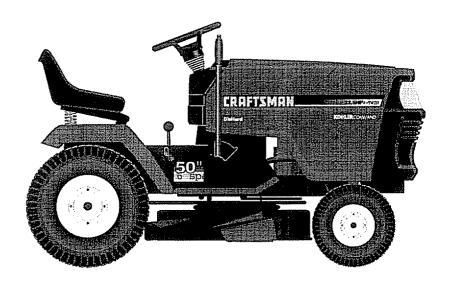
SEARS

# 

MODEL NUMBER 917.251550 OWNER'S MANUAL

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



CAUTION: Read and follow all safety rules and instructions before operating this equipment.

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

### **SAFETY RULES**

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



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

#### **GENERAL OPERATION** 1.

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

#### II. SLOPE OPERATION

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

#### DO:

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

#### DO NOT:

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

#### III. CHILDREN

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

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small
- 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
  - 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
- 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 nec-
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them
- Check brake operation frequently. Adjust and service as required.



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



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



### 🕰 WARNING 🕰



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

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

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

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

MODEL NUMBER	917.251550
SERIAL NUMBER	
DATEOFPUF	ICHASE
Į.	ND SERIAL NUMBERS WILL BE FOUND E UNDER THE SEAT.
DATE OF PU	RECORD BOTH SERIAL NUMBER AND RCHASE AND KEEP IN A SAFE PLACE REFERENCE.

#### MAINTENANCE AGREEMENT

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

#### **CUSTOMER RESPONSIBILITIES**

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

**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:	22.5				
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR				
OIL TYPE (API-SF/SG):	SAE 10W30 (above 32°F) SAE 5W-30 (below 32°F)				
OIL CAPACITY:	W/ FILTER: 4.2 PINTS W/O FILTER: 3.7 PINTS				
SPARK PLUG: (GAP: .030")	CHAMPION FIC12YC				
VALVE CLEARANCE:	NOT ADJUSTABLE				
GROUND SPEED (MPH):	Forward LO HI 1st 0.74 1.73 2nd 1.39 3.26 3rd 2.29 5.40 Reverse 0.89 2.09				
TRANSAXLE OIL CAPACITY AND TYPE:	4 QUARTS SAE 30 API-SG				
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI				
CHARGING SYSTEM:	15 AMPS @ 3600 RPM				
BATTERY:	AMP/HR: 35 MIN. CCA: 280 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 ELECTRIC START RIDING EQUIPMENT

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

This Warranty does not cover:

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

#### LIMITED 90 DAY WARRANTY ON BATTERY

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

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

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

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

# **TABLE OF CONTENTS**

SAFETY RULES		MAINTENANCE	SCHEDULE	
PRODUCT SPECIFICATIONS			DJUSTMENTS	
<b>CUSTOMER RESPONSIBILITIES</b>		STORAGE	李章·古沙尔萨·古尔宁·艾尔斯·普里斯·西尔·中亚尔斯·拉尔·西尔·拉尔·亚尔·亚尔·亚尔· 	
WARRANTY		TROUBLESHOO	TING	28-29
TRACTOR ACCESSORIES		REPAIR PARTS	- TRACTOR	31-49
ASSEMBLY		REPAIR PARTS	- ENGINE	
OPERATION	11-14	PARTS ORDERI	NG/SERVICE E	JACK COVER
INDEX				
Α	E		Operation	11-14
* *	Electrical:		Operating Mower	
Accessories		0.00		assessment seems to the FM
Adjustments:		ays	Options:  Accessories	E
Brake 21		0.100.00.20.00.00.00.00.00.00.00.00.00.00.0	Spark Arrester	C .areivecouri,unanunun AA D
Carburetor	Engine:	Contract 17646 presentes section (Contraction)	opain Allester	uninessi isinda OyTO
Clutch Pulley		****** 18	P	
Gauge Wheels 13 Mower			•	40
Front-To-Back		· · · · · · · · · · · · · · · · · · ·	Parking Brake	
Side-To-Side		17	Parts Bag	
Throttle Control Cable 23			Parts, Replacement/Repai	r 31-49
Air Filter, Engine	Oil Type		Product Specifications	
Air Screen, Engine			•	
Assembly 7-10		50-57	R	
ASSEMBLY DESCRIBED ASSESSMENT OF TO			Repair Parts	31-49
В	Storage		110000000000000000000000000000000000000	Confederation 1.
	F		S	
Battery:			Safety Rules	2
Charging	Filter:		Cont	Q 20 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Cleaning			Seat	
Storage	Oilvvvvevvvevvvev.		Service and Adjustments .	19-26
Terminals 16		SERMONT DE MORAL COMPAGE OF MARCH	Carburetor	20
Belt:	Fuel:	<b>~</b> →	Clutch PulleyFuse	12
Motion Drive			Hood Removal/Install	ation 24
Removal/Replacement 22			Motion Drive Belt	30011 - p
Mower Drive	Fuse		Removal/Replacer	nent 22
Removal/Replacement 20	h-s		Mower Dive Belt	
Mower Blade Drive	Н		Removal/Replacer	nent 20
Removal/Replacement 21	Headlights		Mower Blade Drive	
Blade:	Hood Removal/Installa	tion 24	Removal/Replacer	nent 21
Sharpening	•		Mower Adjustment	
Replacement16	L		Front-to-Back	20
Brake Adjustment 21	Leveling Mower Deck		Side-to-Side	20
	Lubrication:		Mower Removal Tire Care	บาร การ การ การ การ การ การ การ การ การ ก
С	Chart	15		
Carburetor Adjustment	Willia seasoy versed serves.	rapededapadeboxess became to be	Slope Guide Sheet	
Clutch Pulley21	M		Spark Plug(s)	
Controls, Tractor 11	Maintenance Schedule	15	Specifications	
		zelezaczenia zanak zanak na 19	Starting the Engine	13-14
Customer Responsibilities	Mower:	in Doub. OA	Steering Wheel	
Engine:		to-Back 20	Stopping the Tractor	
Air Scree		o-Side	Storage	
Cooling Fins	Blade Benlacemer	nt 16	COO GO AN HANGE EX BOS OF TABLE TO SPICE	ng-namen or purpose. Am t
Engine Oil			т	
Fuel Filter 18			•	
Spark Plug(s)		,	Throttle Control Cable Adj	
Tractor:	Removal		Tires	
Battery, 17	Mowing Tips		Trouble Shooting Chart	
Blade 16	Muffler		Transaxle	
Lubrication Chart				
Maintenance Schedule	,		Ŵ	
Tire Care	0		Warranty	
	Oil:		Wiring Diagram	
Cutting Height, Mower, 12	Cold Weather Con	ditions 13.17		
			Wiring Schematic	
		27		

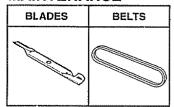
# **ACCESSORIES AND ATTACHMENTS**

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

#### **ENGINE**

### 

#### **MAINTENANCE**



#### PERFORMANCE

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

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

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

BUMPER protects front end of tractor from damage

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

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

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

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

EASY OIL DRAIN VALVE makes oil changes easier, laster.

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

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

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

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

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

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

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

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

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

SNOWTHROWER has 42-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

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

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

SWEEPERS let you collect grass clippings and leaves.

TILLER has 8 hp engine to prepare seed beds, cultivate, and compost garden residue. Chain-drive transmission. Six 11-inch diameter one piece heat-treated steel tines. Tills 30-inch path. (Requires sleeve hitch.) Or use 5 hp tow-behind TILLER with 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard or garden tractor. Simply hook up to the tractor drawbar and go! Optional accessories for 5 hp tiller convert unit for dethatching, aerating, hilling...without tools.

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

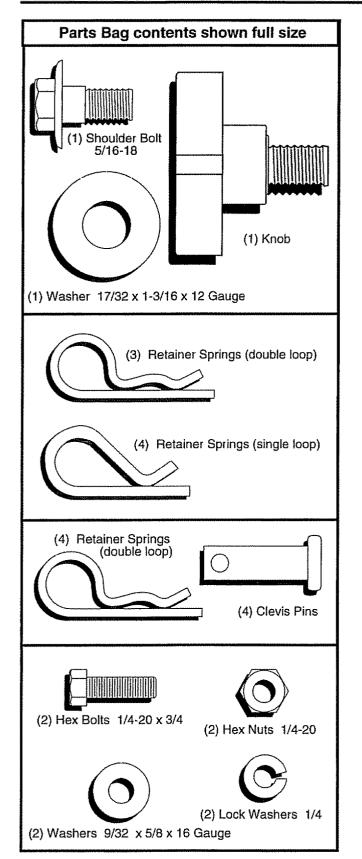
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered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

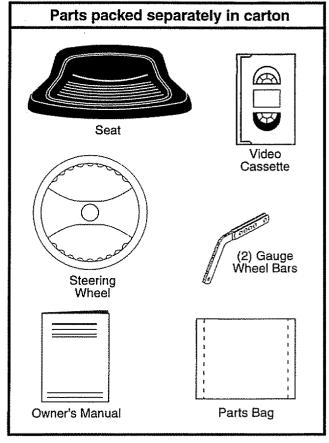
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

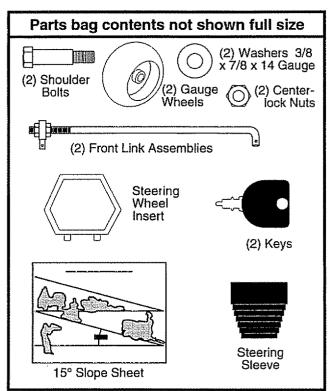
WEIGHT BRACKET for drawbar for snow removal applications. Can be mounted on front of tractor for plowing applications. Uses (1) 55 lb. weight.

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

# **CONTENTS OF HARDWARE PACK**







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

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

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

(2) 7/16" wrenches

Tire pressure gauge

(1) 1/2" wrench

Utility knife

(1) 9/16" wrench

(1) 3/4" socket with drive ratchet

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

### TO 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.

#### **BEFORE ROLLING TRACTOR OFF SKID**

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

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

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

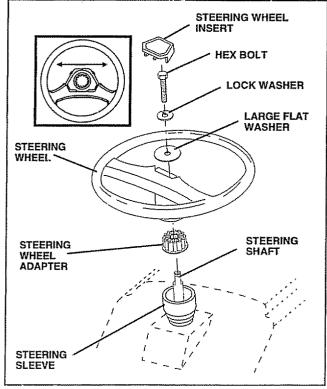


FIG. 1

# 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 gearshift lever in neutral (N) position.
- Holl tractor forward off skid.
- Remove mower and packing materials.
- · Remove ties from V-belts.

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



CAUTION: Do not short battery terminals. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

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

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

Use terminal access doors for:

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

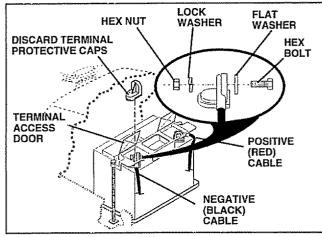


FIG. 2

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

Adjust seat before tightening adjustment knob.

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

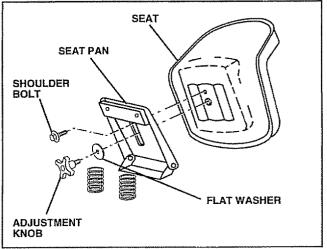


FIG. 3

#### CHECK TIRE PRESSURE

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

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

#### CHECK BRAKE SYSTEM

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

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

Be sure tractor is on level surface 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 ELECTRIC CLUTCH 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 only 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 inward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs.

- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Assemble gauge wheel bars to brackets using clevis pins and double loop retainer springs.
- 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**

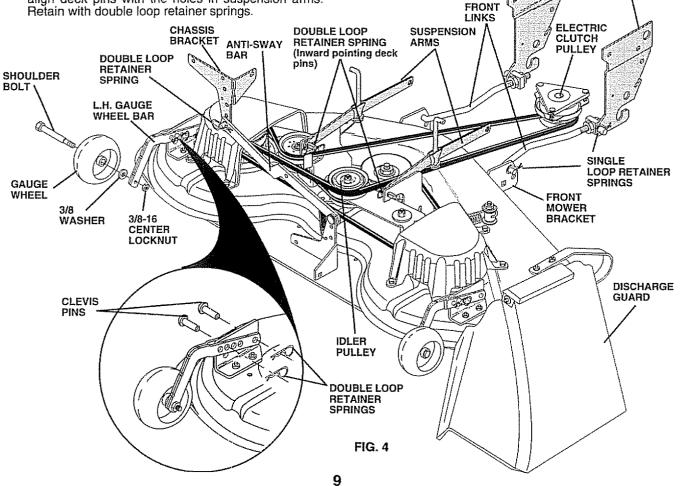
For best cutting results, mower should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

# 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.

SUSPENSION

BRACKETS



#### ✓ CHECKLIST

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

#### PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- Engine oil is at proper level.
- Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- Become familiar with all controls their location and function. Operate them before you start the engine.
- ✓ Be sure brake system is in safe operating condition.

#### **KNOW YOUR TRACTOR**

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

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

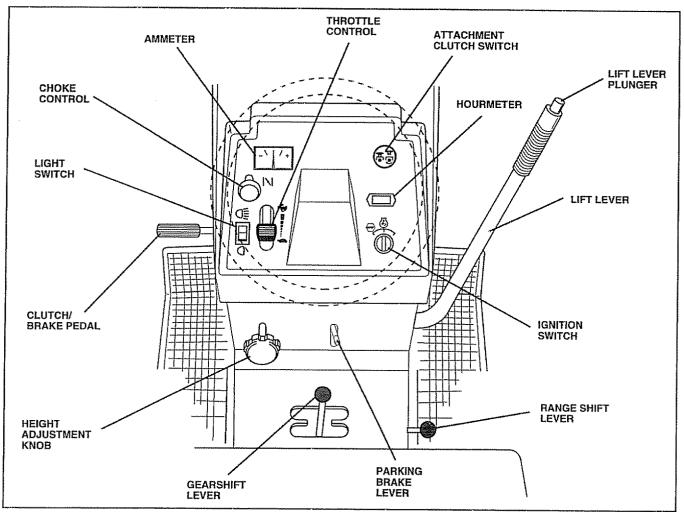


FIG. 5

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

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

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

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

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

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

**THROTTLE CONTROL** - Used to control engine speed. **HOURMETER** - Indicates hours of operation.

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

**IGNITION SWITCH** - Used to start and stop the engine. **AMMETER** - Indicates battery charging (+) or discharging (-).

LIGHT SWITCH - Turns the headlights on and off.

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

CHOKE CONTROL - Used when starting a cold engine.

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.



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

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

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

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

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

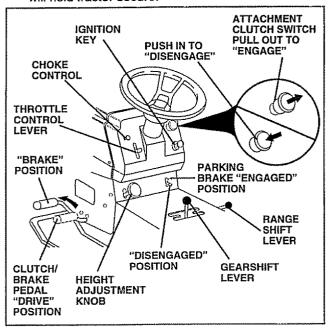


FIG. 6

#### STOPPING (See Fig. 6)

**MOWER BLADES -**

Move attachment clutch switch to "DISENGAGED" position.

#### **GROUND DRIVE -**

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

#### **ENGINE-**

Move throttle control to slow (
 position.

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

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

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



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

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

Always operate engine at full throttle.

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

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

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

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

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

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

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

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

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

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

The cutting height range is approximately 1-1/2" to 4-1/2". 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 healthler 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. 7)

Adjust gauge wheels with tractor on a flat level surface.

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

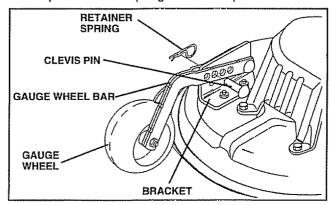


FIG. 7

#### TO OPERATE MOWER (See Figs. 5 and 6)

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.

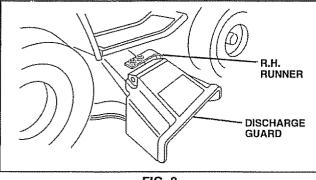


FIG. 8

#### TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- · Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear and range shift lever to low (L) position. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

#### TO TRANSPORT

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

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

### BEFORE STARTING THE ENGINE

### **CHECK ENGINE OIL LEVEL (See Fig. 9)**

- 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.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

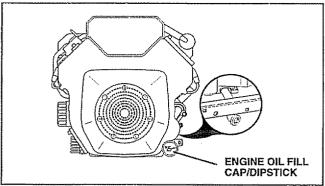


FIG. 9

#### ADD GASOLINE

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

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

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



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

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

This engine on this product is designed for maximum performance and life if operated with the choke ( $|\cdot|$ ) fully open and the throttle control in the fast ( $\Leftrightarrow$ ) position. To open the choke fully requires an engine warm-up period of several seconds to several minutes, depending on the temperature.

After starting the engine, first open the choke slowly until the engine just begins to run smoothly. Then open the choke in small steps, allowing the engine to accept small changes in speed and load, until the choke is fully open.

During engine warm-up, the equipment can be operated.

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

- Depress clutch/brake pedal and set parking brake.
- Place gearshift lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke (\(\)) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (\*) and slow (\*) positions.
- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (\*) position, wait a few minutes and try again.

- When engine starts, slowly push choke control in.
- Move throttle control to fast ( ) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

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

#### MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- Use the runner on the right hand side of mower as a guide. The blade cuts approximately an inch outside the runner (See Fig. 8).
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 10).
- 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.

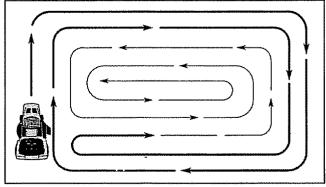


FIG. 10

FII AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE EGULAR SERVICE		EFORE C	EACH!	JSE HOUPS EVERY S	HOUR	E HOUP LE HOUP LE HOUP	S OHOUS OHOUS VERY	S HOUSE OF EVERY BY	is of	SEF	AGE RVICI	E DA	TES
	Check Brake Operation	0/		9/			T		Aug Cours A Adminis Stermen					
	Check Tire Pressure	0	1	8						1			1	
I	Check for Loose Fasteners	0/					1/7		4		1		1	
Ŗ	Sharpen/Replace Mower Blades		T	T	0/4						1	1		
A	Lubrication Chart				6/				8/					
ĬŤ	Check Battery Level/Recharge				1 5						***************************************	T		
0	Clean Battery and Terminals				0/				W					
R	Check Transaxle Cooling				6/							T		
	Adjust Blade Belt(s) Tension						<b>6</b> /5							
	Adjust Motion Drive Belt(s) Tension						<b>6</b> /5							
	Check Engine Oil Level	8/		6										CSD47004414/2
	Change Engine Oil		8/		€/1,2,3	<u> </u>		<b></b>	0/			<b></b>		
E	Clean Air Filter				1/2		1							
N	Clean Air Screen				W 2		<u> </u>					1		~F
Ğ	Inspect Muffler/Spark Arrester		<u> </u>			0/	1					1		
	Replace Oll Filter (If equipped)						1,2						1	
N E	Clean Engine Cooling Fins						<b>6</b> /2					1		
	Replace Spark Plug						1	0/				1		
	Replace Air Filter Paper Cartridge						<b>6</b> /2				1			
	Replace Fuel Filter						1	0/			·	1		

- 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 boil to 35 ft -ibs maximum Do not overlighten

#### GENERAL RECOMMENDATIONS

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

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

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

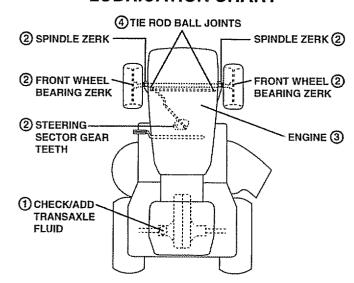
Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

#### **BEFORE EACH USE**

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

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

#### **LUBRICATION CHART**



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

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

- Maintain proper air pressure in all tires (See "PROD-UCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

#### **BLADE CARE**

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

#### **BLADE REMOVAL (See Fig. 11)**

- 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.

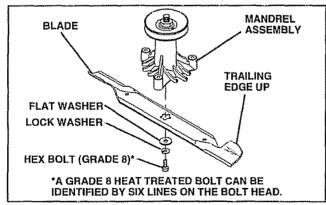


FIG. 11

#### TO SHARPEN BLADE (See Fig. 12)

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.

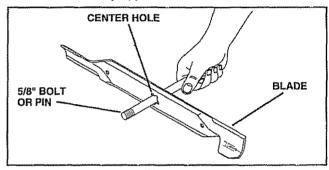


FIG. 12

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

# CHECK TRANSAXLE OIL LEVEL (See Fig. 13)

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

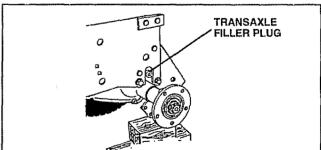


FIG. 13

#### **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).

#### **ENGINE**

#### LUBRICATION

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

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

Change the oil after the first two hours of operation and every 50 hours thereafter or at least once a year if the tractor is not used for 50 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.

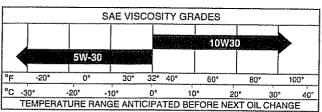


FIG. 14

#### TO CHANGE ENGINE OIL (See Figs. 14 and 15)

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

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

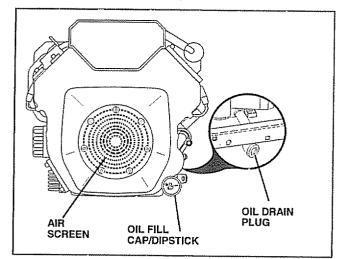


FIG. 15

#### **CLEAN AIR SCREEN (See Fig. 15)**

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

#### **CLEAN AIR INTAKE/COOLING AREAS**

To insure proper cooling, make sure the grass screen, cooling fins, and other external surfaces of the engine are kept clean at all times.

Every 100 hours of operation (more often under extremely dusty, dirty conditions), remove the blower housing and other cooling shrouds. Clean the cooling fins and external surfaces as necessary. Make sure the cooling shrouds are reinstalled.

**NOTE:** Operating the engine with a blocked grass screen, dirty or plugged cooling fins, and/or cooling shrouds removed will cause engine damage due to overheating.

#### AIR FILTER (See Fig. 16)

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.

Loosen knob and remove 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.

#### TO SERVICE CARTRIDGE

- Remove nut and cartridge plate.
- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Check rubber seal for damage and proper position around stud. Replace if necessary.
- Reassemble air cleaner, cartridge plate, and nut.
- Reinstall air cleaner cover and secure by tightening knob.

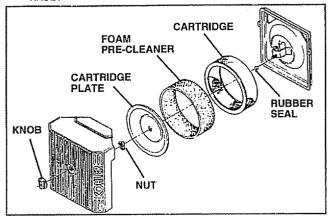


FIG. 16

#### MUFFLER

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

#### SPARK PLUGS

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

#### **ENGINE OIL FILTER**

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

#### IN-LINE FUEL FILTER (See Fig. 17)

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.

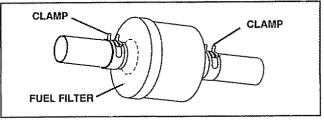


FIG. 17

#### **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 gearshift lever in neutral (N) position.
- · Place attachment clutch in "DISENGAGED" position.
- · Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

#### TRACTOR

#### TO REMOVE MOWER (See Fig. 18)

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

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

#### TO INSTALL MOWER

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

#### TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 18 and 19)

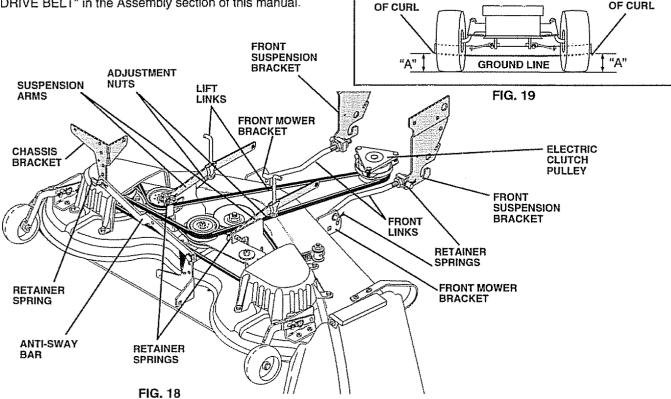
- Raise mower to its highest position.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" on both sides of mower should be the same.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

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

BOTTOM

Recheck measurements after adjusting.

**BOTTOM** 



19

FRONT-TO-BACK ADJUSTMENT (See Figs. 20 and 21) -IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE. To obtain the best cutting results, the mower housing should be adjusted so the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

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

- Before making any necessary adjustments, check that both front links are equal in length.
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower housing, loosen nut "G" on both
- front links an equal number of turns.

  When distance "F" is 1/8" to 1/2" lower at front than rear, tighten nut "H" against trunnion on both front links.
- To raise front of mower housing, loosen nut "H" from trunnion on both front links. Tighten nut "G" on both front links an equal number of turns.
- When distance "F" is 1/8" to 1/2" lower at front than rear, tighten nut "H" against trunnion on both front links.

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

Recheck side-to-side adjustment.

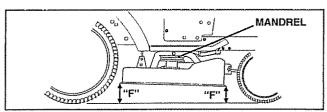


FIG. 20

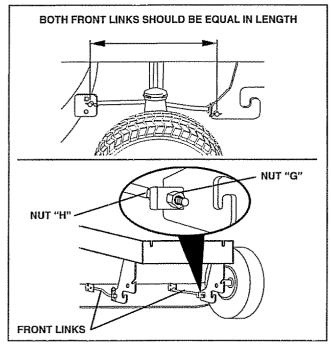


FIG. 21

#### TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 22) -

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

#### MOWER DRIVE BELT INSTALLATION (See Fig. 22) -

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

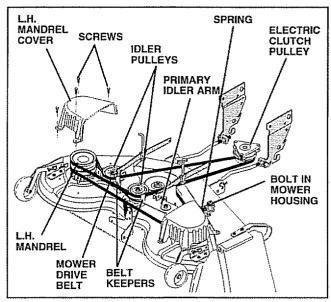


FIG. 22

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 23)

Park the tractor on level surface. Engage parking brake.

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

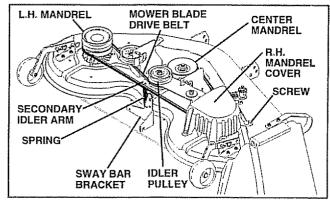


FIG. 23

# TO ADJUST ATTACHMENT CLUTCH (See Fig. 24)

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

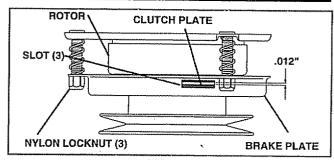


FIG. 24

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

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

#### TO ADJUST BRAKE (See Fig. 25)

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

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

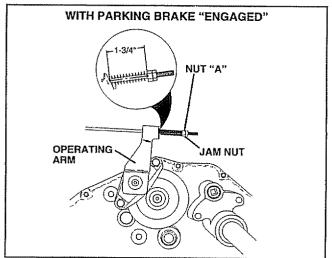


FIG. 25

# TO REPLACE MOTION DRIVE BELT (See Fig. 26)

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

#### **BELT REMOVAL -**

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

#### **BELT INSTALLATION -**

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

IMPORTANT: CHECK BRAKE ADJUSTMENT

#### 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.

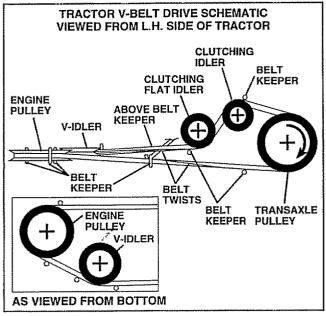


FIG. 26

#### FRONT WHEEL TOE-IN ADJUSTMENT

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

#### TO CHECK TOE-IN (See Fig. 27) -

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

#### TO ADJUST TOE-IN (See Figs. 27 and 28) -

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

#### FRONT WHEEL CAMBER

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

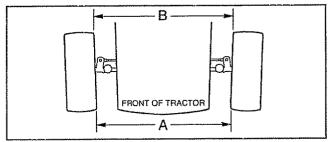


FIG. 27

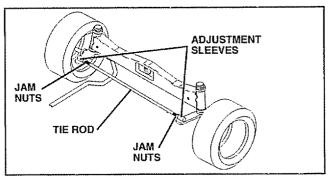


FIG. 28

#### TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 29) -

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

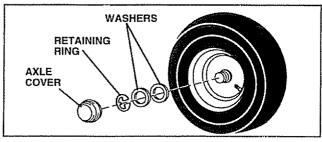


FIG. 29



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

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 30)



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

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

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

#### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to a panel bolt on the left side of the tractor, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

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

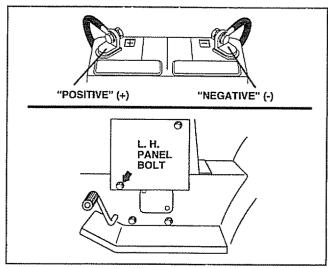


FIG. 30

#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

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

#### TO REPLACE FUSE

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

# TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 31)

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

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

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 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 procedure.

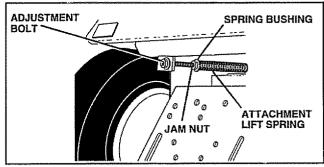


FIG. 31

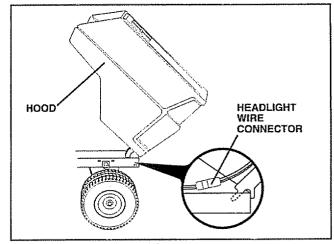


FIG. 32

#### **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 speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

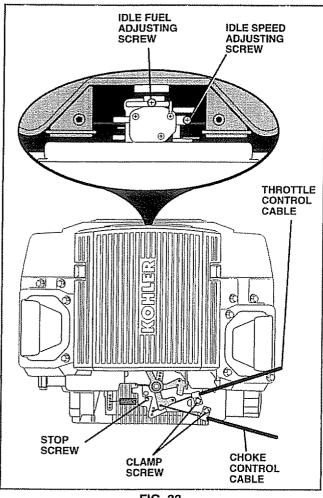


FIG. 33

#### TO ADJUST CHOKE CONTROL (See Figs. 33 and 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 ( $|\cdot|$ ) 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 se-
- Reassemble air cleaner.

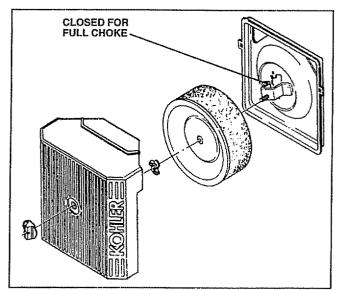


FIG. 34

#### TO ADJUST CARBURETOR (See Fig. 33)

The carburetor has been present 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 adjusting needles in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles 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 is adjusted properly (see "TO ADJUST THROTTLE CONTROL CABLE" in the Service and Adjustments section of this manual).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1 turn.

#### 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.
- The high idle is set at the factory and cannot be adjusted.
- Idle speed setting With throttle control lever in slow ( ) position, engine should idle at 1200 RPM. If engine idles too slow or fast, turn idle speed adjusting screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow (-) position, turn idle fuel adjusting needle in (clockwise) until engine speed decreases and then turn out (counterclockwise) approximately 3/4 turn to obtain the best low speed performance.
- Recheck idle speed. Readjust if necessary.

#### **ACCELERATION TEST -**

Move throttle control lever from slow ( ) to fast ( )
position. If engine hesitates or dies, turn idle fuel
adjusting needle 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.

# 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. 10. Engine valves out of adjustment.	1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. Contact an authorized service center/department. 10. Contact an authorized service center/department.
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine will not turn over	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 solenold 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.	<ol> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>
Loss of power	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/replace muffler.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>
Excessive vibration	Worn, bent or loose blade.     Bent blade mandrel.     Loose/damaged part(s).	Replace blade. Tighten blade bolt.     Replace blade mandret.     Tighten loose part(s). Replace damaged parts.

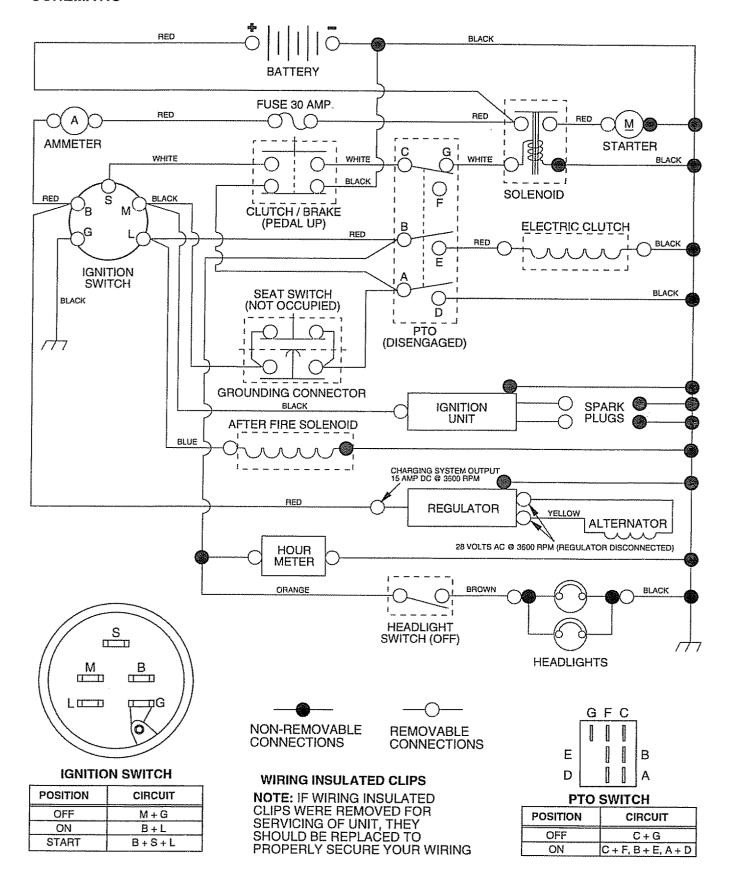
# TROUBLESHOOTING POINTS

1. Faulty operator-safety presence control system.  1. Worn, bent or loose blade 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.  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.
<ol> <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>	Level mower deck.     Clean underside of mower housing     Replace blade mandrel.
d Obstantiant aluthor to	
<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.
1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt wom. 9. Blades improperly installed. 1. Improper blades used. 1. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing 8. Replace mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.
Switch is "OFF". Bulb(s) burned out. Faulty light switch Loose or damaged wiring. Blown fuse.	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
Bad battery cell(s)     Poor cable connections     Faulty regulator (if so equipped).     Faulty alternator.	<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
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	3. Frozen idler pulley. 4. Frozen blade mandrel.  1. Engine speed too slow. 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt worn. 8. Blades improperly installed. 9. Improper blades used. 9. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.  Switch is "OFF". 9. Bulb(s) burned out. 9. Faulty light switch 9. Loose or damaged wiring. 9. Blown fuse.  Bad battery cell(s) 9. Poor cable connections 9. Faulty regulator (if so equipped). 9. Faulty alternator.  Engine throttle control not set at "SLOW"

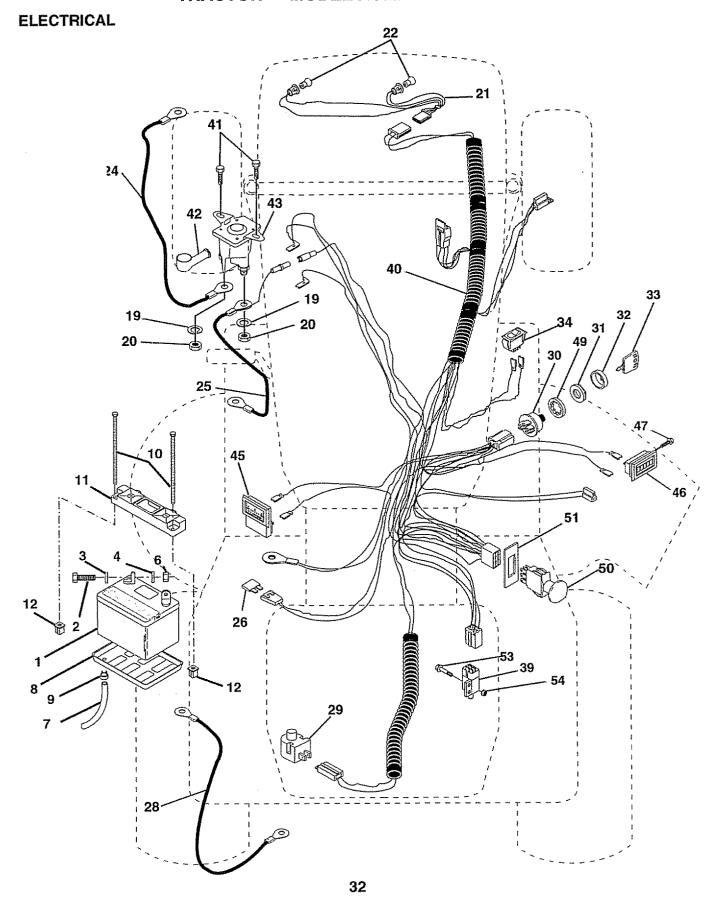
# **SERVICE NOTES**

#### TRACTOR - - MODEL NUMBER 917.251550

#### **SCHEMATIC**



### **TRACTOR - - MODEL NUMBER 917.251550**



# **TRACTOR - - MODEL NUMBER 917.251550**

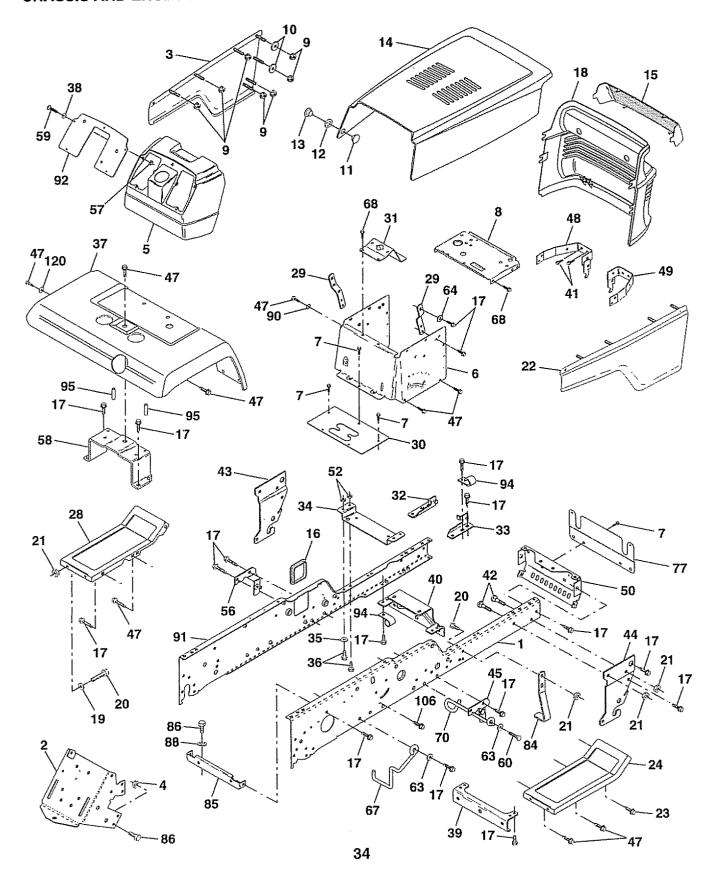
### **ELECTRICAL**

KE'		DESCRIPTION
12 19 20 21 22 24	145211 145209 145769 STD551125 73350400 136850 4152J 4014J 146686 108824X 6408R 121305X 144921 140400 141226 140403 110712X 109553X	Battery Bolt, Hex 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Ga. Washer, Lock 1/4 Nut, Hex 1/4-20 Tube, Drain Tray, Battery Clamp, Hose Bolt, Btr. Frt. 1/4-20 x 7-1/2 Holddown Battery Dash Mount Nut, Push Nylon 1/4 Battery Front Washer, Lock 1/4 Nut, Hex Jam 1/4-20 Harness, Light Socket W/4152J Bulb, Headlight Cable, Battery Cable Battery Fuse Cable, Ground Switch, Plunger Switch, Ignition Nut, Ignition Cover, Switch Key Key, Ignition Switch, Light Switch Intik CL MWR Gry 4 Term Harness, Ignition Screw, Hex Washer Head, Thread Cutting 1/4-20 x 1/2 Cover, Terminal Solenoid Ammeter Meter, Hour
47 49	17011008 11151000	Screw 10-24 x 1/2 Black Washer-Lock Internal Tooth 5/8
50 51	146283 140405	Switch, P.T.O. Ring Retainer PTO
53	71031008	Screw, Hex Washer Head #10-32x1/2
54	73951000	Nut, Keps #10-32

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

### **TRACTOR - - MODEL NUMBER 917.251550**

### **CHASSIS AND ENCLOSURES**



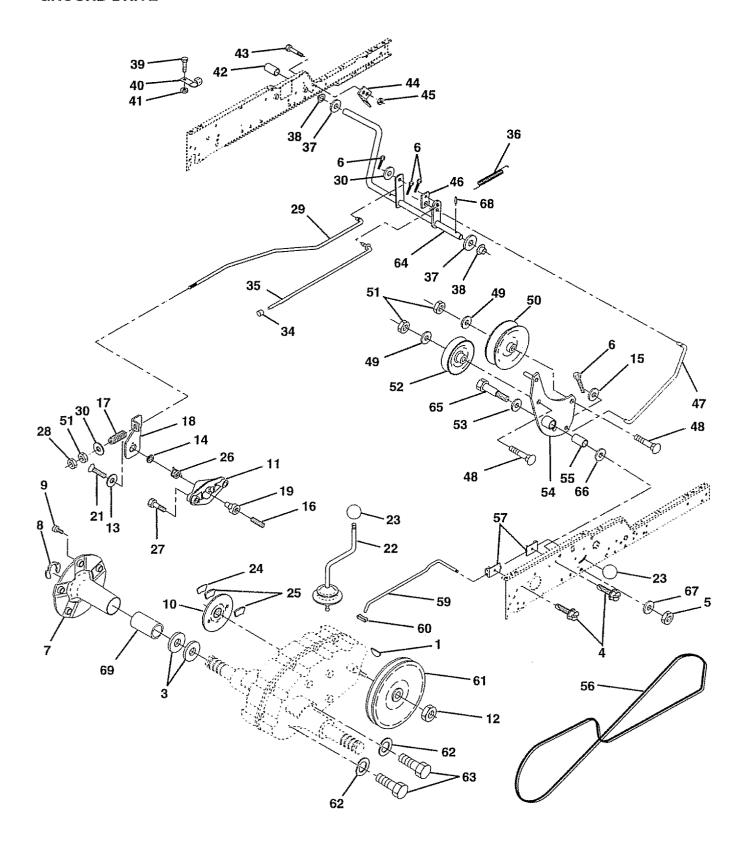
#### **TRACTOR - - MODEL NUMBER 917.251550**

#### **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1	150253	Rail, Frame RH	41	17580408	Screw Tap Tite 1/4-20 x 1/2
2	140506	Drawbar, Gt	42	72140608	Bolt, Carriage 3/8-16 x 1
3	136671X558	Panel Asm., Side LH	43	136939	Bracket, Spnsn Front Lh
	73800700	Nut, Lock Hex 7/16 Unc	44	136940	Bracket, Spnsn Front Rh
5	145203	Dash, Plastic Black	45	138460	Bracket Asm., Susp Chassis Rh
4 5 6 7	150273	Dash, Lower Vgt One Piece	47	17490608	Screw Thdrol. 3/8-16 x 1/2
7	17720408	Screw, Thd Cut 1/4-20 x 1/2	48	142133	Bracket Asm., Pivot Hood Lh
8	145166	Support, Battery	49	142134	Bracket Asm., Pivot Hood Rh
9	108067X	Nut, Pal	50	136575	Bracket, Chassis Front
10	19092016	Washer 9/32 x 1-1/4 x 16 Ga.	52	73680500	Nut, Crownlock 5/16-18 Unc
11	137270	Rivet, Ratchet Male	56	138461	Bracket Asm., Susp Chassis Lh
12	137269	Washer, Nylon_	57	73640400	Nut, Keps, Blk Hex 1/4-20 UNC
13	137271	Rivet, Ratchet Female		137113	Bracket Asm., Fender
14	136673X558	Hood Asm., Pnt	59	74180412	Screw, Mach Cr 1/4-20 x 3/4
15	136374	Lens, Bar Clear	60	17490620	Screw Thdrol. 3/8-16 x 1-1/4
16	121794X	Cover, Access	63	19131614	Washer 13/32 x 1 x 14 Ga.
17	17490612	Screw, Thdrol 3/8-16 x 3/4	64	144283	Washer, Serrated Disc 13/32 x 1
18	136373X428	Grille Washer 13/30 × 13/46 × 10 Ca	67	140737	Guide, Belt T/A
19	19131312	Washer 13/32 x 13/16 x 12 Ga.		17490508	Screw Thdrol. 5/16-18 x 1/2
20 21	74760616	Bolt, Fin Hex 3/8-16 x 1 Nut Crownlock 3/8-16 Unc	70 77	137159 137308	Guide, Belt Mid Span
22	73680600 136670X558	Panel Asm., Side RH	84	142992	Shield, Front
23	17490616	Screw Thdrol 3/8-16 x 1 Ty-Tt	85	144911	Stop, Over Center Mower
24	145243X558	Footrest, RH		74760716	Bracket, Support Transaxle Bolt, Fin Hex 7/16-14 Unc x 1
28	145244X558	Footrest, LH		STD551143	Washer, Lock Hvy Hicl Spr 7/16
29	145349	Bracket, Support Dash		STD551237	Washer, Lock External Tooth 3/8
30	145051X014	Saddle, Slkscr Vgt		150851	Rail, Frame Lh
31	145183	Brace, Support Steering	92	146967X011	Plate, Silkscreen Dash
32	141315	Bracket Asm., Frame Pivot Lh	94	100207K	Clip, Fuel Line
33	141314	Bracket Asm., Frame Pivot Rh		105531X	Push Nut, Nylon
34	142131	Bracket, Engine Support Rear		138776	Screw, Thdrol Hex Head Zinc Mwr
35	19111116	Washer 11/32 x 11/16 x 16 Ga.		19131616	Washer 13/32 x 1 x 16 Ga.
36	74780512	Bolt, Fin Hex 5/16-18 x 3/4		8022J	Plug, Hole
37	121642X558	Fender, Pnt.		COLLO	1 109, 11010
38	19091216	Washer 9/32 x 3/4 x 16 Ga.	NOT	E. All compos	ant dimensione since in LLC in-h
39	136961	Bracket, Axle Front	NOI	1 inch = 25	nent dimensions given in U.S. inches
40	142132	Bracket, Support Axle/Engine		1 men = 25	0.4 HHH
	- , 1 <del></del> 1	minariant makkan in inini minaria			

### **TRACTOR - - MODEL NUMBER 917.251550**

#### **GROUND DRIVE**



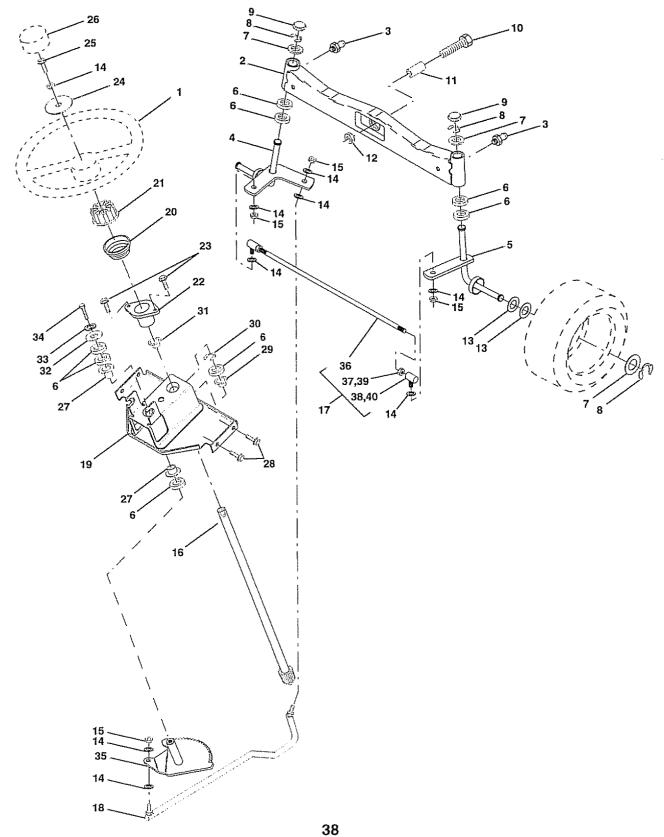
# **TRACTOR - - MODEL NUMBER 917.251550**

## **GROUND DRIVE**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 30 34	9858M1 7563R 17490508 73680600 76020412 149176 12000034 140080 142509 136927 9204H 139419 138901 19131316 143012 126909X 137104 136926 23260412 633A109 106932X 136925 136923 137552 17490528 73350600 137213 19131616 124236X 137648	Key, Woodruff Washer, Thrust, Axie Screw Thdrol 5/16-18 x 3/4 Nut, Crownlock 3/8-16 Pin, Cotter Wheel, Hub Assembly Klip, Ring Bolt, Hub Disc, Brake Yoke, Brake Disc Locknut 1/2-20 Washer, Special Bushing Washer, Special Bushing Washer 13/32 x 13/16 x 16 Ga. Set, Screw 1/4-28 x 3/4 Spring Lever, Brake Cam, Brake Disc Screw, Flat Head 1/4-28 x 3/4 Gearshift, Lever Assembly Knob Support, Puck Brake Puck, Brake Top Spring, Return Screw, Hex Wsh Thd 5/16-18 x 1-3/4 Nut, Hex Jam 3/8-16 Brake, Rod Washer 13/32 x 1 x 16 Ga. Cap, Plunger Rod, Parking Brake	38 39 40 41 42 43 44 45 47 49 51 52 53 54 55 56 57 56 66 66 66 66	150035 74321016 5304J 73631000 8883R 74760412 104601X 73800400 145170 138228 72110614 19131413 131494 73680600 139123 207J 138390 105706X 137153 141756 122253X 122268X 137524 10040700 74760720 137649 67609 140296 19131312 5142H 136327	Nyliner Screw, Fin. #10-24 x 1 Actuator, Interlock Switch Locknut #10-24 Cover, Pedal Bolt, Hex 1/4-20 x 3/4 Bracket, Interlock Locknut w/Insert 1/4-20 Retainer, Spring Clutch Rod Bolt, Carriage 3/8-16 x 1-3/4 Gr. 5 Washer 13/32 x 7/8 x 13 Ga. Pulley, Idler, Flat Nut, Crownlock 3/8-16 UNC Pulley, Idler, Grooved Washer, Hardened Clutch, Arm Assembly Bearing, Idler V-Belt Bracket, Shift Rod, Hi-Lo Shift Rod, Hi-Lo Spring Clip, Connecting Link Pulley, Transaxle Washer, Lock 7/16 Bolt, Fin Hex 7/16-14 x 1-1/4 Shaft, Clutch/Brake Pedal Bolt, Shoulder Washer, Hardened Washer, Flat Pin, Roll Hub, Cover
	149412 121749X	Spring, Drive Ground Washer 25/32 x 1-1/4 x 16 Ga.			nent dimensions given in U.S. inches

## **TRACTOR - - MODEL NUMBER 917.251550**

## STEERING ASSEMBLY



## TRACTOR - - MODEL NUMBER 917.251550

#### STEERING ASSEMBLY

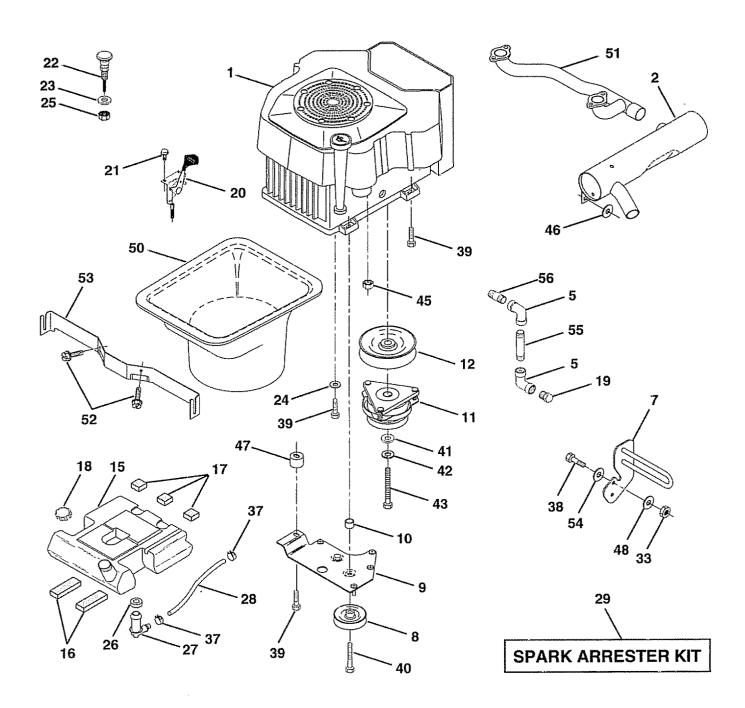
KE'		DESCRIPTION
NO 12345678911123145617 1890122345	NO.  121472X 137094 6855M 136960 136959 6266H 121748X 12000029 121232X 74781044 136518 73901000 121749X 10040600 73610600 145103 137347  137155 146611 145182 100711L 1554J 17431008 19133808 74780616	Wheel, Steering Axle Asm., Front Fitting, Grease Spindle Asm, LH Spindle Asm., RH Bearing, Race Thrust Harden Washer 25/32 x 1-5/8 x 16 Ga. Ring, Klip #T5304-75 Cap, Spindle Bolt, Fin Hex 5/8-11 x 2-3/4 Spacer, Brg. Axle Front Nut, Lock Flange 5/8-11 Unc Washer 25/32 x 1-1/4 x 16 Ga. Washer, Lock Hvy Hlcl Spr 3/8 Nut, Fin Hex 3/8-24 Unf Shaft Asm., Steering Rod Asm., Tie Ball J Ball Vgt (Inc. Key No. 36-40) Draglink, Ball Joint Solid Vgt Support Asm., Steering Vgt Column, Steering Adapter, Wheel Steering Bushing, Strg. Blk Screw, Slftp #10-16 x 1/2 Ty-b Washer 13/32 x 2-3/8 x 8 Ga. Bolt, Fin Hex 3/8-16 x 1 Gr. 5
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	126805X 3366R 17490612 104239X 12000034 138136 19111610 10040500 74760512 138059 137156 73360600 109850X	Cap, Wheel Steering Bearing, Col. Strg. Screw, Thrdrol 3/8-16 x 3/4 Bearing, Flange Ring, Klip Truarc #5304-75 Bushing, Nyliner Snap Washer 11/32 x 1 x 10 Ga Washer, Lock Hvy Hlcl Spr 5/16 Bolt, Hex Hd 5/16-18 x 3/4 Gear, Sector Steering Tie Rod Jam Nut RH Thread Joint Asm. Ball RH Thread Joint Asm. Ball LH Thread

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

39

## TRACTOR - - MODEL NUMBER 917.251550

## **ENGINE**



## **TRACTOR - - MODEL NUMBER 917.251550**

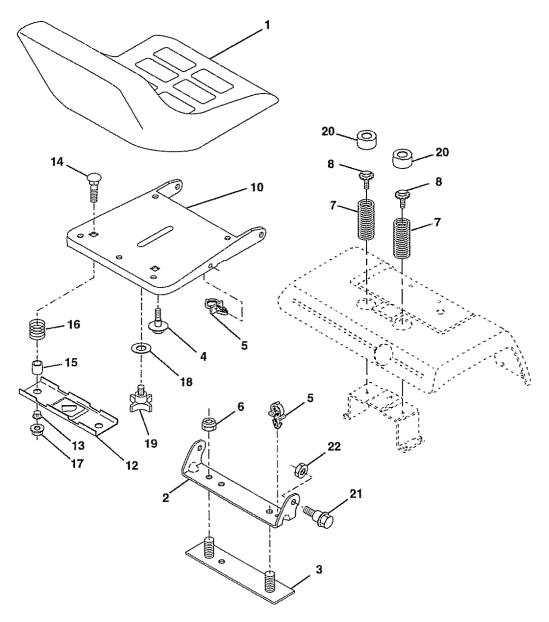
## **ENGINE**

KE'		DESCRIPTION
1	140847	Engine Kohler 22 CV22 PS-67515
2 5 7	144636 13200300	Muffler Asm Elbow STD 90 Degree 3/8 - 18 NPT
7 8	143599 121361X	Muffler Asm Guard Pulley V-Idler
9	145109	Stop Keeper Asm VGT
10 11	105432X 140923	Bushing Clutch Electric
12 15	143996 151346	Pulley Engine VGT Elect Clutch Tank Fuel Rear 3.50 Yt/Gt 96
16	109227X	Pad Spacer
17 18		Pad Spacer Cap Asm Fuel W/Gauge Vented
19	13290300	Plug Oil Drain (Order From Engine
20	132755	Manufacturer) Control Throttle
21 22	17720410 132779	Screw Hex Thd Cut 1/4 - 20 X 5/8 Control Choke
23 24	19132616 11050600	Washer 13/32 X 1 - 5/8 X 16 Ga
25	73610600	Washer Ext Tooth 3/8 Nut Fin Hex 3/8 - 24 UNF
26 27	3645J 139277	Bushing Stem Tank Fuel
28 29	7834R 132920	Fuel Line
33	73800600	Spark Arrester Kit Nut Lock Hex w/lns. 3/8 - 16
37 38	123487X 74780624	Clamp Hose Bolt Fin Hex 3/8 - 16 x 1-1/2
39	17490636	Screw TT 3/8-16 x 2-1/4 UNC
40 41	17490664 126197X	Screw TT 3/8-16 x 4 UNC Washer 1-1/2 OD X 15/32 ID X .250
42 43	10040700 150280	Washer Lock 7/16 Bolt Hex 7/16 - 20 X 4 - 1/4 Ga 5
45	128861	Nut Flange 1/4-20 Starter Nut
46 47	19131616 142040	Washer 13/32 x 1 x 16 Ga. Spacer Engine
48 50	19132007 143020	Washer 13/32 x 1-1/4 x 7 Ga. Duct Air
51 52	140787	Pipe Crossover
53		Screw Tap 1/4 - 20 x 1/2 Bracket Duct Air Rear Sup
54 55	19131414 13090336	Washer Flat 13/32 x 7/8 x 14 Ga. Nipple Pipe 3/8NPT X 4-1/2
56	13090308	Nipple Pipe 3/8 x 1

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

## **TRACTOR - - MODEL NUMBER 917.251550**

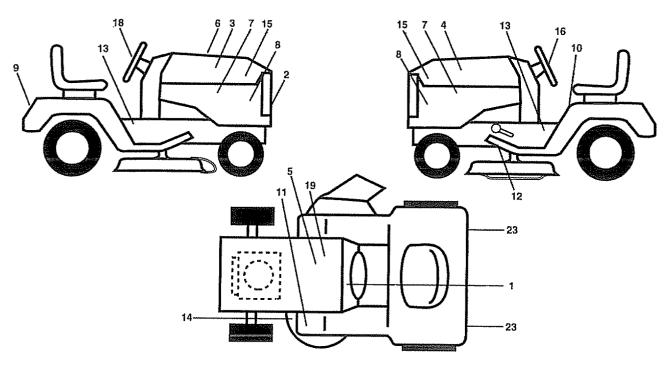
#### **SEAT ASSEMBLY**



KEY PART NO. NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 140124 2 140551 3 140675 4 127018X 5 145006 6 73680600 7 124181X 8 150176 10 140552 12 121246X 13 121248X 14 72050411	Seat Bracket, Pivot Seat Bracket, Pivot Seat Strap, Fender Bolt, Shoulder 5/16-18 x .62 Clip, Push In, Hinged Nut, Crownlock 3/8-16 Unc Spring, Seat Cprsn Bolt 5/16-18 Unc x 3/4 w/Sems Pan, Seat Bracket, Mounting Switch Bushing, Snap Bolt, Carriage 1/4-20 X 1-3/8	15 16 17 18 19 20 21 22 NOT	121249X 123740X 123976X 19171912 120068X 124238X 139888 73680500 E: All compo 1 inch = 2	Spacer, Split Spring, Cprsn Nut, Lock 1/4 Lge Flg Gr. 5 Washer 17/32 x 1-3/16 x 12 Ga. Knob, Seat 1/2-13 Unc Cap, Spring Seat Bolt, Shoulder 5/16-18 Nut, Crownlock 5/16-18 Unc enent dimensions given in U.S. inches 5.4 mm

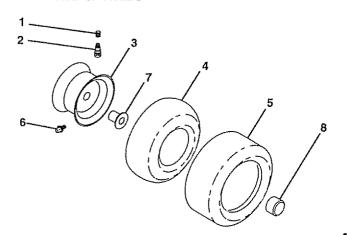
# TRACTOR - - MODEL NUMBER 917.251550

## **DECALS**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5	138955 151448 146705 146706 149516	Decal, Operating Instruction Decal, Grill Decal, Hood, Craftsman, RH Decal, Hood, Craftsman, LH Decal, Battery DNGR/PSN ENG Asm	13 14 15 16 18	148957 139346 151568 150333 146710 138047	Decal, Chassis, 6 Speed/50" Decal, V-Belt Schematic Decal Hood Insert Decal, Cap CNSMR Help Line SRS Decal, Insert Strg Decal, Battery
6 7 8 9 10 11	133644 138048 142241 146709 137537 4900J 146047	Decal, Maintenance Decal, Side Panel Decal, Side Panel Decal, Side Panel Decal, Fender, Craftsman Decal, Caution Decal, Clutch/Brake Decal, V-Belt Drive Schematic	23	106202X 138311 145245	Reflector, Taillight Decal, Handle Lft Height Adjust (Lift Handle) Pad, Footrest Fastener, Pop-In Footrest Manual, Owner's (Eng) Manual, Owner's (Span)

#### **WHEELS & TIRES**



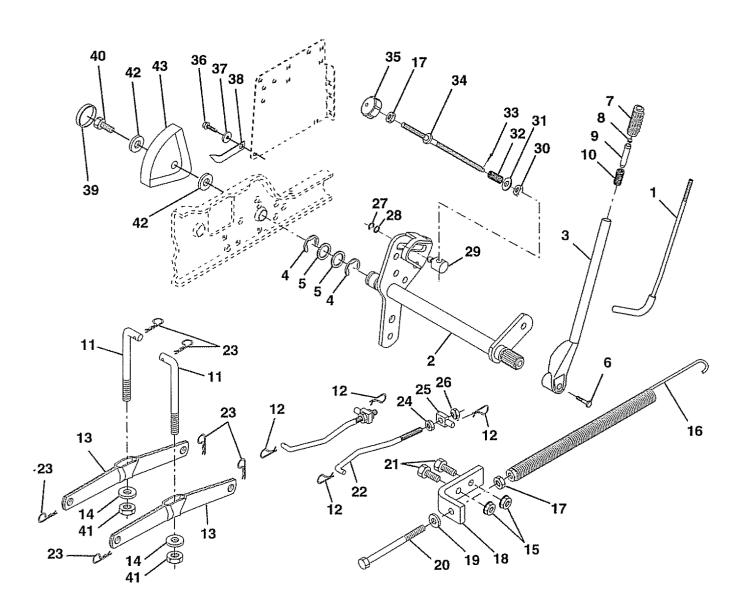
KEY	PART	
NO.	NO.	DESCRIPTION

1 2	59192 65139	Cap, Valve, Tire Stem, Valve
3	148736X427	Rim Assembly, Front
	148738X427	Rim Assembly, Rear
4	8134H	Tube, Front (Service Item Only)
	7154J	Tube, Rear (Service Item Only)
5	148741	Tire, Front
	151607	Tire, Rear
6	278H	Fitting, Grease (Front Wheel Only)
	6856M	Fitting, Grease
7	9040H	Bearing, Flange (Front Wheel Only)
8	104757X	Bearing, Flange (Front Wheel Only) Cap, Axle (Front Wheel Only)

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

## **TRACTOR - MODEL NUMBER 917.251550**

## LIFT ASSEMBLY



# **TRACTOR - MODEL NUMBER 917.251550**

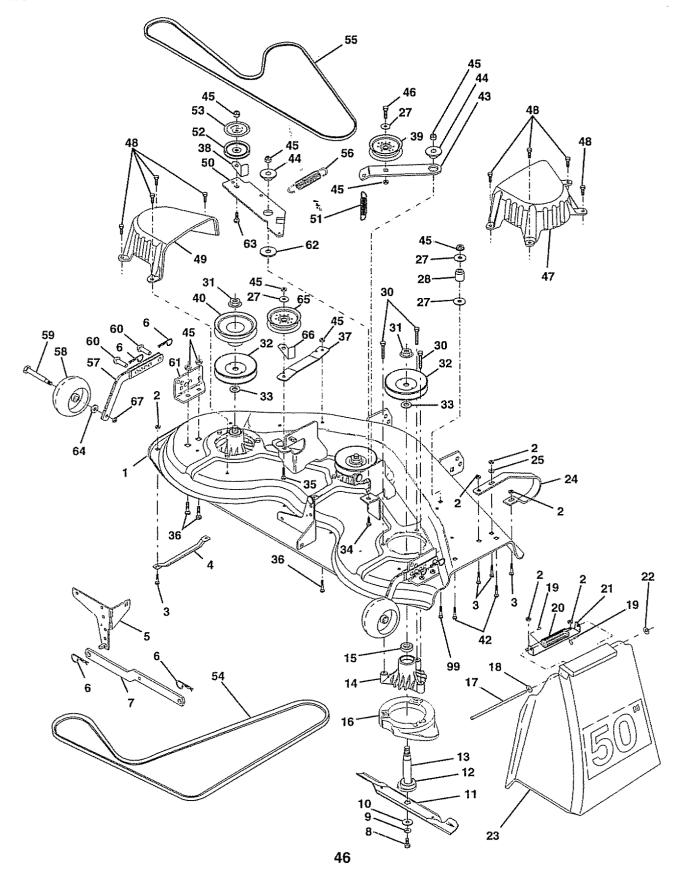
## LIFT ASSEMBLY

KE'		DESCRIPTION
12345678901123456789012345678901234567890142	121006X 145542 121002X 12000022 19292016 74780624 125631X 122365X 122364X 2876H 146704 3146R 139868 140302 73680600	Rod Asm., Lever Shaft Asm., Lift Vgt Lever Asm., Lift Rh E-Ring Truarc #5133-87 Washer 29/32 x 1-1/4 x 16 Ga. Bolt, Fin Hex 3/8-16 x 1-1/2 Grip, Handle Fluted Button, Plunger Plunger, Lever Lift Spring 2-1/8" Link Lift Retainer, Spring Arm, Suspension Vgt Bearing Nut, Crownlock 3/8-16 Unc Spring Asm., Assist Lift Nut, Hex Jam 3/8-16 Unc Bracket, Spring Assist Washer 13/32 x 13/16 x 16 Ga. Bolt, Adjust Spring Assist Bolt, Fin Hex 3/8-16 x 1 Link, Front Retainer, Spring Nut, Jam Hex 1/2-13 Unc Trunnion Nut, Lock W/Wsh 1/2-13 Unc Ring, Klip #T5304-37 Washer 15/32 x 3/4 x 16 Ga. Trunnion, Dp Stop Dbl Thds Plt Nut, Special Washer 13/32 x 5/8 x 16 Ga. Spring, Compression Inf Hgt Pin, Cotter 3/32 x 1/2 Rod, Adj Lift Knob, Inf 3/8-16 Unc Screw, Thdrol 3/8-16 x 3/4 Washer, Nylon Pointer, Pnt Height Indicator Plug, Hole Screw Hex Wsh 5/16-18 x 3/4 Nut, Crownlock 3/8-24 Washer 11/32 x 1-1/2 x 10 Ga.
43	123934X	Scale, Indicator Height

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

## **TRACTOR - - MODEL NUMBER 917.251550**

#### **MOWER DECK**



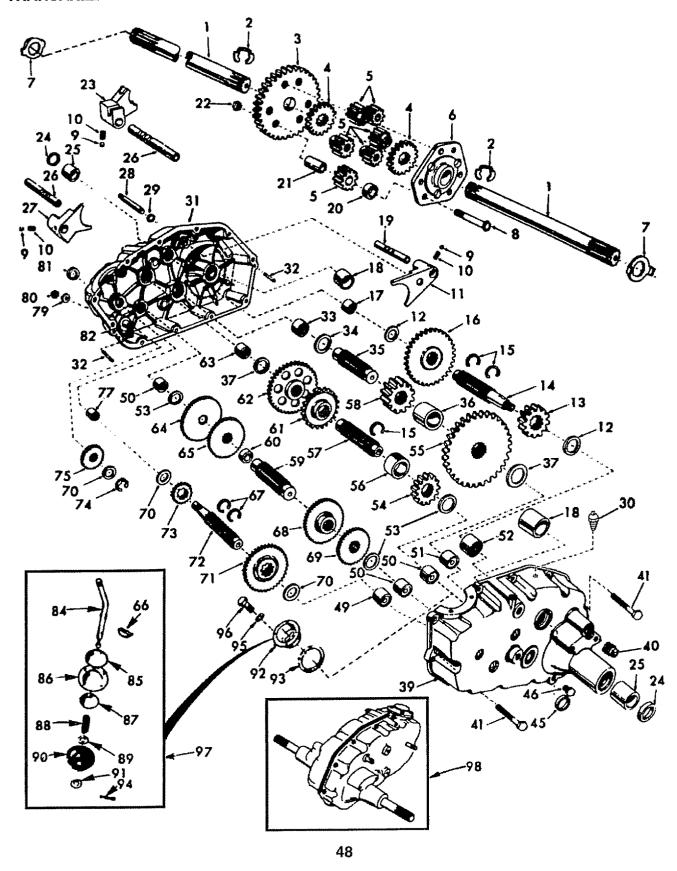
# **TRACTOR - - MODEL NUMBER 917.251550**

#### **MOWER DECK**

NO KE		DESCRIPTION	KEY NO.		DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12 13 14 5	136457 73680500 72110506 7631J 138457 4939M 130832 850857 10030600 140296 137380 129895 137553	Mower Housing Nut, Crownlock 5/16-18 Bolt, Carriage 5/16-18 x 3/4 Runner, Mower LH Bracket Asm., Sway Bar Retainer, Spring Arm Suspension, Rear Bolt 3/8-24 x 1.25 Gr. 8 Patched Washer, Lock Hvy 3/8 Unplated Washer, Hard Blade Mower Vented Blade Bearing, Ball #6204 (Mandrel) Shaft Asm., W/Lower Brg (Includes Key No. 12) Housing, Mandrel	47 48 49 50 51 52 53 54	131494 136572 72140506 136460 122052X 73680600 74760628 137200 137729 136574 137272 137273 139245 137789 139573	Pulley, Idler Flat Pulley, Driven Bolt, Carriage 5/16-18 Unc x 3/4 Arm, Idler Secondary Spacer, Retainer Nut, Crownlock 3/8-16 Unc Bolt, Fin Hex 3/8-16 Unc x 1-3/4 Cover, Mandrel RH Screw, Thd Roll 1/4-20 x 5/8 Cover, Mandrel LH Arm, Idler Primary Spring, Secondary Pulley, Idler V Groove Shield, Idler V-Belt, Mower Primary
15 16 17 18 19	110485X 140329 106735X 19111016 105304X	Bearing, Ball Mandrel Stripper, Mower Vented Rod, Hinge Washer 11/32 x 5/8 x 16 Ga. Cap, Sleeve	55 56 57 58 59	144959 138687 136577 133957 137644	V-Belt, Mower Secondary Spring, Primary Bar Asm., Wheel Gauge Wheel, Gauge
20 21 22 23	123713X 137607 110452X 110509X	Spring, Torsion Deflector Bracket, Deflector Nut, Push Shield, Deflector Mower	60 61 62	139031 136573 133943 72110612	Bolt, Shoulder Pin, Clevis Bracket, Wheel Gauge Washer Hardened Bolt Carriage 3/8-16 x 1-1/2
24 25 27 28 30 31	136320 19111216 19131316 132823 138776 137266	Runner, RH Washer 11/32 x 3/4 x 16 Ga. Washer 13/32 x 13/16 x 16 Ga. Spacer, Spring Stop Idler Screw Thdrol Hex Hd Nut, Flg Top Lock Cntr 9/16	64 65 66 67	19121414 102403X 139622	Washer 3/8 x 3/4 x 14Ga Pulley Idler Flat Keeper Belt Idler Nut, Centerlock 3/8-16 Bolt, Carriage 3/8-16 x 1-3/4 Gr. 5 Mandrel Asm Service (Includes Key
32 33 34 35 36 37 38	129861 129963 72140610 72110616 72110608 137166 137554	Pulley, Mandrel Washer, Spacer Mower Vented Bolt, Carriage 3/8-16 x 1-1/4 Bolt, Carriage 3/8-16 x 2 Bolt, Carriage 3/8-16 x 1 Gr. 5 Stiffener, Arm Idler Keeper, Belt Idler	NOT	141051 E: All compoint inch = 25	Nos. 8-10, 12-15, 31 and 33) Mower Asm. Service (Std. Deck- Order all gauge wheel components separately) nent dimensions given in U.S. inches

# **TRACTOR - - MODEL NUMBER 917.251550**

## **TRANSAXLE**

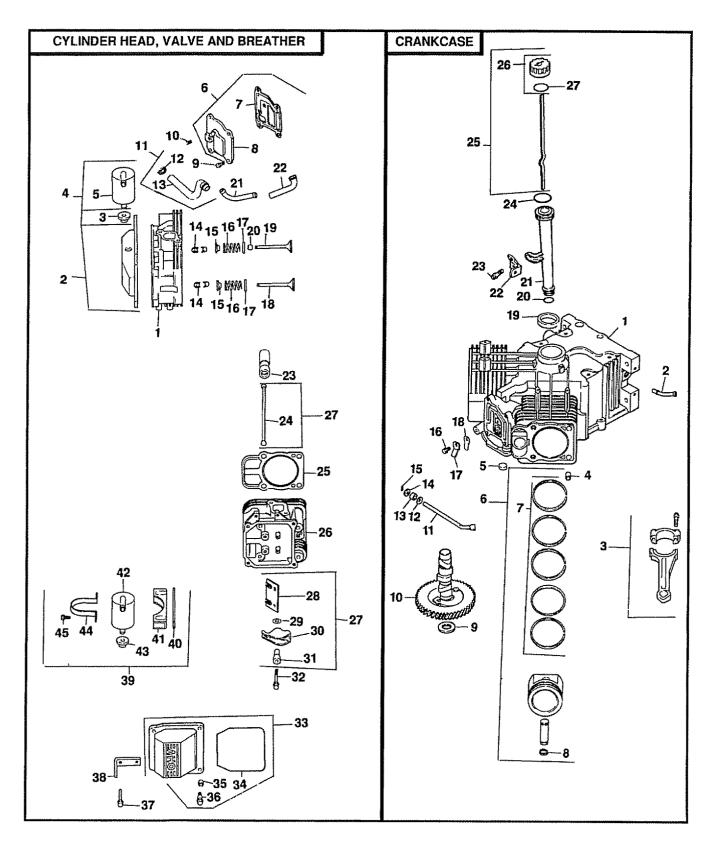


## **TRACTOR - - MODEL NUMBER 917.251550**

#### **TRANSAXLE**

	Y PART NO.	DESCRIPTION		Y PART NO.	DESCRIPTION
1	4197R	Axle Shaft	52	8119M	Needle Bearing
2	12000034	Retaining Ring	53	4220R	Thrust Bearing Race
3	4199R	Final Drive Gear	54		3rd Reduction Pinion, Low
4	4216R	Differential Gear	55	4213R	4th Reduction Gear
5	4215R	Differential Pinion	56	4442R	3rd Reduction Pinion Spacer
6	4217R	Differential Carrier	57		2nd Reduction Gear Shaft
7	6256H	Axle Thrust Washer	58	4214R	Final Drive Pinion
8	74020652	Bolt, Hex Head 3/8-24 x 3-1/4	59	4194R	1st Reduction Gear Shaft
_		(1" Thread Length)	60	7528R	1st Reduction Shaft Spacer
. 9	7392M	Steel Ball	61	4208R	3rd Reduction Pinion High
10	137261	Spring Shift Fork Detent	62		2nd Reduction Gear
11	4985R	Shift Fork, High-Low Range	63	7398H	Needle Bearing
12	6266H	Thrust Bearing Race	64	4203R	Low Speed Gear and 2nd
13	4212R	4th Reduction Pinion	^-	40040	Reduction Pinion Cluster
14	137125 6276H	Shaft, Brake	65 66	4204R	Reverse Gear
15 16	633A63	Snap Ring, Crescent Type High-Low Range Gears	66 67	2898J	Key, Hi-Pro 1/8 x 17/32
17	8118M	Needle Bearing	68	12000033 4205R	Klip Ring Intermediate Speed Gear
18	8740H1	Sintered Iron Bearing		4205R 4206R	High Speed Gear
19	122238X	Shift Fork Shaft, High-Low Range	70	1370H	Thrust Bearing Race
20	4218R	Differential Pinion Spacer	71	633A69	Intermediate and High Speed
21	6252H1	Differential Pinion Bushing	, ,	000,100	Cluster Pinions
22	7810H	Gripco Centerlock Nut 3/8-24	72	139120	Input Shaft
23	6262H	Shift Fork, R.H.	73	4201R	Low Speed Pinion
24	7393R	Oil Seal	74	12000008	E-Ring
25	992R1	Sintered Iron Bearing	75	1153R	Reverse Idler Gear
26	139111	Shift Fork Shaft	77	6803J	Needle Bearing
27	4986R	Shift Fork, L.H.	79	1167R	Sealing Washer
28	122254X	Shift Shaft, High-Low Range	80	73360700	Nut, Hex, Jam 7/16-20
29	6269H	Oil Seal	81	6270H	Oil Seal
30	5855H	Pressure Relief Valve	82	136984	Reverse Idler Shaft
31	139538	Gearcase, Reverse Idler Shaft and	84	5384J	Gearshift Lever, Bent
		Bearings, R.H. (Includes Key No.'s	85	2978J	Gearshift Cap
32	6277H	17,18, 25, 33, 50, 63, 77 and 82) Dowel Pin	86	633A85	Gearshift Ball Cover and Pin
33	4225R	Needle Bearing	87 88	8739H1 4924H	Shift Lever Guide Ball, Keyed
34	7396H	Thrust Bearing Race	89	19151516	Spring Washer 15/32 x 15/16 x 16 Gauge
35	4198R	4th Reduction Gear Shaft	90	110542X	Shift Mechanism Seal
36	4200R	4th Reduction Gear Spacer	91	19181511	Washer 9/16 x 15/16 x 12 Gauge
37	7395H	Thrust Bearing Race	92	75J	Gearshift Gate and Reinforcement
39	139536	Gearcase and Bearings, L.H.	93	6274H	Shift Ball Cover Gasket
		(Includes Key Numbers 18, 25, 49,	94	76020412	Cotter Pin 1/8 x 3/4
		50 (2), 51 and 52)	95	10040500	Washer, Lock 5/16
40	13320400	Pipe Plug 1/2-14 N.P.T.	96	74760514	Bolt, Hex Head 5/16-18 UNC x 7/8
41	17580520	Bolt, Hex 5/16-18 UNC x 1-1/4	97	633A109	Gearshift Lever Assembly
45	6271H	Oil Seal	98	140332	Transaxle, 6 Speed,
46	13060200	Pipe Plug 1/4-18 N.P.T.			Complete Assembly
49	4895H	Needle Bearing			
50	4222R	Needle Bearing	NOT		ent dimensions given in U.S. inches
51	1529R	Needle Bearing		1 inch = 25	.4 mm

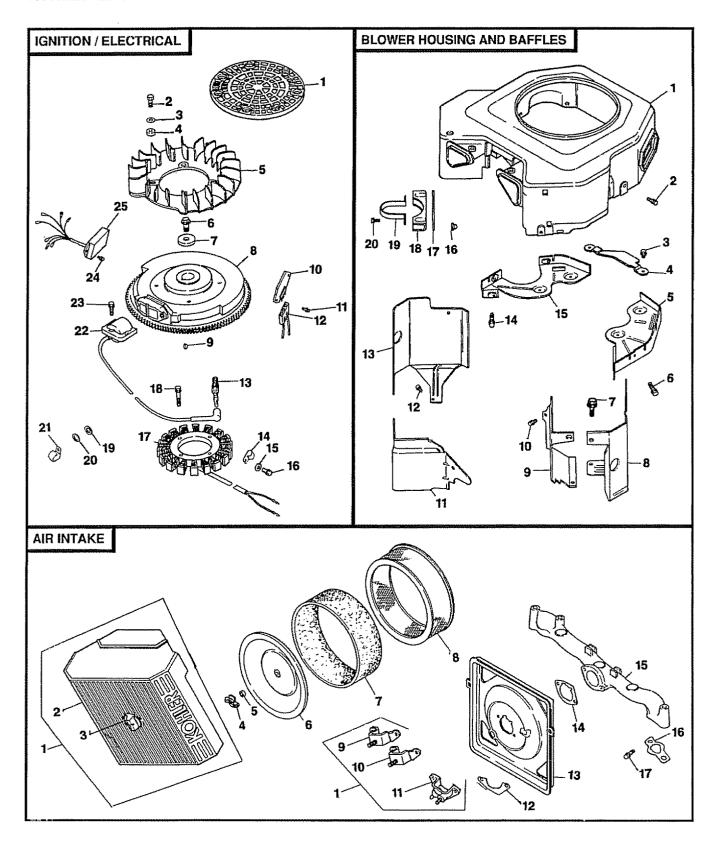
## **TRACTOR -- MODEL NUMBER 917.251550**



# **TRACTOR -- MODEL NUMBER 917.251550**

CYLINDER HEAD/VALVE/BREATHER			CRA	ANKCASE	
	PART NO.	DESCRIPTION	NO.	Y PART NO.	DESCRIPTION
1 2	24 318 11 24 755 76	Head Assembly, #1 Cylinder Kit, Valve Cover, Breather (Includes Key #3, 34 thru 36) Grommet, Rubber Kit, Breather (Includes Key #3 & 5)	1 2 3	24 782 05 24 294 03 24 067 01	Cylinder Block (Use Miniblock) Fitting Connecting Rod (Standard) (2)
3 4 5 6	25 313 02 24 755 20 24 595 02 24 033 03	Grommet, Rubber Kit, Breather (Includes Key #3 & 5) Separator, Oil Breather Kit, Breather Cover with Gasket (Includes Key Numbers 7 and 8) Gasket Breather	=	24 067 02 12 380 03 52 139 09 24 874 01 24 874 02	Connecting Rod (.25) (2) Pin, Dowel Locating (6) Plug, Cup Piston with Ring Set (Standard) (2) Piston with Ring Set (.25) (2)
7 8 9 10	24 041 23 24 096 15 SM-0645020 X-75-23		7	24 874 03 24 108 01 24 108 02 24 108 03 24 018 01	Piston with Ring Set (.50) (2) Ring Set (Standard) (2) Ring Set (.25) (2) Ring Set (.50) (2) Retainer, Piston Pin (4)
11 12 13	24 755 67 X-426-9 24 326 08	Kit, Breather Hose (Includes 12-13) Clamp, Hose (2) Hose, Breather	9	12 422 10 12 422 09	Shim, Camshaft, Yellow Shim, Camshaft, Green (As Required)
14 15 16 17	12 755 03 12 173 01 24 089 02 235011	Kit, Retainer (4) Cap, Valve Spring (4) Spring, Valve (4) Retainer, Spring (4)		12 422 13 12 422 07	Shim, Camshaft, Black (As Required) Shim, Camshaft, White (As Required)
18	24 016 01 24 016 02	Valve, Exhaust, Standard Size (2) Valve, Exhaust, .25 Oversize (2)		12 422 08	Shim, Camshaft, Blue (As Required)
19	24 017 01 24 017 02	Valve, Intake, Standard Size (2) Valve, Intake, 25 Oversize (2)		12 422 11	Shim, Camshaft, Red (As Required)
20 21 22 23 24 25 26 27	24 032 05 24 294 02 24 326 05 12 351 01 24 411 04 24 041 08 24 318 12 24 755 61	Gasket, Cylinder Head (2) Head Assembly, #2 Cylinder Kit, Valve Train	13 14 15	12 422 12 24 010 03 24 144 01 X-25-63 12 032 01 X-25-102 12 380 04 M-0545010	Shim, Camshaft, Grey (As Required) Camshaft Shaft, Governor Cross Washer, Plain 1/4 Seal, Governor Cross Shaft Washer, Plain 1/4 Pin, Hitch Screw, Reed Retainer
28 29 30 31 32 33	24 146 09 SM-0631005 24 186 03 24 194 02 M-0640034 24 755 74	(Includes Key Numbers 24, 28-31) Plate, Guide (2) Washer, Plain (4) Arm, Rocker (4) Pivot, Rocker Arm (4) Screw M6 x 1.0 x 34 (4) Kit, Valve Cover, Plain (Includes Key Numbers 34 thru 36) O-Ring	17 18 19 20	24 018 04	M5 x 0.8 x 10 (2) Retainer, Reed (2) Reed, Breather (2) Seal, Oil, Front O-Ring, Lower Oil Fill Tube Tube, Oil Fill Bracket, Oil Fill Tube
34 35 36 37 38 39 40 41 42 43 44 45	24 153 11 24 112 08 24 086 32 24 086 16 24 445 01 24 755 57 24 112 12 24 126 44 24 595 02 25 313 02 24 445 02 M-0545016	O-Ring Spacer (4) Screw, Shoulder (4) Screw M10 x 1.5 x 91 (8) Strap, Lifting Kit, Breather Separator (Includes Key Numbers 40 thru 45) Spacer Bracket, Breather Separator Separator, Oil Breather Grommet, Rubber Strap, Breather Separator Screw M5 x 0.8 x 16 (2)	24 25 26 27	M-0545016 12 153 02 24 038 04 25 755 13 12 153 03	Screw, Oil Fill Tube Bracket M5 x 0.8 x 16 O-Ring, upper Oil Fill Tube Dipstick Assembly (Includes 26-27) Kit, Oil Fill Cap (Includes 27) O-Ring, Dipstick ent dimensions given in U.S. inches

## **TRACTOR -- MODEL NUMBER 917.251550**



## **TRACTOR -- MODEL NUMBER 917.251550**

#### **KOHLER ENGINE - MODEL NUMBER CV22-PS67515**

#### **IGNITION/ELECTRICAL**

24 176 27

24 518 04 24 113 18 24 063 27

#### **KEY PART** NO. NO. **DESCRIPTION**

1	24 162 17	Screen, Grass
2	M-0403025	Screw, Grass Screen
		M4 x 0.7 x 24 (4)
3	X-25-92	Washer, Plain 1/2 (4)
4	24 112 04	Spacer, Fan (4)
5	24 157 03	Fan
6	M-0639016	Screw M6 x 1.0 x 16 (4)
7	12 112 01	Spacer, Fan (4)
8	24 025 05	Flywheel Assembly
ă	X-42-15	Key
10	25 403 03	Rectifier-Regulator
11	24 086 18	Screw, Phillips (2)
	236602	Connector, Rectifier-Regulator,
1 ~	200002	3 Contact
13	12 132 02	Spark Plug (2)
	48 154 02	Clip, Cable
	12 468 03	Machar States Hamana Clin
	12 086 14	Washer, Stator Harness Clip
10	12 000 14	Screw, Stator Harness Clip M10 x 1.5 x 46
47	04.005.04	
18	24 085 01	Stator, 15 Amp
10	M-0548025	Screw, Stator Mounting
40	Varco	M5 x 0.8 x 25 (2)
	X-25-63	Washer, Plain 1/4 (2)
	X-25-92	Washer, Plain 1/2 (2)
21	47 154 01	Clip, Cable
22	24 584 03	Module, Ignition (2)
23	M-0560020	Screw, Module M5 x 0.8 x 20 (4)
	M-0448010	Screw, Module M4 x 0.7 x 10 (2)
	24 584 05	Module, Speed Advance
NUT	ILLUSTRATE	)

Harness, Wire Lead, Green (3", 18 Gauge, Insulated Grip Barrel Eyelets) Decal, Grass Screen Baffle, Heat Shield

#### **BLOWER HOUSING & BAFFLES**

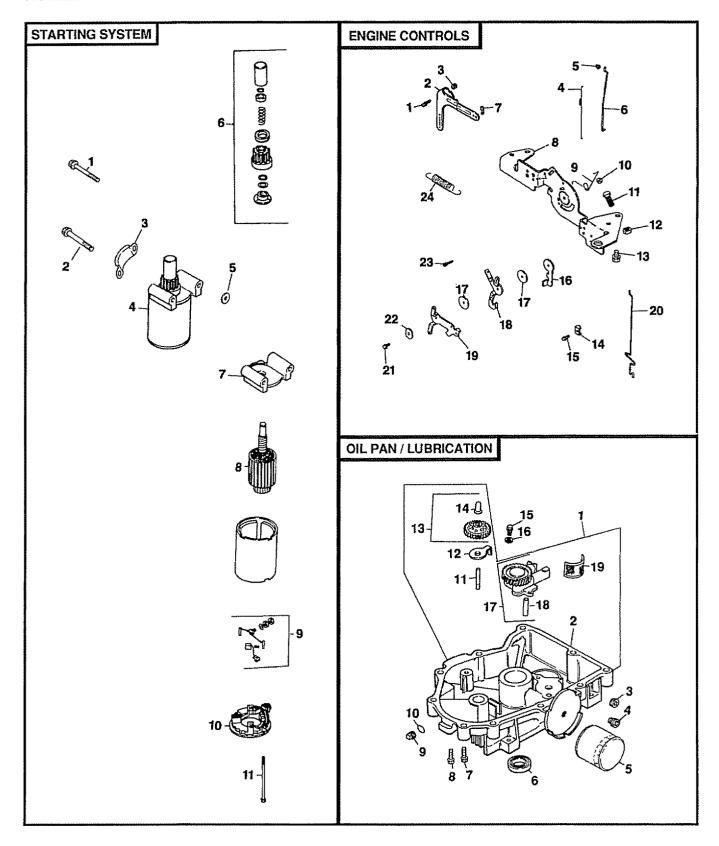
	PART NO.	DESCRIPTION
8 9 10 11 12 13 14 15 16 17 18 19 20	24 027 20 M-0549016 SM-0645016 24 314 05 24 146 02 M-0545020 M-0551016 24 063 20 24 063 23 M-0545010 24 063 14 M-0545016 24 063 19 M-0645016 24 146 08 24 100 01 24 112 12 24 126 44 24 445 02 24 086 27	Housing, Blower Screw M5 x 0.8 x 16 (3) Screw M6 x 1.0 x 16 (4) Guard, Flywheel Plate, Backing, # 2 Side Screw M5 x 0.8 x 20 (2) Screw M5 x 0.8 x 14 Baffle, Cylinder Barrel, # 2 Side Baffle, Valley, # 1 Side Screw M5 x 0.8 x 10 (2) Baffle, Valley, # 2 Side Screw M5 x 0.8 x 16 (2) Baffle, Cylinder Barrel, # 1 Side Screw M6 x 1.0 x 16 (2) Plate, Backing, # 1 Side Nut, Plastic Spacer Bracket, Breather Separator Strap, Breather Screw (2)
NOT	ILLUSTRATED	
	24 100 01	Nut, Plastic (3)
	24 100 02	(Included with Blower Housing) Nut, Plastic (2) (Included with Blower Housing)
** **	25 139 16	Plug, Button 9/16
	24 113 23	(Included with Blower Housing) Decal, Horsepower

#### AIR INTAKE

	PART NO.	DESCRIPTION
1	24 743 05	Kit, Air Cleaner Cover (Includes Key Numbers 2, 3, and 9 thru 11)
2	24 096 24 25 341 02 12 100 01 24 380 03	Cover, Air Cleaner
3	25 341 02	Knob, Cover
4	12 100 01	Wing Nut
5	24 380 03	Pin, Latch Lever (2)
6	24 096 01	Cover, Inner Air Cleaner
7	24 083 02	Element, Pre-Cleaner
8	47 083 03	Element, Air Cleaner
	24 126 21	Bracket, Air Cleaner
	24 126 43	Bracket, Air Cleaner
	24 109 01	Cup, Fuel Spitback
	24 041 13	Gasket, Fuel Spitback Cup
	24 094 02	Base, Air Cleaner
	24 041 14	Gasket, Air Cleaner Base
	24 164 06	Manifold, Intake
	24 041 01	Gasket, Intake Manifold (2)
	M-0639055	Screw M6 x 1.0 x 18 (4) '
NOT	ILLUSTRATED	
~ -	12 113 53	Decal, Air Cleaner

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

# **TRACTOR -- MODEL NUMBER 917.251550**



## **TRACTOR -- MODEL NUMBER 917.251550**

## **KOHLER ENGINE - MODEL NUMBER CV22-PS67515**

#### **STARTING SYSTEM**

KEY NO.	PART NO.	DESCRIPTION
-	M-0839070 M-0839080 24 096 05 25 098 03 12 468 01 12 755 54 12 227 06 45 170 03 82 755 28 12 227 11 12 086 25	Screw M8 x 1.25 x 70 Screw M8 x 1.25 x 80 Cover, Pinion Starter Assembly (Includes 6-11) Washer (3) Kit, Drive End Cap, Drive End Armature Kit, Brush and Spring Cap, Commutator End Bolt, Thru (2)

#### **OIL PAN/LUBRICATION**

KEY NO.	PART NO.	DESCRIPTION
	24 199 07	Oil Pan Assembly
3	24 199 04 X-75-32	Oil Pan Plug, Hex, Countersunk, 3/8 N.P.T.F.
4	24 136 01	Nipple, Oil Filter
	12 050 01	Filter, Oil
6	52 032 08	Seal, Oil (PTO End)
	24 086 17	Screw, Oil Pan M8 x 1.25 x 45
	24 086 16	Screw, Oil Pan M8 x 1.25 x 45 (9)
9	X-75-10	Plug, Solid, Square Head, 3/8 N.P.T.F.
10	24 153 08	O-Ring
	12 144 02	Shaft, Governor Gear
	52 448 02	Tab, Locking
	24 043 12	Kit, Governor Gear with Pin
		(Includes Key Number 14)
14	12 380 01	Pin, Governor Regulating
15		Screw M6 x 1.0 x 25 (2)
16		Washer, Plain (2)
	24 393 08	Oil Pump Assembly (Includes 18)
	24 123 05	Tube, Oil Pickup
19	25 162 07	Screen, Oil

#### **ENGINE CONTROLS**

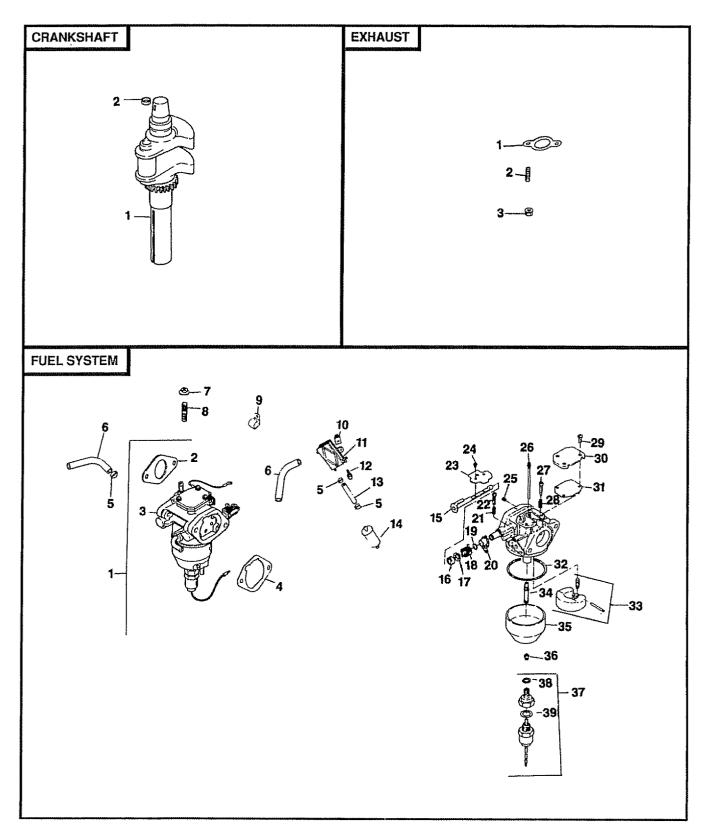
KEY PART NO. NO.

NO.	NO.	DESCRIPTION
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	M-0446030 SM-0645016 12 237 01 SM-0545016 24 090 07 24 468 01 24 090 13 24 090 05 24 079 05 SM-0545020	Screw M6 x 1.0 x 25 Lever, Governor Nut M6 x 1.0 Spring, Linkage Bushing, Linkage Retaining Linkage, Throttle Bushing, Throttle Linkage Bracket, Control Spring, Choke Return Locknut, Hex M5 x 0.8 Screw M5 x 0.8 x 16 Nut, Hex M4 x 0.7 Screw M6 x 1.0 x 16 (4) Clamp, Cable (2) Screw M5 x 0.8 x 16 (2) Lever, Throttle Actuator Washer (3) Lever, Throttle Control Lever, Choke Linkage, Choke Screw M5 x 0.8 x 20 Washer, Wave Screw M4 x 0.7 x 24 Spring, Governor

DESCRIPTION

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

## **TRACTOR -- MODEL NUMBER 917.251550**

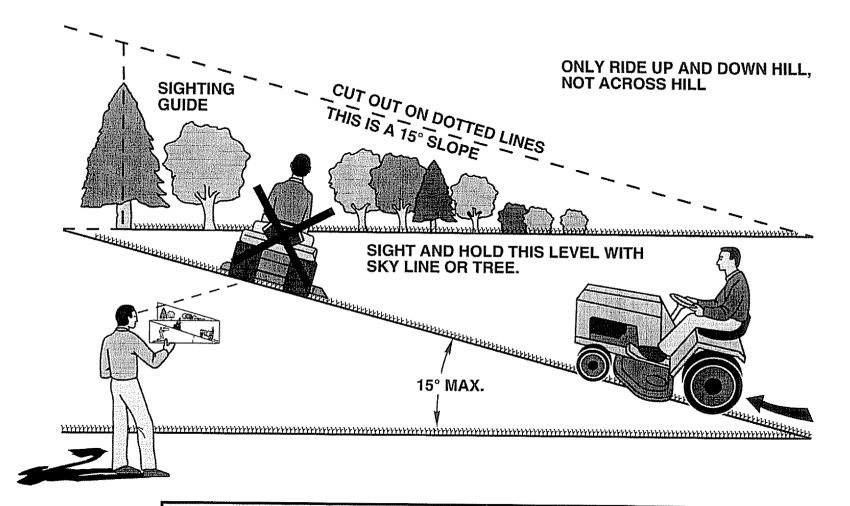


## **TRACTOR -- MODEL NUMBER 917.251550**

FUEL SYSTEM CRANKSHAFT					
	Y PART ). NO.	DESCRIPTION		/ PART NO.	DESCRIPTION
1	24 853 25	Kit, Carburetor with Gasket (Includes Key Numbers 2 thru 4)	1	24 014 72 52 139 09	Crankshaft
2 3	24 041 15 24 053 25	Gasket, Carburetor Carburetor Assembly (For	۷	32 139 09	Plug, Cup
		Information Only, Not Available Separately) (Includes 15-39)	EXH	IAUST	
4 5	X-426-9	Gasket, Air Cleaner Base Clamp, Hose (6)		PART NO.	DESCRIPTION
6 7	24 353 03 SM-0641060	Line, Fuel, 10-5/8" (2) Nut M6 x 1.0 (2)	1	24 041 02	Gasket, Exhaust (2)
8 9	M-0629095 47 154 01	Stud M6 x 1.0 x 95 (2) Clip, Cable	2	M-0829033	Stud, Exhaust Manifold M8 x 1.25 x 20 (4)
10 11	24 100 01 24 393 04	Nut, Plastic (2) Pump, Fuel, Pulse	3	M-0841080	Nut, Muffler Mounting M8 x 1.25 (4)
12 13	24 086 12 25 353 03	Screw, Hex Cap Head (2) Line, Fuel, 13-1/2"			100 X 1/20 (4)
14 15	25 050 02 24 144 15	Filter, Fuel Shaft, Choke	NOT	ILLUSTRATE	D
16 17	24 468 05 24 241 01	Washer Collar, Choke		PART NO.	DECOMPTION
18 19	24 089 22 24 141 04	Spring, Choke Return Ring, Choke Lever			DESCRIPTION
20 21	24 090 10 24 089 24	Lever, Choke		24 755 03	Gasket Set
22 23	24 086 19 24 462 02	Spring, Throttle Adjust Screw Screw, Throttle Adjust Valve, Choke		RPM Settings	Low Speed: 1150-1650
24 25	24 086 20 24 337 27	Screw, Throttle and Choke Shaft (4) Jet, Air Bleed			High Speed: 3200-3400
26 27	24 337 11	Jet, Slow	NOT	E: All compon	ent dimensions given in U.S. inches
28	24 086 22 24 089 23	Screw, Idle Adjust Spring, Idle Adjust Screw		1 inch = 25.	4 mm
29 30	24 086 21 24 096 13	Screw (3) Cover, Passage			
31 32	24 041 18 24 041 19	Gasket, Passage Cover Gasket, Float Chamber			
33 34	24 757 05 24 369 01	Kit, Float Repair Nozzle, Main			
35 36	24 234 01	Chamber, Float			
37		Jet, Main Kit, Solenoid Valve (Includes 38-39)			
38 39	24 041 21 24 041 20	Gasket, Chamber Screw Gasket, Solenoid			
	ILLUSTRATED 24 041 15	Gasket, Carburetor			
	24 757 06	Kit, Carburetor Repair			
^ =	24 755 72	Kit, High Altitude (1500-3000 Meters)			
	24 755 73	Kit, High Altitude (Over 3000 Meters)			
		, ,			

# **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. 917.251550

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

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

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

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

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

# **CRAFTSMAN®**

## 22.5 HP TWIN CYLINDER ELECTRIC START 50" MOWER 6 SPEED TRANSAXLE GARDEN TRACTOR

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

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

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

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

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

- PRODUCT TRACTOR
- MODEL NUMBER 917.251550
- ENGINE MODEL NO. CV22-67515
- 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.

151604 Rev. 1 03,20,96 RH

Printed in U.S.A.

Free Manuals Download Website

http://myh66.com

http://usermanuals.us

http://www.somanuals.com

http://www.4manuals.cc

http://www.manual-lib.com

http://www.404manual.com

http://www.luxmanual.com

http://aubethermostatmanual.com

Golf course search by state

http://golfingnear.com

Email search by domain

http://emailbydomain.com

Auto manuals search

http://auto.somanuals.com

TV manuals search

http://tv.somanuals.com