

Sears

owners manual

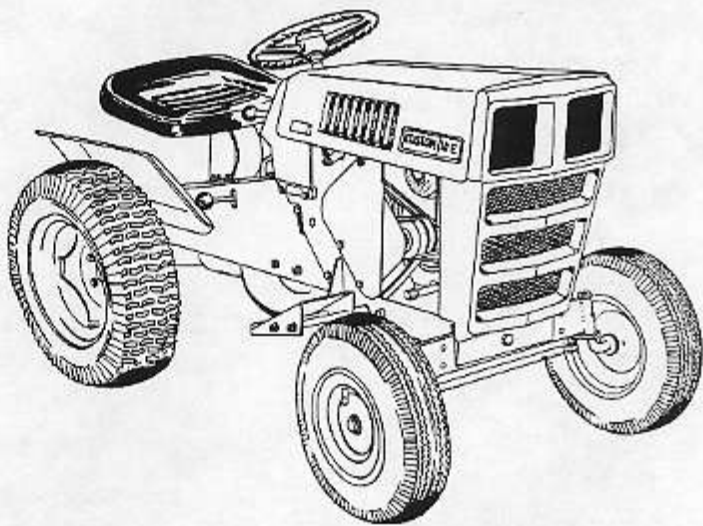
CUSTOM 10E TRACTOR

MODEL NO.
917.25070

CAUTION:

Read Rules for
Safe Operation
and Instructions
Carefully

- Assembly
- Operating
- Maintenance
- Repair Parts



SEARS, ROEBUCK AND CO. U.S.A.

SIMPSONS-SEARS LIMITED, CANADA

GUARANTEE

Your Tractor is guaranteed for one full year. If any defect in material or workmanship should appear during this time, simply contact our nearest Sears store or service center throughout the United States or Canada. We will make all necessary repairs, including parts and labor, at no charge to you. Tractors equipped with batteries: If battery proves defective and will not hold a charge, in exchange for the battery, we will; During the first 90 days-replace battery at no charge. After 90-days-replace battery, charging customer 1/12th of the price of the new battery for each full month from date of sale.

If the tractor is used for commercial or rental purposes, this guarantee applies for thirty days. Guarantee continued on the inside of the back page.

SEARS, ROEBUCK AND CO. - SIMPSON-SEARS, LTD.

IMPORTANT rules for safe operation

1. Do not allow children to operate TRACTOR. Do not allow adults to operate it without proper instruction.
2. Operator should become fully familiar with all the different sections of this Owners Manual and the Engine Manual before attempting to operate the TRACTOR. Know the controls and how to stop quickly. Try your TRACTOR in a large flat open space. Learn to start, stop and reverse. Do not start or operate TRACTOR when not in driver's seat.
3. Never allow your hands, any other part of your body, or your clothing near any moving parts or mower discharge chute, while engine is running. Make sure you are wearing work shoes while operating the TRACTOR.
4. Do not carry passengers.
5. When using any attachments, the TRACTOR should never be operated in the vicinity of children, pets or other persons. When using the mower, never direct discharge of material toward bystanders, buildings, fences, etc.
6. Clear work area of objects which might be picked up and thrown.
7. Disengage power to attachment clutches, shift into neutral and disengage clutch before attempting to start engine.
8. Disengage power to attachments, stop engine, remove ignition key and set parking brake before leaving operator position.
9. Disengage power to attachments, stop engine, remove ignition key and set parking brake before making any inspection, repairs or adjustments.
10. Disengage power to attachment when transporting or not in use.
11. Take all possible precautions when leaving vehicle unattended; such as lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key. Keep key in safe place out of reach of children.
12. Do not stop or start suddenly when going uphill or downhill. Operate TRACTOR up and down the face of slopes; never across the face. Never operate TRACTOR on slopes with more than a 15 degree slope.
13. Keep foot brake and parking brake lock in good adjustment.
14. Do not operate the TRACTOR in high gear going downhill, and do not turn sharp corners while going downhill.
15. Do not shift gears while going up steep hills. Choose a low enough gear to climb hill without stopping and shifting gears.
16. Do not shift gears while TRACTOR is moving.
17. Sideways upsets can happen easily especially in ditches. Be alert for holes in terrain and other hidden hazards. Don't drive too close to creeks, ditches and public highways.
18. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use counterweight or wheel weight(s) when suggested in the attachment Owners Manual.
19. TRACTOR is not to be operated on any public road, street, highway, sidewalk or alley. Watch out for traffic when crossing or near roadways.
20. Handle gasoline with care--it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline before starting engine.
 - C. Never start or run the TRACTOR indoors as the exhaust from the engine contains

rules for safe operation (cont.)

carbon monoxide which is a tasteless, odorless, deadly poison.

21. Keep TRACTOR and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in this Owners Manual.
22. Keep all nuts, bolts and screws tight to be sure equipment is in safe working condition.
23. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. For long periods of storage, the gasoline tank should be drained and the gasoline discarded in a safe place. Allow engine to cool before storing in any enclosure.
24. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
25. TRACTOR 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.
26. Do not change engine governor settings or overspeed engine. Excessive speed is dangerous and shortens engine life.
27. When using TRACTOR with mower:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
 - C. If mower chute should become clogged, shut engine off, disengage mower and disconnect spark plug before unclogging chute.
 - D. Check blade mounting bolts for proper tightness at frequent intervals.
 - E. Board TRACTOR from left hand side only, away from discharge chute.

reference drawing for assembly and instructions

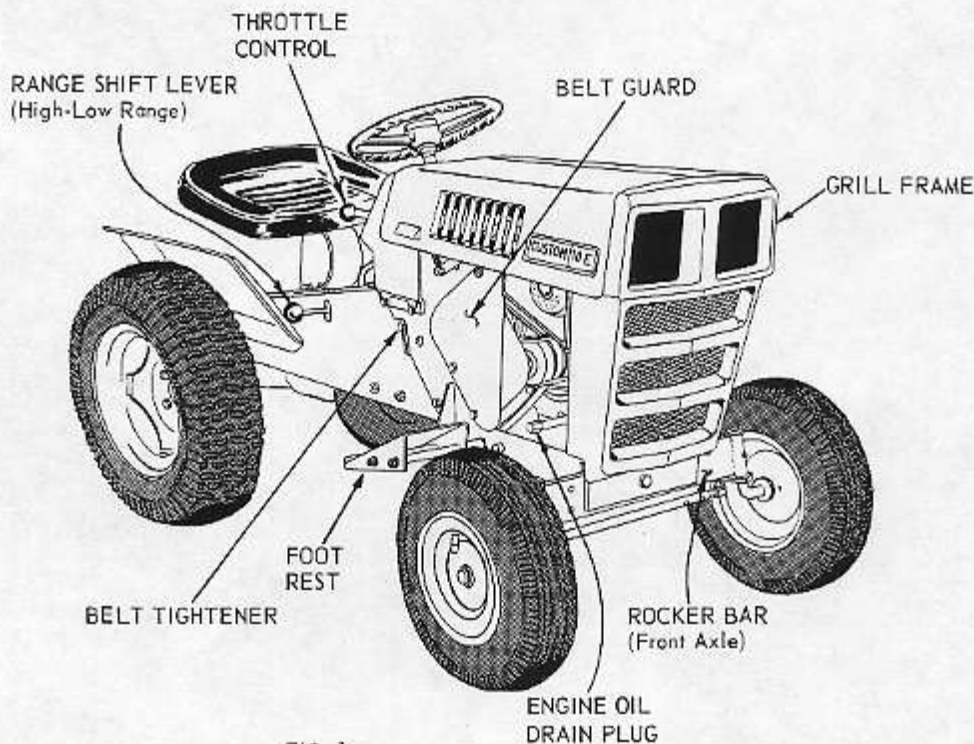
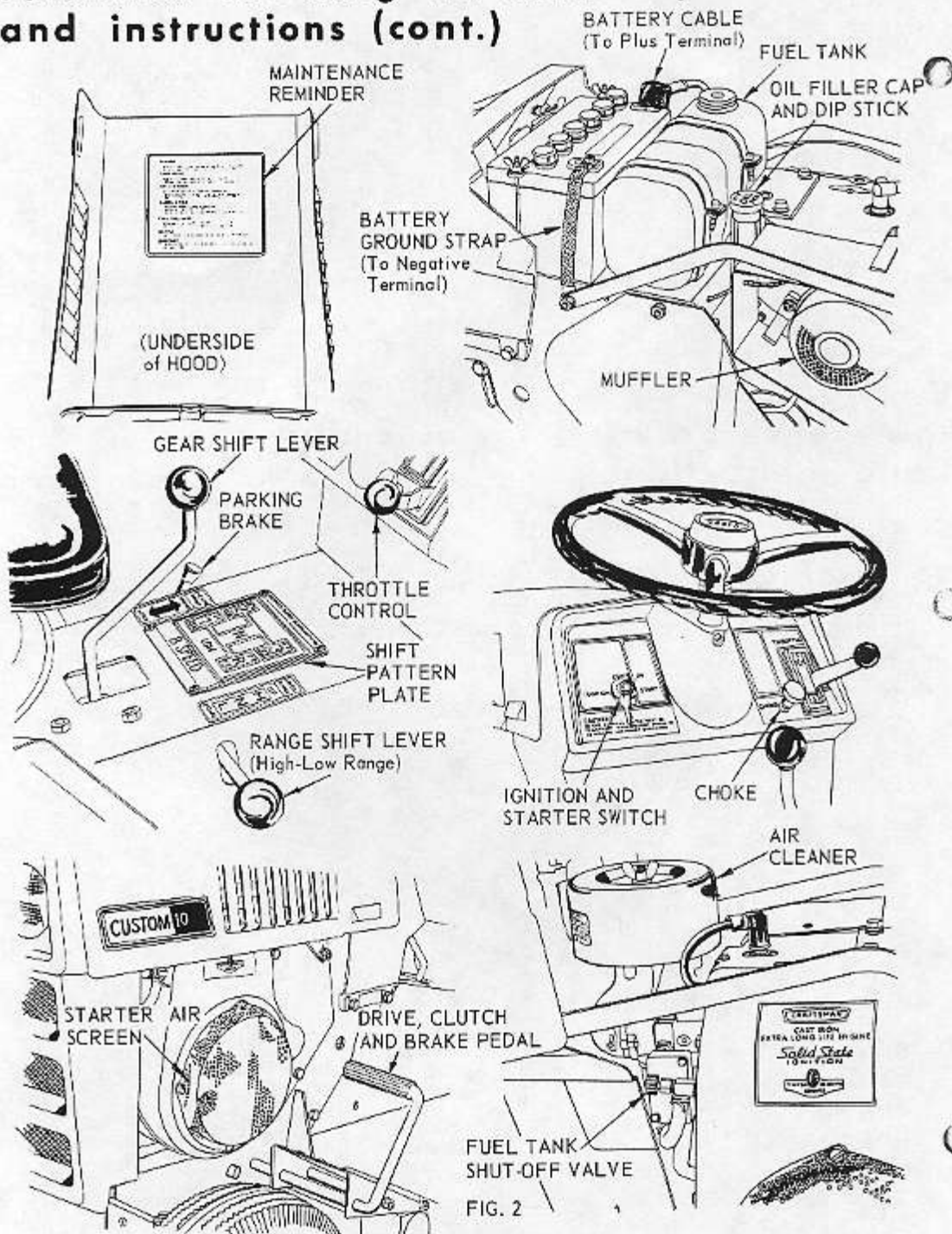


FIG. 1

reference drawing for assembly and instructions (cont.)



introduction

This Product 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, Roebuck or Simpsons-Sears, Ltd. Store. They have well qualified, competent trained technicians and the proper tools to service or repair this unit.

It is important that the operator ALWAYS OBSERVES THE "RULES FOR SAFE OPERATION" as well as other instructions contained in this Tractor and the Engine manual.

We have provided this Manual to help you operate your Tractor with utmost efficiency. We urge you to study this Manual so you will understand your new Tractor thoroughly before operating it. We suggest that you take care of your Manual so that it will be available for future reference should you need it.

table of contents

GUARANTEE	1
ASSEMBLY INSTRUCTIONS	4-6
OPERATING INSTRUCTIONS	6-10
MAINTENANCE INSTRUCTIONS	10-16
REPAIR PARTS	17-24

assembly

A letter in parentheses in the following instructions refers to an arrow in the adjoining Figure (illustration), except when otherwise stated. When R.H. (Right Hand) or L.H. (Left Hand) is used, it should be understood to mean as if one were seated on the tractor seat facing forward.

1. Remove carton from around Tractor and remove battery. Cut banding holding Tractor to bottom of crate.
2. Your Tractor has been completely assembled at the factory except, to fill, charge and install the battery. The battery was shipped dry. Instructions are given on page 5 for filling, charging and installation.
3. Your Tractor was lubricated at the factory however, we suggest you follow the Lube Chart on page 12 before operation.
4. Tires were over-inflated for shipping purposes. Reduce air pressure to 15 lbs. in front tires and 8 lbs. in rear tires. This will improve traction and give you the comfortable ride you will want.
5. A plastic bag of parts was shipped with your Tractor and should be opened at this time. It will contain the following items:
 - 1 - Battery Clamp
 - 2 - Wing Nuts
 - 2 - Battery Bolts
 - 2 - Flat Washers
(These items hold battery in position on Tractor. They are used in step 3, page 5).
 - 2 - Hex nuts
(They secure ground strap and positive cable to battery. They are used in steps 4 and 5, page 5).
 - 2 - Ignition Keys
(We suggest one key be removed from the wire ring and kept in a safe place. Position the second key in the Tractor ignition).



STUDY TRACTOR AND ENGINE
OWNERS MANUAL ...

assembly (cont.) fill and charge battery

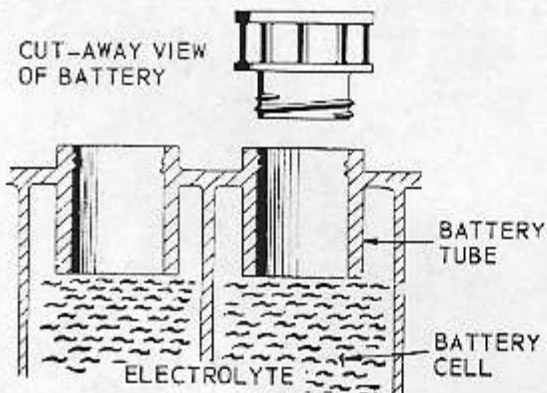
CAUTION: DO NOT ASSEMBLE BATTERY TO TRACTOR UNTIL BATTERY HAS BEEN FILLED AND CHARGED.

1. Fill battery with electrolyte and charge battery as outlined in instructions in battery container. NOTE: After filling cells, let battery stand for thirty minutes. Then charge battery at a rate not exceeding three (3) amperes for about 2½ hours.

FILL BATTERY AS SHOWN
DO NOT OVERFILL--
WARNING CORRECT LEVEL IS
BOTTOM OF TUBES IN CELLS . .



CUT-AWAY VIEW
OF BATTERY



READ CAREFULLY ALL SETTING-UP, OPERATING AND MAINTENANCE INSTRUCTIONS IN THIS MANUAL. YOU WILL FIND MANY HELPFUL POINTERS WHICH WILL NOT ONLY SAVE YOU TIME BUT WILL HELP OPERATE THE TRACTOR MOST EFFICIENTLY.

battery installation

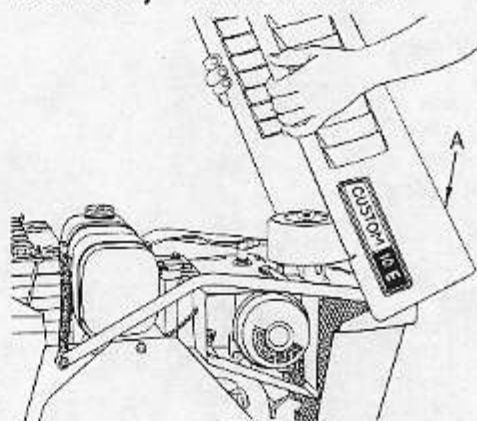


FIG. 3

2. To lift hood assembly (A), grasp each side of hood at rear and pull outward and upward. Lift hood to its extreme forward position.

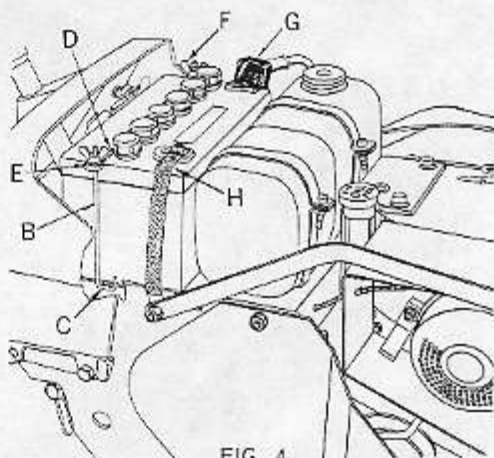


FIG. 4

3. Install battery as shown so that (+) positive and (-) negative terminals are to front of tractor. Hook a battery bolt (B), into battery support (C). Assemble battery clamp (D), flat washer (E), and wing nut (F), to battery bolt (B). Do not tighten wing nut tight. Assemble the other battery bolt (D) to opposite side of Tractor. Position clamp (D) over second battery bolt. Secure with second flat washer and wing nut. Tighten both wing nuts securely. NOTE: Do not over tighten wing nuts, only tight enough to hold battery securely.
 4. Connect battery cable (covered cable with terminal cover G), to positive (+) terminal. Tighten nut securely.
 5. Connect ground strap (H), to negative (-) terminal. Tighten nut securely.
- CAUTION: When fastening cable and ground strap to battery, keep cable and strap even with or lower than top of battery terminals. If they are too high, they can short against hood.
6. Be sure terminal cover (G), is in place on positive terminal.

introduction

This Product 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, Roebuck or Simpsons-Sears, Ltd. Store. They have well qualified, competent trained technicians and the proper tools to service or repair this unit.

It is important that the operator ALWAYS OBSERVES THE "RULES FOR SAFE OPERATION" as well as other instructions contained in this Tractor and the Engine manual.

We have provided this Manual to help you operate your Tractor with utmost efficiency. We urge you to study this Manual so you will understand your new Tractor thoroughly before operating it. We suggest that you take care of your Manual so that it will be available for future reference should you need it.

table of contents

GUARANTEE _____	1
ASSEMBLY INSTRUCTIONS _____	4-6
OPERATING INSTRUCTIONS _____	6-10
MAINTENANCE INSTRUCTIONS _____	10-16
REPAIR PARTS _____	17-24

assembly

A letter in parentheses in the following instructions refers to an arrow in the adjoining Figure (illustration), except when otherwise stated. When R.H. (Right Hand) or L.H. (Left Hand) is used, it should be understood to mean as if one were seated on the tractor seat facing forward.

1. Remove carton from around Tractor and remove battery. Cut banding holding Tractor to bottom of crate.
2. Your Tractor has been completely assembled at the factory except, to fill, charge and install the battery. The battery was shipped dry. Instructions are given on page 5 for filling, charging and installation.
3. Your Tractor was lubricated at the factory however, we suggest you follow the Lube Chart on page 12 before operation.
4. Tires were over-inflated for shipping purposes. Reduce air pressure to 15 lbs. in front tires and 8 lbs. in rear tires. This will improve traction and give you the comfortable ride you will want.
5. A plastic bag of parts was shipped with your Tractor and should be opened at this time. It will contain the following items:
 - 1 - Battery Clamp
 - 2 - Wing Nuts
 - 2 - Battery Bolts
 - 2 - Flat Washers
(These items hold battery in position on Tractor. They are used in step 3, page 5).
 - 2 - Hex nuts
(They secure ground strap and positive cable to battery. They are used in steps 4 and 5, page 5).
 - 2 - Ignition Keys
(We suggest one key be removed from the wire ring and kept in a safe place. Position the second key in the Tractor ignition).



STUDY TRACTOR AND ENGINE
OWNERS MANUAL ...

assembly (cont.)

seat position

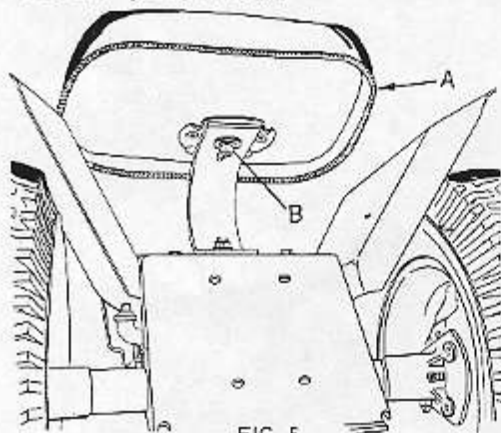
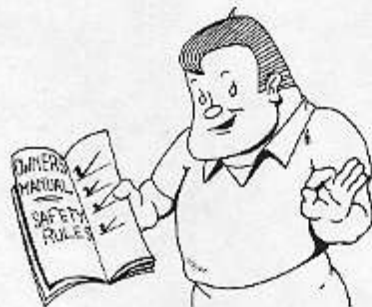


FIG. 5

1. The seat (A), may be moved towards the front or rear to give the most comfortable and safe operating position. To move the seat, loosen the nut (B), beneath the seat and seat spring and slide the seat to the position desired. Tighten the nut, making sure that the seat plate has not twisted out of alignment with the seat spring.

instructions before operating



STUDY RULES FOR
SAFE OPERATION...

BEFORE STARTING THE ENGINE, become thoroughly familiar with the Rules for Safe Operation, listed on pages 1 and 2, and with the operating controls before starting the engine. **KNOW THE CONTROLS AND HOW TO STOP QUICKLY.**

controls

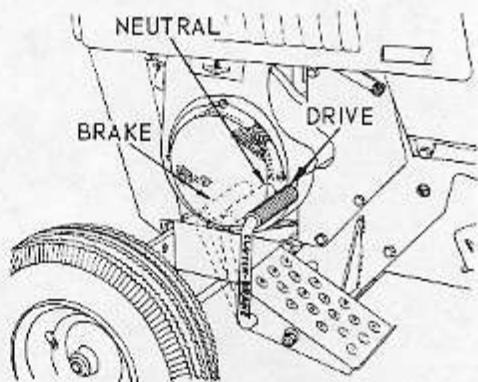


FIG. 6

The following controls are used to operate the Tractor:

1. Clutch and brake foot pedal is located on the left side foot rest. The foot pedal operates a combination brake and drive clutch. There are three positions of operation on the foot pedal.
 - a. The clutch is in DRIVE position when the pedal is all the way out (i.e. when the foot is removed from the pedal).
 - b. The clutch is in NEUTRAL when the pedal is depressed half way or more.
 - c. The BRAKE is on when the pedal is pressed all the way forward.

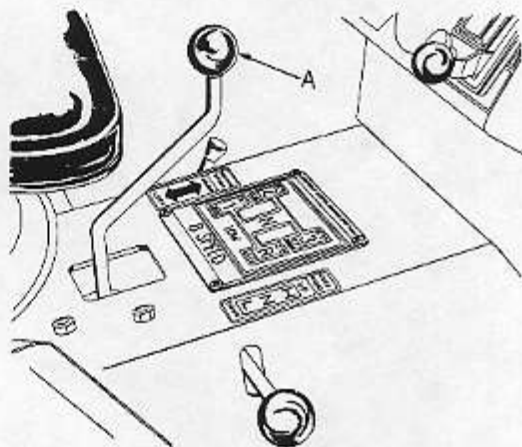


FIG. 7

2. The transaxle (transmission) gear shift lever (A), is located at front, center of seat.
 - a. The gear shift lever selects the FORWARD speeds, the NEUTRAL and REVERSE speeds.

instructions before operating (cont.)

controls (cont.)

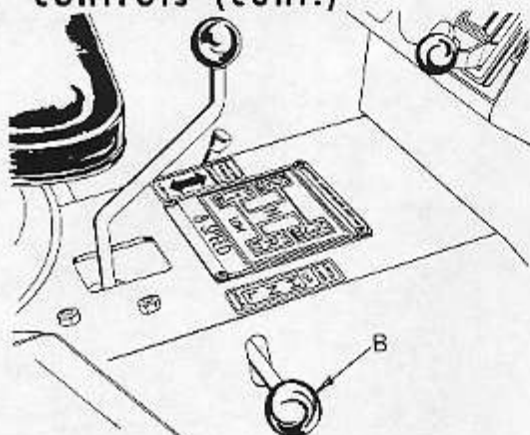


FIG. 8

3. The high-low range shift lever (B), is located on R.H. frame side just forward of R.H. rear fender. The high-low range lever has 3 positions, up for high-range, center for neutral, and down for low range. There are two neutral positions in transmission, one on the gear shift lever, and one on the high-low range lever. Both levers must be engaged for tractor to operate. Place gear shift lever in neutral position for starting tractor. Place high-low range lever in neutral for easier pushing of tractor or when tractor is being towed.

ALWAYS COME TO A FULL STOP
BEFORE SHIFTING
GEARS...

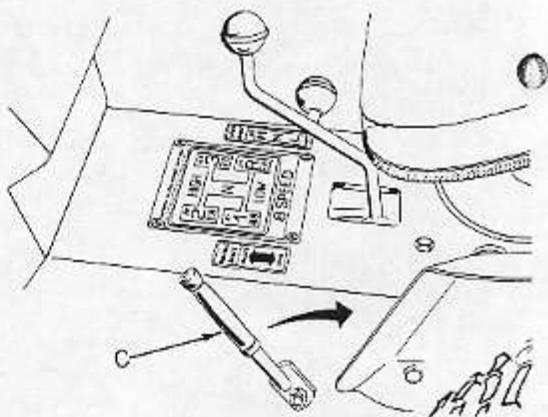


FIG. 9

4. To engage parking brake (C), push foot pedal all the way down, pull backward on park brake lever and release foot pedal. Push lever forward to release brake.

fuel and lubricant

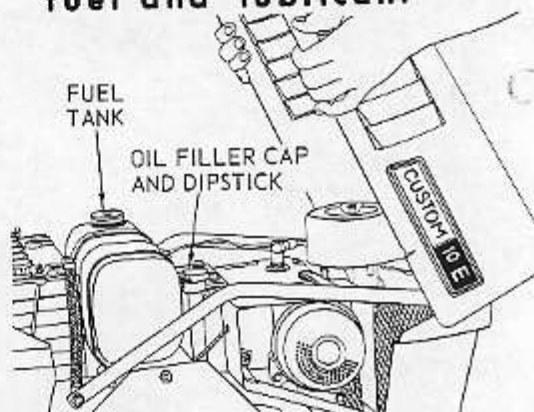


FIG. 10

5. To lift hood assembly grasp each side of hood at rear and pull outward and upward. Lift hood to its extreme forward position.
6. Engine crankcase is shipped with oil ready for use. However, check oil level before starting. If necessary, add oil to bring oil level up to the full mark on the dipstick. Dipstick must be screwed in tight for checking oil level, and tractor should be level. NOTE: Do not fill above full mark on dipstick. Use Allstate regular (M.S.) Heavy Duty S.A.E. #30 oil or equivalent. If not available, use Allstate Multi-grade all weather oil S.A.E. 10W-20W-30W or equivalent. NOTE: Use S.A.E. 10W oil below 32 degrees.
7. Fill fuel tank with a good grade of fresh, CLEAN, regular gasoline. Wipe off all spilled fuel and oil.

operating instructions

how to start and stop

DO NOT FILL GASOLINE TANK WHILE ENGINE IS RUNNING. AVOID SPILLING GASOLINE ON A HOT ENGINE--THIS MAY CAUSE AN EXPLOSION AND SERIOUS INJURY. DO NOT MIX OIL WITH GASOLINE. USE CLEAN, FRESH "REGULAR" GRADE GASOLINE. FILL TANK COMPLETELY.

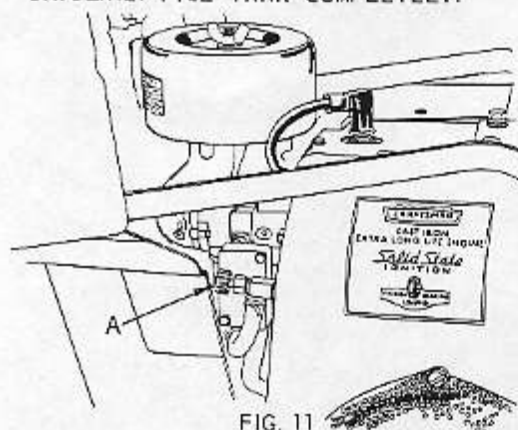


FIG. 11

1. Open gasoline shut-off valve (A). Close gasoline shut-off valve after each day's use.

NEVER STORE EQUIPMENT WITH GASOLINE IN THE TANK INSIDE A BUILDING WHERE FUMES MAY REACH AN OPEN FLAME OR SPARK. FOR LONG PERIODS OF STORAGE, THE GASOLINE TANK SHOULD BE DRAINED AND THE GASOLINE DISCARDED IN A SAFE PLACE. ALLOW ENGINE TO COOL BEFORE STORING IN ANY ENCLOSURE.

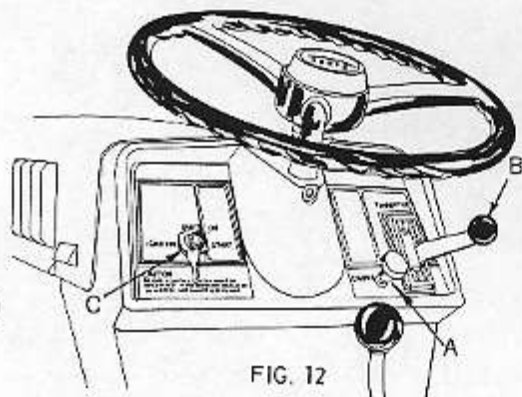


FIG. 12

2. Pull out choke control (A), to full choke position to start in cold weather.
3. Advance throttle control lever (B), to about $\frac{1}{2}$ throttle.
4. This Tractor is equipped with a safety start switch. It is therefore necessary to depress foot pedal before engine can be started. Depress foot pedal all the way and turn ignition-start key (C), clockwise to engage starter. When engine starts, release key. After engine starts, push in choke control (A), as engine warms up. Let engine warm up before applying load. CAUTION: Do not run starter continuously for more than 30 seconds at a time. If after several attempts, engine does not start, move throttle control (B), to FAST position. Wait for two minutes and try again.
5. To stop engine, turn key (C), in a counter-clockwise direction to OFF position. Key should be removed so children can not start Tractor.

REMOVE THE IGNITION KEY
KEEP OUT OF REACH
OF CHILDREN!



safe operating

1. Try your Tractor in a large, open space. Learn to start, stop and reverse.
2. Start the engine and put the throttle lever at about $\frac{1}{2}$ throttle. Push down on foot pedal, move gear shift lever and range shift lever to speed desired. Release foot pedal slowly, and Tractor will start to move. After foot pedal is fully released (clutch engaged), move throttle lever to fast position. If ground travel is too fast, depress foot pedal and shift to a slower ground travel speed. Always select a ground travel speed that will suit attachment being used and not overload the engine.

operating instructions (cont.)

safe operating (cont.)

3. Do not shift gears while Tractor is moving.
4. To stop Tractor, push foot pedal all the way down, move gear shift lever to neutral, set parking brake lock and release foot pedal. Always check to make sure brake lock will hold Tractor secure. Disengage power to attachment. Shut-off and remove key from switch. This will prevent unauthorized operation. Keep key in a safe place out of reach of children. Never leave engine running with Tractor unattended.

KEEP WORKING AREA CLEAR- ADULTS-

PETS-
CHILDREN..



5. Do not operate the Tractor in high gear going down hill, and do not turn sharp corners while going down hill. If it is necessary to stop Tractor while going down hill, do so quickly to prevent Tractor from picking up speed during the declutching to brake position.

NOTE: The engine produces considerable braking action when throttle back to idling speed without declutching, and this procedure is recommended before applying brake.

DO NOT OPERATE TRACTOR ACROSS SLOPES. DO NOT OPERATE TRACTOR UP OR DOWN SLOPES WITH MORE THAN A 15 DEGREE SLOPE. Refer to separate card shipped with this Owners Manual titled: "Suggested Guide for Sighting Slopes for Safe Operation".

6. Do not shift gears while going up steep hills. Choose a low enough gear to climb hill without stopping and shifting gears. If it is necessary to stop while going up hill, do so quickly to prevent Tractor rolling backward. Before starting Tractor in motion going uphill, use one of the lowest gears, reduce engine speed and engage clutch gradually to prevent Tractor from "rearing up".

7. Upsets can happen easily in ditches. Stay alert for holes or other yard hazards.



LOOK
BEFORE
BACKING...



towing tractor

1. Place gear shift lever and range shift lever in neutral position. Tractor can then be towed at a reasonable safe speed not faster than 6 miles per hour.

operating instructions (cont.)

safe operating (cont.)

ON ROUGH GROUND-TAKE IT

SLOW!



CLEAR THE AREA OF RUBBISH
BEFORE

MOWING!



CLEAR WORK AREA OF OBJECTS WHICH
MIGHT BE PICKED UP AND THROWN.

weights (optional equipment)

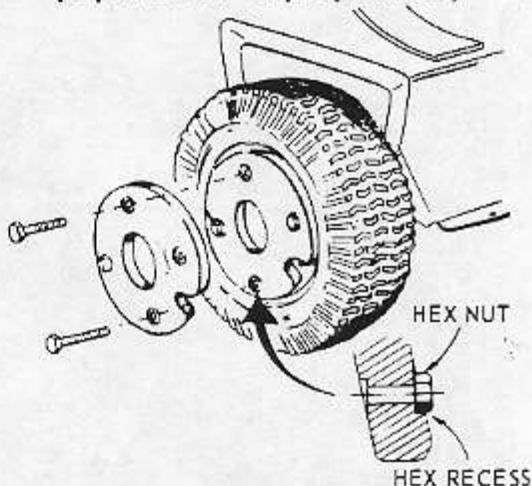


FIG. 13

1. Rear wheel weights are very essential for added traction. This is especially true for attachments such as the plow, disc harrow, leveler blade, snow thrower, bulldozer-snow-plow, etc.

maintenance air cleaner

Your engine is equipped with an air cleaner that **MUST** be periodically removed and cleaned to maintain maximum engine performance. Refer to engine manual for cleaning instructions.

starter air screen

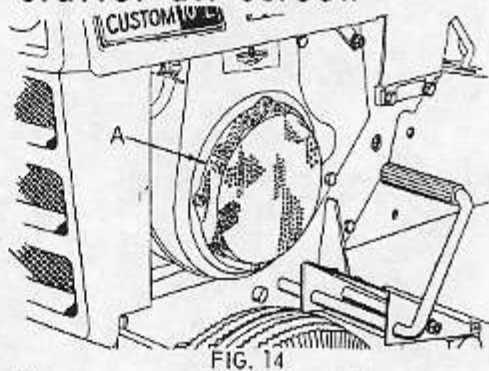


FIG. 14

The starter screen guard (A), and the starter rotating screen (located directly behind the starter screen guard), are designed to keep grass, chaff and large leaves from entering the cooling system and must be cleaned periodically. The cleaning of the screens will vary with the conditions in which the Tractor is used. They should not be allowed to become dirty which would interfere with the cooling of the engine. Remove the screen guard (A), clean it and the starter rotating screen regularly.

maintenance (cont.)

THIS TRACTOR HAS AN AIR COOLED ENGINE. AIR MUST BE ABLE TO CIRCULATE FREELY AROUND THE ENGINE, THROUGH THE STARTER SCREEN AND AIR CLEANER, AND OVER THE FINS OF THE CYLINDER BLOCK. KEEP THESE AREAS FREE OF ACCUMULATED DIRT AND TRASH OR THE ENGINE WILL OVERHEAT AND RESULT IN DAMAGED MOVING PARTS.

engine lubrication

STOP ENGINE AND WAIT SEVERAL MINUTES BEFORE CHECKING OIL LEVEL.

BE SURE TRACTOR IS ON LEVEL GROUND AND ENGINE IS STOPPED BEFORE CHECKING OIL LEVEL.

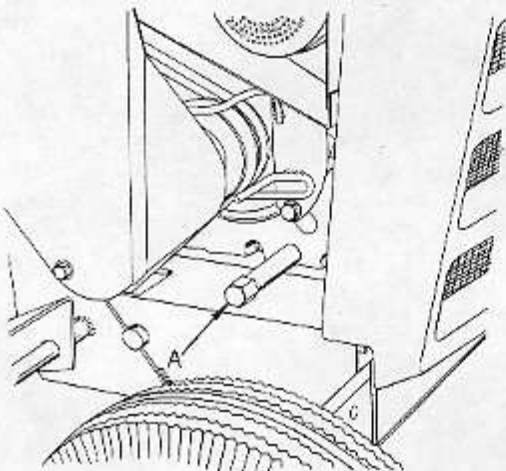


FIG. 15

1. Change oil in engine crankcase after FIRST 2 HOURS of operation. Engine should be warm when oil is changed.
2. To drain oil, remove oil drain plug (A), at lower front end of engine. Catch used oil in suitable container. Replace oil drain plug.

NOTE: THE BEST TIME TO DRAIN OIL IS AT THE END OF A DAY'S OPERATION AT WHICH TIME THE OIL IS HOT AND ALL DIRT AND FOREIGN MATERIAL IS SUSPENDED IN THE OIL.

IMPORTANT: BE EXTREMELY CAREFUL TO PREVENT DIRT OR FOREIGN PARTICLES FROM ENTERING THE ENGINE CRANKCASE OR TRANSMISSION WHEN CHECKING OIL LEVEL.

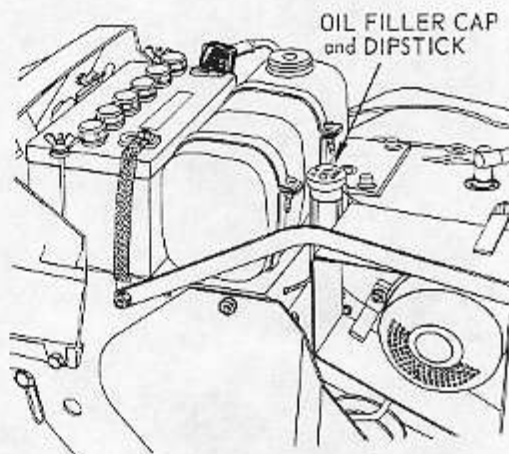


FIG. 16

3. Refill engine crankcase with oil as instructed under "Fuel and Lubricant", page 7. Capacity 3-1/8 pints. Check oil level after each five hours of operation and add oil, if necessary, to bring to correct level on dipstick.
4. After first oil change, oil should be changed after each 25 hours of operation.

transaxle (transmission) lubrication

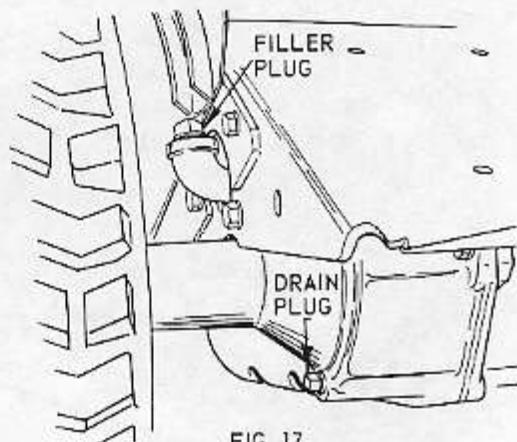
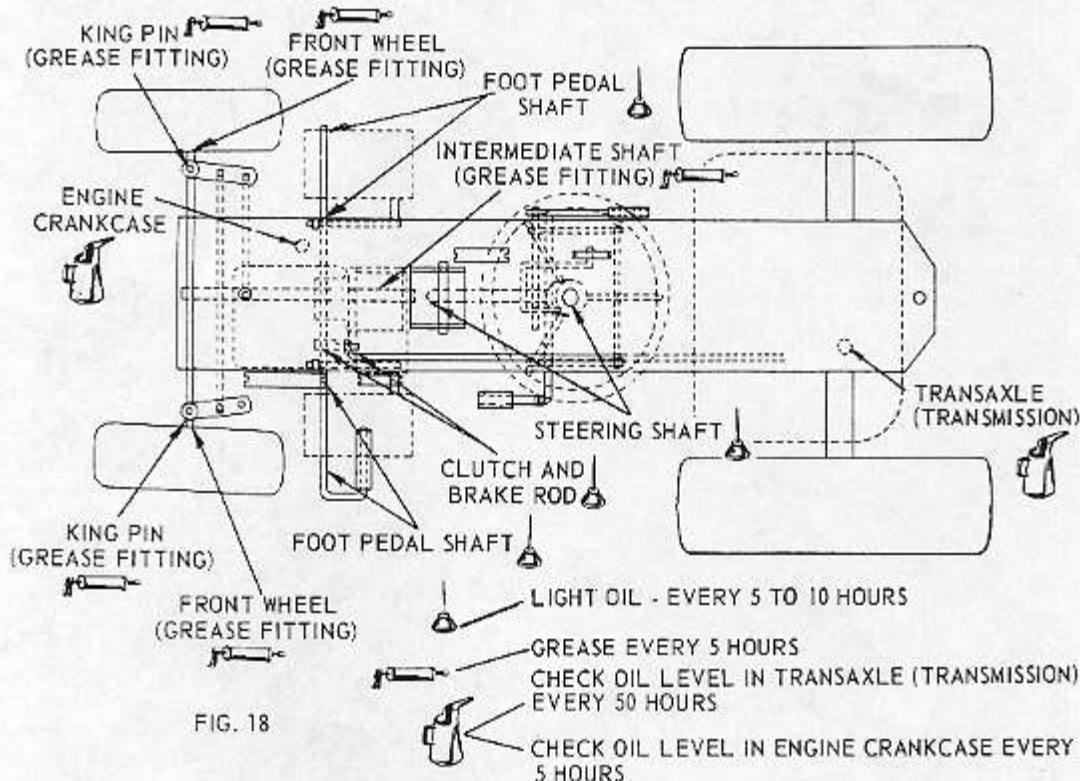


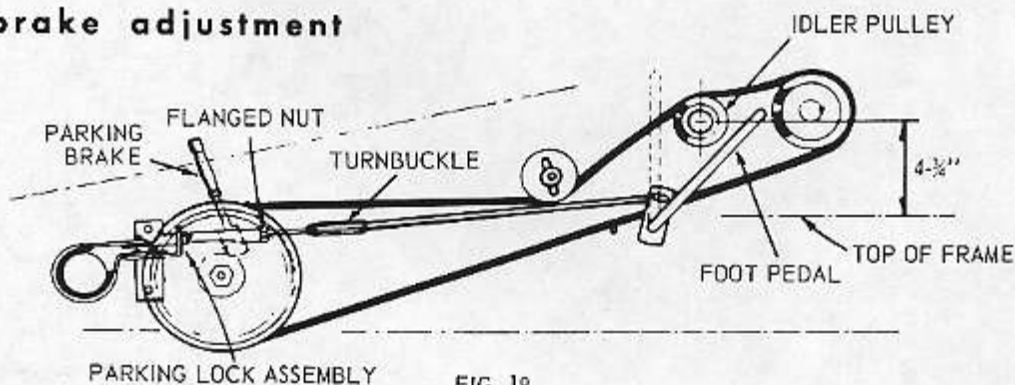
FIG. 17

1. Check oil in transaxle (transmission) every 50 hours of operation. To check oil level, remove filler plug from transaxle. Oil level should be even with this plug.
2. Change oil in transaxle after 500 hours of operation. To drain, remove drain plug and catch oil in suitable container.
3. To fill transaxle, use 5 qts. of Allstate S.A.E. 30 motor oil for service MM or MS or equivalent. Fill through filler plug.

maintenance (cont.) lubrication chart



brake adjustment



To adjust brake, loosen nut back of turnbuckle and turn turnbuckle clockwise (away from you), one turn at a time until foot pedal has about 4 inches of travel from clutch engaged to full brake position, or center of idler is about 4-3/8 inches above frame. Tab on idler bracket will deflect belt slightly. Tighten jam nut against turnbuckle to lock turnbuckle in position. Keep brake properly adjusted especially in hilly terrain.

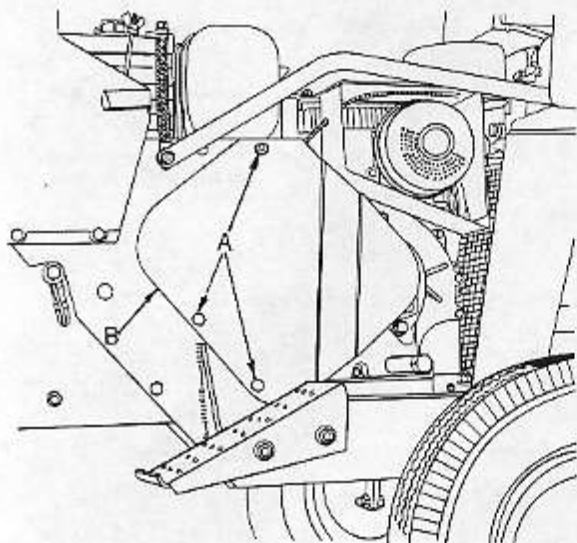
park brake lock adjustment

The flanged nut is adjustable forward or backward on rear brake rod so that parking lock assembly will hold brake full on when parking brake is pulled up (lock position). Tighten jam nut against flanged nut to lock flange nut in position. As brake band wears, flanged nut will have to be readjusted.

maintenance (cont.)

transaxle (transmission) drive belt adjustment

A new belt will stretch after the first few hours of operation, then after initial stretch, adjustment is seldom necessary.



Remove bolts and nuts (A), from belt guard (B), and remove guard.

FIG. 20

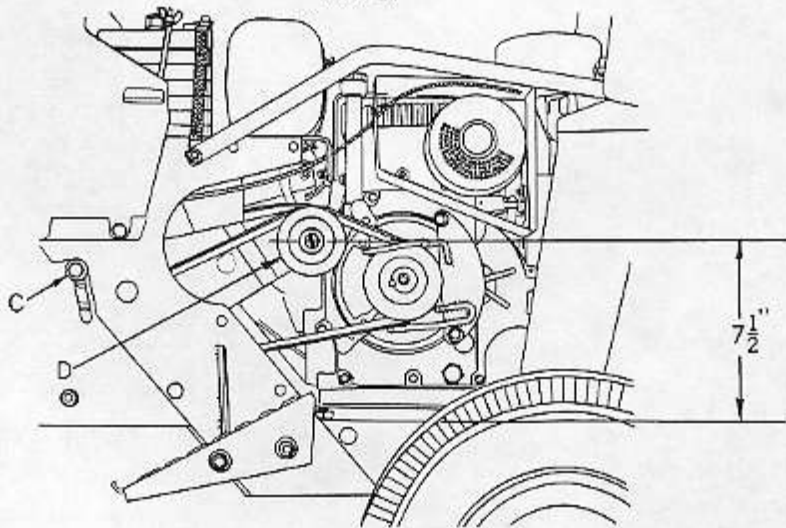


FIG. 21

1. Loosen bolt (C), in flat idler and push bolt down in slot of frame until center of idler pulley (D), is $7\frac{1}{2}$ inches above frame.
2. Tighten bolt (C), in flat idler securely. Make sure belt guide finger on bolt (C), clears belt approximately $\frac{1}{8}$ inch.
3. Replace belt guard (B, Fig. 20).

NOTE: Foot pedal should be in vertical or just back of vertical position with clutch engaged.

maintenance (cont.)

trouble shooting

Possible Cause	HARD TO START	Possible Remedy
No gasoline in fuel tank or carburetor		Fill the tank with gasoline; open fuel shut-off valve. Clean fuel line and carburetor.
Water in gasoline or old fuel		Drain fuel tank and carburetor. Use new fuel and dry spark plug.
Choked improperly. Flooded engine		Push in choke, open throttle control and crank engine several times to clear out gas.
Dirty carburetor air filter		Remove and clean. Refer to engine manual.
Spark plug dirty or improper gap		Clean, adjust the gap or replace. Refer to engine manual.
Defective battery		Service or replace.
Defective ignition or loose wiring		Check the wiring and spark plug.

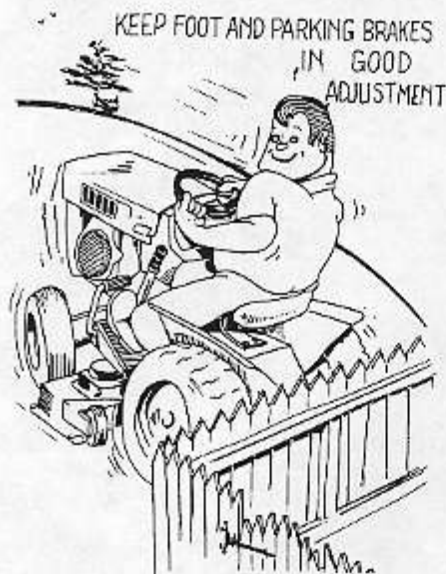
ENGINE MISSES OR LACKS POWER

Dirty starter air screen	Clean screen over starter, see page 10. Be sure fins on cylinder head and around cylinder are clean.
Partially plugged air cleaner	Remove and clean. Refer to engine manual.
Low oil level or dirty oil	Add or change oil, see page 11.
Improper carburetor adjustment	Refer to engine manual.
Spark plug dirty, wrong gap or wrong type	Clean, reset the gap or replace.
Engine overloaded	Shift to a lower gear or reduce load.
Faulty ignition	Check spark plug and for loose wires. If trouble cannot be corrected, contact Sears.
Belt slips	Tighten belt. Refer to page 13.
Oil in gasoline	Drain and refill fuel tank and carburetor. Oil reduces the efficiency of the engine.
Poor compression	Contact Sears.

ENGINE OVERHEATS

Dirty starter air screen	Clean screen over starter, see page 10.
Low oil level or dirty oil	Add or change oil, see page 11.
Partially plugged muffler	Remove muffler from engine and clean.
Poor fuel or too lean a mixture	Refer to engine manual.
Partially plugged air cleaner	Remove and clean. Refer to engine manual.
Dirty engine	Clean fins on cylinder head and around cylinder.

maintenance (cont.)



tires

Keep tires inflated to 15 pounds of air pressure in front; 8 pounds in rear.

Avoid stumps, stones, deep ruts and other hazards. Cuts in tires should be repaired immediately as neglect decreases the tire life. Keep tires free from oil and grease as both destroy rubber. After using the Tractor for spraying--insect control work--wash off any chemicals that may be on the tires.

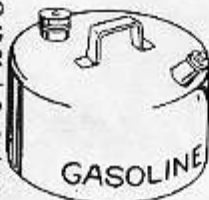
To remove a front tire and wheel proceed as follows:

1. Remove hub cap.
2. Unsnap "E" ring from king pin (front axle).
3. Remove flat washer.
4. Slide wheel and tire from king pin (front axle).

A rear wheel and tire is removed by removing the three hub bolts from wheel and hub.

Sears or your local service station can repair your Tractor tire in the same manner as an automobile tire.

NEVER REMOVE TRACTOR FUEL TANK CAP OR ADD GASOLINE TO A RUNNING OR HOT ENGINE. NEVER FILL FUEL TANK IN DOORS. WIPE UP SPILLED GASOLINE BEFORE STARTING ENGINE. KEEP GASOLINE IN AN APPROVED, CLOSED CONTAINER.



how to start if battery is low

1. Connect quick-start battery cables or "jumpers" from your automobile 12 volt battery to the Tractor battery CAUTION: Connect positive (+) terminal to positive (+) terminal. This method of starting is only a means of emergency starting. Have Tractor battery recharged or replaced immediately.

important battery care

Proper attention to the battery on units so equipped is of utmost importance.

Your battery is of the same high standard as is used in automobiles. Unfortunately it does not have the advantages of automatic attention by the service station attendant as the one in your car.

The following points are recorded to help remind you to provide attention to the battery and gain full advantage of the usable life built into the battery and avoid costly replacements.

1. Check solution level in battery at least once each week. Add distilled water when required. Correct level is bottom of tubes in cells, refer to page 5. After adding water, run the engine so that the generator charge will mix the solution. DO NOT OVER FILL.
2. Keep the battery clean. Remove any collection of grease or other substance from the top of the battery.
3. Keep top of battery clean and dry at all times.
4. Keep battery snug in its cradle or holder.
5. Keep vent caps tight and small vent holes in cap open.
6. If battery should become discharged or fall below a specific gravity of 1.225 remove battery and have it recharged.
7. When recharging, request service station to SLOW CHARGE the battery at a rate of 3 amperes. FAST CHARGING IS NOT RECOMMENDED.

SAFETY Pays Off



maintenance (cont.)

winter care--battery

1. If unit is not used regularly during winter months it should be removed and stored in a cool, dry place.
2. If unit is used only infrequently during winter months, check at least once each thirty days to be sure a full charge is maintained.
3. A battery not fully charged can freeze, resulting in the necessity to replace.
4. A safe rule is to charge the battery monthly or least test and recharge if below 1.225 specific gravity.

Please remember the necessity of proper winter care for the battery. Batteries not in use for several months and not kept fully charged, produce a sulphation of the plates which cannot be removed by recharging.

Your guarantee is intended to provide you adequate protection. It does not, however, cover recharging or damage resulting from lack of care, freezing or inability to perform after winter or long storage periods without proper attention.

AFTER OPERATING THE TRACTOR OR ENGINE, NEVER TOUCH THE MUFFLER UNTIL IT HAS HAD SUFFICIENT TIME TO COOL.

storage instructions

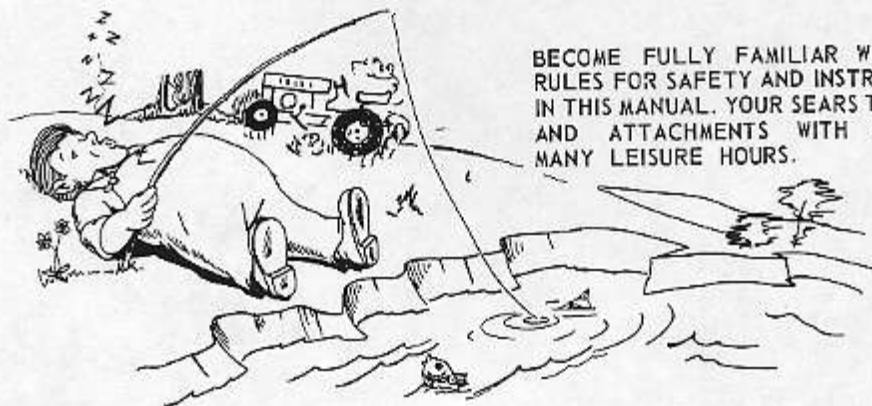
In the event your Tractor is to be inoperative for periods in excess of 30 days - prepare for storage as outlined in the next column.

1. Drain fuel tank and carburetor by allowing the engine to run out of gasoline. Gasoline left in your engine will leave gum deposits in the carburetor and fuel tank. This makes fuel system inoperative and will result in hard or non-starting of the engine.
2. Lubricate cylinder by removing the spark plug and pouring one ounce of clean lubricating oil through the spark plug hole into the cylinder. Crank the engine slowly to spread oil and replace the spark plug.
3. Clean the engine and tractor of all foreign matter.
4. Do not save or store gasoline over winter.

STORE YOUR TRACTOR IN A DRY AND PROTECTED PLACE. LEAVING YOUR TRACTOR OUTDOORS, EXPOSED TO THE ELEMENTS, WILL RESULT IN MATERIALLY SHORTENING ITS LIFE.

general

1. Just as your automobile needs professional mechanical maintenance from time to time, so does your air cooled engine. Cleaning and adjustment of the carburetor and periodic replacement of the spark plug and ignition points is made necessary by NORMAL use.
2. Professional air cooled engine service is as close as your nearest Sears Store.
3. A yearly check-up or tune-up by Sears is a good idea to avoid breakdowns or delays. Do it each fall, then you're ready for spring. We even prepare it for storage for you.

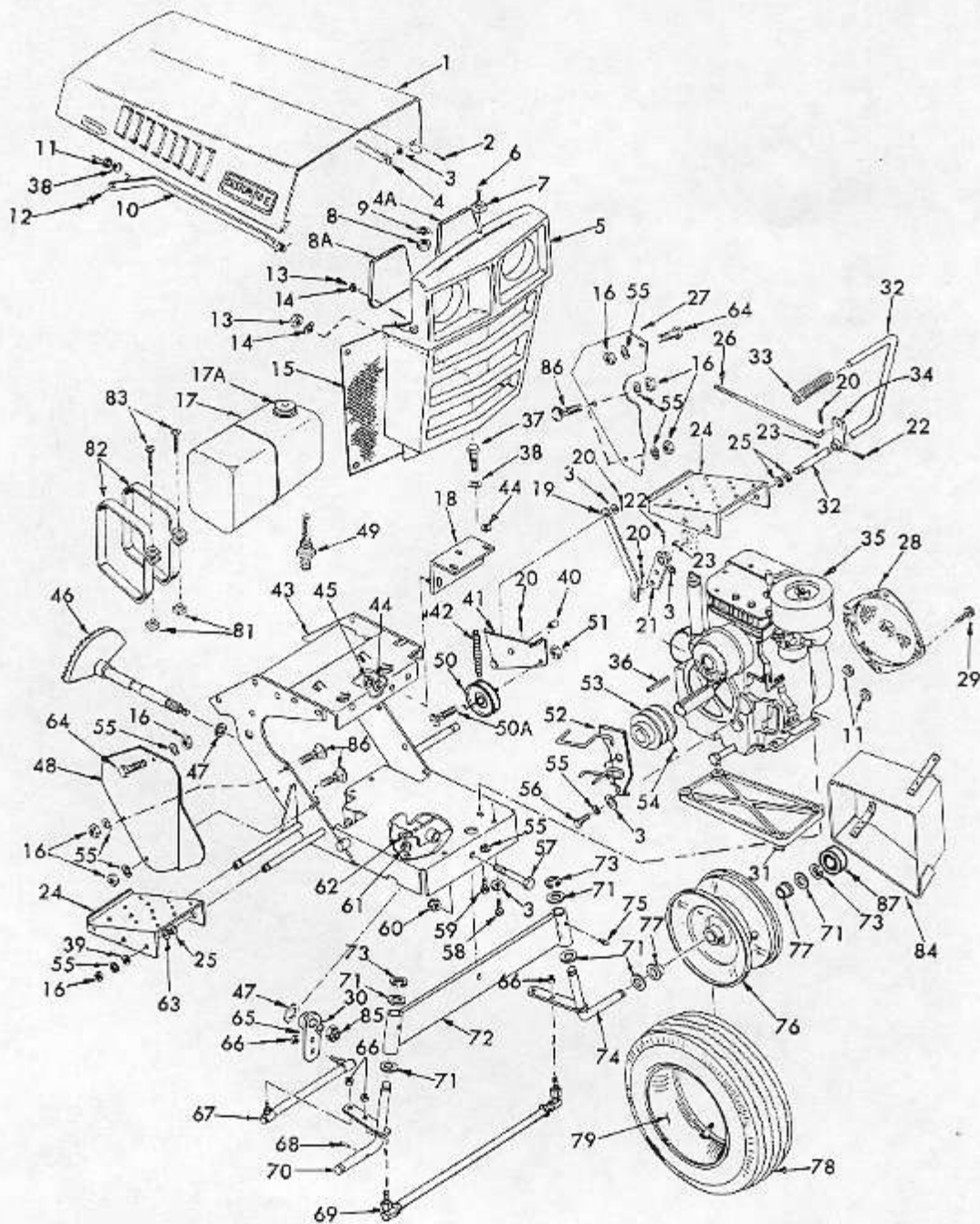


BECOME FULLY FAMILIAR WITH THE RULES FOR SAFETY AND INSTRUCTIONS IN THIS MANUAL. YOUR SEARS TRACTOR AND ATTACHMENTS WITH PROVIDE MANY LEISURE HOURS.

Sears, Roebuck and Co. or Simpsons-Sears Ltd. in Canada reserves the right to make any changes in design or improvements without imposing any obligation to install the same upon its items heretofore manufactured.

repair parts

CUSTOM 10E TRACTOR
MODEL NO. 917.25070



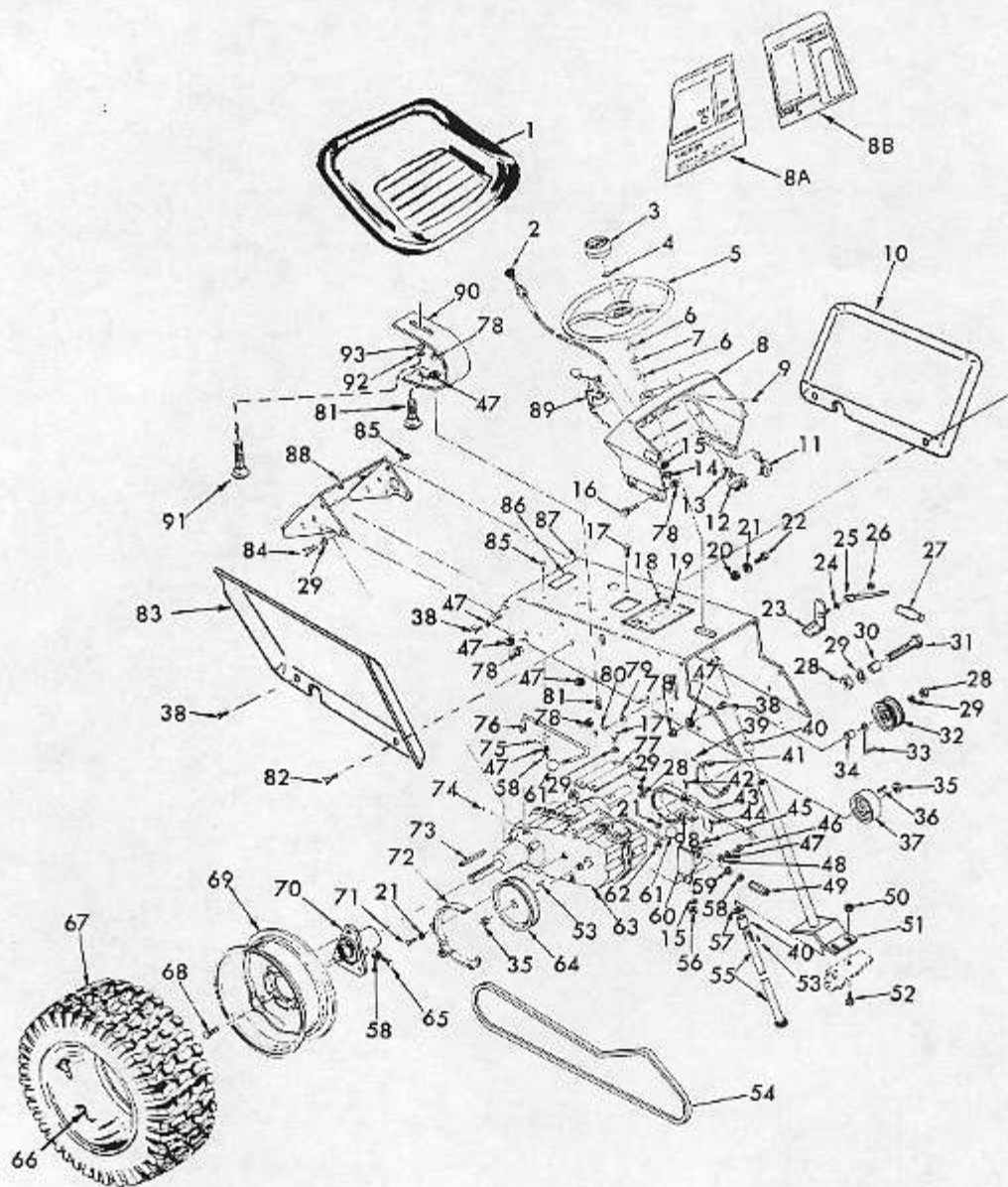
repair parts

CUSTOM 10E TRACTOR MODEL NO. 917.25070

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	626A268	Hood Assembly	44	1537P	Washer 11/32 x 11/16 x 16 Ga.
2	2503P	Cotter Pin 3/32 x 3/4	45	1685H	Locknut 5/16 - 18
3	1513P	Washer 13/32 x 13/16 x 16 Ga.	46	626A253	Intermediate Shaft Assembly
4	805R	Grill Brace-L.H.	47	9000H	Thrust Washer
4A	8838H	Grill Panel-L.H.	48	8212H	Belt Guard
5	8828H1	Grill Frame	49	815R	Fuel Line Fitting
6	3198P	Mach. Screw, Slotted Rd. Hd. #10 - 24 x 1	50	1342R	Idler Pulley
7	8887H	Rubber Bumper	50A	1343R	Stud
8	505P	Hex Nut #10 - 24	51	548P	Lock Nut
8A	8839H	Grill Panel-R.H.	52	626A188	Belt Guide Assembly
9	106P	Lockwasher #10	53	626A221	Engine Pulley
10	806R	Grill Brace R.H.	54	4525P	Set Screw, Hex Socket Headless 3/8 - 16 x 3/8
11	504P	Hex Nut 5/16 - 18 UNC	55	1004P	Lockwasher 3/8
12	3010P	Hex Bolt 5/16 - 18 x 3/4	56	3021P	Hex Bolt 3/8 - 16 x 3/4
13	6029P	Self Tapping Screw W/Lockwasher 1/4 - 20 x 5/8	57	3217P	Hex Bolt 5/8 - 11 x 3-1/2
14	1509P	Washer 5/16 x 3/4 x 16 Ga.	58	3027P	Hex Bolt 3/8 - 16 x 1-1/2
15	8837H	Grill Screen	59	3028P	Hex Bolt 3/8 - 16 x 1-3/4
16	501P	Hex Nut 3/8 - 16 UNC	60	4764H	Huglock Nut 5/8 - 11
17	814R	Fuel Tank	61	6842M	Grease Fitting
17A	2188R	Fuel Tank Cap	62	1506P	Washer 9/32 x 1 1/2 x 14 Ga.
18	626A239	Engine Tie Bracket Assembly	63	1550P	Washer 21/32 x 1 x 12 Ga.
19	626A196	Clutch Rod Assembly	64	3023P	Hex Bolt 3/8 x 16 x 1
20	2505P	Cotter Pin 1/8 x 3/4	65	626A254	Steering Arm Assembly
21	626A31A	Steering Arm Assembly	66	511P	Nylock Nut 3/8 - 24
22	4501P	Set Screw, Sq. Hd. 5/16 - 18 x 1/2	67	5137H	Steering Link
23	9858M1	Woodruff Key 3/16 x 5/8	68	5142H	Roll Pin 3/16 x 1-1/4
24	8172H	Foot Rest	69	816R	Tie Rod, Adjustable
25	5001P	E-Ring	70	626A194	King Pin Assembly-R.H.
26	8811H1	Brake Rod Front	71	1552P	Washer 49/64 x 1-1/4 x 16 Ga.
27	664R	Tie Plate Cover	72	626A244	Rocker Bar (Front Axle) Assem.
28	704R	Screen Guard	73	5000P	E-Ring
29	6040P	Mach. Screw, Slotted Fil. Hd. 1/4 - 28 UNC x 3/4 with Sems Lockwasher	74	626A193	King Pin Assembly-L.H.
30	1544P	Washer 15/32 x 59/64 x 16 ga.	75	6855M	Grease Fitting
31	668R	Engine Mounting Block	76	9194H	Front Wheel
32	1795R	Foot Pedal Shaft	77	9040H	Flanged Bearing
33	8156H	Foot Pedal Sleeve	78	5104H	Tire-Front
34	634A33A	Brake Arm Assembly	79	338H	Tube
35	626A248	Engine, Craftsman 10 H.P. Model No. 143.619012-- See Price List 932.00 for Ordering Instructions	80	1559P	Washer 7/16 x 1 x 10 Ga.
36	9396E	Sq. Key 1/4 x 2	81	503P	Nut, Sq. 1/2 - 20 UNC
37	3010P	Bolt, Hex 5/16 - 18 UNC x 3/4	82	809R	Tank Strap
38	1003P	Lockwasher 5/16	83	3153P	Mach. Screw, Rd. Hd. Phillips 1/2 - 20 UNC x 1-1/4
39	1556P	Washer 13/32 x 7/8 x 14 Ga.	84	626A282	Heat Shield Assembly
40	8094H	Bearing	85	7762H	Locknut
41	626A300	Idler Bracket Assembly	86	8P	Bolt, Sq. Neck Carriage 3/8 - 16 UNC x 1
42	5105H	Idler Spring	87	2188R	Hub Cap
43	626A308	Engine Mount and Tie Plate Assembly			

repair parts

CUSTOM 10E TRACTOR
MODEL NO. 917.25070



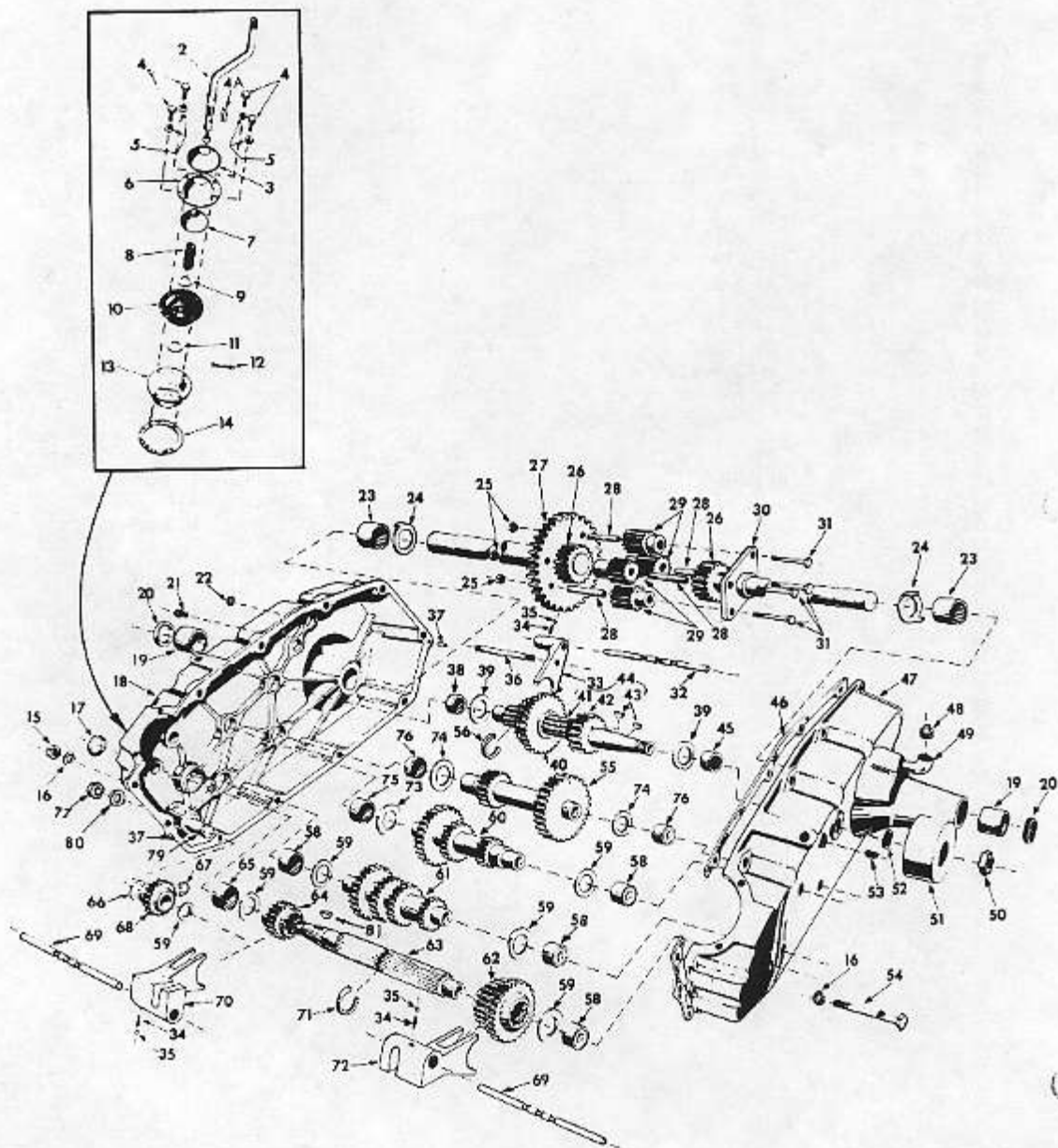
repair parts

CUSTOM 10E TRACTOR MODEL NO. 917.25070

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	2053R	Seat	48	1513P	Washer 13/32 x 13/16 x 16 Ga.
2	6466H	Choke Control	49	6417H	Turnbuckle
3	9357H	Steering Wheel Cap	50	8698H	Flange Nut
4	5000P	E-Ring	51	626A109	Steering Column Assembly
5	5138H	Steering Wheel	52	3091P	Bolt, Hex 3/8 - 16 x 1 Heat Treated
6	9007H	Cap	53	9858M1	Woodruff Key
7	5949H	Rubber Bushing	54	8833H	V-Belt (Engine to Transaxle)
8	8175H	Dash Board Assembly	55	626A29	Steering Shaft Assembly
8B	1773R	Dashboard Plate—R.H.	56	503P	Hex Nut 1/4 - 20
8A	2111R	Dashboard Plate—L.H.	57	1552P	Washer 49/64 x 1-1/4 x 16 Ga.
9	4502P	Hex Socket Headless Set Screw 5/16 - 18 x 5/16	58	501P	Hex Nut 3/8 - 16
10	634A21 88) 8H	Fender—L.H.	59	6000H	Large Flange Nut
11	5735H	Light Switch	60	626A208	Brake Bracket Assembly
12	7486H	Ignition Switch	61	6364H	Control Knob
13	7552H	Key	62	1685H	Lock Nut
14	503P	Hex Nut 1/2 - 20	63	633A45	Transaxle with Brake Drum
15	1002P	Lockwasher - 1/2	64	8840H	Transaxle Pulley with Set Screw
16	3027P	Hex Bolt 3/8 - 16 x 1-1/2	65	4524P	Set Screw, Sq. Hd. 3/8 - 16 x 1-1/2
17	3034P	Hex Bolt 7/16 - 14 x 1	66	1296H	Tube
18	9521H	Drive Rivet	67	5808H	Tire-Rear
19	1765R	Shift Pattern Plate	68	1304H	Hub Bolt
20	504P	Hex Nut 5/16 - 18	69	1297H1	Rim Disc Wheel
21	1003P	Lockwasher - 5/16	70	8827H	Wheel Hub - Rear
22	3009P	Hex Bolt 5/16 - 18 x 5/8	71	3010P	Hex Bolt 5/16 - 18 x 3/4
23	634A396	Parking Lock Assembly	72	626A209	Rear Belt Guard Assembly
24	5999H	Spring Washer	73	8327H	Sq. Key 1/4 x 3
25	634A170	Blade Clutch Handle	74	2511P	Cutter Pin 3/16 x 1
26	511P	Nylock Nut 3/8 - 24	75	6442H	Shift Rod Bracket
27	4379H	Shift Handle Grip	76	6477H	Shift Range Rod
28	500P	Hex Nut 7/16 - 14	77	6459H	Transaxle Bracket
29	1001P	Lockwasher - 7/16	78	501P	Hex Nut 3/8 - 16
30	807R	Retainer Spacer	79	1544P	Washer 15/32 x 59/64 x 16 Ga.
31	3231P	Bolt, Hex 7/16 - 14 x 2-3/4	80	3197P	Hex Bolt 7/16 x 14 x 3-1/4
32	6635H	Flar Idler	81	20P	Bolt, Sq. Neck Carriage, 3/8 - 16 x 1
33	6479H1	Belt Guide Finger	82	3022P	Hex Bolt 3/8 - 16 x 7/8
34	8209H	Idler Spacer	83	8819H	Fender—R.H.
35	9204H	Lock Nut	84	3035P	Hex Bolt 7/16 - 14 x 1-1/4
36	2228M	Woodruff Key 3/16 x 3/4	85	3021P	Hex Bolt 3/8 - 16 x 7/8
37	7648H	Brake Drum	86	-----	Model Number Plate
38	3025P	Hex Bolt 3/8 - 16 x 1	87	752R	Chassis Channel
39	2004P	Brass Tubular Rivet - #4 x 1/2	88	634A101	Drawbar and Weldnuts
40	4437H	Steering Bushing	89	626A255	Throttle Control
41	7645H	Braking Lining	90	5053H	Seat Spring
42	3159P	Hex Bolt 5/16 - 18 x 7/8	91	25P	Bolt, Carriage 1.2 - 13 UNC x 1-1/4
43	626A210	Braking Rod Assembly	92	1000P	Lockwasher 1/2
44	4P	Bolt, Sq. Neck Carriage 1/4 - 20 x 5/8	93	1546P	Washer 17/32 x 1-1/2 x 11 Ga.
45	3164P	Flat Hd. Mach. Screw Undercut 3/8 - 16 x 3/4	98	634A167	Brake Band and Lining
46	3022P	Hex Bolt 3/8 - 16 x 7/8	-----	2129R	Owners Manual
47	131099	Lockwasher - 3/8	-----	2291R	Sighting Guide

repair parts

CUSTOM 10E TRACTOR
MODEL NO. 917.25070



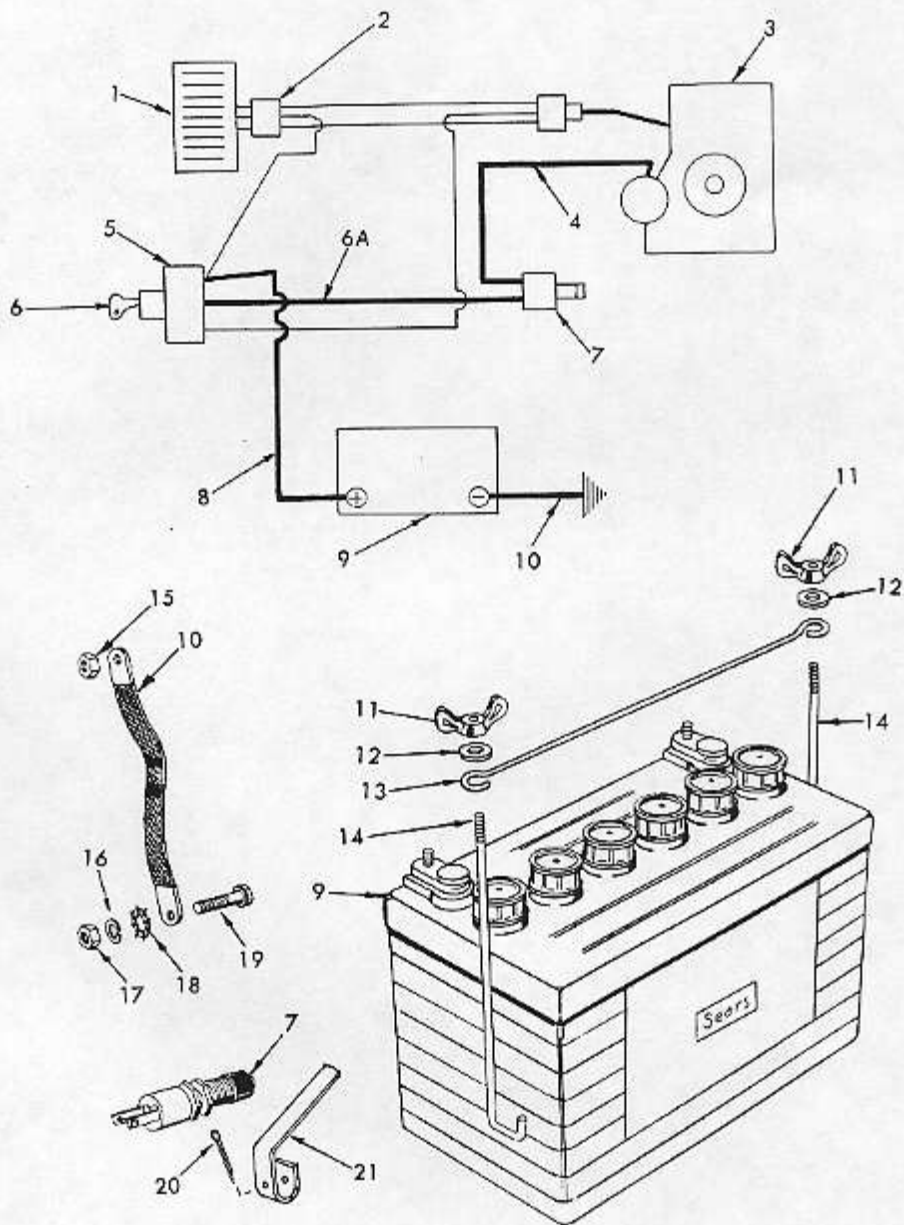
repair parts

CUSTOM 10E TRACTOR
MODEL NO. 917.25070

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	633A45	Transaxle Assembly W/Brake Drum	38	8118M	Needle Bearing
2	8735H1	Gear Shift Lever - Bent	39	6266H	Thrust Bearing Race
3	4869H1	Gear Shift Cap	40	633A14	High - Low Range Gears and Hub
4	3010P	Hex Bolt 5/16 - 18 x 3/4	41	6221H	3rd Reduction Gear Shaft
4A	7835M	Woodruff Key 1/8 x 3/4	42	8659H	4th Reduction Pinion
5	1003P	Lockwasher 5/16	43	2228M	Woodruff Key 3/16 x 1/4 H.T.
6	633A39A	Gear Shift Ball Cover and Pin	44	633A32	3rd Reduction Shaft and Gear
7	8739H1	Shift Lever Guide Ball - Keyed	45	8119M	Needle Bearing
8	4924H	Spring	46	6275H	Gasket - Gearcase
9	1544P	Washer 15/32 x 59/64 x 16 Ga.	47	633A41	Gear Case and Bearings-L.H.
10	6273H	Shift Mechanism Seal	48	4002P	Pipe Plug 1/2 - 14 N.P.T.
11	1525P	Washer 9/16 x 15/16 x 11 Ga.	49	4003P	90° Street Elbow 1/2 - 14 N.P.T.
12	2505P	Cotter 1/8 x 3/4	50	9204H	Lock Nut
13	633A19	Gear Shift Gate and Reinforcement	51	7648H1	Brake Drum
14	6274H	Gasket - Shift Ball Cover	52	6271H	Oil Seal
15	504P	Hex Nut 5/16 - 18	53	4001P	Pipe Plug 1/4 - 18 N.P.T.
16	1007P	Lockwasher 5/16 Extra Heavy	54	3087P	Hex Bolt 5/16 - 18 x 1 1/2 Grade 5 H.T.
17	6270H	Oil Seal	55	633A33	4th Reduction Shaft and Gears
18	633A42A	Gear Case, Reverse Idler Shaft and Bearings R.H.	56	6276H	Snap Ring
19	992R1	Sintered Iron Bearing	58	4895H	Needle Bearing
20	4910H	Oil Seal	59	1370H	Thrust Bearing Race
21	5855H	Pressure Relief Valve	60	633A31	2nd Reduction Shaft and Gears
22	6269H	Oil Seal	61	633A30	Speed Change Gears and Shaft
23	8740H1	Sintered Iron Bearing	62	633A11	Intermediate and High Speed Pinions
24	6256H	Axle Thrust Washer	63	6218H	Input Shaft
25	7810H	Centerlock Gripco Nut 3/8 - 24	64	6231H	Low Speed Pinion
26	633A43	Axle Shaft and Gear - Custom	65	4894H	Needle Bearing
27	8662H	Final Drive Gear	66	7392H	Reverse Idler Thrust Washer
28	6252H1	Bushing - Differential Pinion	67	5001P	E Ring
29	8657H	Differential Pinion	68	1153R	Reverse Idler Gear
30	6263H1	Differential Carrier	69	6216H	Shift Fork Shaft
31	103672	Hex Bolt 3/8 - 24 x 3 1/4 1" Thread Length	70	6262H	Shift Fork - R.H.
32	6217H	High - Low Range Shift Fork Shaft	71	4926H	Snap Ring - Crescent Type
33	6260H	Shift Fork, High Low Range	72	6261H	Shift Fork - L.H.
34	6272H	Spring - Shaft Fork Detent	73	7395H	Thrust Bearing Race
35	7392M	Steel Ball	74	7396H	Thrust Bearing Race
36	6215H	High - Low Range Shift Shaft	75	7398H	Needle Bearing
37	6277H	Dowel Pin	76	8117M	Needle Bearing
			77	541P	Hex Jam Nut 7/16 - 20
			79	7384H	Reverse Idler Shaft
			80	1167R	Sealing Washer
			81	9858M1	Woodruff Key

repair parts and wiring diagram

CUSTOM 10E TRACTOR
MODEL NO. 917, 25070



repair parts

CUSTOM 10E TRACTOR MODEL NO. 917. 25070

KEY NO.	PART NO.	DESCRIPTION
1	-----	Rectifier (Refer to Engine Manual)
2	671R	Rectifier Terminal and Lead
3	626A24B	Engine, Craftsman 10 H.P. Model No. 143.619012--See Price List 932.00 for Ordering Instructions
4	670R	Cable
5	7486H	Ignition Starter Switch and Key (Inc. Key No. 6)
6	7552H	Key
6A	1779R	Cable
7	772R	Switch-Safety Start
8	626A140	Battery Cable and Cover
9	5111H3	Battery
10	5114H	Ground Strap
11	3748M	Wing Nut
12	1509P	Washer 5/16 x 3/4 x 16 Ga.
13	5110H	Battery Clamp
14	5072H	Battery Bolt
15	503P	Nut, Hex 1/4 - 20
16	1003P	Lockwasher 5. 16
17	504P	Nut, Hex 5/16 - 18
18	1402P	Lockwasher External
19	3010P	Bolt, Hex 5/16 - 18 x 7/8
20	2507P	Cotter Pin 1/8 x 1-3/4
21	1774R	Actuator-Safety Start Switch

Sears

SEARS TRACTOR GUARANTEE

ISSUED TO

TO THE PURCHASER...

Below space is available to record the serial number, model number, and the date of purchase of your Sears Tractor. We suggest that you record the model number and serial number as this information could be very valuable to you in the future, especially in the case of theft of your tractor, etc. The information also is needed when applying for adjustment under guarantee and also when ordering repair parts.

SERIAL NUMBER

MODEL NUMBER

DATE OF SALE

REMEMBER...

ONLY SEARS HAS IT

A NATIONWIDE SERVICE ORGANIZATION
COAST TO COAST
FACTORY APPROVED PARTS AND
EXPERT FACTORY TRAINED MEN



MAINTENANCE AGREEMENT

A modern low cost, full protection Maintenance Agreement is available on this product, coverage up to two full years if desired. No examination necessary if purchased within 30 days of original Tractor purchase. Contact your nearest Sears Store.

Sears

owners manual

CUSTOM 10E TRACTOR

MODEL NO.
917.25070

The Model Number will be found on a plate attached to the rear of the Chassis Assembly and beneath the Seat. Always mention the Model Number when requesting service or repair parts for your Tractor.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER
917.25070
4. The NAME OF ITEM—
Tractor

When you buy merchandise from Sears you get an extra something that nobody else can offer . . . Sears Service.



Across town or across the country, wherever you live or move in the U.S.A., Sears Service follows you, providing trustworthy, competent service technicians using only Sears specified factory parts.

SEARS SERVICE
IS AT YOUR SERVICE
WHEREVER YOU LIVE
OR MOVE
IN THE U.S.A.

SEARS, ROEBUCK AND CO. U.S.A.

SIMPSONS-SEARS LIMITED, CANADA