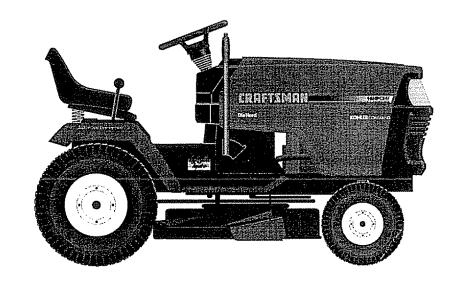
SEARS

MODEL NUMBER 917.258590 OWNER'S MANUAL

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





This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

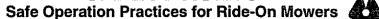
CAUTION: Read and follow all safety rules and instructions before operating this equipment.

FOR CONSUMER ASSISTANCE HOT LINE, CALL THIS TOLL FREE NUMBER: 1-800-659-5917

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



SAFETY RULES





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

GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging
- 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
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

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	917.258590
SERIAL NUMBER	
DATEOFPUR	CHASE
1	ND SERIAL NUMBERS WILL BE FOUND UNDER THE SEAT.
DATE OF PU	RECORD BOTH SERIAL NUMBER AND RCHASE AND KEEP IN A SAFE PLACE REFERENCE.

MAINTENANCE AGREEMENT

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

CUSTOMER RESPONSIBILITIES

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

PRODUCT SPECIFICATIONS

HORSEPOWER:	16			
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR			
OIL TYPE (API-SF/SG):	SAE 10W-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: .040")	CHAMPION RC12YC			
VALVE CLEARANCE:	NOT ADJUSTABLE			
GROUND SPEED (MPH):	FORWARD: 5.5 REVERSE: 2.4			
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI			
CHARGING SYSTEM:	15 AMPS @ 3600 RPM			
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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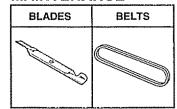
ACCESSORIES AND ATTACHMENTS

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.

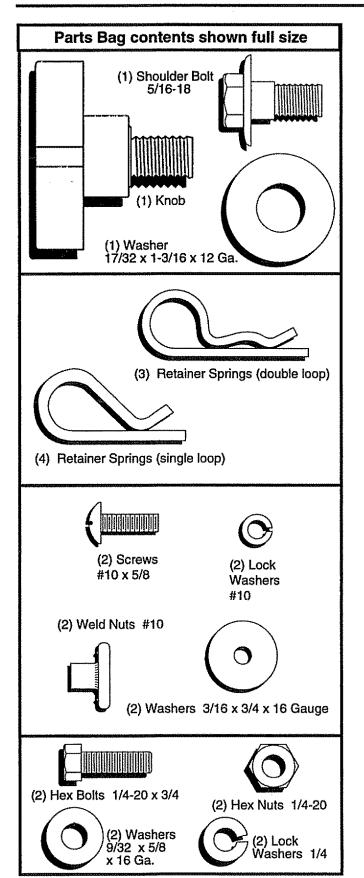
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered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

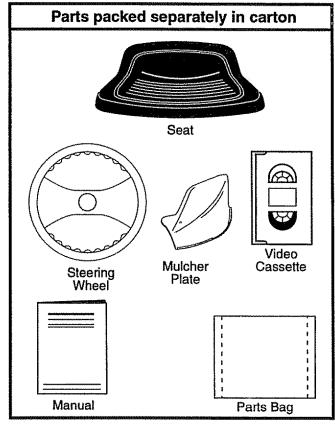
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

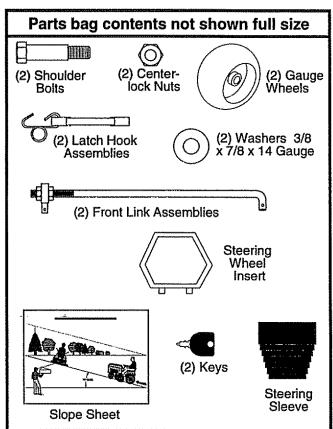
WEIGHT BRACKET for drawbar for snow removal applications. Uses (1) 55 lb. weight.

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) 3/4" wrench

(2) 7/16" wrench

(1) 9/16" wrench

Utility knife

(1) 1/2" wrench

Tire pressure gauge

(1) 3/4" socket w/drive ratchet

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.
- Remove mower and packing materials.
- 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
- 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.

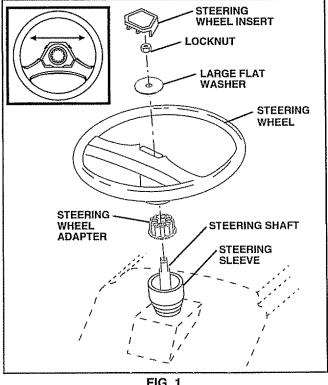


FIG. 1

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

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

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.³
- 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.

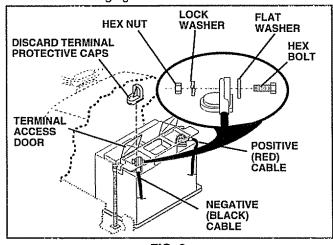


FIG. 2

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.

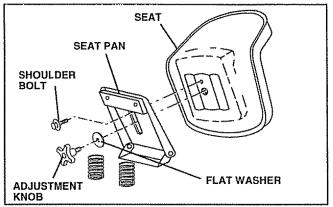


FIG. 3

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 ENGINE PULLEY GROOVE.

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

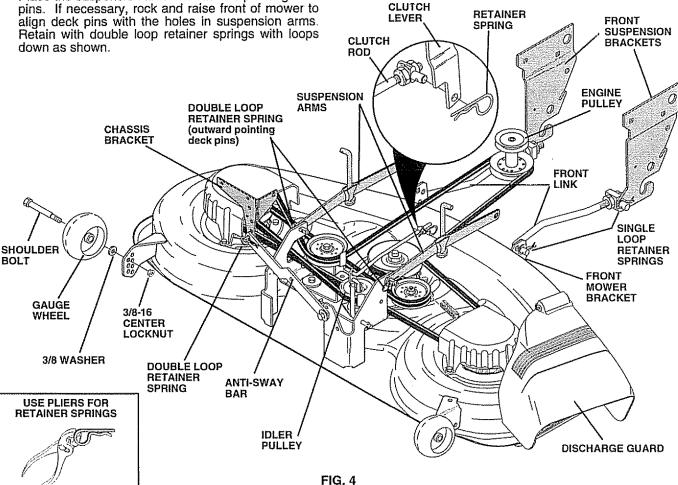
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Install clutch rod in clutch lever. Secure with retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Assemble gauge wheels as shown using long shoulder bolts, 3/8 washers, and 3/8-16 center locknuts. Tighten securely.
- Adjust gauge wheels before operating mower as shown in the Operation section of this manual.

CHECK MOWER LEVELNESS

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

CHECK FOR PROPER POSITION OF ALL BELTS

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



INSTALL MULCHER PLATE (See Figs. 5 and 6)

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

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

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



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

TO CONVERT TO BAGGING OR DISCHARGING

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

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

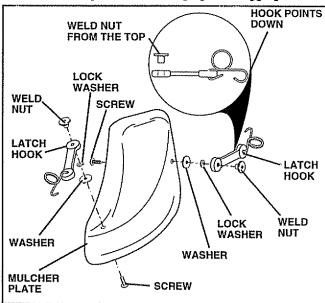


FIG. 5

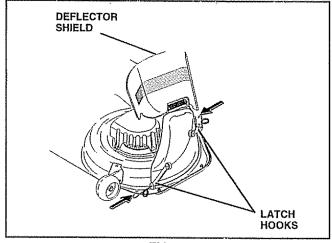


FIG. 6

✓ CHECKLIST

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

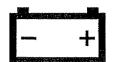
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

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



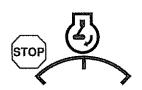
PARKING BRAKE



ATTACHMENT CLUTCH ENGAGED



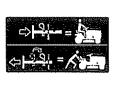
ATTACHMENT CLUTCH DISENGAGED



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.

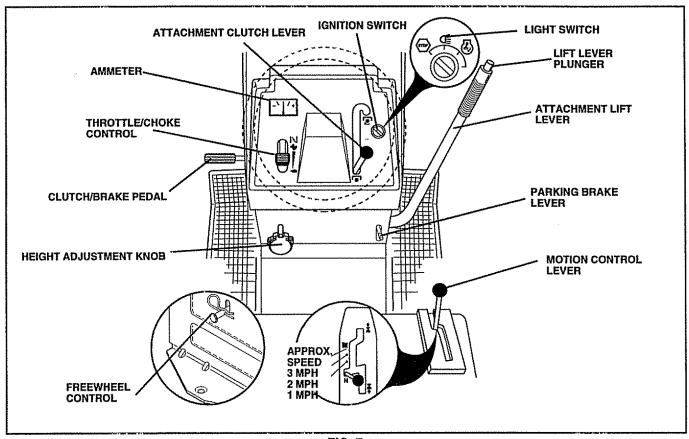


FIG. 7

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

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

LIGHT SWITCH: Turns the headlights on and off.

THROTTLE/CHOKE CONTROL: Used for starting and controlling engine speed.

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 spectacles or standard safety glasses.

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

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

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

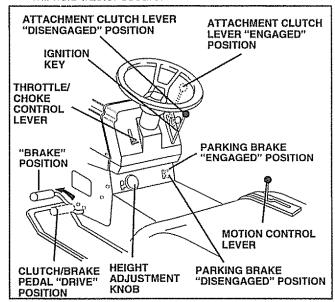


FIG. 8

STOPPING (See Fig. 8)

MOWER BLADES -

Move attachment clutch lever to "DISENGAGED" position.

GROUND DRIVE -

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

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

ENGINE -

Move throttle control to slow (
) position.

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

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

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



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

TO USE THROTTLE CONTROL (See Fig. 8)

Always operate engine at full throttle.

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

TO MOVE FORWARD AND BACKWARD (See Fig. 8)

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

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

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

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

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

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

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

TO ADJUST GAUGE WHEELS (See Fig. 9)

Adjust gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO ADJUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

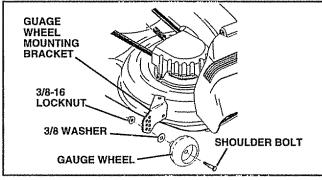


FIG. 9

TO OPERATE MOWER (See Fig. 10)

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

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



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

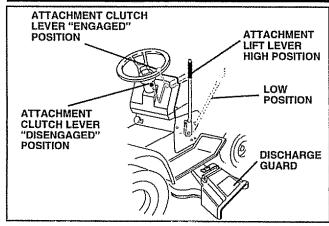


FIG. 10

TO OPERATE ON HILLS



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

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

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

- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- · Make all turns slowly.

TO TRANSPORT (See Figs. 7 and 11)

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

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

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

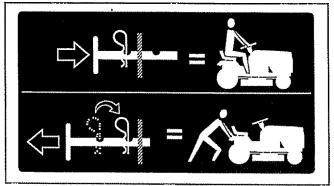


FIG. 11

BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL (See Fig. 16)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- · Check engine oil with tractor on level ground.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

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

- 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 choke (|\lambda|) position.

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

Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, move throttle control to fast (4) position, wait a few minutes and try again. If engine still does not start, move the throttle control back to the choke (1) position and retry.

WARM WEATHER STARTING (50° F and above)

- When engine starts, move the throttle control to the fast (♣) position.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

COLD WEATHER STARTING (50° F and below)

When engine starts, allow engine to run with the throttle control in the choke (|\|) position until the engine runs roughly, then move throttle control to fast (
This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

HYDROSTATIC TRANSMISSION WARM UP

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

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

PURGE TRANSMISSION



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

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

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. 12).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

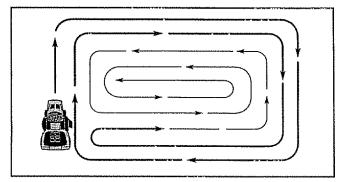


FIG. 12

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. 13). 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.

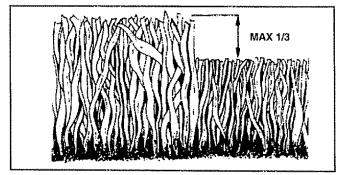


FIG. 13

FIL AS	MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE REGULAR SERVICE MAINTENANCE SCHEDULE RELEACHUSE RELEACH											
	Check Brake Operation	V		V								
	Check Tire Pressure	V		V								
T	Check for Loose Fasteners	1					17		V			
R	Sharpen/Replace Mower Blades				1/4					,		
A C	Lubrication Chart				V				6/			
ĬŤ	Check Battery Level/Recharge				V 6							
0	Clean Battery and Terminals				V				V			
R	Check Transaxle Cooling				V							
	Adjust Blade Belt(s) Tension						1 / ₅					
	Adjust Motion Drive Belt(s) Tension						√ 5					
	Check Engine Oil Level	V		0/								
	Change Engine Oil		V		1,2,3				6/			
lΕ	Clean Air Filter				9 /2							
Ī	Clean Air Screen				1 /2							
G	Inspect Muffler/Spark Arrester					6/						
	Replace Oil Filter (If equipped)						1,2					
N E	Clean Engine Cooling Fins						1 /2				Ì	
	Replace Spark Plug						8/	6/				
	Replace Air Filter Paper Cartridge						1 /2					
	Replace Fuel Filter							4				

- 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 overlighten

GENERAL RECOMMENDATIONS

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

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

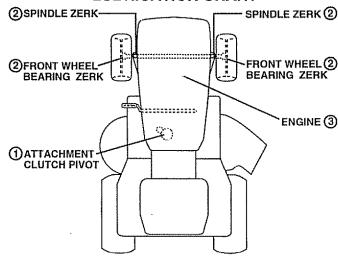
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

BEFORE EACH USE

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

LUBRICATION CHART



- (1) SAE 30 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. 14)

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

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

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

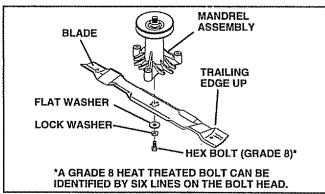


FIG. 14

TO SHARPEN BLADE (See Fig. 15)

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

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

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

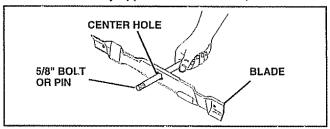


FIG. 15

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, SG or SH. Select the oil's SAE viscosity grade according to your expected operating temperature.

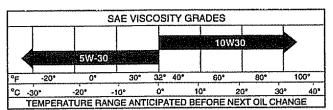


FIG. 16

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 Figs. 16 and 17)

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

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

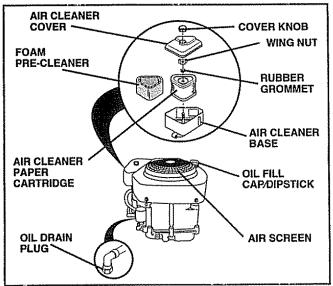


FIG. 17

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. 17)

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

Service air cleaner more often under dusty conditions.

- Remove knob and cover.
- Remove wing nut and air cleaner from base.

TO SERVICE PRE-CLEANER

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

TO SERVICE CARTRIDGE

Replace a dirty, bent, or damaged cartridge.

NOTE: Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge.

- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, wing nut, cover and tighten knob securely.

CLEAN AIR INTAKE/COOLING AREAS

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

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

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

ENGINE OIL FILTER (See Fig. 18)

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

- Drain oil from engine crankcase (See "TO CHANGE ENGINE OIL" in this section of this manual, through step remove drain plug).
- Remove oil filter and wipe off filter adapter.
- Apply a thin coating of new engine oil to the rubber gasket on replacement oil filter.
- Install replacement oil filter on filter adapter. Turn oil filter clockwise until rubber gasket contacts the filter adapter, then tighten filter an additional 1/2 turn.
- Fill crankcase with new oil (See "TO CHANGE EN-GINE OIL" in this section of this manual). For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Start the engine and check for oil leaks. Correct any leaks before placing engine into full operation.

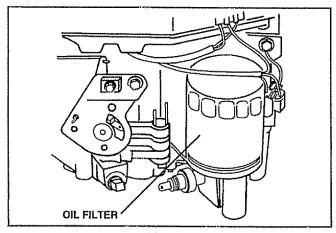


FIG. 18

MUFFLER

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

SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of 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. 19)

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

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

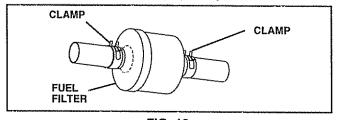


FIG. 19

CLEANING

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

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

CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

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

TO REMOVE MOWER (See Fig. 18)

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

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

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

TO INSTALL MOWER

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

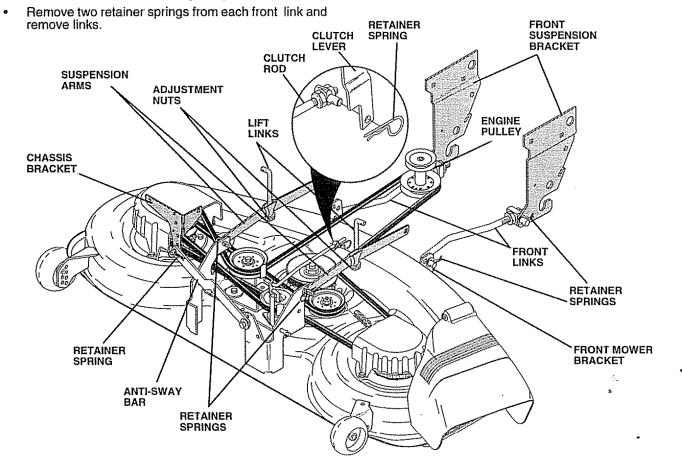


FIG. 20

TO LEVEL MOWER HOUSING

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

SIDE-TO-SIDE ADJUSTMENT (See Figs. 21 and 22)

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

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

Recheck measurements after adjusting.

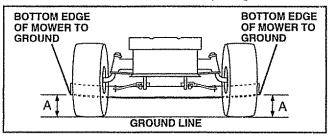


FIG. 21

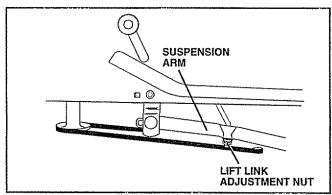


FIG. 22

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

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

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

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

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

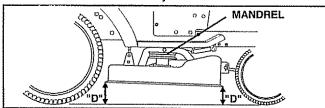


FIG. 23

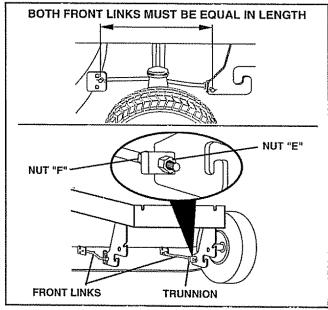


FIG. 24

TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 25) -

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

MOWER DRIVE BELT INSTALLATION (See Fig. 25) -

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

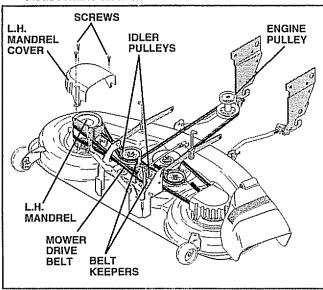


FIG. 25

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

Park the tractor on level surface. Engage parking brake.

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

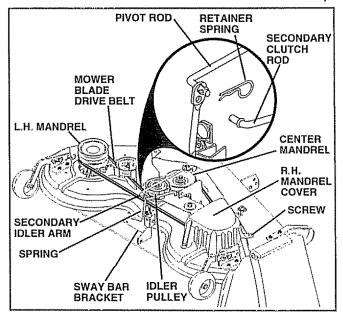


FIG. 26

TO ADJUST BRAKE (See Fig. 27)

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

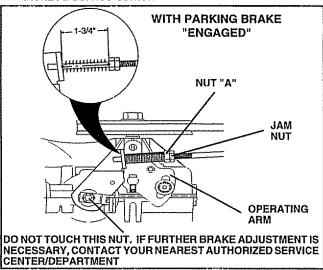


FIG. 27

TO REPLACE MOTION DRIVE BELT (See Fig. 28)

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

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

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

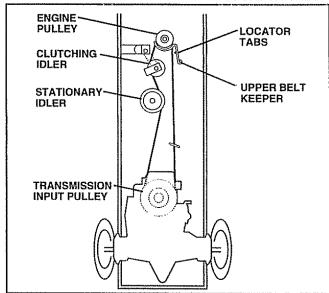


FIG. 28

TO ADJUST MOTION CONTROL LEVER (See Fig. 29)

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

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

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

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

Road test tractor after adjustment and repeat procedure if necessary.

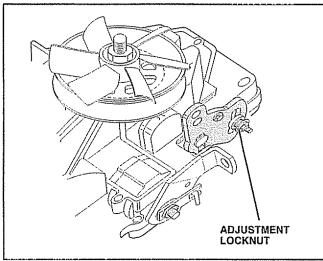


FIG. 29

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.

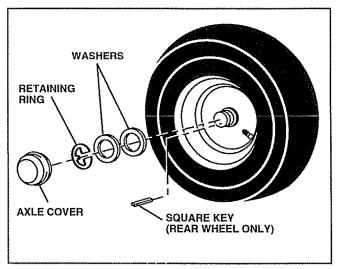


FIG. 30

TO START ENGINE WITH A WEAK BATTERY (See Fig. 32)



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

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

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

TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

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

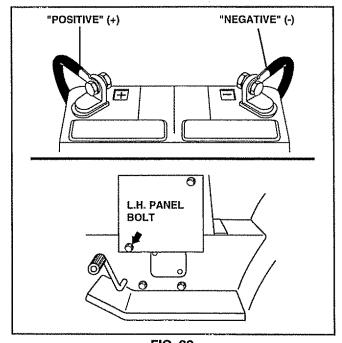


FIG. 32

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.

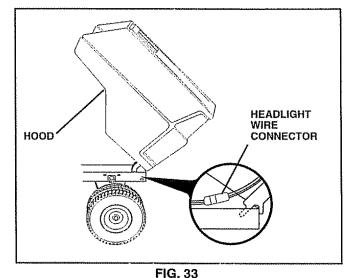
 Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

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. 33)

- 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.



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ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 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 from slow () to choke () position. Slowly move lever from choke () to fast () position.
- Check to see if hole in throttle lever and hole in speed control bracket are aligned.
- If holes are not aligned, loosen cable clamp screw and align the holes by inserting a pencil or a 1/4" drill bit through both holes.
- Pull throttle cable up to remove slack and tighten cable clamp screw. Remove alignment pencil or drill bit.

TO ADJUST CARBURETOR (See Fig. 35)

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

In general, turning the 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 NEEDLE IS TURNED IN TOO TIGHT.

NOTE: The carburetor on this engine is low emission. It is equipped with an idle fuel adjusting needle with a limiter cap, which allows some adjustment within the limits allowed by the cap. Do not attempt to remove the limiter cap. The limiter cap cannot be removed without breaking the adjusting needle.

- Be sure you have a clean air filter and the throttle control cable is adjusted properly (see above).
- Start engine and allow to warm for five minutes. Make adjustments with engine running and shift/motion control lever in neutral (N) position.
- Idle speed setting With throttle control lever in slow () position, engine should idle at 1750 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 adjustment 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 fuel
adjusting needle out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until
engine accelerates smoothly.

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

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

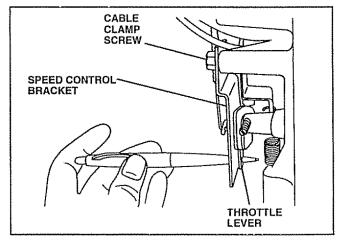


FIG. 34

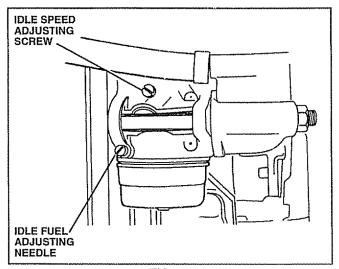


FIG. 35

STORAGE

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



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

TRACTOR

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

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

BATTERY

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

ENGINE

FUEL SYSTEM

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

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

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

ENGINE OIL

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

CYLINDERS

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

OTHER

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

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

TROUBLESHOOTING POINTS

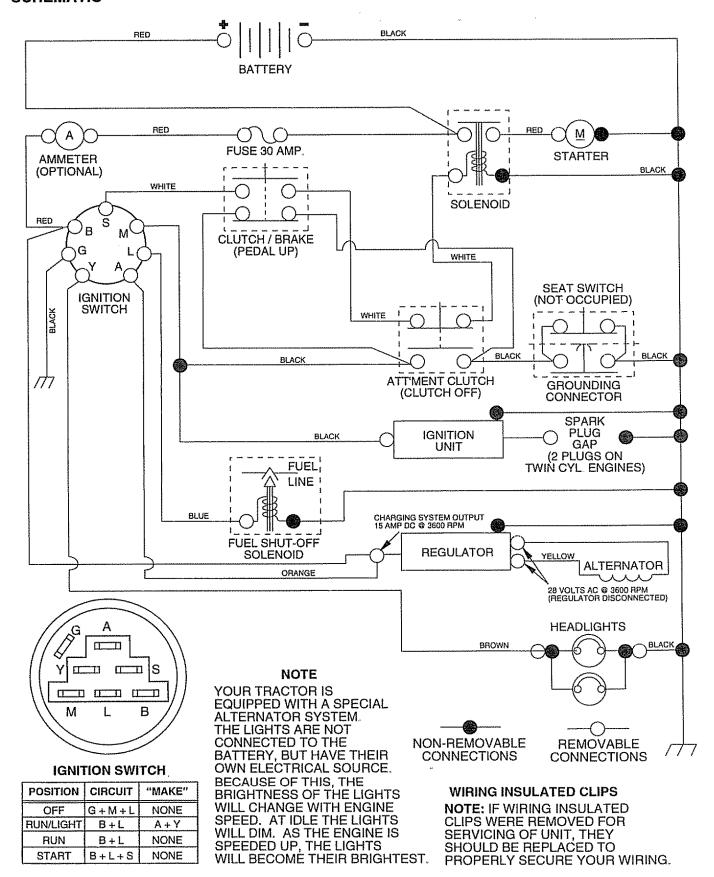
PROBLEM	CAUSE	CORRECTION			
Will not start	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment.	 Fill fuel tank. See "TO START ENGINE" in Operation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

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION			
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.			
Poor cut - uneven	 Worn, bent or loose blade Mower deck not level. Buildup of grass, leaves, and trash under mower Bent blade mandrel. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels 	Replace blade. Tighten blade boit Level mower deck. Clean underside of mower housing. Replace blade mandrel. Clean around mandrels to open vent holes.			
Mower blades will not rotate	Obstruction in clutch mechanism. Worn/damaged mower drive belt. Frozen idler pulley. Frozen blade mandrel.	1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.			
Poor grass discharge 1. Engine speed too slow 2. Travel speed too fast. 3. Wet grass. 4. Mower deck not level. 5. Low/uneven tire air pressure. 6. Worn, bent or loose blade. 7. Buildup of grass, leaves and trash under mower. 8. Mower drive belt wom. 9. Blades improperly installed. 10. Improper blades used. 11. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.		 Place throttle control in "FAST" position. Shift to slower speed. Allow grass to dry before mowing. Level mower deck. Check tires for proper air pressure. Replace/sharpen blade. Tighten blade bolt. Clean underside of mower housing. Replace mower drive belt. Reinstall blades sharp edge down. Replace with blades listed in this manual. Clean around mandrels to open vent holes. 			
Headlight(s) not working (if so equipped)	 Switch is "OFF". Bulb(s) burned out. Faulty light switch. Loose or damaged wiring. Blown fuse. 	 Turn switch "ON". Replace bulb(s). Check/replace light switch. Check wiring and connections. Replace fuse. 			
Battery will not charge	1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (If so equipped). 4. Faulty alternator.	Replace battery. Check/clean all connections. Replace regulator. Replace alternator.			
Loss of drive	Freewheel control in "disengaged" position. Motion drive belt worn, damaged, or broken. Air trapped in transmission during shipment or servicing.	Place freewheel control in "engaged" position. Replace motion drive belt. Purge transmission.			
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.			

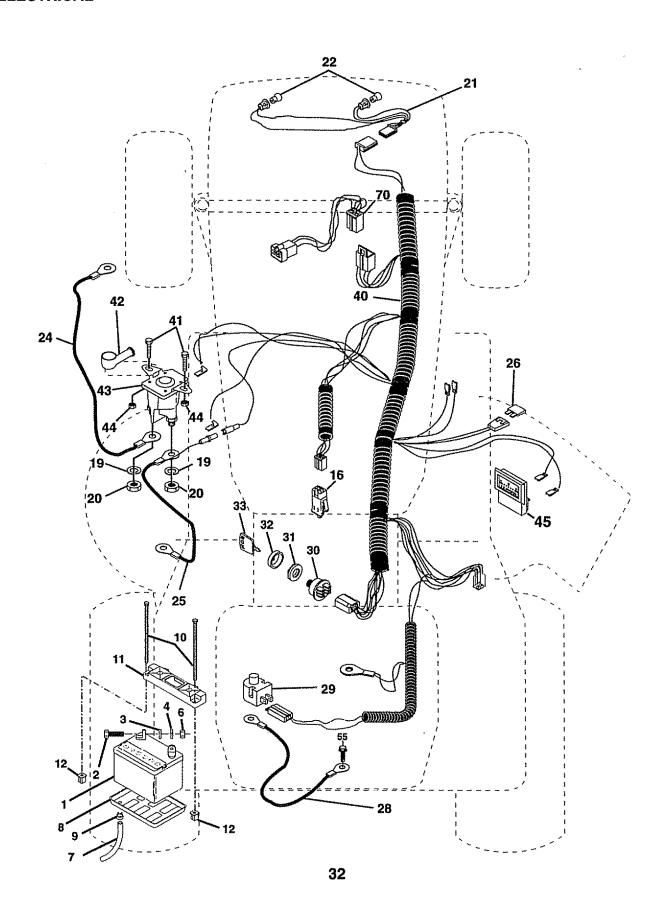
TRACTOR - - MODEL NUMBER 917.258590

SCHEMATIC



TRACTOR - - MODEL NUMBER 917.258590

ELECTRICAL



TRACTOR - - MODEL NUMBER 917.258590

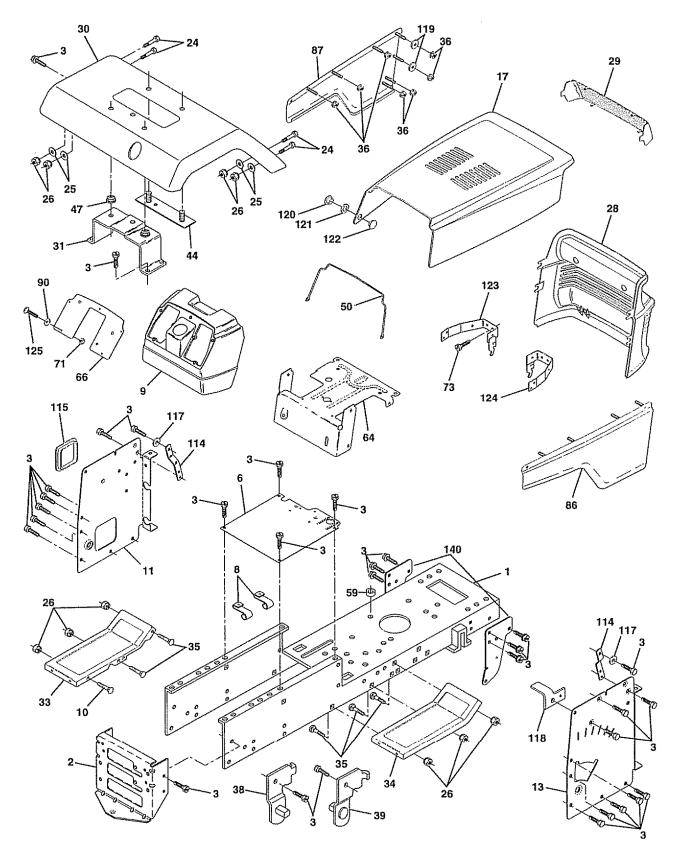
ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	144926 74760412	Battery 12 Volt 30 Amp Bolt, Hex Head 1/4-20 unc x 3/4
2 3 4 6 7	STD551025	Washer
4	STD551125	Washer
6	STD541025	Nut
7	7697J	Tube, Plastic, 46"
8 9	7603J	Tray, Battery
	109596X 145211	Clamp, Hose Bolt BTR FRT 1-4-20 x 7.5
	150109	Holddown Battery
12	145769	Nut, Push Nylon 1/4 Bat. Frt.
	153664	Switch Interlock Push-In
	STD551125	Washer, Lock
20 21	73350400 136850	Nut, Hex, Jam 1/4-20 UNC
21	130030	Harness, Light Socket (Includes 4152J)
22	4152J	Bulb, Light
	146136	Cable, Battery, 6 Gauge, Red, 24"
25	146148	Cable, Battery, 6 Gauge, Red, W/
o.e	100004V	16 Wir 22"
26 28	108824X 145491	Fuse, 30 Amp Cable, Ground, 6 Gauge, Black, 21"
29		Switch, Plunger
30		Switch, Ignition
31		Nut, Ignition
	141226	Cover, Key Switch
	109310X	Key, Ignition
	156149 71110408	Harness, Ignition Bolt, Hex Head, Fin. 1/4-20 x 1/2
	131563	Cover, Terminal, Red
43	145673	Solenoid
44	73640400	Nut Keps Blk Hex 1/4-20 UNC
45	122822X	Ammeter Rectangular 15 Amp
55 70	17490508 140426	Screw, Thdrol 5/16-18 x 1/2 Harness Engine Koh Cmd-L 15AR
70	140420	namess Engine Run Umu-L 15An

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

TRACTOR - - MODEL NUMBER 917.258590

CHASSIS AND ENCLOSURES



TRACTOR - - MODEL NUMBER 917.258590

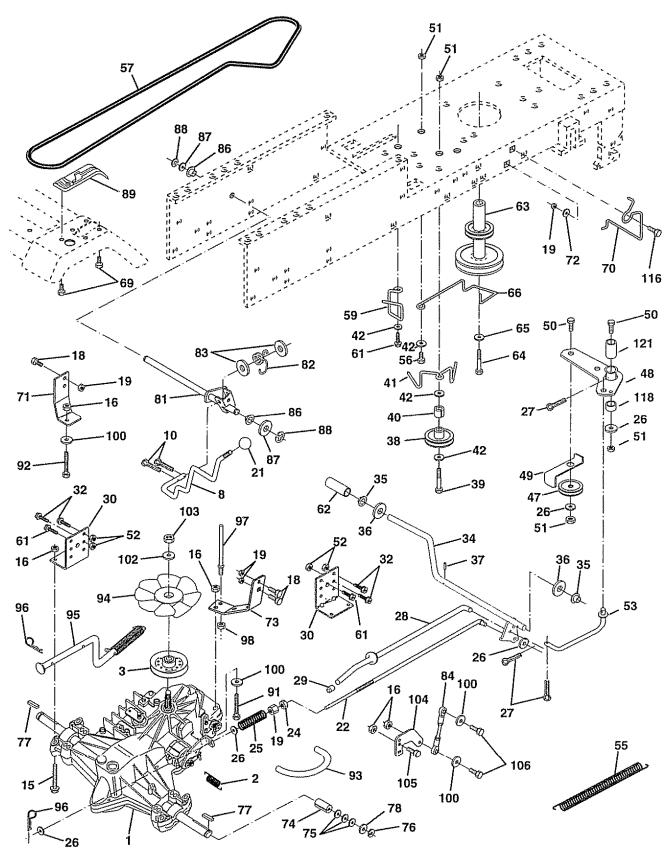
CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
2 3 6 8 9 10 11 13 17 24 25 6 28 29 30 31 33 34 55 9 66 71 73 86 87 90 114 115 122 123 124 125 140	155051 140356 17490612 155923 126471X 145203 72140608 145218 145217 136673X558 STD523710 19131312 STD541437 136373X428 136374 140002X558 137113 145244X558 137113 145244X558 STD533707 108067X 139886 139887 140675 105531X 137304 110436X 150272 156276X012 73640400 17580408 136671X558 STD551025 145349 121794X 144283 145295 19092016 137271 137269 137270 157105 157107 74180412 15849J	Chassis Drawbar Screw, Thdrol. 3/8-16 x 3/4 Type TT Saddle Clip, Fuel Line Dash, Plastic Bolt, Carriage 3/8-16 x 1 Panel, Dash, LH Panel, Dash, LH Panel, Dash, RH Hood Assembly Bolt Washer 13/32 x 13/16 x 12 Gauge Nut Grill Lens, Bar, Clear Fender Bracket Assembly, Fender Footrest, LH Footrest, RH Bolt Nut, Pal Bracket Assembly, Pivot, LH Bracket Assembly, Pivot, RH Fender Strap Nut, Push, Nylon Rod, Support Hood Bushing, Snap, Split Dash, Lower Plate, Dash Nut Screw Tap Tite 1/4-20 x 1/2 Panel Assembly, LH Washer 17/64 Bracket, Support, Dash Cover, Access Washer Serrated Disk 13/32 x 1 Bracket, Clutch Mech SRS YT 95 Washer 9/32 x 1-1/4 x 16 Ga. Rivet, Ratchet, Female Washer, Nylon Rivet, Rachet, Male Bracket Assembly, Pivot, Hood LH Bracket Assembly, Pivot, Hood RH Screw, Machine 1/4-20 x 3/4 Bracket SuspensionFront Plug, Btn Blk 359 Dia.

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

TRACTOR - - MODEL NUMBER 917.258590

DRIVE



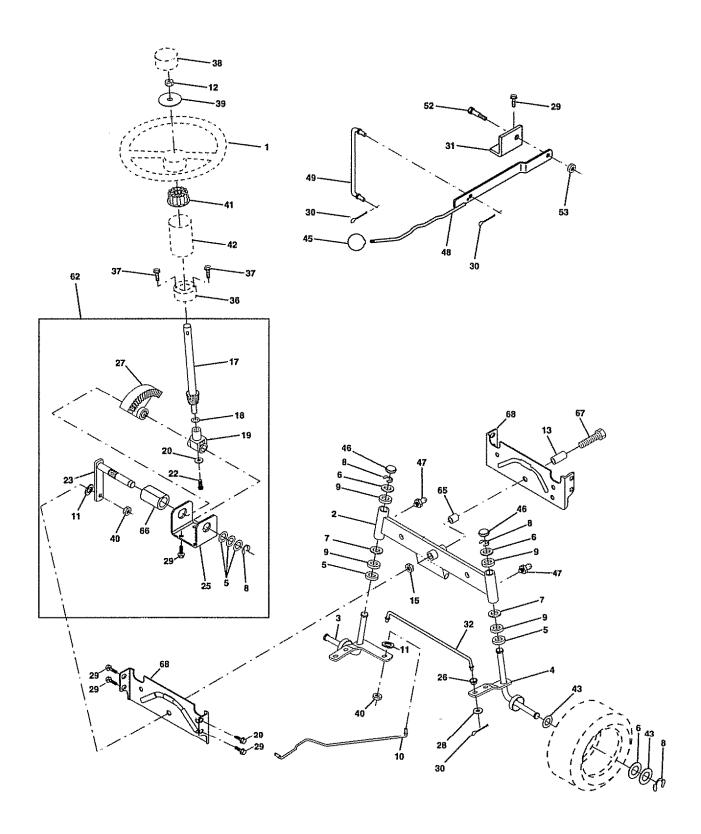
TRACTOR - - MODEL NUMBER 917.258590

DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 23805689122456789024567890123556791	150071 142431 143995 141002 76020416 74490544 73800500 74780616 73800600 130564 145627 73350600 106888X 19131316 76020412 145204 124236X 130807 74760512 155071 120183X 19211616 1572H 123674X 74760612 154777 19131312 127783 154604 123205X 74760624 73680600 73680500 105710X 105709X 74760620 140294 140312 17490612	Transaxle (See Breakdown) Hydro Gr Model 310-0650 Spring, Return, Brake Pulley, Transaxle Rod Shift Hydro LT Pin Cotter 1/8 x 1 CAD Bolt Hex Flghd 5/16-18 Gr. 5 Nut Lock Hex W/Ins. 5/16-18 Unc Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5 Nut Lock Hex W/Wsh 3/8-16 Unc Knob, Deluxe 1/2-13 Rod, Brake Hydro Nut, Hex Jam 3/8-16 Unc Spring, Brake Rod Washer Pin Cotter 1/8 x 3/4 CAD Rod, Parking Brake Cap, Parking Brake Bracket, Transaxle Bolt Hex Hd 5/16-18 Unc x 3/4 Shaft, Foot Pedal Bearing, Nylon Washer Pin, Roll Pulley, Idler, Flat Bolt Spacer, Split Keeper, Belt Idler Washer 13/32 x 13/16 x 12 Gauge Pulley, Idler, V-Groove Bellcrank Assembly Retainer, Belt Bolt Nut Crownlock 3/8-16 UNC Nut, Crownlock 5/16-18 Unc Link, Clutch Spring, Return, Clutch Bolt Hex 3/8-16 x 1-1/4 V-Belt, Ground Drive Keeper, Center Span Screw Thdrol. 3/8-16 x 3/4 Ty. TT	75 121749X 76 12000001 77 123583X 78 121748X 81 140154 82 123782X 83 19171216 84 140548 86 71208 87 19212016 88 12000008 89 151146 91 74780536 92 74780524 93 142564 94 140462 95 144643 96 4497H 97 140469 98 73510600 100 19111216 102 141322 103 73940800 104 140156 105 71070516 106 74780520 116 72110610 118 154774 121 154419	Pulley, Engine Bolt Hex Washer Keeper Belt Engine Screw Keeper Belt Engine Strap Torque Lh Hydro 18/20" T Washer 13/32 x 1-1/4 x 12 Gauge Strap Torque Rh Hydro 18/20" T Spacer, Split Washer 25/32 x 1-1/4 x 16 Gauge E-Ring Key, Square Washer 25/32 x 1-5/8 x 16 Gauge Shaft Asm. Cross Hydro 20" Tires Spring Torsion T/A Washer 17/32 x 3/4 x 16 Ga. Rod, Tie Hydro 20" Tires Bushing Rod Strig. 629/632 ID Washer 21/32 x 1-1/4 x 16 Ga. Ring Klip #5304-62 Console, Shift Bolt Fin Hex 5/16-18 x 2-1/4 Bolt Fin Hex 5/6-18 Unc x 1-1/2 Line Fuel Hydro 4" Fan, Hydro 7" Control Bypass Hydro 20" Tires Retainer Spring 1" Zinc/Cad Keeper Bolt Rh Hydro 0750. 18/20" Nut Keps Hex 3/8-16 Unc Washer 11/32 x 3/4 x 16 Ga. Washer Bellville .501D x 1.50D Nut Hex Jam Toplock 1/4-20 Unf Arm, Control Hydro Screw Cap Hex 5/16-18 Unc x 1-1/4 Bolt Rdhd Sq Neck 3/8-16 x 1.25 Spacer Bellcrank Nyliner Clutching STL
62	8883R	Cover, Pedal		25.4 mm

TRACTOR - - MODEL NUMBER 917.258590

STEERING ASSEMBLY



TRACTOR - - MODEL NUMBER 917.258590

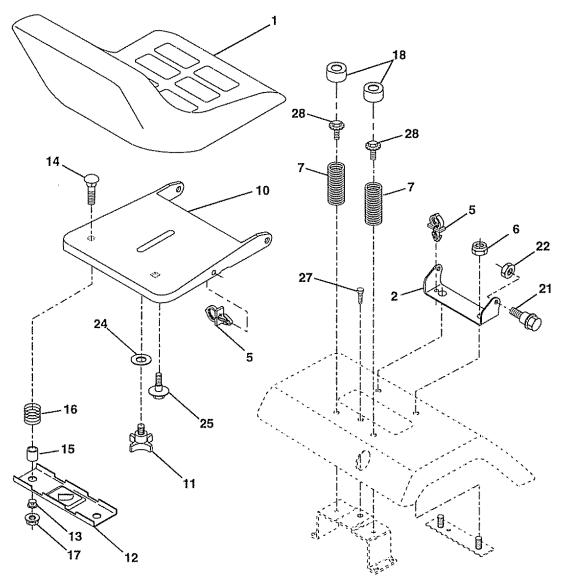
STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
123456789011235789022356789031	121472X 154427 154423 6266H 121748X 19272016 12000029 3366R 156438 STD551137 STD541350 154779 73901000 156543 57079 124035X 126684X 71200410 127501 154406 126847X 136874 19131416 17490612 STD561210 138171	Steering Wheel Front Axle Assembly Spindle Assembly, L.H. Spindle Assembly, R.H. 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, Steering Column Link, Drag Washer, Lock Nut Hex Jam Toplock 1/2-20 UNF Bearing, Axle Nut, Lock, Flange 5/8-11 UNC Shaft Assembly, Steering Washer, Thrust .515 x .750 x .033 Support, Shaft Washer, Shim 1/4 x 5/8 x .062 Screw Hex Socket 1/4-20 x 5/8 Pittman Shaft Assembly Bracket, Steering Bushing, Link, Drag Gear, Sector Washer 13/32 x 7/8 x 16 Gauge Screw, Thd., Roll. 3/8-16 x 3/4 Pin Bracket, PVT Man. CL LVR V2
32 36 37 38 39 40 41 42 43 45 46 47 48 49 53 66 66 67 68	130465 145207 152927 126805X 100712K STD541537 100711L 140216 121749X 106933X 121232X 6855M 146841 131291 106451X 73680600 156595 154780 154404 74781044 154429	Sears Rod, Tie Bushing, Steering Screw Insert, Steering Wheel Washer 53 x 2.25 x .160 Nut Lock Center 3/8-24 UNF Adaptor, Steering Wheel Boot, Steering Dash P/L Mtl Blk Washer 25/32 x 1-1/4 x 16 Gauge Knob, Rd Cap, Spindle Fitting, Grease Lever, Asm Clutch MWR SRS Link, Clutch, w/Nibs 5.688 Zinc Bolt, Shoulder 3/8-16 UNC Gr. 2 Nut, Crownlock 3/8-16 UNC Kit, Steering Assembly, Service Spacer Axle Bearing Arm Pittman Bolt Fin Hex 5/8-11unc x 2-3/4 Brace Axle

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

TRACTOR - - MODEL NUMBER 917.258590

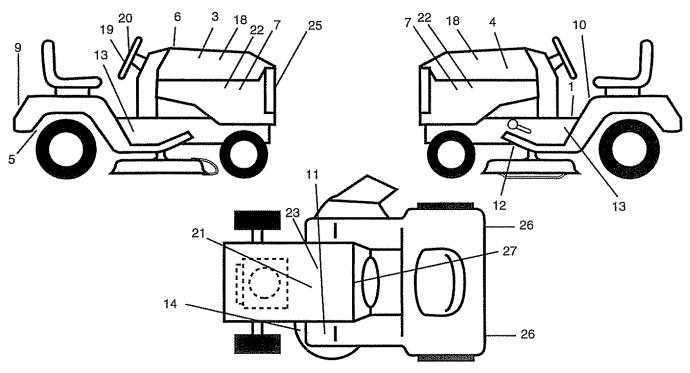
SEAT ASSEMBLY



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140123	Seat	17	123976X	Locknut, Flange 1/4 Grade 5
2	140551	Bracket, Pivot, Seat	18	124238X	Cap, Spring Seat
5	145006	Clip, Push-In Hinged	21	153236	Bolt, Shoulder 5/16-18 UNC
6	STD541437	Nut	22	STD541431	Nut
7	124181X	Spring, Seat	24	19171912	Washer 17/32 x 1-3/16 x 12 Gauge
10	155925	Pan, Seat	25	127018X	Bolt, Shoulder 5/16-18 x .62
11	120068X	Knob, Seat	27	17490608	Screw, Thdrol 3/8-16 x 1/2 TY-TT
12	121246X	Bracket, Switch Mounting	28	150176	Bolt 5/16-18 UNC x 3/4 w/Sems
13	121248X	Bushing, Snap	-		
14	72050411	Bolt, Carriage 1/4-20 x 1-3/8			
15	134300	Spacer, Split 28 x .88	TOM	E: All compor	nent dimensions given in U.S. inches
16	121250X	Spring		1 inch = 25	

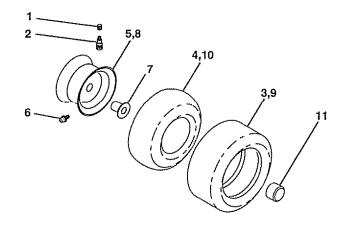
TRACTOR - - MODEL NUMBER 917.258590

DECALS



KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	140837	Decal, Saddle Parking Brake	19 15	0333	Decal, Cap Cnsmr Help Line Srs
3	146705	Decal, Hood, R.H.	20 14	6710	Decal, Insert Strg Std Auto USA
4	146706	Decal, Hood, L.H.	21 13	8047	Decal, Battery Diehard Sears
5	142341	Decal, Drawbar Cntrl Mvt Hyd Lt	22 13	8048	Decal, Panel Side Diehard Sears
6	133644	Decal, Customer Maintenance	23 14	9516	Decal, Battery Dangr/Psn Srs. Eng
7	142241	Decal, Side Panel, Kohler	25 15	1400	Decal, Grille LT IPC Sears
8	156787	Decal, Mower, EZ3	26 10	6202X	Reflector, Tail, Light Red/Amber
9	146709	Decal, Fender, Craftsman	27 15	6835	Decal, Dash Inst Oper English
10	156439	Decal, Caution, English	14	5245	Pad Footrest Rbr Sg Craftsman
11	4900J	Decal, Clutch/Brake, English	14	5247	Fastener, Pop In Footrest
12	146046	Decal, V-Belt Drive Schematic	13	8311	Decal, Lift Handle
13	151401	Decal, Chassis, 46"	15	7286	Owner's Manual, English
14	139346	Decal, V-Belt Schematic	15	7287	Owner's Manual, Spanish
18	159408	Decal, Ins. Hood 16HP OHV Polo			• •

WHEELS & TIRES

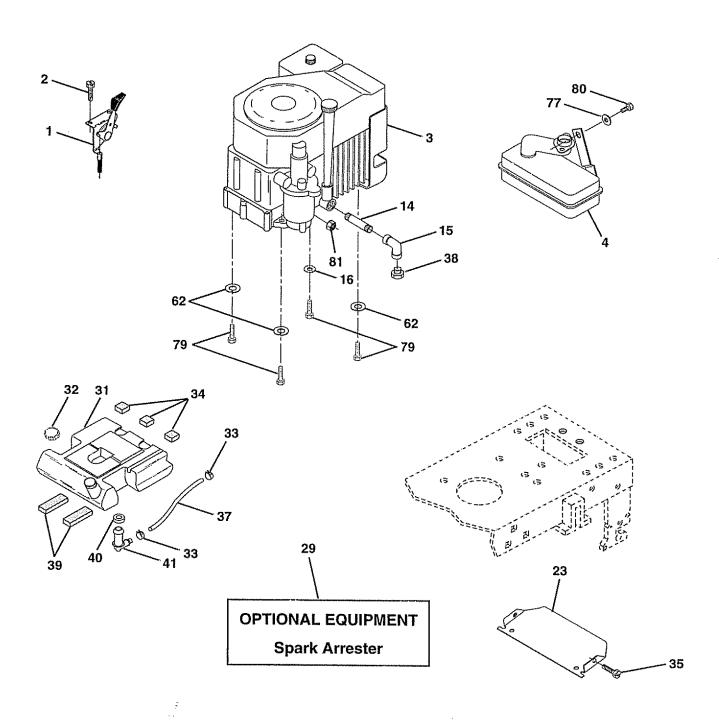


KEY NO.	PART NO.	DESCRIPTION
1	59192	Valve Cap, Tire
2	65139	Stem, Valve
2 3 4	106222X	Tire, Front
4	59904	Tube, Front Tire
		(Not Provided, Service Item Only)
5	106732X427	Rim, Front
6	278H	Fitting, Grease (Front Wheel Only)
6 7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim, Rear
9	122082X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

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

TRACTOR - - MODEL NUMBER 917.258590

ENGINE



TRACTOR - - MODEL NUMBER 917.258590

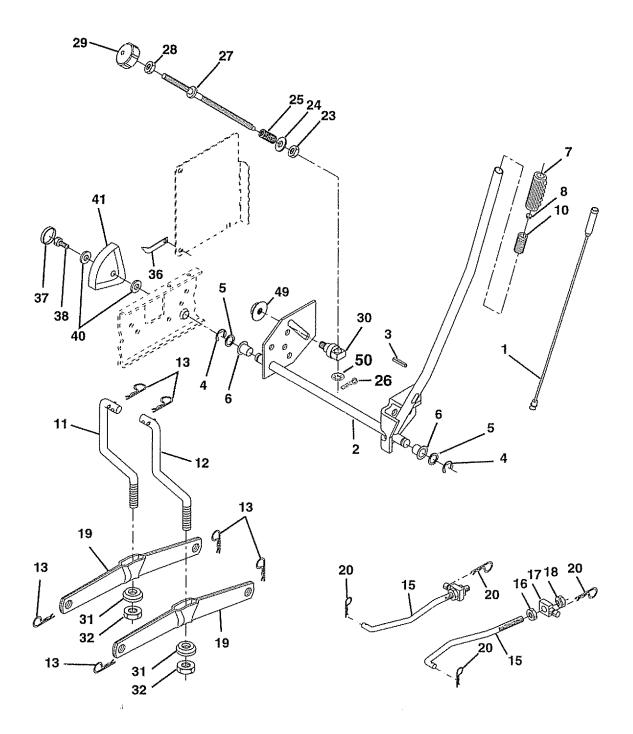
ENGINE

KEY NO.	PART NO.	DESCRIPTION
1 2	134265 17720410	Control, Throttle Screw, Hex Head, Thread Cutting 1/4-20 x 5/8
3	44 30 44 M M M M M	Engine (See Breakdown) Kohl Model No. CV16S-PS 43509
4	159420	Muffler
14	13280328	Nipple, Pipe 3/8 NPT x 3-1/2
15		Elbow, Standard 90°, 3/8-18 NPT
16		Washer
23	156123	Shield, Browning
	137180	Arrestor, Spark
31 32	151346 152334	Tank, Fuel Cap Assembly, Fuel Tank
	123487X	Clamp, Hose
	106082X	Pad, Spacer 1 x 1 x 1 Blk
	17490512	Screw, Thdrol 5/16-18 x 3/4
	8543R	Line, Fuel
38		Plug, Oil Drain
		(Order From Engine Manufacturer)
39	109227X	Pad, Idler 1.75 x .75 x .06
40		Bushing
41	139277	Stem, Tank Fuel
62		Washer, Lock
	19101216	Washer 5/16 x 3/4 x 16 Ga. Bolt Hex
	M740108025 74760508	Bolt Hex Hd 5/16-18 UNC x 1/2
81	128861	Nut Flange 1/4-20 UNC Starter Nut
O I	120001	Harriange 174 20 ONO otalier Har

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

TRACTOR - - MODEL NUMBER 917.258590

MOWER LIFT



TRACTOR - - MODEL NUMBER 917.258590

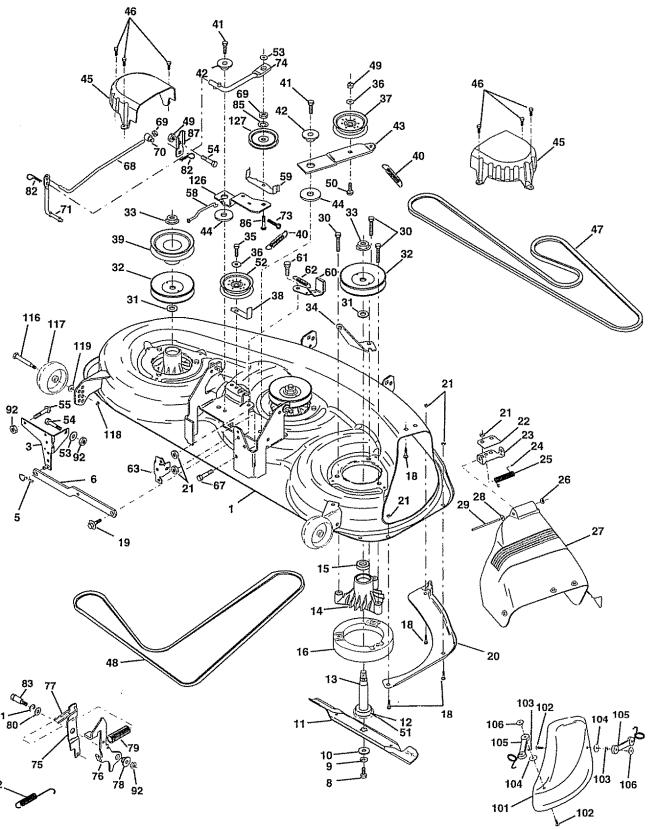
MOWER LIFT

KEY NO.	PART NO.	DESCRIPTION
13 15 16 17 18 19 23 24 25 26 27 28 29 31 32 36 37 38 40 41	127218 73350800 130171 73800800 139868 STD624008 110807X 19131016 137150 76020308 137167 73350600 138057 150233 140302 73540600 155097 123935X 17490512 19112410	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 Corsn Link Lift Lh Link Lift Rh Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/Wsh 1/2-13 Unc Arm Suspension Rear Spring Retainer Nut Special Washer 13/32 X 5/8 X 16 Ga Spring" Pin Cotter 3/32 x 1/2 Rod Adjust Lift Nut Hex Jam 3/8-16 Unc Knob Infinite 3/8-16 Unc Black Trunnion Inf Height Bearing Pvt. Lift Spherical Nut, Crownlock 3/8-24 Pointer, Height Indicator Plug, Hole Screw Thdrol 5/16-18 x 3/4 Washer 11/32 x 1-1/2 x 10 Gauge Scale, Height Indicator Nut Hex Flange Lock Nut Push Phos & Oil

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

TRACTOR - - MODEL NUMBER 917.258590

MOWER DECK



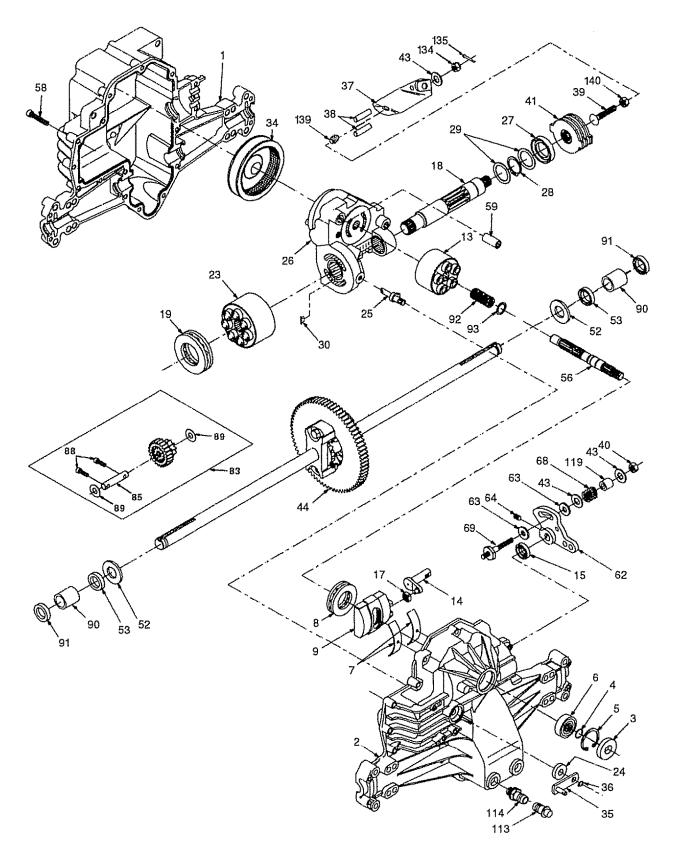
TRACTOR - - MODEL NUMBER 917.258590

MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	156948	Deck Asm., Mower 46"	52	156493	Pulley, Idler, Flat, 46 Pri. Drive
3	138457	Bracket Asm., Sway Bar	53	19131312	Washer, 13/32 x 13/16 x 12 Ga.
5	4939M	Retainer Spring		74780616	Bolt, Fin. Hex 3/8-16 x 1 Gr. 5
6	130832	Arm, Suspension, Rear (Sway Bar)	58	156488	Link, Brake 46" Mech
8	850857	Bolt, Patched 3/8-24 x 1-1/4 Gr. 8	59	157034	Guide, Belt 46" Mower
9	10030600	Washer, Lock Hvy., Unplated 3/8	60	156722	Arm Assm. Brake 46"
10	140296	Washer, Hard Blade, Mower Vented	61 62	139888 131870	Bolt, Shoulder 5/16-18 Type TT Spring Return
11	152443	Blade, 46" Mower Deck	63	156473	Bracket, Clutch Rod Pivot
12	129895	Bearing, Ball, Mandrel #6204	67	74760512	Bolt, Hex Head 5/16-18 x 3/4
13	137553	Shaft Asm. w/Lower Bearing	68	156487	Rod, Clutch
		(Includes Key No. 12)	69	73350600	Nut, Hex Jam 3/8-16 Unc
14	137152	Housing, Mandrel		142028	Trunnion, Adj. 94
15	110485X	Bearing, Ball, Mandrel	71	133551	Rod, Pivot with Nibs
16	140329	Stripper, Mower Round	73 74	76020412 156474	Pin, Cotter 1/8 x 3/4
18	72140505	Bolt, Carriage 5/16-18 x 5/8		127847	Link, Clutch 46" Mech.
19 20	132827 145055	Bolt, Hex Head, Shoulder 5/16-18 Baffle, Vortex Mower 46"		154808	Arm, Clutch Secondary Lever, Assm. Clutch Primary
21	73680500	Nut, Crownlock 5/16-18 UNC		127845	Keeper, Spring
22	134753	Stiffiner, Bracket	78	127498	Bushing, .747 OD. x .794 ID.
23	131267	Bracket, Deflector		153701	Spring, Mower Clutch
24	105304X	Cap, Sleeve		121748X	Washer 25/32 x 1-5/8 x 16 Ga.
25	123713X	Spring, Torsion, Deflector	81	12000029	Ring, Clip
26	110452X	Nut, Push	82	4497H	Retainer Spring 1"
27	157788	Shield, Deflector Mower	83	129803	Bolt, Shoulder 3/8-16 Unc
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	85	10040600	Washer Lock Hvy Hlcl Spring 3/8
29	131491	Rod, Hinge		158565	Bolt Carr Sh 3/8-16 x 2.0 Gr. 5
30	138776	Screw, Hex Head, Thdroll	87		Bracket, Extension
31	129963	Washer, Spacer Mower Vented		146927	Spring Ext. Return
32 33	153531	Pulley, Mandrel		73800600 145579	Locknut, Hex, w/Insert 3/8-16 UNC Cover, Mulching
34	137266 144945	Nut, Flg. Top Lock Cntr. 9/16 Anchor, Spring Deck 46"		71161010	Screw
35	17490628	Screw, Thdroll 3/8-16 x 1-3/4 Tytt		10071000	Washer, Lock #10
36	19131316	Washer 13/32 x 13/16 x 16 Ga.		19061216	Washer
37	131494	Pulley, Idler, Flat		130758	Latch Asm. Bagger
38	156086	Keeper, Belt, Idler		2029J	Nut, Weld
39	144917	Pulley, Idler, Driven	116	137644	Bolt, Shoulder
40	137273	Spring, Secondary 44/46/50 Vent		133957	Gauge Wheel, Wide
41	17490620	Screw, Thdroll 3/8-16 x 1-1/4 Tytt		73930600	Nut, Centerlock 3/8-16 UNC
42	122052X	Spacer, Retainer		19121414	Washer 3/8 x 7/8 x 14 Ga.
43	144949	Arm, Idler Secondary		156472	Arm, Idler, Deck 46" Mech.
44	133943	Washer, Hardened	127	146763	Pulley, Idler, V-Groove Dim. 4.25
45 46	145059 137729	Cover, Mandrel Deck Screw, Thdroll. 1/4-20 x 5/8		157112	Deck Complete (Std. Deck-Order separately mulcher plate and gauge
47	144959				wheel components Key Nos. 101-
48	158818	V-Belt, Mower, Secondary V-Belt, Mower, Primary			106 and 116-118)
49	73680600	Nut, Crownlock 3/8-16 UNC		143651	Mandrel Assm. Service
50	72110612	Bolt, Carriage 3/8-16 x 1-1/2 Gr. 5			example for a subsect to the left of the l
51	153390	Washer, Felt	ТОИ		nent dimensions given in U.S. inches
		•		1 inch = 2	5.4 mm

TRACTOR - - MODEL NUMBER 917.258590

HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650

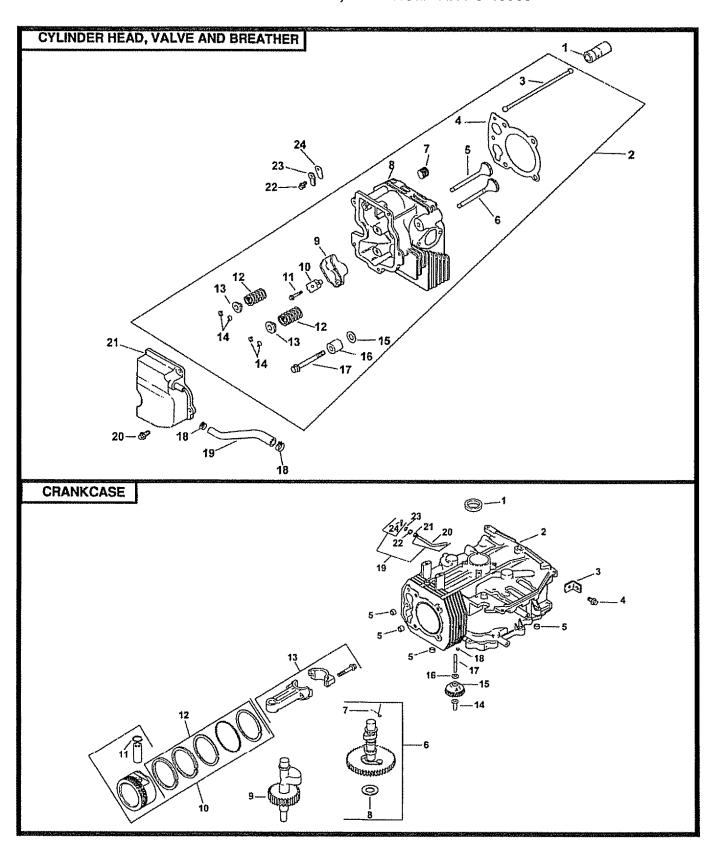


TRACTOR - - MODEL NUMBER 917.258590

HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650

KEY NO.	PART NO	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
	110.	DECOMM MON			
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 6	142933	Ring, Retaining	56	142963	Shaft, Input
6	142934	Bearing, Shaft Ball	58	142964	Bolt 1/4-20 x 1.38
7	142935	Bearing, Cradle	59	142965	Pin .5 OD x .43 ID x .750
8	150771	Bearing, Thrust 30 x 52 x 13	62	142966	Arm, Control
9	142937	Swashplate, Variable	63	142967	Puck, Dampener
13	142938	Block, Cylinder Assembly	64	142920	Set Screw
14	142939	Arm, Trunnion	68	142969	Spring
15	142940	Seal, Lip	69	144610	Stud 5/16-24
17	142941	Guide, Slot	83	142971	Jackshaft Assembly
18	150772	Shaft, Motor	85	150806	Jackshaft
19	150773	Bearing, Thrust 42 x 68 x 16	88	142973	Screw, Cap
23	142944	Block, Cylinder Assembly	89	142974	Washer 7/16 x 1 x 1/2
24	142945	Seal, Lip 10 x 25 x 7	90	142975	Sleeve Bearing
25	142946	Actuator, Bypass	91	142976	Seal, Wiper
26	150774	Center Section Assembly Kit	92	142977	Spring, Block
27	142948	Seal, Lip 26 x 42 x 8	93	142978	Washer, Block Thrust
28	142949	Ring, Retaining	113	142917	Cap, Vent Assembly
29	142950	Washer 26 x 35 x 1	114	142918	Fitting, O-Ring Assembly
34	142951	Oil Filter Element	119	142980	Spacer
35	142952	Arm, Bypass		144607	Nut, Castle 5/16-24
36	142953	Ring, Retaining	135	144608	Pin, Cotter
37	142954	Arm, Actuating	139	150775	Spring, Compression
38	142955	Pin, Actuating	140	150776	Nut, Hex 5/16-24
39	150777	Bolt 5/16-24 x 1-3/4			
40	150778	Locknut, Hex 5/16-24 UNJC	NOT	E: All compone	ent dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = 25.	

TRACTOR - - MODEL NUMBER 917.258590 KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509



TRACTOR - - MODEL NUMBER 917.258590

KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509

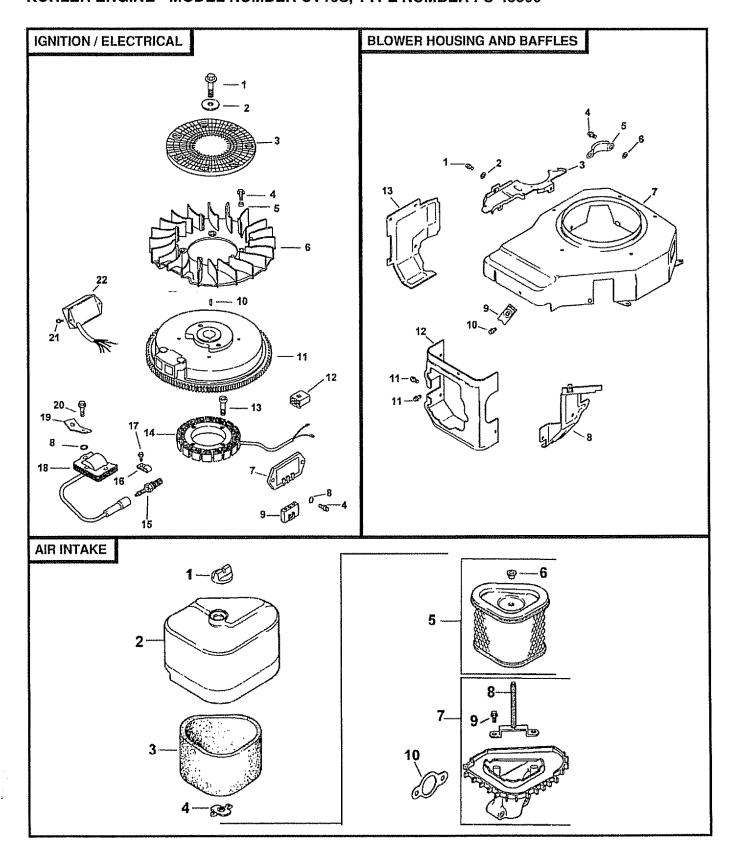
CYLINDER HEAD/VALVE/BREATHER CRANKCASE **KEY PART KEY PART** NO. NO. **DESCRIPTION** NO. NO. DESCRIPTION Lifter, valve (2) Kit, cylinder head (Includes 3-17) 12 351 02 12 032 03 Seal, crankshaft Block, cylinder (Use Short Block 12 522 18) 12 755 63 Strap, lifting Screw, hex. flange M8x1.25x25 Dowel, locating (4) Kit, camshaft (Includes 7-8) Rod, push (2) Gasket, cylinder head Valve, intake (Std.) Valve, intake (.25) 12 411 01 3 12 445 02 12 041 10 M-0839025 12 017 01 5 12 380 17 12 017 02 6 12 755 49 Kit, camshaft (Includes 7-8) Spring, actuating Shim, camshaft - blue Shim, camshaft (A.R.) red Shim, camshaft (A.R.) yellow Shim, camshaft (A.R.) green Shim, camshaft (A.R.) gray Shim, camshaft (A.R.) black Shim, camshaft (A.R.) white Shaft, balance Piston w/Ring Set (Std.) (Includes 11-12) Valve, exhaust (Std.) Valve, exhaust (.25) 12 016 01 12 089 18 12 016 02 12 422 08 Plug, allen hd. pipe 1/8 Cylinder Head 12 422 09 12 422 10 X-75-23 12 318 19 8 25 186 01 Arm, rocker (2) 12 422 11 Pivot, rocker arm (2) Screw, hex. flange M6xL0x34 (2) 10 12 599 03 12 422 12 12 422 13 11 M-0640034 Screw, hex. flange M6xL0x34 (2) Spring, valve (2) Cap, valve spring (2) Kit, retainer (2) Washer, plain 13/32 Spacer, head bolt exhaust port Screw, hex. flange M10x1.5x81 (5) Clamp, hose (2) Hose, breather Screw, hex. flange M6x1.0x20 (5) 12 089 01 12 422 07 12 12 173 01 12 755 03 13 12 144 19 14 12 874 07 Piston Willing Set (Std.) (Includes 11-12) Piston w/Ring Set (.25) Piston w/Ring Set (.50) Retainer, piston pin (2) Ring Set (Std.) Ring Set (.25) Ring Set (.50) 15 12 468 05 12 112 13 12 874 08 16 12 874 09 17 12 086 15 18 X-426-9 11 12 018 02 12 326 03 19 12 12 108 07 M-0645020 Screw, hex. flange M6x1.0x20 (5) 12 108 08 20 Cover, valve w/nipple Screw, hex. flange M5x0.8x10 12 108 09 21 12 096 07 Connecting Rod (Std.) Connecting Rod (.25) Pin, governor regulating 22 M-0545010 12 067 05 13 23 12 018 01 Retainer, breather reed 12 067 06 12 380 01 Reed, breather 24 12 402 02 14 12 043 05 Gear, governor assembly 15 Washer, plain 6mm 16 M-0631005 Shaft, governor gear 12 144 02 17 18 52 139 09 Plug, cup Kit, gov. cross shaft w/clip (Includes 20,24) 19 12 755 64 12 144 24 Shaft, governor cross 20 washer, plain 1/4 X-25-102 21 22 12 032 01 Seal, governor cross shaft 23 SM-0631015 Washer, plain 6mm

12 154 05

24

Clip, hitch pin

TRACTOR - - MODEL NUMBER 917.258590 KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509



TRACTOR - - MODEL NUMBER 917.258590

KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509

IGNITION/ELECTRICAL

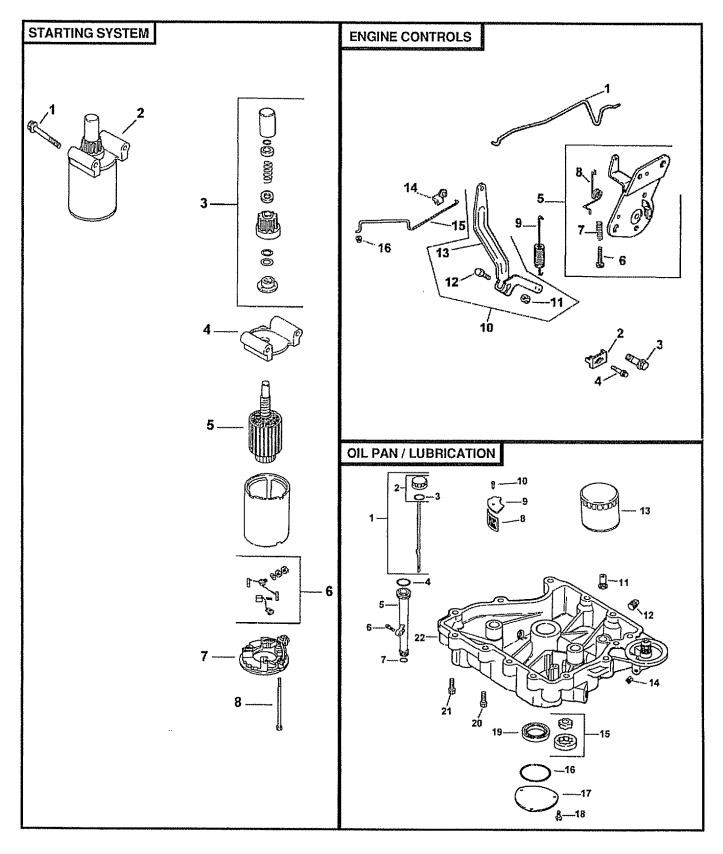
vev	PART				
	NO.	DESCRIPTION		PART NO.	DESCRIPTION
1 2 3	12 086 14 12 468 03	Screw, hex. flange MIOx1.5x46 Washer, plain 3/8	1	M-0545010	Screw, hex. flange M5x0.8x10 (8)
3	24 162 03	Screen, grass	2	24 468 10	Washer, plain 1/4
4	M-0639016	Screw, hex. flange M6x1.0x16 (6)	3	12 146 07 M-0645020	Plate, blower housing Screw, hex. flange M6x1.0x20
5 6	12 112 01	Spacer, fan (4) Fan	4 5	24 096 05	Cover, pinion
7	12 157 03 41 403 09	Regulator, rectifier	6	220534	Washer, plain 5/16 (2)
8	X-22-11	Washer, lock (2)	7	12 027 54	Housing, blower
9	236602	Connector	8	12 063 05	Baffle, intake side
10	X-42-15	Key	9	25 154 02	Clip, mounting (3)
11	12 025 35	Flywheel	10	SM-0545020	Screw, hex. flange M5x0.8x20 (3)
12	41 155 02	Connector (4 contact)		M-0645016	Screw, hex. flange M6x1.0x16 (2)
13	M-0548025	Screw, hex. cap M5x0.8x25 (2)		12 063 08	Baffle, cylinder head
14	24 085 01	Stator assembly - 15 amp	13	12 063 01	Baffle, cylinder
15	12 132 02	Spark Plug	A 153	INTARCE CH TE	ATION
16	X-728-1	Clip, cable (2)	AIH	INTAKE/FILTF	IATION
17	M-0545010	Screw, hex. flange M5x0.8x10 (2)			ATION
17 18	M-0545010 12 584 07	Screw, hex. flange M5x0.8x10 (2) Module, ignition	KEY	PART	
17 18 19	M-0545010 12 584 07 12 452 02	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal	KEY		DESCRIPTION
17 18 19 20	M-0545010 12 584 07 12 452 02 12 086 35	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2)	KEY NO.	PART NO.	DESCRIPTION
17 18 19	M-0545010 12 584 07 12 452 02	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal	KEY NO.	PART	
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance	KEY NO.	PART NO. 25 341 03 12 096 24 12 083 08	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance	KEY NO. 1 2 3 4	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06 ILLUSTRATE 25 518 29	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance D Lead	KEY NO. 1 2 3 4 5	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01 12 083 05	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut Element, air cleaner (Includes 6)
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06 ILLUSTRATE 25 518 29 25 518 05	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance D Lead Lead	KEY NO. 1 2 3 4 5 6	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01 12 083 05 12 032 10	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut Element, air cleaner (Includes 6) Seal
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06 TILLUSTRATE 25 518 29 25 518 05 12 176 31	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance D Lead Lead Harness	KEY NO. 1 2 3 4 5 6 7	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01 12 083 05 12 032 10 12 094 12	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut Element, air cleaner (Includes 6) Seal Base, air cleaner (Includes 8-9)
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06 ILLUSTRATE 25 518 29 25 518 05	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance D Lead Lead	KEY NO. 1 2 3 4 5 6 7 8	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01 12 083 05 12 032 10 12 094 12 12 072 03	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut Element, air cleaner (Includes 6) Seal Base, air cleaner (Includes 8-9) Stud M6x1.0x75
17 18 19 20 21 22	M-0545010 12 584 07 12 452 02 12 086 35 M-0461013 12 584 06 TILLUSTRATE 25 518 29 25 518 05 12 176 31	Screw, hex. flange M5x0.8x10 (2) Module, ignition Terminal Screw, hex. socket M5x0.8x20 (2) Screw, pan head M4.2x13 (2) Module, speed advance D Lead Lead Harness	KEY NO. 1 2 3 4 5 6 7	PART NO. 25 341 03 12 096 24 12 083 08 12 100 01 12 083 05 12 032 10 12 094 12	DESCRIPTION Knob, air cleaner cover Cover, air cleaner Precleaner, element Wing Nut Element, air cleaner (Includes 6) Seal Base, air cleaner (Includes 8-9)

NOT ILLUSTRATED

12 113 53 Decal, air cleaner

BLOWER HOUSING & BAFFLES

TRACTOR - - MODEL NUMBER 917.258590 KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509



TRACTOR - - MODEL NUMBER 917.258590

KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509

Filter, oil
Plug, sq. hd. solid 3/8
Pump, oil assembly
O-Ring, oil pump cover
Cover, oil pump
Screw, hex. flange M5x0.8x16 (3)
Seal, oil (P.T.O. end)
Screw, hex. flange
M8x1.25x45 (11)
Screw, hex. flange M8x1.25x45
Pan, oil

STARTING SYSTEM

14

15

16 17

18

X-75-10 12 393 01

12 153 06 12 096 34

19 12 032 03 20 24 086 16

21 24 086 17 22 12 199 38

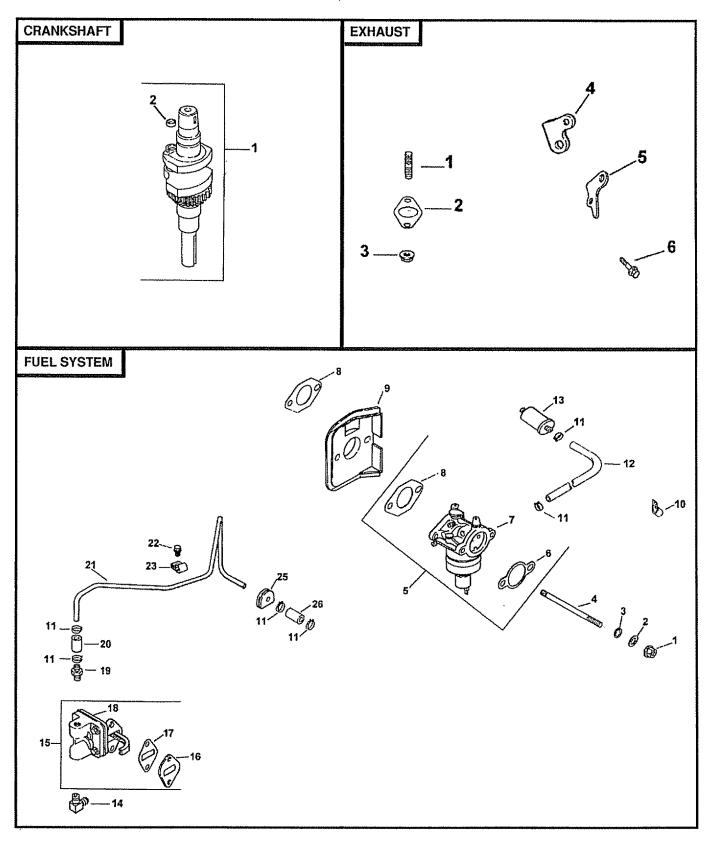
M-0545016

ENGINE CONTROLS

STARTING SYSTEM			ENGINE CONTROLS		
	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8	M-0839070 25 098 05 12 755 54 12 227 06 12 170 05 12 221 01 12 227 13 12 211 01	Screw, hex. flange M8x1.25x70 (2) Starter assembly (Includes 3-8) Kit, drive end Cap, drive end Armature Kit, brush & spring Cap, commutator end Bolt, hex. flange 1/4-20x4-5/8 (2)	3 4 5 6 7	M-0545016 12 536 10 M-0443020 12 089 11	Linkage, choke Clamp, cable Screw, lobed socket M6xl.0x20 (2) Screw, hex. flange M5x0.8x16 Control, speed assembly (Includes 6,8,9?) Screw, pan head M4x0.7x20 Spring, speed control (2)
OIL!	PAN/LUBRICA	HON	8 9	12 089 23 12 089 24	Spring, choke return Spring, governor
NO. 1 2 3 4 5 6 7 8 9 10 11 12 13	PART NO. 12 038 01 25 755 13 12 153 03 12 153 02 12 123 04 SM-0545020 12 153 01 25 162 07 12 096 03 M-0545016 25 462 09 X-75-2 12 000 01	DESCRIPTION Dipstick assembly (Includes 2-3) Kit, oil fill cap (Includes 3) O-Ring, oil fill cap O-Ring, upper oil fill tube Tube, oil fill Screw, hex. flange M5x0.8x20 O-Ring, lower oil fill tube Screen, oil pickup Cover, oil pickup Cover, oil pickup screen Screw, hex. flange M5x0.8x16 Valve, oil pressure relief Plug, pipe Filter, oil	10 11 12 13 14 15	12 755 83 12 100 07 52 211 04 12 090 26 25 158 11 12 079 01 25 158 08	Kit, governor lever (Includes 11-13) Nut, hex. flange M6x1.0 Bolt, round head Lever, governor Bushing, throttle linkage Linkage, throttle Bushing, linkage retaining

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KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509



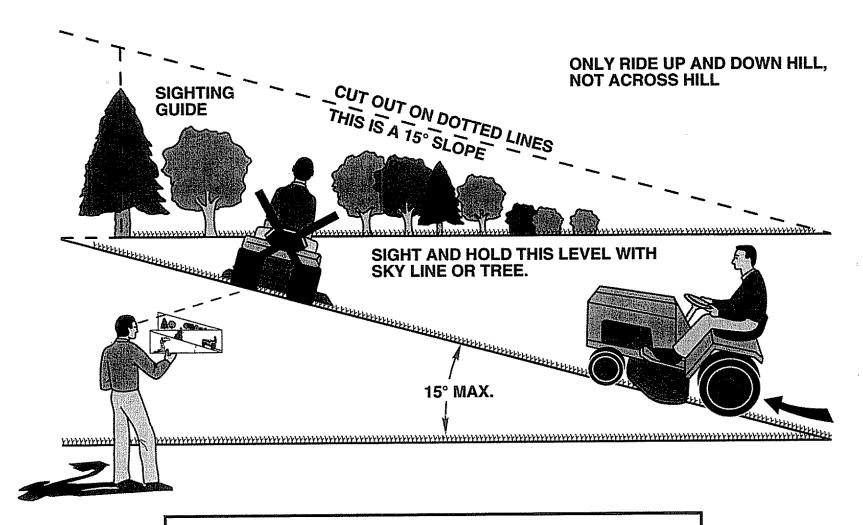
- TRACTOR - - MODEL NUMBER 917.258590

KOHLER ENGINE - MODEL NUMBER CV16S, TYPE NUMBER PS-43509

FUE	FUEL SYSTEM 21 12 123 19 Line, metal fuel						
	PART NO.	DESCRIPTION	22 23 24	M-0545010 12 154 01 12 431 01	Screw, hex. flange M5x0.8x10 Clamp, fuel line Sleeve, insulating		
1 2 3 4 5	M-0641060 X-25-63 X-22-11 M-0629122 12 853 83	Nut, hex. flange M6x1.0 (2) Washer, plain 1/4 Washer, star 1/4 Stud M6x1.0x122 (2) Kit, carburetor w/gasket	25 26	12 313 01 12 353 10 12 353 10 ILLUSTRATE 12 757 02 12 757 03 12 041 01	Grommet, fuel line Line, fuel 2-1/2"		
6 7	12 041 02 12 053 83	(Includes 6,7,8 qty 1) Gasket, air cleaner Carburetor assembly (For information only not available separately)		12 041 02 12 041 05 12 041 06 12 032 06	Gasket, air cleaner Gasket, bowl Gasket, bowl screw Seal, solenoid		
8 9 10	12 041 01 12 265 04 47 154 01	Gasket, carburetor (2) Deflector, heat Clip, cable		12 757 09 12 041 06	Kit, solenoid Gasket, bowl screw		
11 12	X-426-9 52 353 22	Clamp, hose (6) Line, fuel 12"		NKSHAFT			
13 14	25 050 02 25 155 02	Filter, fuel Connector, 90° hose Kit fuel nump w/nackets		PART NO.	DESCRIPTION		
16	17 25 041 09 Gasket, fuel pump (2) 18 M-0645020 Screw, hex. flange M6x1.0x20 (2)	(Includes 16-18) Spacer, fuel pump	1 2	12 014 37 12 139 01	Crankshaft (Includes 2) Plug, cup		
18 19		EXH	AUST				
20	12 353 01	Line, fuel 1-1/4"		PART NO.	DESCRIPTION		
			2 12 3 M- 4 12 5 12	0829033 041 03 0841080 126 11 445 06 0645025 12 522 18 12 755 82	Stud M8x1.25x33 (2) Gasket, exhaust manifold Nut, hex. flange M8x1.25 (2) Bracket, muffler Strap, lifting Screw, hex. flange M6x1.0x25 (2) Short Block Gasket Set		

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. 917.258590

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

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CRAFTSMAN®

16 HP ELECTRIC START 46" MOWER AUTOMATIC (HYDROSTATIC) LAWN TRACTOR

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

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

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

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

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT TRACTOR
- MODEL NUMBER 917.258590
- ENGINE MODEL NO. CV16S-43509
- PART NUMBER
- PART DESCRIPTION

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