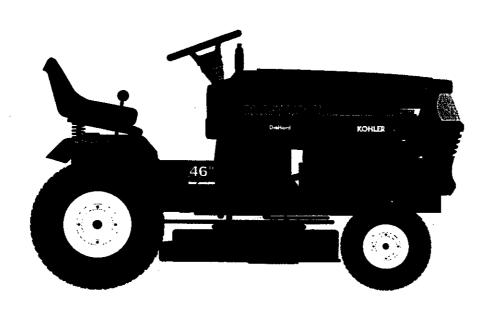
**SEARS** 

# CRAFTSMAN®

MODEL NUMBER 917.256710 OWNER'S MANUAL

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





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

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

# A

#### SAFETY RULES

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



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

#### I. GENERAL OPERATION

- Read, understand, and follow ail 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.

## A WARNING A

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

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

Should you experience any problem you cannot easily remedy, please contact your nearest Sears 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	917.256710
SERIAL NUMBER _	
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DATE OF P	LD RECORD BOTH SERIAL NUMBER AND URCHASE AND KEEP IN A SAFE PLACE REFERENCE.

#### MAINTENANCE AGREEMENT

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

#### **CUSTOMER RESPONSIBILITIES**

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

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	18.0		
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR		
OIL TYPE (API-SF/SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)		
OIL CAPACITY:	W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS		
SPARK PLUG: (GAP: .030")	CHAMPION RV17YC		
VALVE CLEARANCE:	INTAKE: .003"006" EXHAUST: .013"016"		
GROUND SPEED (MPH):	FORWARD: 5.5 REVERSE: 2.4		
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI		
CHARGING SYSTEM:	15 AMPS @3600RPM		
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R		
BLADE BOLT TORQUE:	30-35 FT. LBS.		

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

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

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

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

This Warranty does not cover:

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

#### LIMITED 90 DAY WARRANTY ON BATTERY

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

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

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

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

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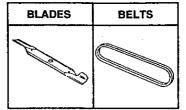
## **ACCESSORIES AND ATTACHMENTS**

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

#### **ENGINE**

# SPARK PLUG GAS CAN ENGINE OIL FUEL STABILIZER AIR FILTER

#### **MAINTENANCE**



#### **PERFORMANCE**

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

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

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

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

BUMPER protects front end of tractor from damage.

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

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

EASY OIL DRAIN VALVE makes oil changes easier, faster.

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

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

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

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

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

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

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

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

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

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

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

SWEEPERS let you collect grass clippings and leaves.

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

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

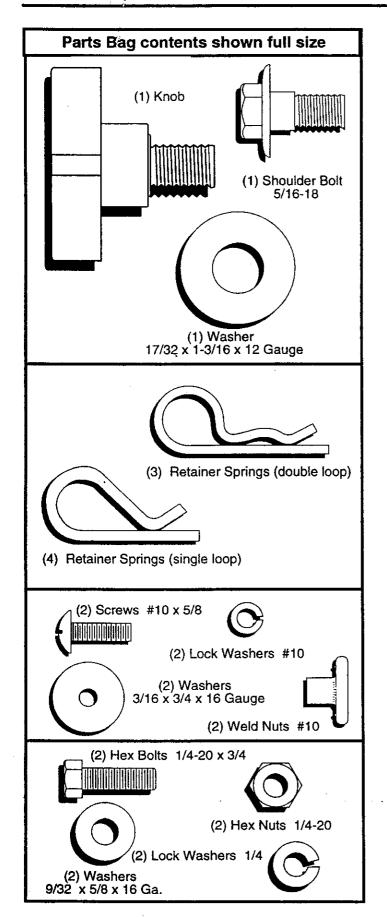
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered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

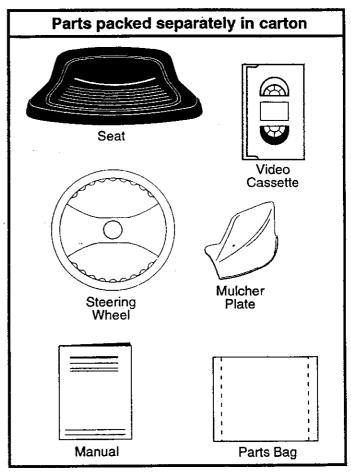
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

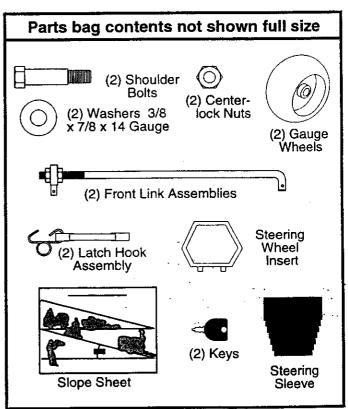
**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

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

## **CONTENTS OF HARDWARE PACK**







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

#### TOOLS REQUIRED FOR ASSEMBLY

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

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

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**

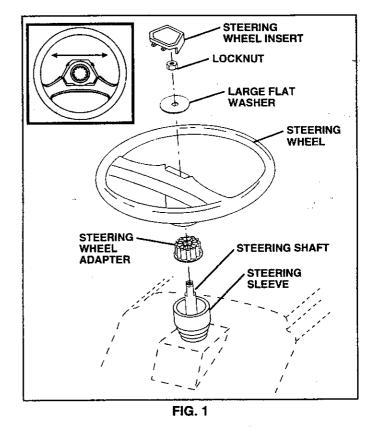
- Remove all accessible loose parts and parts cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove.

#### BEFORE ROLLING TRACTOR OFF SKID

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

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

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



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

- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor backwards off skid.

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



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

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

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

Use terminal access doors for:

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

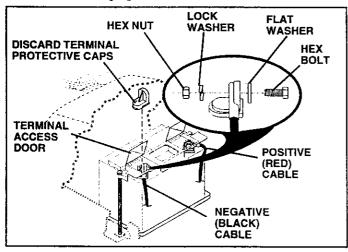


FIG. 2

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

Adjust seat before tightening adjustment knob.

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

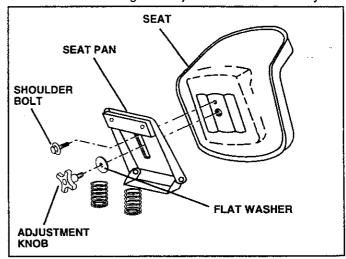


FIG. 3

#### **CHECK TIRE PRESSURE**

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

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

#### CHECK BRAKE SYSTEM

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

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

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

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

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

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

- Place the R.H. suspension arm on outward pointing deck pin. If necessary, rock and raise front of mower to align deck pin with the hole in suspension arm.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Retain both suspension arms to deck pins with double loop retainer springs.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise mower to highest position.
- Assemble gauge wheels (See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual).

#### CHECK MOWER LEVELNESS

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

#### CHECK FOR PROPER POSITION OF ALL BELTS

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

FRONT

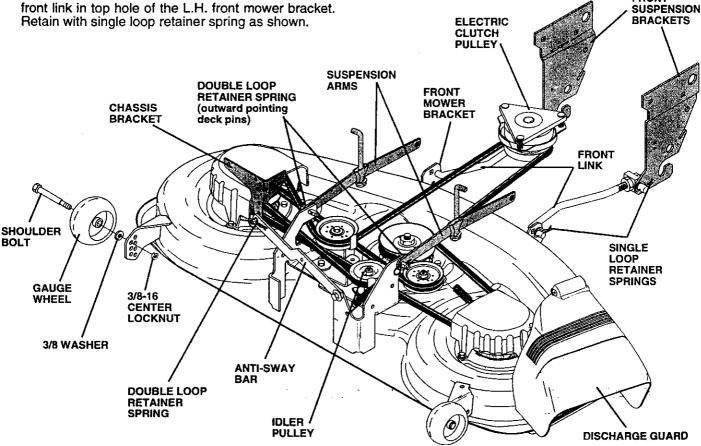


FIG. 4

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

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

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

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



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

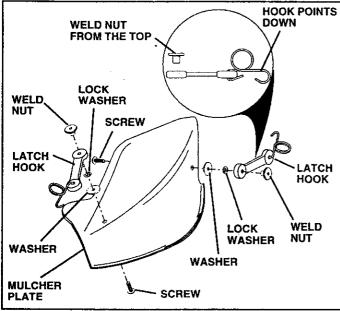


FIG. 5

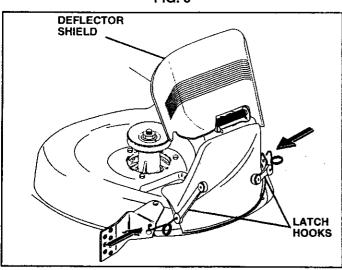


FIG. 6

# TO CONVERT TO BAGGING OR DISCHARGING

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

#### **✓ CHECKLIST**

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

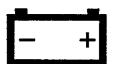
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

- ✓ Engine oil is at proper level.
- Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- ✓ It is important to purge the transmission before you operate your new tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in Operation section of this manual).

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



**BATTERY** 



CAUTION OR WARNING



**REVERSE** 



**FORWARD** 



**FAST** 



SLOW



**ENGINE ON** 



**ENGINE OFF** 



**OIL PRESSURE** 



**CLUTCH** 



LIGHTS ON



LIGHTS OFF



**FUEL** 



CHOKE



MOWER HEIGHT



DIFFERENTIAL LOCK



PARKING BRAKE LOCKED



UNLOCKED



**MOWER LIFT** 



**REVERSE** 



NEUTRAL



HIGH



LOW



PARKING BRAKE



ATTACHMENT CLUTCH ENGAGED



ATTACHMENT CLUTCH DISENGAGED



IGNITION



DANGER, KEEP HANDS AND FEET AWAY



HYDROSTATIC FREE WHEEL (Hydro Models only)

#### **KNOW YOUR TRACTOR**

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

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

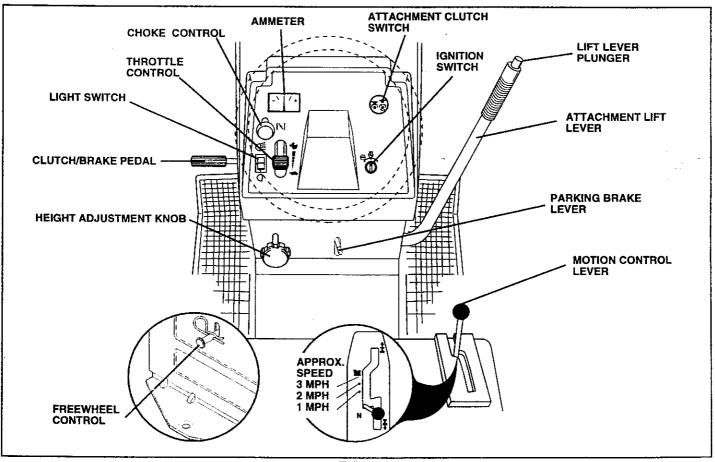


FIG. 7

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

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

LIGHT SWITCH: Turns the headlights on and off.

THROTTLE CONTROL: Used to control engine speed.

CHOKE CONTROL: Used when starting a cold engine.

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

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

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

**HEIGHT ADJUSTMENT KNOB**: Used to release attachment lift lever when changing its position.

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

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

**ATTACHMENT LIFT LEVER:** Used to raise and lower the mower deck or other attachments mounted to your tractor. **IGNITION SWITCH:** Used for starting and stopping the engine.

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



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

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

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

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

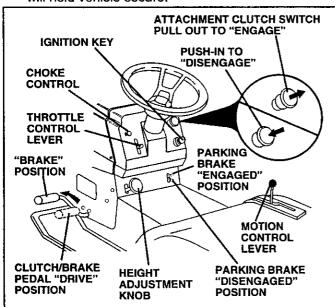


FIG. 8

#### STOPPING (See Fig. 8)

MOWER BLADES -

Move attachment clutch switch to "DISENGAGED" position.

#### **GROUND DRIVE -**

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

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

Move throttle control to slow ( ) position.

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

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

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



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

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

Always operate engine at full throttle.

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

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

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

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

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

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

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

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

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

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

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

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

#### TO OPERATE MOWER (See Fig. 9)

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

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



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

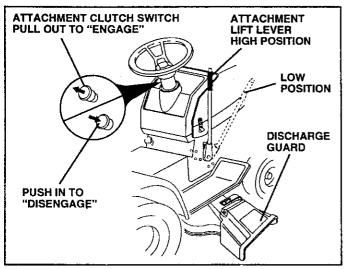


FIG. 9

#### TO OPERATE ON HILLS



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

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake
- Move motion control lever to neutral (N) position.

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

 To restart movement, slowly release parking brake and clutch/brake pedal.

- Slowly move motion control lever to slowest setting.
- · Make all turns slowly.

#### TO TRANSPORT (See Figs. 7 and 10)

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

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

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

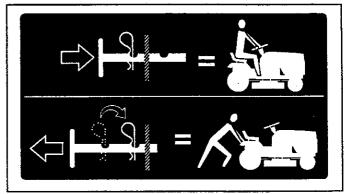


FIG. 10

#### BEFORE STARTING THE ENGINE

#### CHECK ENGINE OIL LEVEL (See Fig. 15)

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

#### ADD GASOLINE

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

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

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



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

#### TO START ENGINE (See Fig. 8)

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

- Depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control to midway between fast (\*) and slow (\*) positions.
- Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to fast (\*) position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast (4) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

IMPORTANT: COLD STARTING FOR HYDRO (BELOW 40°F) - AFTER STARTING ENGINE AND BEFORE DRIVING, LET TRANSMISSION WARM UP FOR ONE (1) MINUTE BY PLACING MOTION CONTROL LEVER IN NEUTRAL (N) POSITION AND RELEASING CLUTCH/BRAKE PEDAL.

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

#### **PURGE TRANSMISSION**



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

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

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

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

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

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

#### **MOWING TIPS**

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 11).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

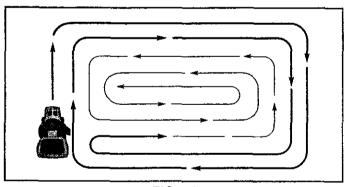


FIG. 11

#### **MULCHING MOWING TIPS**

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

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

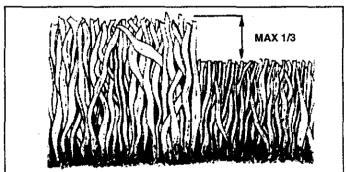


FIG. 12

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE		EFORE	EACH L	SE HOURS	HOURS VERY ?	5 HOURS	HOUP WERY WERY	S HOUP OD HOUP EVERY SE	ASON FORE	STORA SER	VICE	E DAT	TES
	Check Brake Operation	/		1			<u> </u>							
	Check Tire Pressure	<b>V</b>		1										
I	Check for Loose Fasteners	1					<b>1</b> 7		1					
R	Sharpen/Replace Mower Blades				<b>1</b> 4									
A	Lubrication Chart				1				<b>V</b>					
ĬŤ	Check Battery Level/Recharge				1/6									
0	Clean Battery and Terminals				1		<u> </u>		1					
R	Check Transaxle Cooling				1									
	Adjust Blade Belt(s) Tension				-		1/5				ļ			
	Adjust Motion Drive Belt(s) Tension						<b>1</b> 5							
	Check Engine Oil Level	1		1	i.									
	Change Engine Oil		1		1,2,3				1					
E	Clean Air Filter				<b>1</b> /2									
N	Clean Air Screen				1/2									
G	Inspect Muffler/Spark Arrester					/				·				
	Replace Oil Filter (If equipped)						<b>1</b> 1,2							
NE	Clean Engine Cooling Fins						<b>1</b> /2							
-	Replace Spark Plug						1	1						
	Replace Air Filter Paper Cartridge						1/2							
	Replace Fuel Filter							1						

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours.
- 4 Replace blades more often when mowing in sandy soil.

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

#### **GENERAL RECOMMENDATIONS**

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

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

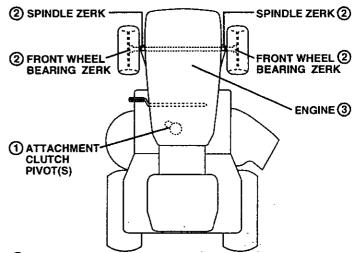
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

#### **BEFORE EACH USE**

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

#### **LUBRICATION CHART**



- 1 SAE 30 OR 10W30 MOTOR OIL
- **(2) GENERAL PURPOSE GREASE**
- (3) REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

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

#### **BLADE CARE**

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

#### **BLADE REMOVAL (See Fig. 13)**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten boit securely (30-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

**NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

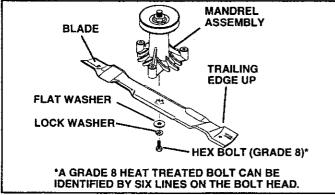


FIG. 13

#### TO SHARPEN BLADE (See Fig. 14)

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mowers and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).
- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground.
   If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

**NOTE:** Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

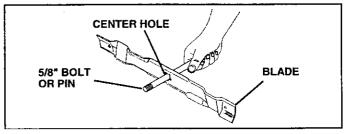


FIG. 14

#### BATTERY

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

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

#### TO CLEAN BATTERY AND TERMINALS

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

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

#### TRANSAXLE COOLING

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

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

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

#### TRANSAXLE PUMP FLUID

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

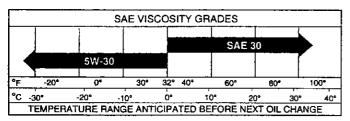
#### **V-BELTS**

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

#### **ENGINE**

#### LUBRICATION

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



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

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

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

TO CHANGE ENGINE OIL (See Fig. 15)

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

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

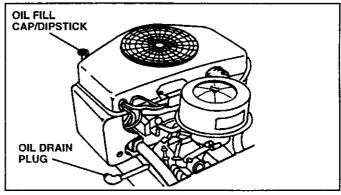


FIG. 15

#### CLEAN AIR SCREEN (See Fig. 17)

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

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

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions

- · Remove wing nut and cover.
- Remove seal and cartridge plate.

#### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

#### TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, cartridge plate, and seal.
- Install the air cleaner cover and wing nut. Tighten wing nut 1/2 turn to 1 full turn after nut contacts cover. Do not overtighten.

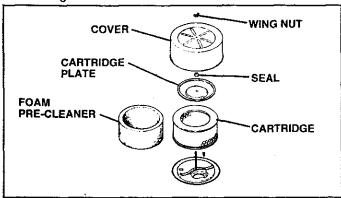


FIG. 16

#### **ENGINE COOLING FINS (See Fig. 19)**

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

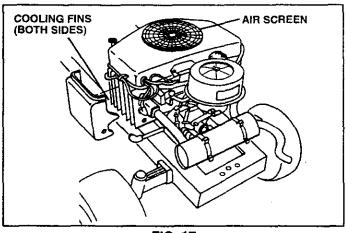


FIG. 17

#### **ENGINE OIL FILTER**

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

#### **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.

#### IN-LINE FUEL FILTER (See Fig. 18)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

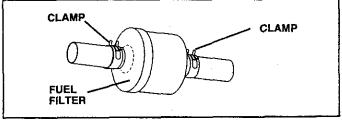


FIG. 18

#### **CLEANING**

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

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

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



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

#### TO REMOVE MOWER (See Fig. 19)

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

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

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

#### TO INSTALL MOWER

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

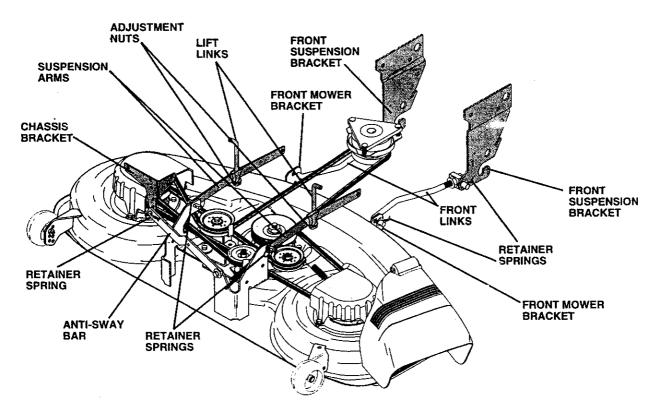


FIG. 19

#### TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 20 and 21)

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

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

Recheck measurements after adjusting

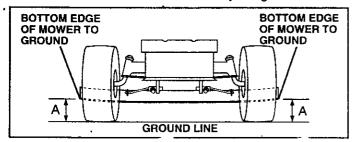


FIG. 20

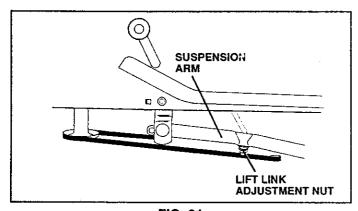


FIG. 21

FRONT-TO-BACK ADJUSTMENT (See Figs. 22 and 23)

IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF
THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS
NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS

NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

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

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

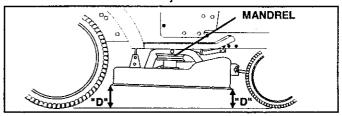
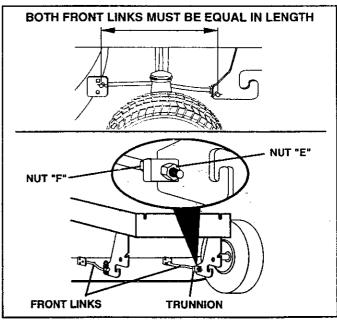


FIG. 22



#### TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 24) -

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

#### MOWER DRIVE BELT INSTALLATION (See Fig. 24) -

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

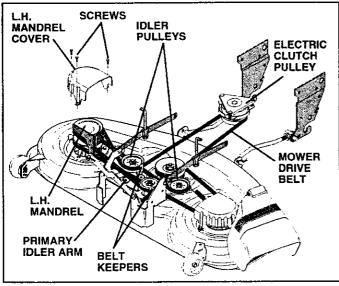


FIG. 24

# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 25)

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- Remove four screws from R.H. mandrel cover and remove cover. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.

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

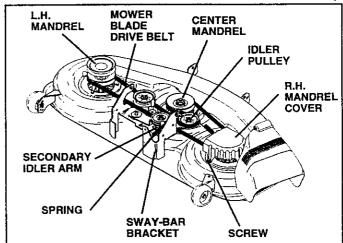


FIG. 25

#### TO ADJUST BRAKE (See Fig. 26)

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

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

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

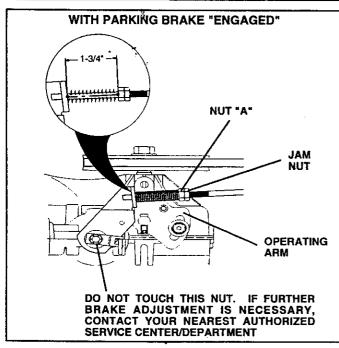


FIG. 26

# TO ADJUST ATTACHMENT CLUTCH (See Fig. 27)

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

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

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

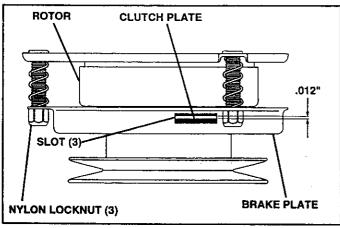


FIG. 27

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

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

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Disconnect clutch wire harness.
- Remove clutch locator.
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over eooling fan blades.
- Pull belt toward front of tractor and remove downwards from around electric clutch.
- Install new belt by reversing above procedure.

IMPORTANT: MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS AND ELECTRIC CLUTCH WIRE CONNECTION IS SECURE.

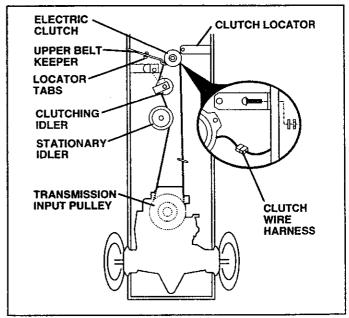


FIG. 28

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

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

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

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

**NOTE:** If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 to 1/2 turn.

Road test tractor after adjustment and repeat procedure if necessary.

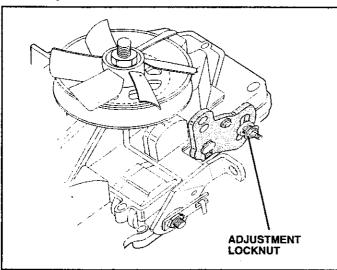


FIG. 29

#### TRANSMISSION REMOVAL/REPLACEMENT

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

#### TO ADJUST STEERING WHEEL ALIGNMENT

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

#### FRONT WHEEL TOE-IN/CAMBER

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

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

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

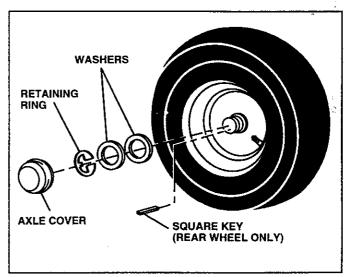


FIG. 30

#### TO REPLACE HEADLIGHT BULB

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

#### **INTERLOCKS AND RELAYS**

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

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

#### TO REPLACE FUSE

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

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

Raise hood.

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

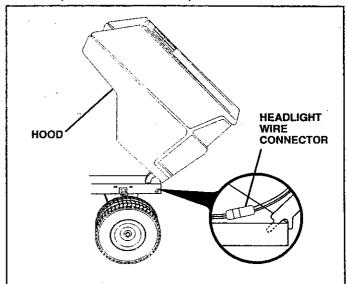


FIG. 32

#### **ENGINE**

# TO ADJUST THROTTLE CONTROL CABLE (See Fig. 33 & 34)

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

- With engine not running, move throttle control lever to fast ( ) position.
- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

#### TO ADJUST CARBURETOR (See Fig. 35)

The carburetor has been present at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles out (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see above).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 turns.
- Turn main fuel adjusting needle in (clockwise) closing finger tight and then turn out (counterclockwise) 1 turn.

#### FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- With throttle control lever in fast (�) position, turn main fuel adjusting needle in (clockwise) until engine begins to die then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Idle speed setting With throttle control lever in slow
   (
   ) position, engine should idle at 1400 RPM. If
   engine idles too slow or fast, turn idle speed adjusting
   screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow ( ) position, turn idle fuel adjusting needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

#### **ACCELERATION TEST -**

Move throttle control lever from slow ( ) to fast ( ) position. If engine hesitates or dies, turn idle mixture screw out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust-damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

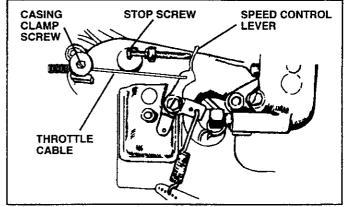


FIG. 33

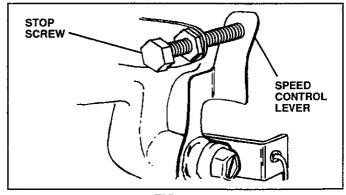
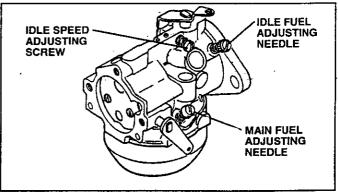


FIG. 34



## **STORAGE**

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



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

#### **TRACTOR**

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

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

#### BATTERY

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

#### **ENGINE**

#### **FUEL SYSTEM**

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

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

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

#### **ENGINE OIL**

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

#### **CYLINDERS**

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

#### OTHER

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

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

# TROUBLESHOOTING POINTS

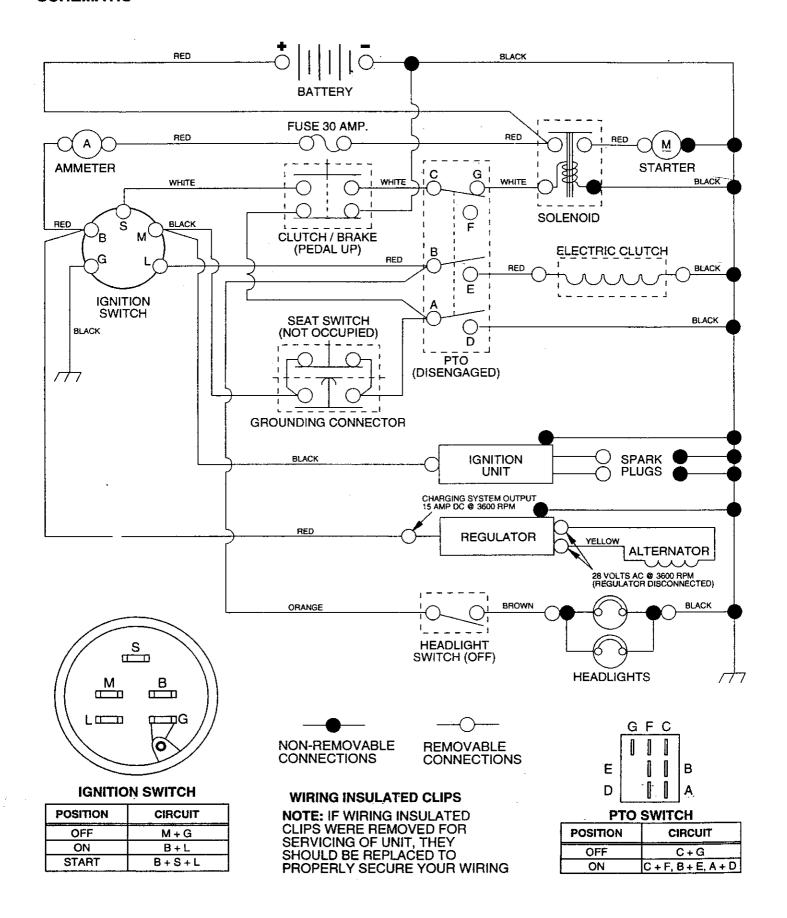
PROBLEM	CAUSE	CÖRRECTION			
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.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

# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION				
Engine continues to run when operator leaves seat with attauffment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.				
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	Replace blade. Tighten blade bolt.     Level mower deck.     Clean underside of mower housing.     Replace blade mandrel.     Clean around mandrels to open vent holes.				
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.				
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt wom.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>				
feadlight(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>	Turn switch "ON".     Replace bulb(s).     Check/replace light switch.     Check wiring and connections.     Replace fuse.				
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	Replace battery.     Check/clean all connections.     Replace regulator.     Replace alternator.				
Tractor "creeps" with notion control lever in 'neutral" position Fender shift models only)	Motion control lever is out of adjustment.	Adjust motion control lever.				
Loss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>	Place freewheel control in "engaged" position.     Replace motion drive belt.     Purge transmission.				
Engine "backfires" when turning engine 'OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.				

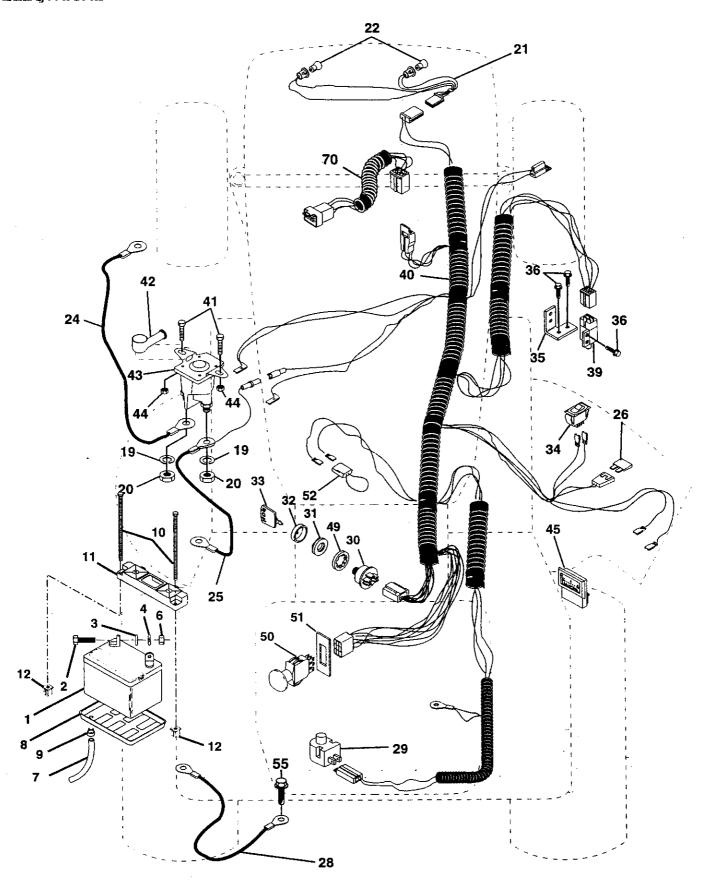
#### TRACTOR - - MODEL NUMBER 917.256710

#### **SCHEMATIC**



## **TRACTOR - - MODEL NUMBER 917.256710**

#### **ELEGTRICAL**



## **TRACTOR - - MODEL NUMBER 917.256710**

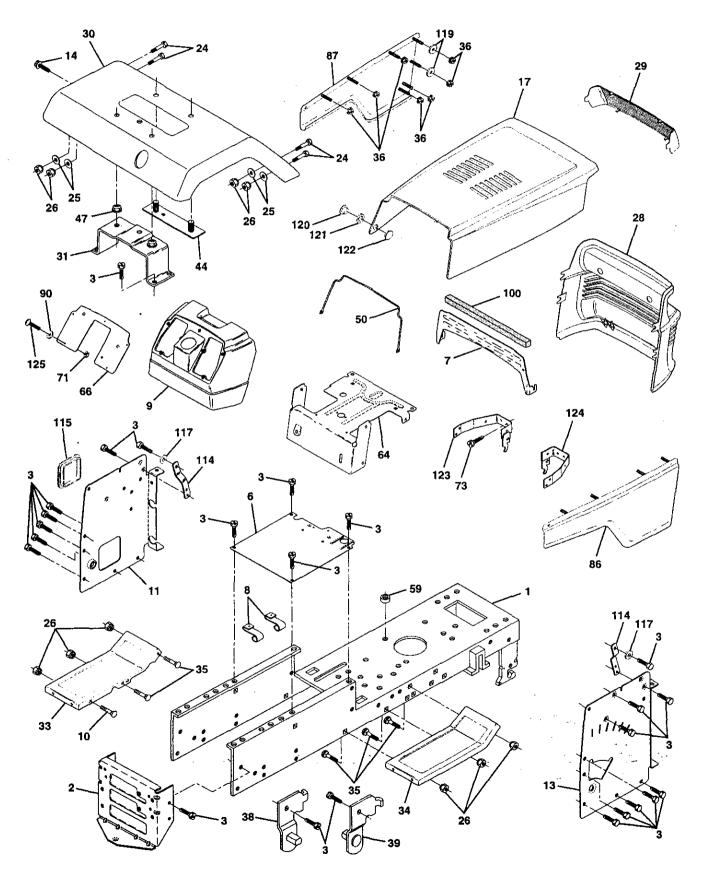
#### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
1	146140	Battery 12 Volt 30 Amp
2	74760412	Bolt, Hex 1/4-20 UNC x 3/4
3 4	STD551025 STD551125	Washer Washer
6	STD541025	Nut
7	7697J	Tube, Plastic
8	7603J	Tray, Battery
9 10	109596X 145211	Clamp, Hose Bolt
11	145209	Holddown Battery Dash Mount
12	145769	Nut, Push Nylon 1/4
19	STD551125	Washer, Lock
20 21	73350400 136850	Nut, Hex, Jam 1/4-20 UNC Harness, Light Socket W/4152J
22		Bulb, Light
24	146148	Cable, Battery
25	4799J	Cable Battery
26 28	108824X 145491	Fuse Cable, Ground
29		Switch, Plunger
30	144921	Switch, Ignition
31	140400	Nut, Ignition
32 33	141226 140403	Cover, Ignition Switch Key, Ignition
34	110712X	Switch, Light
	108236X	Bracket, Switch
36	STD601005	Screw
39 40	109553X 149170	Switch, Interlock Harness, Ignition
41	71110408	Bolt Blk Fin Hex 1/4-20 UNC x 1/2
42	131563	Cover, Terminal
43	145673	Solenoid
44 45	73640400 122822X	Nut Keps Bik Hex 1/4-20 Ammeter Rectangular 15 Amp.
45 49	11151000	Washer Lock Internal Tooth 5/8
50	146283	Switch PTO 3 PDT Red Delta
50 51	140405	Ring Retainer PTO
32	141340	Protection Wire Loop (Hourmeter) Screw Thdrol 5/16-18 x 1/2 TYT
55 70	17490508 140427	Harness Engine
, ,		

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

## TRACTOR - - MÖDEL NUMBER 917.256710

#### **CHASSIS AND ENCLOSURES**



#### **TRACTOR - - MODEL NUMBER 917.256710**

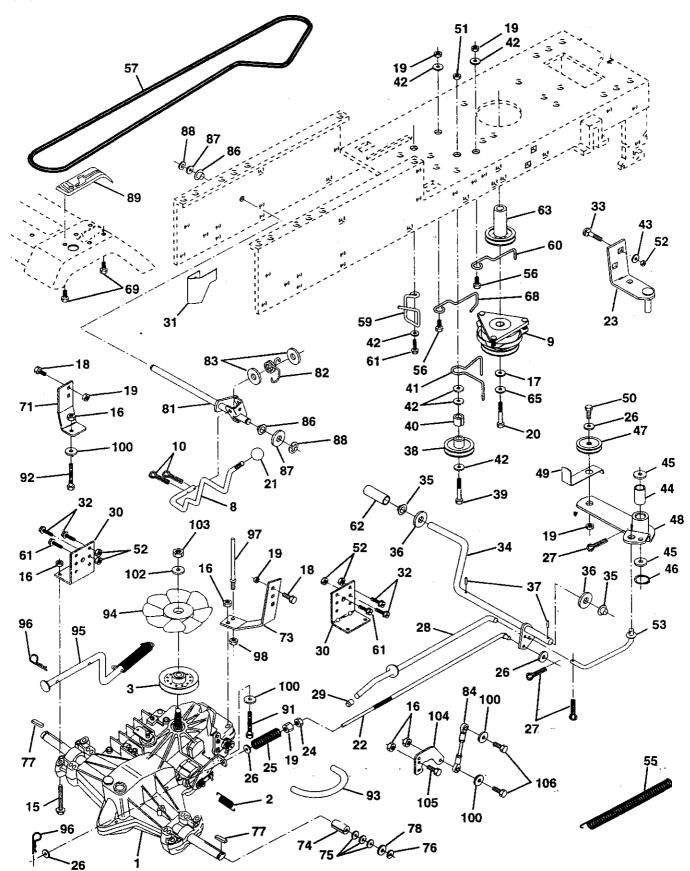
## **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION
1 2 3	145501 140356 17490612	Chassis Drawbar Screw, Thd., Roll. 3/8-16 x 3/4
6 7 8 9 10 11 13 14	145206 145351 126471X 145203 72140608 145218 145217 17490608	Type TT Saddle Heat Shield Clip Insulator Dash, Plastic Bolt, Carriage 3/8-16 x 1 Panel, Dash, LH Panel, Dash, RH Screw, Thd., Roll. 3/8-16 x 1/2 Type TT
17 24 25 26 28	19131312 STD541437 136373X428	Hood Assembly Bolt Washer 13/32 x 13/16 x 12 Gauge Nut Grill
29 30 31 33 34 35	140002X558 137113 145244X558 145243X558 STD533707	Lens, Bar, Clear Fender Bracket Assembly, Fender Footrest, LH Footrest, RH Bolt
36 38 39 44 47	108067X 139886 139887 140675 105531X	Nut, Pal Bracket Assembly, Pivot, LH Bracket Assembly, Pivot, RH Fender Strap Nut, Push, Nylon
50 59 64 66 71 73	143485X014 73640400	Rod, Support Hood Bushing, Snap, Split Dash, Lower Plate, Dash Nut Screw Tap Lite 1/4-20 x 1/2
86 87 90 100	136670X558 136671X558	Panel Assembly, RH Panel Assembly, LH Washer 17/64 Strip Foam Bracket, Support, Dash
115 117 119 120 121	121794X 144282 19092016 137270 137269	Cover A ccess Black Square Washer Serrated Disc 13/32 x 1 Washer 9/32 x 1-1/4 x 16 Ga. Rivet, Rachet, Male Washer, Nylon
122 123 124	137271 136814 136813	Rivet, Ratchet, Female Bracket Assembly, Front Pivot Hinge, LH Bracket Assembly, Front Pivot
125	74180412 8022J	Hinge, RH Screw, Machine 1/4-20 x 3/4 Plug Dash Blk .500 Dia E. Lift

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

#### **TRACTOR - - MODEL NUMBER 917.256710**

#### DRIVE



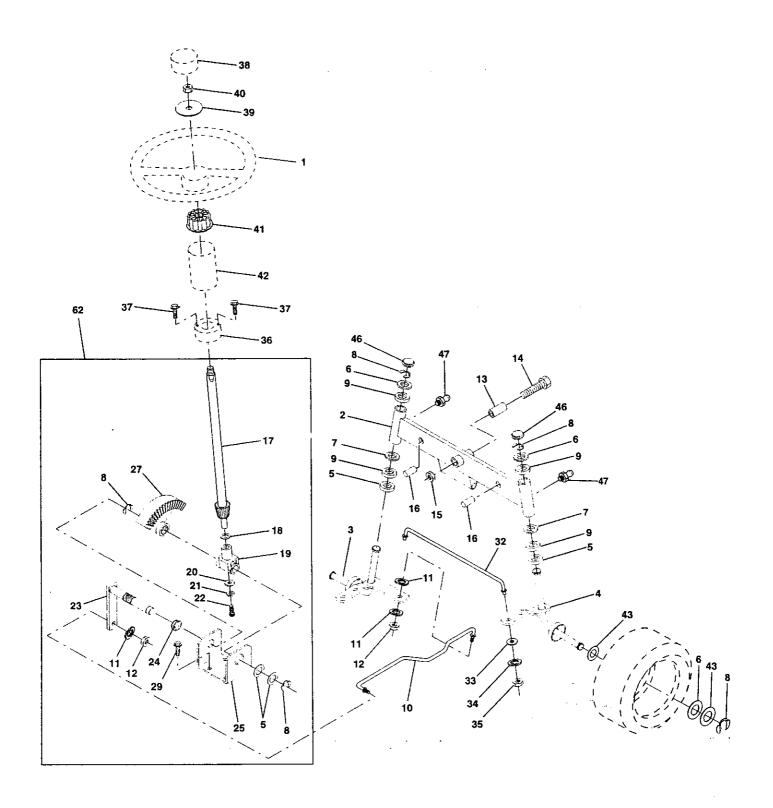
#### **TRACTOR - - MODEL NUMBER 917.256710**

#### DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2	150071 142431	Transaxle Assembly Spring, Return, Brake	53 55	105710X 105709X	Link, Clutch Spring, Return, Clutch
3	143995	Pulley, Transaxle	56 57	74760620	Bolt Hex 3/8-16 x 1-1/4
8 9	141002 137140	Rod Shift Hydro LT Clutch Elect	57 59	140294 140312	V-Belt, Ground Drive Keeper, Center Span
10	76020416	Pin Cotter 1/8 x 1 CAD	60	121218X	Keeper Belt Engine
15	74490544	Bolt Flghd 5/16-18 Unc Gr. 5	61	17490612	Screw Thdrol. 3/8-16 x 3/4 Ty. TT
16 17	73800500 126197X	Nut Lock Hex W/lns. 5/16-18 Unc Washer 1-1/2 OD x 15/32 ID x .250	62 63	8883R 140189	Cover, Pedal Pulley, Engine Cl Elec. 38 Deg.
18	74780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	65	STD551143	Washer Lock Hvy HLCL Spr. 7/16
19	73800600	Nut Lock Hex W/Wsh 3/8-16 Unc	68	105730X	Keeper Belt Engine
20 21	71170768 130564	Bolt Hex 7/16-20 x 4-1/4 Ga. 5 Knob, Deluxe 1/2-13	69 71	142432 140158	Screw Strap Torque Lh Hydro 18/20" T
22	145627	Rod, Brake Hydro		140157	Strap Torque Rh Hydro 18/20" T
23	137141	Bracket Asm. Mtg CL	74	121199X	Spacer, Split
24 25	73350600 106888X	Nut Hex 3/8-16 UNC Spring, Brake Rod	75 76	121749X 12000001	Washer 25/32 x 1-1/4 x 16 Gauge E-Ring
26	19131316	Washer	77	123583X	Key, Square
27	76020412	Pin Cotter 1/8 x 3/4 CAD.		121748X	Washer 25/32 x 1-5/8 x 16 Gauge
28 29	145204 124236X	Rod, Parking Brake	81 82	140154 123782X	Shaft Asm. Cross Hydro 20" Tires Spring Torsion T/A
30	130807	Cap, Parking Brake Bracket, Transaxle	83	19171216	Washer 17/32 x 3/4 x 16 Ga.
31	127275X	Keeper Belt Lh	84	140548	Rod, Tie Hydro 20" Tires
32 33	74760512	Bolt Hex Hd 5/16-18 Unc x 3/4	86 87	71208 19212016	Bushing Rod Strig. 629/632 ID Washer 21/32 x 1-1/4 x 16 Ga.
33 34	STD533107 149001	Bolt RDHD SQNK 5/16-18 x 3/4 Shaft, Foot Pedal	88	12000008	Ring Klip #5304-62
35	120183X	Bearing, Nylon	89	139989	Console, Shift
36	19211616	Washer	91	74780536	Colt Fin Hex 5/16-18 x 2-1/4
37 38	1572H 123674X	Pin, Roll Pulley, Idler, Flat	92 93	74780524 142564	Bolt Fin Hex 5/6-18 Unc x 1-1/2 Line Fuel Hydro 4"
39	74760644	Bolt	94	140462	Fan, Hydro 7"
40	4470J	Spacer, Split	95	144643	Control Bypass Hydro 20" Tires
41 42	109070X 19131312	Keeper, Belt Retainer Washer 13/32 x 13/16 x 12 Gauge	96 97	4497H 140469	Retainer Spring 1" Zinc/Cad Keeper Bolt Rh Hydro 0750. 18/20"
43	19111012	Washer 11/32 x 5/8 x 12 Ga.	98	73510600	Nut Keps Hex 3/8-16 Unc
44	105706X	Bearing, Nylon		19111216	Washer 11/32 x 3/4 x 16 Ga.
45 46	110812X 12000039	Washer, Hardened Ring, Klip		141322 73940800	Washer Bellville .501D x 1.50D Nut Hex Jam Toplock 1/2-20 UNF
47	127783	Pulley, Idler, V-Groove		140156	Arm, Control Hydro
48	123789X	Bellcrank Assembly	105	71070516	Screw Cap Hex 5/16 x 18 x 1
49 50	123205X	Retainer, Belt	106	74780520	Bolt Fin Hex 5/16-18 Unc x 1-1/4
50 51	74760624 STD 541437	Bolt Nut, Crownlock 3/8-16	NOT	E: All compor	nent dimensions give in U.S. inches.
52	73680500	Nut, Crownlock 5/16-18 Unc		1 inch = 25	

#### **TRACTOR - - MODEL NUMBER 917.256710**

#### STEERING ASSEMBLY



#### **TRACTOR - - MODEL NUMBER 917.256710**

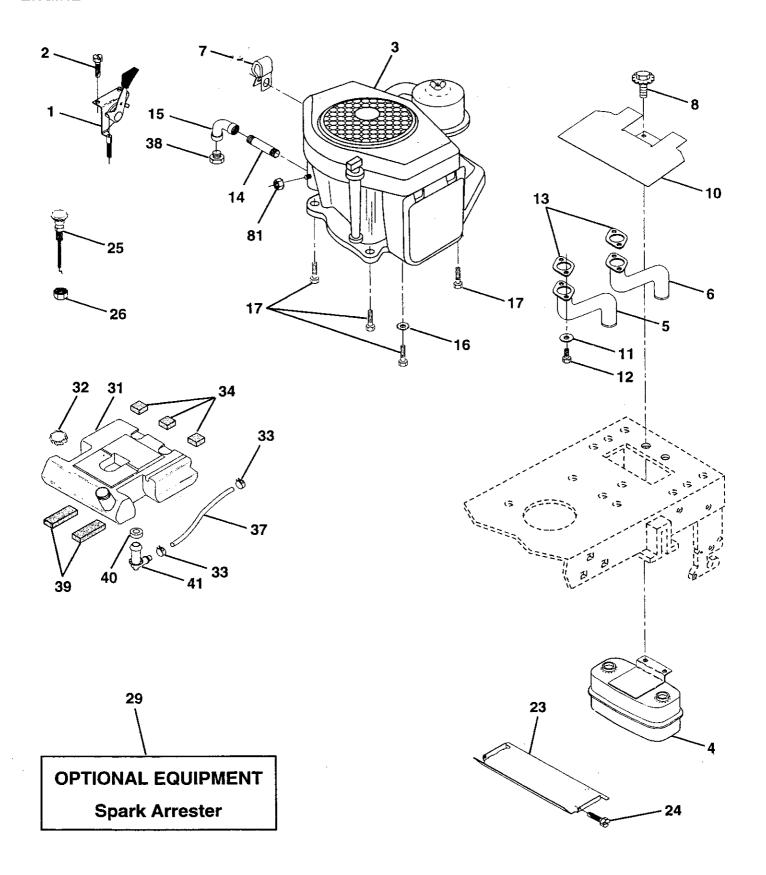
#### STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12 13 14	121472X 142033 135227 135228 6266H 121748X 19272016 12000029 3366R 130468 STD551137 73610600 110438X	Steering Wheel Axle Assembly, Front Spindle Assembly, LH Spindle Assembly, RH Bearing, Race, Thrust, Hardened Washer 25/32 x 1-5/8 x 16 Gauge Washer 27/32 x 1-1/4 x 16 Gauge Ring, Klip Bearing Link, Drag Washer, Lock Nut, Hex, Fin. 3/8-24 UNF Spacer, Bearing, Front Axle
14 15	74011056 73901000	Bolt, Hex 5/8-11 UNC x 3-1/2 Locknut, Hex, Jam, w/Washer Insert 5/8-11 UNC
16 17 18 19 20 21 22	132624 128758 57079 124035X 126684X STD551125 71070410	Pin, Axle, Large 5/8 x 1.55/1.54 Shaft Assembly, Steering Washer, Thrust .515 x .750 x .033 Support, Shaft Washer, Shim 1/4 x 5/8 x .062 Washer Screw, Hex Socket Head
23 24 25 27 28 29	127501 109816X 124036X 136874 19131416 17490612	1/4-20 x 5/8 Shaft Assembly, Pittman Nyliner, Snap-In Bracket, Steering Gear, Sector Washer 13/32 x 7/8 x 16 Gauge Screw, Thd., Roll. 3/8-16 x 3/4 Type TT
32 33 34 35 37 36 38 39 40 41 42 43 46 47 62	STD551031 STD551131 73810500 17541008 145207 126805X 100712K STD541350 100711L 140216 121749X 121232X	Tie Rod Washer 11/32 x 3/4 x 16 Ga. Washer Lock Hvy HLCL Spr. 5/16 Locknut 5/16-24 UNF Screw SLFTP #10-24 x 1/2 TT-B Bushing, Steering Insert, Cap, Steering Wheel Washer .53 x 2.25 x .160 Nut Adapter, Steering Wheel Boot Shaft Steering Washer 25/32 x 1-1/4 x 16 Gauge Cap, Spindle Fitting, Grease131672 Kit Steering Asm. Service

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

## TRACTOR - - MODEL NUMBER 917.256710

#### **ENGINE**



#### TRACTOR - - MODEL NUMBER 917.256710

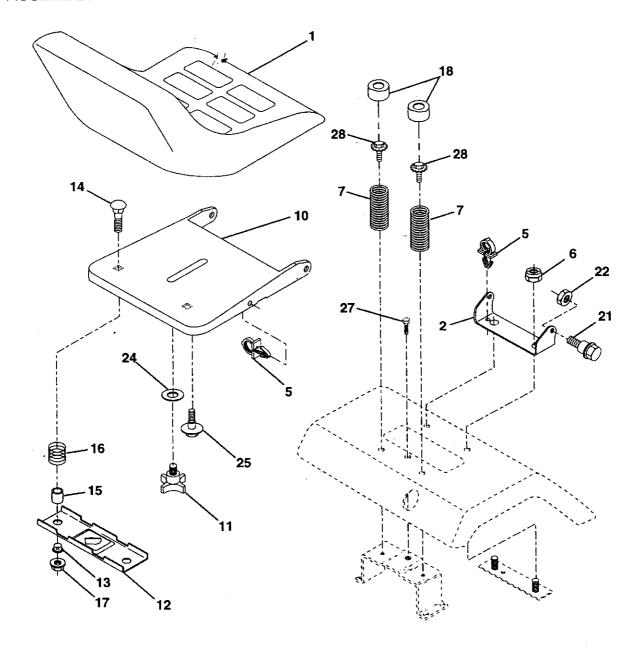
#### **ENGINE**

KEY NO.	PART NO.	DESCRIPTION
1 2	132755 17720410	Control, Throttle Screw, Hex Head, Thread Cutting 1/4-20 x 5/8
3	141948	Engine, Kohler, Model No. MV18 Type No. PS58560
16 17 23 24	149723 136215 136216 2751R 150176 145552 STD551131 74570512 	Muffler Asm. Twin Lo-Tone Tube Manifold LH Kohler MV18 Tube Manifold RH Kohler MV18 Clip Line Fuel Bolt 5/16-18 UNC x 3/4 w/Sems Shield Heat Washer Lock Hvy. Hlcl. Spr. 5/16 Screw Hex SKT 5/16 UNC x 3/4 Gasket (Order From Engine Manufacturer) Nipple, Pipe Elbow, Standard 90°, 3/8-18 NPT Washer Lock Ext Tooth 3/8 Screw Thdrol 3/8-16 x 1-12 TT Shield, Heat Screw
31		Control Choke Nut Fin Hex 3/8-24 UNF Arrester, Spark Tank, Fuel Cap Assembly, Fuel Clamp, Hose Spacer, Pad Line, Fuel Plug, Oil Drain (Order From Engine Manufacturer) Spacer Pad Bushing Stem, Fuel Tank Nut Flange 1/4-20 Starter

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

## TRACTOR = MODEL NUMBER 917.256710

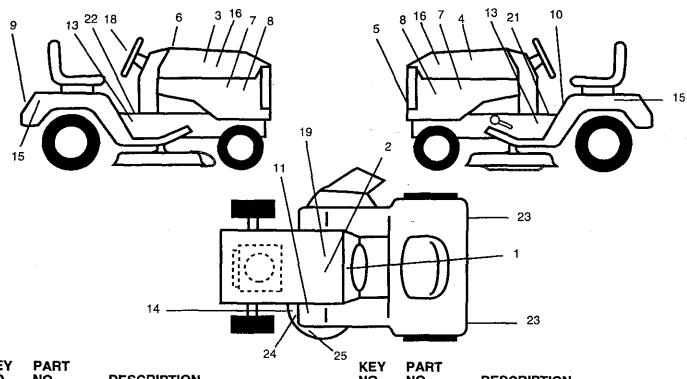
#### **SEAT ASSEMBLY**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 5 6 7 10 11 12 13 14 15 16	140123 140551 145006 STD541437 124181X 140552 120068X 121246X 121248X 72050411 134300 121250X	Seat Bracket, Pivot, Seat Clip Push-In, Hinged Nut Spring, Seat Pan, Seat Knob, Seat Bracket, Switch Mounting Bushing, Snap, Nylon Bolt, Carriage 1/4-20 x 1-3/8 Spacer, Split Spring	18 17 21 22 24 25 27 28	124238X 123976X 139888 STD541431 19171912 127018X 17490608 150176 TE: All compon 1 inch = 25	Cap, Spring, Seat Nut, Flangelock 1/4 Grade 5 Bolt, Shoulder 5/16-18 UNC Nut Washer 17/32 x 1-3/16 x 12 Gauge Bolt, Shoulder 5/16-18 x .62 Screw Thdrol. 3/8-16 x 1/2 Bolt 5/16-18 x 3/4 w/Sems ent dimensions given in U.S. inches .4 mm

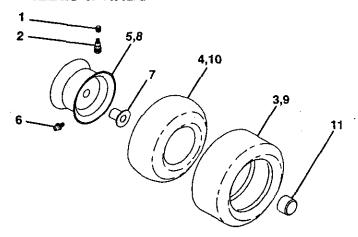
#### **TRACTOR - - MODEL NUMBER 917.256710**

#### **DECALS**



KEY NO.	PART No.	DESCRIPTION	KEY		DECODIDATION
NO.	140.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	138955	Decal, Operating Instruction	18	146710	Decal, Insert Strg
2	149516	Decal, Btry Dngr/Psn	19	138047	Decal, Battery
3	146705	Decal, Hood, Craftsman, RH	21	140837	Decal Brake Parking Saddle
4	146706	Decal, Hood, Craftsman, LH	22	142336	Decal, Sdl Cold Start Hydro Eng.
5	151400	Decal, Grille	23	106202X	Reflector, Taillight
6	133644	Decal, Maintenance	24	139346	Decal V-Belt SHC
7	142243	Decal, Side Panel	25	151302	Decal Deck Mower EZ3
8	138048	Decal, Side Panel		138311	Decal, Handle Lift Height Adj.
9	146709	Decal, Fender, Craftsman		142341	Decal, Drawbar Cntrl Mvt. Hyd Lt
10	137537	Decal, Caution		137318	Decal, Refl HL YT/GT 1-pc Sears
11	4900J	Decal, Clutch/Brake		137319	Decal, Refl HL YT/GT 1-pc Sears
13	151401	Decal, Chassis 46" Hydro		145245	Pad Ftrest
14	146046	Decal, V-Belt Schematic		145247	Fastener Pop-In Footrest
15	149918	Decal, Fender Auto Trans		151381	Manual, Owner's (Eng)
16	147137	Decal Ins. Hood		151382	Manual, Owners (Span)

#### **WHEELS & TIRES**

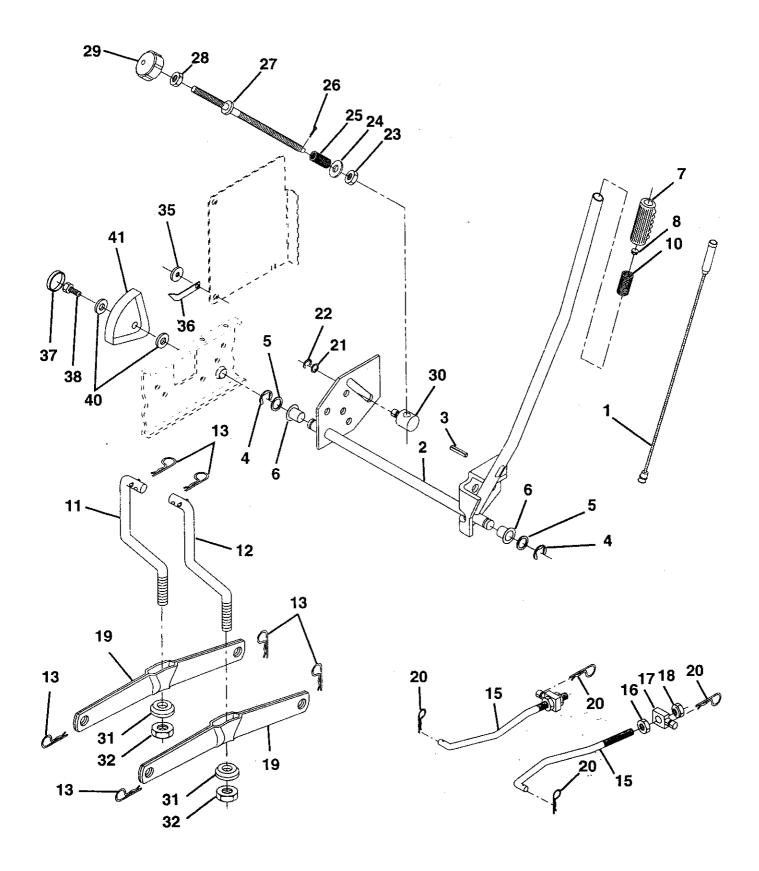


KEY NO.	PART NO.	DESCRIPTION
1	59192	Cap, Valve, Tire
2	65139	Stem, Valve
3	106222X	Tire, Front
4	59904	Tube, Front (Service Item Only)
5	106732X427	Rim Assembly, Front
6.	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim Assembly, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear (Service Item Only)
11	104757X	Cap, Axie
	144334	Sealant, Tire (10 oz. Tube)
NOT	E. All compone	ent dimensione given in LLC inches

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

## **TRACTOR - - MODEL NUMBER 917.256710**

#### **MOWER LIFT**



## TRACTOR - - MODEL NUMBER 917.256710

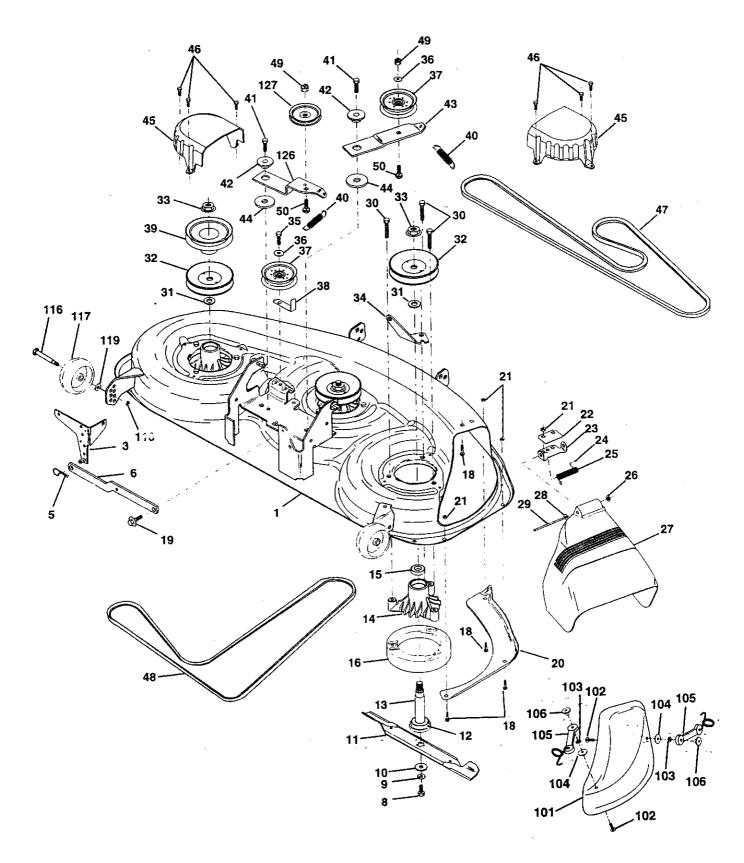
#### **MOWER LIFT**

KEY NO.	PART NO.	DESCRIPTION
NO. 12345678101121315161718192021	NO.  136971 136968 138284 12000002 19211621 120183X 125631X 122365X 122512X 139865 139866 4939M 127218 73350800 130171 73800800 139868 3146R 19151216 12000037 110807X	Wire Asm., Inner w/plunger Shaft Asm Lift Pin Groove E Ring #5133-62 Washer 21/32 X 1 X 21 Ga Bearing Nylon Grip Handle Fluted Button, Plunger Spring Cprsn Link Lift Lh Fixed Length Link Lift Rh Fixed Length Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Bik Zinc Nut Lock W/Wsh 1/2-13 Unc Arm Suspension Rear Spring Retainer Washer 15/32 X 3/4 X 16 Ga Ring Klip #T5304-37 Nut Special Washer 13/32 X 5/8 X 16 Ga
25 26	137150 76020308	Spring Pin Cotter 3/32 x 1/2
27 28 29 30 31 32	110810X 140302 73540600	Rod Adjust Lift Nut Hex Jam 3/8-16 Unc Knob Infinite 3/8-16 Unc Black Trunnion Dp Stop Dbl Thds Plt Bearing Pvt. Lift Spherical Nut Crownlock 3/8-24
35 36 37 38	120529X 123933X505 123935X 17490512 19112410 123934X	Washer, Nylon .44 x .75 x .032 Pointer, Height Indicator Plug, Hole Scr-Hx Wash Thdrol 5/16-18 x 3/4 Tyt Washer 11/32 x 1-1/2 x 10 Gauge Scale, Height Indicator

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

## **TRACTOR - - MODEL NUMBER 917.256710**

#### **MOWER DECK**

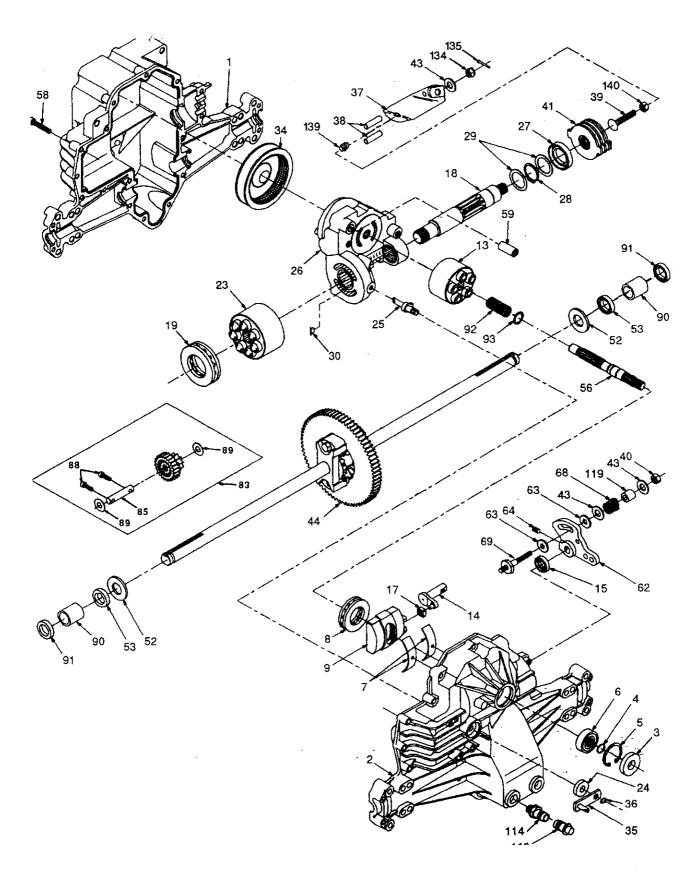


#### **TRACTOR - - MODEL NUMBER 917.256716**

#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCIPTION
1 3 5 6 8 9	145008 138457 4939M 130832 850857 10030600	Deck Asm., Mower 46" Bracket Asm., Sway Bar Retainer Spring Arm, Suspension, Rear (Sway Bar) Bolt, Patched 3/8-24 x 1-1/4 Gr. 8 Washer, Lock Hvy., Unplated 3/8	37 38 39 40 41	131494 137554 144917 137273 17490620	Pulley, Idler, Flat Keeper, Belt, Idler Pulley, Idler, Driven Spring, Secondary 44/46/50 Vent Screw, Theroil 3/8-16 x 1-1/4 Tytt
10	140296	Washer, Hard Blade, Mower Vented	42 43 44	122052X 144949 133943	Spacer, Retainer Arm, Idler Secondary Washer, Hardened
11 12 13	145708 129895 137553	Blade, 46" Mower Deck Bearing, Ball, Mandrel #6204 Shaft Asm. w/Lower Bearing (Includes Key No. 12)	45 46 47	145059 137729 144959	Cover, Mandrel Deck Screw, Thdroll. 1/4-20 x 5/8 V-Belt, Mower, Secondary
14 15 16 18	137152 110485X 140329 72140505	Housing, Mandrel Bearing, Ball, Mandrel Stripper, Mower Round Bolt, Carriage 5/16-18 x 5/8	50 101	148763 73680600 72110612 145579 71161010	V-Belt, Mower, Primary Nut, Crownlock 3/8-16 UNC Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5 Cover, Mulching Screw
19 20 21 22 23	132827 145055 73680500 134753 131267	Bolt, Hex Head, Shoulder 5/16-18 Baffle, Vortex Mower 46" Nut, Crownlock 5/16-18 UNC Stiffiner, Bracket Bracket, Deflector	104 105 106	10071000 19061216 130758 2029J	Washer, Lock #10 Washer Latch Asm. Bagger Nut, Weld
24 25 26 27	105304X 123713X 110452X 145325	Cap, Sieeve Spring, Torsion, Deflector Nut, Push Shield, Deflector Mower	117 118 119	137644 133957 73930600 19121414	Bolt, Shoulder Gauge Wheel, Wide Nut, Centerlock 3/8-16 UNC Washer 3/8 x 7/8 x 14 Ga.
28 29 30 31 32 33 34	19111016 131491 138776 129963 129207 137266 144945	Washer 11/32 x 5/8 x 16 Ga. Rod, Hinge Screw, Hex Head, Thdroll Washer, Spacer Mower Vented Pulley, Mandrel Nut, Flg. Top Lock Cntr. 9/16 Anchor, Spring Deck 46"	127 128	144948 146763 137789 146881 147401	Arm, Idler, Primary Deck 46" Pulley, Idler, V-Groove Dim. 4.25 Shield, Idler Keeper, Belt, Idler 46" Deck Complete (Std. Deck-Order separately mulcher plate and gauge wheel components Key Nos. 101-
35 36	17490528 19131316	Screw, Thdroll 3/8-16 x 1-3/4 Tytt Washer 13/32 x 13/16 x 16 Ga.	NOT	E: All compon 1 inch = 25	106 and 116-118) ent dimensions given in U.S. inches .4 mm

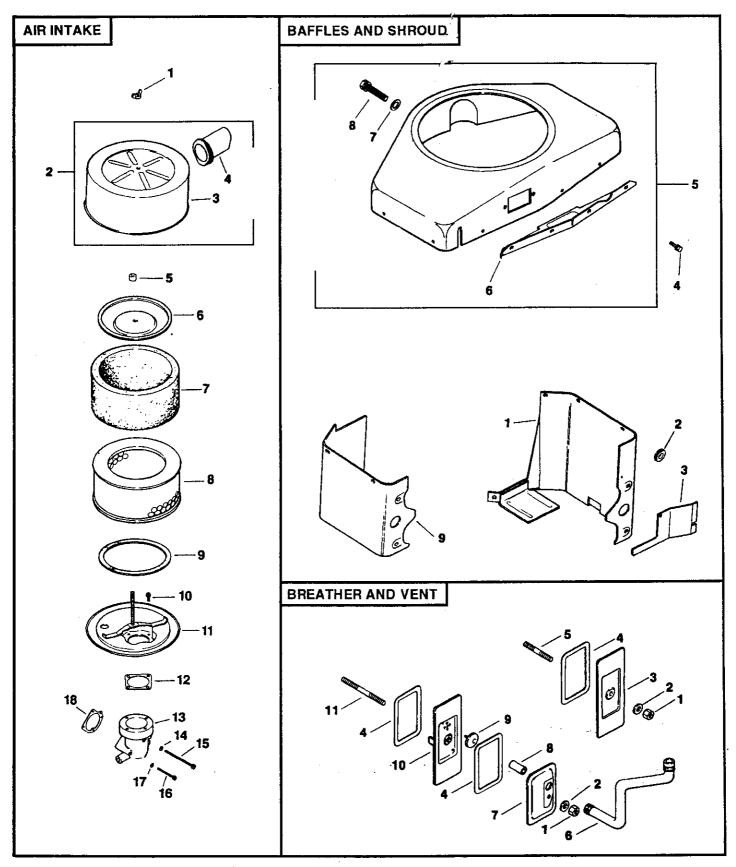
# TRACTOR - - MODEL NUMBER 917.256710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650



# TRACTOR - - MODEL NUMBER 917.256710 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	150829	Differential Assembly
3	142932	Seal, Lip	52	142991	Washer 3/4 x 1.5 x .13
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	56	142963	Shaft, Input
6	142934	Bearing, Shaft Ball	58	142964	Bolt 1/4-20 x 1.38
7	142935	Bearing, Cradle	59	142965	Pin .5 OD x .43 ID x .750
8	150771	Bearing, Thrust 30 x 52 x 13	62	142966	Arm, Control
9	142937	Swashplate, Variable	63	142967	Puck, Dampener
13	142938	Block, Cylinder Assembly		142920	Set Screw
14	142939	Arm, Trunnion	68	142969	Spring
15	142940	Seal, Lip	69	144610	Stud 5/16-24
17	142941	Guide, Slot	83	142971	Jackshaft Assembly
18	150772	Shaft, Motor	85	150806	Jackshaft
19	150773	Bearing, Thrust 42 x 68 x 16	88		Screw, Cap
23	142944	Block, Cylinder Assembly	89		Washer_7/16 x 1 x 1/2
24	142945	Seal, Lip 10 x 25 x 7	90	142975	Sleeve Bearing
	142946	Actuator, Bypass	91	142976	Seal, Wiper
26	150774	Center Section Assembly Kit	92	142977	Spring, Block
27	142948	Seal, Lip 26 x 42 x 8	93	142978	Washer, Block Thrust
28	142949	Ring, Retaining		142917	Cap, Vent Assembly
29	142950	Washer 26 x 35 x 1		142918	Fitting, O-Ring Assembly
34	142951	Oil Filter Element		142980	Spacer
35	142952	Arm, Bypass		144607	Nut, Castle 5/16-24
	142953	Ring, Retaining		144608	Pin, Cotter
37	142954	Arm, Actuating		150775	Spring, Compression
	142955	Pin, Actuating	140	150776	Nut, Hex 5/16-24
39	150777	Bolt 5/16-24 x 1-3/4		E. All	
40	150778	Locknut, Hex 5/16-24 UNJC	MO I		ent dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = 25.4	4 mm

## TRACTOR - - MODEL NUMBER 917.256710



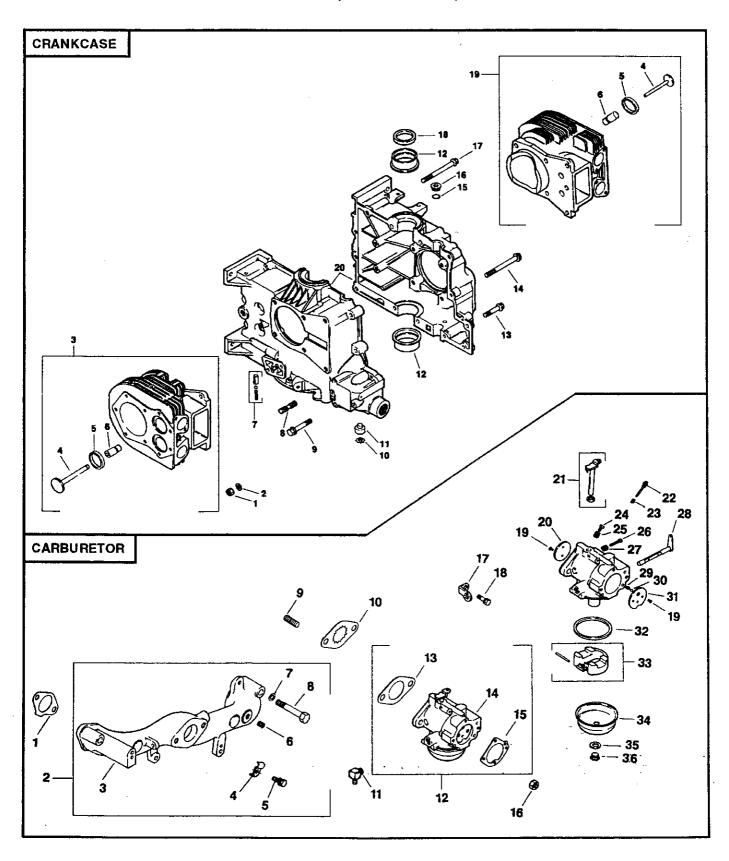
## **TRACTOR - - MODEL NUMBER 917.256710**

AIR I	NTAKE		7	52 468 16	Washer, Flat (2)
				52 086 11	Screw 1/4-20 x 5/8 (6)
KEY	PART	DESCRIPTION	9	52 124 23	Baffle, #1 Cylinder Head
NO.	NO.	·			
				ILLUSTRATED	Devel Herrica (D)
1	X-276-7	Wing Nut 1/4-20		52 113 46	Decal, Horsepower (3)
2	<b>52</b> 755 83	Kit, Cover and Tube		* .	
_		(Includes Key Numbers 3 and 4)		4.TUED 0 1/CMT	
3	52 096 35	Cover, Air Cleaner	BHE	ATHER & VENT	
4 5 6	52 123 21	Tube, Air Intake	KEV	BART	DECORIDEION
5	231032	Seal, Element Cover		PART	DESCRIPTION
6	52 082 04	Cover, Air Cleaner Element	NO.	NO.	
7	45 083 01	Pre-Cleaner	4	V 01 1	Nut. Hay 1/4 20 (2)
8	45 083 02	Element		X-81-1 X-25-12	Nut, Hex 1/4-20 (2)
	237423	Seal, Air Cleaner Cover	2 3	A-20-12	Washer, Plain 1/4 (2)
10	X-67-98	Screw, Hex Washer Head	4	52 096 18 52 055 01	Cover, #2 Cylinder Valve
4.4	E0 004 00	#10-32 x 9/16 (4)	4 5	52 055 01	Gasket, Cover (3)
11	52 201 06	Base, Air Cleaner	5	X-352-39	Stud, #2 Cylinder Valve Cover 1/4-20 x 2-1/4
12	277093	Gasket, Air Cleaner (2)	6	52 326 12	Hose, Breather
13	52 054 39	Elbow, Air Intake	7	52 096 08	Cover, #1 Upper Cylinder Valve
14	X-25-79	Washer, Plain #10	8	52 032 04	Seal, Breather
15	X-50-37	Screw, Slotted Pan Head	9	52 462 01	Valve, Umbrella
4.0	V 50 57	#10-32 x 2-1/4	10	52 402 01 52 096 22	
16	X-50-57	Screw, Slotted Pan Head	11	275220	Cover, #1 Lower Cylinder Valve Stud, #1 Cylinder Valve Cover
17	X-22-9	#10-32 x 1-3/4 (2)	4.1	213220	1/4-20 x 3-1/4
17	A-22-9	Washer, Lock, Internal Tooth			174-20 X 3-174
18	25 041 06	#10 (2) Gasket, Air Cleaner Elbow	NOT	E. All componen	t dimensions given in U.S. inches
10	25 041 00	Gasket, All Gleaner Elbow	14011	1 inch = 25.4	
NOT	ILLUSTRATED			1 81031 - 20.4	111111
	25 113 15	Decal, Air Cleaner			
••	52 113 30	Decal Decal			
RAF	FLES & SHROUI				
BAFI	FLES & SKRUUI	J .			

BAFFLES	& SHROUD	
	•	

	NO.	DESCRIPTION
1	52 063 41	Baffle, #2 Cylinder Head
2	52 313 05	Grommet (2)
2	52 063 42	Baffle, Fuel Pump
4	X-67-83	Screw, Hex Washer Head 1/4-20 x 7/16 (14)
5	52 755 70	Kit, Blower Housing (Includes Key Numbers 6 thru 8)
6	52 217 01	Support, Upper Housing

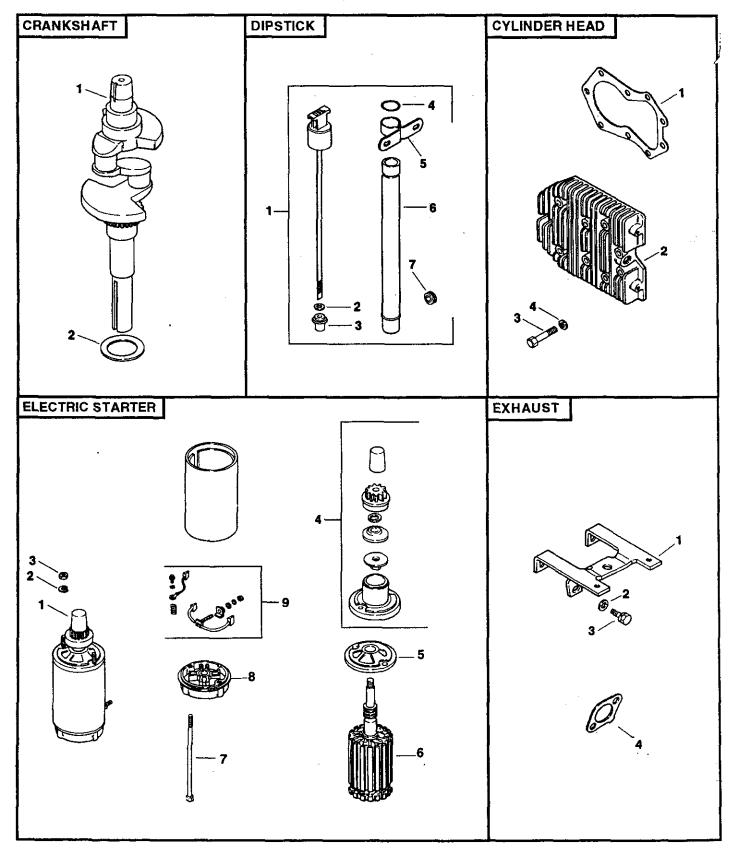
## TRACTOR - - MODEL NUMBER 917.256710



#### **TRACTOR - - MODEL NUMBER 917.256710**

CRANKCASE 15 25 041 06 Gasket, Air Cleaner 16 X-77-2 Nut 5/16 (2)					
KEY NO.	PART NO.	DESCRIPTION	16 17 18	X-77-2 232867 X-67-62	Strap, Lifting Screw, Hex Washer Head 1/4-20 x 3/4
1 2 3	X-82-2 52 468 12 82 755 16	Nut, Hex 5/16-18 (12) Washer, Flat 5/16 (12) Kit, #1 Cylinder Barrel (Includes Key Numbers 4 thru 6)	19 20 21 22	25 086 27 25 146 03 52 144 24 25 368 01	Screw, Throttle and Choke Plate (4) Plate, Choke Shaft, Throttle with Lever and Seal Needle, Idle Fuel Adjust
4 5 6 7 8	52 016 05 52 031 01 52 316 06 52 755 50 52 072 12	Valve, Exhaust Insert, Valve Seat (2) Guide, Valve (2) Kit, Oil Relief Step Stud 5/16-18 x 3/4, 3/8-16 x 5/8, 2" Long (12)	23 24 25 26 27 28	25 089 02 25 086 26 25 089 04 25 368 03 25 089 02 52 090 13	Spring, Idle, Fuel Screw, Idle Speed Adjust Spring, Idle Speed Needle, Main Fuel Spring, Main Fuel Lever, Choke
9 10 11 12	25 086 12 X-269-43 52 078 05 52 030 10 52 030 11 52 030 12	Screw, Hex Flange 5/16-18 x 2 (2) Ring, Retaining Shaft, Governor Bearing, Sleeve, Standard (2) Bearing, Sleeve .010" (2) Bearing, Sleeve .020" (2)	29 30 31 32 33 34	25 089 03 25 194 01 25 146 02 25 041 04 25 757 09 25 104 01	Spring, Choke, Friction Ball, Choke, Friction Plate, Throttle Gasket, Bowl Kit, Float Bowl, Fuel
13	25 086 10	Screw, Hex Flange 5/16-18 x 1-1/2 (3)	35 36	25 041 03 25 100 05	Gasket, Bowl Retainer Screw Screw, Bowl Retainer
14 15 16 17	25 086 13 52 141 02 52 139 08 25 086 11	Screw, Hex Flange 3/8-16 x 3-5/8 (2) O-Ring Plug Screw, Hex Flange		ILLUSTRATED 25 757 11 25 757 23	Kit, Carburetor Repair Kit, Bowl Baffle
18 19	52 032 10 82 755 17	5/16-18 x 3-1/2 (8) Seal, Oil, Front Kit, #2 Cylinder Barrel (Includes Key Numbers 4 thru 6)	NOI	1 inch = 25.4	t dimensions given in U.S. inches mm
20	•••	Crankcase (Service with Short Block, Part Number 82 522 30)			
CAR	BURETOR	,			
	PART NO.	DESCRIPTION			
1 2	52 041 09 52 755 91	Gasket, Intake (2) Kit, Manifold (Includes Key Numbers 3 thru 8)	RPM	1 Settings:	Low Speed 1500 - 2000 High Speed 3200 - 3400
3 4 5 6	52 164 15 X-21-1 X-6-29 X-75-23	Manifold, Intake Washer, Lock 5/16 (4) Screw, Hex Cap 5/16-18 x 2 (4) Plug, Hex, Countersunk			
7 8	235778 X-67-97	1/8 N.P.T.F. Clamp, Cable (2) Screw, Hex Washer Head #10-24 x 3/8 (2)			
9 10 11 12	41 072 19 52 063 40 25 155 02 52 853 25	Stud 5/16-18 x 1 (2) Baffle, Carburetor Connector, Hose Kit, Carburetor with Gasket (Includes Key Numbers 12 thru 14)			
13 14	271030 52 053 54	Gasket, Carburetor (2) Gasket, Carburetor (2) Carburetor Assembly (Information Only - Not Available Separately) (Includes Key Numbers 18 thru 35)			

#### **TRACTOR - - MODEL NUMBER 917.256710**



## TRACTOR - - MODEL NUMBER 917.256710

## KOHLER ENGINE - MODEL NUMBER MV18, TYPE NUMBER PS58560

CB	81	vc	ч	A	_	г

3 52 086 11 4 52 041 14 Screw 1/4-20 x 5/8 (3) Gasket, Exhaust (2)

KEY PART NO. NO. DESCRIPTION

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

1 52 014 93 2 52 468 03 52 468 04 52 468 05 Crankshaft Washer, Thrust .119/.122 (A.R.) Washer, Thrust .128/.131 Washer, Thrust .137/.140 (A.R.)

#### DIPSTICK

KEY NO.	PART NO.	DESCRIPTION
1	52 038 14	Dipstick Assembly (Includes Key Numbers 2 and 3)
2	X-25-44	Washer, Plain 5/16
3	52 032 14	Seal, Rubber
	41 153 01	O-Ring
5	52 126 11	Bracket, Oil Tube Support
6	52 123 20	Tube, Oil Fill 11-7/8
7	47 139 01	Plug, Hex, Countersunk 3/4 N.P.T.F.

#### **CYLINDER HEAD**

KEY NO.	PART NO.	DESCRIPTION
	52 041 20 52 015 08 220534 41 086 02	Gasket, Head (2) Cylinder Head (2) Washer, Plain 5/16 (18) Screw, Hex Head 5/16-18 x 1-1/2 (18)

#### **ELECTRIC STARTER**

KEY NO.	PART NO.	DESCRIPTION		
1	52 098 12	Starter Assembly (includes Key Numbers 4 thru 9)		
2	X-20-1	Washer, Lock 1/4 (2)		
2 3	X-81-1	Nut, Hex 1/4-20 (2)		
4	82 755 26 52 081 07	Kit, Drive		
5	52 081 07	Cap, Drive End		
6	52 170 05	Armature		
	52 211 01	Bolt, Thru (2)		
	52 227 10	Cap, Commutator End		
9	82 755 28	Kit, Brush		
NOT ILLUSTRATED				
	25 450 03	Tag, Caution		

#### **EXHAUST**

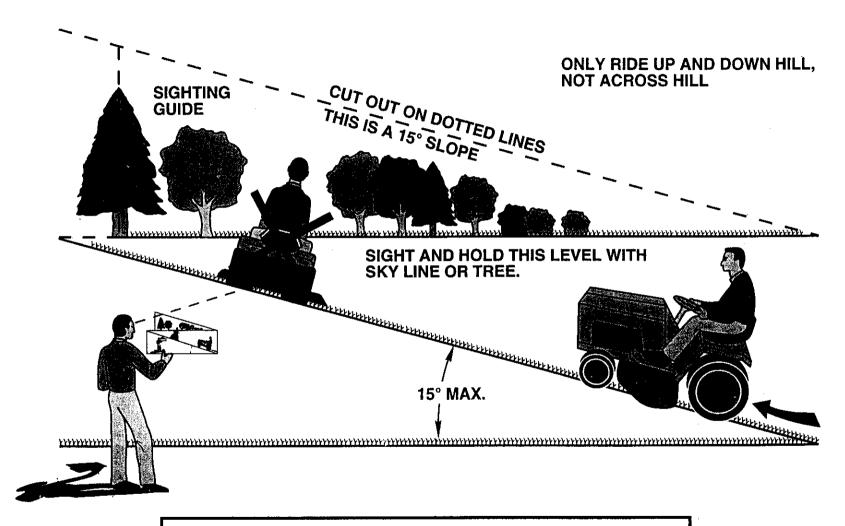
NO.	NO.	DESCRIPTION
	52 126 12 X-25-72	Bracket Washer, Plain (3)

## **SERVICE NOTES**

## **SERVICE NOTES**

## **SERVICE NOTES**

## SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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

## SEARS

## OWNER'S MANUAL

MODEL NO. 917.256710

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

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

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

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# **CRAFTSMAN®**

#### 18.0 HP TWIN CYLINDER; ELECTRIC START 46" MOWER HYDROSTATIC (AUTOMATIC) LAWN TRACTOR

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

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

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

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

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

- PRODUCT TRACTOR
- MODEL NUMBER 917.256710
- ENGINE MODEL NO. MV18-PS58560
- PART NUMBER
- PART DESCRIPTION

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