

assembly and operating instructions



CUSTOM 7 H.P. TRACTOR **RECOIL START**

MODEL NUMBER 917.25430

SEARS, ROEBUCK AND CO.....U.S.A.
SIMPSON-SEARS LIMITED.....CANADA



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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.



MODEL NUMBER 917.25430

PARTS IDENTIFICATION

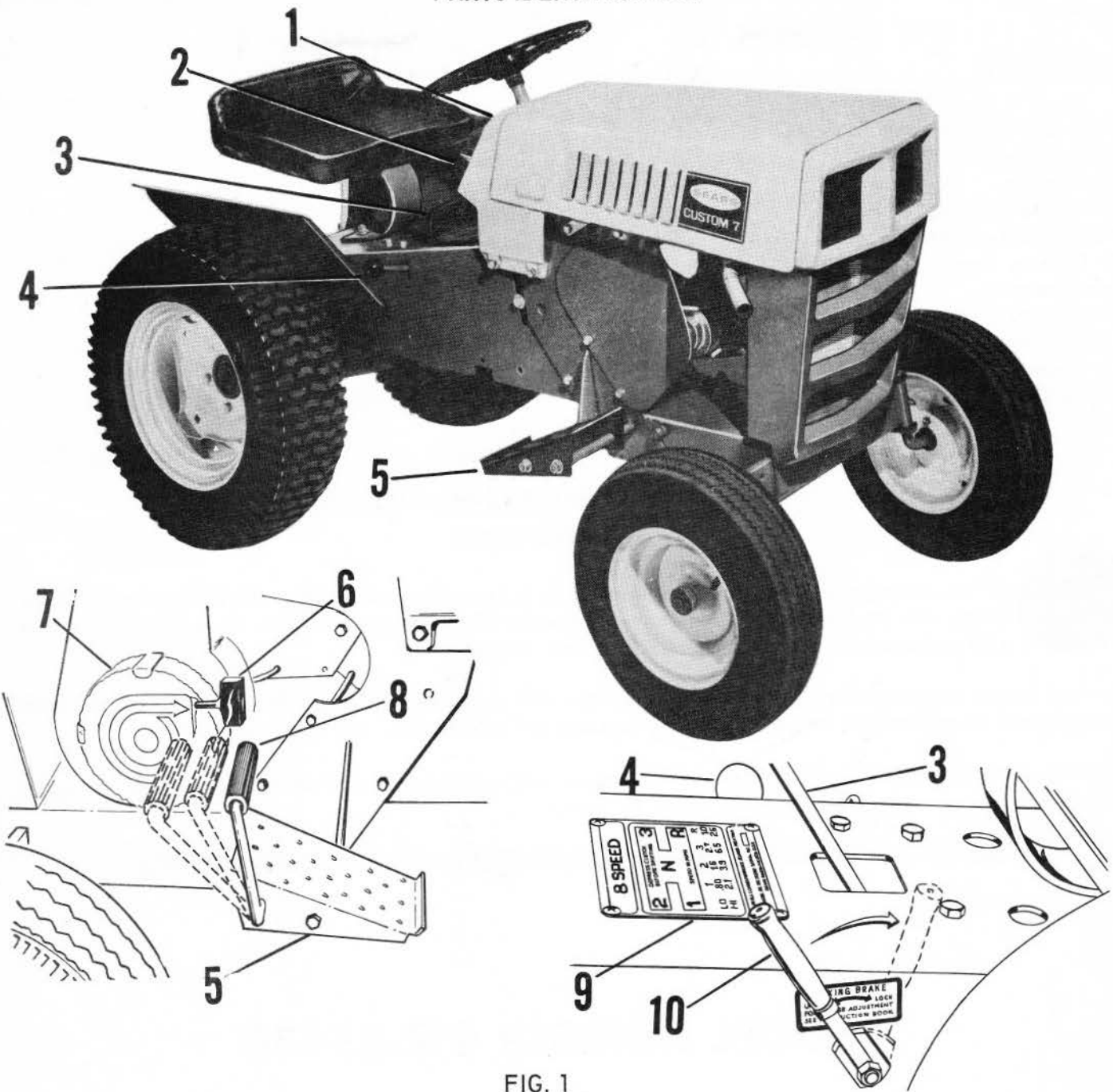
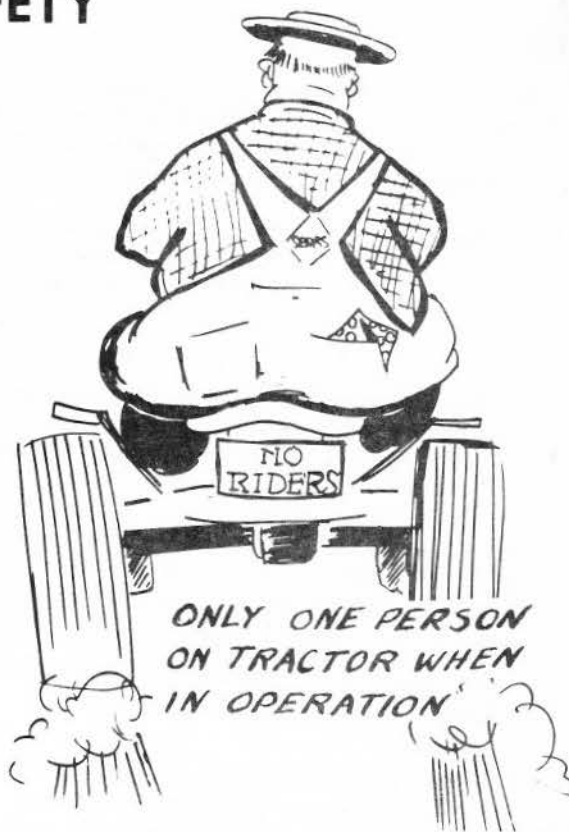
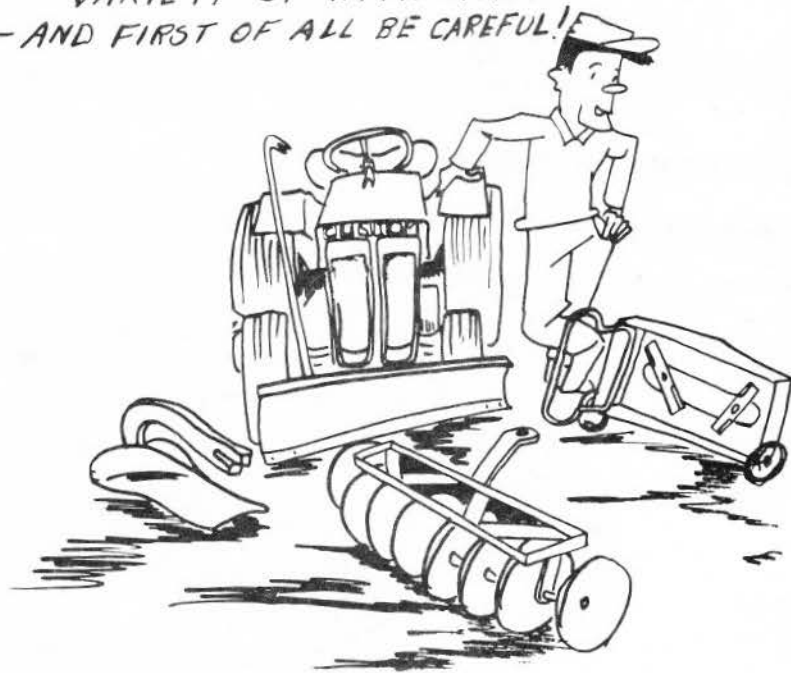


FIG. 1

- | | |
|--|--------------------------------|
| 1. IGNITION SWITCH | 6. RECOIL STARTER |
| 2. THROTTLE CONTROL | 7. AIR CLEANER |
| 3. GEAR SHIFT LEVER | 8. DRIVE, CLUTCH & BRAKE PEDAL |
| 4. RANGE SHIFT LEVER
(High-Low Range) | 9. MODEL NUMBER
PLATE |
| 5. FOOT REST | 10. PARKING BRAKE |

RULES OF SAFETY

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



DO NOT START, RUN OR REFUEL
IN A CLOSED BUILDING



START IN NEUTRAL!

INTRODUCTION

A number at the beginning of a paragraph in the following instructions refers to an arrow in the adjoining figure except when otherwise stated. When R.H. (Right Hand) and L.H. (Left Hand) are used, it should be understood to mean from a position behind and facing the tractor (or direction of travel). Reference to "front" indicates the engine and hood end of tractor, and the "rear" the transmission.

1. Remove carton from around tractor. Cut banding holding tractor to crate bottom.
2. This tractor has been completely assembled at the factory however, it is very important that the following instructions be observed and complied with.

BEFORE STARTING THE ENGINE

1. Tires were over-inflated for shipping purposes. Reduce air pressure to 15 lbs. in front tires and 8 lbs. in rear tires.
2. Lubricate the tractor, refer to Lub Chart, page 8.
3. Add fuel. Use a good grade of regular, fresh gasoline. Do NOT mix oil with gasoline.

READ CAREFULLY ALL 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.

KNOW THE CONTROLS AND HOW TO STOP QUICKLY. Become thoroughly familiar with the operating controls before starting the engine.

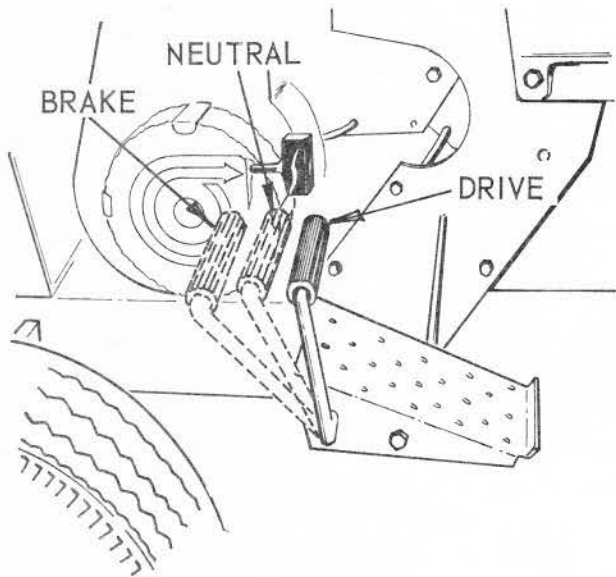


FIG. 2

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.

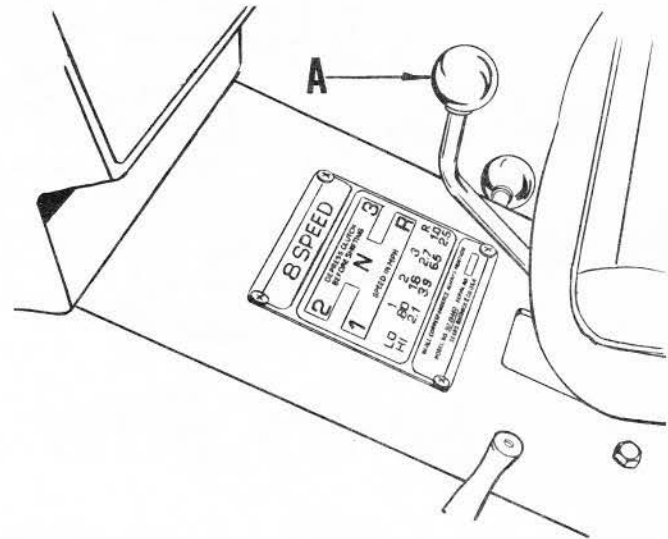


FIG. 3

2. The transmission (transaxle) 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. Refer to Fig. 3.

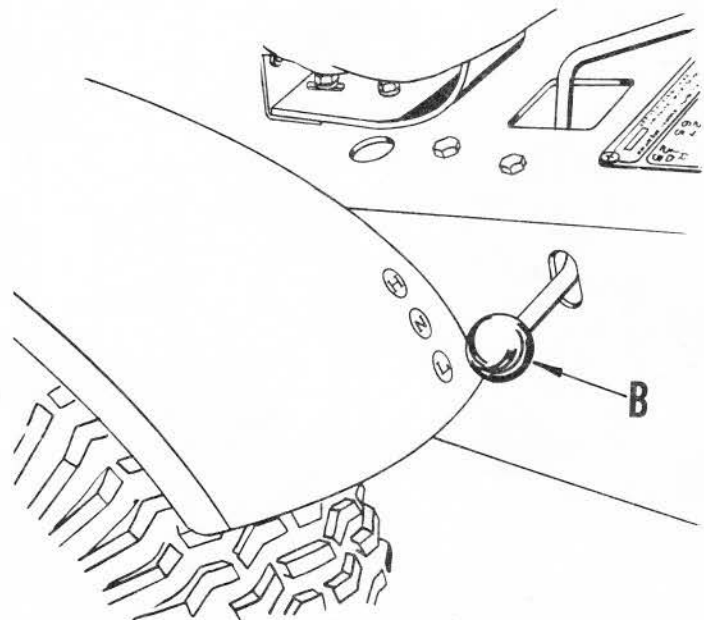


FIG. 4

BEFORE STARTING THE ENGINE

Continued from page 4.

- The high-low range (B, Fig. 4), 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.

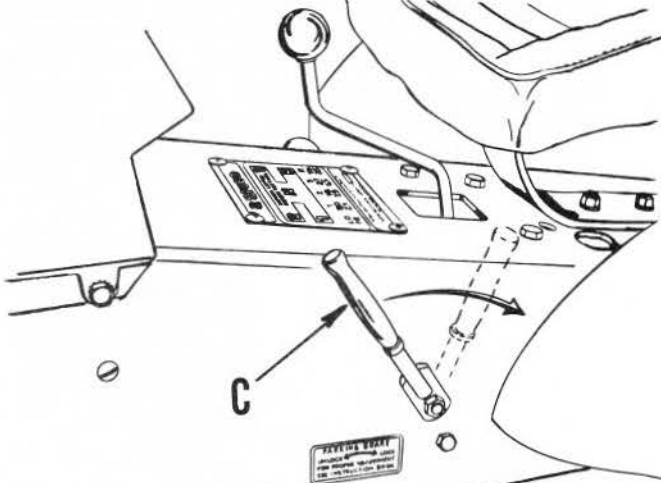


FIG. 5

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

BEFORE DISMOUNTING FROM TRACTOR, MOVE HI-LOW SHIFT RANGE AND GEAR SHIFT LEVERS TO NEUTRAL, SHUT OFF ENGINE AND SET PARKING BRAKE. ALWAYS REMOVE KEY FROM IGNITION.

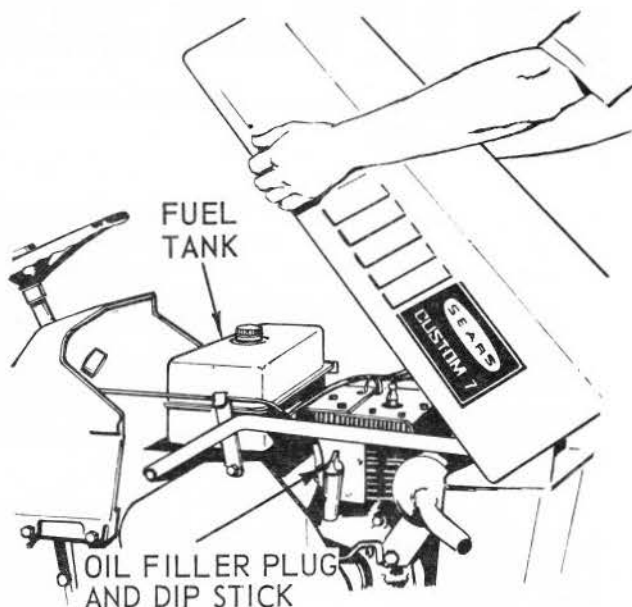


FIG. 6

- To lift cowling, grasp each side of cowling at rear and pull outward and upward. Lift cowling to its extreme position.
- 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 oil 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. 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.
- Fill fuel tank with a good grade of fresh, CLEAN, regular gasoline. Wipe off all spilled fuel and oil.



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.

HOW TO START AND STOP TRACTOR

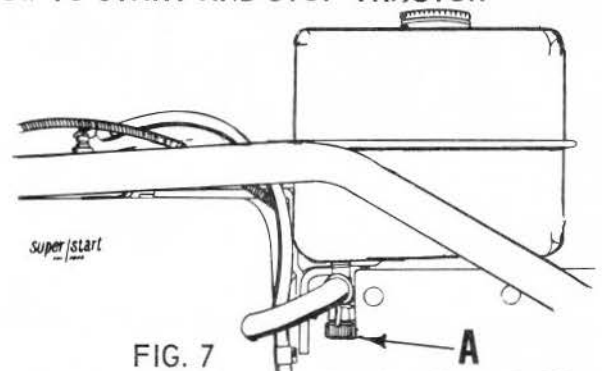


FIG. 7

- Open gasoline shut-off valve (A, Fig. 7). Close gasoline shut-off valve after each days use.
- CAUTION: Before starting the engine, check to be sure that controls are as follows:
 - Transmission gear shift lever (A, Fig. 3), is in NEUTRAL.
 - The high-low range lever (B, Fig. 4), is in NEUTRAL.
- Depress foot pedal, refer to Fig. 2, to neutral position. THIS IS ESPECIALLY HELPFUL IN COLD WEATHER. Release park brake (C, Fig. 5).

HOW TO START AND STOP TRACTOR

Continued from page 5.

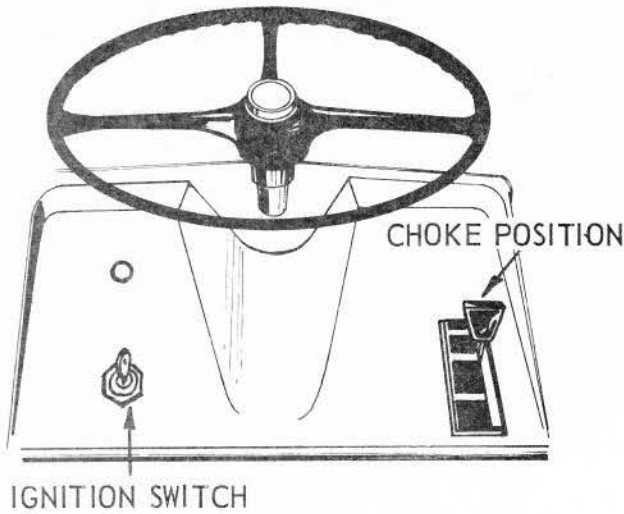


FIG. 8

4. To start a cold engine, move throttle lever to choke position.
5. Refer to Fig. 8. Turn key in ignition switch clockwise to "on" position.

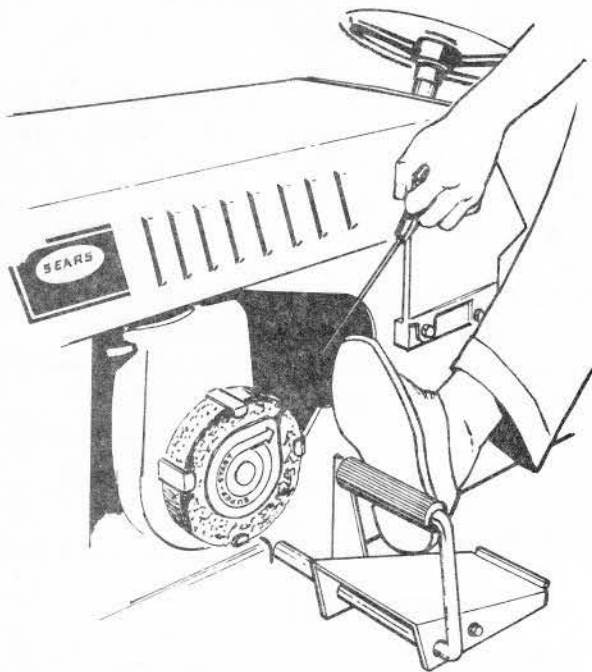


FIG. 9

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

6. Grasp recoil starter handle and pull sharply. Refer to Fig. 9. Do NOT allow starter rope to snap back. Rewind slowly keeping hold of the starter handle at all times.
7. After engine starts, move throttle lever to fast position; refer to Fig. 8.
 - a. Engine speed between FAST and SLOW positions may be varied as desired.
8. To STOP engine, turn key in counterclockwise direction to "off" position.
9. Key should be removed when tractor is not in operation so that children cannot start tractor.

TO OPERATE TRACTOR

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 so that engine is not overloaded.
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 park brake lock and release foot pedal. Always check to make sure brake lock will hold tractor secure. Shut-off and remove key from switch. This will prevent unauthorized operation. Never leave engine running with tractor unattended.



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

SAFE OPERATION

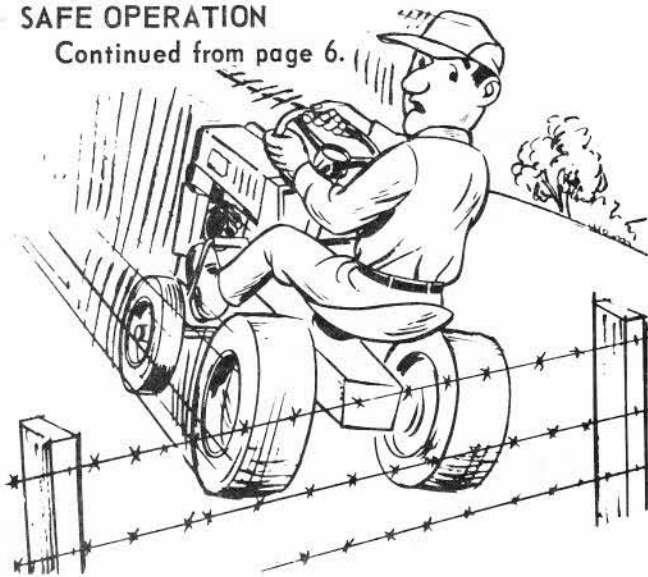
1. Do not operate the tractor in high gear going down hill, and do not turn sharp corners while going down hill. If it is necessary to stop tractor while going down hill, do so quickly to prevent tractor from picking up speed during the declutching to brake position.

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

CAUTION: Do not operate tractor crossways on slopes of more than a 25 percent slope, or up or down slopes with more than a 35 percent slope.

SAFE OPERATION

Continued from page 6.



DO NOT DECLUTCH GOING UP OR DOWN HILLS

2. 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".
3. Sideways upsets happen easily in ditches. Be alert for holes or other hidden hazards.
4. If tractor becomes mired in a hole, try to back out rather than driving forward.

SEAT POSITION

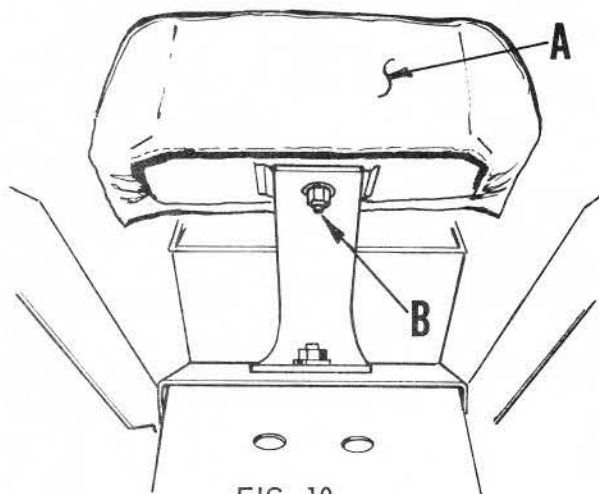


FIG. 10

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

TOWING TRACTOR

Place gear shift lever and range lever in neutral position. Tractor can then be towed at a reasonable safe speed.

14.10.68

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.



THIS TRACTOR HAS AN AIR COOLED ENGINE. AIR MUST BE ABLE TO CIRCULATE FREELY AROUND THE ENGINE, THROUGH THE FILTER AROUND STARTER AND AIR CLEANER, AND OVER THE FINS OF THE CYLINDER HEAD AND 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.

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.

ENGINE LUBRICATION

Continued from page 7.

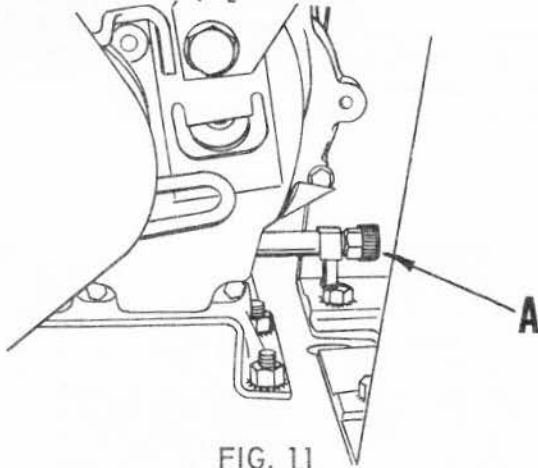


FIG. 11

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

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

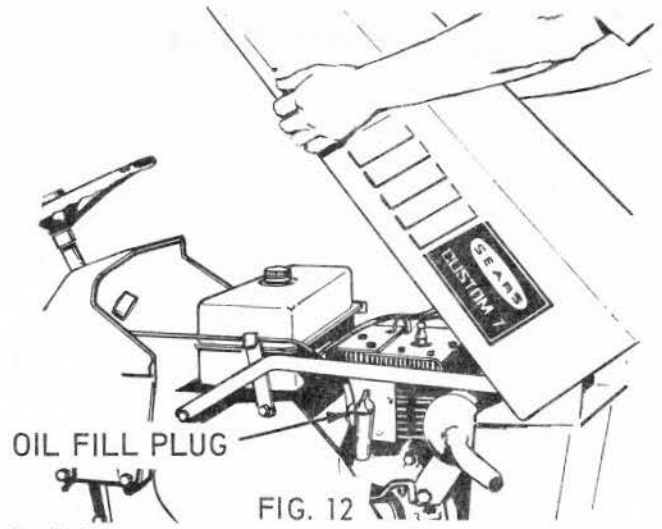
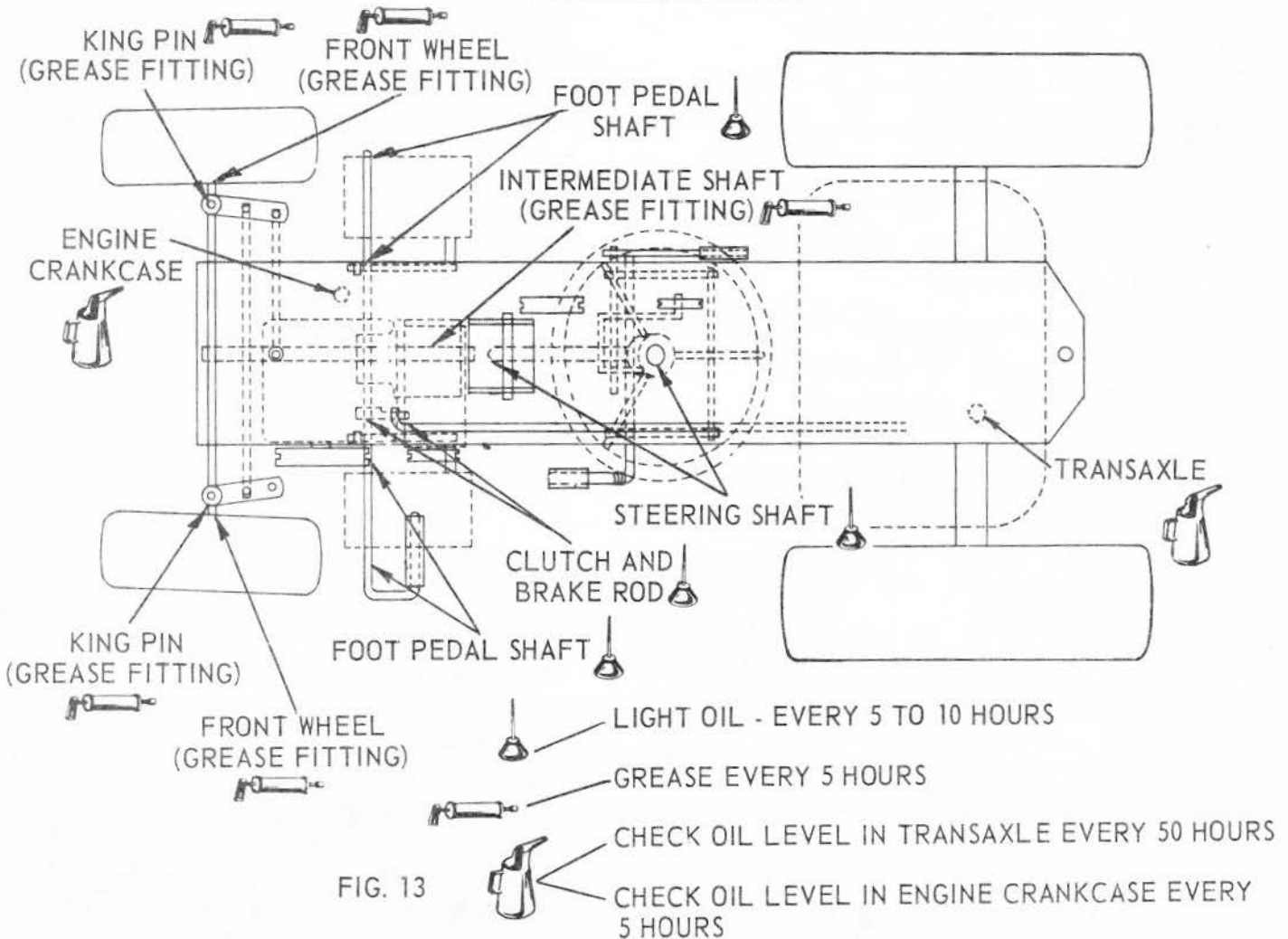


FIG. 12

3. Refill engine crankcase with oil as instructed under "Before Starting the Engine", page 5. Capacity 1-3/8 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.

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

LUBRICATION CHART



TRANSAXLE LUBRICATION

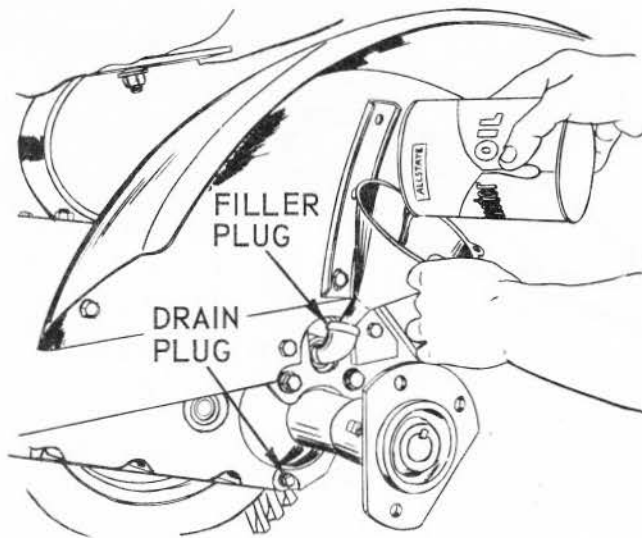


FIG. 14

Rear wheel is removed for illustrating.

1. Check oil in transaxle every 50 hours of operation. To check oil level, remove filler plug (Fig. 14), 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 as shown.

TRANSAXLE DRIVE BELT ADJUSTMENT

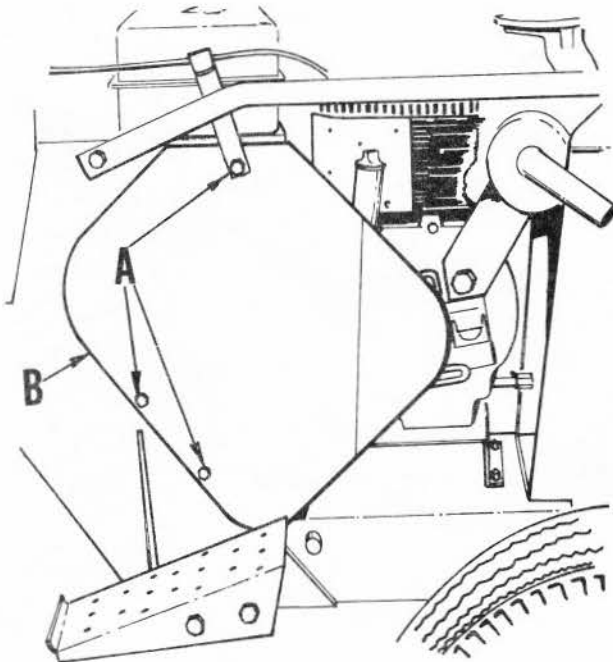


FIG. 15

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

1. Remove three bolts and nuts (A), from pulley guard (B), and remove guard.

14.10.68

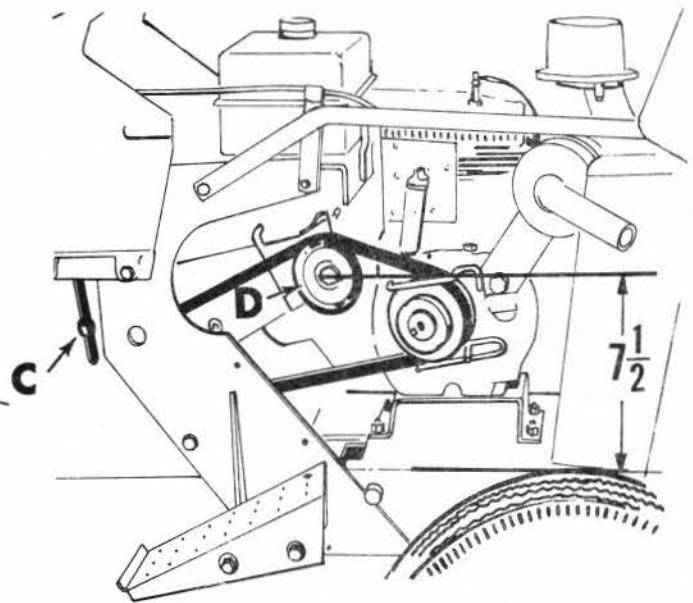


FIG. 16

2. Loosen bolt (C), in flat idler and push bolt down in slot in frame until center of idler pulley (D), is $7\frac{1}{2}$ inches above frame as shown in Fig. 16.
3. Tighten bolt (C), in flat idler securely making sure belt guide finger on bolt (C), clears belt approximately $\frac{1}{8}$ inch.
4. Replace pulley guard (B), Fig. 15.

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



PREVENT PROBLEMS -- ADJUST THE BRAKE.

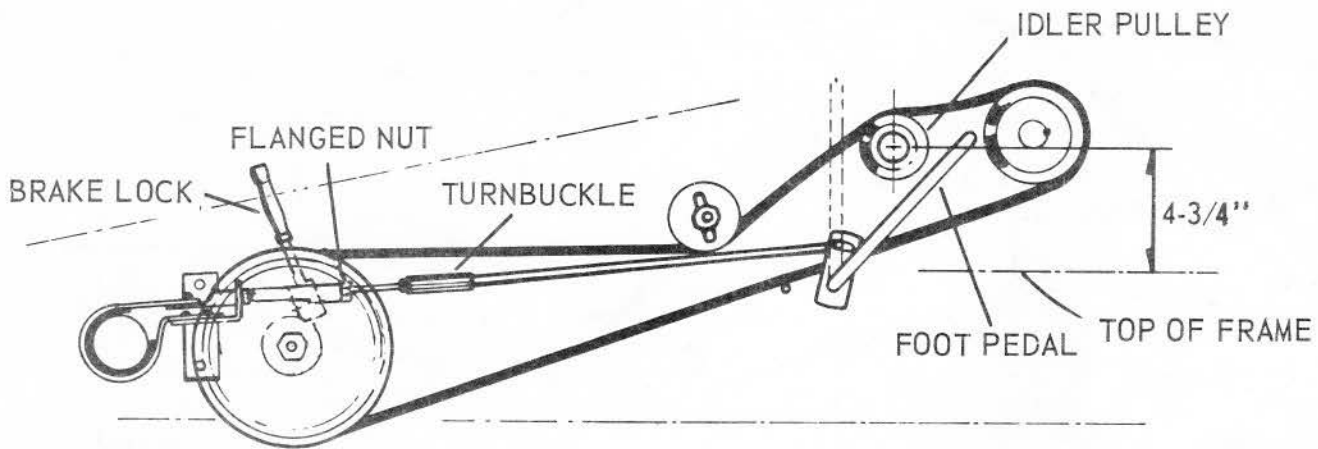


FIG. 17

To adjust brake, loosen nut back of turnbuckle and turn turnbuckle (clockwise when standing in front of tractor) 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 4-3/4" above frame as shown.

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 lock assembly will hold brake full on when parking lock 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.

WEIGHTS (Optional Equipment)

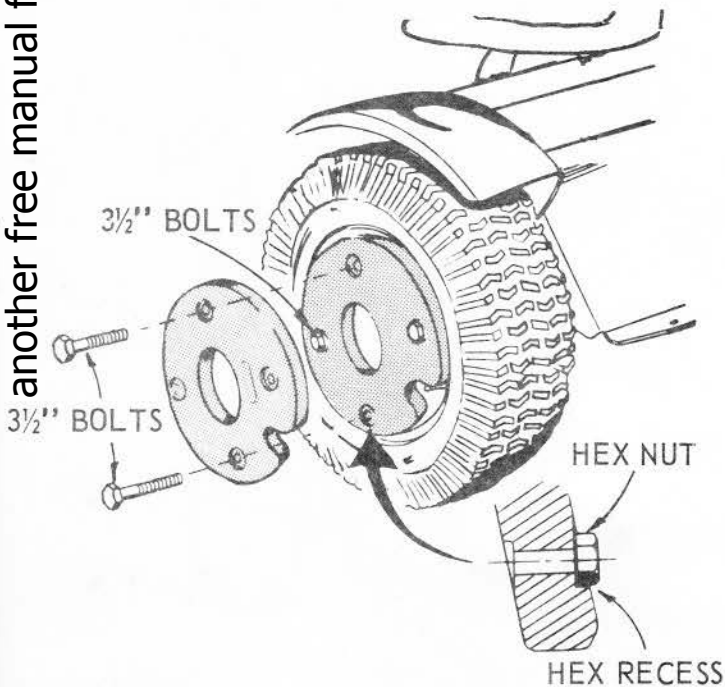


FIG. 18

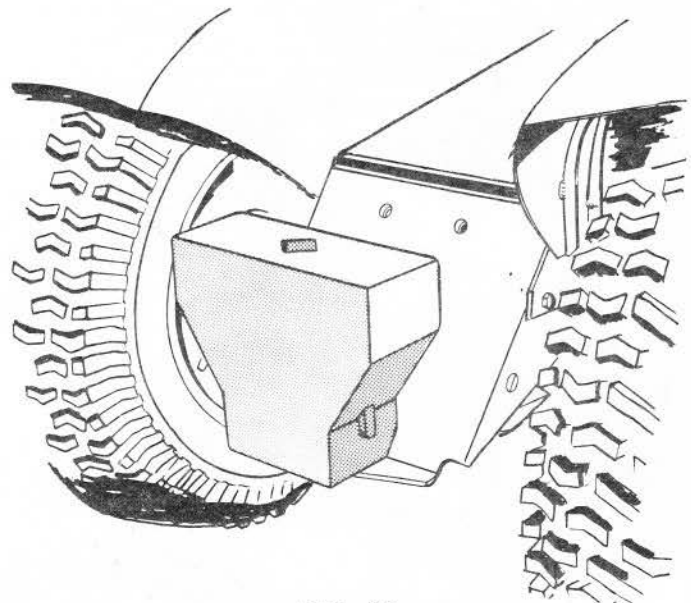


FIG. 19

Rear wheel weights (Fig. 18), are very essential for added traction. This is especially true for attachments such as the plow, disc harrow, leveler blade, rotary snowplow, bulldozer, etc. Rear end weight (Fig. 19), will act as a counterweight for heavy front loads or attachments. Especially helpful with rotary snowplow.

TROUBLE SHOOTING

Possible Cause

Possible Remedy

HARD TO START

No gasoline in fuel tank or carburetor.....	Fill the tank with gasoline; open fuel shut-off valve. Check 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 the 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.
Ignition switch off.....	This sometimes happens.
Defective ignition or loose wiring.....	Check the wiring and spark plug.

ENGINE MISSES OR LACKS POWER

Dirty starter air cleaner.....	Clean cleaner over starter. Refer to engine manual. 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.....	Check or change oil, see pages 5 and 8.
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 9.
Oil in gasoline.....	Drain and refill gasoline tank and carburetor. Oil reduces the efficiency of the engine.
Poor compression.....	Contact Sears.

ENGINE OVERHEATS

Dirty starter air cleaner.....	Clean cleaner over starter. Refer to engine manual.
Low oil level or dirty oil.....	Check or change oil, see pages 5 and 8.
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 AND SERVICE

TIRES

Keep tires inflated to 15 pounds of air 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 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 to remove all gasoline from carburetor. Evaporating gasoline will leave gum deposits if not drained completely. These deposits make fuel systems inoperative resulting in a hard or nonstarting 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.

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

626X68



DO NOT ALLOW CHILDREN TO OPERATE MACHINE; NOR ADULTS TO OPERATE IT WITHOUT PROPER INSTRUCTION.



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