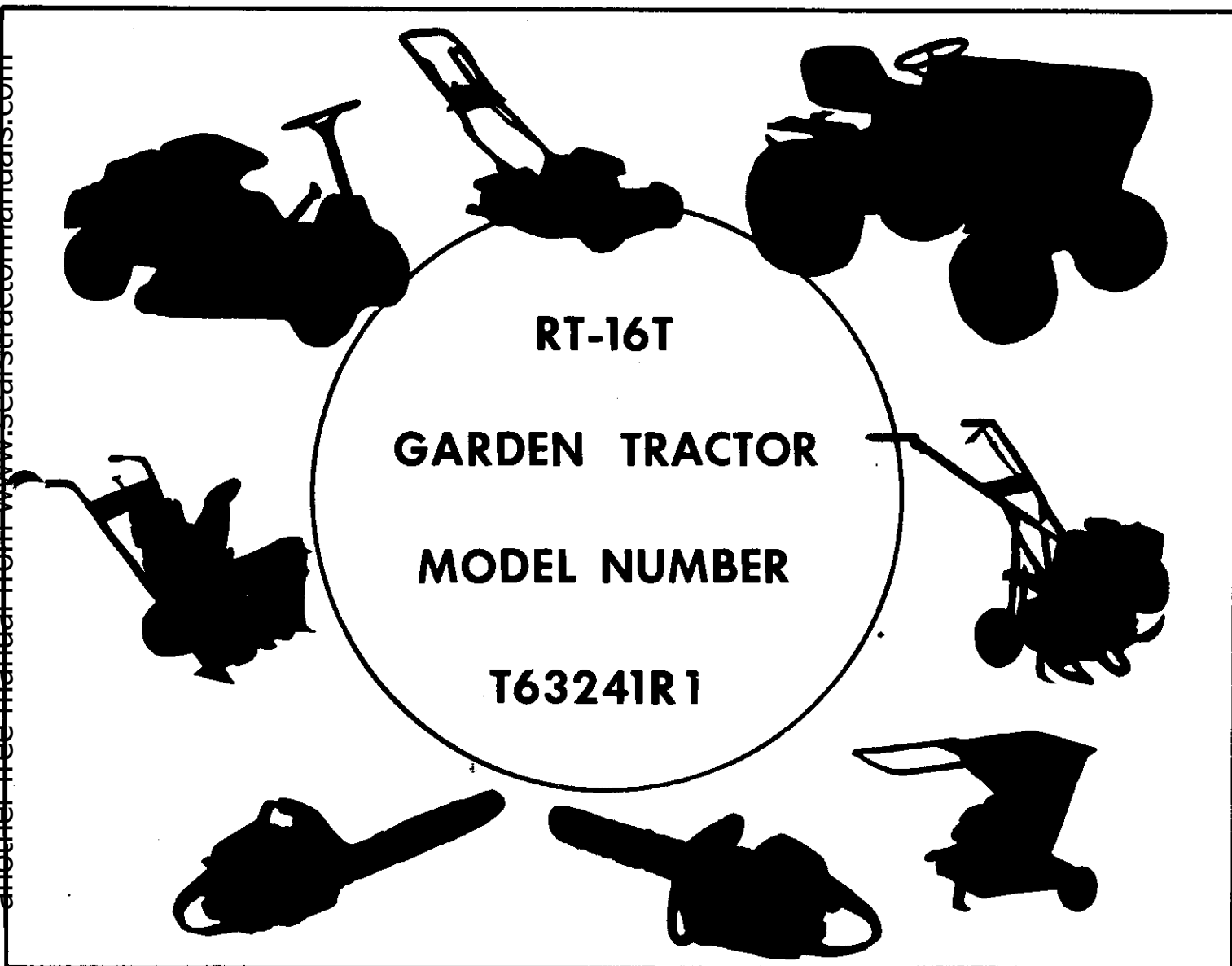


ROPER

OUTDOOR POWER EQUIPMENT OWNER'S MANUAL



CAUTION: Read rules for safe operation and all instructions carefully.

- | | |
|---------------|----------------|
| ■ ASSEMBLY | ■ OPERATING |
| ■ MAINTENANCE | ■ REPAIR PARTS |

ROPER SALES CORP.

ROPER QUALITY LAWN AND GARDEN CARE EQUIPMENT

GUARANTEE

Your new Roper Garden Tractor has been designed and manufactured to the highest quality standards of the Roper Sales Corp., Kankakee, Illinois. In order to ensure that you, the original purchaser for home use of this machine will receive good and dependable performance from it, Roper Sales Corp. guarantees that when it is used, cared for and maintained in full accordance with the Owners Manual and Engine Manual, this machine will remain free from defects in materials and workmanship, and we will;

Repair or replace, at our option, during your first year of ownership, any part except for the battery, which we find to be defective, without cost to you.

Exchange the battery for a new one during your first 90 days of ownership, if we find it to be defective and it will not hold a charge, without cost to you. After 90 days, we will exchange the battery charging you 1/12 of the price for a new battery for each full month from the date of the original sale.

ANY MACHINE USED FOR RENTAL OR COMMERCIAL PURPOSES IS GUARANTEED FOR 45 DAYS FROM THE DATE OF ORIGINAL SALE, ONLY.

Naturally, this protection requires that all service be performed by an authorized Roper service dealer or a service dealer approved by the engine manufacturer, as indicated in the Engine Manual. Your nearest such dealers are listed in the yellow pages of your telephone directory. In the unlikely event that a defect should occur, please merely return your machine to an authorized Roper service dealer or a service dealer approved by the Engine manufacturer, depending upon the problem encountered, for service. (Please be sure to return your machine to a service dealer approved by the Engine manufacturer for engine service).

If, for any reason, it becomes necessary for you to write Roper Sales Corp., regarding this machine, please be sure to include the following information:

- 1) Model number;
- 2) Serial number;
- 3) The date of purchase; and
- 4) The name and address of the authorized Roper distributor or dealer from whom it was purchased.

Please also be sure to address your correspondence to:

Roper Sales Corp.
National Service Manager - Outdoor Products
1905 West Court Street
Kankakee, Illinois 60901

SAFETY PAYS OFF

IMPORTANT

rules for safe operation

TRAINING

1. Read the Owners Manual carefully and fully familiarize yourself with the controls and proper use of your tractor as well as any attachment. Be prepared to stop the engine and powered attachment(s) on a second's notice. Only persons well acquainted with these Rules for Safe Operation should be allowed to use your tractor.
2. Do not allow children or young teenagers to start or operate your tractor.
3. Do not allow anyone in the area while operating your tractor. Keep the children and pets in the back yard while using it in the front yard. Keep a wary eye out for children

or passers-by. Disengage the power to all attachments and stop the engine while they are in the vicinity of your tractor. Children, particularly could get in the way of and be injured by the tractor or an attachment.

PREPARATION

4. Do not operate the tractor when barefoot or wearing open sandals. Always wear substantial footwear, preferably steel-toed shoes. Also, do not wear loose fitting clothing that could get caught in moving parts.

rules for safe operation (cont.)

5. Check your fuel supply before each use. Never remove the gas cap or fill the gasoline tank when the engine is running or while it is hot. When filling the fuel tank, leave space for expansion, do not fill it to the brim and keep in mind that the heat of the sun can cause the gasoline to expand. Wipe off any spilled gasoline before starting the engine. Remember, gasoline is highly flammable and must always be handled with extreme care.
6. A tractor and all attachments are precision pieces of equipment, not playthings, therefore extreme caution must be exercised at all times.
7. Never attempt to operate a damaged tractor or attachment, always repair any damage before attempting to start or operate your tractor or attachment.
8. Never attempt to carry any passengers, their safety as well as your safety will be endangered.
9. Before attempting to start the engine of your tractor make sure the gear shift lever is in neutral and the power to all attachments is disengaged, then firmly apply the foot brake and be sure to release the parking brake. The parking brake must always be disengaged when you put the tractor in motion. If the tractor is operated with the parking brake engaged serious damage may result.
10. Each time before leaving the operator's seat, be absolutely sure the power to all attachments is disengaged, the parking brake is engaged, the gear shift lever is in neutral, the engine is shut off, the attachments and all moving parts have completely stopped and the ignition key is removed. Never leave the operator's seat with the engine or any powered attachment running. Always get on or off your tractor from the operator's left-hand side.
11. Always operate your tractor in daylight; dusk or dark - use your lights.
12. Operate your tractor at safe speeds on wet or slippery surfaces, where traction is unsure. Never at a speed which could cause a skid.

OPERATION

13. Do not attempt to change the governor setting or overspeed the engine. The governor controls the engine speed and protects the engine from damaging, excessive speeds. Excessive engine speeds are dangerous.
14. When starting your engine on tractors equipped with a pull starter, stand firm and make sure your feet are well away from all powered attachments.
15. Never place your hands or feet in or under any powered attachment or near any moving parts while the tractor or any powered attachment is running.
16. Always disengage the power to all attachments, set the parking brake, shift into neutral, shut off the engine, make absolutely sure any powered attachment and all moving parts have completely stopped and remove the ignition key each time you dismount your tractor, even for a second. Children, yourself, other persons or pets may be endangered.
17. If your tractor or any attachment should inadvertently strike a foreign object, immediately

disengage the power to the attachment, set the parking brake, shift into neutral, shut off the engine, make absolutely sure any powered attachment and all moving parts have completely stopped, remove the ignition key, disconnect the spark plug wire from the spark plug and keep the wire away from the plug to prevent injury or accidental starting, then thoroughly, inspect the tractor or attachment for any damage. Such damage must be repaired before restarting and operating the tractor or attachment.

18. If the tractor or any powered attachment should start to vibrate abnormally, place the control lever for powered attachments in the disengaged position, set the parking brake, shift into neutral, shut off the engine, make absolutely sure the powered attachment and all moving parts have completely stopped, remove the ignition key, disconnect the spark plug wire from the spark plug and keep it away from the plug to prevent injury or accidental starting, then check immediately for the cause of this vibration as vibration is generally a warning of trouble.
19. Before adjusting, cleaning, repairing or inspecting your tractor or any powered attachment, disengage the power to all attachments, set the parking brake, shut off the engine, make absolutely sure the powered attachments and all moving parts have completely stopped, remove the ignition key, disconnect the spark plug wire and keep it away from the spark plug to prevent injury or accidental starting.
20. Do not run the engine indoors because the engine exhaust fumes contain carbon monoxide which is a tasteless, odorless, deadly poison.
21. Never operate your tractor upon a terrace, slope or incline that is too steep to preserve good stability and control in order to prevent tipping or sideways upsets. Always operate a tractor up and down such an incline, at a slow speed, do not operate it across. Always exercise extreme caution when changing direction on inclines. Never attempt to operate your tractor on steep terraces, slopes or inclines with more than a 15 degree slope.
22. Do not start or stop suddenly when going up or down a terrace slope or incline. If it is necessary to stop your tractor upon an incline, do so firmly to prevent the tractor from picking up speed during declutching and before reaching the brake position. Do not shift gears while going up or down inclines. Choose a gear low enough to negotiate the incline without stopping and shifting gears. To reduce the speed of the tractor on an incline move throttle lever to slow.
23. Never attempt to operate your tractor or any attachments without the proper shields, guards, plates or other protective devices in place and fully functioning.
24. Before and while attempting to back up, look carefully to be absolutely sure that children, bystanders, pets, foreign objects or obstacles of any kind are not behind you.
25. Never allow anyone near the tractor or any attachment while they are operating.

rules for safe operation (cont.)

26. Be sure to exercise special care when operating your tractor around fixed objects in order to prevent the tractor or any attachment from striking them. Never deliberately run a tractor or an attachment into or over any foreign objects.
27. Use care when pulling loads. Use only approved drawbar hitch points. Limit loads to those you can safely control. Do not turn sharply. Use counterweight or wheel weight(s) when suggested in the attachment Owners Manual.
28. Never shift gears to reverse your direction of travel until the tractor comes to a complete stop.
29. Always stay alert to avoid holes in the terrain and other hidden hazards. Tipping or sideways upsets can happen easily in holes or ditches. Use low gear on unfamiliar ground. If the tractor or any attachment becomes stuck in a hole, always disengage the power to all attachments before attempting to free it.
30. The use of any precision piece of power equipment requires your full concentration and attention to the job being done in order to prevent injury or damage.
31. Always disengage the power to all attachments when not actually in use such as when crossing a gravel drive, sidewalk or roadway or when transporting the tractor.
32. Watch out for traffic when crossing or near roadways.

MAINTENANCE

33. Keep all nuts, bolts and screws tight in order to be sure that the tractor and any attachment is in safe working condition. Be sure the brake and all powered attachment controls are always

in proper adjustment and repair. Check the attachment and engine mounting bolts at frequent intervals for proper tightness. Before performing any maintenance, always disengage the power to all attachments, set the parking brake, shift into neutral, shut off the engine, make absolutely sure the powered attachment and all moving parts have completely stopped, remove the ignition key, disconnect the spark plug wire from the spark plug and keep it away from the plug to prevent injury or accidental starting. The only exception to this rule is carburetor adjustment, page 12.

34. Keep the engine free from accumulations of grass, leaves or excessive grease as these accumulations are combustible and could result in a fire. Always keep your tractor and all attachments in good operating condition and make sure that all shields, guards, plates and other protective devices are in place. Give your tractor and all attachments the regular maintenance they need and have a competent serviceman make a thorough inspection of them at least once a year.
35. Do not store your tractor for prolonged periods (more than 30 days) with gasoline in the tank. Do not store your tractor or a gasoline container inside a building where fumes may reach an open flame or spark, they should be stored in a cool, dry place. Be sure to let the engine cool before storing in any enclosure. Always use an approved gasoline container for storing gasoline and keep your tractor, attachments and gasoline container in locked storage to prevent children from playing and tampering with them.

introduction

Your Roper tractor has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem which cannot easily be remedied, please return your tractor to your nearest authorized Roper service dealer or an authorized service dealer for the Engine manufacturer, as the case might be. They have well-qualified, competent, trained technicians and proper tools to service or repair this unit. NEVER ATTEMPT TO SERVICE OR REPAIR YOUR TRACTOR UNLESS YOU ARE FULLY QUALIFIED TO DO SO.

It is important that the operator ALWAYS OBSERVE THE "RULES FOR SAFE OPERATION" as well as other instructions contained in this 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.

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assembly instructions

A letter in parenthesis 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 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 4 for filling, charging and installation.
3. Your Tractor was lubricated at the factory however, we suggest you follow the Lube Chart on page 10 before operation.
4. Tires were over-inflated for shipping purposes. Reduce air pressure to 12 lbs. in front tires and 12 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 5, page 5).

- 2 - Hex Nuts

(They secure ground strap and positive cable to battery. They are used in steps 6 and 7, 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).

fill and charge battery

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

FILL BATTERY AS SHOWN

DO NOT OVERFILL--

CORRECT LEVEL IS BOTTOM OF TUBES IN CELLS. OVER FILLING WILL RESULT IN WIRE OR PAINT DAMAGE ON TRACTOR.



FIG. 1

1. Fill battery with electrolyte and charge battery as outlined in instructions in battery container. NOTE: After filling cells, let battery stand for thirty (30) minutes. Recheck acid level, add more

CUT-AWAY VIEW OF BATTERY

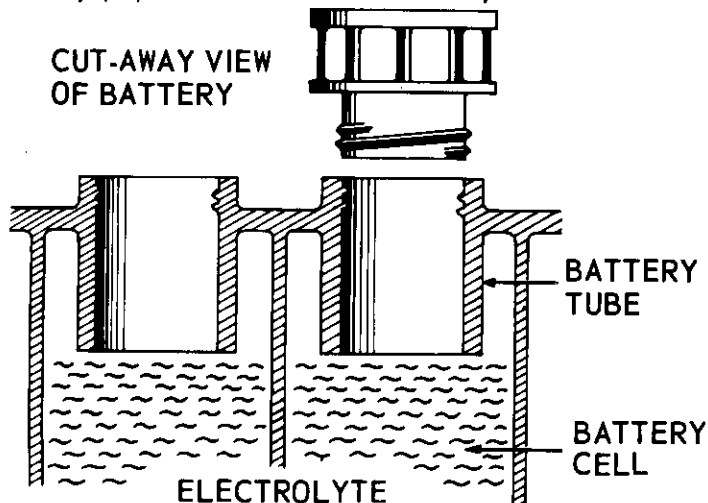


FIG. 2

electrolyte if necessary, then charge battery at a rate not exceeding three (3) amperes for about 2½ hours. CORRECT LEVEL IS BOTTOM OF TUBES IN CELLS.

There will be an amount of electrolyte (acid) in the container after battery is filled. This should be disposed of and not used at a later date to refill Tractor or any other battery. Using a common 5 gallon polyethylene garbage can or pail, fill with a minimum of four inches of water. Avoid spillage on person or clothing, add left over electrolyte to water. Then sodium bicarbonate (baking soda) should be added and the mixture stirred or agitated until the addition of bicarbonate no longer causes foaming. Agitate with a wooden or plastic stake or stick only. It will now be safe to dispose of this down a regular sewage system. Since the product is well neutralized, no criticism from authorities should result.

It is preferable, where permissible, to burn the empty acid pak to prevent possible further contact with acid.

steering wheel

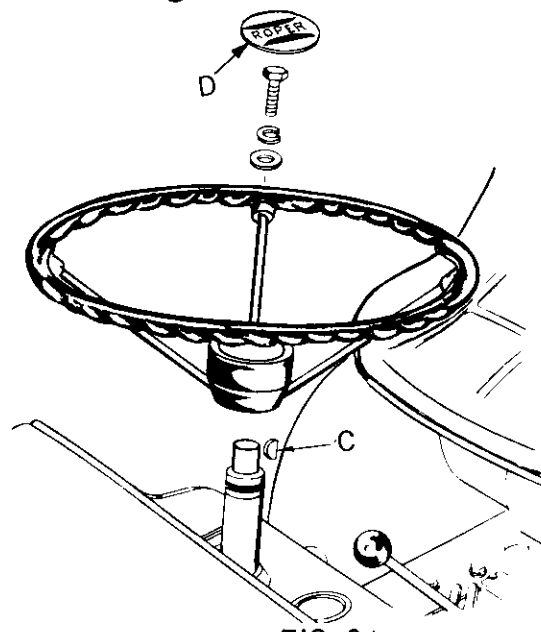


FIG. 2A

Continued on page 5.

1. Refer to Fig. 2A. Insert woodruff key (C) in key way of steering shaft. Slide steering wheel down over steering shaft and woodruff key. Important: Be sure woodruff key is in place in steering shaft and steering wheel. Secure with flat washer, lock-washer and hex bolt. Tighten bolt securely. Press steering cap (D) into position in center of steering wheel.

battery installation

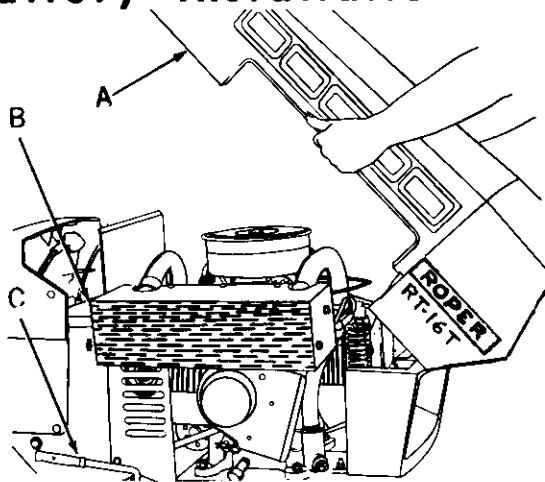


FIG. 3

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.
3. Remove tape holding plastic tray (B) in tractor.

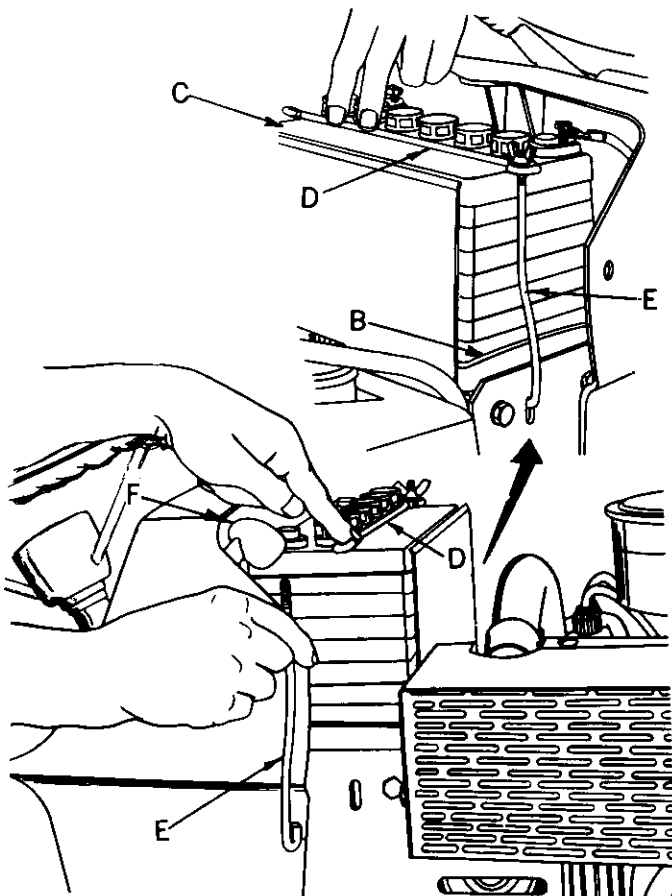


FIG. 4

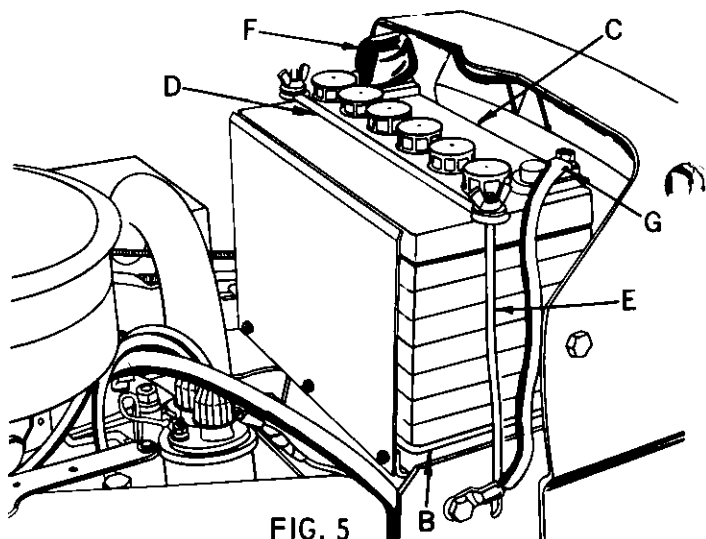


FIG. 5

4. Place battery (C) in plastic tray (B) with battery terminals to rear of tractor as shown.
5. Assemble battery clamp (D) to one of the two (2) battery bolts (E) with a 5/16 x 3/4 flat washer, and wing nut above clamp as shown. Hook lower end of battery bolt in slot in side of battery support as shown. Place clamp across top of battery, and secure other battery bolt to battery support and clamp with other flat washer, and wing nut. Tighten wing nuts securely.
6. Connect cable and cover (F) Fig. 5 to plus (+) terminal battery. Secure with 1/4 hex nut found in plastic bag. Tighten nut securely.
7. Connect ground cable (G) (Fig. 5) to negative (-) terminal of battery. Secure with other 1/4 hex nut found in plastic bag. Tighten hex nut securely.

seat position

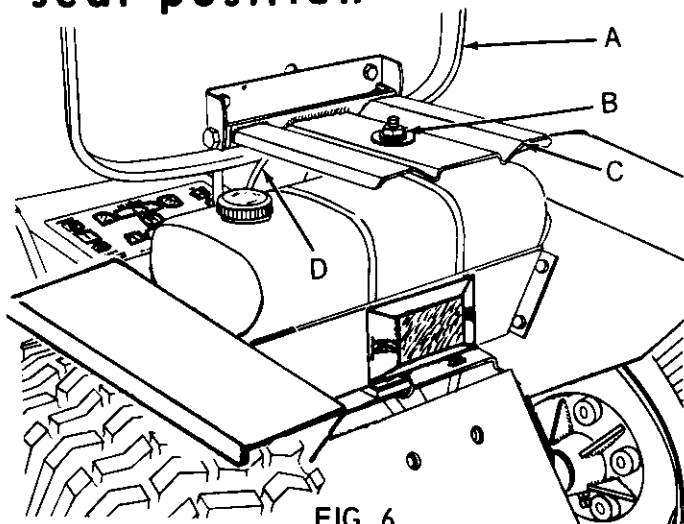


FIG. 6

1. The seat (A), may be moved forward, or backward, to give the most comfortable, and safe operating position. To move the seat, tip seat forward, as shown in Fig. 6. Loosen nut (B) slide seat (A) to desired position. Tighten nut (B) securely. Make sure that seat plate weldment (C), has not twisted out of alignment, with seat spring (D).

We recommend waxing the tractor to protect it's beauty, just like you would wax your new car. Keep your tractor clean and waxed.

instructions before operating controls

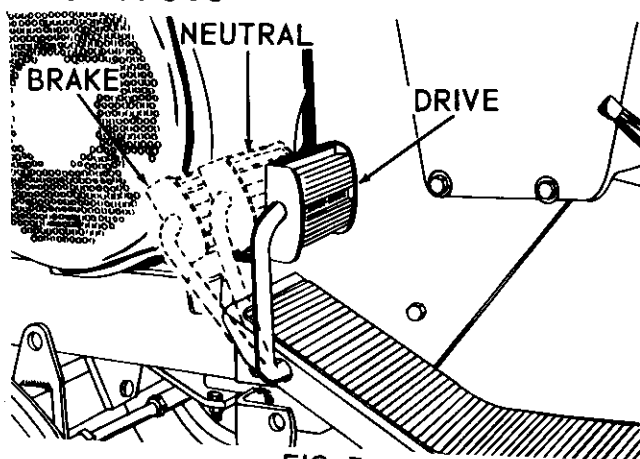


FIG. 7

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 (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 depressed all the way forward.

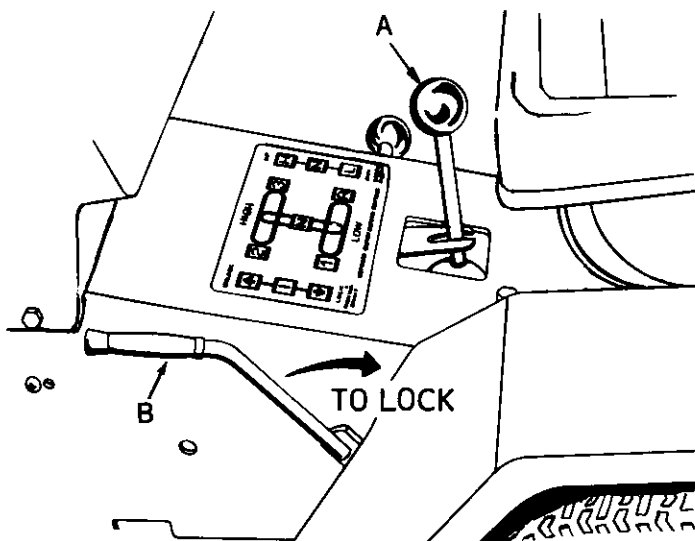


FIG. 8

2. The transaxle (transmission) gear shift lever (A), is located at front, center of seat.
 - a. The gear shift lever selects the FORWARD, NEUTRAL and REVERSE gears.
3. To engage parking brake, pull park brake lever (B), to rear (lock) position. To release parking brake, push lever (B), forward.

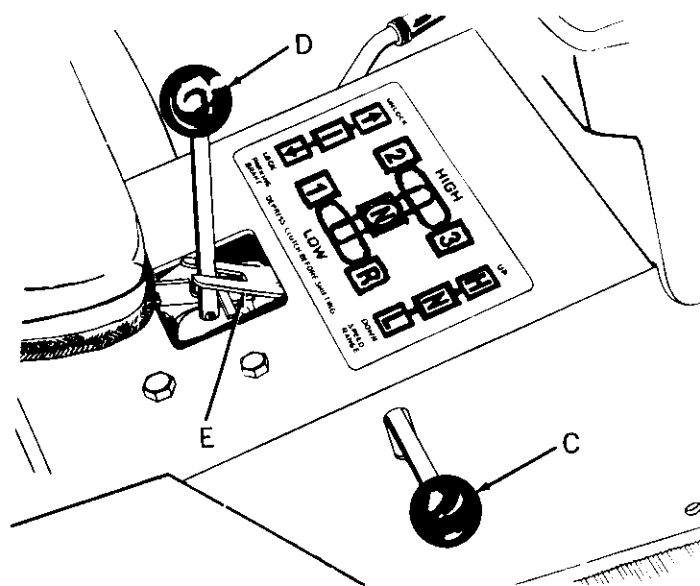


FIG. 9

4. The high-low range shift lever (C), is located on R.H. side of chassis, just forward of rear fender. The high-low range lever has 3 positions, up for high-range, center for neutral and down for low-range. There are 2 neutral positions in transmission, one on the gear shift lever (D), and one on the high-low range lever (C). Both levers must be engaged for Tractor to operate. Place both levers in neutral for pushing of Tractor or when Tractor is being towed. Refer to "Towing Tractor", page 7.

fuel and lubricant

OIL FILL TUBE AND DIPSTICK

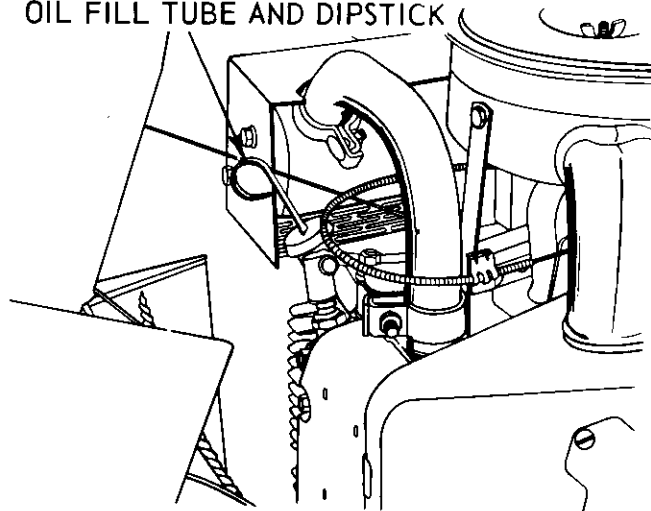


FIG. 10

1. Raise hood.
2. 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 full mark on the dipstick. Dipstick must be pushed down tight for checking oil level, and tractor should be level. NOTE: Do not fill above full mark on dipstick. Use S.A.E. 30 oil or equivalent for summer use. For winter use, below 32°, use Multi-grade oil S.A.E. 5W-30, 10W or equivalent. Nothing should be added to the recommended oil. Make sure the oil used is a high quality detergent oil classified "for service MS, SD, SC or SE. Because of recent changes in the classifications, the oil container may show one or a combination of these recommended classifications. CAUTION: Do not overfill crankcase.

operating instructions

how to start and stop

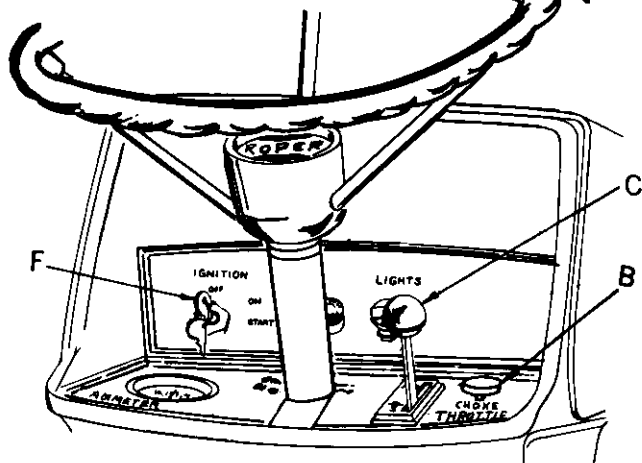


FIG. 11

1. Pull out choke control (B), to full choke position to start in cold weather.
2. Advance throttle control lever (C), to about $\frac{1}{2}$ throttle.
3. This Tractor is equipped with two safety switches. One switch is located on the gear shift lever (D, Fig. 9, Page 6, at point E). The other switch is located on attachment clutch lever (C, Fig. 3, Page 4). The gear shift lever must be in neutral (center position). The attachment clutch lever must also be in disengaged (out), position for engine to start. Turn key (F, Fig. 11, Page 6), in ignition-starter switch clockwise to engage starter. When engine starts, release key. After engine starts, push in choke control 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 (C), to fast position. Wait two minutes and try again.

NOTE: If attachment clutch lever interferes with attachment to be used, remove handle.

CAUTION: First move handle to "OUT" position, then remove nut and handle. Save for use with attachment for which it is required.

4. To stop engine, turn ignition key in a counter-clockwise direction to OFF position. Key should be removed since damage could result to points and run down battery.

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 $\frac{1}{3}$ 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, reduce throttle lever to about $\frac{1}{2}$ throttle or 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.

3. Do not shift gears while Tractor is moving.
4. To stop Tractor, push foot pedal all the way down and reduce throttle lever to about $\frac{1}{2}$ throttle. Disengage power to attachment. 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. 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.
5. Do not operate the Tractor in high gear going down hill. 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. 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.

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.
8. If tractor becomes mired in a hole, try to back out rather than driving forward.

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.

engine pulley grooves to use for your various attachments

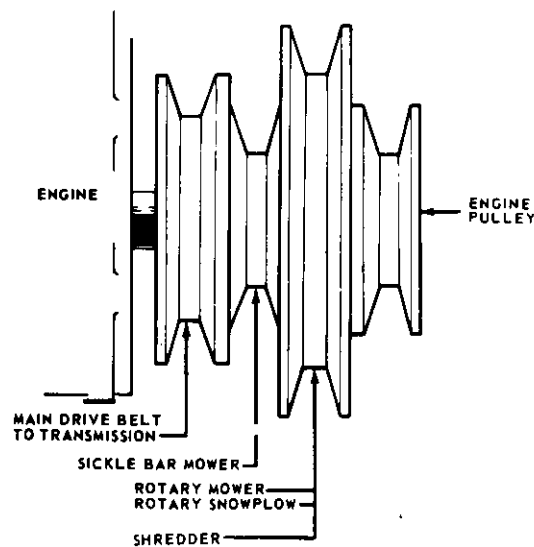


FIG. 12

maintenance instructions air cleaner

CAUTION: If air cleaner becomes too dirty, engine will not receive sufficient air to run properly. Symptoms: Loss of power, flooding, hard to start and overheating.

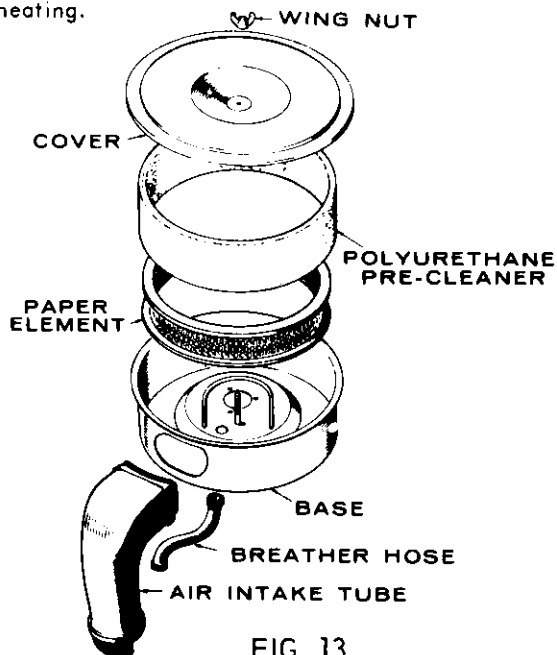


FIG. 13

This engine is equipped with a paper element and a polyurethane pre-cleaner that must be removed, cleaned and oiled every 25 hours of operation, or more under extremely dusty conditions.

1. WASH
2. SQUEEZE DRY
3. COAT WITH OIL
4. INSTALL OVER PAPER ELEMENT

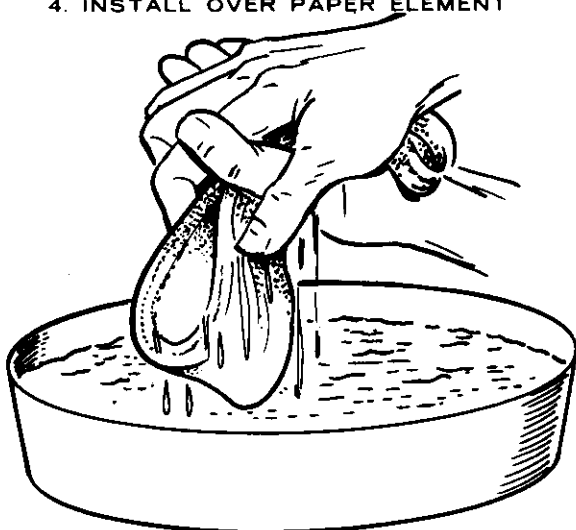


FIG. 14

1. To clean pre-cleaner wash in water and detergent referring to Figure 14. Remove excess water by squeezing like a sponge and allow to dry thoroughly. Distribute three tablespoons of SAE 30 engine oil evenly around the pre-cleaner. Knead into and wring excess oil from pre-cleaner.
2. Depending on conditions in which the tractor is operating, the inner paper element should be replaced whenever it becomes excessively dirty.

CAUTION: NEVER RUN THE ENGINE WITH THE AIR CLEANER REMOVED. DIRT WILL ENTER THE ENGINE AND SCORE THE CYLINDERS.

cooling system

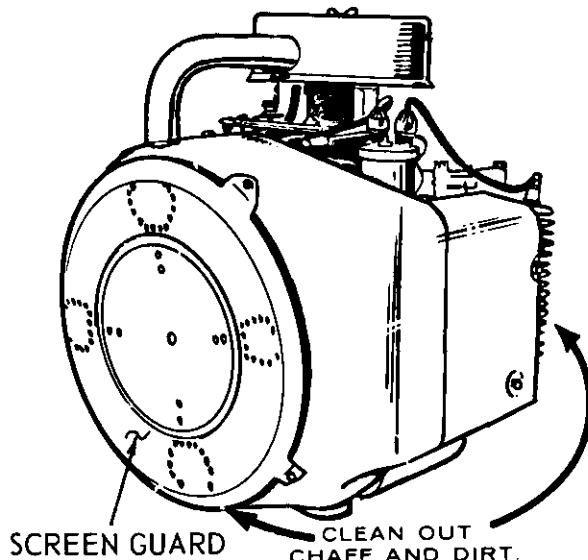


FIG. 15

COOLING SYSTEM: Check and clean cooling fins at least every 50 hours. Remove any dust, dirt or oil which may have accumulated. Remove any chaff from rotating and stationary blower screen.

CAUTION: Plugged or clogged cooling fins or blower screens can cause overheating and engine damage.

THIS TRACTOR HAS AN AIR COOLED ENGINE. AIR MUST BE ABLE TO CIRCULATE FREELY AROUND THE ENGINE, THROUGH THE SCREEN GUARD AND GUARD (ROTARY SCREEN), 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 DAMAGE TO ENGINE.

WARNING TO PURCHASERS OF INTERNAL COMBUSTION ENGINE EQUIPPED MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment you have purchased does not have a spark arrester. If this equipment is used on any forest-covered land, brush covered land, or grass covered unimproved land in the state of California, before using on such land, the California law requires that a spark arrester be provided. In addition, such spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

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.

OIL FILL TUBE AND DIPSTICK

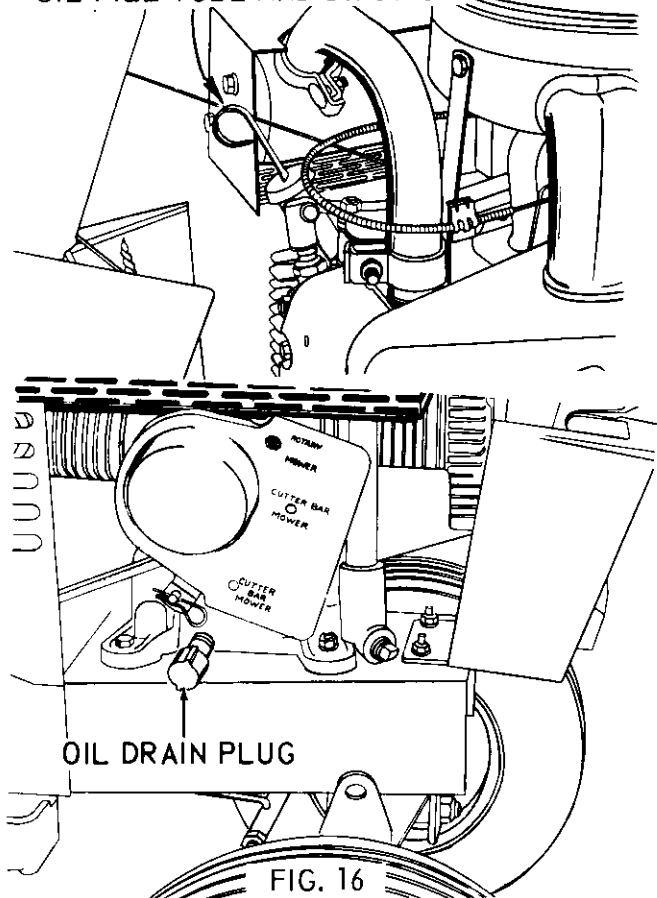


FIG. 16

1. Change oil in crankcase after FIRST 2 HOURS of operation. Engine should be warm when oil is changed.
2. To drain oil, unscrew oil drain plug at lower R. H. side of engine. Catch oil in suitable container.
3. Refill engine crankcase with oil as instructed under "Fuel and Lubricant", page 6. Capacity 4 pints. Check oil level after each 8 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. In extremely dirty or dusty conditions, change oil every 15 hours of operation.

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 OR CHANGING OIL.

transaxle (transmission) lubrication

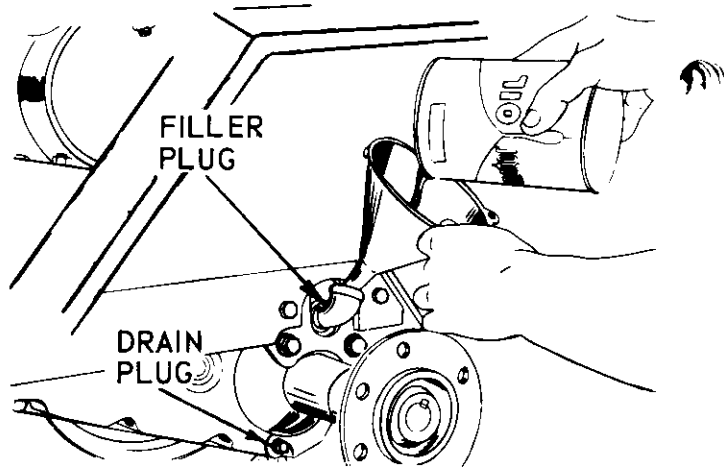


FIG. 17

Rear wheel is removed for illustrating.

1. Check oil in transaxle 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 S.A.E. 30 motor oil for service MM or MS or equivalent. Fill through filler plug as shown.

**LOOK
BEFORE
BACKING...**



lubrication chart

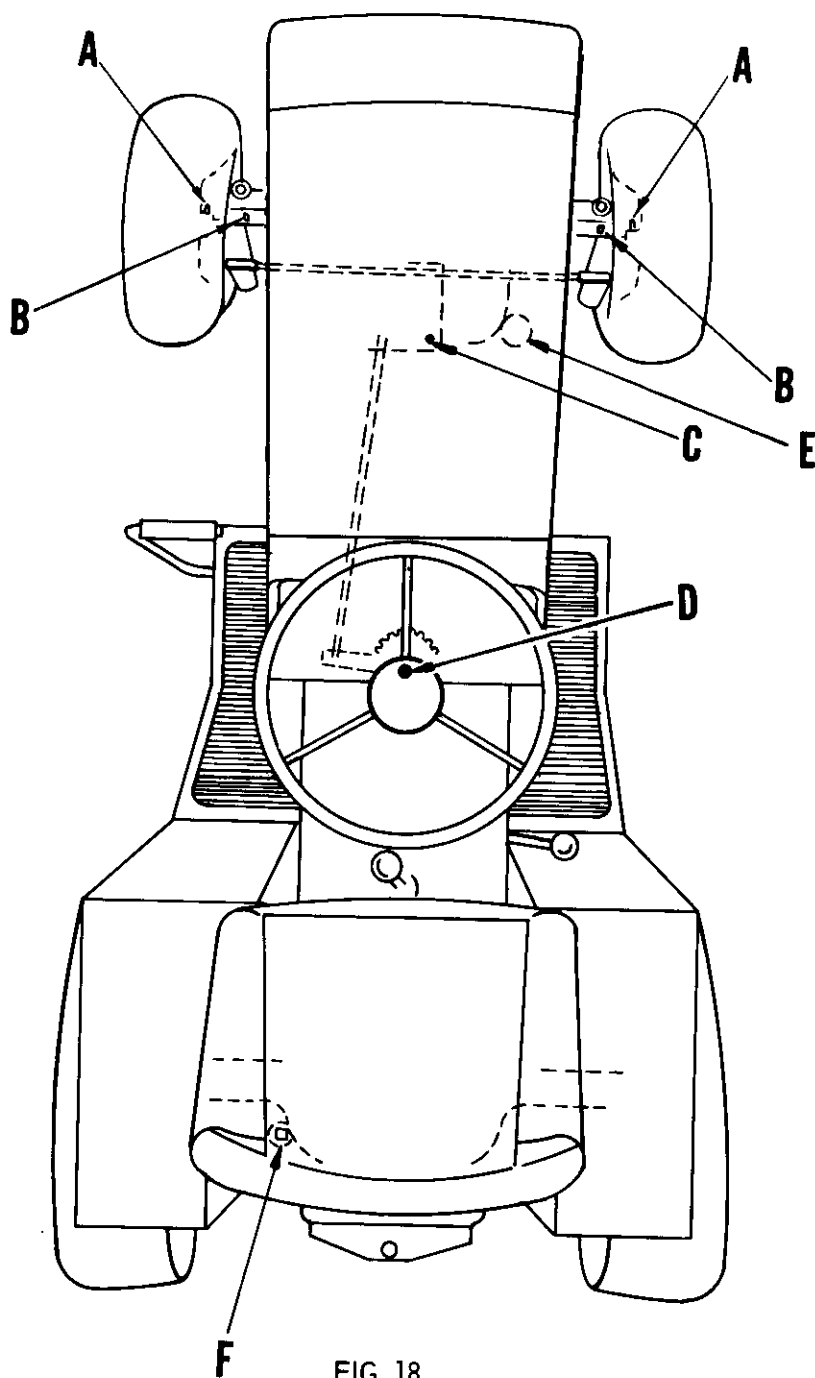


FIG. 18

There are only 6 grease fittings on your tractor. Give each grease fitting 2 shots of grease every 5 hours of operation. Use All-purpose Lithium gun grease.

- A - Front Wheels (2 fittings, both sides)
- B - Front Spindles (2 fittings, both sides)
- C - Steering Bell Crank
- D - Steering Gear Sector and Arm
- E - Check oil in engine crankcase at least every 8 hours of operation. Change oil every 25 hours of normal operation. In extremely dirty or dusty conditions, change oil every 15 hours of operation.
- F - Check oil in transaxle (transmission) every 50 hours of operation. Change oil in transaxle every 500 hours of operation.
- Apply several drops of oil to all pivot points every 5 hours of operation.

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.

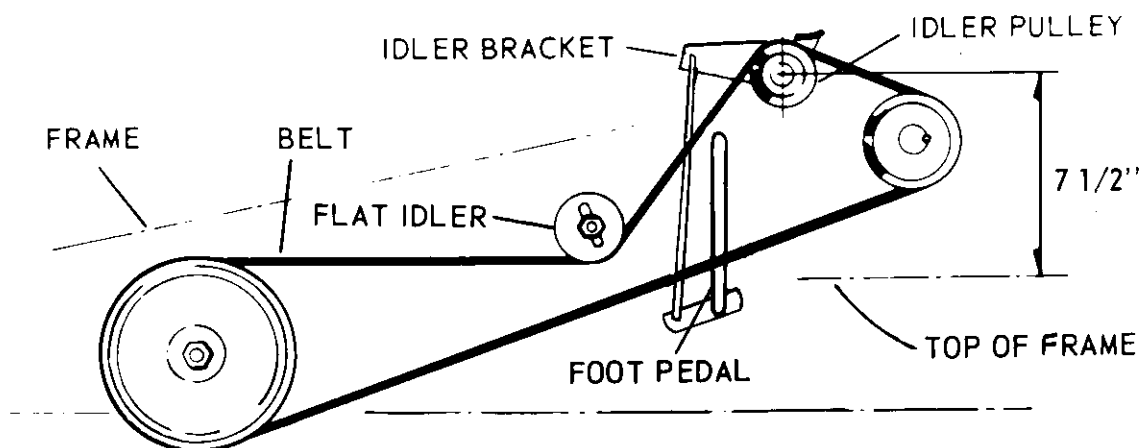


FIG. 19

1. Loosen bolt in flat idler and frame, and push idler and bolt down in slot of frame until center of idler pulley on idler bracket (just back of engine), is $7\frac{1}{2}$ inches above frame as shown. Tighten bolt in flat idler and frame securely.

NOTE: Foot pedal should be in vertical or just back of vertical position with clutch engaged. New belts will stretch after a few hours of operation, then after initial stretch, adjustment is seldom necessary. Adjust belt after first 10 hours of operation.

brake adjustment

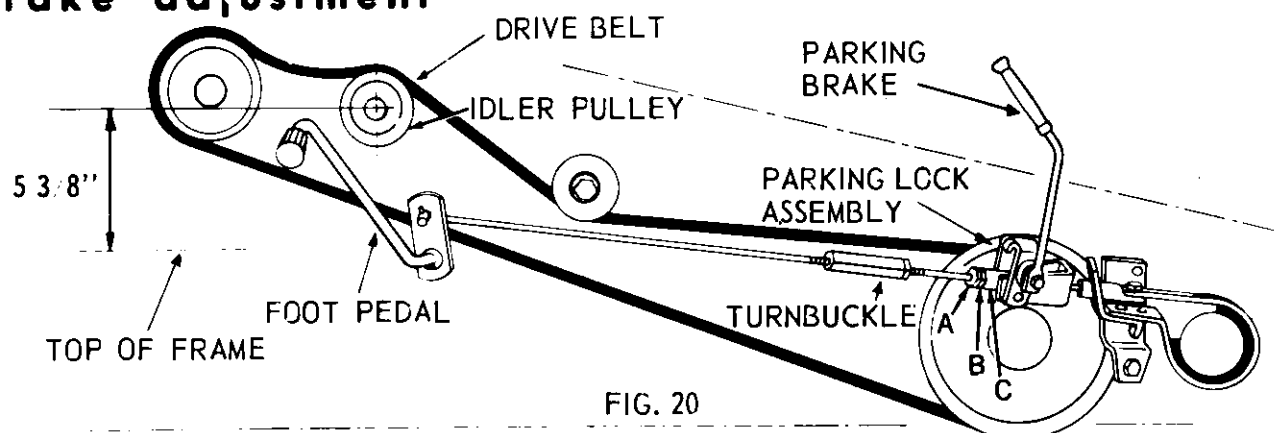


FIG. 20

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 $5\frac{3}{8}$ inches 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

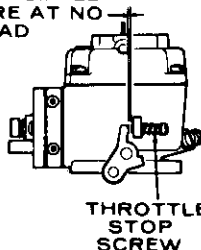
To tighten parking brake loosen hex nuts (A and B). Rotate parking lock lever to lock position. By hand press foot pedal forward to full brake position. While holding brake pedal forward tighten nut (B), against bushing (C), finger tight. Release foot pedal, and turn nut (B), back against bushing (C), two additional turns. Tighten nut (A), against nut (B), to lock in position. Place high-low lever in neutral position. Pull parking lock lever back (lock) position. Rear wheels of tractor should slide when tractor is pushed.

carburetor adjustment

CAUTION: WHEN FOLLOWING STEPS 1 THRU 5 BELOW, USE EXTREME CARE TO AVOID CONTACT WITH MUFFLER, HEAT SHIELD OR MOVING PARTS TO PREVENT INJURY. ALSO, BELT GUARD MUST BE IN PLACE.

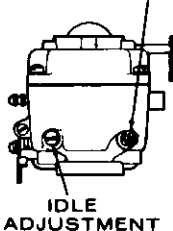
MAIN FUEL AND IDLE VALVE ADJUSTMENT

LOW SPEED SET
ON GOVERNOR
LINKAGE- SMALL
GAP HERE AT NO
LOAD



SIDE VIEW

MAIN FUEL
(HIGH SPEED)
ADJUSTMENT



REAR VIEW

FIG. 21

INITIAL ADJUSTMENT:

The carburetor has a main fuel valve adjusting screw and an idle valve adjusting screw. (Fig. 21). A low speed adjustment screw is shown in (Fig. 22).

1. Turn main fuel valve clockwise until it just closes.

CAUTION: Valves may be damaged by turning them in too far.

2. Now open main fuel valve 1 turn counterclockwise.
3. Close idle valve in same manner and open it 5/8 turn (counterclockwise).
4. This initial adjustment will permit engine to start and warm up prior to final adjustment.

FINAL ADJUSTMENT

1. Turn main fuel valve in until engine misses (lean mixture), then turn it out past the point where engine runs smoothly until engine runs unevenly (rich mixture). Turn valve to mid-point between lean and rich so engine runs smoothly.
2. Hold engine at idle position and set low speed adjustment screw (Fig. 22) until a fast idle is obtained (1200 rpm).
3. Hold throttle in idle position and turn idle adjustment valve in (lean) and out (rich) until engine idles smoothly.
4. Reset low speed adjustment screw so engine idles at 1200 rpm.
5. Release throttle-engine should accelerate without hesitation. If engine does not accelerate properly, readjust main fuel valve by turning out slightly.

IMPORTANT: Do not open more than 1/2 turn beyond maximum power point.

LOW SPEED ADJUSTMENT

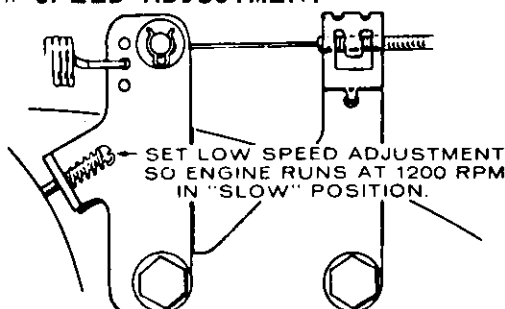
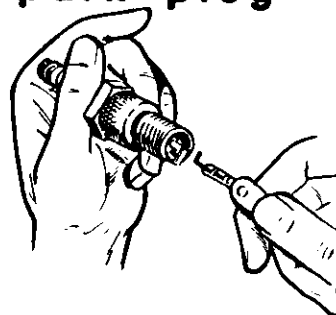


FIG. 22

spark plug



SPARK PLUG GAP
0.025" GASOLINE

FIG. 23

SPARK PLUGS: Check, clean and reset spark plugs every 100 operating hours. Replace spark plugs that show signs of fouling or electrode erosion.

points

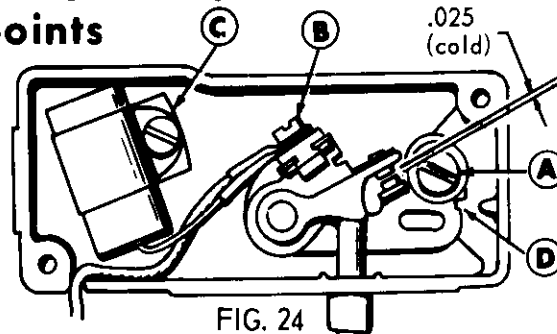


FIG. 24

BREAKER POINTS: Check, clean and reset breaker points every 200 operating hours. Replace points if they are pitted or burned. Set point gap to .025 cold when fully open.

tires

Keep tires inflated to 12 pounds of air pressure in front; 12 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.

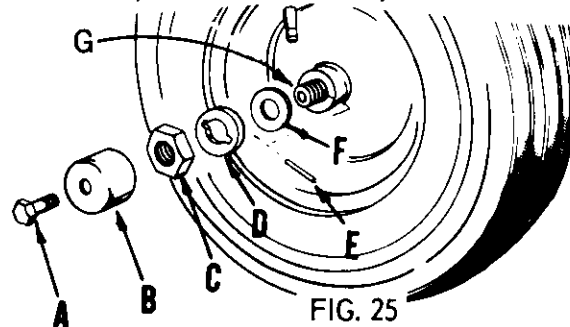


FIG. 25

To remove a front tire and wheel, proceed as follows:

1. Block up Tractor rocker bar (front axle) securely or use a Tractor Jack.
2. Remove hex bolt (A), and dust cap (B).
3. Remove gripco nut (C), wear washer (D), pin (E), and washer (F), from spindle shaft assembly (G).
4. After tire is repaired, reverse above procedure for reassembly.

A rear wheel and tire is removed by removing the five hub bolts from wheel and hub. FIRST: Block up rear axle securely or use a Tractor Jack, or your local service station can repair your Tractor tire in the same manner as an automobile tire.

trouble shooting

WILL NOT START

POSSIBLE CAUSE

Dead battery
Attachment clutch lever engaged
Gear shift lever in gear
No gasoline in fuel tank or carburetor

POSSIBLE REMEDY

Recharge or replace battery.
Move to "out" position.
Shift into neutral position.
Fill the tank with gasoline; open fuel shut-off valve.
Check fuel line and carburetor.

HARD TO START

Water in gasoline or old fuel
Choked improperly. Flooded engine
Dirty air cleaner
Spark plug dirty or improper gap
Defective battery
Defective ignition or loose wiring

Drain fuel tank and carburetor. Use new fuel and dry spark plug.
Push in choke, open throttle control and crank engine several times to clear out the gas.
Remove and clean, refer to page 8.
Clean, adjust the gap or replace. Refer to page 12.
Replace.
Check the wiring and spark plug.

ENGINE MISSES OR LACKS POWER

Dirty starter air screen
Partially plugged air cleaner
Low oil level or dirty oil
Improper carburetor adjustment
Spark plug dirty, wrong gap or wrong type
Engine overloaded
Faulty ignition
Oil in gasoline
Poor compression

Clean screen over starter, see page 8. Be sure fins on cylinder head and around cylinder are clean.
Remove and clean, refer to page 8.
Check or change oil, see page 9.
Refer to page 12.
Clean, reset the gap or replace.
Shift to a lower gear or reduce load.
Check spark plug and for loose wires. If trouble cannot be corrected, contact your Service Dealer.
Drain and refill gasoline tank and carburetor. Oil reduces the efficiency of the engine.
Contact your nearest Authorized Roper Service Dealer.

ENGINE OVERHEATS

Dirty starter air screen
Low oil level or dirty oil
Partially plugged muffler
Poor fuel or too lean a mixture
Partially plugged air cleaner
Dirty engine

Clean screen over starter, see page 8.
Check or change oil, see page 9.
Remove muffler from engine and clean.
Refer to page 12.
Remove and clean, refer to page 8.
Clean fins on cylinder head and around cylinder.

NO LIGHTS

No head lights or tail light with light switch knob pulled out

Turn fuse holder on dashboard counterclockwise—
check for burned out fuse.

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 is of utmost importance.

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 replacement.

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 4. After adding water, run the engine so that the generator charge will mix the solution. DO NOT OVERFILL. Acid spilled from the battery will corrode choke control and throttle control casing and wire, Tractor paint, etc.
2. Keep the battery clean and dry at all times. Remove any collection of grease, corrosion or other substance from the battery.
3. Keep battery snug in its holder.
4. Keep vent caps tight and small vent holes in caps open.
5. If battery should become discharged or falls below a specific gravity of 1.225, remove battery and have it recharged.
6. When recharging, request service station to SLOW CHARGE the battery at a rate of 3 amperes. FAST CHARGING IS NOT RECOMMENDED.

winter care--battery

1. If Tractor is not used regularly during winter months, the battery should be removed and stored in a cool, dry place above 50° F.
2. Battery should not be placed directly on cement as this will drain the battery.
3. If Tractor is used only infrequently during winter months, check battery at least once each thirty days to be sure a full charge is maintained.
4. A battery not fully charged can freeze, resulting in the necessity to replace.
5. A safe rule is to charge the battery monthly or at least test and recharge if below 1.225 specific gravity.
6. Recharge to bring the specific gravity to normal before replacing it in the Tractor after storage.

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.

Important-V Belt Care

1. To prolong the life of your tractor's drive belts, the tractor and attachment clutches should be engaged with the engine throttle lever placed at about 1/3 throttle.
2. After the clutches are engaged, the engine throttle lever should be moved upwards to the "Fast" (F) position for most efficient tractor operation.

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 and condensation in the carburetor and fuel tank. This makes fuel system inoperative and will result in hard or non-starting of the engine.
2. Lubricate cylinders by removing the spark plugs. Pour one ounce of clean lubricating oil through each spark plug hole into the cylinders. Crank the engine slowly to spread oil and replace the spark plugs.
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

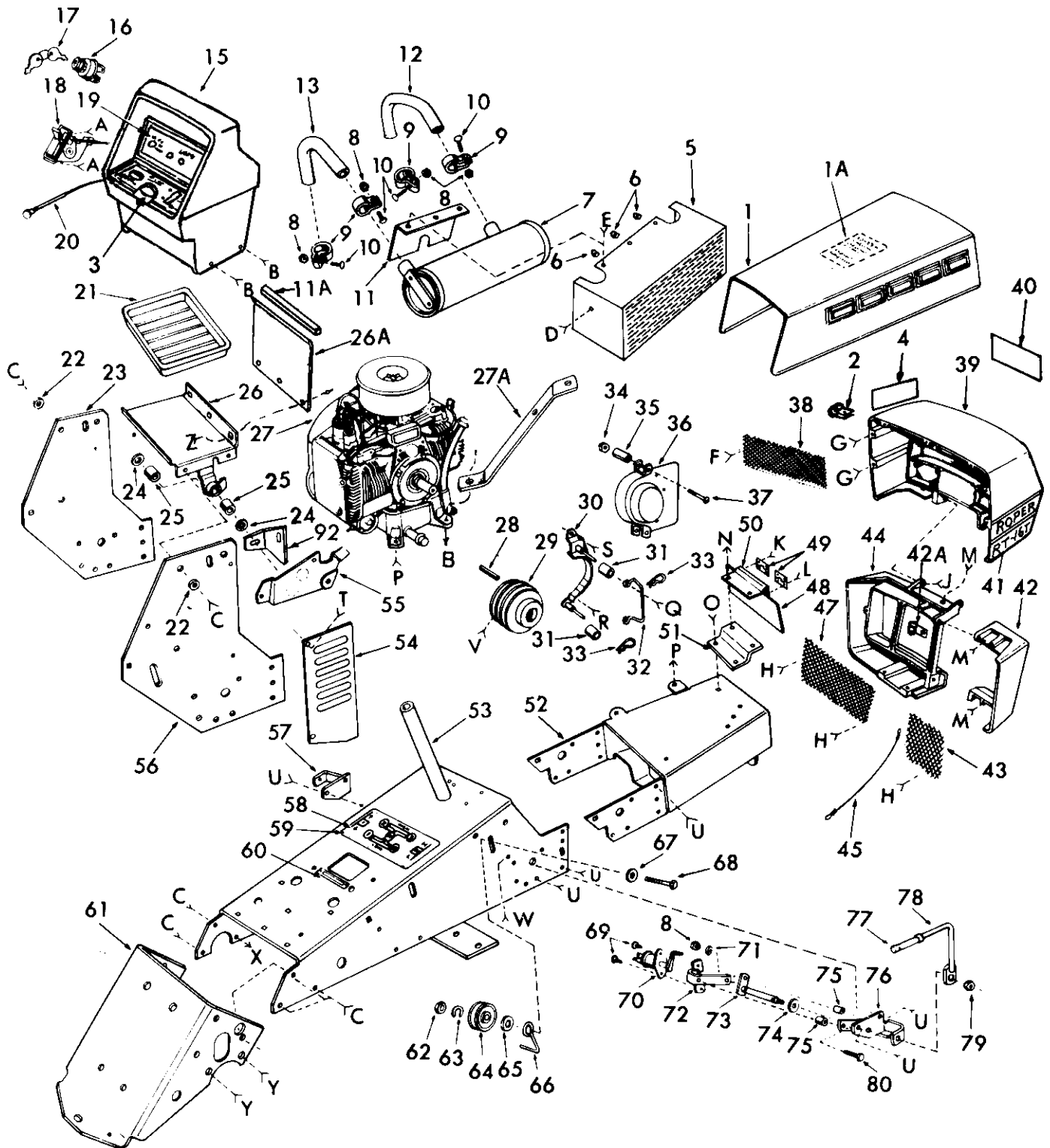
1. Just as your automobile needs professional mechanical maintenance from time to time, so does your air cooled engine. Cleaning and adjustment of the carburetor and periodic replacement of the spark plug and ignition points is made necessary by NORMAL use.
2. Professional air cooled engine service is as close as your nearest Roper Service Dealer.
3. A yearly check-up or tune-up by an authorized Roper Service dealer is a good idea to avoid breakdowns or delays.

Roper Corp. 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

RT-16T TRACTOR--MODEL NUMBER T63241R1

MAIN FRAME, DASH, GRILL



A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
81	82	22	83	84	86	87	82	85	86	87	91	88	88	83	22	83	83	83	84	83	84	89	90
82	83	84	84	84	86	87	86	85	88	88	88	88	88	88	83	83	83	83	83	84	84	84	84
84	84	84	84	84	86	87	86	85	88	88	88	88	88	88	83	83	83	83	83	84	84	84	84

repair parts

RT-16T TRACTOR--MODEL NUMBER T63241R1

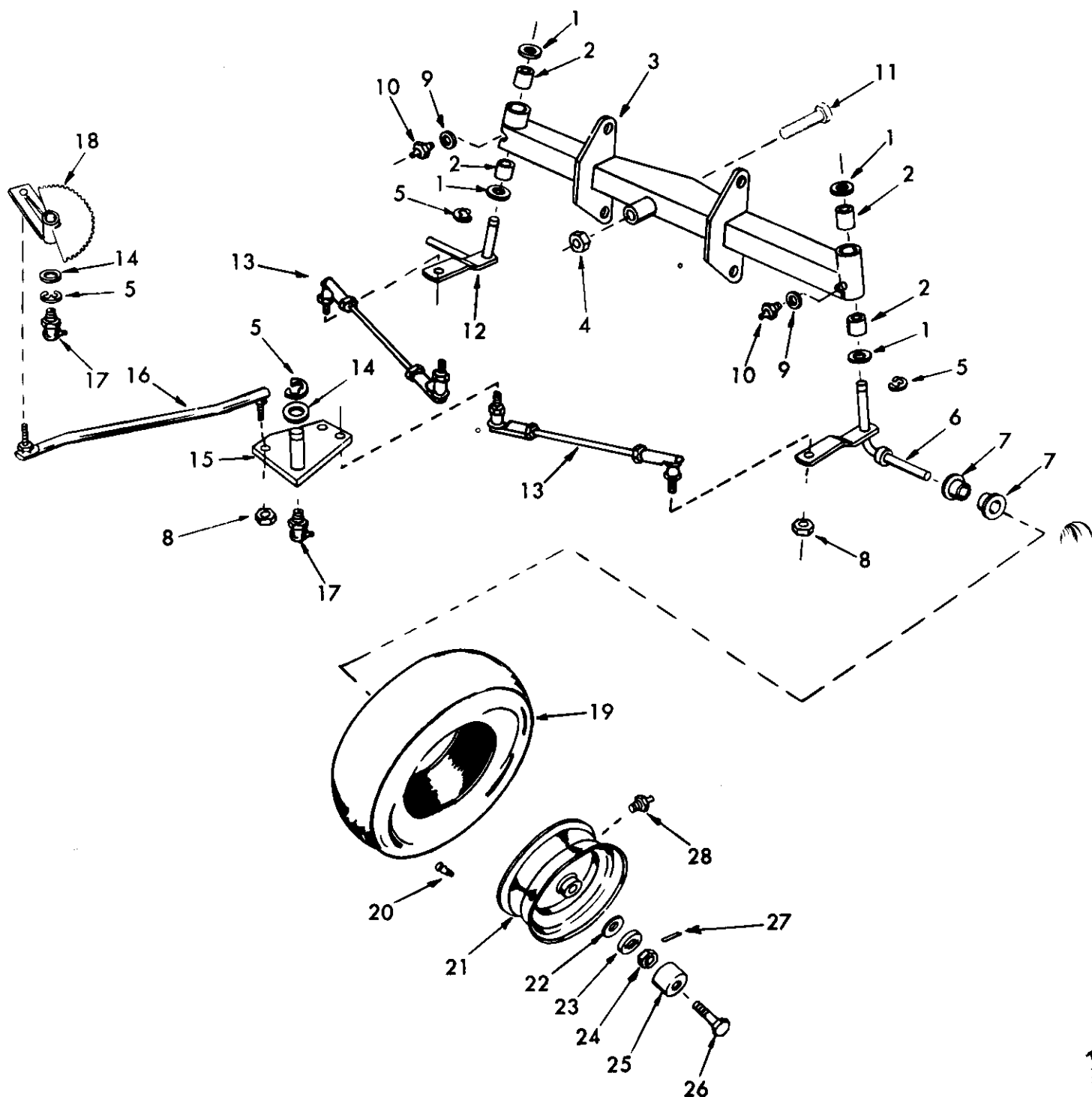
MAIN FRAME, DASH, GRILL

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	634A551	Hood Assembly	60	-----	Model Plate
1A	4821R	Decal	61	634A101	Drawbat & Weldnuts
2	4171R	Insulated Clip	62	500P	Hex Nut 7 16-14
3	4107R	Lower Dash-Decal	63	1001P	Lockwasher 7 16
4	3641R	Grill L.H. (Roper RT-16T)-Decal	64	6635H	Flat Idler
5	634A572	Muffler Guard Assembly	65	1520P	Washer .469 I.D. x 1-1 8 x 11 Ga.
6	3531R	J-Clip	66	6479H1	Belt Guide Finger
7	2695R	Muffler	67	1518P	Washer 15 32 x 11 16 x 16 Ga.
8	504P	Hex Nut 5 16-18	68	3262P	Hex Bolt 7 16-14 x 2 1/2
9	582R	Clamp-1-3 8 (Includes No. 8 & 10)	69	5501P	Pan Hd. Phillips Thread Cutting Screw No. 10-24 x 3 8 Type T
10	3012P	Hex Bolt 5 16-18 x 1 1/4			Safety Switch
11	3494R	Heat Shield-Carburetor	70	2249R	5 16 Lockwasher
11A	5348R	Sealing Strip	71	1003P	Switch Bracker Assy.
12	2697R	Exhaust Manifold-Front	72	634A492	Belt Tightener Arm & Idler Shaft
13	2696R	Exhaust Manifold-Rear	73	634A491	Spring Washer
15	4038R	Dashboard	74	5999H	Bushing
16	2683R	Ignition Switch (Includes Item No. 17)	75	1689E	Hanger Weldment-R.H. Front
17	7552H	Key Set	76	634A494	Handle Grip
18	4652R	Remote Control-Throttle	77	4379H	Blade Clutch Handle Assy.
19	4106R	Decal-Upper Dash	78	634A493	Gripco Centerlock Nut 3 8-24
20	2754R	Choke Control	79	7810H	Hex Bolt 5 16-18 x 1 1/2
21	2686R	Battery Tray	80	3013P	Lockwasher 1 1/4
22	1513P	Washer 13 32 x 13 6 x 16 Ga.	81	1002P	Washer 9 32 x 5 8 x 16 Ga.
23	2671R	Bracket-Battery Support L.H.	82	1506P	Lockwasher 3 8
24	1545P	Washer 17 32 x 1 x 16 Ga.	83	1004P	Hex Nut 3 8-16
25	2689R	Bearing	84	501P	Locknut 1 1/4-20
26	634A523	Battery Support & Idler Support w/ Bearings	85	1605H	Lockwasher No. 10
26A	4815R	Battery Heat Shield	86	1006P	Hex Mach. Screw Nut No. 10-24
27	BF-MS	Engine 16 H.P. (Twin cyl)	87	505P	Lockwasher 5 16
	2493B		88	1003P	Locknut 3 8-16
27A	4394R	Grill Brace	89	5394H	Lockwasher 7 16
28	9396E	Sq. Key 1 1/4 x 2	90	1001P	Washer 11 32 x 11 16 x 16 Ga.
29	634A104	Engine Pulley w/ Set Screws	91	1537P	Muffler Guard Bracket
30	634A527	Belt Guide Weldment	92	5527R	Hex Nut 1 1/4-20
31	8704H1	Spacer	A	503P	Hex Bolt 3 8-16 x 1 1/2
32	9011H	Belt Retainer	B	3027P	Hex Bolt 3 8-16 x 1
33	4939M	Retainer Spring	C	3023P	Hex Bolt 5 16-18 x 1 1/2
34	347H	Huglock Nut 1 1/4-20	D	3008P	Slotted Truss Hd. Mach. Screw 1 1/4-20 x 1 1/2
35	8238H	Split Spacer	E	3253P	Phillips Pan Hd. Thrd. Cutting Screw No. 10-24 x 1 1/2
36	634A659	Belt Guide Weldment	F	5564P	Hex Ind. Self Tap Screw w/ Sems Ext. Tooth Lockwasher 1 1/4-20 x 5 8
37	3154P	Slotted Fillister Hd. Mach. Screw 1 1/4-20 x 2 1/4	G	5583P	Phillips Pan Hd. Thrd. Cutting Screw No. 10-24 x 3 8
38	3631R	Grill Screen-Upper	H	5501P	Hex Bolt 1 1/4-20 x 1 1/2 H.T.
39	3632R	Grill-Lower	J	3267P	Slotted Truss Hd. Mach. Screw No. 10-24 x 3 8
40	3559R	Decal-Grill Front (Roper)	K	3122P	Hex Mach. Screw Nut No. 10-24
41	3639R	Decal-Grill R.H. (Roper RT-16T)	L	505P	Hex Bolt 5 16-18 x 3 4
42	2678R	Grill Side	M	3010P	Hex Bolt 5 16-18 x 7 8
42A	4171R	Insulated Clip	N	3159P	Carriage Bolt 5 16-18 x 1
43	2673R	Grill Screen-R.H.	O	17P	Hex Bolt 3 8-16 x 1 1/4
44	2677R	Grill-Lower	P	3025P	Hex Bolt 3 8-16 x 7 8
45	5626R	Grill Cable	Q	3022P	Hex Nut 3 8-16
47	2674R	Grill Screen-L.H.	R	501P	Hex Bolt 3 8-16 x 1
48	634A28	Front Channel Cover & Weld Bolts	S	3023P	Hex Washer Hd. Thrd. Cutting Screw 1 1/4-20 x 1 1/2 Type T
49	5424R	Hinge	T	5557P	Hex Bolt 3 8-16 x 3 4
50	2752R	Front Channel Cover Support	U	3025P	Hex Socket Hdless Set Screw 5/16-18 x 5 8
51	2665R	Grill Spacer	V	4514P	Carriage Bolt 3 8-16 x 1
52	634A531	Engine Mount Assy.	W	28P	Hex Bolt 3 8-16 x 3 4
53	634A543	Chassis Assy. w/ Bearings	X	3021P	Hex Bolt 7 16-14 x 1 1/4
54	2655R	Cover R.H.	Y	3035P	Carriage Bolt No. 10-24 x 1 1/2
55	634A518	Idler Bracket Weldment	Z	53P	
56	2670R	Bracket-Battery Support R.H.			
57	634A355	Hanger Weldment L.H. Front			
58	3646R	Shift Pattern Plate			
59	9521H	Drive Rivet			

repair parts

RT-16T TRACTOR--MODEL NUMBER T63241R1

FRONT AXLE

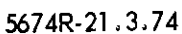


FRONT AXLE

KEY NO.	PART NO.	DESCRIPTION
1	1528P	Washer 13/16 x 1 1/4 x 14 Ga.
2	1309H	Bearing
3	634A521	Front Axle with Bearings (Inc. Key No. 2)
4	4764H	Huglock Nut 5/8-11 UNC
5	5000P	E-Ring
6	634A277	Spindle Complete-R.H.
7	9040H	Flanged Bearing
8	7810H	Gripco Centerlock Nut, 3/8-24
9	1505P	Washer 9/32 x 1/2 x 14 Ga.
10	6855M	Grease Fitting
11	3294P	Hex Bolt 5/8-11 x 5 H.T.
12	634A278	Spindle Complete-L.H.
13	1808R	Tie Rod and Joints
14	1552P	Washer 49/64 x 1 1/4 x 16 Ga.
15	634A98	Steering Bell Crank Weldment
16	9318H	Drag Link and Joints
17	6842M	Grease Fitting
18	634A95	Steering Gear Sector and Arm
19	3938R	Front Tire-Tubeless
20	795R	Tire Valve
21	2168R	Front Wheel
22	1562P	Washer 25/32 x 1 1/2 x 16 Ga.
23	8785H	Wear Washer
24	4831H	Elastic Nut 3/4-16 UNF
25	8763H	Dust Cap-Outer
26	3008P	Hex Bolt 5/16-18 x 1/2
27	8798H	Roll Pin 5/32 x 1
28	6856M	Grease Fitting 1/4-28 Taper Thread

another free manual from www.searstractormanuals.com

STEERING, AND FINAL DRIVE



repair parts

RT-16T TRACTOR--MODEL NUMBER T63241R1

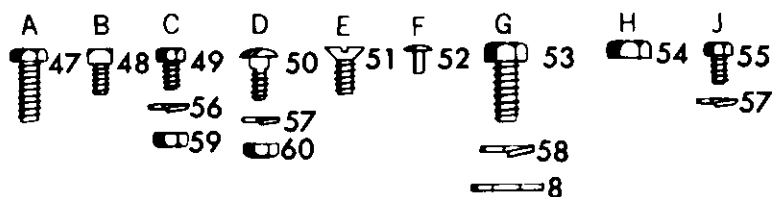
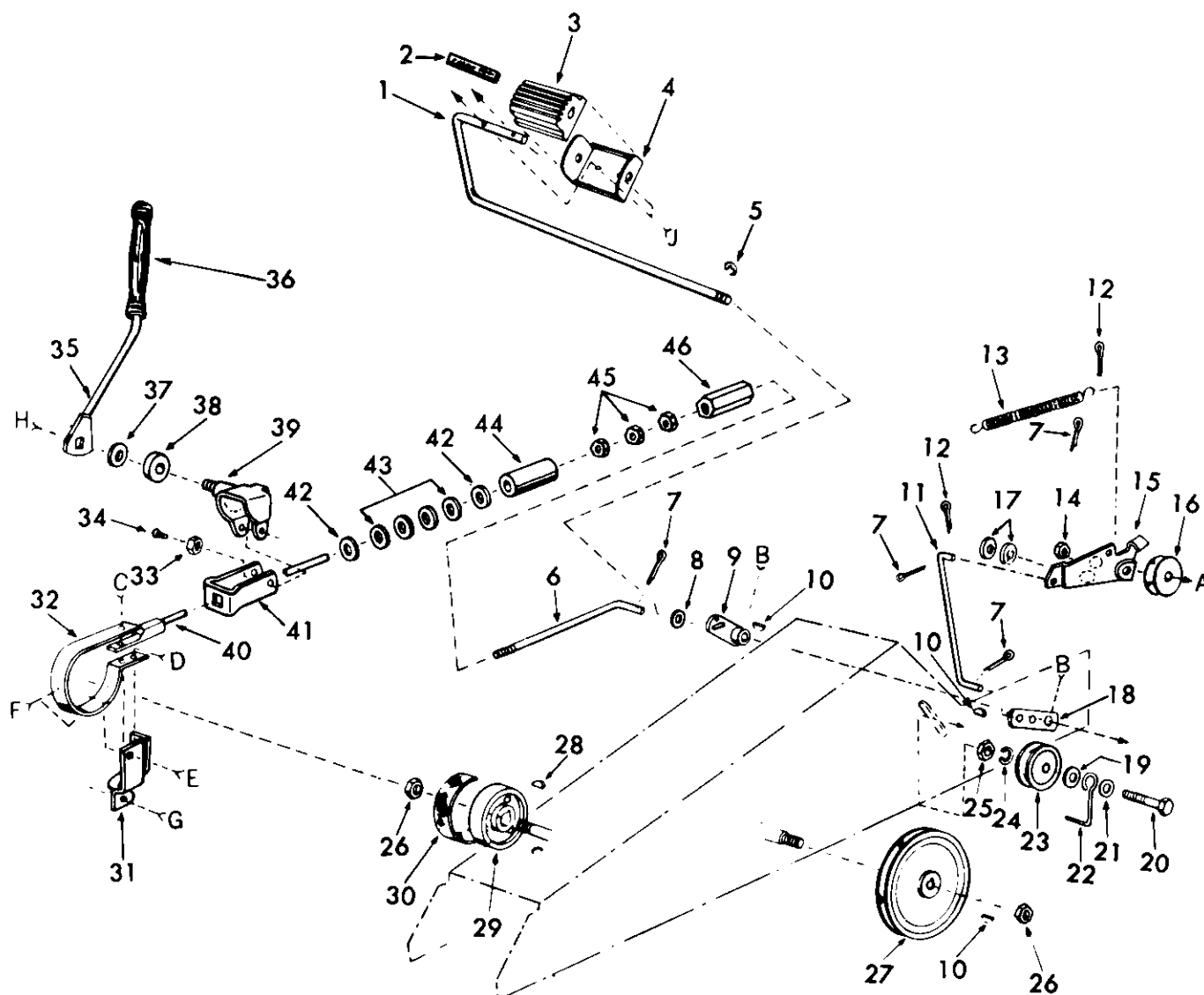
STEERING, AND FINAL DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	3645R	Steering Wheel Cap	51	5000P	E-Ring
2	5003P	E-Ring	52	6842M	Grease Fitting
3	3644R	Steering Wheel	53	634A593	Fender & Insert-R.H.
4	1552P	Washer 49/64x1 1/4x16 Ga.	54	4607R	Rear Tire 23x10.50-12
5	9007H	Cap	55	6477H	Range Shift Rod
6	5949H	Rubber Bushing	56	6442H	Shift Rod Bracket
7	6468H	Bearing	57	2511P	Cotter Pin 3/16x1
8	634A543	Chassis Ass'y w/Bearings	58	9204H	Locknut 1/2-20
9	634A569	Foot Rest w/Bolts L.H.	59	7226H	Rear Wheel-12x7JA
10	3641R	Foot Rest Pad L.H.	60	795R	Tire Valve
11	9858M1	Woodruff Key 3/16x5/8	61	2692R	V-Belt (Ground Drive)
12	9008H	Spring	61A	3239R	Safety Standard Sticker
13	1062R	Foot Pedal	62	3625R	Bracket-Tail Light
13A	8765H	Foot Pedal Bracket	63	634A594	Fender & Insert-L.H.
14	1244R	Foot Pedal Plate	64	1003P	Lockwasher 5/16
15	2648R	Foot Pedal Shaft	65	5394H	Locknut 3/8-16
16	4989R	Seat	66	1578P	Washer 3/4x1-1/8x11 Ga.
17	634A532	Seat Bracket Weldment	67	1560P	Washer 17/32x1-1/2x11 Ga.
18	2663R	Bracket Seat Pivot	68	1000P	Lockwasher 1/2
19	634A533	Seat Plate Weldment	69	502P	Hex Nut 1/2-13
20	2693R	Fuel Tank	70	1004P	Lockwasher 3/8
21	9769H	Fuel Gauge	71	501P	Hex Nut 3/8-16
22	815R	Fuel Line Fitting	72	508P	Hex Jam Nut 3/8-16
23	5404R	Seat Spring	73	1001P	Lockwasher 7/16
24	8141H	Seat Spring Reinforcement	74	500P	Hex Nut 7/16-14
24A	5424R	Stem Bumper	75	1002P	Lockwasher 1/4
25	634A534	Neutral Safety Arm Ass'y	76	503P	Hex Nut 1/4-20
26	2650R	Bracket-Fuel Tank	77	1513P	Washer 13/32x13/16x16 Ga.
27	6364H	Control Knob	78	1506P	Washer 9/32x5/8x16 Ga.
28	634A535	Neutral Safety Support Ass'y	79	504P	Hex Nut 5/16-18
29	6459H	Transmission Bracket	80	1559P	Washer 7/16x1x10 Ga.
30	8778H	Wheel Hub-Rear	81	3023P	Hex Bolt 3/8-16x1
31	8327H	Sq. Key 1/4x3	A	3009P	Hex Bolt 5/16-18x5/8
32	633A38	Transmission (Transaxle)	B	3010P	Hex Bolt 5/16-18x3/4
		Less Brake Drum	C	3022P	Hex Bolt 3/8-16x7/8
33	2329R	Neutral Safety Switch	D	25P	Carriage Bolt 1/2-13x1 1/4 H.T.
34	9772H	Hose Clamp	E	20P	Carriage Bolt 3/8-16x1
35	2694R	Fuel Line	F	1304H	Hub Bolt
36	2751R	Clip-Fuel Line	G	4524P	Sq. Hd. Set Screw 3/8-16x1 1/4
37	634A22A	Belt Guide	H	3034P	Hex Bolt 7/16-14x1
38	6461H2	Transmission (Transaxle)	J	3034P	Hex Bolt 7/16-14x1
		Pulley	K	3010P	Hex Bolt 5/16-18x3/4
39	634A362	Hanger-Rear	L	15P	Carriage Bolt 5/16-18x5/8
39A	2521R	Insulated Clip	M	503P	Hex Nut 1/4-20
40	634A33A	Brake Arm Ass'y	N	501P	Hex Nut 3/8-16
41	626A31A	Steering Arm Ass'y	O	4501P	Sq. Hd. Set Screw C.P.
42	634A570	Foot Rest w/Bolts R.H.			5/16-18x1/2
43	2267R	Decal (Attach Clutch)	P	3025P	Hex Bolt 3/8-16x1 1/4
44	1527P	Washer 21/32x7/8x16 Ga.	Q	3023P	Hex Bolt 3/8-16x1
45	5001P	E-Ring	R	3022P	Hex Bolt 3/8-16x7/8
46	3642R	Foot Rest Pad R.H.	S	3010P	Hex Bolt 5/16-18x3/4
47	4766H	Bearing	T	3003P	Hex Bolt 1/4-20x3/4
48	1553P	Washer 57/64x1 1/4x16 Ga.	U	3021P	Hex Bolt 3/8-16x3/4
49	634A626	Steering Shaft & Pinion	V	19P	Carriage Bolt 3/8-16x3/4
50	634A95	Steering Gear Sector & Arm	---	5674R	Owners Manual

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RT-16T TRACTOR--MODEL NUMBER T63241R1

BRAKE, AND CLUTCH



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RT-16T TRACTOR--MODEL NUMBER T63241R1

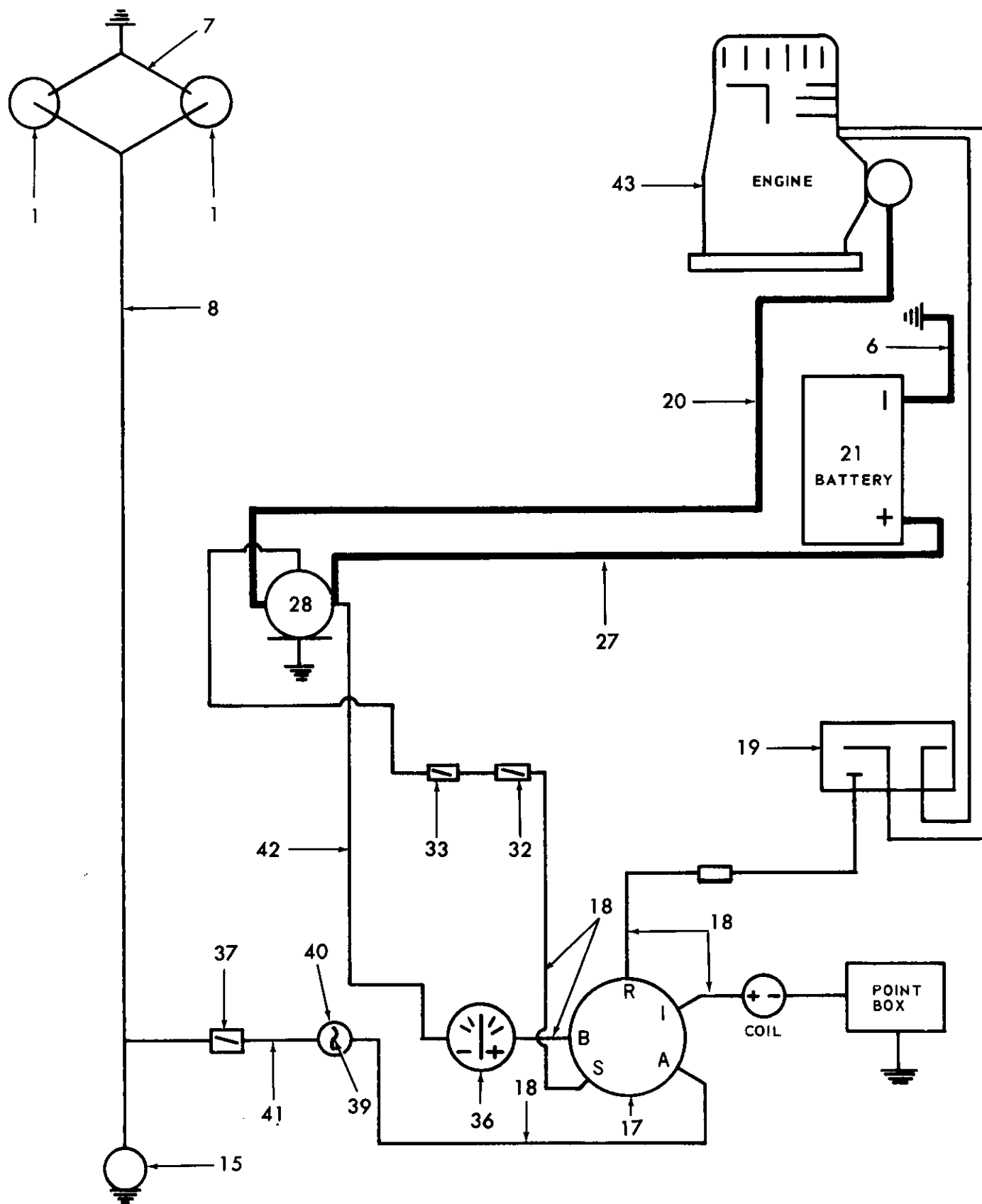
BRAKE, AND CLUTCH

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	2648R	Foot Pedal Shaft	33	9071H	Huglock Nut 1/4-28.
2	1244R	Foot Pedal Plate	34	3244P	Hex Bolt 1/4-28 x 5/8 H.T.
3	1062R	Foot Pedal	35	626A394	Parking Lock Handle Assembly
4	8765H	Foot Pedal Bracket	36	4379H	Handle Grip
5	5001P	E-Ring	37	5999H	Spring Washer
6	2202R	Brake Rod-Front	38	2221R	Parking Brake Spacer
7	2505P	Cotter Pin 1/8 x 3/4	39	634A489	Lock Bracket Assembly
8	1513P	Washer 13/32 x 13/16 x 16 Ga.	40	626A365	Brake Rod Assembly
9	634A33A	Brake Arm Assembly	41	2197R	Parking Brake Yoke
10	9858M1	Woodruff Key 3/16 x 5/8	42	1557P	Washer 13/32 x 13/16 x 11 Ga.
11	2645R	Clutch Rod	43	2253R	Spring Washer
12	2514P	Cotter Pin 1/4 x 1	44	2201R	Bushing
13	6486H	Spring	45	501P	Hex Nut 3/8-16 UNC
14	548P	Hex Jam Lock Nut 3/8-24 UNF	46	6417H	Turnbuckle
15	634A518	Idler Bracket Weldment	47	3052P	Hex Bolt 3/8-24 UNF x 1 Pltd.
16	634A86	Idler, Bolt and Nut (Inc. Key No's. 14 and 47)	48	4501P	Sq. Hd. Set Screw C.P. 5/16-18 x 1/2
17	1545P	Washer 17/32 x 1 x 16 Ga.	49	3159P	Hex Bolt 5/16-18 x 7/8
18	626A31A	Steering Arm Assembly	50	11P	Sq. Neck Carriage Bolt 1/4-20 x 5/8.
19	1520P	Washer .469 I.D. x 1-1/8 x 11 Ga.	51	3164P	Flat Hd. Machine Screw Undercut 3/8-16 x 3/4
20	3262P	Hex Bolt 7/16-14 x 2 1/2	52	2004P	Rivet, Brass Tubular #4 x 1/4
21	1518P	Washer 15/32 x 11/16 x 16 Ga.	53	3022P	Hex Bolt 3/8-16 x 7/8
22	6479H1	Belt Guide Finger	54	7810H	Gripco Centerlock Nut, 3/8-24
23	5635H	Flat Idler	55	3003P	Hex Bolt 1/4-20 UNC x 3/4
24	1001P	Lockwasher 7/16	56	1003P	Lockwasher 5/16
25	500P	Hex Nut 7/16-14	57	1002P	Lockwasher 1/4
26	9204H	Lock Nut 1/2-20 UNF	58	1004P	Lockwasher 3/8
27	6461H2	Transmission (Transaxle) Pulley	59	1685H	Locknut 5/16-18
28	2228M	Woodruff Key 3/16 x 3/4	60	503P	Hex Nut 1/4-20
29	7648H1	Brake Drum			
30	7645H	Brake Lining			
31	634A168	Brake Bracket Assembly			
32	634A167	Brake Band and Lining			

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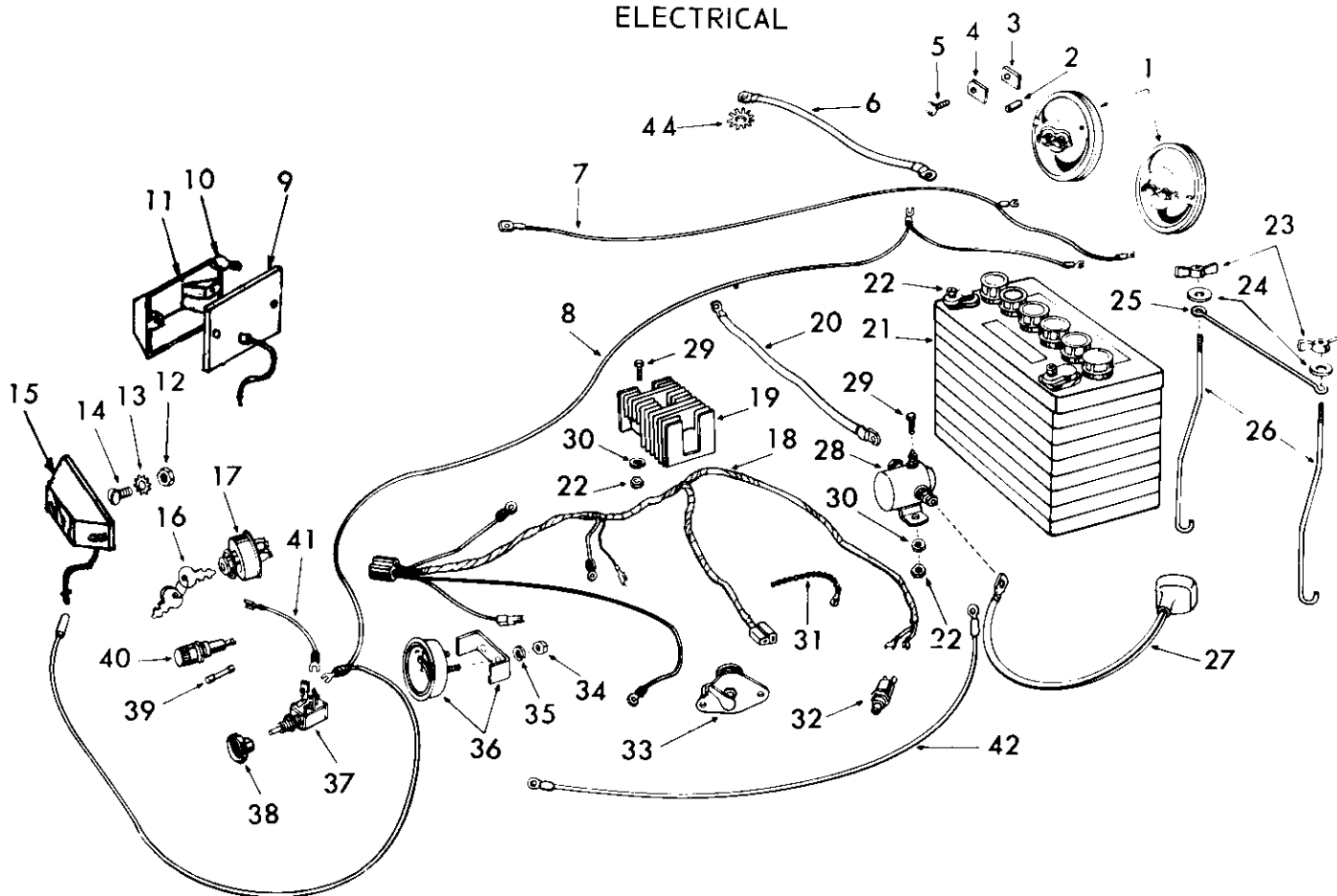
RT-16T TRACTOR--MODEL NUMBER T63241R1

WIRING DIAGRAM



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RT-16T TRACTOR--MODEL NUMBER T6324IR1 ELECTRICAL



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	7034H	Headlight	23	3748M	Wing Nut 1/4-20
2	9197H	Hose (On Grill-Headlight Locating Pins)	24	1509P	Washer 5/16 x 3/4 x 16 Ga.
3	8784H1	Rubber Spacer	25	5110H	Battery Clamp
4	8768H	Mounting Clip	26	2685R	Battery Bolt
5	5554P	Phillips Pan Hd. Thread Cutting Screw #10-16 x 1/2	27	634A490	Battery Cable & Cover (Positive to Solenoid)
6	2753R	Battery Cable (Neg. To Ground)	28	103R	Solenoid
7	2894R	Ground Wire-Headlight	29	3115P	Hex Bolt 1/4-20 x 5/8
8	3773R	Lead Wire (Light Switch To Headlight & Tail Light)	30	1002P	Lockwasher 1/4
9	3869R	Housing (Tail Light)	31	2777R	Tie
10	3867R	Bulb #1895 2 Candle Power	32	2329R	Neutral Safety Switch
11	3868R	Lens (Tail Light)	33	2249R	Safety Switch (Mower Clutch)
12	505P	Hex Mach. Screw Nut #10-24	34	543P	Hex Nut #10-32
13	1404P	External Tooth Lockwasher #10	35	1006P	Lockwasher #10
14	3073P	Slotted Truss Hd. Mach. Screw #10-24 x 1/2	36	5212R	Ammeter
15	3757R	Tail Light	37	5735H	Light Switch (Includes Item #38)
16	7552H	Key Set	38	9267H	Knob Light Switch
17	2683R	Ignition Switch (Includes Item #16)	39	2212R	Fuse
18	2687R	Ignition Wire Harness	40	2211R	Fuse Holder
19	2684R	Regulator	41	2228R	Electrical Wire (Fuse to Light Switch)
20	2226R	Battery Cable (Solenoid To Starter)	42	2688R	Electrical Wire (Solenoid to Ammeter)
21	9885H	Battery	43	BF-MS 2493B	Engine 16 H.P. (Twin Cyl.)
22	503P	Hex Nut 1/4-20	44	1402P	External Lockwasher

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TRANSAXLE



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RT-16T TRACTOR--MODEL NUMBER T63241R1 TRANSAXLE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1.	633A38	Transaxle Assembly less	38.	8118M	Needle Bearing
2.	6213H1	Brake Drum	39.	6266H	Thrust Bearing Race
3.	4869H1	Gear Shift lever straight	40.	633A14	High-Low Range Gears and Hub
4.	3010P	Gear Shift Cap	41.	6221H	3rd Reduction Gear Shaft
5.	1003P	Hex Bolt 5/16-18 x 3/4	42.	8659H	4th Reduction Pinion
6.	6254H1	Lockwasher 5/16	43.	2228M	Woodruff Key 3/16 x 3/4 H.T.
7.	6259H	Gear Shift Ball Cover	44.	633A32	3rd Reduction Shaft and Gear
8.	4924H	Shift Lever Guide Ball	45.	8119M	Needle Bearing
9.	1544P	Spring	46.	6275H	Gasket-Gearcase
10.	6273H	Washer 15/32 x 59/64 x 16 Ga.	47.	633A27	Gear Case and Bearings-L.H.
11.	1525P	Shift Mechanism Seal	48.	4002P	Pipe Plug 1/2-14 N.P.T.
12.	2505P	Washer 9/16 x 15/16 x 11 Ga.	49.	4003P	90 Street Elbow 1/2-14 N.P.T.
13.	633A19	Cotter 1/8 x 3/4	50.	9204H	Lock Nut
14.	6274H	Gear Shift Gate and Reinforcement	51.	7648H1	Brake Drum
15.	504P	Gasket-Shift Ball Cover	52.	6271H	Oil Seal
16.	1007P	Hex Nut 5/16-18	53.	4001P	Pipe Plug 1/4-18 N.P.T.
17.	6270H	Lockwasher 5/16 Extra Heavy	54.	3087P	Hex Bolt 5/16-18 x 1-1/2 Grade 5 H.T.
18.	633A28A	Oil Seal	55.	633A33	4th Reduction Shaft and Gears
19.	992R1	Gear Case, Reverse Idler Shaft and Bearings R.H.	56.	6276H	Snap Ring
20.	4910H	Sintered Iron Bearing	58.	4895H	Needle Bearing
21.	5855H	Oil Seal	59.	1370H	Thrust Bearing Race
22.	6269H	Pressure Relief Valve	60.	633A31	2nd Reduction Shaft and Gears
23.	3039R	Oil Seal	61.	633A30	Speed Change Gears and Shaft
24.	6256H	Needle Bearing	62.	633A11	Intermediate and High Speed Pinions
25.	7810H	Axle Thrust Washer	63.	6218H	Input Shaft
26.	633A34	Centerlock Gripco Nut 3/8-24	64.	6231H	Low Speed Pinion
27.	8662H	Axle Shaft and Gear	65.	4894H	Needle Bearing
28.	6252H1	Final Drive Gear	66.	7392H	Reverse Idler Thrust Washer
29.	8657H	Bushing-Differential Pinion	67.	5001P	E-Ring
30.	6263H1	Differential Pinion	68.	1153R	Reverse Idler Gear
31.	3056P	Differential Carrier	69.	6216H	Shift Fork Shaft
32.	6217H	Hex Bolt 3/8-24 x 3/4 1" Thread Length	70.	6262H	Shift Fork-R.H.
33.	6260H	High-Low Range Shift Fork Shaft	71.	4926H	Snap Ring-Crescent Type
34.	6272H	Shift Fork, High-Low Range	72.	4219R	Shift Fork-L.H.
35.	7392M	Spring-Shaft Fork Detent	73.	7395H	Thrust Bearing Race
36.	6215H	Steel Ball	74.	7396H	Thrust Bearing Race
37.	6277H	High-Low Range Shift Shaft	75.	7398H	Needle Bearing
		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

634 x 857

