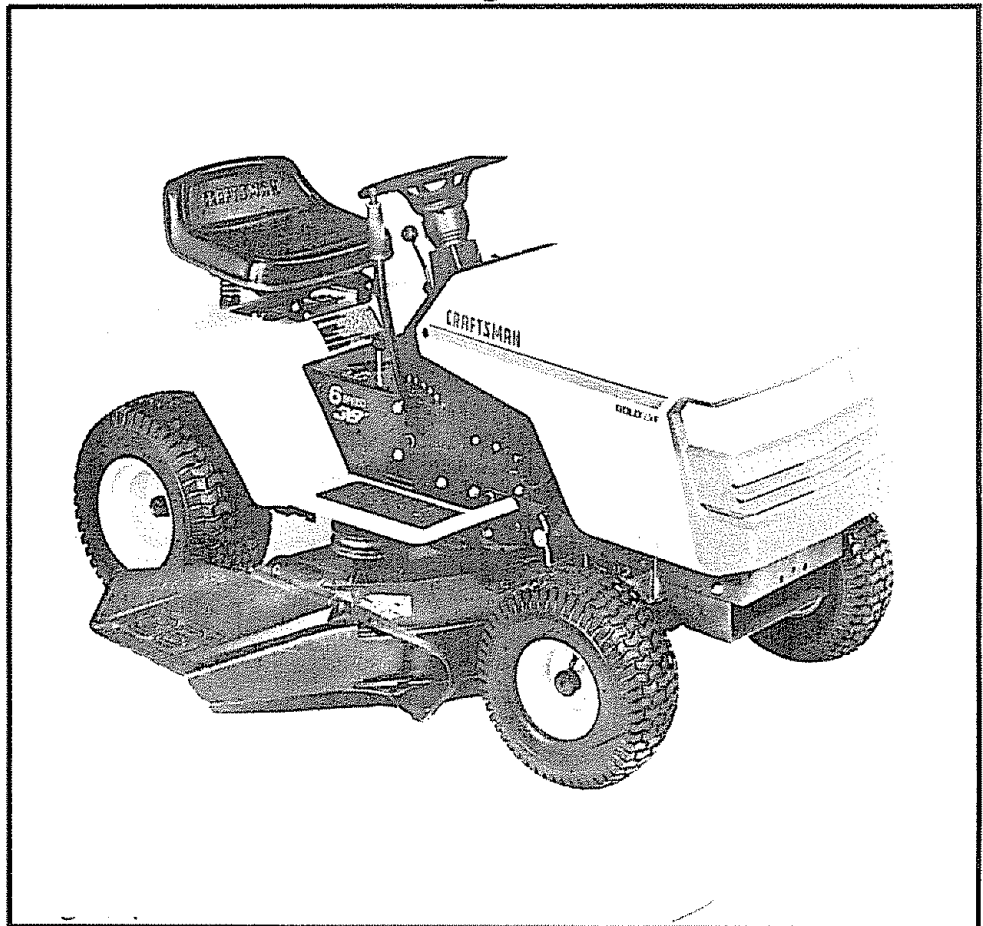


SEARS
OWNER'S
MANUAL

MODEL NO.
917.255520

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



CRAFTSMAN[®]

**12.5 HP IC
ELECTRIC START
38" MOWER DECK
6 SPEED TRANSAXLE
LAWN TRACTOR**

- Assembly
- Operation
- Maintenance
- Service and Adjustment
- Repair Parts

SAFETY RULES



CAUTION: ALWAYS DISCONNECT SPARK PLUG WIRE AND PLACE WIRE WHERE IT CANNOT CONTACT SPARK PLUG TO PREVENT ACCIDENTAL STARTING WHEN SETTING-UP, TRANSPORTING, ADJUSTING OR MAKING REPAIRS.



IMPORTANT

SAFETY STANDARDS REQUIRE OPERATOR PRESENCE CONTROLS TO MINIMIZE THE RISK OF INJURY. YOUR UNIT IS EQUIPPED WITH SUCH CONTROLS. DO NOT ATTEMPT TO DEFEAT THE FUNCTION OF THE OPERATOR PRESENCE CONTROLS UNDER ANY CIRCUMSTANCES.

TRAINING:

- Know the controls and how to stop quickly. Read this owner's manual and instructions furnished with attachments.
- Do not allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Do not carry passengers. Do not mow when children and others are around.
- Do not attempt to operate your vehicle or mower when not in the driver's seat.
- Always get on or off your vehicle from the operator's left hand side.
- The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
- Never mow in wet or slippery grass, when traction is unsure, or at a speed which could cause a skid.
- Stay alert for holes in the terrain and other hidden hazards. Keep away from drop-offs.
- Do not drive too close to creeks, ditches, and public high-ways.
- Exercise special care when mowing around fixed objects in order to prevent the blades from striking them. Never deliberately run vehicle or mower into or over any foreign objects.
- Never shift gears until vehicle comes to a stop.
- Never place hands or feet under the mower, in discharge chute, or near any moving parts while vehicle or mower is running. Always keep clear of discharge chute.
- Use care when pulling loads or using heavy equipment.

PREPARATION:

- Always wear substantial footwear. Do not wear loose fitting clothing that could get caught in moving parts.
- Clear the work area of objects (wire, rocks, etc.) which might be picked up and thrown.
- Disengage all attachment clutches before attempting to start the engine.
- Handle gasoline with care - it is highly flammable.
 - Use approved gasoline containers.
 - Never remove the fuel cap of the fuel tank or add gasoline to a running or hot engine or an engine that has not been allowed to cool for several minutes after running. Never fill tank indoors. Always clean up spilled gasoline.
 - Open doors if the engine is run in the garage - exhaust fumes are dangerous. Do not run the engine indoors.
- Do not operate the mower without the entire grass catcher, on mowers so equipped, or the deflector shield in place.
- Watch out for traffic when crossing or near roadways.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
- Except for adjustments, do not operate engine if air cleaner or cover directly over carburetor air intake is removed. Removal of such part could create a fire hazard.
- Do not change the engine governor settings or overspeed the engine; severe damage or injury may result.

OPERATION:

- Keep your eyes and mind on your vehicle, mower, and the area being cut. Do not let other interests distract you.
- Disengage power to attachments and stop the engine before leaving the operator's position.
- Disengage power to mower, stop the engine, and disconnect spark plug wire(s) from spark plug(s) before cleaning, making an adjustment, or repair. Be careful to avoid touching hot muffler or engine components.
- Disengage power to attachments when transporting or not in use.
- Take all possible precautions when leaving the vehicle unattended. Disengage the power take-off, lower the attachments, shift into neutral, set the parking brake, stop the engine, and remove the key.
- Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of slopes (not greater than 15°), never across the face.
- Reduce speed on slopes and make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
- While going up or down slopes, place gearshift control lever in 1st gear position to negotiate the slope without stopping.
- When using the vehicle with mower, proceed as follows:
 - Mow only in daylight or in good artificial light.
 - Shut the engine off when unclogging chute.
 - Check the blade mounting bolts for proper tightness at frequent intervals.
- Disengage power to mower before backing up. Do not mow in reverse unless absolutely necessary and then only after careful observation of the entire area behind the mower.

MAINTENANCE AND STORAGE

- Keep the vehicle and attachments in good operating condition, and keep safety devices in place and working.
- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment 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.
- To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease. Do not clean product while engine is running.
- Do not operate without a muffler, or tamper with exhaust system. Damaged mufflers or spark arresters could create a fire hazard. Inspect periodically and replace if necessary.
- Under normal usage the grass catcher bag material is subject to deterioration and wear. It should be checked frequently for bag replacement. Replacement bags should be checked to ensure compliance with the original manufacturer's recommendations or specifications.



LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS - ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.

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 unit.

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

MODEL NUMBER	917.255520
SERIAL NUMBER	_____
DATE OF PURCHASE	_____
THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A PLATE UNDER THE SEAT.	
YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.	

MAINTENANCE AGREEMENT

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

CUSTOMER RESPONSIBILITIES

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

PRODUCT SPECIFICATIONS

HORSEPOWER:	12.5
GASOLINE CAPACITY:	5 QUARTS UNLEADED REGULAR
OIL (3.0 PINTS):	SAE 30 (or 10W-30) WINTER: SAE 5W-30
SPARK PLUG (GAP .030 IN.):	CHAMPION RJ-19LM STD361458
VALVE CLEARANCE:	INTAKE .005 - .007 IN. EXHAUST .009 - .011 IN.
GROUND SPEED:	FORWARD 1st 1.10 MPH 2nd 1.40 MPH 3rd 2.00 MPH 4th 3.00 MPH 5th 4.20 MPH 6th 5.00 MPH REVERSE: 1.50 MPH
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BLADE BOLT TORQUE:	30-35 FT. LBS

WARNING: This unit 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 ELECTRIC START RIDING EQUIPMENT

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

This Warranty does not cover:

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

FULL 90 DAY WARRANTY ON BATTERY

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

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

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

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

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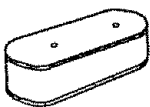


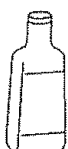
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ACCESSORIES AND ATTACHMENTS

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

ENGINE

SPARK PLUG	MUFFLER	AIR FILTER	GAS CAN	ENGINE OIL	STABILIZER
					

MAINTENANCE

BLADES	BELTS
	

PERFORMANCE

Sears offers a wide variety of attachments that fit your vehicle. 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 unit.**

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.

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

LAWN SWEEPERS let you collect grass clippings and leaves.

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

CARTS make hauling easy. Variety of sizes available.

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

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

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

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

DETHATCHER loosens soil and flips thatch and matted leaves to lawn surface for easy pick up. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting.

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

SNOW BLADE for snow removal only. 14-inch high, 42-inch wide blade clears 38 inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains, wheel weights, 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, wheel weights, or rear drawbar weight.)

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

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials. In pairs (30 lbs each.)

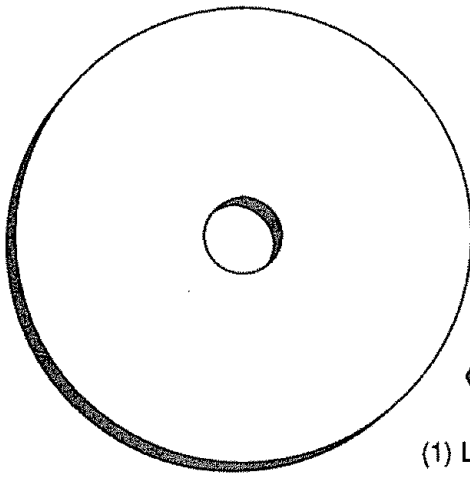
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl and windshields for use as sun protector in summer.

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

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

CONTENTS OF HARDWARE PACK

Parts Bag contents shown full size



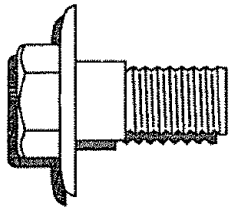
(1) 2-1/4" Dia. Washer



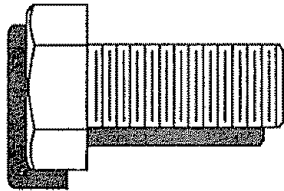
(2) Sheet Metal Screws #10-16 x 1/2



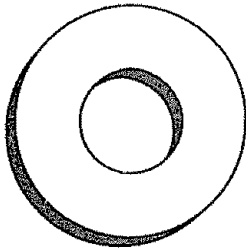
(1) Locknut 1/2-20



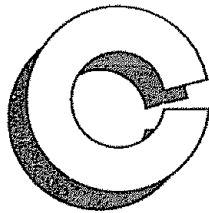
(1) Shoulder Bolt 5/16-18



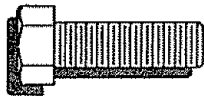
(1) Hex Bolt 1/2-13 x 1



(1) Washer 17/32 x 1-3/16 x 12 Ga.



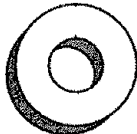
(1) Lockwasher 1/2



(2) Hex Bolts 1/4-20 x 3/4



(2) Hex Nuts 1/4-20



(2) Washers 9/32 x 5/8 x 16 Ga.

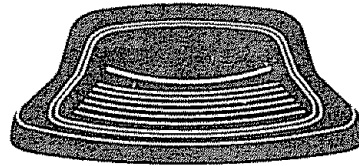


(2) Lock Washers 1/4

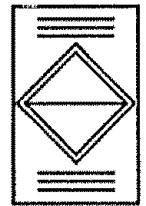


(2) Wing Nuts 1/4-20

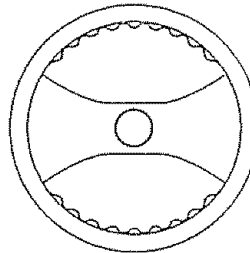
Parts packed separately in carton



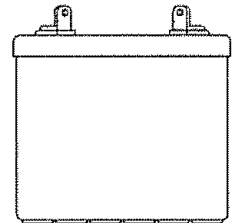
Seat



Battery acid



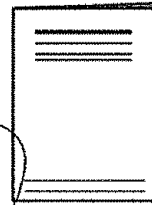
Steering Wheel



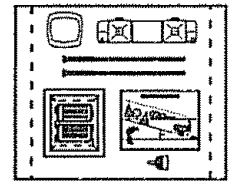
Battery



Steering Boot



Owner's Manual



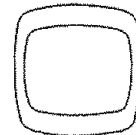
Parts Bag



Steering Bushing



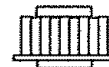
(2) Keys



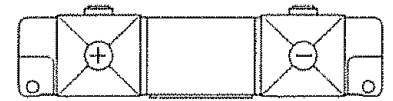
Steering Wheel Insert



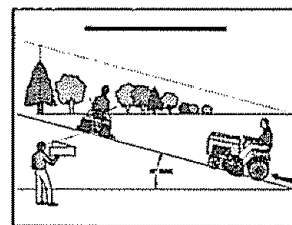
(2) Battery Carriage Bolts 1/4-20 x 7-1/2



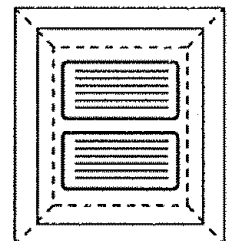
Steering Wheel Adapter



Terminal Guard



15° Slope Sheet



Battery Caps and Instructions

ASSEMBLY

TOOLS REQUIRED FOR ASSEMBLY

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

- | | |
|--------------------|---------------------|
| (1) 5/16" wrench | (1) 3/4" wrench |
| (2) 7/16" wrenches | Tire pressure gauge |
| (1) 1/2" wrench | Screwdriver |
| (1) 9/16" wrench | Utility knife |

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

TO REMOVE UNIT FROM CARTON UNPACK CARTON

- Remove all loose parts from carton (See page 6)
- Cut, from top to bottom, all four corners of carton and lay panels flat.

ATTACH STEERING WHEEL (See Fig. 1)

- Slide the steering bushing over the steering shaft
- Raise steering shaft forward until screw holes in dash line up with steering bushing. Install two (2) sheet metal screws and tighten securely.
- Position steering boot over steering shaft
- Place tabs of steering boot over slots in dash and push down to secure.
- Slide steering wheel adapter onto upper steering shaft.
- Position front wheels of the tractor so they are pointing straight forward
- Position steering wheel so cross bars are horizontal (left to right) and slide onto adapter
- Assemble large flat washer and 1/2-20 hex nut and tighten securely.
- Snap insert into center of steering wheel.
- Remove protective plastic from tractor hood

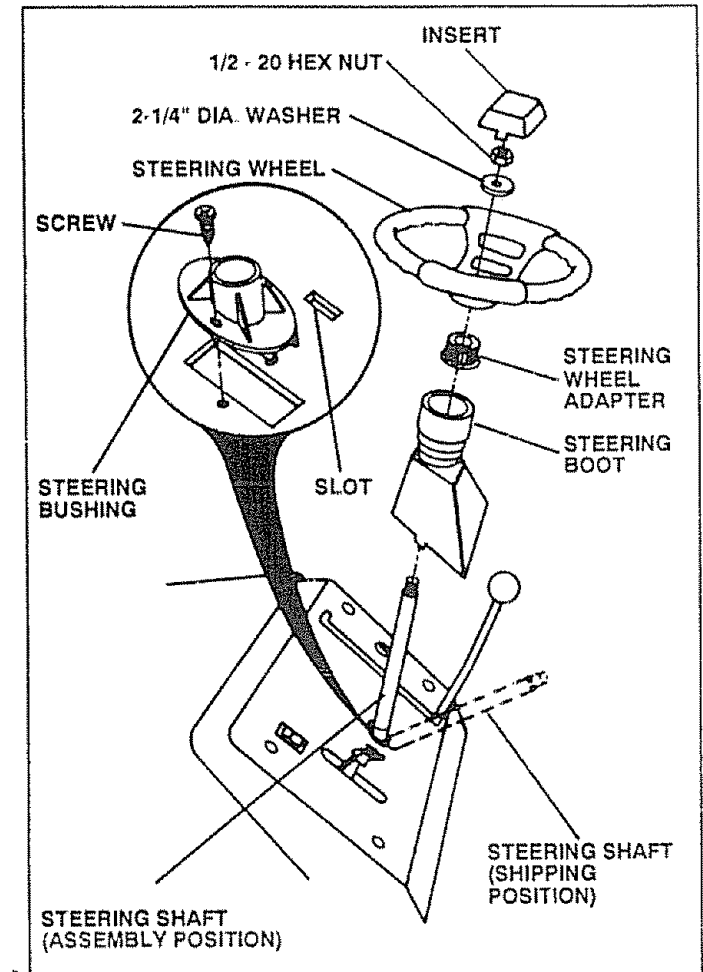


FIG. 1

BEFORE ROLLING UNIT OFF SKID

(See Fig. 6)

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

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Roll unit backwards off skid.

ASSEMBLY

HOW TO SET UP YOUR TRACTOR

PREPARE BATTERY (See Fig. 2)



CAUTION: Wear eye and face shield.

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

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

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

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

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

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of unit.

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

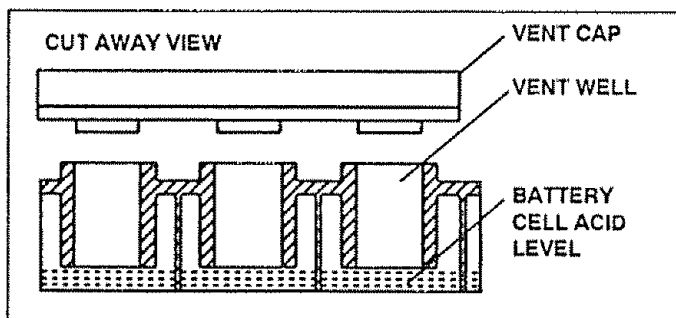


FIG. 2

INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment bolt.

- Remove cardboard packing on seat pan.
- Place seat on pan and assemble shoulder bolt.
- Assemble adjustment bolt, lockwasher 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 (See Fig. 6).
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment bolt securely.

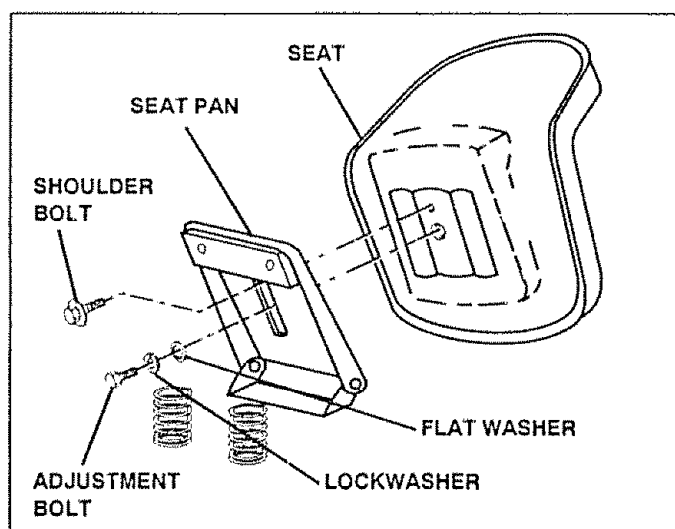


FIG. 3

CHECK TIRE PRESSURE

The tires on your unit 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 DECK LEVELNESS

For best cutting results, mower housing 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 and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

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.

ASSEMBLY

INSTALL BATTERY (See Figs. 4 & 5)



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

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

- Lift seat to raised position
- Lower battery into fender well with battery terminals toward front of unit. Make sure battery rests in battery tray.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lockwasher and hex nut as shown. Tighten securely
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lockwasher and hex nut. Tighten securely.
- Slide the two battery bolts through the terminal guard and start the wing nuts onto the threads
- Position terminal guard over the battery as shown, lower bolts into key holes and slide square shafts of bolts into slots of key holes.
- Tighten wing nuts by hand making sure battery bolts remain in slots of the key holes in the battery support.
- Be sure terminal access doors are closed.

Use terminal access doors for:

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

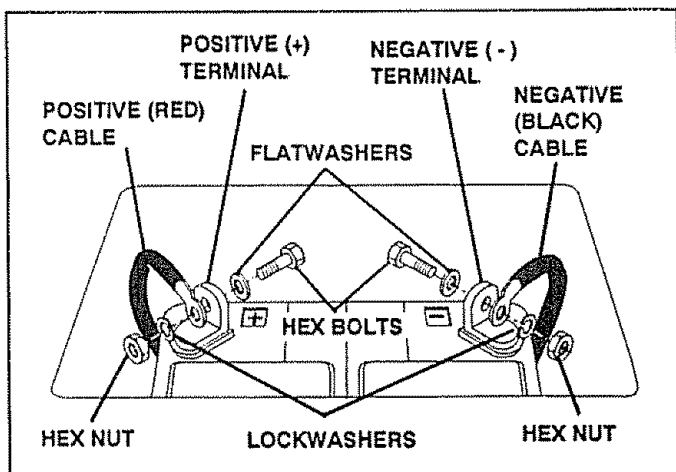


FIG. 4

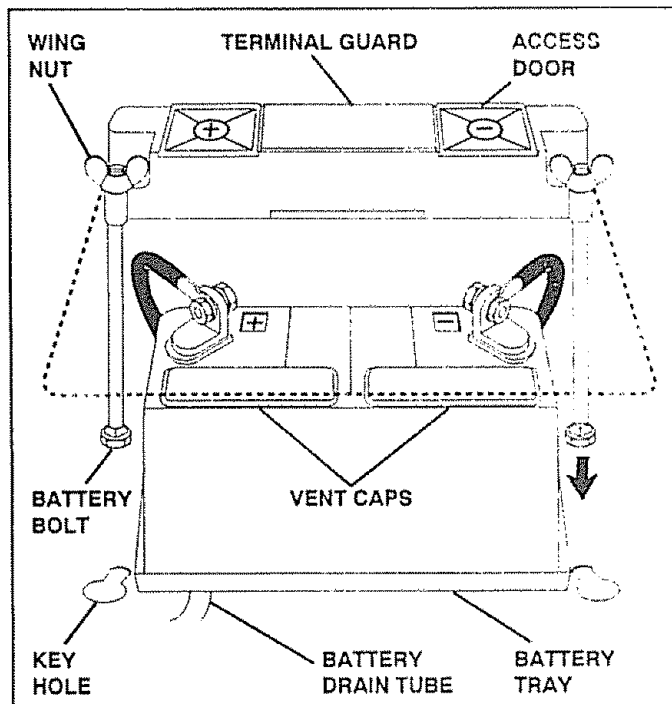


FIG. 5

✓ 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 over-inflated at the factory)
- ✓ Be sure mower deck is properly leveled side-to-side/front-to-rear for best cutting results (Tires must be properly inflated for leveling).
- ✓ Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers
- ✓ Check wiring. See that all connections are still secure and wires are properly clamped

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

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

OPERATION

KNOW YOUR TRACTOR

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

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

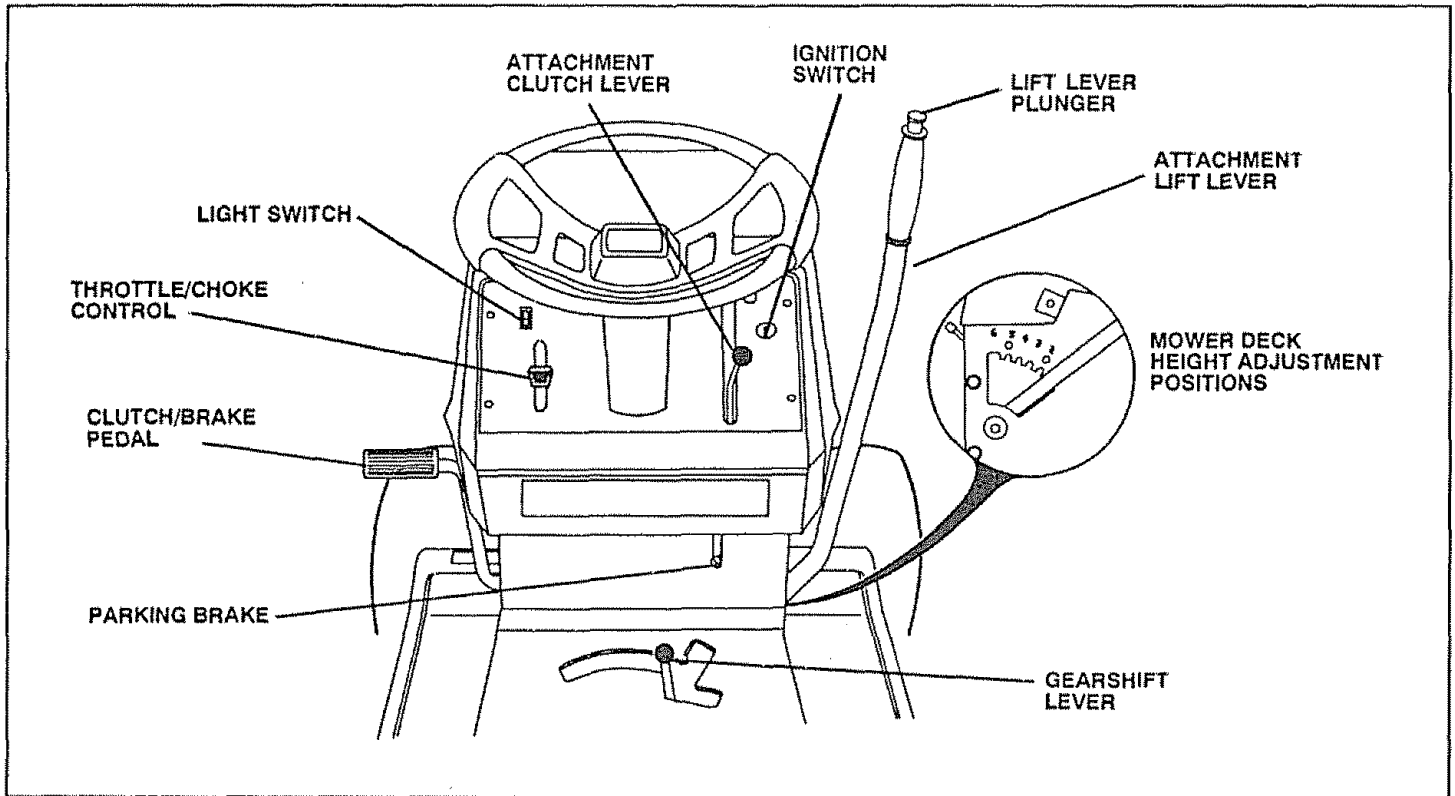


FIG. 6

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

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

LIGHT SWITCH: Turns the headlights on and off.

THROTTLE/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.

GEARSHIFT LEVER: Selects the speed and direction of tractor.

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

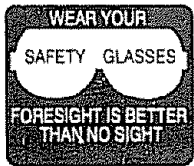
LIFT LEVER PLUNGER: Used to release attachment lift lever when changing its position.

IGNITION SWITCH: Used for starting and stopping the engine.

CAUTION TO AVOID INJURY

- READ OWNER'S MANUAL.
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS.
- KEEP GUARDS, SAFETY SHIELDS AND SWITCHES IN PLACE AND WORKING.
- REMOVE OBJECTS THAT CAN BE THROWN BY BLADES.
- DO NOT MOW WHEN CHILDREN AND OTHERS ARE AROUND.
- NEVER CARRY CHILDREN OR PASSENGERS.
- ALWAYS LOOK BEHIND MACHINE BEFORE BACKING.
- DO NOT MOW WHERE MACHINE CAN TIP OR SLIP.
- IF MACHINE STOPS GOING UPHILL, STOP BLADE AND BACK DOWN SLOWLY.
- BE SURE BLADES AND ENGINE HAVE STOPPED BEFORE PLACING HANDS OR FEET NEAR THE BLADES.
- REMOVE KEY WHEN LEAVING MACHINE.

OPERATION



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

HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 7)

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

STOPPING (See Fig. 7)

MOWER BLADES -

- Move attachment clutch lever to "DISENGAGED" position

GROUND DRIVE -

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

ENGINE -

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

TO USE THROTTLE CONTROL (See Fig. 7)

Always operate engine at full throttle

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

TO MOVE FORWARD AND BACKWARD (See Fig. 6)

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

- Start tractor with clutch/brake pedal depressed and gearshift lever in "NEUTRAL" position.
- Move gearshift lever to desired position.
- Slowly release clutch/brake pedal to start movement.

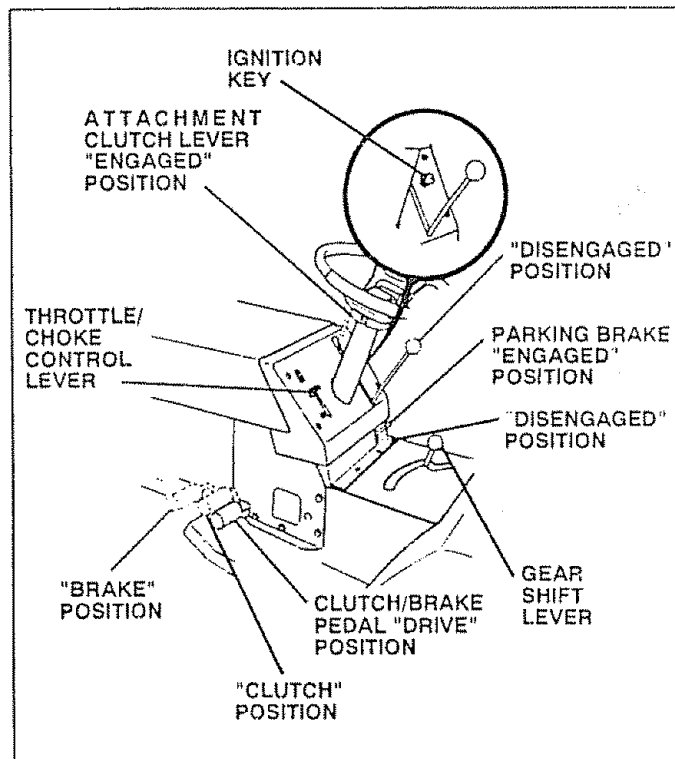


FIG. 7

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 6)

The position of the attachment lift lever determines the cutting height

- Grasp lift lever
- Press plunger with thumb and move lever to desired position

The cutting height range is approximately 1-1/4 to 3-3/4". 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 approximately 2-1/2 inches during the cool season and 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.

OPERATION

TO OPERATE MOWER (See Fig. 8)

Your unit 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.
- Engage mower by slowly moving attachment clutch lever to "ENGAGED" position.
- TO STOP MOWER - Move attachment clutch lever to "DISENGAGED" position.



CAUTION: DO NOT OPERATE THE MOWER WITHOUT EITHER THE ENTIRE GRASS CATCHER, ON MOWERS SO EQUIPPED, OR THE DISCHARGE GUARD IN PLACE.

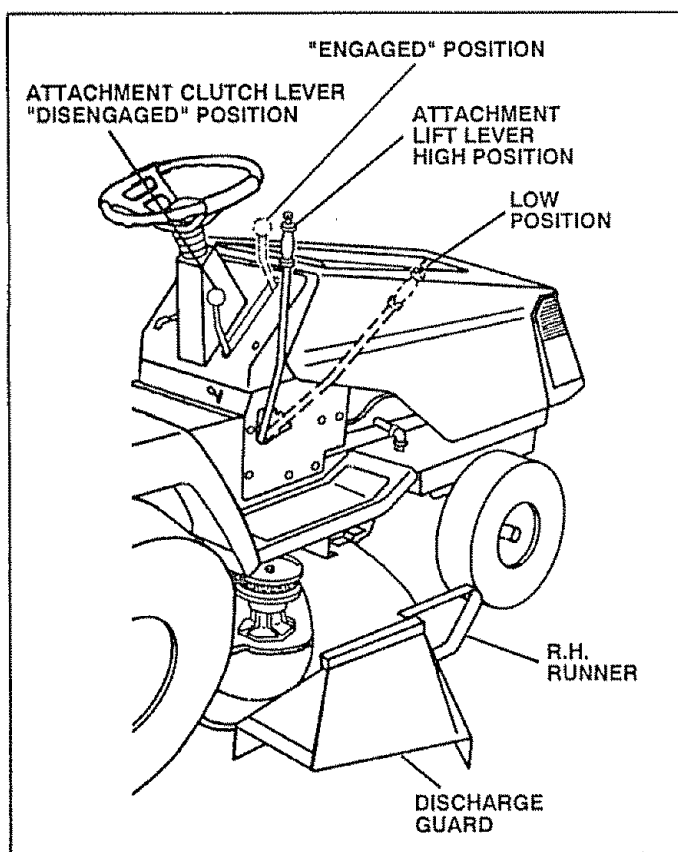


FIG. 8

TO OPERATE ON HILLS



CAUTION: DO NOT DRIVE UP OR DOWN HILLS WITH SLOPES GREATER THAN 15° AND DO NOT DRIVE ACROSS ANY SLOPE.

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

- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move gearshift lever to 1st gear and be sure you have allowed room for tractor to roll slightly as you restart movement.
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Make all turns slowly.

TO TRANSPORT

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

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL (See Fig. 16)

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

ADD GASOLINE

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

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

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



CAUTION: FILL TO BOTTOM OF GAS TANK FILLER NECK. DO NOT OVER-FILL. WIPE OFF ANY SPILLED OIL OR FUEL. DO NOT STORE, SPILL OR USE GASOLINE NEAR AN OPEN FLAME.

OPERATION

TO START ENGINE (See Fig. 7)

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

- Depress the clutch/brake pedal and set the parking brake.
- Place gearshift lever in "NEUTRAL" position.
- Move attachment clutch to "DISENGAGED" position.
- Move throttle control lever to "CHOKE" position for cold engine start. For warm engine start, move throttle control to "FAST" position.
- Turn ignition key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If engine does not start after several attempts, move throttle control to "FAST" position, wait a few minutes and try again.
- When engine starts, move throttle control to desired position.
- Allow engine to warm up for a few minutes before engaging drive or attachment clutch.

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

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to unit.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- Use the runner on the right hand side of mower as a guide. The blade cuts approximately an inch outside the runner (See Fig. 8).
- The left hand side of mower should be used for trimming.

- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 9).

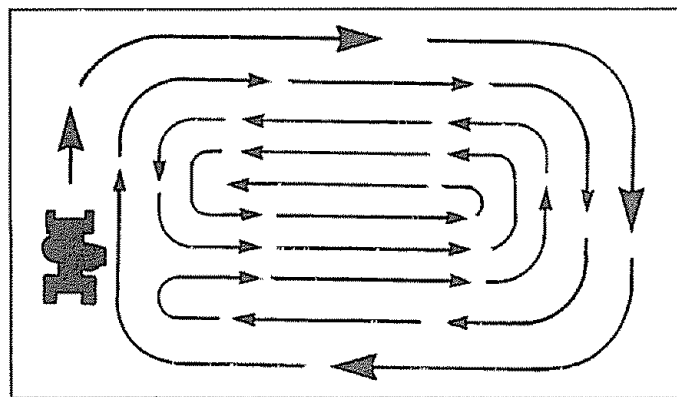


FIG. 9

- 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.

MAINTENANCE

MAINTENANCE SCHEDULE FILL IN DATES AS YOU COMPLETE REGULAR SERVICE		SERVICE DATES											
		BEFORE EACH USE	FIRST 2 HOURS	EVERY 8 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	BEFORE STORAGE					
TRACTOR	Check Brake Operation	✓		✓									
	Check Tire Pressure	✓		✓									
	Check for Loose Fasteners	✓							✓				
	Sharpen/Replace Mower Blades				✓ ₄								
	Lubrication Chart				✓				✓				
	Check Battery Level/Recharge				✓								
	Clean Battery and Terminals				✓					✓			
	Check Transmission Cooling				✓								
	Adjust Blade Belt(s) Tension							✓					
	Adjust Motion Drive Belt(s) Tension							✓					
	ENGINE	Check Engine Oil Level	✓		✓								
Change Engine Oil			✓		✓ _{1,2,3}				✓				
Clean Air Filter					✓ ₂								
Clean Air Screen					✓ ₂								
Inspect Muffler/Spark Arrester					✓								
Replace Oil Filter (If equipped)							✓ _{1,2}						
Clean Engine Cooling Fins							✓ ₂						
Replace Spark Plug							✓		✓				
Replace Air Filter Paper Cartridge							✓ ₂						
Replace Fuel Filter										✓			

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

GENERAL RECOMMENDATIONS

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

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

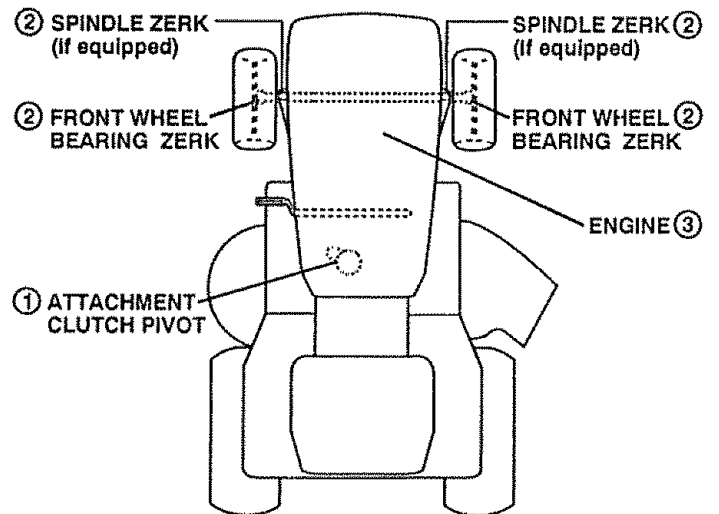
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

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

BEFORE EACH USE

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

LUBRICATION CHART



- 1 SAE 30 OR 10W30 MOTOR OIL API - SF/CC
- 2 GENERAL PURPOSE GREASE
- 3 REFER TO ENGINE MAINTENANCE 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.

MAINTENANCE

TRACTOR

Always observe safety rules when performing any maintenance.

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT 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. The blades can be sharpened with a file or on a grinding wheel. We suggest they be sharpened or replaced after every 25 hours of mowing. Check blades more often if mowing in sandy conditions.

- Do not attempt to sharpen blades while they are on the mower.
- Replace bent or damaged blades.

BLADE REMOVAL (See Fig. 10)

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

IMPORTANT: BLADE BOLT IS GRADE 5 HEAT TREATED.

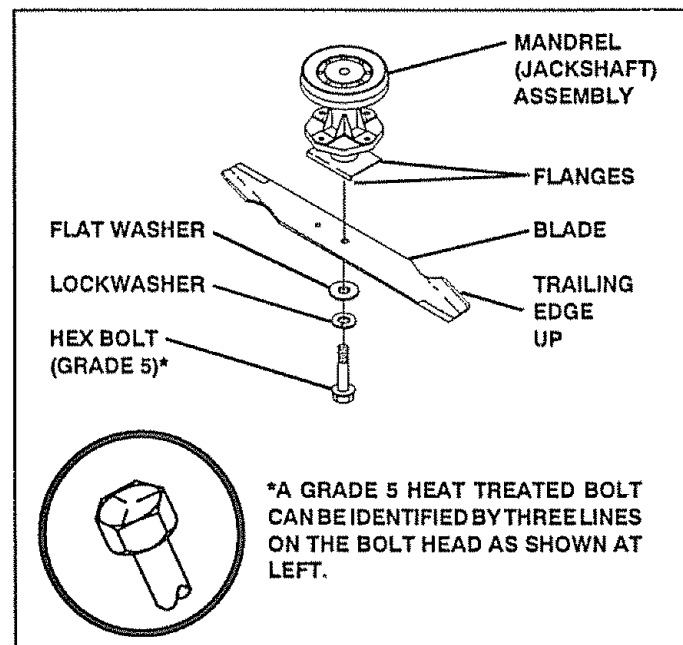


FIG. 10

TO SHARPEN BLADE (See Fig. 11)

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, drive a nail into a beam or wall. Leave about one inch of the straight nail exposed. Place center hole of blade over the head of the nail. 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.

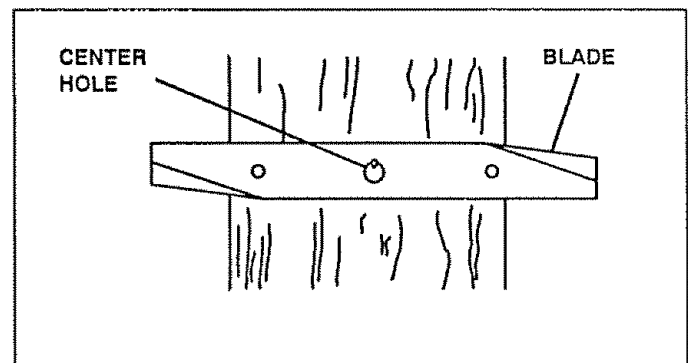


FIG. 11

MAINTENANCE

BATTERY (See Fig. 12)

Your unit 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.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.

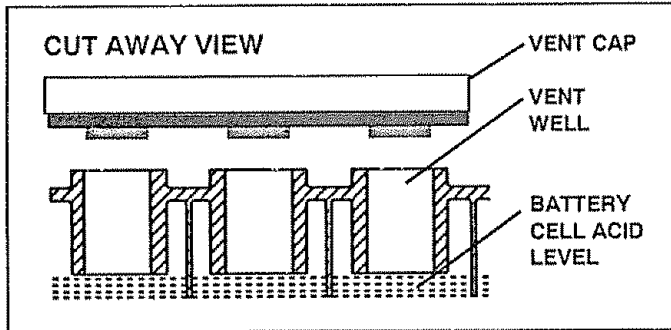


FIG. 12

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

TO CLEAN BATTERY AND TERMINALS -

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

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

ENGINE

LUBRICATION

Change the oil after the first two hours of operation and every 25 hours thereafter or at least once a year if the tractor is not used for 25 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of continuous use. Add SAE 30W motor oil or equivalent. Tighten oil fill cap/dipstick securely each time you check the oil level. SAE 5W-30 motor oil may be used to make starting easier in areas where temperature is consistently 32° F or lower.

TO CHANGE ENGINE OIL (See Fig. 13)

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

- Be sure vehicle is on level surface.
- Oil will drain more freely when warm.

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

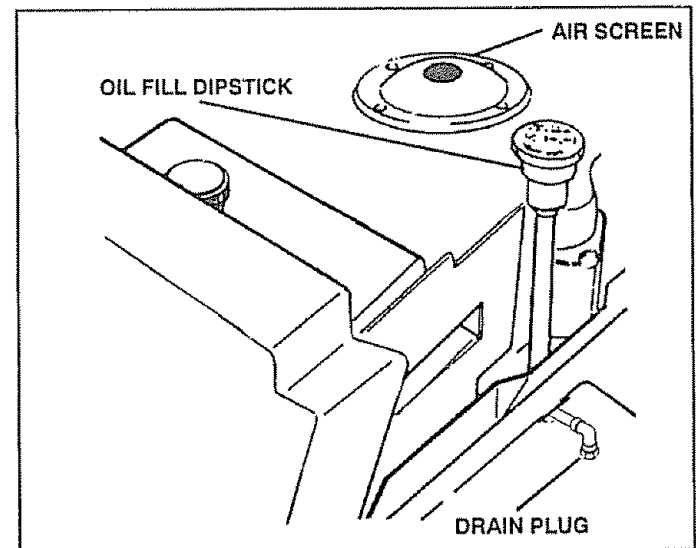
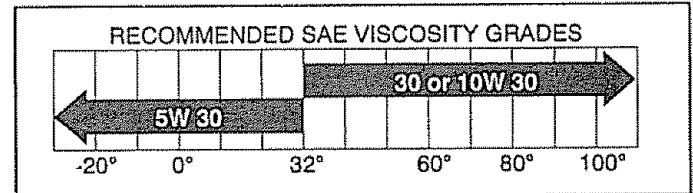


FIG. 13

AIR FILTER (See Fig. 14)

Your engine will not run properly and may be damaged by using a dirty air filter. Replace paper cartridge once a year or after every 100 hours of operation, more often if used in very dusty, dirty conditions.

- Remove knobs and cover.
- Remove cartridge nut and replace cartridge.
- Reassemble and tighten securely.

NOTE: Do not attempt to clean or oil the paper cartridge.

MAINTENANCE

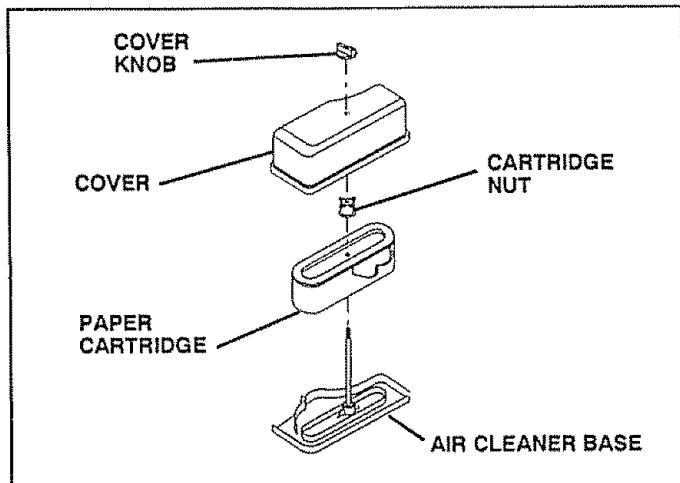


FIG. 14

AIR SCREEN (See Fig. 13)

The engine 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.

ENGINE COOLING FINS (See Fig. 15)

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating.

- Remove oil fill dipstick and cover opening to prevent entry of dirt.
- Remove screws from blower housing and lift housing off engine.
- Remove the screws securing the starter housing and lift housing off engine.
- Use compressed air or stiff bristle brush to thoroughly clean engine cooling fins.
- To reassemble, reverse above procedure.

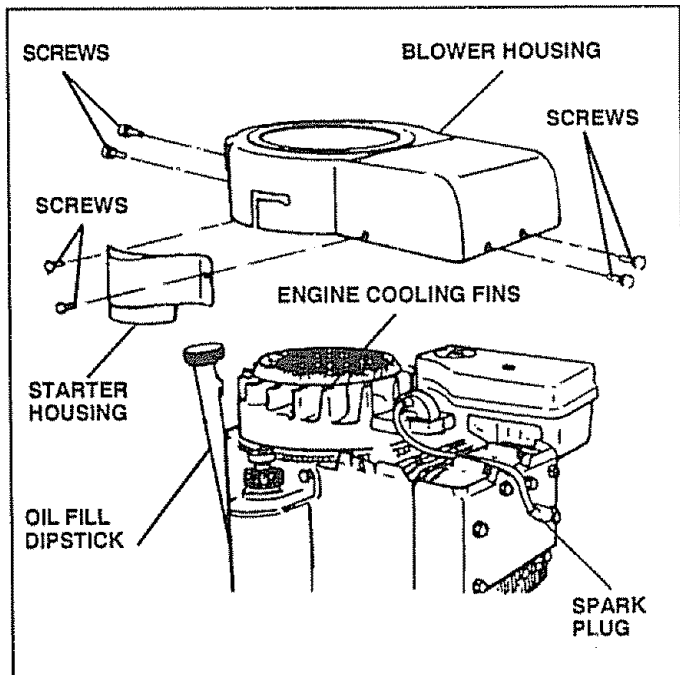


FIG. 15

MUFFLER

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

SPARK PLUGS

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

IN-LINE FUEL FILTER (See Fig. 16)

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.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

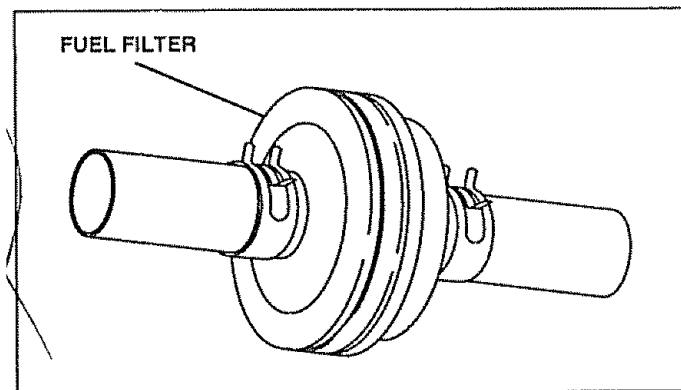


FIG. 16

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 unit 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.

SERVICE AND ADJUSTMENTS



CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

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

TRACTOR

TO REMOVE MOWER (See Fig. 17)

Mower will be easier to remove from the right side of unit.

- Remove mower blade drive belt from engine pulley only (See "TO REPLACE MOWER BLADE DRIVE BELT" through step removing belt from engine pulley).
- Remove retainer spring from clutch rod; pull clutch rod out of clutch lever.
- Pull retainer springs out of rear suspension trunnions. Remove rear suspension trunnions from lift brackets.
- Pull retainer springs from front hinge pins.
- Remove hinge pins attaching parallel link to mower and front axle.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED TO THE TRACTOR, THE R.H. AND L.H. SUSPENSION ARMS MUST BE REMOVED FROM TRACTOR.

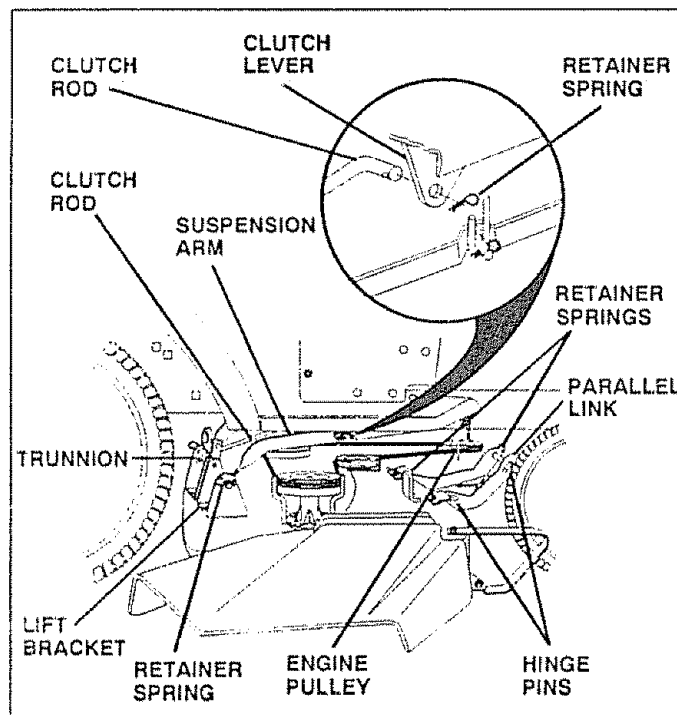


FIG. 17

TO INSTALL MOWER (See Fig. 17)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- Install parallel link to front axle and mower with hinge pins. Secure hinge pins with retainer springs.
- Install clutch rod in clutch lever and secure with retainer spring.
- Lower attachment lift lever to lower suspension arms. Slide trunnions through lift bracket holes and secure with retainer springs.
- Roll belt over engine pulley. Make sure belt is inside all pulley grooves and inside belt guides.
- Raise attachment lift lever to raise mower.

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). If tires are over or under inflated, you will not properly adjust your mower.

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

- Raise attachment lift lever to its highest position.
- Measure height from bottom of deck curl to ground level at front corners of mower. Distance "A" should be the same.
- If distance "A" needs to be changed, snap out access hole cover on left side of tractor above footrest.
- To raise left side of mower, loosen nut "B" and tighten nut "C".
- To lower left side of mower, loosen nut "C" and tighten nut "B".
- When distance "A" is equal, securely tighten nuts "B" and "C".
- Replace access hole cover.

SERVICE AND ADJUSTMENTS

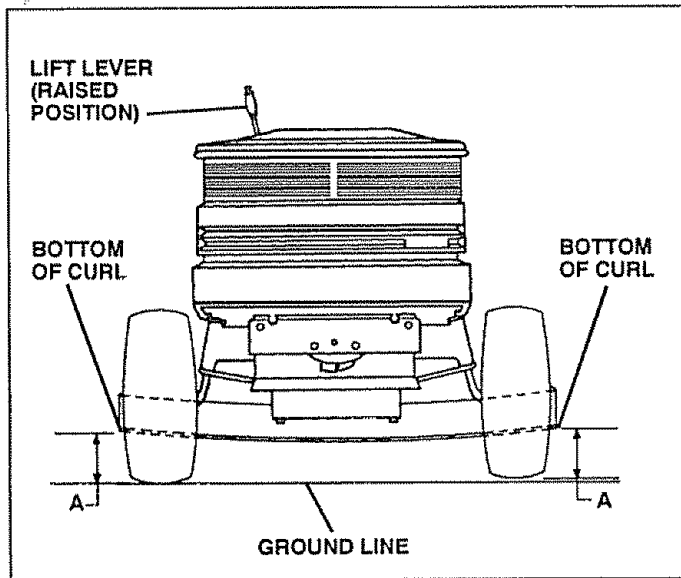


FIG. 18

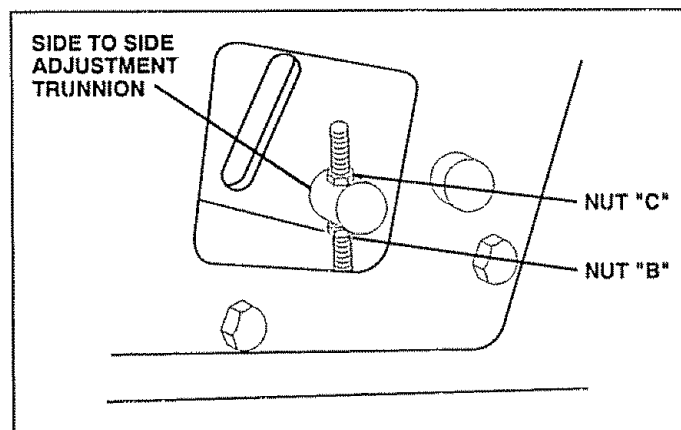


FIG. 19

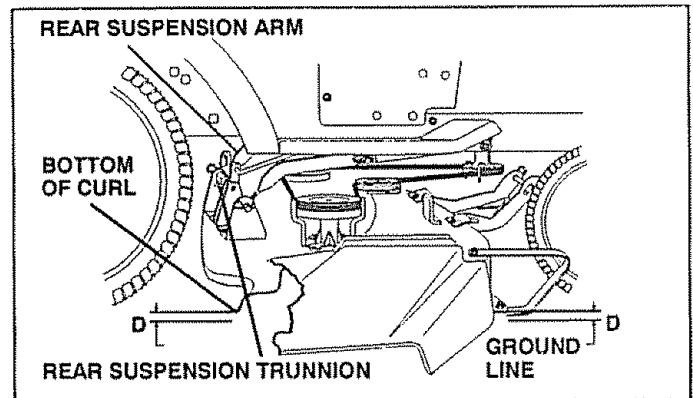


FIG. 20

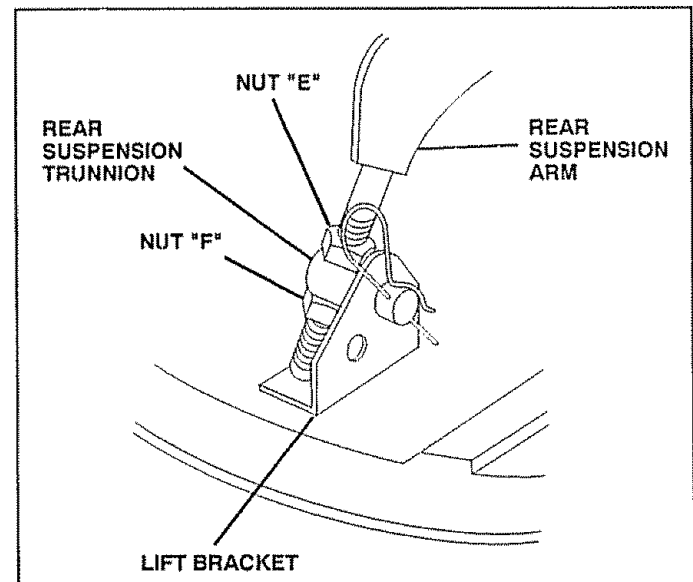


FIG. 21

FRONT-TO-BACK ADJUSTMENT (See Figs. 20 and 21) - To obtain the best cutting results, the mower housing should be adjusted so the rear is approximately 3/4 to 7/8" higher than the front when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" at front and rear flanges of mower housing as shown.

- To raise rear of mower, loosen nut "E" on both rear suspension arms. Screw both nuts "F" on both rear suspension arms an equal number of turns.
- When distance "D" is 3/4 to 7/8" higher at rear than front, retighten nuts "E".
- Recheck side-to-side adjustment.

IMPORTANT: WHEN ADJUSTING REAR SUSPENSION TRUNNIONS, ALWAYS ADJUST BOTH EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

SERVICE AND ADJUSTMENTS

TO ADJUST MOWER BLADE DRIVE BELT (See Fig. 22)

Your tractor has been manufactured with the ability to readjust the mower blade drive belt to provide you with longer belt life.

With the engine off and the lift lever in the highest position, move clutch lever up slowly until resistance is felt. If distance from bottom of slot in dash to clutch lever is greater than 4-1/2 inches, adjustment is necessary.

- Lower the mower deck for easier access.
- Remove the bolt, nut and D-shaped washers from rock shaft assembly.
- Move extension spring from lower to upper end of slot in rock shaft assembly and install bolt, nut and the D-shaped washers (flat side of washers down).
- Tighten bolt and nut to secure the D-shaped washers (flat side down as shown).

TO REPLACE MOWER BLADE DRIVE BELT (See Figs. 22 and 23)

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on the mower housing.

BELT REMOVAL -

- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Pull belt off both mandrel pulleys.
- Spring belt guide away from idler pulley and pull belt off idler pulley.
- Slide belt from under extension spring.

BELT INSTALLATION -

- Slide belt under extension spring.
- Place belt around back side and in groove of both mandrel pulleys.
- Spring idler belt guide down and place belt around rear side of idler pulley.
- Roll belt over engine pulley.
- Make sure belt is in all pulley grooves and inside all belt guides.

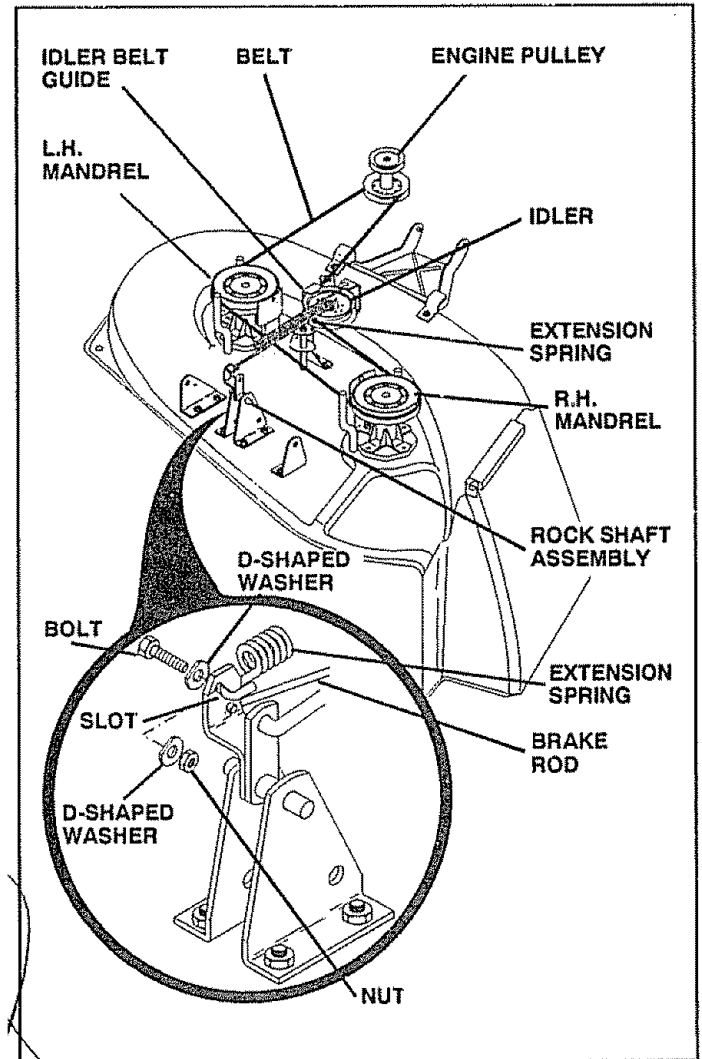


FIG. 22

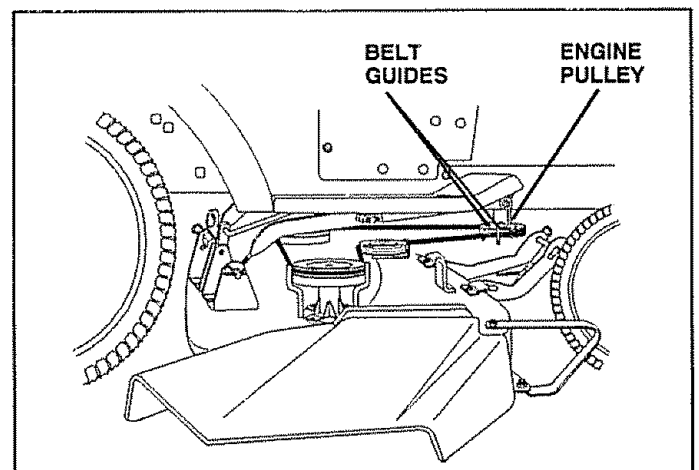


FIG. 23

SERVICE AND ADJUSTMENTS

TO ADJUST BRAKE (See Fig. 24)

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

If unit 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 1-1/2", disengage parking brake, loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- Engage parking brake and recheck distance.
- Road test unit 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 Sears Service Center.

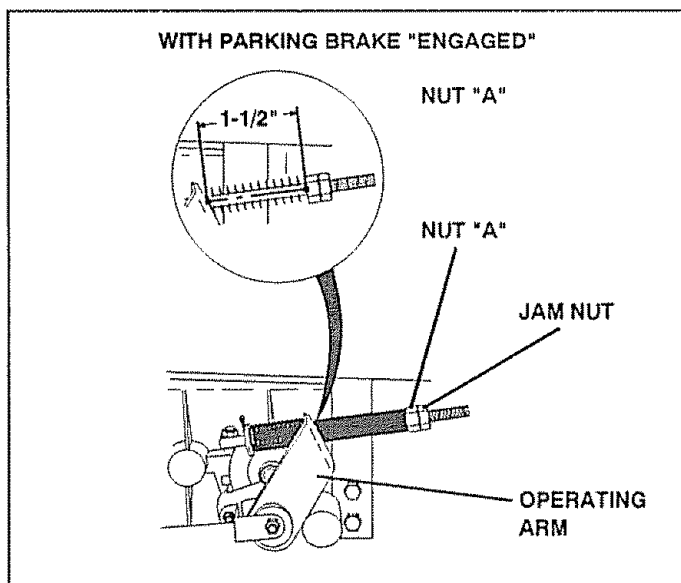


FIG. 24

TO REPLACE MOTION DRIVE BELT (See Fig. 25)

The tractor drive belt may be replaced without tools. Park the tractor on level area. 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).
- Roll belt over top of transaxle pulley.
- Roll belt over engine pulley and off idler.
- Release parking brake. Pull belt as far as possible over top of clutch pulley.
- Reset parking brake. Pull belt over top of clutch pulley.
- Pull belt out up through gearshift lever gate opening to remove from tractor.
- Install new belt by reversing above procedure.

IMPORTANT: REPLACE ONLY WITH BELT LISTED IN THIS MANUAL.

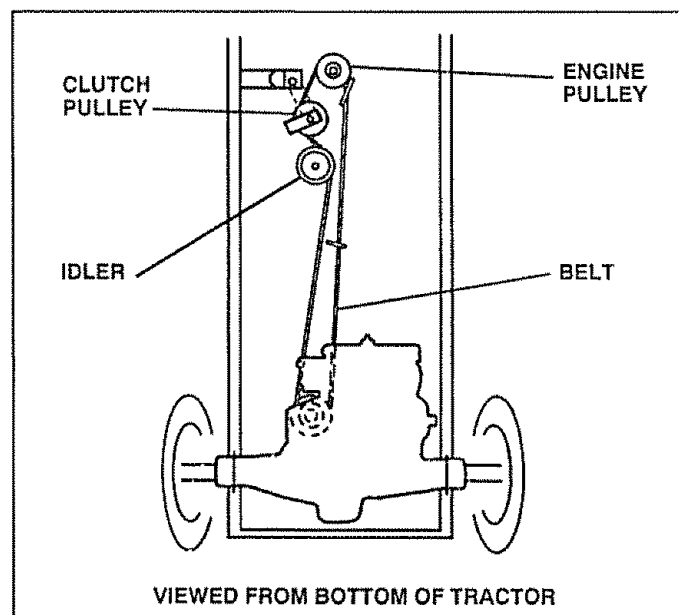


FIG. 25

SERVICE AND ADJUSTMENTS

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 unit. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest Sears Service Center.

TO REMOVE WHEEL FOR REPAIRS (See Fig. 26)

- Block up axle securely.
- Remove hub cap, 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 hub cap.

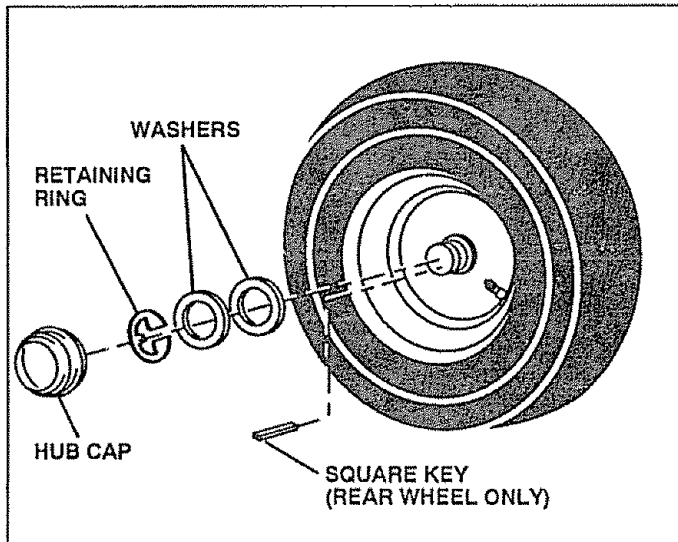


FIG. 26

TO START ENGINE WITH A WEAK BATTERY (See Figs. 27 & 28)



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

TO ATTACH JUMPER CABLES -

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

TO REMOVE CABLES, REVERSE ORDER -

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

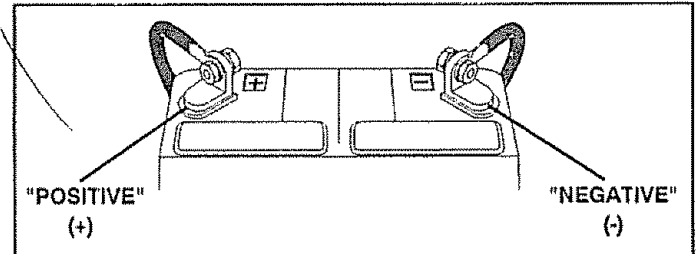


FIG. 27

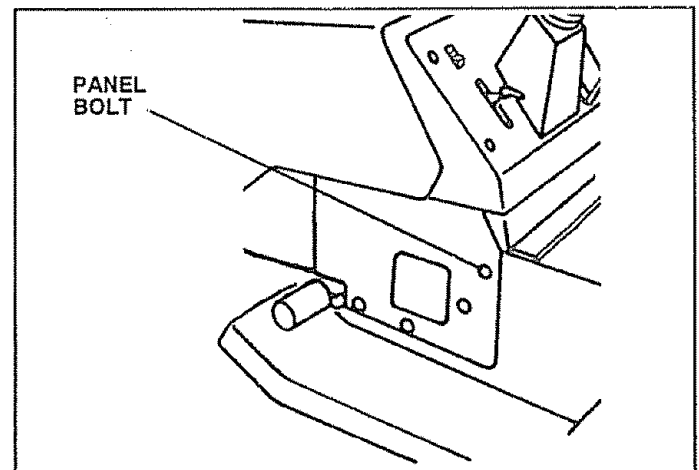


FIG. 28

SERVICE AND ADJUSTMENTS

TO REPLACE FUSE (See Fig. 29)

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located in the engine compartment, directly in front of the dash.

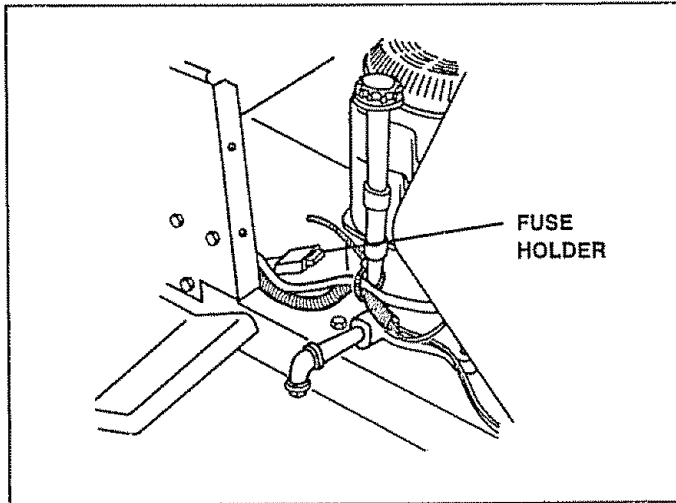


FIG. 29

TO REPLACE HEADLIGHT BULB

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

INTERLOCKS AND RELAYS

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

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

TO REMOVE HOOD, GRILL AND SIDE PANELS (See Fig's. 30 and 31)

- Raise hood.
- Unsnap headlight wire connector.
- Stand at side of tractor. Grasp hood and tilt forward and lift off hinge brackets.
- To reinstall, slide hood pivot rod into slot in hinge brackets, and carefully reinstall hood springs.

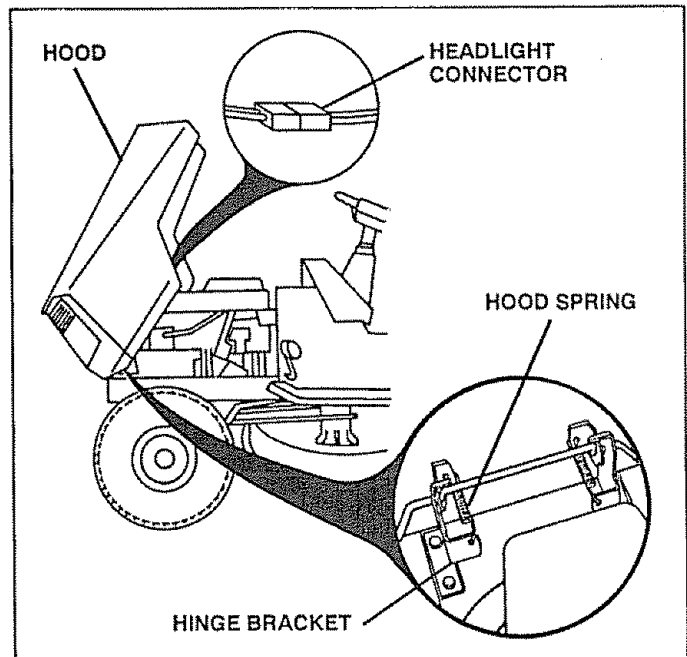


FIG. 30

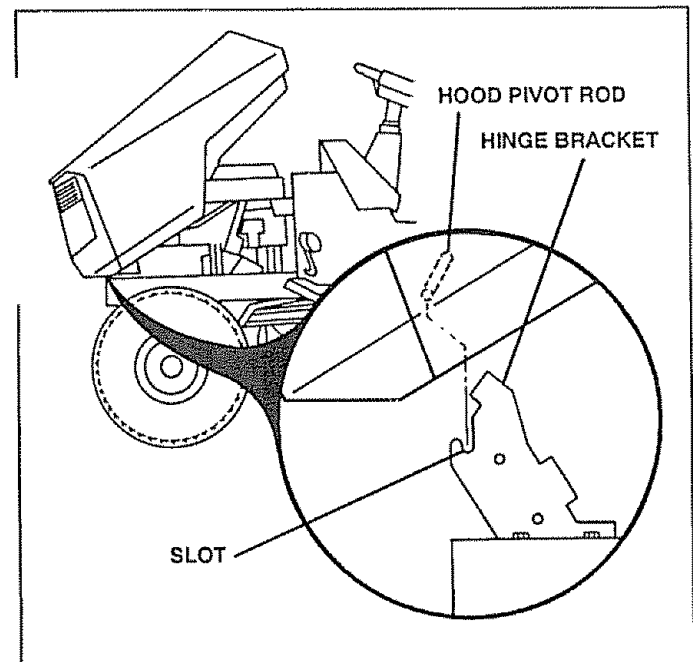


FIG. 31

SERVICE AND ADJUSTMENTS

ENGINE

TO ADJUST THROTTLE CONTROL CABLE (See Fig. 32)

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 that holes "A" in governor control lever and hole in governor plate line-up. If holes "A" are not aligned, loosen clamp screw and move throttle cable until holes are aligned. Tighten clamp screw securely.

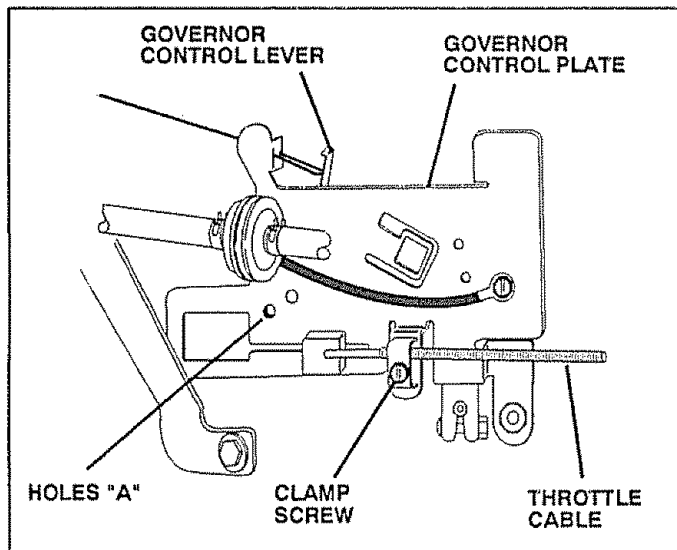


FIG. 32

TO ADJUST CARBURETOR (See Fig. 33)

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 idle mixture valve in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the idle mixture valve out (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: DAMAGE TO THE NEEDLE VALVE AND THE SEAT IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Air cleaner assembly must be assembled to the carburetor when making carburetor adjustments.
- Be sure the throttle control cable is adjusted properly (see above).
- With engine off turn idle mixture valve in (clockwise) closing it finger tight and then turn out (counterclockwise) 1 full turn.

FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in "NEUTRAL" position.
- Move throttle control lever to "SLOW" position. With finger, rotate and hold throttle lever against idle speed screw. Turn idle speed screw to attain 1750 RPM.
- While still holding throttle lever against idle speed screw, turn idle mixture valve in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn valve to a point midway between those two positions. Release throttle lever.

ACCELERATION TEST -

- Move throttle control lever from "SLOW" to "FAST" position. If engine hesitates or dies, turn idle mixture valve 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. OVER-SPEEDING 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, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

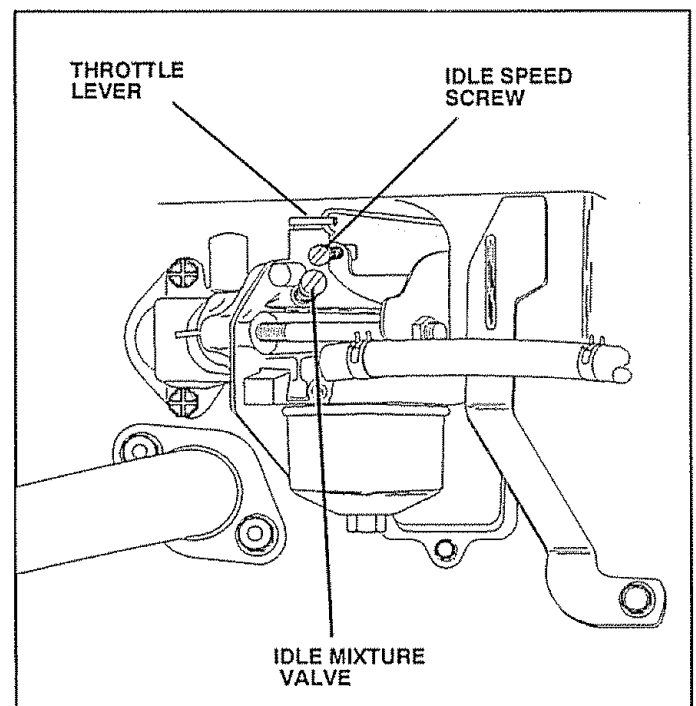


FIG. 33

STORAGE

Immediately prepare your tractor for storage at the end of the season or if the unit 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. Give blades and underside of housing a good coat of grease or rust preventative. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Maintenance 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 Maintenance 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 Maintenance 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 to drain in battery tray.

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 Maintenance section of this manual).

CYLINDERS

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder.
- 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 unit indoors and cover it to give protection from dust and dirt.
- Cover your unit 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 unit to rust.

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

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Will not start	<ol style="list-style-type: none"> 1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel. 8. Loose or damaged wiring. 9. Carburetor out of adjustment. 10. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Fill fuel tank. 2. See TO START ENGINE in operation section. 3. Wait several minutes before attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 9. Contact Sears Service Department. 10. Contact Sears Service Department.
Hard to start	<ol style="list-style-type: none"> 1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery. 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring. 7. Carburetor out of adjustment. 8. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Clean/replace air filter. 2. Replace spark plug. 3. Recharge or replace battery. 4. Replace fuel filter. 5. Drain fuel tank and refill with fresh gasoline. 6. Check all wiring. 7. Contact Sears Service Department. 8. Contact Sears Service Department.
Engine will not turn over	<ol style="list-style-type: none"> 1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Spark plug wire is disconnected. 4. Weak or dead battery. 5. Blown fuse. 6. Corroded battery terminals. 7. Loose or damaged wiring. 8. Faulty ignition switch. 9. Faulty solenoid or starter. 10. Faulty operator presence switch(es). 	<ol style="list-style-type: none"> 1. Depress Clutch/brake pedal. 2. Disengage attachment clutch. 3. Connect wire to spark plug. 4. Recharge or replace battery. 5. Replace fuse. 6. Clean battery terminals. 7. Check all wiring. 8. Check/replace ignition switch. 9. Check/replace solenoid or starter. 10. Contact Sears Service Department.
Engine clicks but will not start	<ol style="list-style-type: none"> 1. Weak or dead battery. 2. Corroded battery terminals. 3. Loose or damaged wiring. 4. Faulty solenoid or starter. 	<ol style="list-style-type: none"> 1. Recharge or replace battery. 2. Clean battery terminals. 3. Check all wiring. 4. Check/replace solenoid or starter.
Loss of power	<ol style="list-style-type: none"> 1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oil level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment. 15. Engine valves out of adjustment. 	<ol style="list-style-type: none"> 1. Set in "Higher Cut" position/reduce speed. 2. Adjust throttle control. 3. Clean underside of mower housing. 4. Clean/replace air filter. 5. Check oil level/change oil. 6. Clean and regap or change spark plug. 7. Replace fuel filter. 8. Drain fuel tank and refill with fresh gasoline. 9. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 10. Connect and tighten spark plug wire. 11. Clean engine air screen/fins. 12. Clean/replace muffler. 13. Check all wiring. 14. Contact Sears Service Department. 15. Contact Sears Service Department.
Excessive vibration	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Bent blade mandrel. 3. Loose/damaged part(s). 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Replace blade mandrel. 3. Tighten loose part(s). Replace damaged parts.

TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	<ol style="list-style-type: none"> 1. Faulty operator-safety presence control system. 	<ol style="list-style-type: none"> 1. Check wiring, switches and connections. If not corrected, contact Sears Service Department.
Poor cut - uneven	<ol style="list-style-type: none"> 1. Worn, bent or loose blade. 2. Mower deck not level. 3. Build-up of grass, leaves, and trash under mower. 4. Bent blade mandrel. 	<ol style="list-style-type: none"> 1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel.
Mower blades will not rotate	<ol style="list-style-type: none"> 1. Obstruction in clutch mechanism. 2. Mower drive belt out of adjustment. 3. Worn/damaged mower drive belt. 4. Frozen idler pulley. 5. Frozen blade mandrel. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Adjust mower drive belt. 3. Replace mower drive belt. 4. Replace idler pulley. 5. Replace blade mandrel.
Poor grass discharge	<ol style="list-style-type: none"> 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. Build-up of grass, leaves and trash under mower. 8. Mower drive belt worn or out of adjustment. 9. Blades improperly installed. 10. Improper blades used. 	<ol style="list-style-type: none"> 1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace/adjust mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual.
Headlight(s) not working (if so equipped)	<ol style="list-style-type: none"> 1. Switch is "OFF" 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse 	<ol style="list-style-type: none"> 1. Turn switch "ON". 2. Replace bulb(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.
Battery will not charge	<ol style="list-style-type: none"> 1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator. 	<ol style="list-style-type: none"> 1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.

SERVICE NOTES

REPAIR PARTS

12.5 HP 38" RIDING LAWN TRACTOR -- MODEL NUMBER 917.255520

SCHEMATIC

