 25 154406 26 126847X 27 136874 28 19131416 29 17490612 30 STD561210 32 130465 36 155099 37 152927 38 139769 39 19133808 40 7810H 41 100711L 42 145054 43 121749X 44 153720 46 121232X 47 6855M 51 73800500 54 74780520 62 156594 63 74780616 65 154404 67 74781044	Wheel Steering Std Black Axle Asm Front Spindle Asm Lh Spindle Asm Rh Bearing Race Thrust Harden Washer 25/32 X 1 5/8 X 16ga Washer 27/32 X 1 1/4 X 16 Ga Ring Klip #t5304-75 Bearing Col Strg Blk Link Drag Extended Stamped Washer Lock Hvy Hlcl Spr 3/8 Bearing Axle STLT/GT Locknut Flange 5/8-11 UNC Shaft Asm Strg Private Label Washer Thrust 515x 750x 033 Support Shaft Washer Shim 1/4 X 5/8 X 062 Washer Lock Hvy Helical 1/4 Screw Cap Sckt Hd Phos & Oil Shaft Asm Pittman Bracket Steering Bushing Rod Tie Blk Lt Gear Sector Washer 13/32 X 7/8 X 16ga Screw Thdrol 3/8-16x3/4 Ty-tt Pin Cotter 1/8 X 3/4 Cad Rod Tie Wire Form 19 75 Mech Bushing Strg 5/8 Id Dash Screw TT #10-32x5x3/8 Flange Insert Cap Strg Wheel Std Blk Washer 13/32 X 2-3/8 X 8 Ga Nut Lock Center 3/8-24 UNF Adaptor Wheel Strg Boot Shaft Steering Washer 25/32 X 1 1/4 X 16 Ga Extension Steering Non-Adjust Cap Spindle Fr Top Blk Fitting Grease Nut Lock Hex W/Ins 5/16 -18 UNC Bolt Fin Hex 5/16 - 18 UNC X 1 -1/4 Kit, Steering Assembly Bolt Fin Hex 3/8-16unc x 1 Gr.5 Spacer Axle Bearing Arm Pittman Bolt Fin Hex 5/8-11 UNC x 2-3/4 Axle Brace

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

## TRACTOR - - MODEL NUMBER 917.258671

## **ENGINE**



#### TRACTOR - - MODEL NUMBER 917.258671

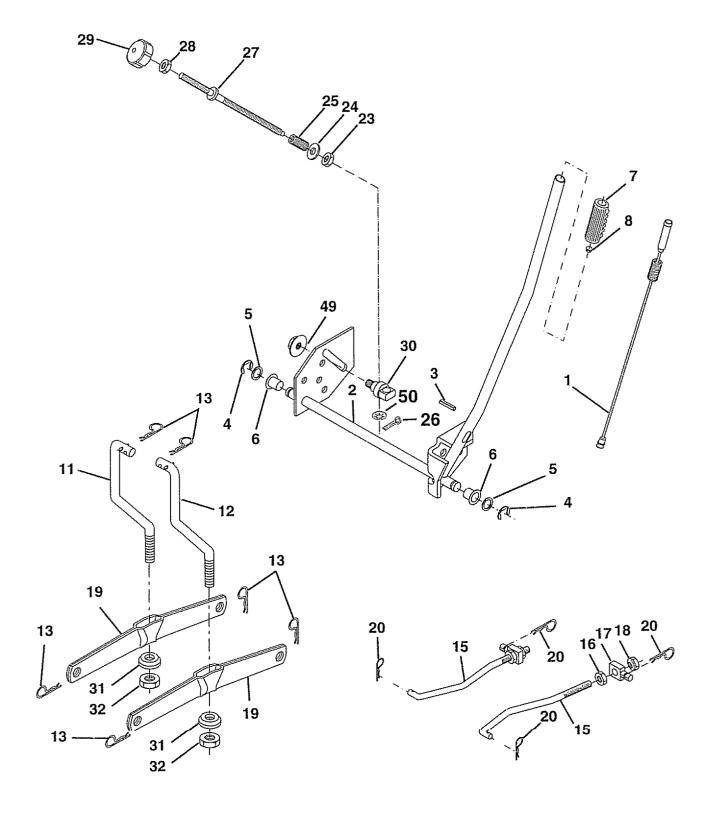
#### **ENGINE**

KEY NO.	PART NO.	DESCRIPTION
1 2 3	151273 17720410	Control Throt Paddle 32 22 Screw Hex Thd Cut 1/4-20x5/8 T Engine (See Breakdown) Briggs Model No. 42E707-1631-01
4 5 6 7 8		Muffler Exhaust Exhaust Asm. Left Exhaust Asm. Right Clamp Tube Double Engine Bolt 5/16 - 18 UNC X 3/4 W/Sems
11 12 13 14	145552 STD551125 STD522507 272250 13280336	Heat Shield Lt Washer Lock Hvy. Helical 1/4 Bolt Fin Hex 1/4-20 x 3/4 Gasket Muffler Nipple Pipe 4-1/2"
16 17 23 25	17490624 156123 145996	Elbow Std 90 Degree 3/8-18 Npt Washer Lock Ext Tooth 3/8 Screw Thdrol 3/8-16x1-1/2 Tytt Shield Browning Control Choke
27 29 31 32	153630 155971	Nut Keps 3/8-24 Unf Screw TT #10-32 x 5 x 3/8 Flange Arrestor Spark Tank Fuel 3 50 Rear Cap Fuel Guage STLT
33 34 35 37 38	123487X 106082X 17490512 8543R	Clamp Hose Blk Spacer Pad Screw Thdrol 5/16-18 x 3/4 TYT Line Fuel Plug Oil Drain (Order From Engine
39 40 41 81	109227X 3645J 139277 128861	Manufacturer) Pad Idler 1.75 x .75 x .06 Bushing Stem Tank Fuel Nut, Flange 1/4-20 Starter Nut

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

## TRACTOR - - MODEL NUMBER 917.258671

#### **MOWER LIFT**



## TRACTOR - - MODEL NUMBER 917.258671

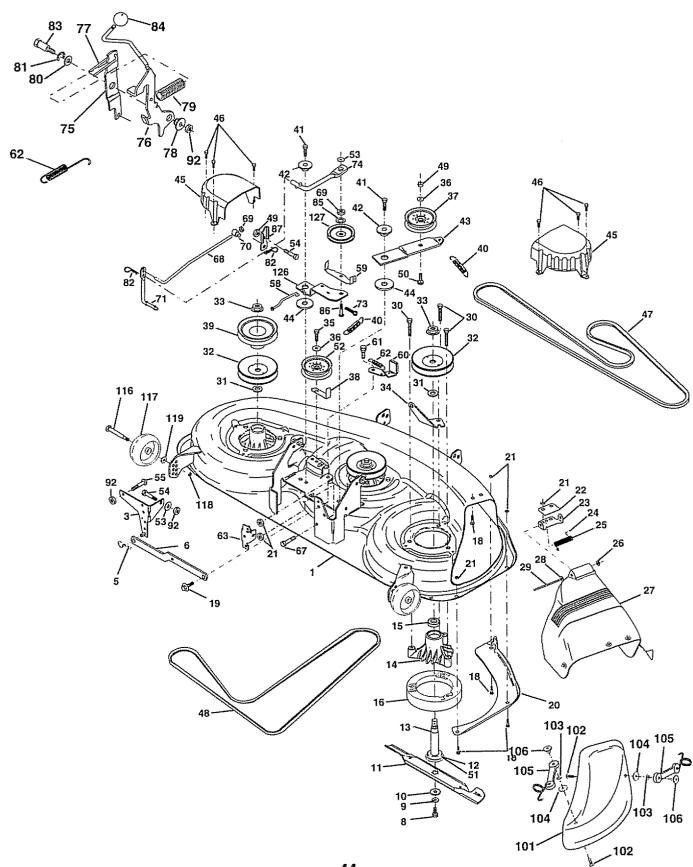
#### **MOWER LIFT**

KEY NO.		DESCRIPTION
11 12 13 15 16 17 18 19 20 23 24 25 26 27 28 29 30 31	139866 STD624008 127218 73350800 130171 73800800 139868 STD624008 110807X 19131016 2876H 76020308 126971X 73350600 138057 150233 140302 73540600	Wire Assy., Inner/Spring, w/Plunger Shaft Asm. Lift Pin Groove E Ring #5133-62 Washer 21/32 x 1 x 21 Ga. Bearing Nylon Grip Handle Fluted Button Plunger Read Spring Cprsn Link Lift Lh Fixed Length Link Lift Rh Fixed Length Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/Wsh 1/2-13 Unc Arm Suspension Rear Retainer Spring Nut Spring Washer 13/32 x 5/8 x 16 Ga. Spring 2-1/8" Pin cotter 3/32 x 1/2 Rod Adj. Lift Nut Hex Jam 3/8-16 Knob Inf. 3/8-16 Trunnion Infin. Height Bearing, Pivot, Lift, Special Nut, Crownlock 3/8-24 Nut Flange Lock

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

## TRACTOR - - MODEL NUMBER 917.258671

#### **MOWER DECK**



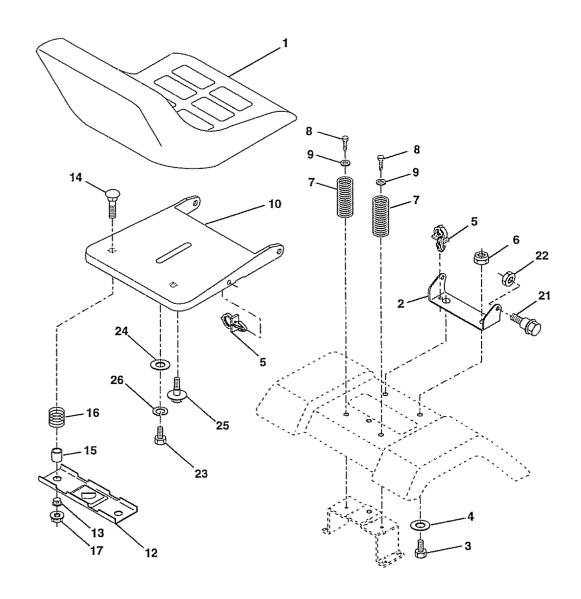
## TRACTOR - - MODEL NUMBER 917.258671

#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 3 5 6 8 9 10	156948 138457 4939M 130832 850857 10030600 140296	Deck Asm., Mower 46" Bracket Asm., Sway Bar Retainer Spring Arm, Suspension, Rear (Sway Bar) Bolt, Patched 3/8-24 x 1-1/4 Gr. 8 Washer, Lock Hvy., Unplated 3/8 Washer, Hard Blade, Mower Vented	54 55 58 59 60 61	156493 19131312 74780616 72140608 156488 157034 156722 139888	Pulley, Idler, 97 46 Pri. Drive Washer, 13/32 x 13/16 x 12 Ga. Bolt, Fin. Hex 3/8-16 x 1 Gr. 5 Bolt, RDHD Sqnk. 3/8-16 UNC x 1 Link, Brake 46" Mech Guide, Belt 46" Mower Arm Assm. Brake 46" Bolt, Shoulder 5/16-18 Type TT
11 12 13	152443 129895 137553	Blade, 46" Mower Deck Bearing, Ball, Mandrel #6204 Shaft Asm. w/Lower Bearing (Includes Key No. 12)	63 67	131870 156473 74760512 156487	Spring Return Bracket, Clutch Rod Pivot Bolt, Hex Head 5/16-18 x 3/4 Rod, Clutch
14 15 16 18	137152 110485X 140329 72140505	Housing, Mandrel Bearing, Ball, Mandrel Stripper, Mower Round Bolt, Carriage 5/16-18 x 5/8	70 71	73350600 142028 133551 19111116	Nut, Hex Jam 3/8-16 Unc Trunnion, Adj. 94 Rod, Pivot with Nibs Washer 11/32 x 11/16 x 16 Ga
19 20 21 22	132827 145055 73680500 134753	Bolt, Hex Head, Shoulder 5/16-18 Baffle, Vortex Mower 46" Nut, Crownlock 5/16-18 UNC Stiffiner, Bracket	74 75 76	76020412 156474 127847 154809	Pin, Cotter 1/8 x 3/4 Link, Clutch 46" Mech. Arm, Clutch Secondary Lever, Assm. Clutch Primary
23 24 25 26	131267 105304X 123713X 110452X	Bracket, Deflector Cap, Sleeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Mower	78 79 80	127845 127498 153701 121748X	Keeper, Spring Bushing, .747 OD. x .794 ID. Spring, Mower Clutch Washer 25/32 x 1-5/8 x 16 Ga.
27 28 29 30	157788 19111016 131491 138776	Shield, Deflector Mower Washer 11/32 x 5/8 x 16 Ga. Rod, Hinge Screw, Hex Head, Thdroll Washer, Spacer Mower Vented	82 83 84	12000029 4497H 129803 149846	Ring, Clip Retainer Spring 1" Bolt, Shoulder 3/8-16 Unc Knob, Custon Oval
31 32 33 34 35	129963 153531 137266 144945 17490628	Pulley, Mandrel Nut, Flg. Top Lock Cntr. 9/16 Anchor, Spring Deck 46" Screw, Thdroll 3/8-16 x 1-3/4 Tytt	92 94 101	158373 73800600 149846 145579	Bracket, Extension Locknut, Hex, w/Insert 3/8-16 UNC Knob Custom Oval Cover, Mulching
36 37 38 39	19131316 131494 156086 144917	Washer 13/32 x 13/16 x 16 Ga. Pulley, Idler, Flat Keeper, Belt, Idler Pulley, Idler, Driven	103 104 105	71161010 10071000 19061216 130758 2029J	Screw Washer, Lock #10 Washer Latch Asm. Bagger
40 41 42	137273 17490620 122052X 144949	Spring, Secondary 44/46/50 Vent Screw, Thdroll 3/8-16 x 1-1/4 Tytt Spacer, Retainer Arm, Idler Secondary	116 117 118	137644 133957 73930600 19121414	Nut, Weld Bolt, Shoulder Gauge Wheel, Wide Nut, Centerlock 3/8-16 UNC Washer 3/8 x 7/8 x 14 Ga
44	133943 145059 137729 144959 139573	Washer, Hardened Cover, Mandrel Deck Screw, Thdroll. 1/4-20 x 5/8 V-Belt, Mower, Secondary V-Belt, Mower, Primary	126 127	156472 146763 157112	Arm, Idler, Deck 46" Mech. Pulley, Idler, V-Groove Dim. 4.25 Deck Complete (Std. Deck-Order separately mulcher plate and gauge wheel components Key Nos. 101-
49 50 51	73680600 72110612 153390	Nut, Crownlock 3/8-16 UNC Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5 Washer, Felt		143651 E: All compon 1 inch = 25	106 and 116-118)  Mandrel Assm. Service  Jent dimensions given in U.S. inches

## TRACTOR - - MODEL NUMBER 917.258671

#### **SEAT ASSEMBLY**

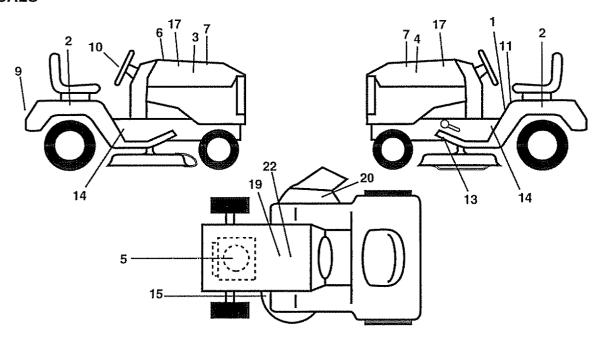


KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140123	Seat	13	121248X	Bushing Snap Blk Nyl 50 Id
2	140551	Bracket Pnt Pivot Seat (blk )	14	72050411	Bolt Rdhd Sht Nk 1/4-20x1-3/8
3	74760616	Bolt Fin Hex 3/8-16 UNC x 1	15	134300	Spacer Split 28 X 96 Zinc
4	19131610	Washer Flat 13/32 x 1 x 10 Ga	16	121250X	Spring Cprsn 1 27 Blk Pnt
5	145006	Clip Push-In	17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
6	STD541437	Nut Lock Hex W/Ins 3/8 -16 UNC	21	153236	Bolt Shoulder 5/16-18 Unc
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	22	STD541431	Nut Lock Hex W/Ins 5/16-18
8	17490616	Screw 3/8-16x1	23	74780814	Bolt Fin Hex 1/2-13 X 7/8 Gr 5
9	19131614	Washer 13/32 x 1 x 14 Ga	24	19171912	Washer 17/32 X 1-3/16 X 12 Ga
10	155925	Pan Pnt Seat (blk )	25	127018X	Bolt Shoulder 5/16-18 X 62
12	121246X	Bracket Pnt Mounting Switch	26	STD551150	Washer Lock Hvy Hlcl Spr 1/2

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

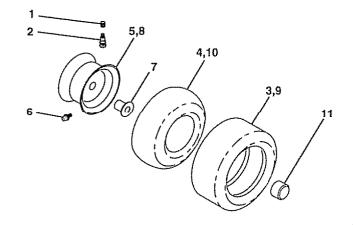
#### TRACTOR - - MODEL NUMBER 917.258671

#### **DECALS**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1 2 3 4 5 6 7 9 10 11 13 14	156439 156810 151299 151300 273503 133644 150927 146709 150333 156811 146046 151401	Decal Fender Danger Sears Decal Fend Auto Sears Gold Decal Hood Rh Craftsman Decal Hood Lh Craftsman Decal HP Engine Decal Maint Customer Sears Dom Decal Panel Side B&S Decal Fender Craftsman Gold Decal, Cap CNSMR Help Line SRS Decal Fender STLTH Oper Inst E/S Decal V-belt Dr Sch Tractor E Decal Chassis Hydro 46"	17 19 20 22	158215 138047 156787 149516 138311 142341 159839 159840 154515 154516	Decal, Insert, Hood Decal, Battery Diehard Sears Decal Deck Mower EZ3 Mulching Decal Battery Decal Lift Handle Decal, Drawbar Cntrl. Mvt. Hyd. Lt. Manual, Owner's (English) Manual, Owner's (Spanish) Pad Footrest Lh STLT Pad Footrest Rh STLT
15	139346	Decal Mower Drive Schematic			

#### **WHEELS & TIRES**

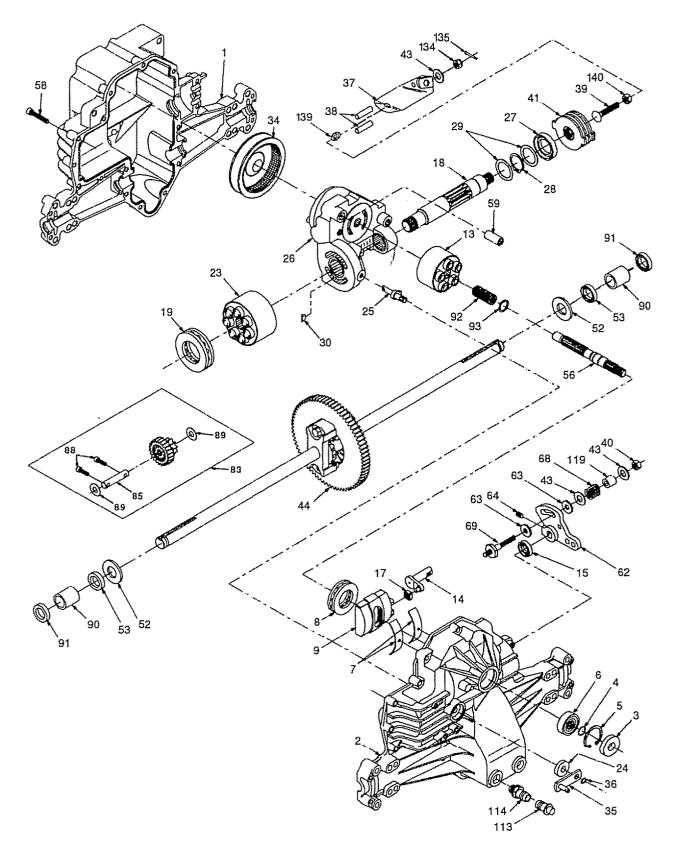


KEY NO.	PART NO.	DESCRIPTION
1	59192	Valve Cap, Tire
2	65139	Stem, Valve
2 3	106222X	Tire, Front
4	59904	Tube, Front Tire
		(Not Provided, Service Item Only)
5	106732X427	Rim, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear Tire
		(Not Provided, Service Item Only)
11	104757X	Cap, Axle
	144334	Sealant, Tire (10 oz. Tube)

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

#### TRACTOR - - MODEL NUMBER 917.258671

**HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650** 

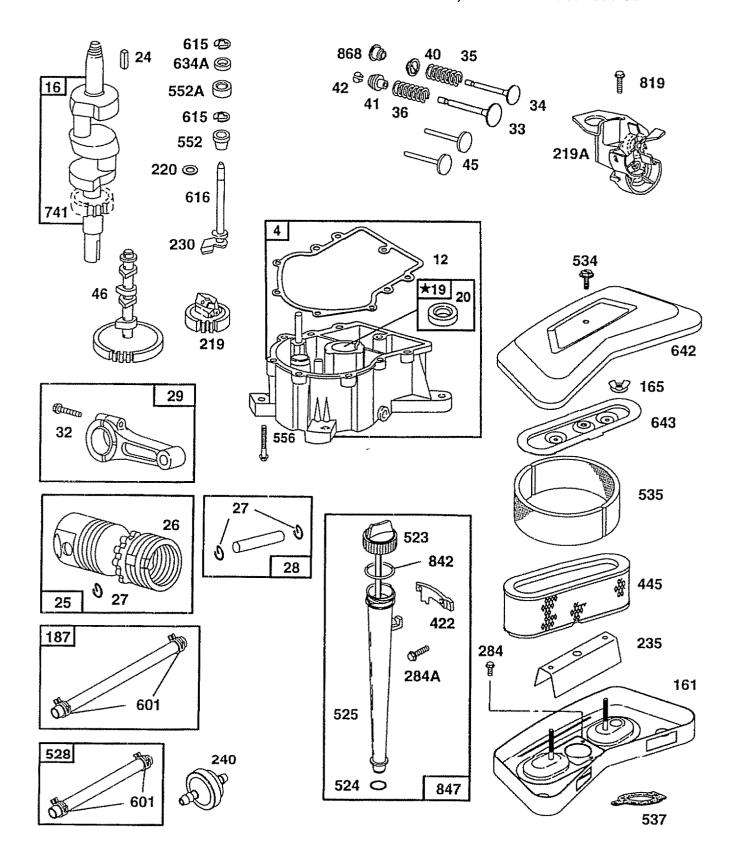


#### TRACTOR - - MODEL NUMBER 917.258671

#### **HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650**

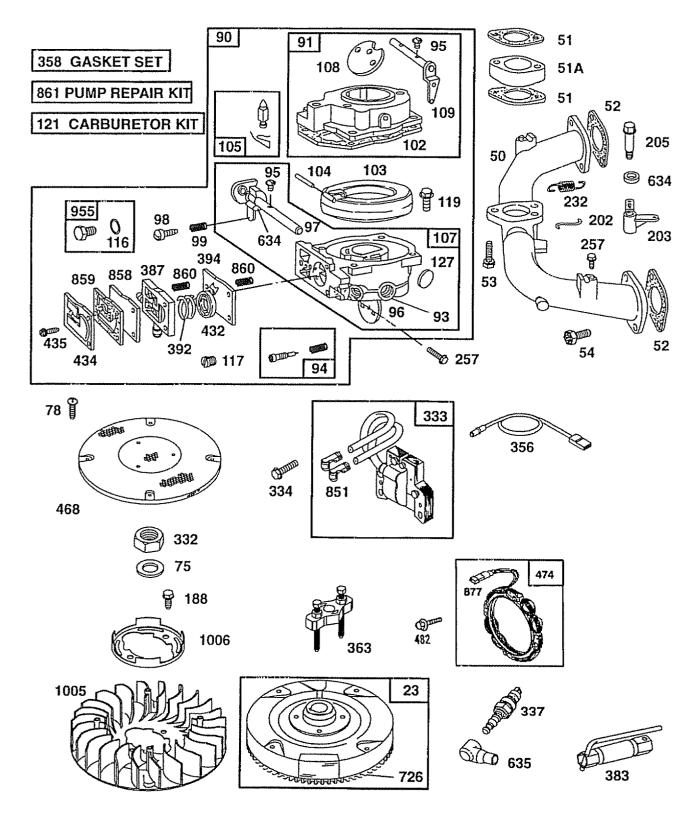
KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	150829	Differential Assembly
3	142932	Seal, Lip	52	142991	Washer 3/4 x 1.5 x .13
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	56	142963	Shaft, Input
6	142934	Bearing, Shaft Ball	58	142964	Bolt 1/4-20 x 1.38
7	142935	Bearing, Cradle	59	142965	Pin .5 OD x .43 ID x .750
8	150771	Bearing, Thrust 30 x 52 x 13	62	142966	Arm, Control
9	142937	Swashplate, Variable	63	142967	Puck, Dampener
13	142938	Block, Cylinder Assembly	64	142920	Set Screw
14	142939	Arm, Trunnion	68	142969	Spring
15	142940	Seal, Lip	69	144610	Stud 5/16-24
17	142941	Guide, Slot	83	142971	Jackshaft Assembly
18	150772	Shaft, Motor	85	150806	Jackshaft
19	150773	Bearing, Thrust 42 x 68 x 16	88	142973	Screw, Cap
23	142944	Block, Cylinder Assembly	89	142974	Washer 7/16 x 1 x 1/2
24	142945	Seal, Lip 10 x 25 x 7	90	142975	Sleeve Bearing
25	142946	Actuator, Bypass	91	142976	Seal, Wiper
26	150774	Center Section Assembly Kit		142977	Spring, Block
27	142948	Seal, Lip 26 x 42 x 8		142978	Washer, Block Thrust
28	142949	Ring, Retaining		142917	Cap, Vent Assembly
29	142950	Washer 26 x 35 x 1		142918	Fitting, O-Ring Assembly
34	142951	Oil Filter Element		142980	Spacer
35	142952	Arm, Bypass		144607	Nut, Castle 5/16-24
36	142953	Ring, Retaining		144608	Pin, Cotter
37	142954	Arm, Actuating		150775	Spring, Compression
38	142955	Pin, Actuating	140	150776	Nut, Hex 5/16-24
39	150777	Bolt 5/16-24 x 1-3/4			
40	150778	Locknut, Hex 5/16-24 UNJC	NOT		ent dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = $25$ .	4 mm

TRACTOR - - MODEL NUMBER 917.258671
BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01

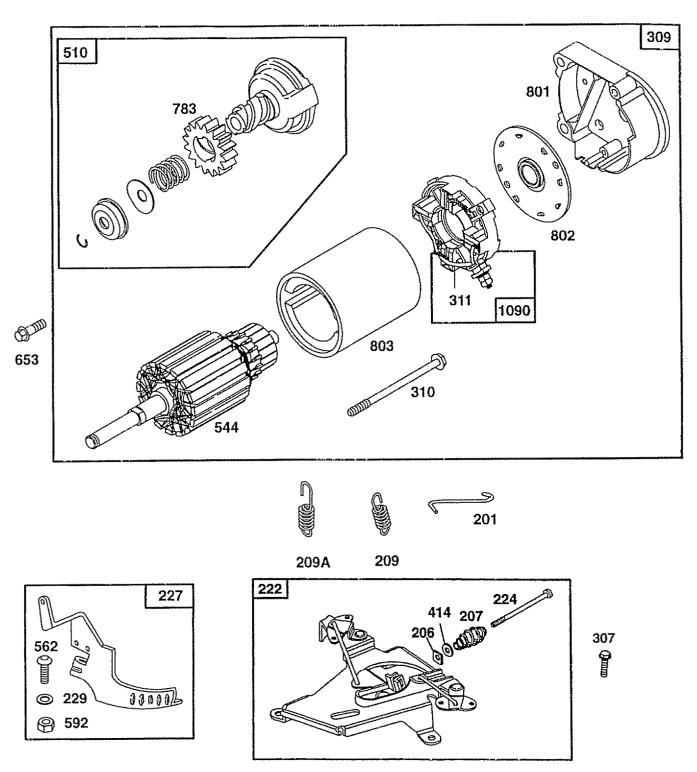


#### TRACTOR - - MODEL NUMBER 917.258671

#### BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01

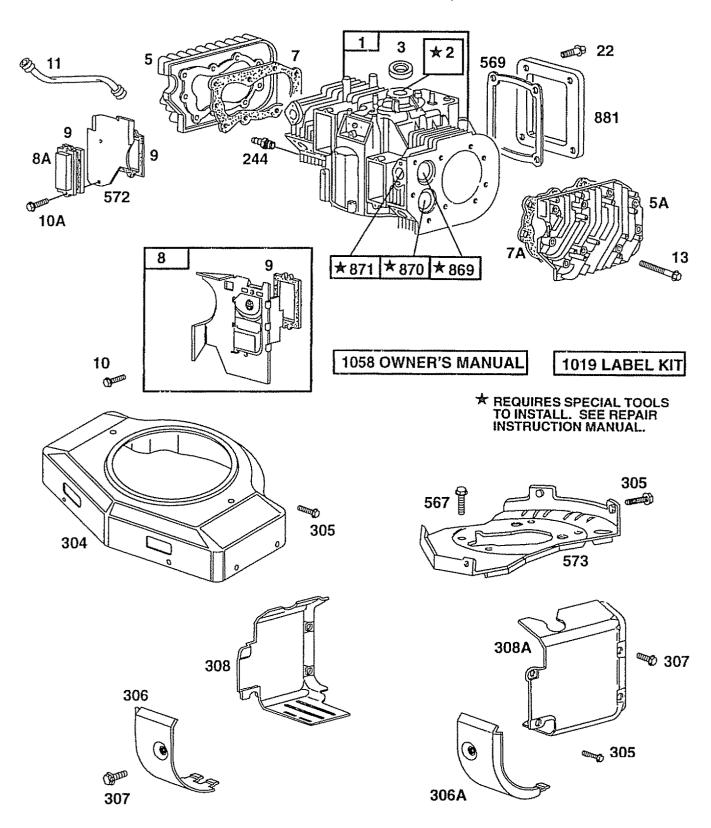


# TRACTOR - - MODEL NUMBER 917.258671 BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01



#### TRACTOR - - MODEL NUMBER 917.258671

BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01



## TRACTOR - - MODEL NUMBER 917.258671

## BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
4	407074	Cylinder Assembly	54	93208	Screw, Phillips
1	497074	Bushing	75	222511	Washer, Spring
2	399265	* Seal, Oil	78	95039	Screw, Hex
3	391086		90	495181	Carburetor
4	493304	Sump, Engine Head, Cylinder #1	91	495035	Body Assembly, Upper
	493457	Head, Cylinder #2	93	231209	Bushing, Throttle Shaft
5A 7	493458 271867	* Gasket, Cylinder Head #1	94	491538	** Valve, ldle Adjust
7Á	271868	* Gasket, Cylinder Head #2	95	93499	Screw, Sems
8	495754	Breather Assembly #1	96	221939	Valve, Throttle
8A	222892	Cover, Breather Cylinder #2	97		Shaft, Throttle
٠,٠		(Used Only on Key #572,	98	91920	Screw, Fillister Head
		Air Baffle with Holes for Mounting)	99	26157	Spring, Throttle Adjust
9	27803	* Gasket, Breather		271607	** Gasket, Carburetor Body
10	94382	Screw, Sems		298514	Float, Carburetor
	94830	Screw, Sems		231435	** Pin, Float Hinge
11	280225	Tube, Breather		394683	** Valve, Needle
12	273208	* Gasket, Crankcase, .015" Thick		491543	Body Assembly, Lower Valve, Choke
	271188	* Gasket, Crankcase, .005" Thick		223534 392673	Shaft, Choke
	271189	* Gasket, Crankcase, .009" Thick		280474	* O-Ring
13	94565	Screw, Cylinder Head		231338	Jet, Needle Valve, Fixed
15	94239	Plug, Oil Drain	117	231333	Jet, Needle Valve, Fixed,
16	394028	Crankshaft		201000	High Altitude
	94196	Timing Gear Key	119	94152	Screw, Hex Head
20	291675	* Seal, Oil		491539	Carburetor Kit
22	94724	Screw, Sems		223472	** Plug, Welch
23	491180	Flywheel		496599	Base, Air Cleaner
24	222698	Key, Flywheel Piston Assembly, Standard Size		94289	Nut, Wing
25	498584	Piston Assembly, .010" Oversize		299146	Line, Fuel, 28" Long (Cut to Suit)
	498585 498586	Piston Assembly, 020" Oversize		94627	Screw
	498587	Piston Assembly, .030" Oversize		262683	Link
26	394959	Ring Set, Standard Size		262684	Link
20	394960	Ring Set, .010" Oversize		280997	Crank, Bell
	394961	Ring Set, .020" Oversize	205		Screw, Hex Head
	394962	Ring Set, .030" Oversize	206		Nut
27	263129	Lock, Piston Pin	207		Spring, Control, Rod
28	498319	Pin, Piston, Standard Size	209 209		Spring, Governor Spring, Governor Idle
	391286	Pin, Piston, .005" Oversize	219		Gear, Governor
29	394306	Rod, Connecting, Standard Size		A 393415	Oil Slinger
	397158	Rod, Connecting, .020" Undersize	220		Washer, Thrust
32	94671	Screw, Connecting Rod	222		Bracket, Control
33	390420	Valve, Exhaust	224		Screw, Torx®
34	261528	Valve, Intake		<b></b>	
35	65906	Spring, Valve, Intake	*	Included in	Gasket Set (495868)
36	26828	Spring, Valve, Exhaust		.,.,,	,
40	221596	Retainer, Valve, Intake Retainer, Valve, Exhaust	**	Included in	Carburetor Kit (491539)
41	292260				·
42 45	494553 261368	Keeper, Valve Tappet, Valve	***	Included in	Carburetor Kit (491539),
	213520	Gear, Cam		and Pump f	Repair Kit (393397)
50		Manifold, Intake			
50 51	271412	**** Gasket, Carburetor Mounting	****	Included in	Gasket Set (495868),
	281411	Spacer, Carburetor		and Carbur	etor Kit (491539)
	270884	* Gasket, Intake Manifold Mounting	X1/**	TC. All-a	annet dimanciane given in H.C. inches
53	93970	Screw, Hex Head,	NO		onent dimensions given in U.S. inches 25.4 mm
		Carburetor to Manifold		1 111011	Marked of Triplet

#### TRACTOR - - MODEL NUMBER 917.258671

## BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 1631-01

KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
227 491297	Lever Assembly, Governor	556 93585	Screw, Hex Head
229 62199	Washer	562 93853	Bolt, Governor Lever
230 223882	Washer, Governor Crank, Inside	567 94811	Screw, Hex Head,
235 224995	Shield, Fuel Spray	569 272645	Back Plate to Cylinder
240 394358	Filter, Fuel Line	572 224816	* Gasket, Base Baffle, Air, Cylinder #2
244 230318	Connector, Fuel Line	573 491304	Plate, Back
257 93897 258 94623	Screw, Sems Screw, Sems	592 92278	Nut, Hex.
259 223890	Bracket, Cable	601 93053	Clamp, Hose
265 221535	Clamp, Casing	615 94296	Retainer, E-Ring
267 94906	Screw, Sems	615A 263080	Retainer
284 94674	Screw, Hex Head	616 491530	Crank, Governor
284A 94882	Screw, Hex Head_	634 271013	** Washer, Throttle Shaft
304 495469	Housing, Blower, Red	634A 491287 635 66538	* Seal, Governor Shaft Boot, Spark Plug
305 94786	Screw, Sems	642 225008	Cover, Air Cleaner
306 222846 306A 223734	Shield, Cylinder Shield, Cylinder	643 496700	Plate, Air Cleaner
307 94930	Screw, Self-Tapping	653 93585	Screw, Hex Head
308 224774	Cover, Air Guide	726 391362	Gear, Ring
308A 224775	Cover, Air Guide		(Includes Mounting Parts)
309 497596	Motor, Starter	741 262989	Gear, Timing
310 94003	Bolt, Thru	783 280104	Gear, Starter
311 497608	Brush Set	801 394860	Cap, Drive
332 230674	Nut, Hex	802 497607 803 497604	Cap, End
333 394891	Armature, Magneto	819 94675	Housing, Starter Screw, Hex Head
334 94731	Screw, Sems	842 270920	* Seal, Cap
337 802592 356 494705	Plug, Spark Wire, Stop	847 495715	Tube Assembly, Oil
358 491856	Gasket Set	851 493880	Terminal, Cable
363 19203	Flywheel Puller	858 270989	*** Diaphragm, Carburetor
383 89838	Wrench, Spark Plug	859 271025	*** Gasket, Pump
387 280197	Body, Pump	860 261358	*** Spring, Diaphragm
392 261395	*** Spring, Diaphragm	861 393397	Repair Kit, Pump
394 270988	*** Diaphragm, Carburetor	868 497212 869 261463	Seal, Valve Seat, Valve, Intake
414 220680	Washer	870 213316	Seat, Valve, Exhaust
422 222875 432 221377	Bracket, Oil Fill  *** Cap, Spring	871 261961	Bushing, Guide (Exhaust Only)
434 223688	Cover, Diaphragm	231218	Bushing, Guide (Intake, Brass)
435 93829	Screw, Diaphragm Cover	877 393456	Wire, Alternator
445 394019	Filter, Air	881 495901	Plate, Cover
468 497908	Screen, Rotating	955 397882	Plug and Seal, Solenoid
474 393474	Alternator	1005 281053	Fan, Flywheel
482 93621	Screw,	1006 224901 1019 496726	Retainer, Fan Label Kit
510 497606	Drive, Starter	1058 272112	Owner's Manual
523 494947	Cap, Oil Fill * Seal, Fill Tube	1090 497605	Retainer, Brush
524 271157 525 495348	Tube, Oil Fill (Includes Seals	1000 101000	riotariot, Brasil
528 393815	Hose, Vacuum	<ul> <li>* Included in</li> </ul>	Gasket Set (495868)
534 94823	Screw, Air Cleaner		, ,
535 272490	Filter, Air	** Included in	Carburetor Kit (491539)
537 271411	**** Gasket, Air Cleaner	*** Included in	Ond-19-1/2 (404 500)
544 497603	Armature, Starter	miciaded in	Carburetor Kit (491539),
552 262332	Lower Bushing, Governor	and rump	Repair Kit (393397)
552A 262331	Upper Bushing, Governor	**** Included in	Gasket Set (495868),
			retor Kit (491539)
			•

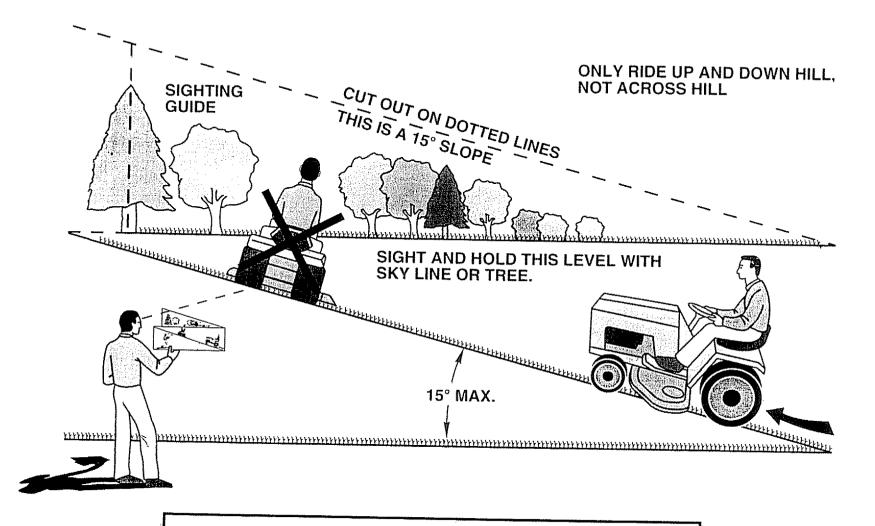
NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

## **SERVICE NOTES**

## **SERVICE NOTES**

## **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. 917.258671

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

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

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

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

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

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

1-800-659-5917

# **CRAFTSMAN®**

## 19.5 HP ELECTRIC START 46" MOWER AUTOMATIC (HYDROSTATIC) LAWN 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 917.258671
- ENGINE MODEL NO. 42E707-1631-01
- PART NUMBER
- PART DESCRIPTION

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

159839 2.13.97 RH/JH

Printed in U.S.A