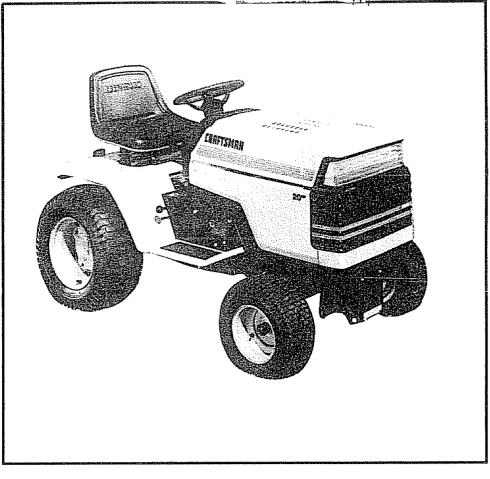


## MODEL NO. 917.250032

Caution: Read and follow all Safety Rules and Instructions Before Operating This Equipment





## 20 HP IC ELECTRIC START 6 SPEED TRANSAXLE GARDEN TRACTOR

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

## SAFETY RULES





Safe Operation Practices for Ride-On Mowers

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

#### I. GENERAL OPERATION

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

#### **II. SLOPE OPERATION**

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

#### DO:

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

#### DO NOT:

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

#### **III. CHILDREN**

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

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and *down* for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

#### **IV. SERVICE**

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.



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



CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs. **CONGRATULATIONS** on your purchase of a Sears tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

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

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

MODEL	
NUMBER	917.250032

SERIAL

NUMBER

DATEOFPURCHASE

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

### MAINTENANCE AGREEMENT

A Sears maintenance agreement is available on this product. Contact your nearest Sears store for details.

### CUSTOMER RESPONSIBILITIES

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

### PRODUCT SPECIFICATIONS

······································			1
HORSEPOWER:	20 0		
GASOLINE CAPACITY:	3 5 GALLON UNLEADED		AR
OIL (3.8 PINTS w/Filter) (3.5 PINTS w/o FILTER)			)
SPARK PLUG (GAP.025 IN ):	CHAMPION	RS14Y	c
VALVE CLEARANCE:	INTAKE EXHAUST		
GROUND SPEED:		(MPF LO	1): HI
		- **	••• •
	1st 2nd		
	3rd		*
	Rev.		2.1
TRANSAXLE OIL (4 QUARTS CAPACITY)	NON-DETEI SAE30 (ISO		
TIRE PRESSURE:	FRONT: REAR:		
CHARGING SYSTEM:	20 AMPS @	3600 R	PM
BLADE BOLT TORQUE:	30-35 FT. LI	38	

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

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

## LIMITED TWO YEAR WARRANTY ON ELECTRIC START RIDING EQUIPMENT

For two years from date of purchase, when this riding equipment is maintained, lubricated, and tuned up according to the operating and maintenance instructions in the owner's manual, Sears will repair free of charge any defect in material or workmanship.

This Warranty does not cover:

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

## FULL 90 DAY WARRANTY ON BATTERY

For 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 CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS IN USE IN THE UNITED STATES.

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

SEARS, ROEBUCK AND CO., D/731CR-W SEARS TOWER, CHICAGO, IL 60684

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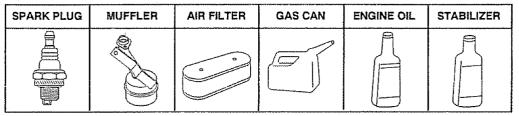
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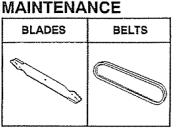
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# ACCESSORIES AND ATTACHMENTS

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

#### ENGINE





#### 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.

LAWN SWEEPERS let you collect grass clippings and leaves.

LAWN VACS for powerful collection of heavy grass clippings and leaves. Wand attachment to pick up debris in hard-to-reach places.

CARTS make hauling easy. Variety of sizes available.

**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.

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

**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.

**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.

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.

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

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

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

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials. (55 lbs. each)

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 and windshields for use as sun protector in summer. (Catalog only.)

**Optional accessories for tractor cab:** tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top. (Catalog only.)

**TRACTOR COVER** protects tractor from weather. Made of Evolution 3 fabric (water-repellent, extremely breathable, light weight, soft, non-abrasive, pliable in all temperatures, durable, stain/tear/puncture resistant, will not shrink or stretch). (Catalog only.)

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.)

TILLER has 5 hp engine and 36-inch swath to prepare seed beds, cultivate, and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard, or garden tractor. Simply hook up to the tractor drawbar and go!

**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, wheel weights or rear drawbar weight.)

FRONT END LOADER system includes double wide rear tires, rear weight box, and hydraulically operated 5.26 cu.ft. bucket. (Catalog only.)

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

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 for cultivator: steel furrow opener for wider openings for potatoes, corn, and other deep-seeded crops.

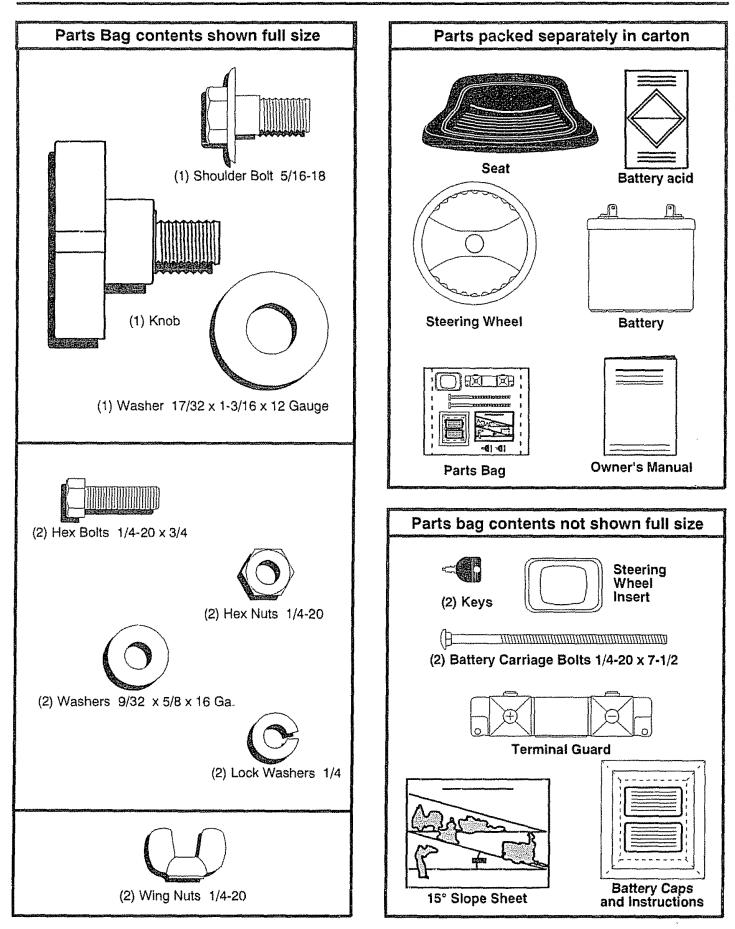
**PLOW** turns soil 6 inches deep, cuts 10-inch furrow. Crank adjustment controls depth, 3-position yoke sets width. Heavy steel landslide for straight furrowing. (Requires sleeve hitch.)

**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.)

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

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

# CONTENTS OF HARDWARE PACK



# ASSEMBLY

## TOOLS REQUIRED FOR ASSEMBLY

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

(2) 7/16" wrenches
(1) Tire pressure gauge
(1) Adjustable wrench
(1) Utility knife

When right and 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 from carton (See page 6).
- Cut along dotted lines on the carton, from top to bottom, all four corners of carton and lay panels flat.
- Check for any additional loose parts or cartons and remove.

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

#### BEFORE ROLLING TRACTOR OFF SKID

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

#### (See Fig. 2)

- Release parking brake by depressing clutch/brake pedal.
- Place gearshift lever in "NEUTRAL" position.
- Roll tractor backwards off skid.

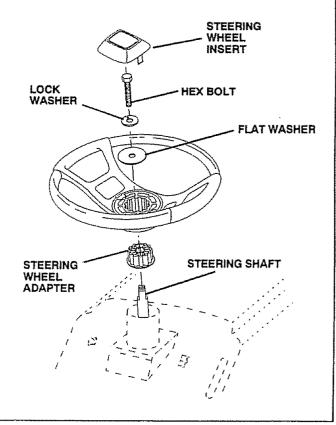


FIG. 1

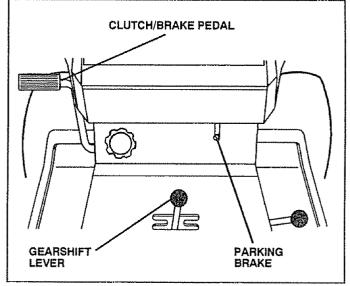


FIG. 2

# ASSEMBLY

### HOW TO SET UP YOUR TRACTOR PREPARE BATTERY (See Fig. 3)

#### CAUTION: Wear eye and face shield.

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

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

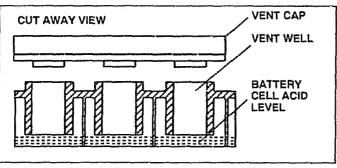
Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

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

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

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor. **IMPORTANT:** TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

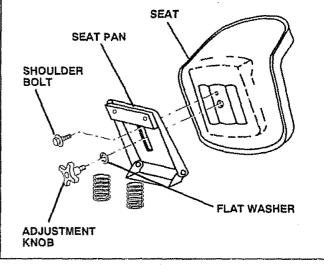
- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water
- Install the vent caps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



INSTALL SEAT (See Fig. 4)

Adjust seat before tightening adjustment knob.

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





### CHECK TIRE PRESSURE

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

 Reduce tire pressure to PSI shown in "PRODUC" 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 ADJUS" BRAKE" in the Service and Adjustments section of this manual.



# ASSEMBLY

### INSTALL BATTERY (See Figs. 5 & 6)



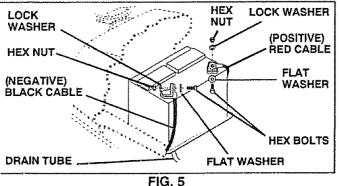
CAUTION: Do not short battery terminals. Before installing battery, remove metal bracelets, wristwatch bands. rings, etc.

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

- Raise hood
- Make sure drain tube is fastened to drain hole in battery tray and battery tray is positioned in hole of battery support.
- Place battery in plastic tray, battery terminals to front of tractor.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely,
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Slide the two battery bolts through the terminal guard and start the wing nuts onto the threads.
- Position terminal guard over the battery as shown, lower bolts into key holes and slide square shafts of bolts into slots of key holes.
- Tighten wing nuts by hand making sure battery bolts remain in slots of the key holes in the battery support.
- Be sure terminal access doors are closed.

Use terminal access doors for:

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



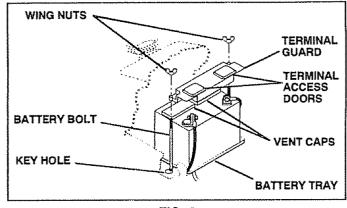


FIG. 6

## *√CHECKLIST*

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- All assembly instructions have been completed.
- No remaining loose parts in carton. 1
- 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 over-inflated 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.

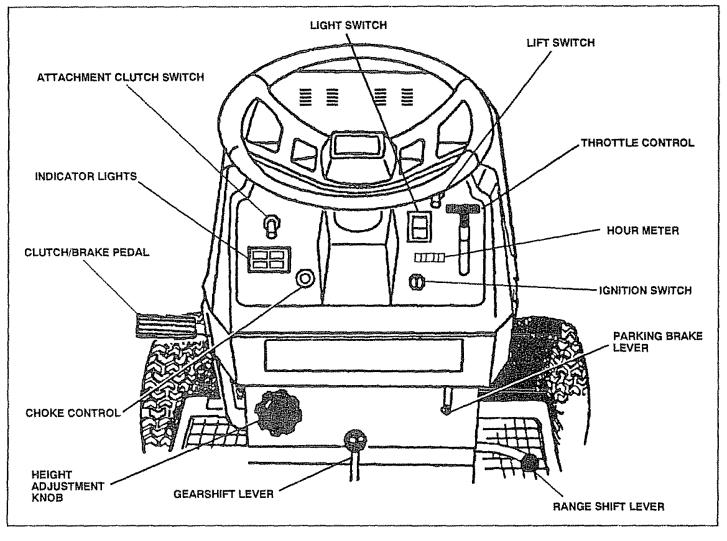
WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

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

# OPERATION

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

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



**FIG.** 7

Sears 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 SWITCH - Used to raise and lower mower deck or other attachments mounted to your tractor. Ignition switch

must be on to operate this switch.

HOUR METER - Indicates hours of operation.

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

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

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

THROTTLE CONTROL - Used to control engine speed. RANGE SHIFT LEVER - Allows "HI" or "LO" speed for all forward and reverse gears.

**IGNITION SWITCH** - Used to start and stop the engine. **INDICATOR LIGHTS** - Indicates clutch/brake pedal engagement, attachment engagement, battery charging (+) or discharging (-), and low oil pressure.

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.

# OPERATION



The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting your tractor and while moving. We recommend wide vision safety mask for over the spectacles or standard safety glasses.

### HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 8)

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

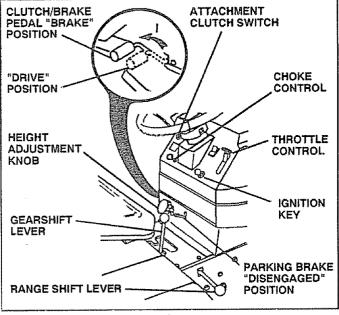


FIG. 8

#### STOPPING (See Fig. 8)

#### MOWER BLADES -

 Move attachment clutch switch to "DISENGAGED" position.

#### GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move gearshift lever to "NEUTRAL" position.

#### ENGINE -

- Move throttle control to "SLOW" position.
- Turn ignition key to "OFF" position and remove key. Always remove key when leaving vehicle to prevent unauthorized use.
- Never use choke to stop engine.

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



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

#### TO USE CHOKE CONTROL (See Fig. 8)

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

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

#### TO USE THROTTLE CONTROL (See Fig. 8)

Always operate engine at full throttle.

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

# TO MOVE FORWARD AND BACKWARD (See Fig. 8)

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

- Start tractor with clutch/brake pedal depressed and gearshift lever in "NEUTRAL" 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 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 to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to "NEUTRAL" position.
- To restart movement, move gearshift lever to 1st gear and range shift lever to "LO" position. Be sure you have allowed room for tractor to roll slightly as you restart movement.
- Slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

#### **TO TRANSPORT**

11

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

# OPERATION

### **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 unit on level ground.
- Remove dipstick and wipe clean, replace and screw cap tight, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (see "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

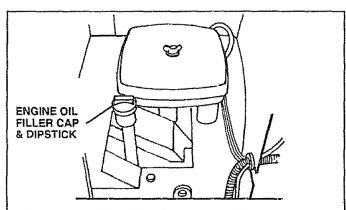


FIG. 9

#### ADD GASOLINE

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

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

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



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



CAUTION: Before driving the tractor, install mower or remove front mower suspension bracket and suspension arms.

### INDICATOR LIGHTS

Located on the dash of your tractor, these lights alert you to necessary steps required to start your unit or, while tractor is running, alerts you to a serious problem which requires immediate attention.



 Indicates you must depress clutch/brake pedal fully to start tractor.



• Indicates you must disengage attachment clutch control to start tractor.



• Indicates a drop in battery voltage. Increase throttle speed and/or check battery and wiring (See the Customer Responsibilities and Trouble Shooting sections in this manual).



• Indicates low oil pressure in your engine. Light should come on when engine is not running and key switch is in "ON" position. This is a test to be sure light is working and a reminder to always check oil level before starting engine.

**IMPORTANT:** IF CHECK OIL LIGHT COMES ON WHILE THE ENGINE IS RUNNING, SHUT OFF ENGINE IMMEDIATELY AND CHECK FOR CAUSE OR SERIOUS ENGINE DAMAGE WILL OCCUR.

### STARTING (See Fig.13)

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 the clutch/brake pedal and set the parking brake.
- Place gearshift lever in "NEUTRAL" 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.
- Turn ignition 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 clutch/brake pedal or attachment clutch switch.

**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.

MAINTENANCE SCHEDULE     Image: Complete													
	Check Brake Operation	V		V					<u> </u>	_	<u></u>		 
	Check Tire Pressure	6/		6/					ļ	l	ļ		 
T	Check for Loose Fasteners	4							6		. <b>ļ</b>		 
Ŗ	Sharpen/Replace Mower Blades		ļ		0/4				ļ	Į			 
A C	Lubrication Chart			L	6 Mar				Barr	<b> </b>	Ļ		 
Ť	Check Battery Level/Recharge			<b></b>	6/					<u> </u>	<u></u>		 
0	Clean Battery and Terminals		L		8/		L	,	V	<u> </u>	<u></u>		 
R	Check Transmission Cooling		ļ	<u> </u>	6/		ļ		<b>_</b>	Į			 
	Adjust Blade Belt(s) Tension		L	<b>_</b>			6/5		ļ	<u> </u>			
and the second second	Adjust Motion Drive Belt(s) Tension			L			15				L		
	Check Engine Oil Level	Bran		6/									
	Change Engine Oil		W		1,2,3				61	1			 
	Clean Air Filter				1/2								
EN	Clean Air Screen				6/2								
G	Inspect Muffler/Spark Arrester					2							 
	Replace Oil Filter (If equipped)						M1.2						
N E	Clean Engine Cooling Fins						1/2						 
	Replace Spark Plug						6	8/					
	Replace Air Filter Paper Cartridge					L	1/2		ļ	<b>_</b>			
	Replace Fuel Filter							V		<u> </u>		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

**GENERAL RECOMMENDATIONS** 

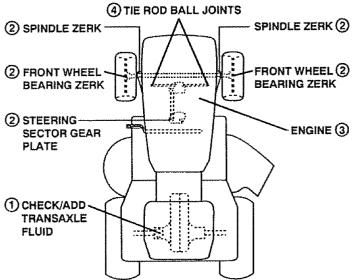
tain tractor as instructed in this manual.

3 - If equipped with oil filter, change oil every 50 hours

4 - Replace blades more often when mowing in sandy soil

5 - If equipped with adjustable system.

### LUBRICATION CHART



been subjected to operator abuse or negligence. To (4) TI receive full value from the warranty, operator must main-

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

The warranty on this tractor does not cover items that have

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 LUBRI-CANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POW-DERED GRAPHITE TYPE LUBRICANT SPARINGLY. 1 SAE 30 MOTOR OIL API - 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.

## CHECK TRANSAXLE OIL LEVEL

#### (See Fig. 10)

- Block up rear axle securely or use a tractor jack.
- · Remove left rear wheel by removing hub bolts.
- Remove filler plug from transaxle. Oil level must be even with plug threads. If necessary, fill with SAE 30 non-detergent oil API-SG. Replace filler plug.
- Reassemble wheel to hub.

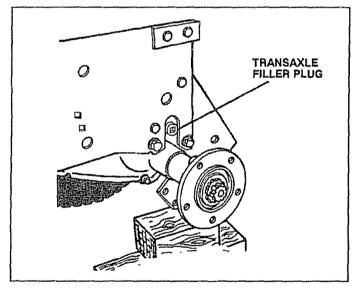


FIG. 10

#### BATTERY (See Fig. 11)

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 it's life.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- · Keep battery and terminals clean.
- Keep battery bolts tight.
- · Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.

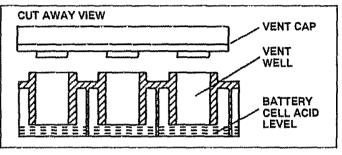


FIG. 11

#### TO CLEAN BATTERY AND TERMINALS -

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

- Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- · Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- · Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "INSTALL BATTERY" in the Assembly section of this manual).

### V- BELTS

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

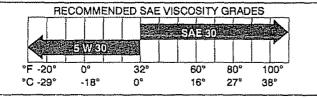
#### TRANSAXLE COOLING

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

## ENGINE

#### LUBRICATION

Only use high quality detergent oil rated with API service classification 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 (5) hours of continuous use. Tighten oil fill cap/dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL (See Figs. 12 and 13)

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

- Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- · Catch oil in a suitable container.
- Remove oil fill 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 dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.

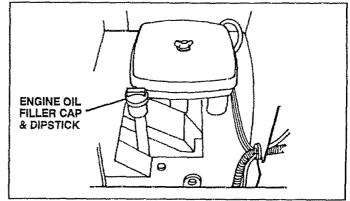


FIG. 12

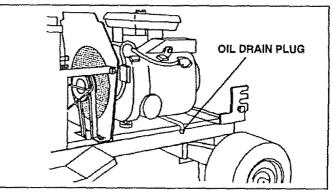


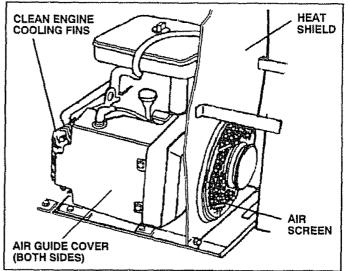
FIG. 13

### CLEAN AIR SCREEN (See Fig. 14)

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 ENGINE COOLING FINS (See Fig. 14)

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



#### AIR FILTER FOAM PRE-CLEANER

#### (See Fig. 15)

Your engine will not run properly and may be damaged by using a dirty air filter. Clean the foam pre-cleaner element after every 25 hours of operation, more often if tractor is used in very dusty, dirty conditions.

- Remove cover knob and cover.
- Remove rubber spacer, wing nut, and element cover.
- Remove foam pre-cleaner by sliding it off the paper cartridge.

**NOTE:** Do not attempt to clean or oil the paper cartridge. Replace paper cartridge once a year or after every 100 hours of operation, more often if used in very dusty, dirty conditions.

- Wash foam pre-cleaner in liquid detergent and water.
- · Wrap foam pre-cleaner in cloth and squeeze dry.
- Lightly coat foam pre-cleaner with clean engine oil Squeeze in towel to remove excess oil. Do not saturate
- Install foam pre-cleaner over paper cartridge
- Reassemble element cover, wing nut, and rubber spacer.
- Reassemble cover and screw down tight.

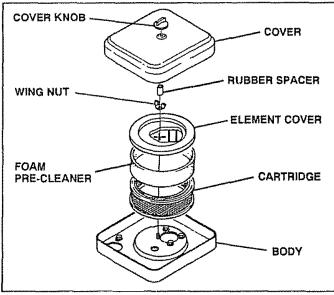


FIG. 15

#### 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 use, whichever comes first. Spark plug type and gap setting is shown in "PROD-UCT SPECIFICATIONS" on page 3 of this manual

#### ENGINE OIL FILTER (See Fig. 16)

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

- Unscrew old filter by turning counterclockwise. Use a suitable container to catch oil.
- Apply a thin coating of new engine oil to rubber gasket on replacement oil filter.
- Install replacement oil filter by turning clockwise until rubber gasket contacts mounting surface, then tighten filter an additional 1/2 to 3/4 turn.
- Fill crankcase with new oil (See "TO CHANGE ENGINE OIL" in this section of this manual). For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Start engine and check for oil leaks. Correct any leaks before placing engine into full operation.

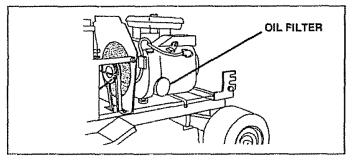
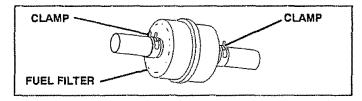


FIG. 16

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

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

#### 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.

**CLEANING** 

# SERVICE AND ADJUSTMENTS

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

- Depress clutch/brake pedal fully and set parking brake. Place gearshift lever in "NEUTRAL" position. Place attachment clutch in "DISENGAGED" position.

- Turn Ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

#### TO ADJUST ATTACHMENT CLUTCH (See Fig. 18)

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 so the mower blades will not stop as recommended. Adjustments should be made by an authorized service technician

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

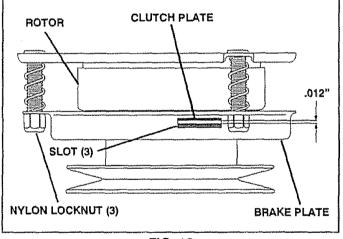


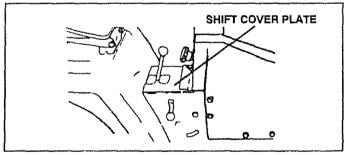
FIG. 18

#### TO ADJUST BRAKE (See Figs. 19 and 20)

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

- Remove four (4) hex washer head tapping screws from shift cover plate located on top of tractor frame. Remove the cover plate.
- Loosen jam nut (A) on brake rod (B) at clevis (C) (Fig. 21). If you find it difficult to loosen jam nut (A), remove cover plate in L H frame rail.
- Rotate brake rod (B) counterclockwise, turning brake rod out of clevis (C) four (4) to six (6) turns.
- Start tractor with transaxle in "N" (NEUTRAL) position.
- Depress clutch/brake pedal to the point where the belt stops moving. Hold clutch/brake pedal in position by engaging parking brake. If belt begins to move after engaging parking brake, depress clutch/brake pedal to next notch on parking brake.
- Shut engine off. Rotate brake rod (B) clockwise by hand, turning brake rod into clevis (C) until tight Tighten jam nut (A) on brake rod (B) at clevis (C)
- Reinstall shift cover plate and four (4) mounting screws. If cover plate in L.H. rail was removed it should be replaced.





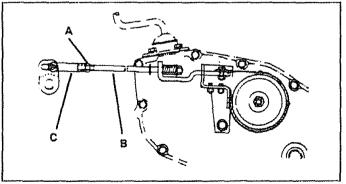


FIG. 20

## TO REPLACE MOTION DRIVE BELT (See Figs. 21 and 22)

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

**BELT REMOVAL -**

- Raise hood and disconnect negative ground battery cable.
- · Set parking brake (to get belt slack).
- Loosen (do not remove) two (2) engine pulley belt guide bolts and swivel R.H. side of belt guide up. Tighten L.H. bolt to hold belt guide in position.
- · Roll belt off engine pulley.
- Roll belt off "V" idler, flat idler and clutching idler pulleys.
- Roll belt off clutch pulley-between pulley and frame. Pull belt off transaxle pulley.

**BELT INSTALLATION -**

- Push belt down from engine pulley area. Place back (flat) side of belt on flat idler (flat idler is next to frame).
- Place belt on clutching idler and over clutch pulley. "V" (narrow) part of belt should engage clutch pulley.
- Place belt around transaxle pulley. "V" part of belt should engage transaxle pulley.
- Make sure "V" part of belt engages "V" idler.
- Roll belt over engine pulley.
- Loosen L.H. engine pulley belt guide bolt and swivel belt guide on to R.H. bolt. Tighten L.H. and R.H. bolts securely.
- Release parking brake.

IMPORTANT: CHECK BRAKE ADJUSTMENT.

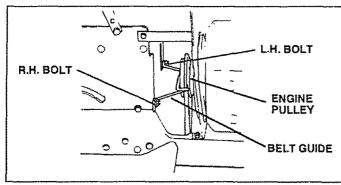
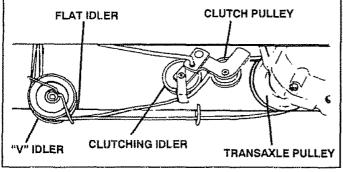


FIG. 21



#### FIG. 22

#### TO ADJUST STEERING WHEEL ALIGNMENT

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

#### FRONT WHEEL TOE-IN ADJUSTMENT

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

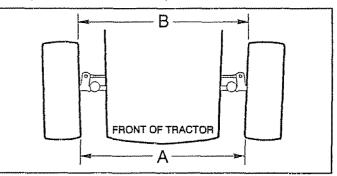
TO CHECK TOE-IN (See Fig. 23) -

- · 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. 23 and 24) -

It is important that both tie rods be equal in length before adjusting toe-in. Both tie rods should measure approximately 10-1/4" in length (see inset). Adjust if necessary.

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



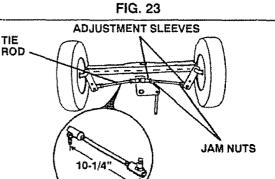


FIG. 24

### FRONT WHEEL CAMBER

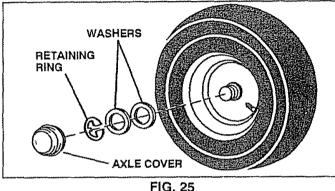
The front wheel camber is not adjustable on your tractor. If damage has occurred to affect the front wheel camber, contact your nearest authorized service center.

# SERVICE AND ADJUSTMENTS

### TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 25) -

- Block up axie 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.



REAR WHEEL-

Block rear axle securely.

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

# TO START ENGINE WITH A WEAK BATTERY (See Figs. 26 and 27)



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

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

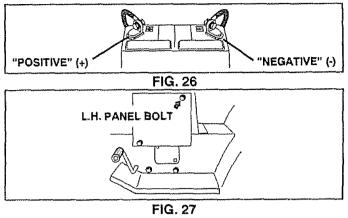
IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

#### 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 NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to a bolt on the L.H. side of chassis, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER

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



### TO REPLACE FUSE

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

### 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

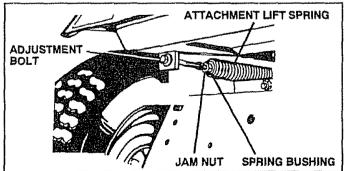
Loose or damaged wiring may cause your tractor to run poorly, stop running or prevent it from starting.

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

## TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 28)

- 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.

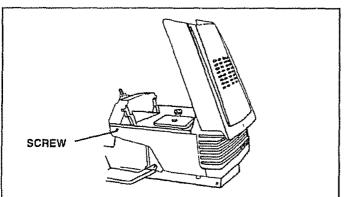
**IMPORTANT:** DO NOT ADJUST FOR MAXIMUM SPRING TENSION WHEN USING LIGHT ATTACHMENTS SUCH AS A MOWER. ADJUST LIFT LEVER SPRING TO AID IN LIFTING ATTACHMENT. DO NOT OVERPOWER SPRING. WHEN REMOVING ATTACHMENT, ALWAYS ADJUST SPRING TENSION TO ITS LOWEST POSITION.

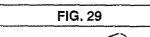


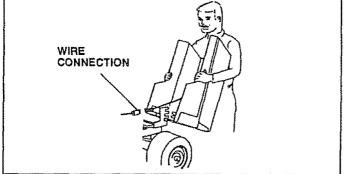
# SERVICE AND ADJUSTMENTS

# TO REMOVE HOOD AND GRILL ASSEMBLY (See Figs. 29 and 30)

- Lift hood. Disconnect headlight wire connection.
- Unscrew one screw at rear of each side panel.
- Pivot hood and side panel forward and lift off tractor.
- To replace, reverse above procedure.









#### ENGINE CARBURETOR

Your carburetor has a fixed main jet. The idle mixture was set for maximum efficiency at the factory and should normally not be disturbed. If adjustments seem necessary, first be sure the ignition system is working properly and the governor sensitivity is properly adjusted.

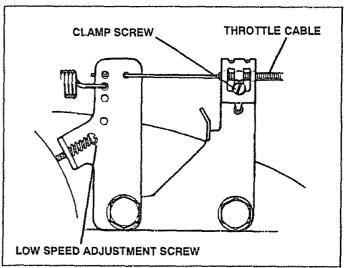
The carburetor has a limited adjustment range between stops  $\pm$  1/8 turn. The screw should only be adjusted within these limits; in to lean the mixture, out to richen.

When replacing idle mixture screw, turn in until lightly seated, then turn screw back out 1-1/4 turns. Replace limiter cap with the plastic stop approximately centered.

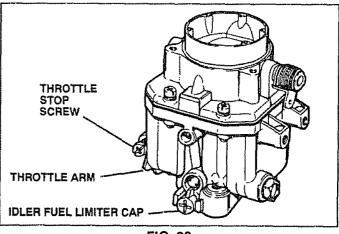
#### THROTTLE CONTROL CABLE AND CARBU-RETOR ADJUSTMENTS (See Figs. 31 and 32)

Never attempt to change maximum engine speed. This is present at the factory and should only be changed by a qualified service technician who has the necessary equipment.

- Start the engine and allow it to warm up thoroughly (at least 10 minutes).
- Loosen clamp screw so throttle cable is free to move.
- Hold throttle arm against stop screw and adjust throttle stop screw to obtain 1000-1100 RPM.
- Adjust the low speed adjustment screw for 1400 RPM idle.
- Tighten clamp screw to secure throttle cable.









# 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.

### 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

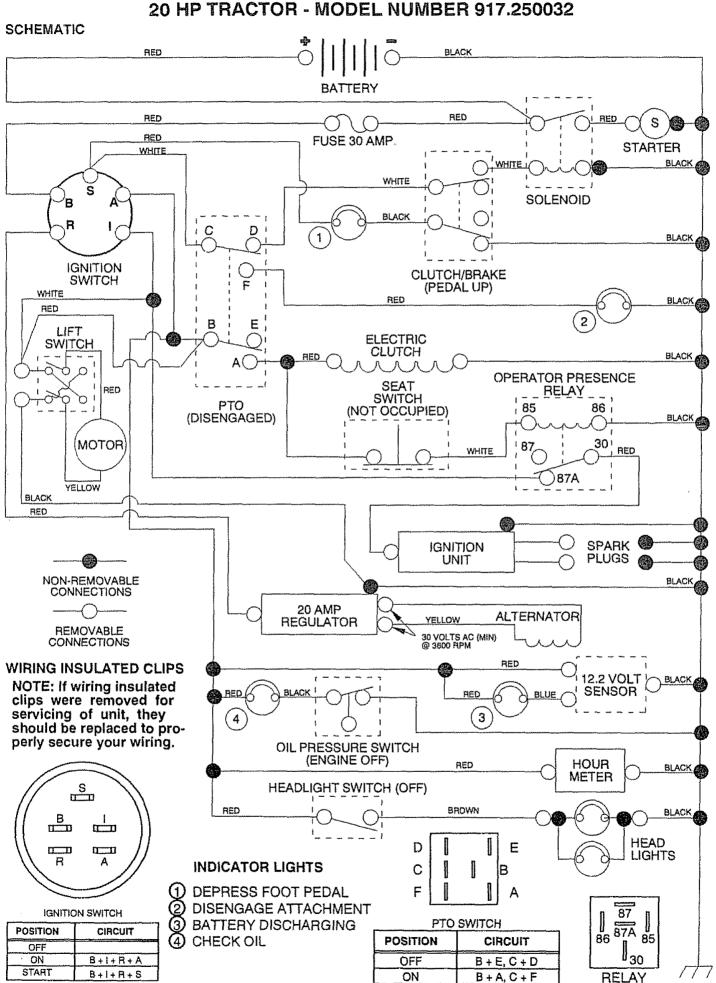
PROBLEM	CAUSE	CORRECTION				
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly</li> <li>Engine flooded.</li> <li>Bad spark plug</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.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

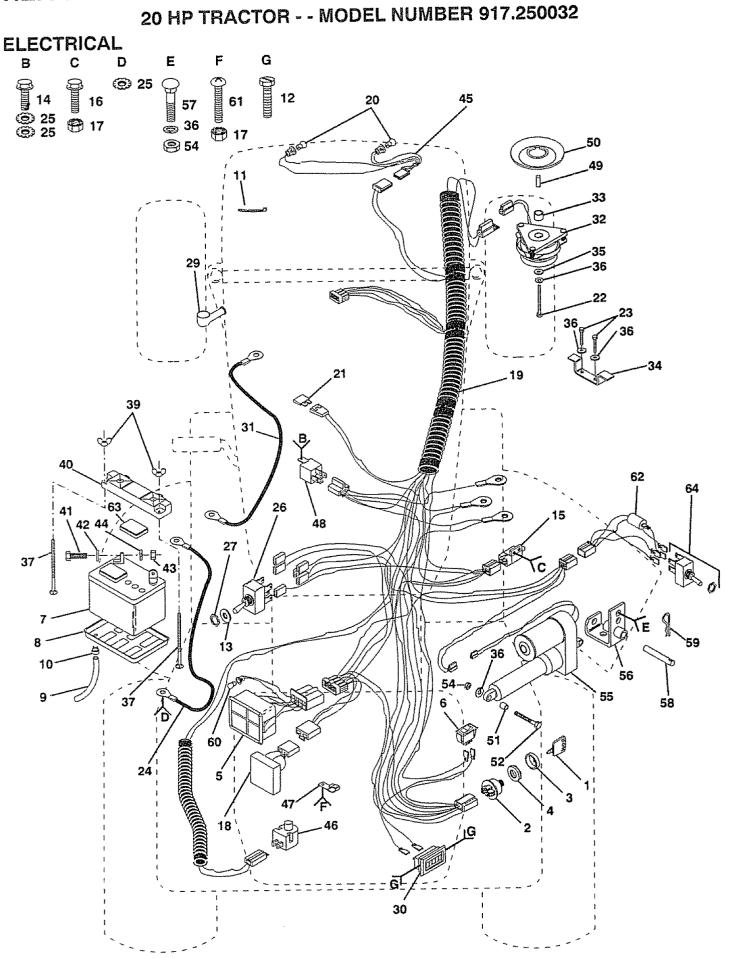
# TROUBLESHOOTING POINTS

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

# SERVICE NOTES

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### 20 HP TRACTOR - - MODEL NUMBER 917.250032

### ELECTRICAL

#### KEY PART NO. NO.

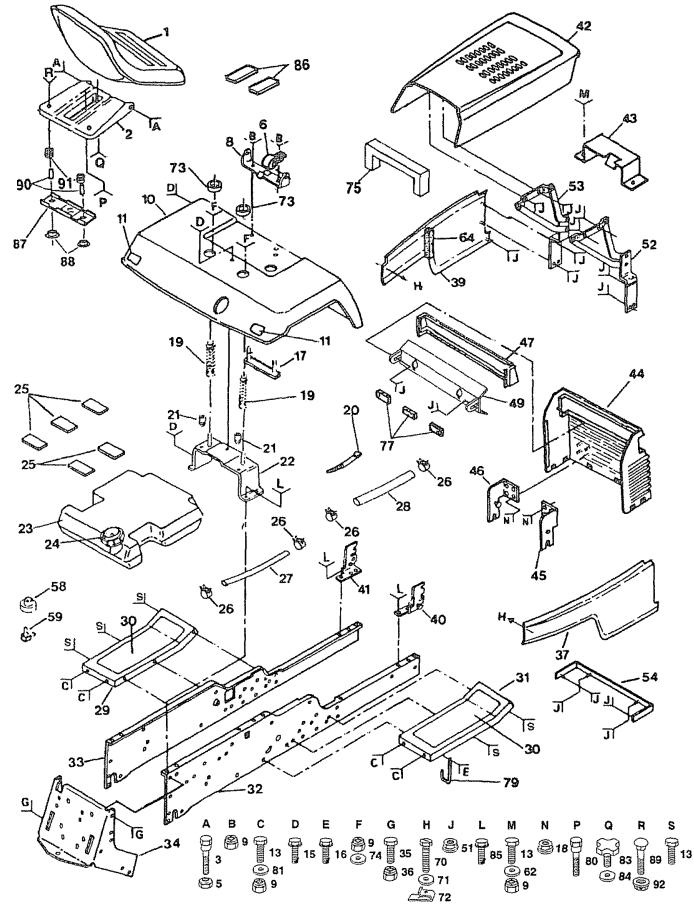
6789011234 15678901223456790	7192J 17011008 7319R 17190408 109553X STD511105 73951000 127385X 124372X 4152J 108824X 71130648 STD523707 120606X STD551237 109626X 4022J 131563	Key Switch, Ignition Cover, Key Switch Nut, Ignition Light Package Assembly Switch, Light Battery Tray, Battery Tube, Drain Clamp-Hose Tie, Cable Screw #10-24 x 1/2 Washer, Lock, Internal Tooth Screw, Hex Washer Head, Thread Cutting 1/4-20 x 1/2 Switch, Interlock Screw, Hex Washer #10-32 x 1/2 Nut, Keps #10-32 Sensor, Low Voltage Harness, Ignition Bulb, Headlight Fuse, 30 Amp Bolt, Hex 3/8-24 x 3 Bolt, Hex 3/8-16 x 3/4 Cable, Ground Washer, Lock, External Tooth 3/8 Switch, P.T.O. Nut, Hex Cover, Terminal Meter, Hour Cable, Starter Clutch, Electric
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DESCRIPTION

KEY NO.	PART NO.	DESCRIPTION
39 40 41 42 43 44 45 46 47 48 90 55 25 55 55 55 55 55 66 1 2	110881X 19132203 STD551137 72240460 123198X 102476X STD522507 STD551025 STD541025 STD551125 110859X 121305X 4171R 109748X 127171X 120445X 5950J STD523722 STD541037 124371X 677A886 STD533710 7085J	Spacer, Clutch Stop, Clutch Washer Washer, Lock 3/8 Bolt, Carriage 1/4-20 x 7-1/2 Nut, Wing 1/4-20 Guard, Terminal Bolt, Hex 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Gauge Nut, Hex 1/4-20 Washer, Lock 1/4 Harness, Light Socket Switch, Seat Clip, Insulated Relay, Operator Presence Key, Electric Clutch Counterbalance, Engine Tube Bolt, Hex 3/8-16 x 2-1/4 Grade 5 Nut, Hex 3/8-16 Actuator, Electric (See Breakdown) Bracket Bolt, Carriage 3/8-16 x 1 Grade 5 Pin, Actuator Spring, Retainer Bulb, Light Screw, Pan Head #10-32 x 1/2 Wiring, Lift Switch Caps, Battery Switch, Lift

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

20 HP TRACTOR - - MODEL NUMBER 917.250032 CHASSIS AND ENCLOSURES



## 20 HP TRACTOR - - MODEL NUMBER 917.250032 CHASSIS AND ENCLOSURES

#### KEY PART NO. NO.

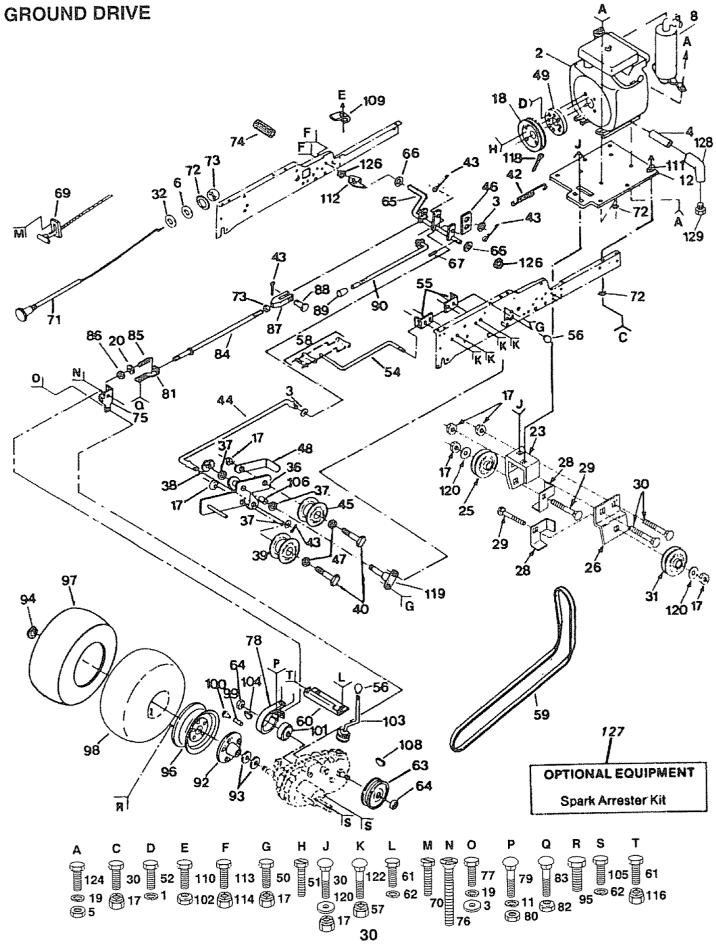
12356890 11135	127439 124294X 105529X STD541431 2751R 126656X STD541437 121642X459 106202X STD523707 17490608	Seat Pan, Seat Bolt, Shoulder Locknut 5/16-18 Clip Bracket, Pivot, Seat Nut, Crownlock 3/8-16 Fender Reflector, Taillight Bolt, Hex 3/8-16 x 3/4 Screw, Hex Washer Head, Thread Roll. 3/8-16 x 1/2
16	17490616	Screw, Hex Washer Head, Thread Roll. 3/8-16 x 1
$\begin{array}{c} 17\\ 189\\ 222\\ 222\\ 222\\ 222\\ 222\\ 222\\ 233\\ 333\\ 335\\ 333\\ 344\\ 1\end{array}$	105511X 120579X 124181X 7192J 105531X 105509X 106020X 123549X 106082X 123487X 7834R 7833R 105465X459 105466X 105464X459 10892X 110893X 7982J 74760716 73680700 108403X459 108410X459 130523 121055X	Strap, Fender Nut, Pal Spring, Compression Tie, Cable Nut, Push Bracket, Fender Tank, Fuel Cap, Fuel Pad, Spacer Clamp, Hose Line, Fuel Line, Fuel Footrest, LH Pad, Footrest Footrest, RH Rail, Frame, RH Rail, Frame, LH Drawbar Bolt, Hex 7/16-14 x 1 Nut, Crownlock 7/16-14 Panel, Side, RH Panel, Side, LH Bracket, Pivot, Frame, RH

DESCRIPTION

KEY PART NO. NO.	DESCRIPTION
42 106013X459 43 110874X 44 120153X 45 108512X 46 108513X 47 110898X 49 132257 51 108067X 52 106091X 53 106090X 54 110350X459 58 3645J 59 8710J 62 19131416 64 106088X 70 106909X 71 106910X 72 108402X 73 124238X 74 19131614 75 106086X 77 105036X 79 105500X 80 127018X 81 19131312 83 120068X 84 19171912 85 17490612 86 121251X 87 121246X 88 121248X 89 72050411 90 121249X	Hood Shield, Heat, Front Grill Bracket, Pivot, Grill, RH Bracket, Pivot, Grill, LH Lens Bezel Nut, Pal Hinge, RH Hinge, RH Hinge, LH Strap, Grill Bushing Stem, Fuel Tank Washer 13/32 x 7/8 x 16 Gauge Strip, Foam Screw, Special Washer U-Clip Cap, Spring Washer 13/32 x 1 x 14 Gauge Foam Strip Foam Strip Retainer, Belt, Lower Bolt, Shoulder 5/16-18 UNC Washer 13/32 x 13/16 x 12 Gauge Knob, Seat Washer 17/32 x 1-3/16 x 12 Gauge Screw, Hex Washer Head, Thread Roll. 3/8-16 x 3/4 Foam Strip Switch, Bracket Snap Bushing Bolt, Carriage 1/4-20 x 1-1/4 Spacer, Split
91 123740X 92 123976X	Spring Nut, Hex, Flange 1/4 ent dimensions given in U.S. inches

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

20 HP TRACTOR - - MODEL NUMBER 917.250032



#### 20 HP TRACTOR - - MODEL NUMBER 917.250032

### **GROUND DRIVE**

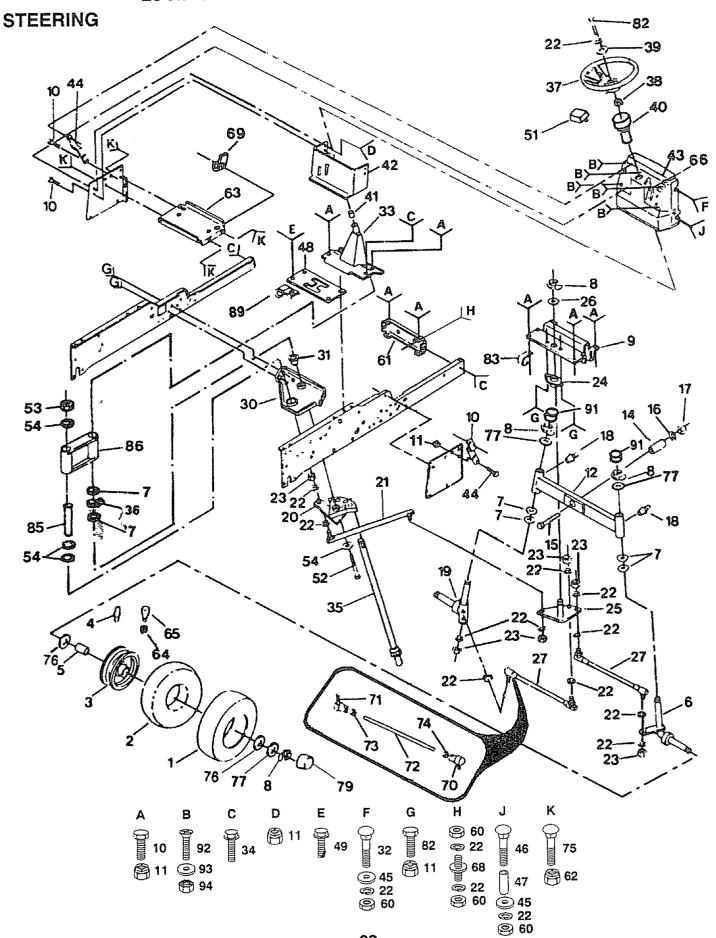
#### KEY PART NC

KEY NO.	PART NO.	DESCRIPTION
1 2	STD551131 131723	Washer, Lock Engine, Onan, 20 HP, Model Number 739.11054D
19 20 23 25 26	19131316 13280336 73220600 7319R 110886X STD551125 110866X STD541437 121355X STD551137 19131614 121063X 101344L 122825X 122824X STD533717	Washer 13/32 x 13/16 x 16 Gauge Pipe, Nipple Nut, Hex 3/8-16 Washer, Lock, Internal Tooth Muffler Washer, Lock Base, Engine Nut, Crownlock 3/8-16 Pulley, Ground Drive Washer, Lock 3/8 Washer 13/32 x 1 x 14 Gauge Bracket, V-Pulley, Drive, Mule Pulley, Idier Bracket, Idler, Flat Keeper, Belt, Mule Drive, V-Idler Bolt, Carriage
$\begin{array}{c} 30\\ 312\\ 33\\ 33\\ 42\\ 43\\ 45\\ 67\\ 89\\ 012\\ 45\\ 55\\ 55\\ 55\\ 55\\ 55\\ 55\\ 55\\ 55\\ 55$	STD523707 102403X 19132616 121356X 207J 12000039 121361X STD523715 121357X STD570907 101356L 104360X 121358X 19131413 121360X 110943X STD523710 17190516 74780516 122253X 105598X 106932X STD541431 122268X 110883X 120404X 74760716 STD551143 120332X 9204H 104375X 121749X STD571812 124215X 17720408	3/8-16 x 1-3/4 Grade 5 Bolt, Carriage 3/8-16 x 3/4 Idler, Flat Washer 13/32 x 1-5/8 x 16 Gauge Bracket, Clutch Washer, Hardened Klip Ring Idler, Grooved Bolt, Hex 3/8-16 x 1-3/4 Spring, Extension Pin, Cotter 3/32 x 3/4 Rod, Clutch Idler, Flat Retainer Spring Washer 13/32 x 7/8 x 13 Gauge Retainer, Belt Adapter Bolt, Hex 3/8-16 x 1 Grade 5 Screw, Hex 5/16-18 x 1 Bolt, Hex 5/16-18 x 1 Bolt, Hex 5/16-18 x 1 Bolt, Hex 5/16-18 x 1 Rod, Shift, Hi-Lo Bracket, Rod, Shift Knob Nut, Crownlock 5/16-18 Connecting Link V-Belt Bracket, Support, Transaxle Bolt, Hex 7/16-14 x 1 Washer, Lock 7/16 Pulley, Transaxle Locknut 1/2-20 Shaft, Foot Pedal Washer 25/32 x 1-1/4 x 16 Gauge Pin, Roll 3/16 x 1-1/4 Control, Throttle Screw, Hex, Thread Cutting 1/4-20 x 1/2

	Y PART NO.	DESCRIPTION
71 72 73 74 75 76	121388X STD551237 STD541137 8883R 677A637 74370612	Control, Choke Washer, Lock, External Tooth 3/8 Nut, Hex 3/8-24 UNF Cover, Pedal Bracket, Brake Screw, Machine, Uncut Flat Head
83 84 85 86 87 88 90 92 93 95 95 95 97	72140405 STD541025 7229J 1685H STD533110 5308J 7241J STD541537 100604K 5102J 124236X 136284 634A692 7563R 12000034 1304H 3645R 105588X	3/8-16 x 3/4 Bolt, Hex 3/8-16 x 7/8 Band, Brake Bolt, Carriage 1/4-20 x 5/8 Nut, Hex 1/4-20 Guide, Rod, Brake Locknut 5/16-18 Bolt, Carriage 5/16-18 x 3/4 Rod, Brake Spring, Compression Nut, Centerlock, Hex 3/8-24 Yoke Pin, Clevis Cap, Plunger Rod, Parking Brake Bushing and Wheel Hub Washer, Thrust, Axle Klip Ring Bolt, Hub Wheel, Rear Tire, Rear
100 101 102 103 104 105 106 108	7154J 65139 59192 214J STD541410 633A108 2228M 74760720 105706X 9858M1 5304J 74321016 2751R 104601X STD522507 73680400 73680700 76620816 101358K 19131612 STD533107 STD523715 110895X 120615X 13200300 13290300	Tube, Tire (Optional, Service Item Only) Valve, Tire Cap, Valve Drum, Brake Locknut #10-24 Gear Shift Lever Assembly Key, Woodruff Bolt, Hex 7/16-14 x 1-1/4 Bearing, Idler Key, Woodruff Actuator, Switch, Interlock Screw, Hex Fin #10-24 x 1 Clip Bracket, Interlock Bolt, Hex 1/4-20 x 3/4 Nut, Crownlock 1/4-20 Nut, Crownlock 1/4-20 Nut, Crownlock 7/16-14 Pin, Cotter 1/4 x 1 Bracket Assembly, Clutch Washer 1/32 x 1 x 12 Gauge Bolt, Carriage 5/16-18 x 3/4 Bolt, Hex 3/8-16 x 1-1/2 Nyliner Spark Arrester Kit Elbow, Standard Pipe, Plug

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

20 HP TRACTOR - - MODEL NUMBER 917.250032



#### 20 HP TRACTOR - - MODEL NUMBER 917.250032

#### STEERING

#### KEY PART NO. NO.

## DESCRIPTION

1	106230X	Tire, 16 x 6.50
2	8134H	Tube, Front
2 345678901124567890122222222333 11124567890122222222333	8134H 122974X 278H 9040H 121167X 6266H 12000029 5284J STD523707 STD541437 5297J 5298J 74781044 STD551162 STD541062 6855M 121168X 120424X 110497X STD551137 STD551137 STD551137 STD541137 5292J 108137X 19292016 121159X 102439X 104239X STD533710	Tube, Front (Optional, Service Item Only) Front Wheel (Includes Key #4 & 5) Fitting, Grease Bearing Spindle, RH Bearing, Thrust Klip Ring Bracket, Axle Bolt, Hex 3/8-16 x 3/4 Nut, Crownlock 3/8-16 Axle, Front Tube, Pivot Axle Bolt, Hex 5/8-11 x 2-1/4 Grade 5 Washer, Lock 5/8 Nut, Hex 5/8-11 Fitting, Grease Spindle, LH Sector Assembly Link, Drag Washer, Lock 3/8 Nut, Hex 3/8-24 Bushing, Bellcrank Bellcrank Washer 29/32 x 1-1/4 x 16 Gauge Rod, Tie Bracket, Support, Steering Bearing Flanged Bolt, Carriage 3/8-16 x 1 Grade 5
33	101274N	Support, Steering
34	17490612	Screw, Hex Washer Head, Thread
35 36 37 38 39 40 41 42 43	102458X 12000034 121021X 100711L 19133808 121050X 9038R 105519X 120028X	Roll. 3/8-16 x 3/4 Shaft, Steering Klip Ring Wheel, Steering Adapter, Steering Washer 13/32 x 2-3/8 x 8 Gauge Sleeve, Steering Bearing Dash, Lower Dash

#### KEY PART NO. NO.

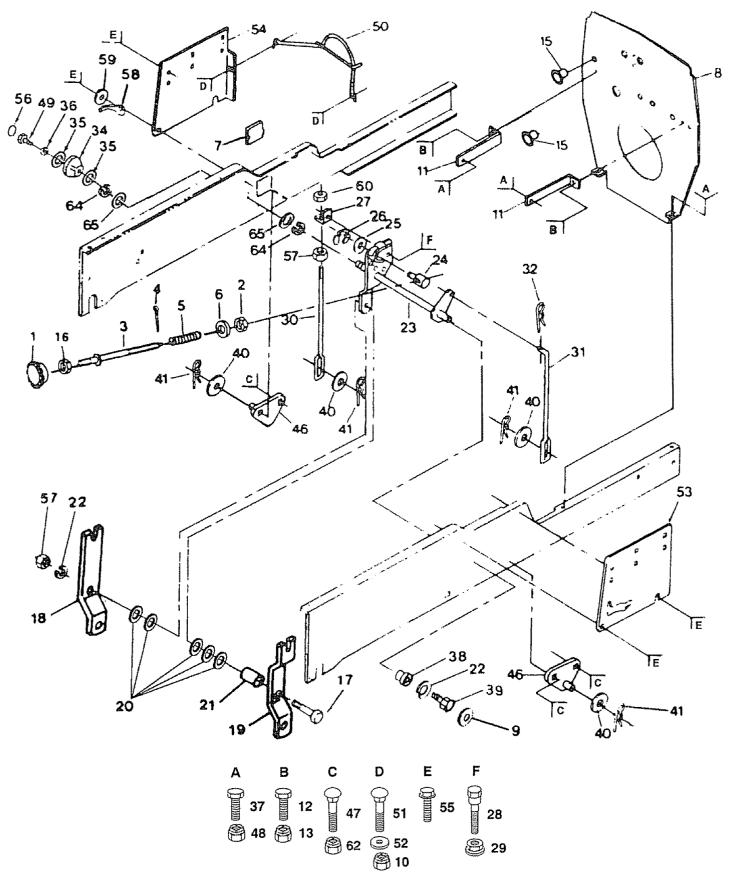
#### DESCRIPTION

44 105525X Bracket, Support, Dash 45 19171416 Washer 17/32 x 7/8 x 16 Gauge 46 STD533727 Bolt, Carriage 3/8-16 x 2-3/4 47 121235X Spacer Cover, Gate, Shift 48 106042X012 Screw, Hex Washer Head, Thread Cutting 1/4-20 x 1/2 Cap, Steering Wheel Bolt, Hex 1/2-13 x 5 49 17720408 51 100710L 52 74780880 53 73680800 Nut, Crownlock 1/2-13 54 19172610 Washer 17/32 x 1-5/8 x 10 Gauge Nut, Hex 3/8-16 60 STD541037 Bracket, Frame, Front 61 5213J 62 STD541431 Nut, Crownlock 5/16-18 Support, Battery Stem, Valve Cap, Valve Dashplate 63 7985J 64 65139 65 59192 66 124213X011 Pin, Mounting, Idler Bracket 68 106615X 69 2751J Clip Joint, Tie Rod, Threaded, RH Joint, Tie Rod, Threaded, LH Rod, Tie Nut, Hex, Jam 3/8-24 LH Nut, Hex, Jam 3/8-24 RH 70 109850X 109851X 71 72 7919J 73700600 73 74 STD541337 75 STD533107 Bolt, Carriage 5/16-18 x 3/4 76 121749X Washer 13/32 x 1-1/4 x 7 Gauge 121748X Washer 25/32 x 1-5/8 x 16 Gauge 77 79 104757X Cap, Hub, Front STD523710 Bolt, Hex 3/8-16 x 1 Grade 5 82 83 100207K Clip 3/8 85 120199X Tube 86 121177X Collar 89 4171R Clip Cap, Spindle 91 121232X Screw, Machine, Cross Head 92 74180412 1/4-20 x 1/4 93 19091216 Washer 9/32 x 1/4 x 16 Gauge STD541425 Nut, Keps 1/4-20 UNC 94

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

20 HP TRACTOR - - MODEL NUMBER 917.250032

### STEERING

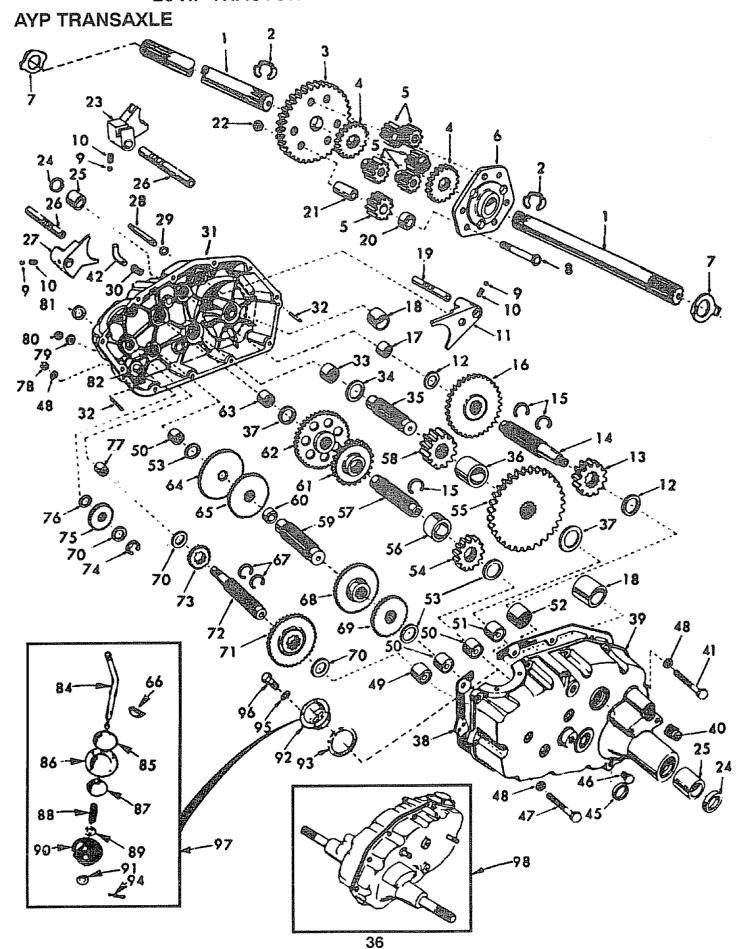


### 20 HP TRACTOR - - MODEL NUMBER 917.250032

### STEERING

KEY PART NO, NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 100734K 2 110807X 3 110811X 4 STD570907 5 2876H 6 19131016 7 121794X 8 110870X 9 109412X 10 STD541431 11 110904X 12 STD522505 13 73680400 15 110436X 16 STD541237 17 STD523717 18 5948J 19 5947J 20 19172410 21 5949J 22 STD551137 23 124217X 24 110810X 25 19151216 26 12000037 27 7594J 28 7901J 29 STD541237 30 7596J 31 105503X	Tube .384 x 1-1/2 x 15/16		<ul> <li>7 Bolt, Hex 5/16-18 x 3/4 Hub, Lift Shaft</li> <li>0 Bolt, Hex 3/8-16 x 1</li> <li>0 Washer 17/32 x 1 x 16 Gauge Retainer Spring Bracket, Suspension, Mower</li> <li>7 Bolt, Carriage 3/8-16 x 3/4</li> <li>1 Nut, Crownlock 3/8-16 Bolt, Hex 5/16-18 x 1 Guard, Belt, Engine</li> <li>0 Bolt, Carriage 5/16-18 x 1 Washer 11/32 x 1 x 10 Gauge Panel, Side, RH Panel, Side, LH Bolt, Hex Washer Head, Thread Roll. 3/8-16 x 1/2 Plug, Hole</li> <li>7 Nut, Hex 3/8-16</li> <li>9 Pointer, Height Indicator Washer, Nylon .44 x .75 x .032</li> <li>7 Locknut, Hex, Washer Insert 3/8-16</li> </ul>

20 HP TRACTOR - - MODEL NUMBER 917.250032

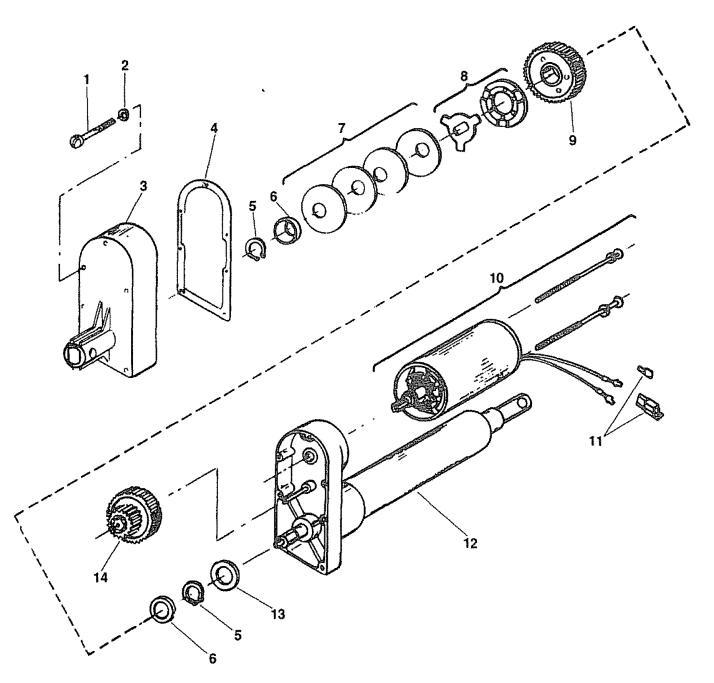


# 20 HP TRACTOR - - MODEL NUMBER 917.250032

### AYP TRANSAXLE

	Y PART NO.	DESCRIPTION		Y PART NO.	DESCRIPTION
1	4197R	Axle Shaft	51	1529R	Needle Bearing Needle Bearing
2 3	12000034 4199R	Retaining Ring Final Drive Gear	52 53	8119M 4220R	Thrust Bearing Race
4	4216R	Differential Gear		4209R	3rd Reduction Pinion, Low
5	4215R	Differential Pinion	55	4213R	4th Reduction Gear
6	4217R	Differential Carrier	56	4442R	3rd Reduction Pinion Spacer
7	6256H	Axle Thrust Washer	57		2nd Reduction Gear Shaft
8	74020652	Bolt, Hex 3/8-24 x 3-1/4	58	4214R	Final Drive Pinion
0	700036	(1" Thread Length)		4194R	1st Reduction Gear Shaft
9 10	7392M 6272H	Steel Ball Spring Shift Fork Detent	60 61	7528R 4208R	1st Reduction Shaft Spacer 3rd Reduction Plnion HIgh
11	4985R	Shift Fork, High-Low Range		4207R	2nd Reduction Gear
12	6266H	Thrust Bearing Race		7398H	Needle Bearing
13	4212R	4th Reduction Pinion	64	4203R	Low Speed Gear and 2nd
14	4196R	3rd Reduction Gear Shaft			Reduction Pinion Cluster
15	6276H	Snap Ring, Crescent Type	65	4204R	Reverse Gear
16 17	633A63 8118M	High-Low Range Gears Needle Bearing	66 67	2898J 4926H	Key, Hi-Pro 1/8 x 17/32
18	8740H1	Sintered Iron Bearing		4205R	Snap Ring, Crescent Type Intermediate Speed Gear
19	122238X	Shift Fork Shaft, High-Low Range		4206R	High Speed Gear
20	4218R	Differential Pinion Spacer		1370H	Thrust Bearing Race
21	6252H1	Differential Pinion Bushing	71	633A69	Intermediate and High Speed
22	7810H	Gripco Centerlock Nut 3/8-24	-	0001	Cluster Pinions
23	6262H	Shift Fork, LH	72 73	208J	Input Shaft
24 25	7393R 992R1	Oil Seal Sintered Iron Bearing		4201R 12000002	Low Speed Pinion E-Ring
26	6216H	Shift Fork Shaft		1153R	Reverse Idler Gear
27	4986R	Shift Fork, RH	76	7392H	Reverse Idler Thrust Washer
28	122254X	Shift Shaft, High-Low Range	77		Needle Bearing
29	6269H	Oil Seal		73220500	Nut, Hex 5/16-18
30	5855H	Pressure Relief Valve		1167R	Sealing Washer
31	122162X	Gearcase, Reverse Idler Shaft and Bearings, RH (Includes Key No.'s	80 81	73360700 6270H	Nut, Hex, Jam  7/16-20 Oil Seal
		17,18, 25, 33, 50, 63, 76, 77 & 82)		7384H	Reverse Idler Shaft
32	6277H	Dowel Pin		5384J	Gear Shift Lever, Bent
33	4225R	Needle Bearing	85	2978J	Gear Shift Cap
34	7396H	Thrust Bearing Race		633A85	Gear Shift Ball Cover and Pin
35	4198R	4th Reduction Gear Shaft		8739H1	Shift Lever Guide Ball, Keyed
36 37	4200R 7395H	4th Reduction Gear Spacer Thrust Bearing Race	88 89	4924H 19151516	Spring Washer 15/32 x 15/16 x 16 Gauge
38	121878X	Gearcase Gasket	90	110542X	Shift Mechanism Seal
39	122163X	Gearcase and Bearings, LH	91 91	19181511	Washer 9/16 x 15/16 x 12 Gauge
		(Includes Key Numbers 18, 25, 49,	92	75J	Gear Shift Gate and Reinforcement
		50 (2), 51 and 52)	93	6274H	Shift Ball Cover Gasket
40	13320400	Pipe Plug 1/2-14 N.P.T.	94	76020412	Cotter Pin 1/8 x 3/4
41 42	74780526 13170100	Bolt, Hex 5/16-18 UNC x 1-5/8 Elbow, Street, 90°	95 96	10040500 74760514	Washer, Lock 5/16 Bolt, Hex 5/16-18 UNC x 7/8
45	6271H	Oil Seal	97 97	633A109	Gear Shift Lever Assembly
46	13060200	Pipe Plug 1/4-18 N.P.T.	98	122420X	Transaxle Assembly (Less Brake
47	74780524	Bolt, Hex 5/16-18 x 1-1/2 Grade 5			Drum and Shift Lever)
48	10140500	Washer, Lock, Extra Heavy 5/16			
49	4895H	Needle Bearing	NOT		ent dimensions given in U.S. inches
50	4222R	Needle Bearing		1 inch = 25	.4 mm

20 HP TRACTOR - - MODEL NUMBER 917.250032 ELECTRIC LIFT ACTUATOR

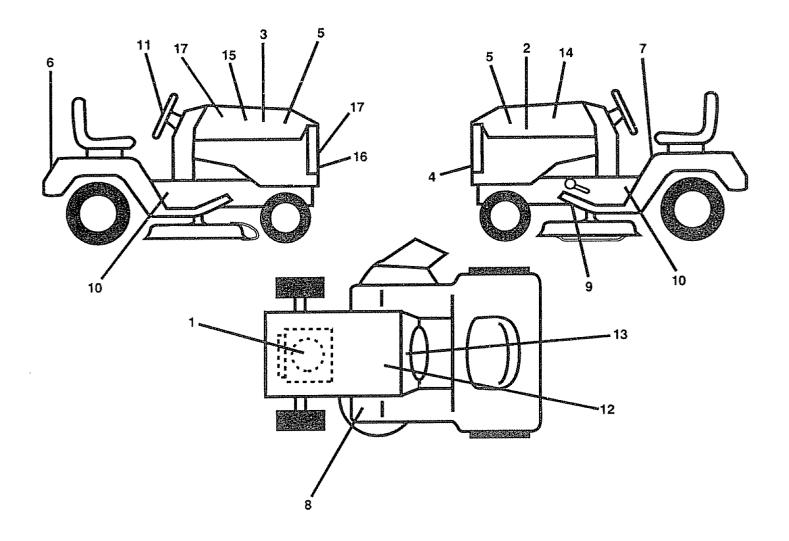


	PART NO.	DESCRIPTION
1	1862J	Screw, Machine, Slotted Fillister Head #10-32 x 1-5/8
2	1863J	Washer, Lock #10
2 3	8331J	Housing Cover
4 5	1857J	Cover Gasket
5	1865J	Snap Ring
6	1864J	Retaining Ring
7	677A149	Spring Washer (Use 3 or 4 as required)
8	674A281	Pawl and Ramp Washer

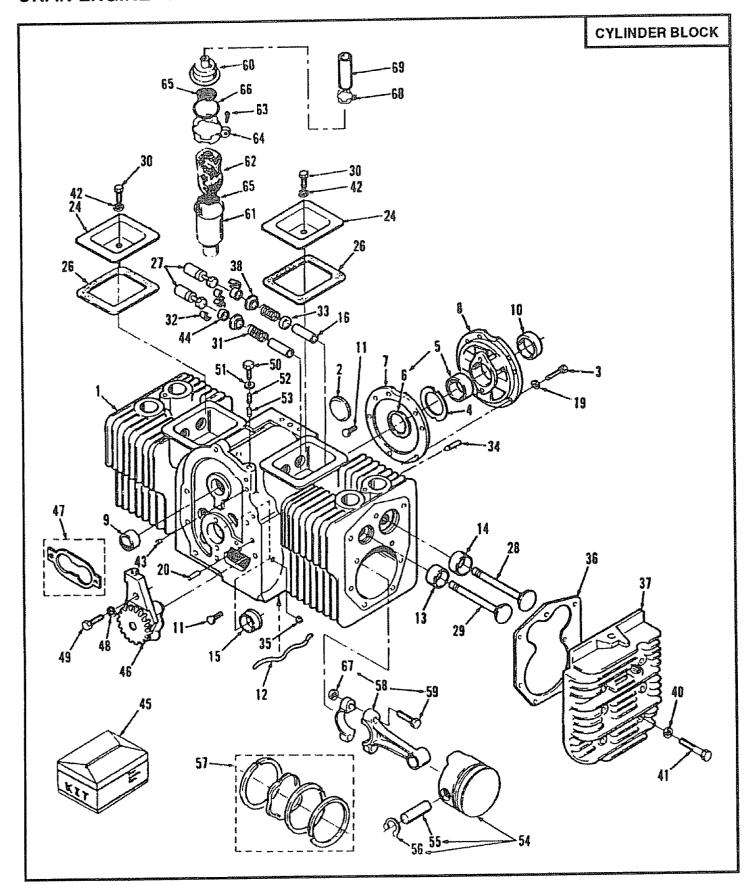
KEY NO.	PART NO.	DESCRIPTION
9	1859J	Output Gear
10	1861J	Motor, 12 Volt
11	673A218	Connector Body Kit
12	* * *	Not Serviced Separately-Order 124371X (Complete Actuator)
13	1860J	Thrust Washer
14	1858J	Intermediate Gear

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

20 HP TRACTOR - - MODEL NUMBER 917.250032 ELECTRIC LIFT ACTUATOR



	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
123456789	110921X 128491 128490 105806X 132663 128314 106974X 4900J 131283	Decal, HP, Engine Decal, Hood, Stripe, LH Decal, Hood, Stripe, RH Decal, Grill Decal, Side Panel Decal, Logo, Fender Decal, Caution Decal, Clutch/Brake Decal, V-Belt Drive	10 11 12 13 14 15 16 17	128884 132265 120960X 108456X 106813X 106814X 132270 128257 132893	Decal, Speed/Deck Size, Chassis Decal, Steering Wheel Insert Decal, Battery Decal, Operating Instructions Decal, Side Panel, LH Decal, Side Panel, RH Decal, Model, Grill Decal, Grill and Hood Manual, Owner's

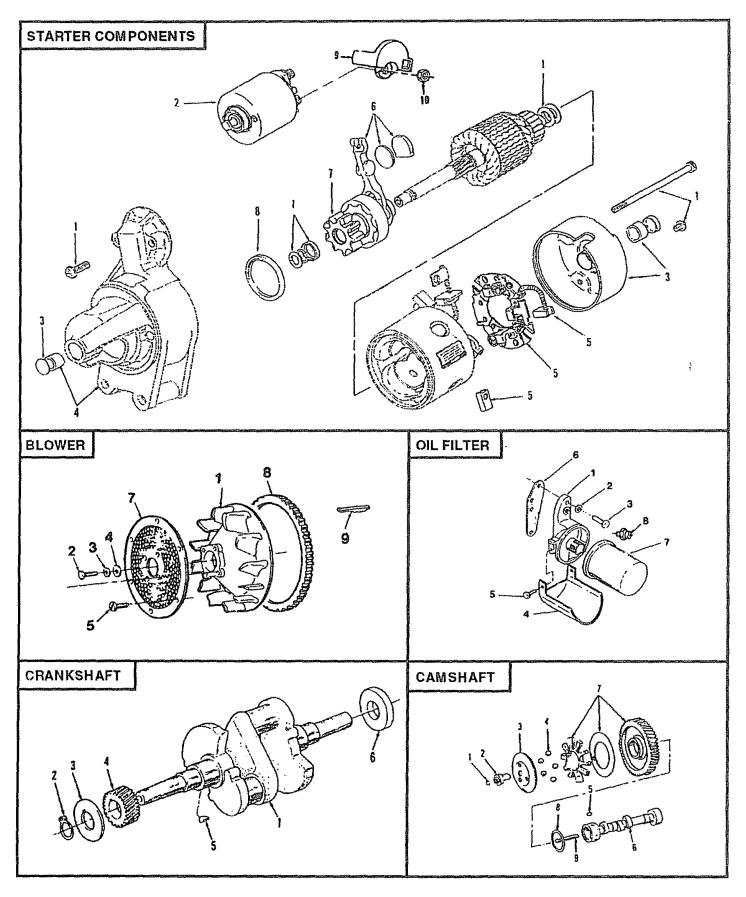


### 20 HP TRACTOR - - MODEL NUMBER 917.250032 **ONAN ENGINE - MODEL NUMBER 739.11054D**

#### CYLINDER BLOCK

CYL	INDER BLOCK	KEY PAF NO. NO.	DESCRIPTION	
	NO. DESCRIPTION		3487 Washer, Valve Sprir	ng, Retaining
1	- 4 2 110-3424-컵 Short Block, Cylinder	41 800-	0122 Washer, Flat 5/16" 0571 Screw, Cap, Hex He 0982 Washer, Flat Capacity	ad, Special 2"
2	(Includes Parts Marked *) 517-0048-01 * Plug, Welch, Camshaft Opening, Zinc Plated 1-5⁄8"	43 517-	0063 Washer, Flat, Coppe 0067 * Plug, Core Hole 3510 Cap, Valve	31 1/4
3	800-0051 * Screw, Cap, Hex Head 3/8-16 x 1-1/4"	45	Kit, Gasket: 0187 Engine, Complete	
4 5	104-0776 * Shim, Crankshaft, End Play .005" 101-0450 * Bearing, Crankshaft, Rear, Standard Size (Includes Thrust		0189 Valve Grind/Čarbon 0491 Pump, Oil (Compor Separately)	ents Not Sold
6 7 8	Washer) 101-0450-02 .002" Undersize 101-0450-10 .010" Undersize 101-0450-20 .020" Undersize 101-0450-30 .030" Undersize 104-0575 * Washer, Thrust 101-0782 * Gasket, Bearing Plate 101-0439-01 * Plate, Bearing, Rear, Standard, Code 11AH	48 740- 49 800- 50 801- 51 526- 52 120- 53 120-	0066 Washer, Flat, Coppe 0140 Spring, Bypass Valv	ead 1/4-20 x 1" ead 3/8-24 x 7/8 er 3/8" re lve te
9 10 11 12 13	101-0405 * Bearing, Camshaft 509-0041 * Seal, Oil, Crankshaft, Rear 516-0072 * Pin, Drive, Bearing Stop 120-0735 * Tube, Oil, Cylinder Block 110-1824 * Insert, Valve Seat, Exhaust, Standard Size	112- 112- 112-	0264-05 .005" Oversize 0264-01 .010" Oversize 0264-02 .020" Oversize 0264-03 .030" Oversize 0264-04 .040" Oversize	
14	110-1824-02 .002" Oversize 110-1824-05 .005" Oversize 110-1824-10 .010" Oversize 110-1824-25 .025" Oversize 110-0197 * Insert, Valve Seat, Intake, Standard	56 518- 57 113- 113- 113- 113- 113-	0311 Ring, Retaining 0310 Ring Set, Piston, Sta 0310-05 .005" Oversize 0310-10 .010" Oversize 0310-20 .020" Oversize	andard Size
15	Size 110-0197-02 .002" Oversize 110-0197-05 .005" Oversize 110-0197-10 .010" Oversize 110-0197-25 .025" Oversize 101-0432 * Bearing, Crankshaft, Front,	113- 58 114- 114-	0310-30 .030" Oversize 0310-40 .040" Oversize 0257 Rod, Connecting (In Nut) 20 Horsepower 0257-10 .010" Undersize 0257-20 .020" Undersize	
16	Flanged, Standard Size 101-0432-02 .002" Undersize 101-0432-10 .010" Undersize 101-0432-20 .020" Undersize 101-0432-30 .030" Undersize 110-3527 * Guide, Valve, Exhaust	59 114- 60 123- 61 123- 62 123-	0035 Screw, Tapping, Rou	ather e
19 20	110-3526 * Guide, Valve, Intake 526-0251 * Washer, Lock, Spring 3/8" 516-0141 * Pin, Alignment, Gear Cover	64 123- 65 123-		
24 26 27	110-3637-01Cover, Valve, Zinc Plated110-3709Gasket, Valve Cover115-0006Tappet, Valve, Standard Size	66 509- 67 870- 68 503-	0117 Seal, O-Ring Breath 0302 Nut, Hex, Crownlock	er Cap
28	115-0006-02 .002" Oversize 115-0006-05 .005" Oversize 110-3479 Valve, Intake	69 503- 517- 520-	1606-01 Hose, Breather 0090 Plug, Plastic (not sho 0820 Stud, Bolt, Guard Mo	
29 30	110-3480 Valve, Exhaust 800-0010 Screw, Cap, Hex Head 1/4-20 x 1-3/4"	* Parts Inc	shown) luded In Cylinder Block	
31 32	110-3485 Spring, Valve 110-3511 Lock, Valve Spring			
33 36 37	509-0289Seal, Valve, Intake110-3181Gasket, Cylinder Head110-3509Head, Cylinder, Right Side110-3508Head, Cylinder, Left Side		l component dimensions given nch = 25.4 mm	in U.S. inches

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### 20 HP TRACTOR - - MODEL NUMBER 917.250032 ONAN ENGINE - MODEL NUMBER 739.11054D

#### STARTER COMPONENTS

KEY NO,	PART NO.	DESCRIPTION
1	191-1954	Kit, Hardware, Starter (Includes Solenoid Mounting Screws, Thru Bolts, Armature Shims, Pinion Stop Collar, Retaining Ring, and Solenoid Terminal Nuts)
2	191-1956	Kit, Solenoid, Starter (Includes Solenoid and Spring Plunger)
3	191-1931	Kit, Bushing, Starter (Includes Rear Cap with Bushing and Front Bushing)
4	191-1950	Kit, Mounting Bracket (Includes Front Bracket, Front Bushing, Dust Seal, Thrust Washer, Cap Plug and O.D. Pinion Seal)
5	191-1951	Holder Brush (Includes (2) Negative Brushes, (2) Positive Brushes and Brush Holder)
6	191-1766	Kit, Shift Lever, Starter (Includes Lever, Wear Plate, Rubber Plug and Grease)
7	191-1810	Clutch Assembly, Starter (Includes Pinion Gear and Clutch Assembly)
8	191-1955	Seal, Dust (Includes I.D. and O.D. Pinion Seals)
	191-1947 750-1006	Cup, Starter Solenoid Nut, Hex, M8

**NOTE:** Phantomed items not for sale, for replacement, order complete starter.

**NOTE:** Onan part number stamped on starter nameplate for identification.

DESCRIPTION

#### BLOWER

**KEY PART** 

NO.	NO.	
1	134-4633	Flywheel (Includes Ring Gear)
2	104-0170	Screw, Cap, Hex Head (Special)
3	526-0356	Washer, Flat 7/16"
4	526-0017	Washer, Flat 7/16"
5	815-0687	Screw, Lock Head, Flange #10-24 x 3/8"
7	134-4553-50	Screen, Air Inlet, Painted
8	104-0779	Gear, Ring
9	515-0284	Key, Flywheel

#### **OIL FILTER**

PART NO.	DESCRIPTION
122-0320	Adapter, Oll Filter
526-0065	Washer, Flat, Copper 5/16"
800-0028	Screw, Cap, Hex Head 5/16-18 x 1"
122-0360-50	Drain, Oil Filter, Painted
815-0194	Screw, Cap, Hex Head W/ET
	#10-32 x 3⁄8"
122-0771	Gasket, Oil Filter Adapter
122-0645	Filter, Oil
309-0546	Switch, Low Oil Pressure
	NO. 122-0320 526-0065 800-0028 122-0360-50 815-0194 122-0771 122-0645

#### CRANKSHAFT

KEY NO.	PART NO.	DESCRIPTION
1	104-1351	Crankshaft (includes Key No. 5)
2	518-0014	Ring, Retainer
3	104-0043	Washer, Gear Retainer, Special
4	104-0032	Gear, Crankshaft
5	515-0001	Key, Crankshaft Gear
6	104-1712	Weight, Balance

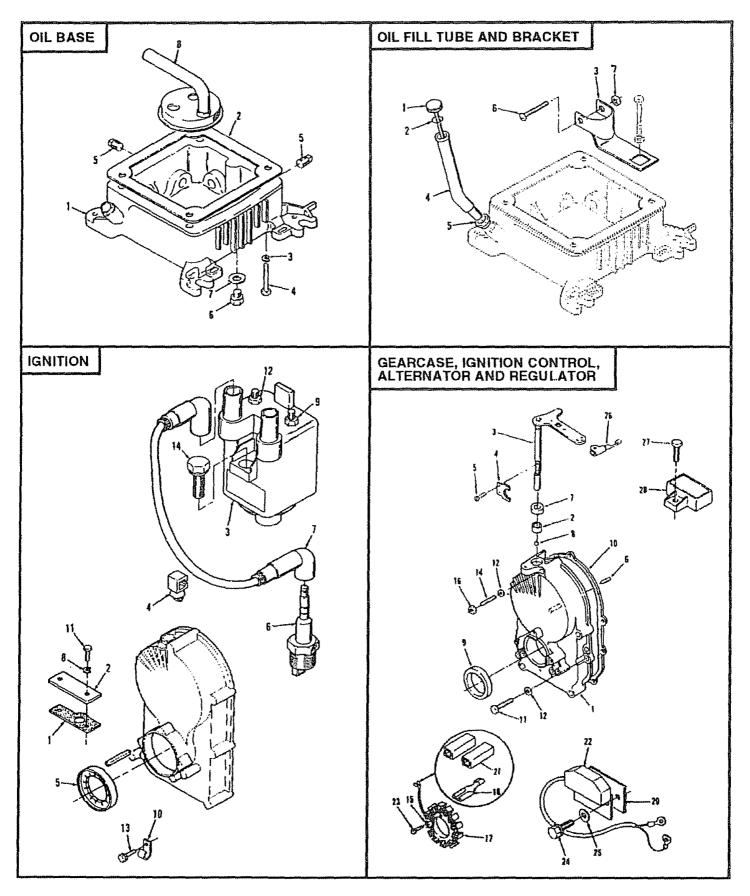
# CAMSHAFT

NO.	
150-0078	Ring, Retainer
150-1519	Hub, Governor Cup
150-1520	Cup, Governor
510-0015	Ball, Governor
515-0001	Key, Woodruff, Camshaft
105-0639	Camshaft (Includes Key Number 9)
105-0332	Gear, Camshaft (Includes Gear,
	Spacer and Plate)
105-0541	Washer, Thrust, Special
150-0075	Pin, Center
	150-0078 150-1519 150-1520 510-0015 515-0001 105-0639 105-0332

DESCRIPTION

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

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### 20 HP TRACTOR - - MODEL NUMBER 917.250032 ONAN ENGINE - MODEL NUMBER 739.11054D

#### OIL BASE

	PART NO.	DESCRIPTION
1	102-1325	Base, Oil (Includes all Plugs and Plug Gasket)
2	102-1387	Gašket, Oil Éase
3	526-0251	Washer 3/8"
4	800-0061	Screw, Cap, Hex Head 3⁄8-16 x 3-3⁄4"
5	505-0110	Plug, Square Head 3/8"
6	102-0938	Plug, Hex Head, Special
7	102-0743	Gasket, Hex Head, Plug
8	102-0713	Cup, Intake, Oil Pump

#### OIL FILL TUBE AND BRACKET

KEY NO.	PART NO.	DESCRIPTION
4	123-1637	Cap and Indicato

	p and Indicator, Oil Fill (Includes Ring)
	Ring, Oil Fill Cap
1863-51 Bra	acket, Fill Tube, Painted
1685-50 Tu	be, Oil Fill, Painted 15.75" Long
0269 Se	al, Oll Fill Tube
0576 Sc	rew, Pan Head #10 x 1-1/4"
0410 Nu	t, Speed, Type U
	0- 0142 0- 1863-51 Bra 1685-50 Tu 0269 Se 0576 Sc

#### IGNITION

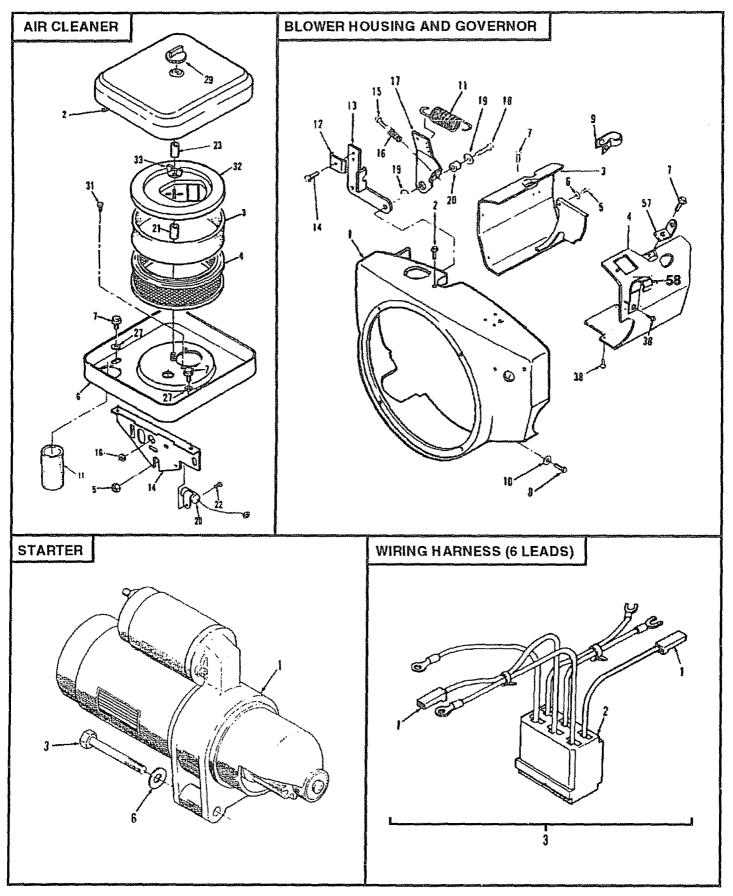
KEY NO.	PART NO.	DESCRIPTION
1	160-1368	Gasket, Plate
2	160-1345-01	Plate, Ignition Plunger Cover, Zinc Plated
З	166-0761	Coil, Battery Ignition (Includes Nuts)
4	332-2904	Clip, Wire (To #1 Spark Plug Wire)
5	166-0767	Rotor, Ignition
6	167-0263	Plug, Spark
7	167-1615-01	Cable, Spark Plug, 9"
	167-1615-04	Cable, Spark Plug, 18.5"
8	740-1004	Washer, M6
9	166-0770	Nut, Hex, Flange (M4 Pos. Term.)
10	518-0515	Clip, Wire
11	800-0004	Screw, Cap, Hex Head 1/4-20 x 5/8
12	166-0771	Nut, Hex, Flange (M5 Neg. Term.)
13	815-0389	Screw, Hex Washer Hd. 1/4-20 x 1
14	815-0650	Screw, Hex Washer Hd. 1/4-20 x 1

#### GEARCASE, IGNITION CONTROL, ALTERNATOR AND REGULATOR

KEY NO.	PART NO.	DESCRIPTION
1	103-0799	Kit, Gearcase (Includes Parts Marked*)
2 3	510-0105	* Bearing, Governor Shaft
3		* Shaft and Arm, Governor
4		* Yoke, Governor Shaft
5	815-0046	* Screw, Machine, Pan Head #8-32 x 3/8"
6	516-0130	* Pin, Dowel, Governor Cup Stop
7		* Seal, Oil, Governor Shaft
8		* Ball, Bearing, Governor Shaft
9		* Seal, Oil, Crankshaft
	103-0810	Gasket, Gearcase Mounting
11	800-0032	Screw, Cap, Hex Head
12	500 0005	5/16-18 x 1-3/4" Weeber Elet Copper 5/16"
14	526-0065 520-0933	Washer, Flat, Copper 5/16" Stud, Gear Cover
15	850-0030	Washer, Lock, #10
16	862-0015	Nut, Hex 5/16-18
	191-1256	Stator (Includes Terminals)
18	332-2423	Terminal, Stator Leads
21	323-1257	Body, Terminal Connector, Kit
		(Includes Terminals)
22 23	166-0763	Control, Ignition
23	815-0172	Screw, Machine, Hex Head, Self-
<b>.</b> .		Locking, Code 31AZ #10-32 x 1"
24	815-0340	Screw, Hex Washer Head
25	854-0010	#10-32 x 3/8" Washer, Lock, Internal Tooth #10
26	518-0406	Clip, Retaining, Control Rod To
		Governor Shaft
27	821-0008	Screw, Cap, Hex Washer Head
		1/4-20 x 5/16"
	191-1748	Regulator, Voltage, 20 Ampere
29	166-0786	Insulator, Ignition Module

\* Parts Included In 103-0791 Gearcase.

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



### 20 HP TRACTOR - - MODEL NUMBER 917.250032 **ONAN ENGINE - MODEL NUMBER 739.11054D**

#### **AIR CLEANER**

VEV DADT

KEY NO.	PART NO.	DESCRIPTION
1	865-0020	Nut, Wing 1/4-20
2 3	140-2005-50	Cover, Air Cleaner, Painted
3	140-1496	Wrapper, Air Cleaner Element, Standard Svc and XSL
4	140-2522	Element, Air Cleaner, Standard Capacity
5	870-0399	Nut, Hex Washer Head, Flanged 5/16-18
6	140-2493-53	Housing, Air Cleaner
7	815-0575	Screw, Tapping, Hex Washer Head, 1/4-20 x 3/8"
11	140-2025	Tube, Air Intake
14	140-2017-50	Support, Air Cleaner, Painted
16	508-0021	Grommet, Rubber (3/4" Hole)
20	312-0256	Capacitor
21	140-2536-01	Spacer, Air Cleaner Stud, 1" Long
22	815-0178	Screw, Hex Washer Head, Thread
		Forming #10-32 x 5/8"
23	140-2536-03	Spacer, Rubber
29	140-2537	Knob 1/4-20
31	815-0463	Screw, Slotted Hex Washer Head #10-32 x 3/8"
32	140-2441	Cover, Element
33	865-0029	Nut, Wing 1/4-20

DECODIDTION

#### STARTER

KEY NO.	PART NO.	DESCRIPTION
1 3	191-1949-07 800-0595	Starter, Selenoid Shift Screw, Cap, Hex Head 5/16-18 x 3-1/2"

6 526-0122 Washer, Flat 5/16"

**NOTE:** Onan part number stamped on the nameplate for indentification.

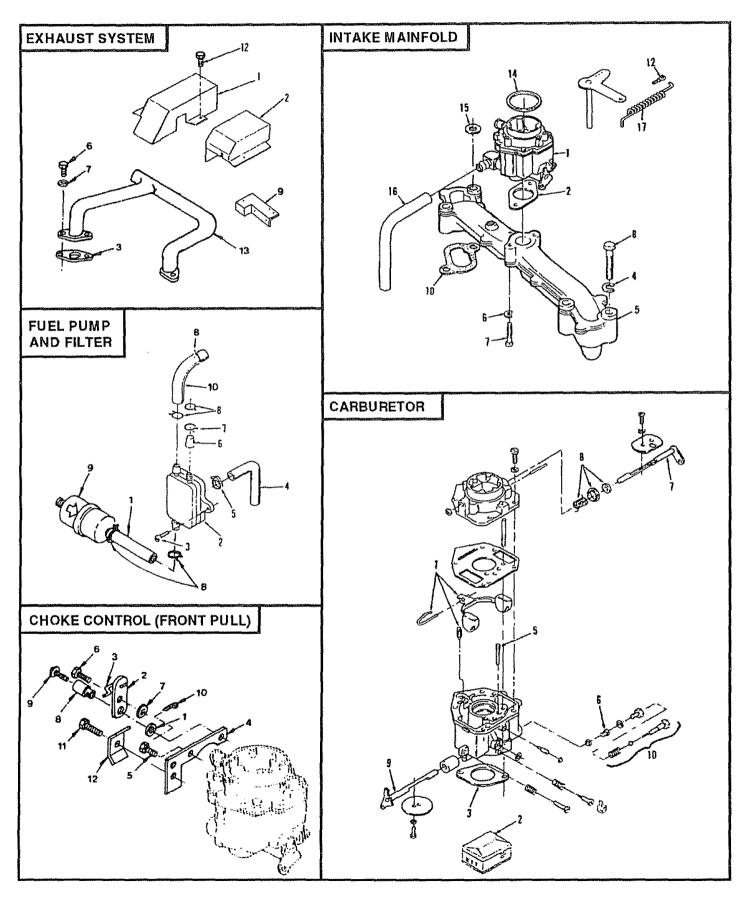
#### **BLOWER HOUSING AND GOVERNOR**

KEY NO.	PART NO.	DESCRIPTION
1 2 3	134-4728-50 815-0261 134-4615-50	Housing, Blower, Painted Screw, Tapping, Hex Washer Head Housing, Cylinder, Air, L.H., Painted
4	134-4796-50	Housing, Cylinder, Air, R.H., Painted
5	815-0290	Screw, Tapping, Hex Washer Head 1/4-20 x 5/8"
6	526-0021	Washer, Flat 1/4"
7	821-0016	Screw, Cap, Hex Washer Head 5/16-18 x 3/4"
8	815-0290	Screw, Tapping, Hex Washer Head 1/4-20 x 5/8"
9	332-2319	Clamp, Wire, Alternator Leads
10	526-0018	Washer, Flat 1/4"
	150-1214	Spring, Governor, 5 Ball
12	153-0514	Clamp, Cable
13	150-2345-02	Bracket, Cable
14	815-0359	Screw, Tapping, Hex Head #10-32 x 1/2"
15	815-0510	Screw, Tapping, Hex Head #6-32 x 5/8"
16	150-1398	Spring, Idle Setting
17	150-2344-02	Arm, Governor Control (Without Swivel)
18	815-0436	Screw, Cap, Hex Washer Head 1/4-20 x 1/2"
19	526-0021	Washer, Flat, 1/4"
20	150-1269	Bushing, Control Arm
38	821-0008	Screw, Cap, Hex Washer Head 1/4-20 x 5/16"
57 58	403-1523-01	Bracket, Lifting, Zinc Plated Insulated Clip

#### WIRING HARNESS (6 LEADS)

KEY	PART	DESCRIPTION
NO.	NO.	

- 1332-0819Housing, Receptacle2323-1386Housing, Receptacle, 6 Way3338-2104-02Harness, Wiring, Engine
- NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm



### 20 HP TRACTOR - - MODEL NUMBER 917.250032 ONAN ENGINE - MODEL NUMBER 739.11054D

#### EXHAUST SYSTEM

KEY NO.	PART NO.	DESCRIPTION
1	134-4254-50	Cover, Exhaust, L.H.
2	134-4655-50	Cover, Exhaust, R.H.
2 3	154-2746	Gasket, Exhaust Adapter
6	800-0026	Screw, Cap, Hex Head
		5/16-18 x 3/4"
7	850-0045	Washer, Lock, Spring 5/16"
9	134-4445-50	Support, Exhaust Cover
12	821-0009	Screw, Hex Washer Head
		1/4-20 x 3/8"
13	154-2732-01	Manifold, Exhaust

#### FUEL PUMP AND FILTER

KEY NO.	PART NO.	DESCRIPTION
1	503-0707 149-2187-01	Hose, 12" (Cut to Desired Length) Pump, Fuel, Vacuum
	815-0555	Screw, Tapping, Pan Head #10-24 x 5/8"
4	503-0707	Line, Pulse (Cut to 7" Long)
5	503-0731	Clamp, Hose 1/2"
6	149-1321	Cap, Fuel Fitting
7	503-0301	Clamp, Hose
8	503-0731	Clamp, Hose 1/2"
9	149-2206-01	Filter, Fuel

#### INTAKE MANIFOLD

KEY PART

NO.	NO.	DESCRIPTION
1	146-0496	Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket, Elbow and O-Ring)
2	154-0733	Gasket, Carburetor to Adaptor
4	740-1006	Washer, Flat, M8
5	740-1006 154-0275	Manifold, Intake (Un-Tapped Boss)
6	140-1006	Washer, M8
7	800-0032	Screw, Cap, Hex Head 5/16-18 x 1.75"
8	800-0033	Screw, Cap, Hex Head 5/16-18 x 2"
10	154-2495	Gasket, Manifold to Block
12	518-0004	Clip, Retaining, Control Rod to Carburetor
13	150-2460	Rod, Governor Control
14	509-0145	O-Ring
	526-0113	Washer, Flat 5/16"
	503-1577	Hose, Fuel 30"
17		Spring, Governor Rod

DESCRIPTION

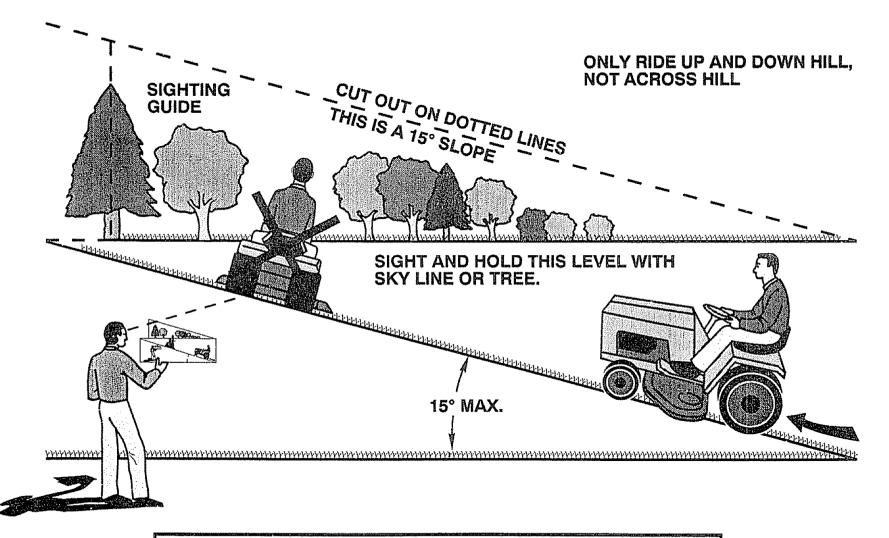
#### CHOKE CONTROL (FRONT PULL)

1       526-0140       Washer, Flat #10         2       153-0523       Lever, Choke         3       153-0500       Link, Choke         4       153-0524       Bracket, Choke Cable         5       821-0004       Screw, Cap, Hex Washer Head         #10-32 x 1/4"       6       815-0480       Screw, Shoulder #10-32 x .34"         7       854-0010       Washer, Lock, IT #10       8         8       152-0155       Swivel, Choke Lever         9       815-0693       Screw, Machine, Hex Head         #8-32 x .375"       10       516-0059       Plin, Cotter         11       815-0359       Screw, Tapping, Slotted Hex       Washer Head #10-32 x 7/8"         12       153-0514       Clip, Choke Cable         CARBURETOR         KEY PART No. No.          146-0496       Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket)         1       146-0437       Float Kit (Includes Float, Pin And Valve)         2       146-0437       Float Kit (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjust Needle and Spring, Mounting Gaskets and Idle Limit Cap)         3       154-0733       Gasket, Carburetor Mounting Jet, Power         7       146-0435       Kit		PART NO.	DESCRIPTION
6       815-0480       Screw, Shoulder #10-32 x .34"         7       854-0010       Washer, Lock, IT #10         8       152-0155       Swivel, Choke Lever         9       815-0693       Screw, Machine, Hex Head         #8-32 x .375"       10       516-0059         11       815-0359       Screw, Tapping, Slotted Hex         Washer Head #10-32 x 7/8"       12       153-0514         Clip, Choke Cable       CARBURETOR         KEY PART DESCRIPTION         NO.       NO.          146-0496       Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket)         1       146-0437       Float Kit (Includes Float, Pin And Valve)         2       146-0500       Kit, Repair (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjust Needle and Spring, Mounting Gaskets and Idle Limit Cap)         3       154-0733       Gasket, Carburetor Mounting         5       146-0435       Jet, Power         7       146-0433       Jet, Power         7       146-0433       Kit, Shaft, Choke (Includes Choke Valve, Valve, Valve Set Screw and Air Filter)         8       146-0435       Kit, Shaft, Throttie (Includes Choke Lever Ring, Choke Spring and Choke Collar)         9       146-0503       Kit, Shaft, Throttie	2 3 4	153-0523 153-0500 153-0524	Lever, Choke Link, Choke Bracket, Choke Cable Screw, Cap, Hex Washer Head
10516-0059Pin, Cotter11815-0359Screw, Tapping, Slotted Hex Washer Head #10-32 x 7/8"12153-0514Clip, Choke CableCARBURETORKEY PART DESCRIPTIONNO. NO146-0496Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket)1146-0437Float Kit (Includes Float, Pin And Valve)2146-0500Kit, Repair (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjust Needle and Spring, Mounting Gaskets and Idle Limit Cap)3154-0733Gasket, Carburetor Mounting Jet, Idle6145-0391Jet, Power7146-0435Kit, Shaft, Choke (Includes Choke Valve, Valve Set Screw and Air Filter)8146-0435Kit, Shaft, Throttle (Includes Choke Lever Ring, Choke Spring and Choke Collar)9146-0503Kit, Shaft, Throttle (Includes Valve Set Screw, Air Filter and Throttle Valve)10146-0347Jet, Fixed, High Altitude Kit (For Altitudes Greater Than 5000 Feet)	7 8	854-0010 152-0155	Screw, Shoulder #10-32 x .34" Washer, Lock, IT #10 Swivel, Choke Lever Screw, Machine, Hex Head
12153-0514Clip, Choke CableCARBURETORDESCRIPTIONKEY PART NO.DESCRIPTION146-0496Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket)1146-0437Float Kit (Includes Float, Pin And Vaive)2146-0500Kit, Repair (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjust Needle and Spring, Mounting Gaskets and Idle Limit Cap)3154-0733Gasket, Carburetor Mounting Jet, Idle6145-0391Jet, Power7146-0433Kit, Shaft, Choke (Includes Choke Valve, Valve Set Screw and Air Filter)8146-0435Kit, Lever, Choke (Includes Choke Lever Ring, Choke Spring and Choke Collar)9146-0503Kit, Shaft, Throttie (Includes Valve Set Screw, Air Filter and Throttle Valve)10146-0347Jet, Fixed, High Altitude Kit (For 			Pin, Cotter Screw, Tapping, Slotted Hex
KEY PART NO. NO.DESCRIPTION146-0496Carburetor, Complete, 20 Horsepower (Includes Mounting Gasket)1146-0437Float Kit (Includes Float, Pin And 	12	153-0514	Clip, Choke Cable
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<ul> <li>Horsepower (Includes Mounting Gasket)</li> <li>1 146-0437 Float Kit (Includes Float, Pin And Valve)</li> <li>2 146-0500 Kit, Repair (Includes Screw and Plug Package, Gasket Package, Float Valve, Idle Adjust Needle and Spring, Mounting Gaskets and Idle Limit Cap)</li> <li>3 154-0733 Gasket, Carburetor Mounting</li> <li>5 146-0425 Jet, Idle</li> <li>6 145-0391 Jet, Power</li> <li>7 146-0433 Kit, Shaft, Choke (Includes Choke Valve, Valve Set Screw and Air Filter)</li> <li>8 146-0435 Kit, Lever, Choke (Includes Choke Lever Ring, Choke Spring and Choke Collar)</li> <li>9 146-0503 Kit, Shaft, Throttle (Includes Valve Set Screw, Air Filter and Throttle Valve)</li> <li>10 146-0347 Jet, Fixed, High Altitude Kit (For Altitudes Greater Than 5000 Feet)</li> </ul>			DESCRIPTION
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	10	146-0347	Jet, Fixed, High Altitude Kit (For

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

# SERVICE NOTES

# SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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

SEARS owner's manual	<b>CRAFTSMAN</b> <sup>®</sup> 20 HP IC ELECTRIC START 6 SPEED TRANSAXLE GARDEN TRACTOR
MODEL NO. 917.250032	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 Service Centre and most Retail Stores.
HOW TO ORDER REPAIR PARTS	<ul> <li>WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOW- ING INFORMATION:</li> <li>PRODUCT - LAWN TRACTOR</li> <li>MODEL NUMBER - 917.250032</li> <li>ENGINE MODEL NUMBER - 739.11054D</li> <li>PART NUMBER</li> <li>PART DESCRIPTION</li> <li>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.</li> </ul>

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