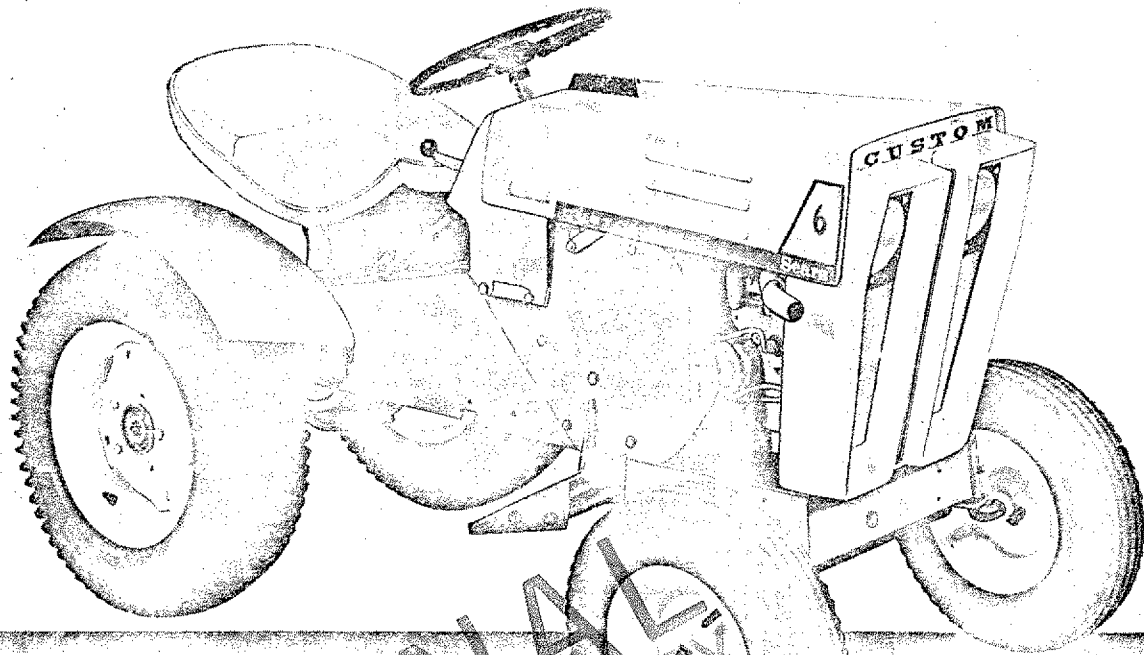
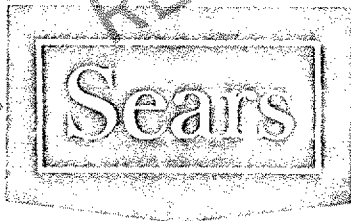


# assembly and operating instructions



ORIGINAL  
SERVICE DEPT. COPY  
DO NOT REMOVE



## 6 hp Custom Tractor

Electric Start Model-917.25020

Rewind Start Model-917.25010

7143-H

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

SIMPSON-SEARS LIMITED.....CANADA



# TRACTOR GUARANTEE

. . . WE GUARANTEE the Sears Tractor to be free from defects in materials and workmanship for a period of one (1) year from date of sale. This also includes the gasoline engine which is warranted for a period of one (1) year by the gasoline engine manufacturer.

Should a defect appear within the guarantee period, we will, at our option, either repair or replace the defective part without cost to you.

This guarantee does not cover free repair, replacement, or installation of parts worn through normal use or to parts damaged due to accident, negligence, abuse or improper use, or if the Tractor has been altered or adjusted by other than our qualified serviceman.

We do not authorize any person or representative to make any other guarantee or to assume for us any liability in connection with the sale of the Sears Tractor other than those contained herein. Any agreements outside of or contradictory to the foregoing shall be void and of no effect. This guarantee applies only to those machines sold and operated in the United States and Canada.

SEARS, ROEBUCK AND CO.  
and SIMPSONS-SEARS LIMITED



# SEARS TRACTOR GUARANTEE

## TO THE PURCHASER...

Below is listed the model number of your Sears Tractor as well as the date of your purchase. Keep this certificate with your valuable papers. This information will prove helpful should you need to avail yourself of your guarantee rights or if you need to order repair parts during the years of service which have been built into this fine piece of equipment.

ISSUED TO

---

---

---

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



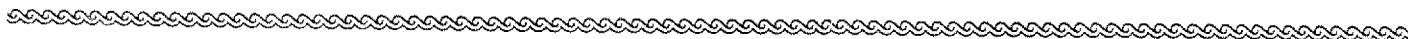
## SERVICE CONTRACT

A modern low cost, full protection Service Contract 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.

STORE STAMP

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### TO THE CUSTOM OWNER

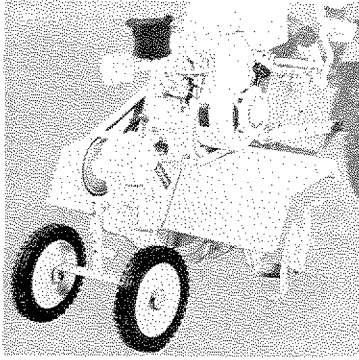
Please accept our congratulations on your investment in a Sears Custom Tractor. We feel you will obtain from your Custom the economical and superior performance it is designed to give. It is certain that you will derive a large measure of personal satisfaction from its operation.

Years of tractor manufacturing experience and contact with the actual customer have been combined with advancements in engineering to produce all the features and refinements built into your tractor.

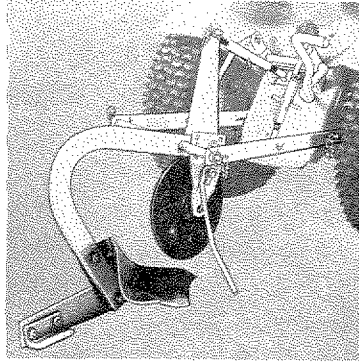
Properly adjusted, operated and maintained, this tractor will respond to every reasonable demand you make upon it and give you reliable service for years to come.

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

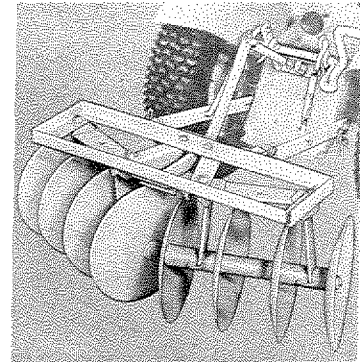
SOME OF THE MANY ATTACHMENTS AVAILABLE FOR YOUR CUSTOM TRACTOR



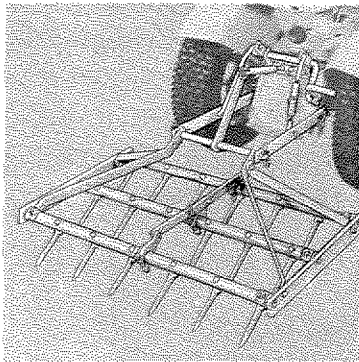
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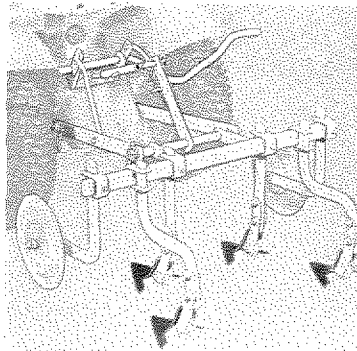
Plow



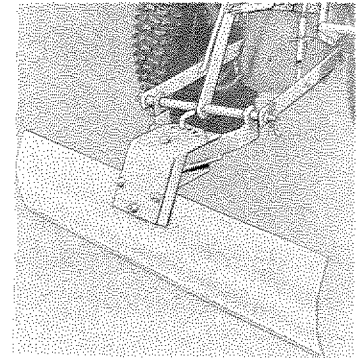
Disc Harrow



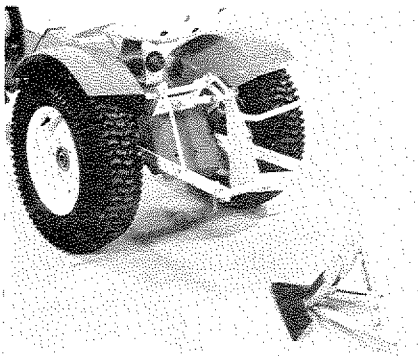
Drag Harrow



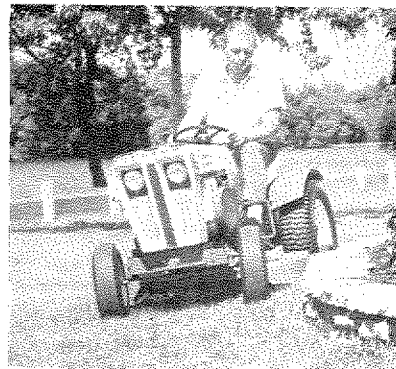
Cultivator with Sweeps



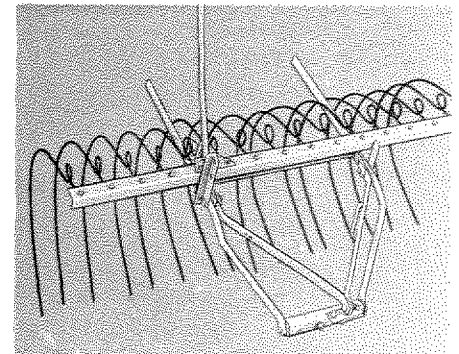
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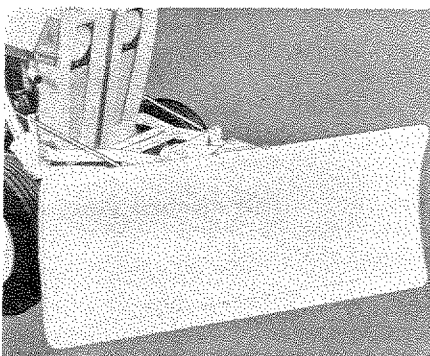
Adjustable Foot with Sweep



Rotary Mower



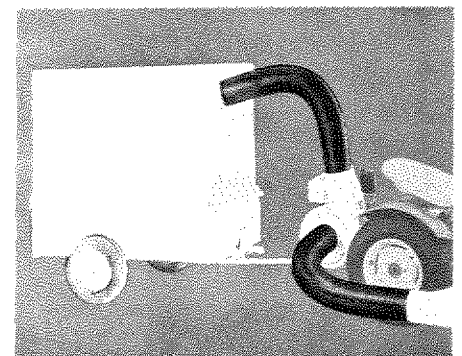
Dump Rake



Bulldozer

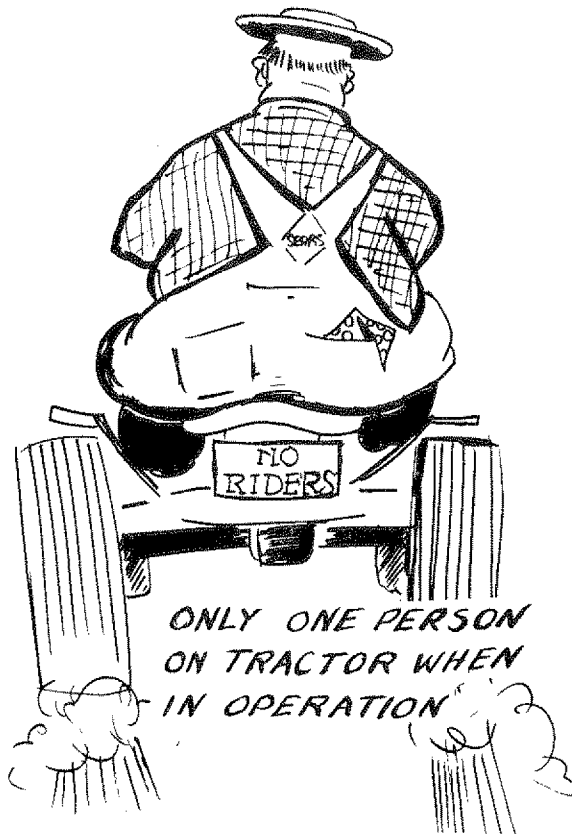
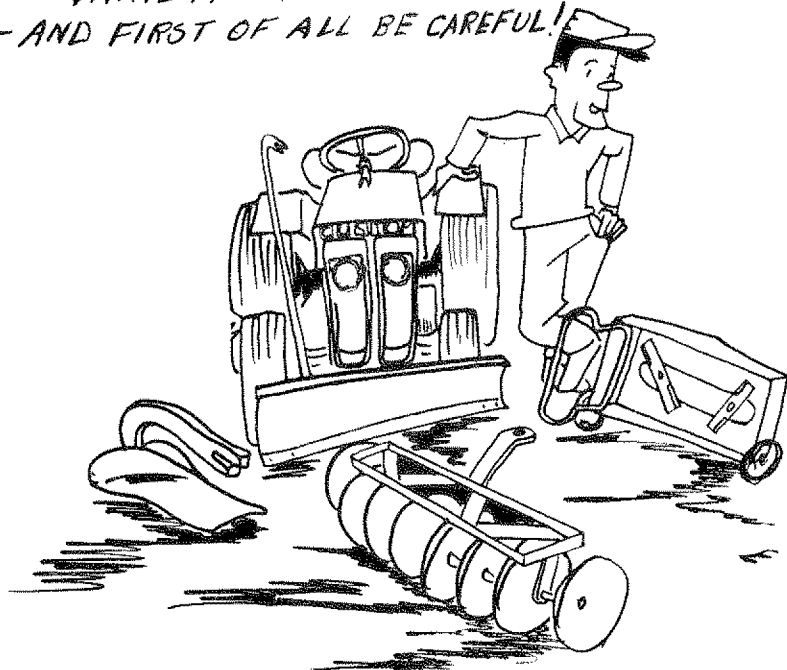


Rotary Snowplow



Vacuum Cleaner Attachment

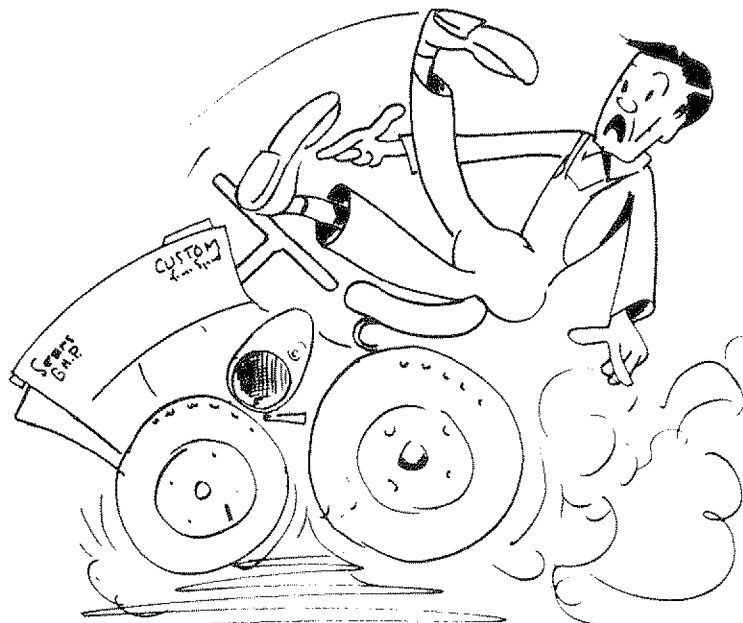
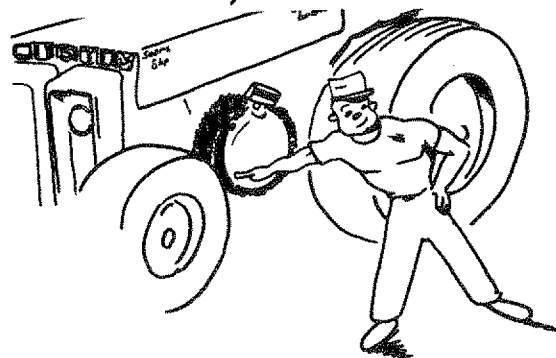
YOU CAN DO MANY JOBS  
EASILY WITH THE WIDE  
VARIETY OF ATTACHMENTS  
- AND FIRST OF ALL BE CAREFUL!



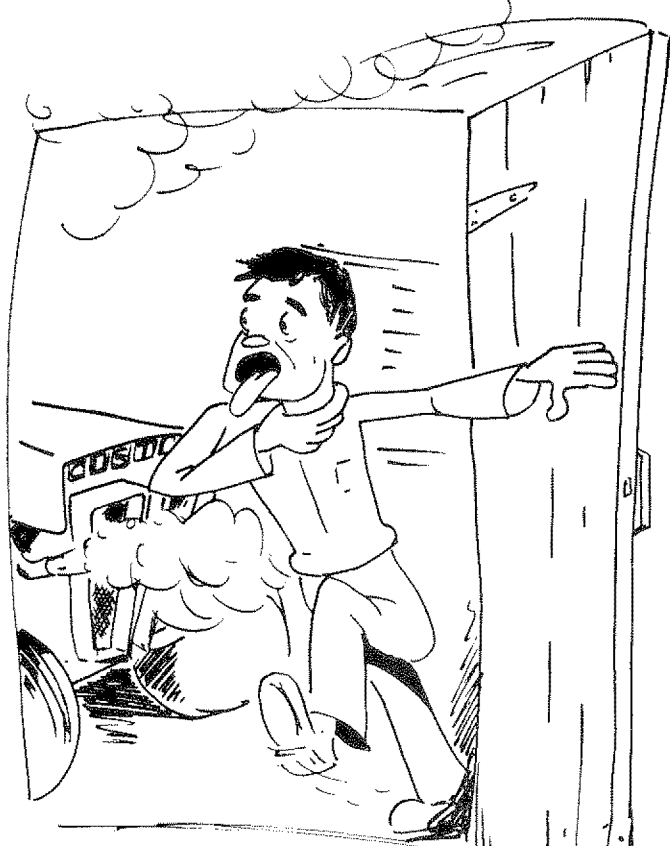
ONLY ONE PERSON  
ON TRACTOR WHEN  
IN OPERATION

--- ON PULL START MODELS, GIVE  
THAT POLYFILTER A FREQUENT  
CLEANING!

# Safety First



START IN NEUTRAL!



DO NOT START, RUN OR REFUEL  
IN A CLOSED BUILDING

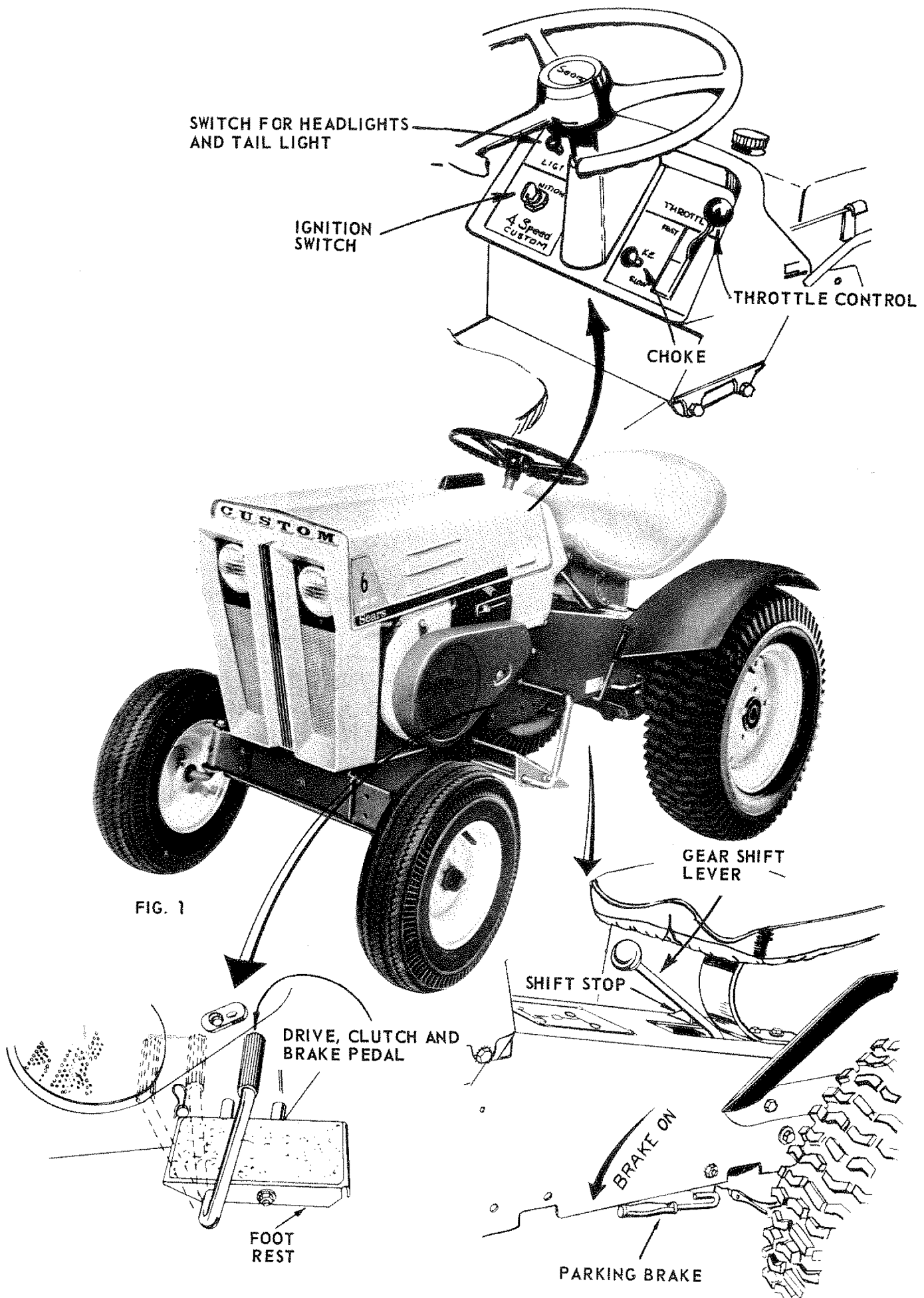


FIG. 1



Throughout this manual the use of the terms L.H. (Left Hand), R.H. (Right Hand), Front and Rear must be understood to avoid confusion when following instructions. Left and Right indicate the left and right sides of the tractor when facing forward in the driver's seat. Reference to Front indicates the Hood end of the tractor, and Rear the drawbar.

The Sears Custom Tractor has been completely assembled at the factory, except for the battery. The battery is shipped dry. Below are instructions for filling and installing battery.

### INSTALL BATTERY FOR ELECTRIC STARTER MODEL ONLY.

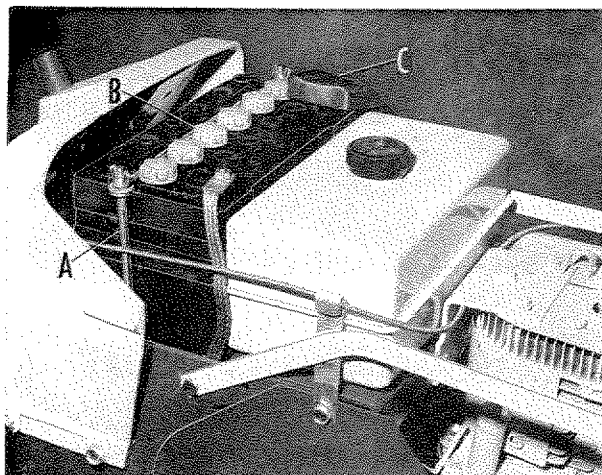


FIG. 3

1. Fill battery with electrolyte and charge battery as outlined in instructions in battery container.
2. Lift cowl and install battery in battery box so that (+) positive and (-) negative terminals are to front of tractor. Secure battery to battery support with two battery bolts (A), battery clamp (B), washers, and wing nuts. (Bolts, clamp, washers and wing nuts shipped in plastic bag.)
3. Connect starter switch cable (covered cable) to (+) positive terminal. Tighten bolt securely.
4. Connect ground strap to (-) negative terminal. Tighten bolt securely.

#### CAUTION:

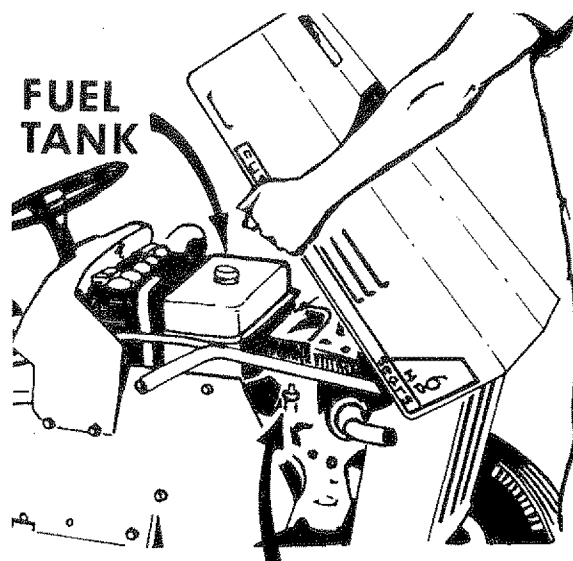
When fastening cables to battery, keep cables even with or lower than top of battery terminal. If cable is too high, it can short against cowl.

5. Be sure terminal cover (C, Fig.3) is in place on positive terminal.

### TIRES

Tires are over-inflated for shipping purposes. Reduce air pressure to 15 lbs. in front tires, and 8 lbs. in rear tires.

### BEFORE STARTING THE ENGINE



### OIL FILLER CAP AND DIP STICK

FIG. 4

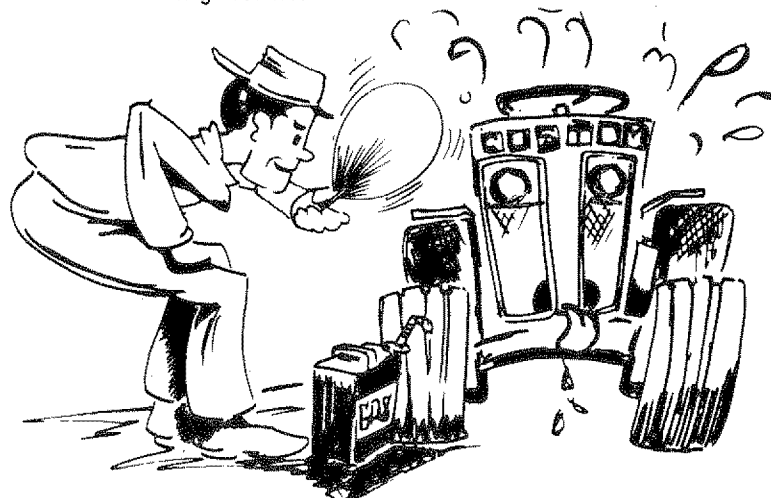
### ENGINE

- a. Lift hood as shown in Fig.4.
- b. Engine crankcase is shipped filled with oil ready for use; however we recommend that the oil level be checked. Unscrew oil filler cap and dipstick to check oil. Refer to engine manual for grade of oil to use.

Crankcase capacity 1½ pints. CAUTION: Do not over fill crankcase. Use allstate regular MS S.A.E. #30 oil or equivalent. If not available use allstate multi-grade all-weather oil (SAE 10W-30) or equivalent.

NOTE: Use S.A.E. 10W below 32 degrees.

- c. Fill the fuel tank with regular grade of FRESH, clean gasoline.



REFUEL ONLY AFTER ENGINE HAS COOLED DOWN.



## BEFORE STARTING THE ENGINE (Cont'd.)

### OPERATING CONTROLS

Become thoroughly familiar with the operating controls before starting the engine. The following controls are used to operate the tractor.

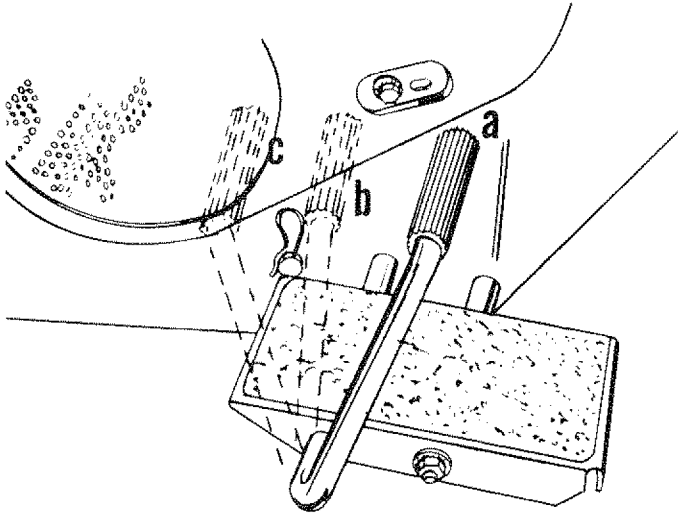


FIG. 5

1. The Drive, Clutch and Brake pedal is shown in Fig. 5. This pedal operates a combination brake and drive clutch. There are three positions of operation:
  - a. The tractor is in Drive when the pedal is all the way out--foot removed from pedal.
  - b. The tractor is in Neutral when the pedal is depressed half way.
  - c. The Brake is in operation when pedal is pressed all the way forward.

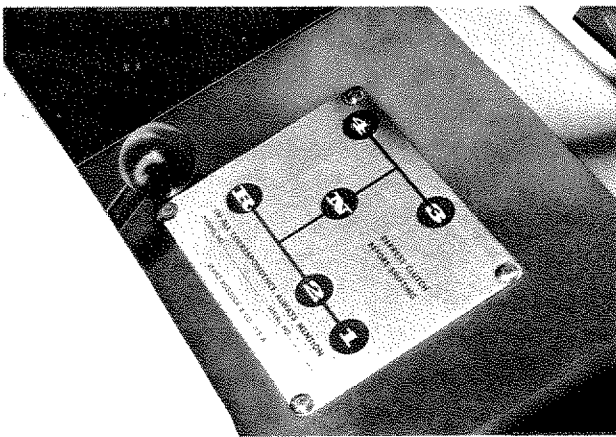


FIG. 6

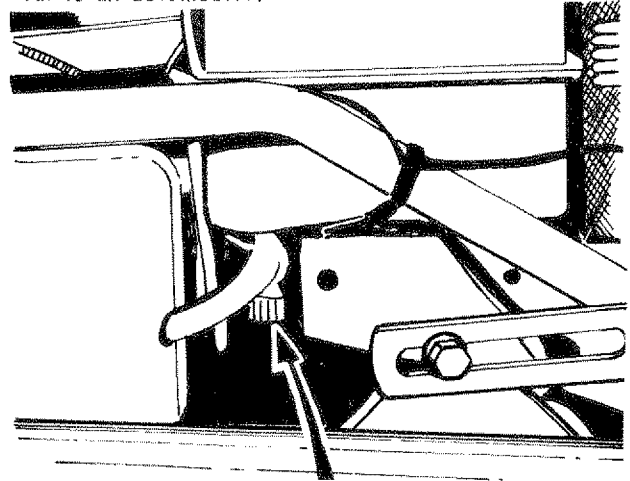
2. The Transmission gear shift lever is located at front center of seat. Refer to Fig. 6.

The gear shift lever selects the Forward speeds, Neutral, and the Reverse positions required.

### HOW TO START ENGINE

**CAUTION:** Before starting the engine, check to see that controls are as follows:

1. Transmission gear shift lever, refer to Fig. 6, is in NEUTRAL. In Neutral the gear shift lever is free to move forward and backward. It will operate similar to an automobile.



**GASOLINE SHUT OFF VALVE**

FIG. 7

2. Open gasoline shut-off valve located on L.H. side of gas tank. Refer to Fig. 7. Turn in counter-clockwise direction.

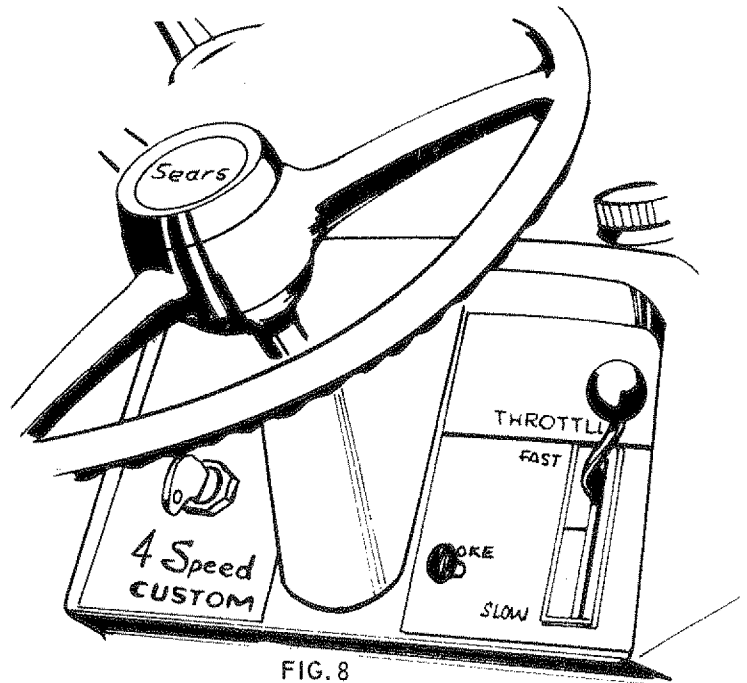


FIG. 8

3. To start a cold engine, pull out on choke control, refer to Fig. 8.

## HOW TO START ENGINE (Cont'd.)

### RECOIL MODEL

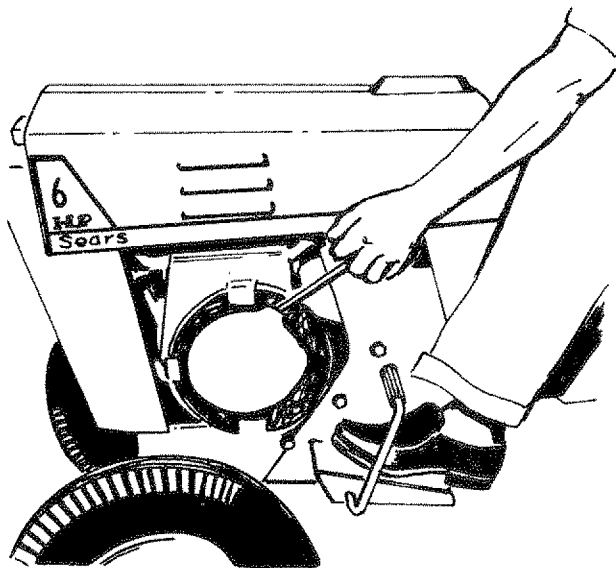


FIG. 9

**CAUTION: KEEP HANDS AND FEET CLEAR OF ALL MOVING PARTS.**

1. Place feet on foot rests.
2. Refer to Fig. 9. Turn key in ignition switch clockwise to "on" position.

3. Grasp recoil starter handle and pull sharply. Refer to Fig. 10. Do NOT allow starter rope to snap back. Rewind slowly keeping hold of the starter handle at all times.
4. After engine starts, move throttle lever to fast position; refer to Fig. 8.

### ELECTRIC MODEL

**CAUTION: KEEP HANDS AND FEET CLEAR OF ALL MOVING PARTS.**

1. Place feet on foot rests.
2. Refer to Fig. 9. Turn key in ignition switch clockwise to engage starter. When engine starts, release key and move throttle lever, refer to Fig. 8, to fast position.

**CAUTION:** Do not run starter continuously for more than 30 seconds at a time. If after several attempts, engine does not start, move throttle lever to FAST position. Wait for two minutes and try again.

### FOR ALL MODELS

1. Engine speed between FAST and SLOW positions may be varied as desired.
2. To STOP engine, turn key in counterclockwise direction to "off" position.
3. Key should be removed when tractor is not in operation so that children cannot start tractor.

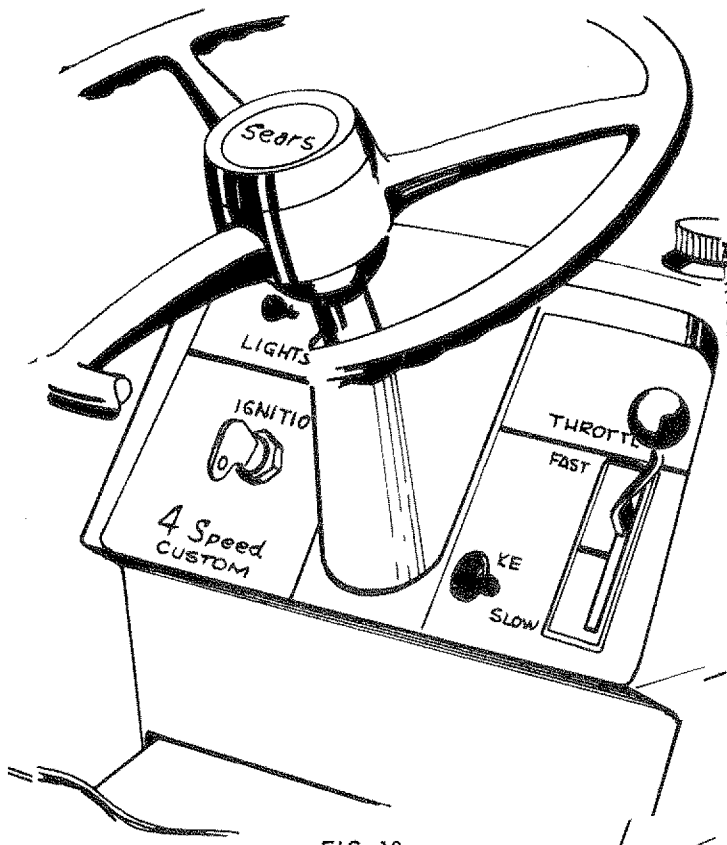
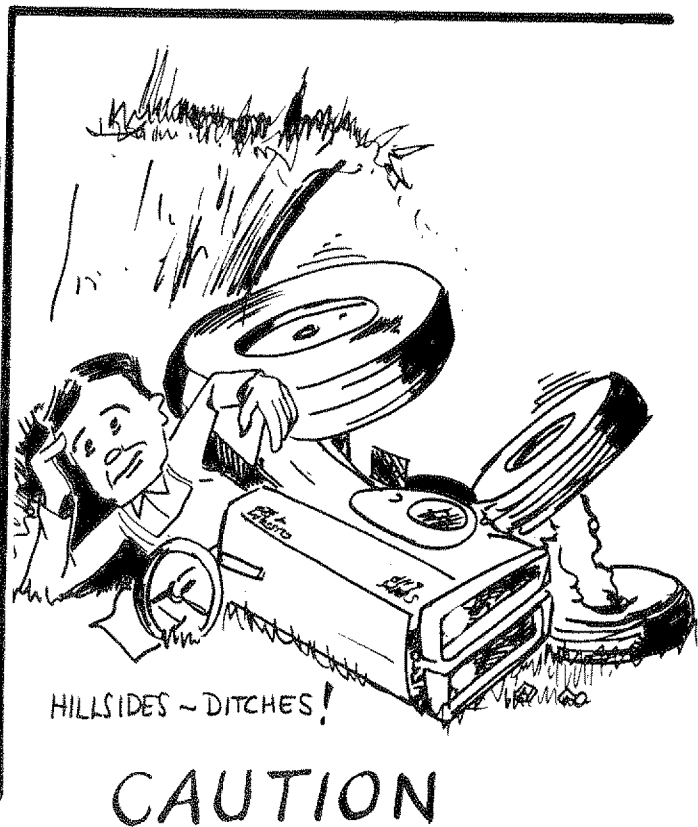


FIG. 10



## TO OPERATE TRACTOR

1. Try your tractor in a large, open space. Avoid ditches, slopes, etc. Keep area free of children and animals. Learn to start, stop and reverse.
2. Start the engine and put the throttle lever in the SLOW position, refer to Fig. 8. Push down on foot pedal, refer to Fig. 5, and move gear shift lever, Fig. 6, to speed desired. Gradually let up on foot pedal. **DO NOT SHIFT GEARS WHILE TRACTOR IS MOVING.**

First Gear -- 1.1 M.P.H.  
Second Gear -- 2.15 M.P.H.  
Third Gear -- 3.75 M.P.H.  
Fourth Gear -- 5.55 M.P.H.  
Reverse Gear -- 2.89 M.P.H.

## ENGINE LUBRICATION

1. Change oil in crankcase after first 2 hours of operation. Engine should be warm when oil is changed.

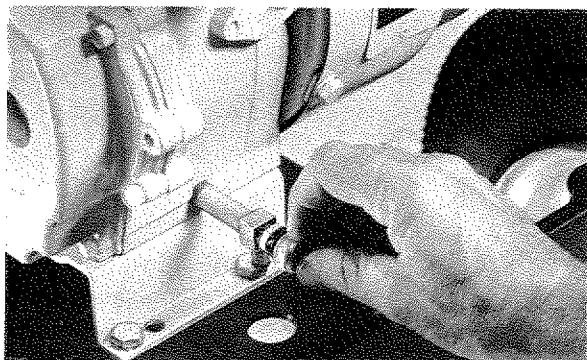
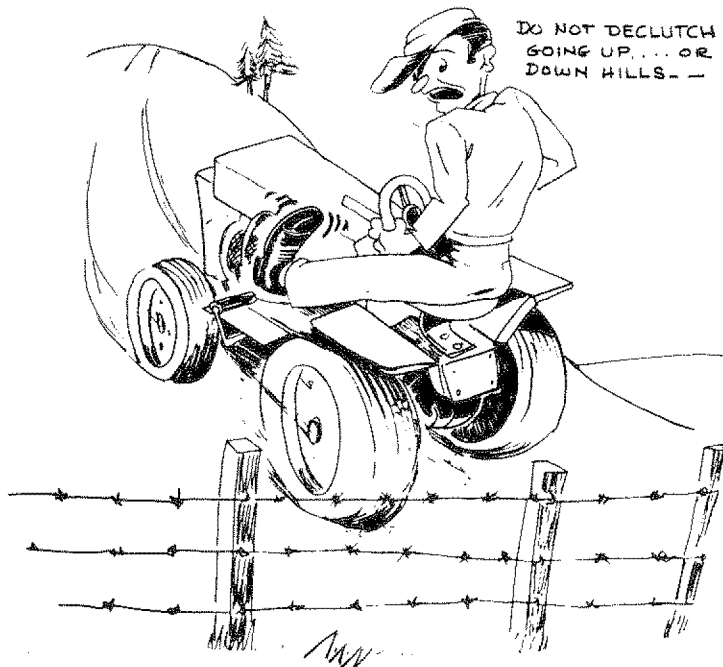


FIG. 11

2. To drain oil, unscrew petcock at lower front end of engine, refer to Fig. 11. Catch used oil in suitable container.
3. Refill engine crankcase with oil as instructed in Engine Manual. Refer to Fig. 4 for location of oil filler cap.
4. Check oil level after each 5 hours of operation and add oil if necessary.
5. After first oil change, oil should be changed after each 25 hours of operation.



## TRANSAXLE LUBRICATION

1. Check oil in transaxle after every 50 hours of operation.

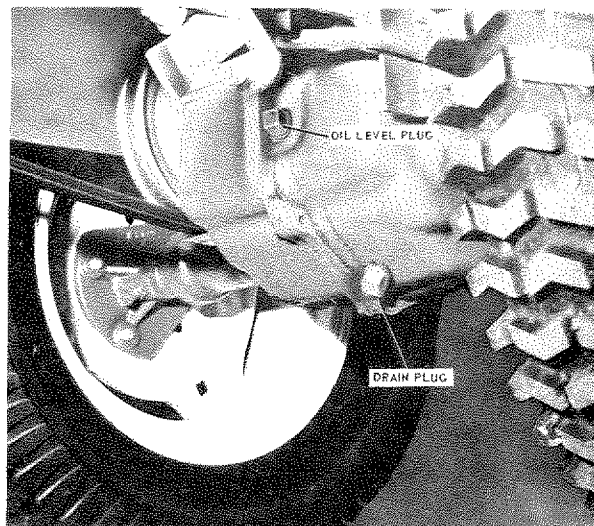


FIG. 12

2. Drain oil every 500 hours.

To drain oil, unscrew drain plug under transaxle, refer to Fig. 12, and catch oil in suitable container.

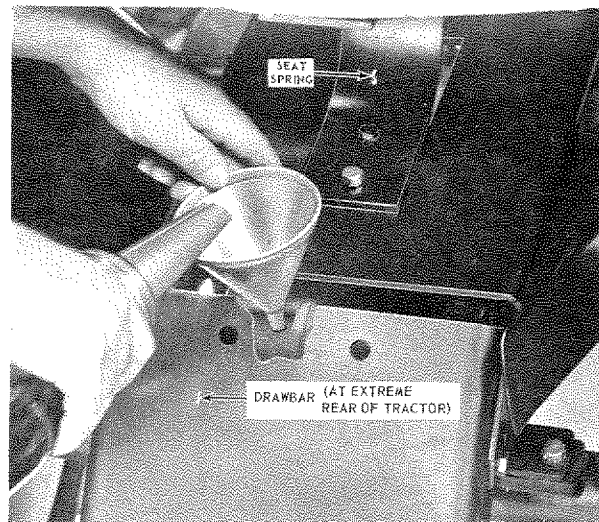
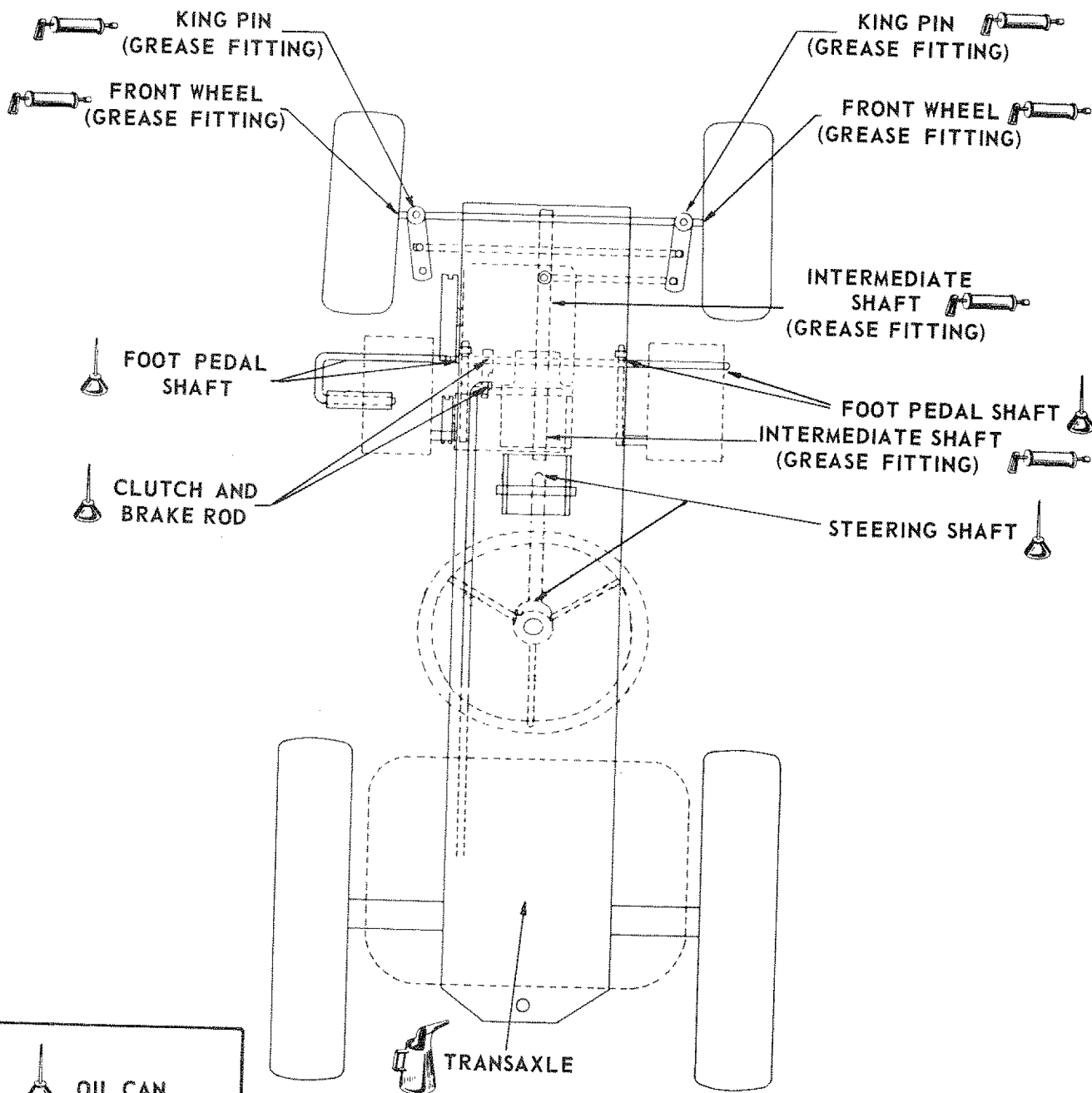








FIG. 13

3. To fill transaxle, use Allstate or any other high grade multi-purpose extreme pressure gear lubricant S.A.E. 90. Fill through filler plug, Fig. 13. Oil capacity of transaxle is 4 pints.
4. To check oil level, remove plug from front of transaxle, Fig. 12. Oil level should be even with this plug.

# LUBRICATION CHART



	OIL CAN
	GREASE GUN
	OIL MEASURE CAN

-  LIGHT OIL - EVERY 5 TO 10 HOURS
-  GREASE EVERY 10 HOURS
-  CHECK OIL LEVEL IN TRANSAXLE EVERY 50 HOURS

AN INEXPENSIVE ALL PURPOSE (ZERK) GREASE GUN IS NECESSARY FOR GREASE FITTING LUBRICATION.

## PARKING BRAKE

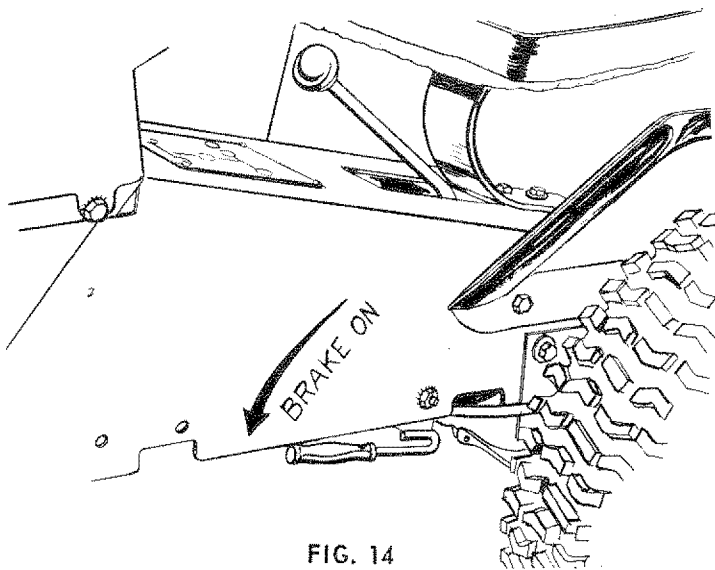
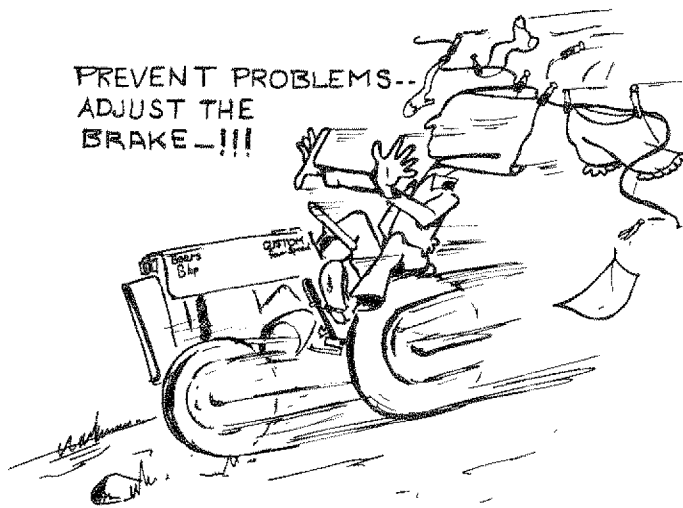


FIG. 14

When parking brake handle is up, (facing tractor seat), park brake is disengaged. To engage park brake, push down on foot brake pedal and park brake handle until handle faces front of tractor, refer to Fig. 14.

## BRAKE ADJUSTMENT



PREVENT PROBLEMS--  
ADJUST THE  
BRAKE--!!!

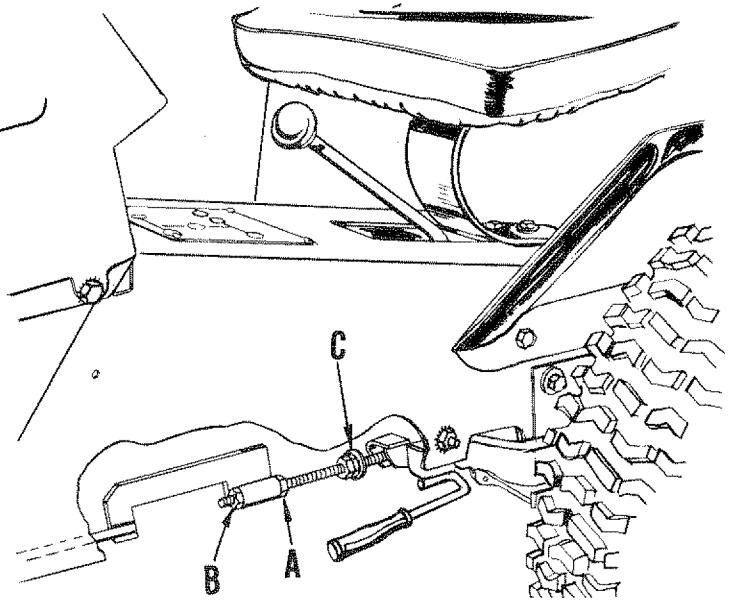


FIG. 15

When operating tractor on hillsides, slopes, etc., be sure brake is properly adjusted.

To adjust brake, turn rear nut (A, Fig. 15), on brake rod. Then turn front nut (B, Fig. 15), about 1 turn at a time until finger on idler bracket holds belt straight or deflects belt not more than  $1/8''$ , when foot pedal is fully depressed, (pushed forward), and brake band makes solid contact with brake drum. NOTE: Belt must be straight or deflected slightly when pedal is depressed for clutch to release properly. Check belt guides at engine pulley. Guides must clear belts by  $1/16''$  when clutch is engaged. Refer to Fig. 18.

## PARKING BRAKE ADJUSTMENT

The flanged nut (C, Fig. 15), is adjustable forward or backward so that parking brake lock assembly will hold brake full or when parking brake is pushed down (locked position). Tighten jam nut against flanged nut to lock flange nut in position.

## SEAT POSITION

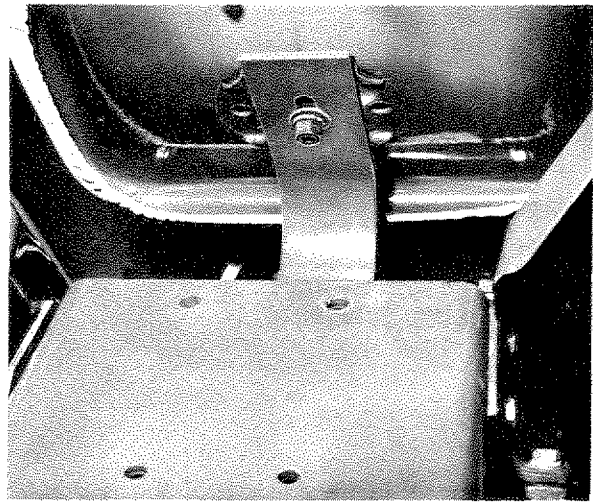


FIG. 16

The seat can be moved forward or backward to give the most comfortable riding position. To adjust the seat, loosen nut beneath seat and seat spring, refer to Fig. 16. Slide seat to position desired. Retighten nut making sure seat has not twisted out of alignment with the seat spring.

## TROUBLE SHOOTING

### HARD TO START

No gasoline in fuel tank or carburetor.	Fill fuel tank; open fuel shut off valve. Check fuel line, fuel strainer and carburetor. Remove fuel strainer and clean. Clean fuel line and carburetor.
Fuel strainer, or fuel line clogged.	Drain fuel from tank and carburetor. Refill with fresh clean gasoline. Remove and dry spark plug and reset plug gap. Replace wire on spark plug.
Water in gasoline or old fuel. Spark Plug wire off at spark plug. Spark plug dirty.	Remove plug, clean and reset plug gap, or install new spark plug.
Improperly choked, not fully choked or flooded engine.	Check remote control setting to see that throttle is not too close to choke position to cause flooding. If setting is too far it's not fully choked.
Dirty carburetor air filter. Carburetor out of adjustment Ignition switch off.	Remove air filter and tap to remove dust and dirt, clean with compressed air. Install new air cleaner once each year. Check carburetor adjustment, see engine manual. Turn on ignition key.
Poor ignition.	Check points, condensor, plug, coil or loose wires.

### ENGINE OVERHEATS

Dirty starter, air cleaner or screen.	Clean polyurethane cleaner around starter or screen over starter. Be sure fins on cylinder head and around cylinder are clean. Fill to level indicated on dip stick. Do not over fill engine. Correct carburetor adjustment. See Engine Manual.
---------------------------------------	---

### ENGINE LACKS POWER

Engine overloaded.	Shift to a lower gear or reduce load.
Dirty carburetor, air cleaner. Improper carburetor adjustment.	Clean or replace air cleaner. Adjust. See engine manual.
Faulty ignition. Poor compression.	Check points, spark plug condensor, coil and loose wires. See Dealer to check compression.
Belt Slips.	Tighten drive belt.

# HOW TO TIGHTEN TRANSAXLE DRIVE BELT

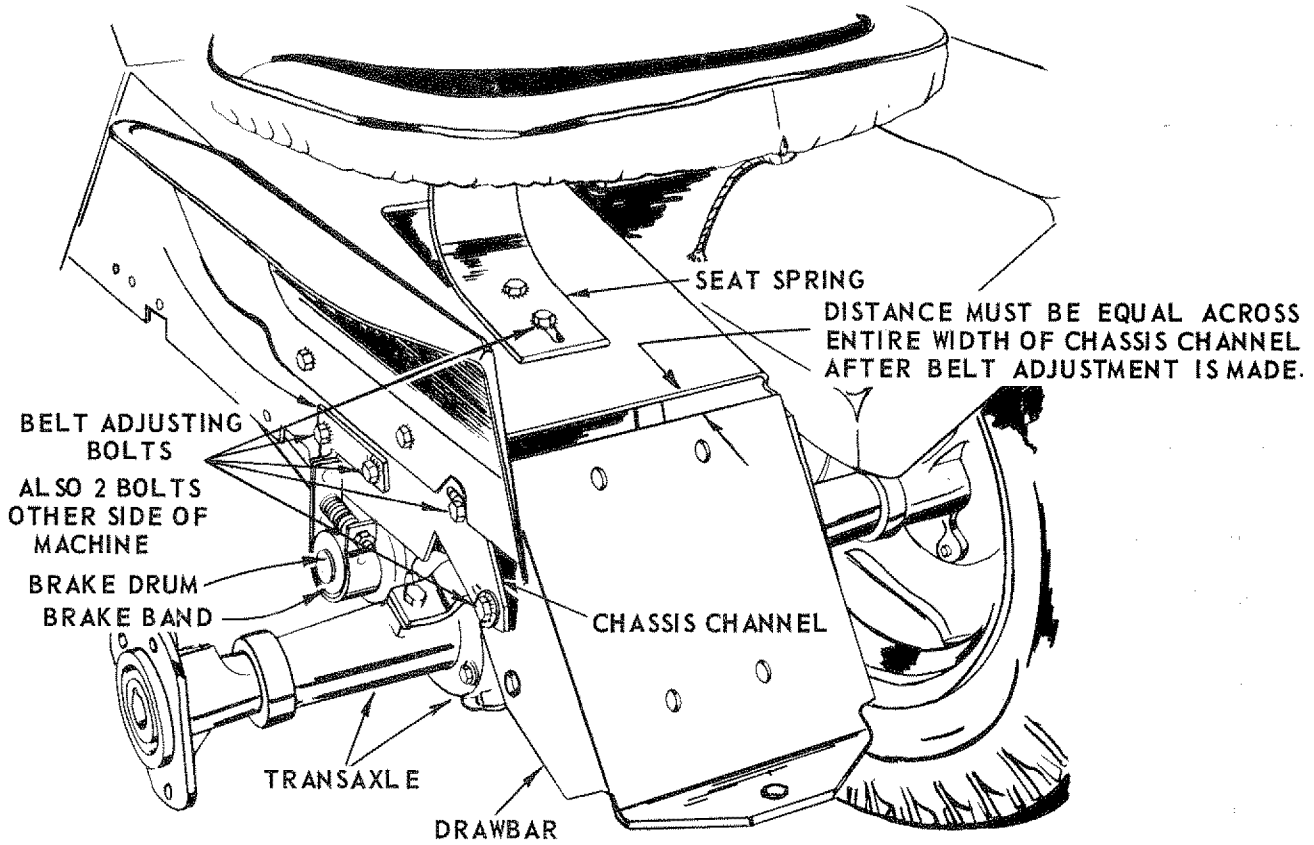


FIG. 17

1. Loosen bolts holding transaxle and brake to chassis channel. (Total eight) Two on each side in chassis and drawbar, two in L.H. chassis side and brake bracket, two in seat spring and chassis. See Fig. 17. Also, loosen front nut (B) on brake rod. Refer to Fig. 15.

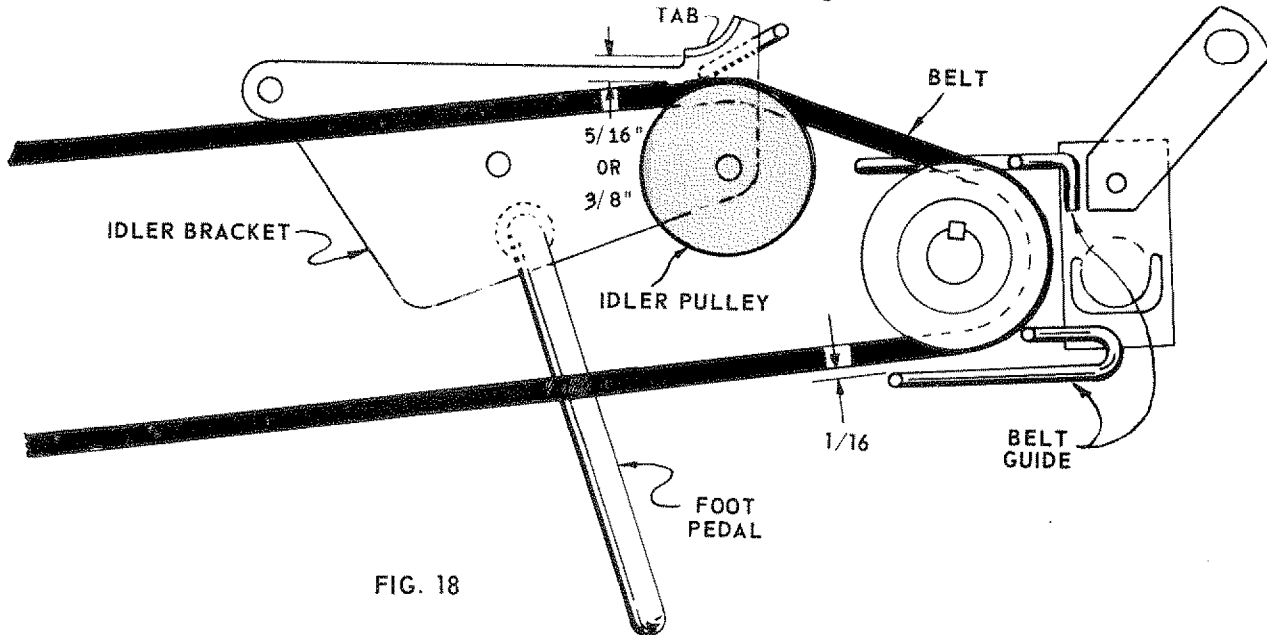


FIG. 18

2. Depress foot pedal and place a  $3/8$ " block between tab on idler bracket and belt as shown. (If  $3/8$ " block is not available a common lead pencil can be used which is about  $5/16$ " round). See Fig. 18. Pull drawbar and transaxle assembly to rear, Fig. 17, until foot pedal just starts to move forward, Fig. 18. Tighten bolts in R.H. chassis channel side and drawbar. Be sure space between drawbar and chassis, Fig. 17, is equal on both sides and tighten L.H. bolts and seat spring bolt securely. If spacing between chassis and drawbar is not equal tractor will not track properly.



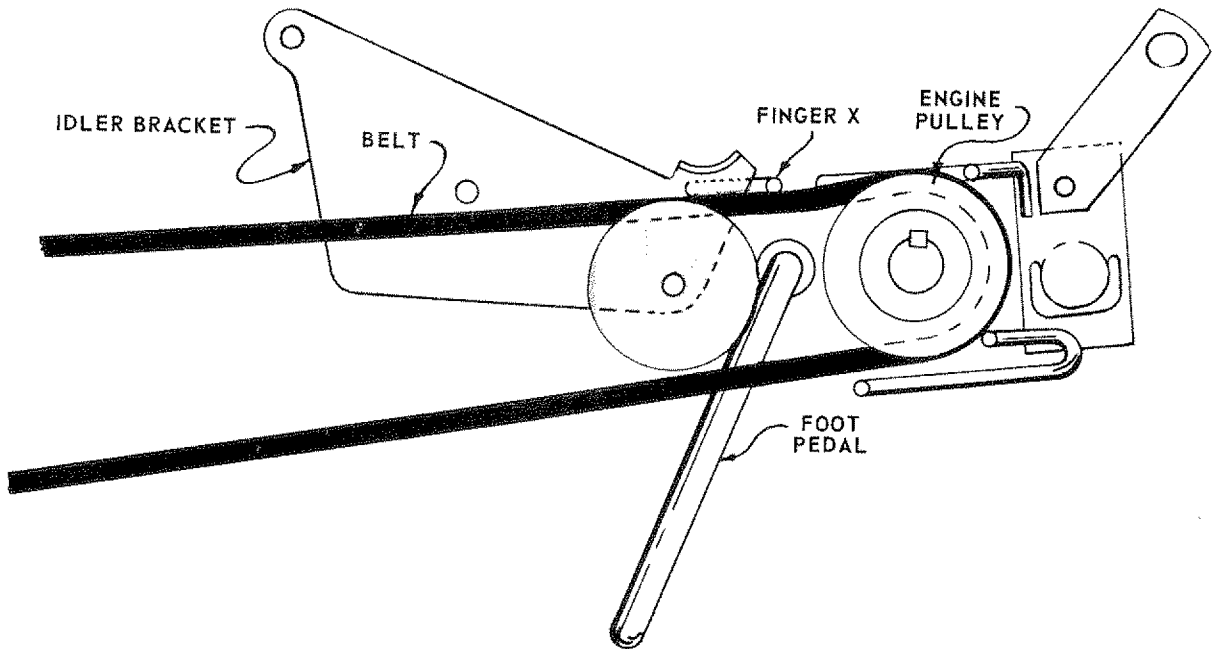
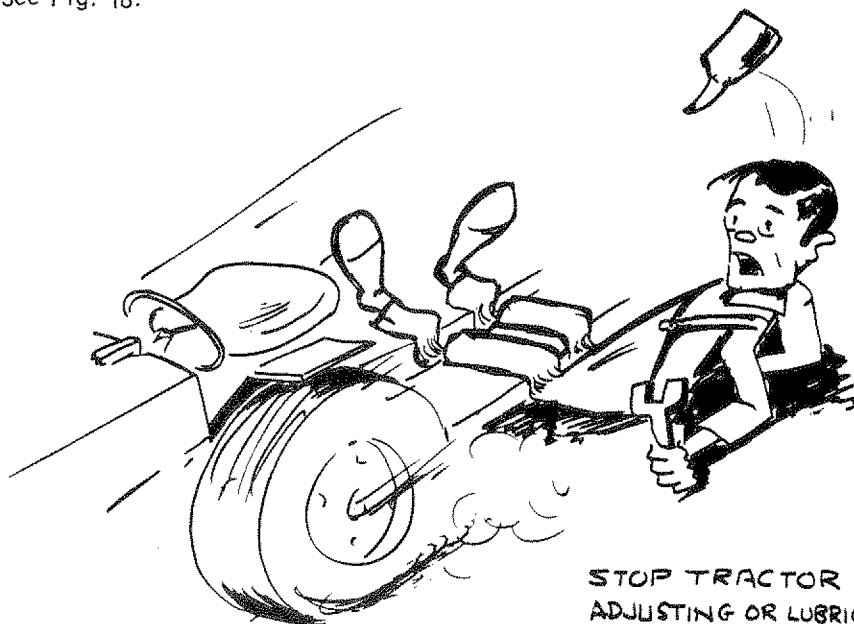


FIG. 19

3. Adjust nuts (A) on brake rod to lengthen rod, so that finger (X) on idler bracket assembly, holds belt straight, or deflects belt not more than 1/8 inch, between idler pulley and engine pulley, with foot pedal fully depressed (forward). See Fig. 19. Lengthen brake rod to make belt deflect.
4. Readjust flanged and Jam nut on brake rod so that brake lock will hold brake in full brake position. Tighten Jam nut tight against flanged nut to lock flanged nut in position on brake rod.
5. Check belt guides at engine pulley. Belt guides must clear belts by 1/16 inch when clutches are engaged. See Fig. 18.



STOP TRACTOR BEFORE  
ADJUSTING OR LUBRICATING

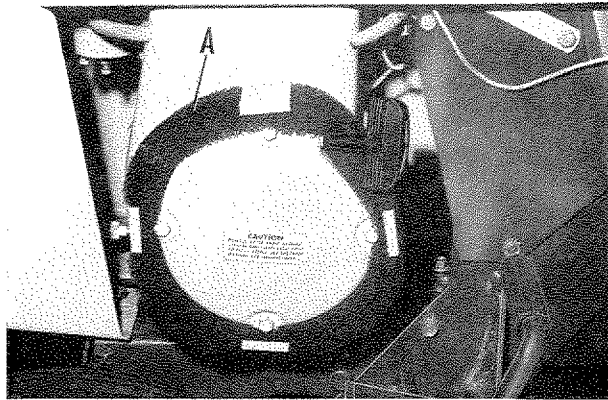


FIG. 20

This cleaner (A, Fig. 20), is designed to keep pieces of grass, chaff, etc., from entering the engine cooling system. This cleaner must be cleaned every four to eight hours depending upon conditions.

To clean, remove cleaner and tap lightly. Knead with hands until cleaner appears to be clean. An air hose may be used if available. Replace air cleaner before starting engine.

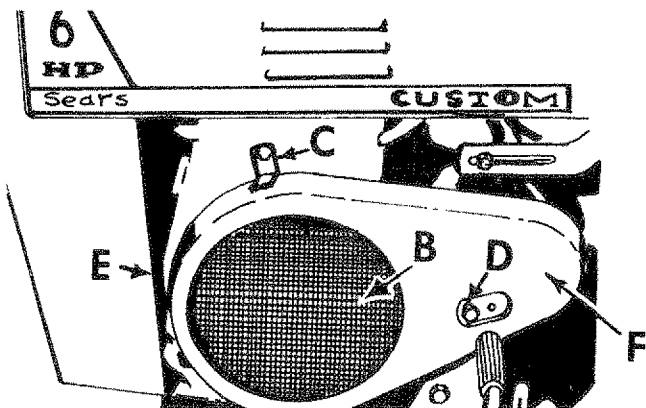


FIG. 21

The screen (B Fig. 21), MUST BE BRUSHED, CLEANED FREQUENTLY, while operating tractor to prevent engine from over-heating.

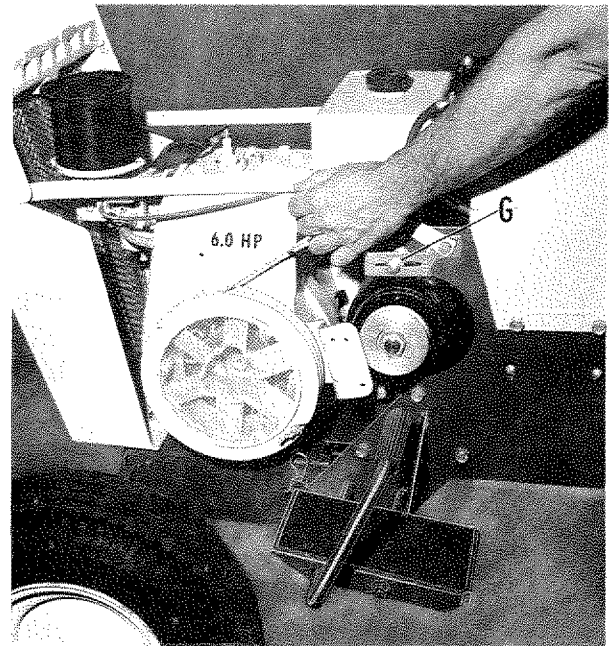
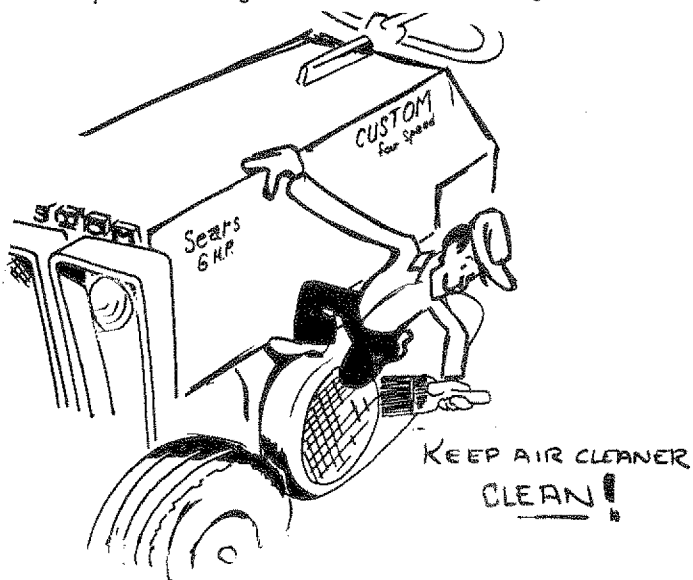


FIG. 22

1. The quickest method would be to connect quick-start battery cables or "jumpers" from your automobile 12 volt battery to the tractor battery.

**CAUTION:** Connect positive (+) terminal to positive (+) terminal.

2. Method number two will **NOT** charge battery, but is strictly emergency starting only.
  - a. Remove machine screws (C, D and E, Fig. 21). This will allow removal of belt guard assembly (F, Fig. 21).
  - b. Loosen nut (G, Fig. 22), and push motor-generator forward. This will take tension from V-belt. Remove belt.
  - c. Secure a piece of rope and tie a knot in one end. Place this knot into notch in engine pulley, refer to Fig. 22.
  - d. Wrap rope around engine pulley using grooves provided.
  - e. Pull rope sharply to start engine.

**DO NOT REPLACE V-BELT OR GUARD WHILE ENGINE IS RUNNING.** The above method of starting is only a means to get unit to nearest source of battery charging. **DO NOT** operate tractor any longer than necessary with V-belt and guard removed. Stop engine and replace as soon as possible. Be sure to have proper tension on belt, retighten nut (G, Fig. 22).

## IMPORTANT - BATTERY CARE

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

Your battery is of the same high standard as is used in automobiles. Unfortunately it does not have the advantage 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 to retain the level of 3/16" over the separators. After adding water, run the engine so that the generator charge will mix the solution. **DO NOT OVER-FILL - RETAIN 3/16" SOLUTION ABOVE PLATES.**
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 caps 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 2 to 3 amperes. **FAST CHARGING IS NOT RECOMMENDED.**

## WINTER CARE

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 at 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.

## TIRES

Keep tires inflated to 15 pounds of air in front, 8 pounds in rear. To repair a punctured tire, front wheel may be removed by unsnapping "E" ring from front spindle and sliding washer and front wheel complete with tire from spindle. Remove rear wheel by unscrewing three hub bolts from wheel and hub. A local automobile repair station can repair tire in same manner as an automobile.

## STORAGE INSTRUCTIONS

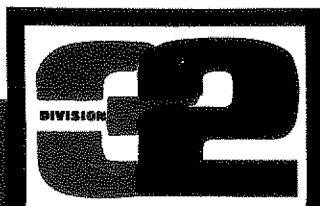
In the event your tractor is to be inoperative for periods in excess of 30 days - prepare for storage as outlined below:

1. Drain gas tank.
2. Drain carburetor by allowing engine to run out of gasoline. Then push in drain valve under carburetor bowl to remove all gasoline from carburetor. Evaporating gasoline will leave gum deposits if not drain completely. These deposits make fuel systems inoperative resulting in a hard or non-starting engine when again used.
3. Do not save or store gasoline over winter.

## 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.





*NO. 1... WHERE THE TRRR-ACTION IS!*

