1975 OWNERS MANUAL

for

A-60
ELECTRIC

FACTORY ORDER NUMBER 3-5001

ELECTRIC HORSE™

WHEEL HORSE
lawn & garden tractors

Price $1.00

Welcome to the world of the Electric Horse™!

It is part of a new world of respect for our environment. With today's concern about pollution and shortages of some fuels, we are justly proud of our new A-60 Electric Horse™. It is the result of 29 years of experience in building lawn and garden equipment.

We are confident your new Wheel Horse will serve you well. Because it is battery powered, it runs cleaner, quieter and more efficiently.

We look forward to your comments and suggestions as to how we can improve our new Electric Horse™. For your convenience we've enclosed a special postage-paid report form. Please take a minute to give us your reactions to our newest model!

Remember, we are sincerely interested in your continued satisfaction with our products.

Sincerely,
WHEEL HORSE PRODUCTS, INC.

Carl E. Pond

C. E. Pond
Chairman of the Board

FACTORY ORDER NUMBERS

Factory order numbers and serial numbers are necessary to order parts. The serial number is on a plate attached to the driver's instruction plate. Motor numbers are on each motor. The transmission number is on the transmission.

For your convenience and ready reference, enter these numbers in the spaces below:

	Factory Order Number	Serial Number
Rider	_____	_____
Traction Motor	_____	_____
Transmission	_____	_____

NEW PRODUCT REGISTRATION

Your new Wheel Horse equipment should be registered with the factory. Make sure your dealer completes all three (3) copies of the New Product Registration card and the factory copy is mailed to:

Wheel Horse Products, Inc.
515 West Ireland Road
South Bend, Indiana 46614

Retain your copy in a safe place for future reference as it contains important factory order number and serial number information.

PARTS MANUAL

A separate parts manual is available for your Wheel Horse equipment. To obtain a parts manual, enclose a check or money order for $1.00 for each manual and mail to the address above.

BE SURE TO INCLUDE THE FACTORY ORDER NUMBER AND SERIAL NUMBER OF THE EQUIPMENT.

CONTENTS

LIST OF ILLUSTRATIONS

GENERAL SAFETY SUGGESTIONS

Recommended by Outdoor Power Equipment Institute

SAFE OPERATION PRACTICES — RIDING VEHICLES

1. Know the controls and how to stop quickly — READ THE OWNER'S MANUAL.
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction.
3. Do not carry passengers. **Keep children and pets a safe distance away.**
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine (motor).
6. Disengage power to attachments and stop engine (motor) before leaving operator position.
7. Disengage power to attachment(s) and stop engine (motor) before making any repairs or adjustments.
8. Disengage power to attachments when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended; such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
    a. Use only approved drawbar hitch points.
    b. Limit loads to those you can safely control.
    c. Do not turn sharply. Use care when backing.
    d. Use counterweight(s) or wheel weights when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
16. Handle gasoline with care — it is highly flammable.
    A. Use approved gasoline container. Place container out of the reach of children.
    B. Use gasoline only as a fuel — never as a cleaner. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline. And positively **NO SMOKING.**
    C. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine (motor) indoors.
17. Keep vehicle and attachments in good operating condition and keep safety devices in place.
18. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
19. Never store equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark.
20. Allow engine to cool before storing in any enclosure.
21. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
22. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object and the damage should be repaired before restarting and operating the equipment.
23. Do not change engine governor settings or overspeed engine.
24. When using vehicle with mower:
    (1) Mow only in daylight or in good artificial light.
    (2) Never make a cutting height adjustment while engine (motor) is running if operator must dismount to do so.
    (3) Shut engine (motor) off when unclogging chute.
    (4) Check blade mounting bolts for proper tightness at frequent intervals.
25. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

⚠ CAUTION ⚠

1. KEEP ALL SHIELDS IN PLACE.
2. BEFORE LEAVING OPERATOR'S POSITION:
   A. SHIFT TRANSMISSION TO NEUTRAL
   B. SET PARKING BRAKE
   C. SHUT OFF MOTORS
   D. REMOVE IGNITION KEY.
3. KEEP PEOPLE AND PETS A SAFE DISTANCE AWAY FROM MACHINE.
4. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE.

INTRODUCING THE A-60 ELECTRIC HORSE™

The new Wheel Horse A-60 Electric Horse™ has been designed to be a positive addition to your home and its environment. Thanks to its "Electric Energy System" there are no irritating exhaust fumes. And battery power means a quieter machine, one that won't disturb the neighbors. The Electric Horse™ is dependable, because fewer parts mean fewer things to go wrong. Only minimum maintenance is required.

Please take time to read this owners manual thoroughly. It has been carefully written to allow you to operate your new Electric Horse™ with complete ease and safety. Preventive maintenance is outlined to help you keep problems from occurring.

⚠ CAUTION ⚠

This symbol marks important instructions relating to your personal safety. To avoid the possibility of injury, read and follow such instructions carefully.

When the manual refers to the left or right side of the A-60, it means your left and right when sitting in the driver's seat.

SPECIFICATIONS

Traction Motor	1 HP 36V DC, permanent magnet, 2400 RPM
Mower Motors	¾ HP 36V DC, permanent magnet
Batteries	Special Wheel Horse 12V deep cycle, 63 Amp. Hr. (1 Hr. rate)
Mower	32", two blades, 3400 RPM each
Fuse	70 Amp. metal
Battery Charger	36V DC output, 110V AC — 60HZ input
Speed Range	Gear — MPH
	1 — 2.1
	2 — 3.2
	3 — 4.4
	4 — 5.6
	5 — 6.4
	Rev. — 3.2
Wheel Base	36.75
Wheel Tread	25.5
Overall Height	43"
Overall Length	53"
Front Tire Size	11 x 4.00-5 Turf Saver
Rear Tire Size	13 x 6.50-6 Turf Saver
Cutting Height	1½ to 3½"
Net Weight	468 lbs. operational

WHEEL HORSE PRE-DELIVERY CHECKLIST

A-60 ELECTRIC HORSE™

The pre-delivery operations and checks on this list should have been performed and signed for by your dealer prior to delivery. If, for any reason, there is an indication that your rider has not been checked, make sure the following operations are performed before starting it.

The A-60 Electric Horse comes completely assembled except for the installation of the steering wheel and tube, the seat assembly, and the initial charging of the batteries. Parts to be installed are found in the separate parts box in the delivery package. These parts are:

Qty.	Description
1	Steering Wheel
1	Steering Wheel Adapter
1	Steering Tube Assembly
1	¼ x 2½ Spirol Pin
2	¼ x 1½ Spirol Pins
1	Steering Wheel Insert
1	Seat
4	5/16-18 x ⅝ Hex Bolts
4	5/16 U. S. Std. Washers
4	5/16 Lockwashers
2	Ignition Keys
1	Owners Manual
1	New Product Registration Card

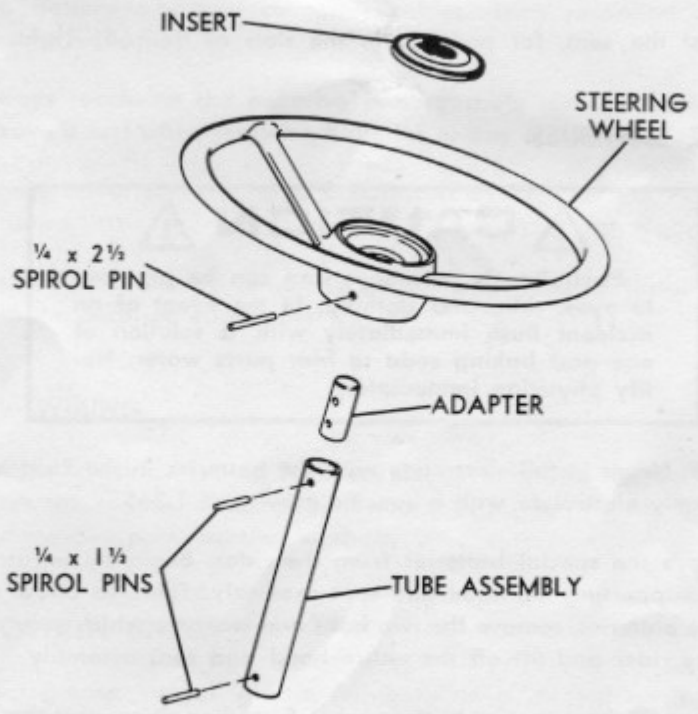

FIG. 1. Steering Wheel Installation

☐ INSTALL STEERING WHEEL

1. Install steering tube assembly over steering shaft, securing it with a ¼ x 1½ spirol pin.
2. Install steering wheel adapter on steering tube assembly, securing it with a ¼ x 1½ spirol pin.
3. Install the steering wheel, lining up the hole in the wheel hub with the hole in the steering wheel adapter.
4. Secure the steering wheel with the ¼ x 2½ spirol pin, centering the pin in the wheel hub so it is the same distance from each end of the hole.
5. Install the steering wheel insert so the Wheel Horse emblem is right side up when the front wheels point straight ahead.

☐ INSTALL SEAT

1. Raise the hood. Install the four 5/16 bolts, washers and lockwashers through the holes provided and on into the seat.

FIG. 2. Seat Installation

2. Adjust the seat, for position, in the slots as desired. Tighten all four bolts.

☐ SERVICE BATTERIES

⚠ CAUTION ⚠

Electrolyte is poisonous and can be injurious to eyes, skin, and clothing. In the event of an accident flush immediately with a solution of one part baking soda to four parts water. Notify physician immediately.

1. **NOTE:** Never install electrolyte with the batteries in the Electric Horse™. Use only electrolyte with a specific gravity of 1.265.

2. Remove the special batteries from the rider. Begin by unfastening the cord supporting the hood and seat assembly. Then, to allow full access to the batteries, remove the two bolts and washers which secure the hood to the rider and lift off the entire hood and seat assembly.

   Disconnect the negative battery cable first, then disconnect the remaining battery cables. (**Note the position of all cables.**) See Fig. 2A.

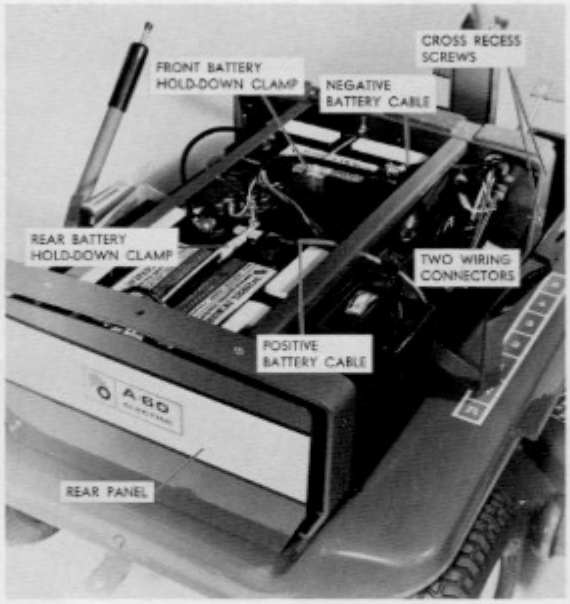

FIG. 2A. Battery Removal Operations

Remove the three bolts underneath the rear panel of the unit and remove the rear panel and battery hold-down clamp. Note that the center bolt is longer to allow it to go through the hitch. Slide the two rear batteries out the back of the rider. Next, unplug the wiring connectors from both the traction motor switch and the mower blade switch. Remove the two cross recess screws from each side of the front panel and remove the panel and battery hold-down clamp. Slide the forward battery out of the rider.

3. Remove battery caps and fill each cell until the electrolyte is to the bottom of the split ring. **DO NOT OVERFILL.** Replace the caps.

4. Reinstall batteries in their original positions in the rider. Replace the two battery-to-battery connector cables. Then reconnect the positive battery cable.

5. **Always reconnect the negative battery cable (ground cable) last, and remove it first when servicing batteries or any other electrical component.**

6. Charge batteries, refering to **ELECTRICAL SYSTEM** section, "Charging the Batteries."

7. Register batteries by removing month and year of installation circles from the decal on each battery.

☐ CHECK WIRING

1. Visually check all wiring for loose connections and tighten as required. Check the routing of all wires to make sure they will not interfere with any moving part, causing a short.

☐ LUBRICATION CHECK

1. Inject grease into all grease fittings. One is located on the idler arm (see Fig. 18), two on the front steering sector (see photo), and one on each front wheel.

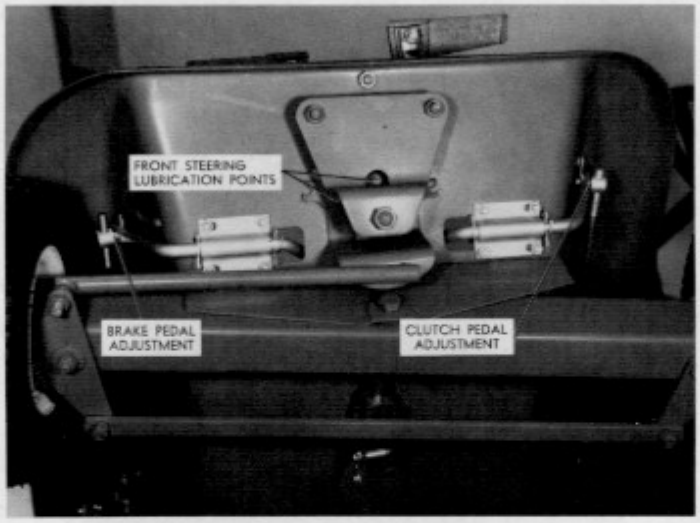

FIG. 3. Steering Lubrication

☐ **CHECK MOWER**

1. Make sure mower hanger links are in place and secured with both bolts and hairpin cotters.
2. Make sure blade motor wiring connectors are plugged together securely and wiring is free from moving parts.
3. Check blade bolts for proper torque (35 ft./lbs.).

☐ **CHECK DRIVE BELT**

1. Be sure belt is in proper place and belt guides are properly located. (Fig. 18).

☐ **CHECK CHAIN TENSION** (See Fig. 17.)

☐ **CHECK CLUTCH OPERATION AND TRANSMISSION SHIFTING**

☐ **CHECK TIRE INFLATION**

1. All tires have been overinflated for shipping. Reduce the pressure in all four tires to 12 PSI.

Work performed on _____
Date

Dealer signature _____
Authorized Wheel Horse Dealer

⚠ CAUTION ⚠

The preceding section covering pre-delivery inspection should have been completed by a Wheel Horse dealer. Failure to complete the pre-delivery inspection on your new Wheel Horse A-60 Electric Horse™ prior to its first use may affect the warranty.

FAMILIARIZE YOURSELF WITH THE INSTRUMENTS AND CONTROLS AS SHOWN BELOW:

FIG. 4. Major Instruments and Controls

READ CAREFULLY FOR DETAILED OPERATING PROCEDURE:

CLUTCH PEDAL (Figure 5)

The clutch pedal is located on the left side. Pushing down on the clutch pedal declutches the traction drive belt, disconnecting the traction motor from the transmission. Engaging the clutch is accomplished by releasing the pedal which, in turn, tightens the drive belt. **CAUTION: Always release the pedal slowly when engaging the clutch. Always depress the pedal when shifting the transmission.**

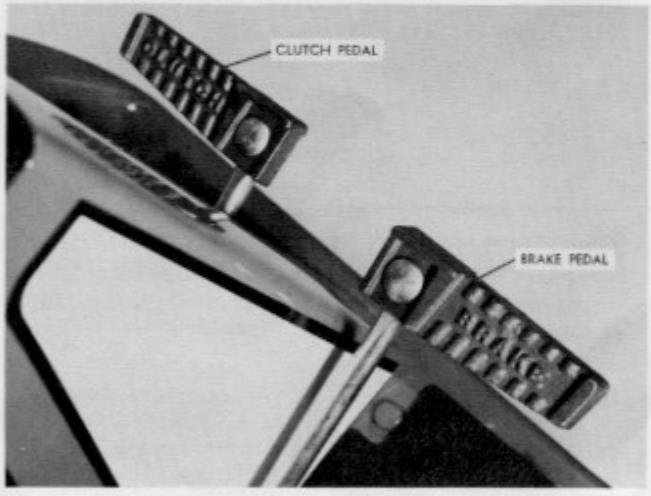

FIG. 5. Clutch Pedal & Brake Pedal

BRAKE PEDAL (Figure 5)

The brake pedal is located on the right side. Pushing down on the pedal applies the brake. **CAUTION: Never depress brake pedal without first depressing clutch pedal. If the clutch pedal is not depressed severe brake wear may occur and battery energy will be wasted.**

PARKING BRAKE LEVER (Figure 6)

The parking brake lever is located to the right of the seat in front of the gear shift lever. To engage the parking brake, first apply the foot brake solidly and then move the parking brake lever back to lock the brake in the **"ON"** position. **CAUTION: Engage the parking brake every time you stop or park the rider.**

To release the parking brake, push down on the foot brake pedal. Since it is spring-loaded, the parking brake automatically returns to the disengaged position when the foot brake is applied.

FIG. 6. Parking Brake Lever & Gear Shift Lever

MOWER LIFT AND HEIGHT CONTROL (Figure 7)

The mower lift and height control is located on the left side of the rider. To regulate mowing height, move the control rod to the notch on the quadrant corresponding to the desired cutting height. The recommended cutting height is two to three inches.

⚠ CAUTION ⚠

When moving the rider from place to place always raise the mower to its highest cutting height position and place mower switch in the "OFF" position.

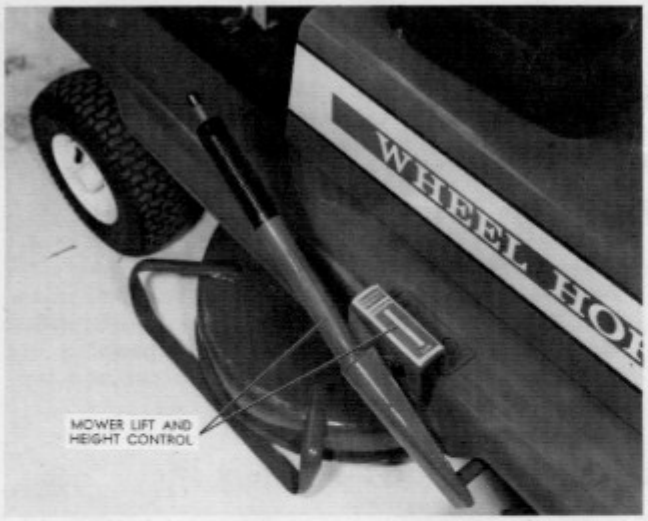

FIG. 7. Mower Lift & Height Control

⚠ CAUTION ⚠

Never adjust the mower height when the mower is running. For complete safety, turn all motors "OFF" and remove the key before adjusting mower height.

MAIN KEY SWITCH (Figure 8)

The main key switch controls the traction motor which moves the A-60. This switch is located on the instrument panel, and has three positions — **OFF, RUN,** and **START.**

To start the motor, turn the key clockwise. Release the key when the motor starts and it will automatically return to the **RUN** position. Turn the key counter-clockwise to shut the motor off.

⚠ CAUTION ⚠

Always take the key with you when leaving the rider unattended, even for a few minutes. Don't give children or unauthorized persons an opportunity to operate the machine.

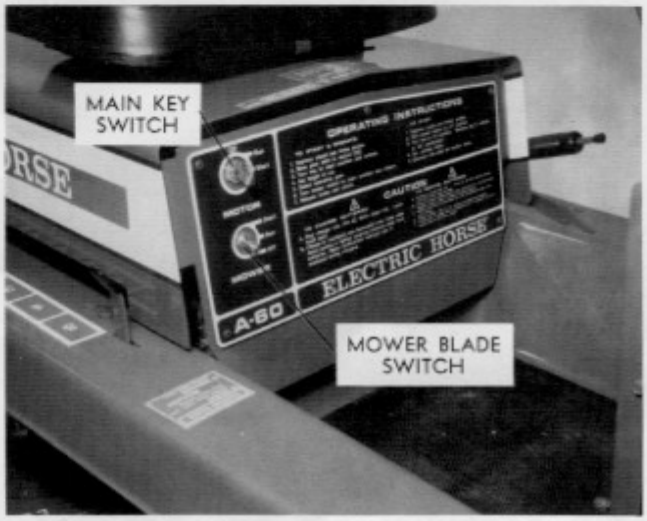

FIG. 8. Instrument Panel

MOWER BLADE SWITCH (Figure 8)

Both mower blade motors are controlled by the mower blade 3 position toggle switch, **OFF, RUN,** and **START.** To operate, move the toggle up to the **START** position. After motors start, release the toggle to the **RUN** position. To stop the mower blades, push toggle down to **OFF** position. **THE MOWER BLADE MOTORS WILL NOT OPERATE UNLESS THE TRACTION MOTOR IS RUNNING.**

GEAR SHIFT LEVER (Figure 6)

The gear shift lever has five forward speeds and one speed in reverse. Shifting into reverse requires a slight lifting of the shift lever. The clutch pedal must be depressed when shifting into reverse and all forward speeds.

CAUTION: Changing forward speeds may be accomplished without stopping providing the clutch is depressed when moving the shift lever.

The length of operating time you can obtain from your rider depends on the amount of power in its batteries. The harder the A-60 works the more power it requires. By using proper speeds you can get maximum performance from the Electric Horse™.

For best cutting results using a minimum of power, third gear is recommended for average lawns in average condition. Second gear may prove more satisfactory in heavy grass or damp cutting conditions.

CHARGER (Figure 9)

The function of the charger is to replenish the batteries, which supply the "fuel" used in the Electric Horse™ - electricity. The charger case is located under the hood of the rider. It contains the charger itself, the charger switch, and an ammeter. To charge the batteries, refer to the **ELECTRICAL SYSTEM** section, "Charging the Batteries."

SAFETY START SYSTEM

The safety start system incorporates a switch operated by the gear shift lever. If the traction motor will not start, make sure the gear shift lever is in the neutral position, so the safety switch is activated by the lever. If the switch is not making contact the motor will not start.

ELECTRICAL SYSTEM

The A-60 Electric Horse™ gets its power from its "Electrical Energy System." The bank of three special Wheel Horse batteries supplies power to both the traction drive motor which moves the rider, and both mower blade motors. To "refuel" the Electric Horse™ the batteries must be recharged.

AMMETER (Figure 9)

When charging the batteries the charge indicator will move to the right indicating the battery charge rate. As the batteries regain their charge the indicator will gradually return to the finish position. When the indicator reaches the green area the batteries have regained approximately 80% of their capacity.

CHARGING THE BATTERIES (Figure 9)

1. Lift rider hood exposing charger box and cord.
2. Unwind charger cord (Figure 9) and plug it into a standard 115 volt grounded outlet.

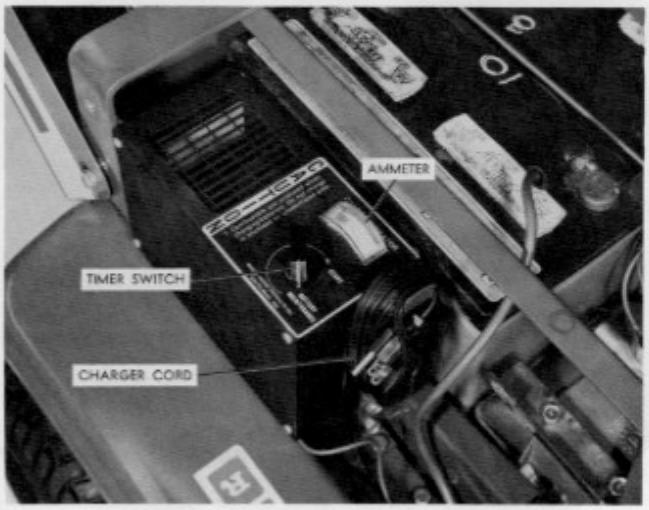

FIG. 9. Charger Control & Cord

⚠ CAUTION ⚠

During the charging process hydrogen gas is formed. Always keep the hood raised and charge batteries only in well-ventilated areas. Do not charge near flames. Do not smoke near the A-60 during the charging process.

⚠ CAUTION ⚠

1. **Check to see if your 115 volt outlet is a grounded type (Figure 10A).**
2. **Or, as an alternate, you may use an adapter if your electrical outlet is properly grounded (Figure 10B).**

If in doubt — consult a qualified electrician.

CAUTION: Use of an improperly grounded outlet could result in electric shock.

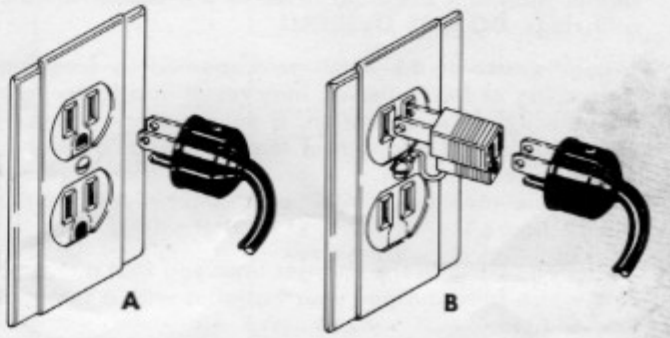

FIG. 10. Approved Electrical Outlets — Standard Grounded & Adapter Ground

3. Turn the timer switch clockwise to the "START" position to give the batteries a full 12-hour charge. At the end of 12 hours the charger will maintain a trickle charge to keep the batteries at full power.

IMPORTANT!

Whenever the rider is used for 15 minutes or longer, place the charger on the full 12-hour charge. For optimum battery life always leave the charger plugged in when the A-60 is not in use. The trickle charge will maintain the batteries' strength all winter, if necessary, without harming them. Failure to leave the charger plugged in is harmful to the life of the batteries.

⚠ CAUTION ⚠

When ready to use the Electric Horse™, check to see if the timer is still running. If the timer is running, turn the dial counterclockwise to the "Battery Maintenance" position before unplugging the charger.

Unplug the charger cord, wind it around the bracket, and close the rider hood.

SERVICING THE BATTERIES

⚠ CAUTION ⚠

When servicing the batteries or any other part of the electrical system, or if the batteries must be removed for any reason, remove personal metal objects: rings, bracelets, etc., and always disconnect the negative (ground) battery cable FIRST and reconnect it LAST to avoid the possibility of electric shock.

Since the batteries provide the fuel for your Electric Horse™, special attention should be given when servicing them. Check the battery fluid level regularly, preferably prior to each use. Once the batteries have been used, add only water. Distilled water is recommended. **Do not add acid.** City tap water, if it is of low to average mineral content, is an acceptable substitute. Maintain the fluid level to the bottom of the split rings. **DO NOT OVERFILL!**

Regular use of the A-60, accompanied by frequent recharging of the batteries, may result in a faster rate of battery fluid evaporation. If your batteries consistently require the addition of large amounts of water, place the charger on a 9 or 10 hour charge (¾ of the way toward the "START" position), rather than the full 12 hours.

Experiment with the charger until you find a charge rate which fully charges your batteries with a minimal loss of fluid.

⚠ CAUTION ⚠

Electrolyte and battery fluid are poisonous and can be injurious to eyes, skin, and clothing. In the event of an accident, flush immediately with a solution of one part baking soda to four parts of water. Notify physician immediately.

WARNING!

Only special Wheel Horse batteries may be used as replacements. Failure to follow this warning may negate the battery warranty.

CIRCUIT BREAKERS

For safety purposes the A-60 Electric Horse™ employs two circuit breakers, one on each mower blade motor. If either blade strikes an object or obstruction, the circuit breaker shuts both blade motors off.

To reset the circuit breaker, turn the mower blade motor switch off, turn the main key switch off, remove the key, dismount and remove the obstruction. Restart the rider and mower blades, and continue mowing.

THERMAL OVERLOAD

To prevent damage to the traction motor, a thermal overload switch will shut the rider off if it becomes overheated. The motor must be allowed to cool about 10 to 20 minutes to reset this switch. After it has cooled, restart the rider and mower blade motors and continue mowing.

FUSE (Figures 11 & 12)

There is only one fuse in the A-60. It is a 70 amp main circuit fuse and is located on the right side of the rider under the wiring cover. If it should blow, carefully check all wiring for worn or damaged areas which could be causing a short. Then replace the fuse with Wheel Horse Part No. 104866 or Buss #LKN-70. Push the release button and twist ½ turn to remove wiring cover.

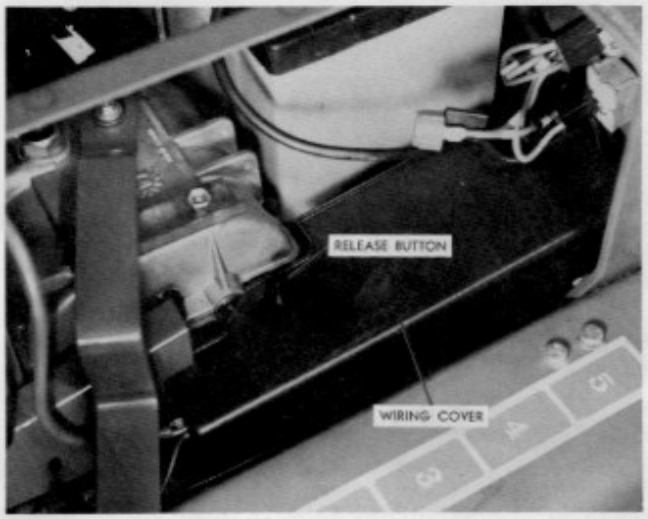

FIG. 11. Wiring Cover Location

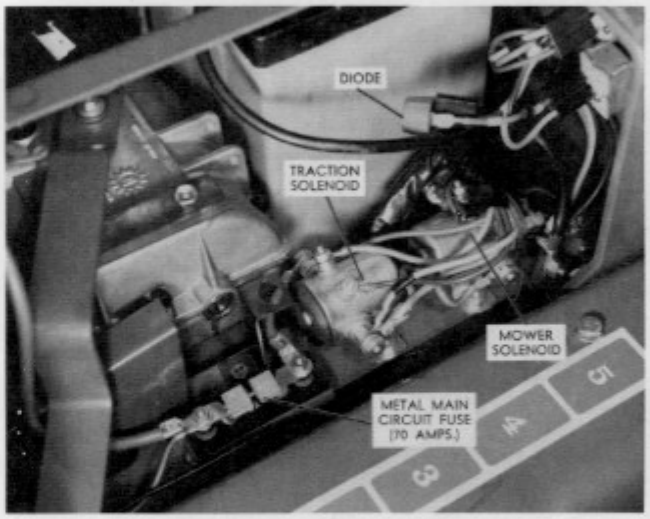

FIG. 12. Beneath the Wiring Cover

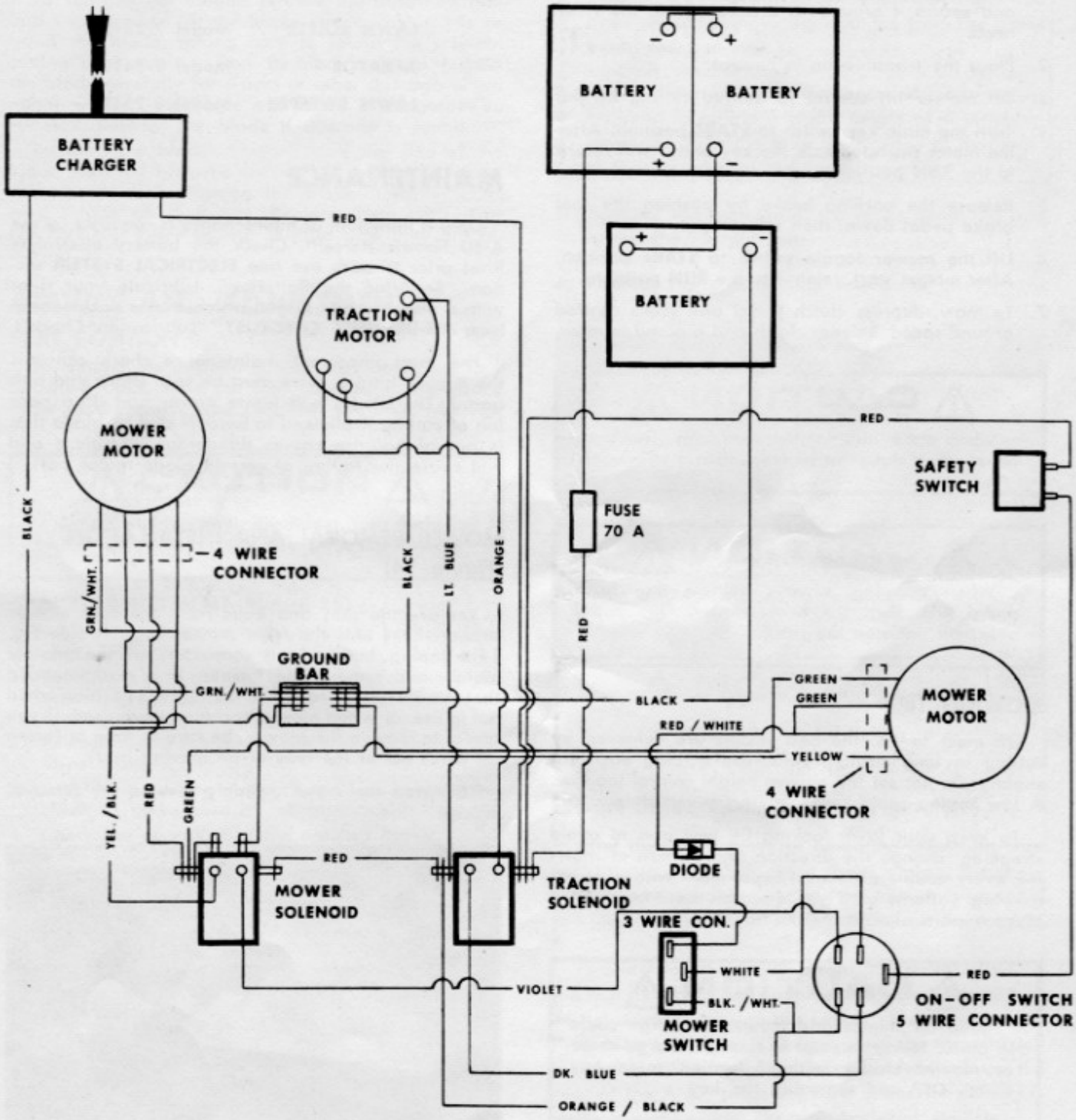

FIG. 13. Wiring Diagram

STARTING AND OPERATION

1. **CAUTION: When ready to use the Electric Horse™, check to see if the timer is still running. If the timer is running, turn the dial counter-clockwise to the "Battery Maintenance" position before unplugging the charger.** Unplug the charger cord and secure it around its bracket. Close the rider hood.
2. Place the transmission in neutral.
3. Set mower lift control to desired cutting height.
4. Turn the main key switch to **START** position. After the motor starts, release the key and it will return to the **RUN** position.
5. Release the parking brake by pushing the foot brake pedal down, then releasing it.
6. Lift the mower toggle switch to **START** position. After motors start, release to the **RUN** position.
7. To mow, depress clutch pedal and select desired ground speed. Release clutch and proceed to mow.

⚠ CAUTION ⚠

Climb steep hills in first gear only. Don't attempt steep climbs at high speeds.

⚠ CAUTION ⚠

When stopping, always depress the clutch pedal first, then the brake pedal. One pedal only will not stop the rider.

MOWING TIPS

On most lawns, the best results are achieved by cutting in long straight runs, overlapping each cut slightly. Do not set the mower height control too low. A low setting could result in an uneven choppy cut.

To keep your lawn looking its best and to avoid streaking, change the direction and pattern of mowing every couple of weeks. Experiment with different mowing patterns until you discover those best suited to your particular lawn and its landscaping.

⚠ CAUTION ⚠

Keep all shields and mower discharge chute in place. Never attempt to clear discharge chute or mower blades without turning main key switch OFF and removing the key.

If, while mowing, the rider begins to lose power and speed, the batteries are approaching the discharged state. Turn all motors and switches off, remove the key, and wait 10 to 15 minutes. This will enable the batteries to build up sufficient power to return the rider to an electrical outlet for recharging.

ATTACHMENT CAPABILITIES

The A-60 Electric Horse™ can safely tow loads up to 250 pounds. The following attachments are available to increase the usefulness of your new rider.

DUMP TRAILER	Model 7-2212
LAWN ROLLER	Model 7-2312
AERATOR	Model 7-2412
LAWN SWEEPER	Model 7-2513

MAINTENANCE

Only a minimum of maintenance is required by the A-60 Electric Horse™. Check the battery electrolyte level prior to each use (see **ELECTRICAL SYSTEM** section, "Servicing the Batteries"). Lubricate your rider with a pressure grease gun at least once each season (see **PRE-DELIVERY CHECKLIST,** "Lubrication Check").

The most important maintenance check concerns the mower blades. They must be kept sharp and balanced. The blades will waste power and do a poor job of cutting if allowed to become dull. A blade that is out of balance causes dangerous vibrations and will cause the failure of certain blade motor parts.

MOWER REMOVAL AND INSTALLATION (Figure 14)

Remove the pins and bolts from the four mower support links and the front mower support (see Fig. 14). Unplug both wiring connectors at the mower motors and remove the mower. It is recommended that the mower be raised to the highest position when not in use, or when other attachments are used. If you prefer to remove the mower, **be sure to tape or fasten all wires out of the way of all moving parts.**

To install the mower, simply reverse the removal process.

FIG. 14. Mower Supports

⚠ CAUTION ⚠

Turn main key switch OFF and remove key from switch before touching blades.

To sharpen the blades, remove the attaching bolt and washer, and lift the blade off the motor. File or grind the blade, taking care to retain the original cutting edge angle as well as blade balance. Inspect the blade carefully for cracks or other damage which might weaken the blade and make it dangerous to reinstall. Replace the blade if damage is found.

Reinstall the blades, making sure the side of the blade with the lift area (turned up section) is facing the mower deck. Tighten the blade-attaching bolts to a torque of 35 ft./lbs. Replace these bolts, Part No. 908046, every second or third time they are removed.

SERVICE AND ADJUSTMENTS

SEAT POSITION

To change the position of the seat, loosen the four attaching bolts, slide the seat forward or backward to its new position, and retighten the bolts (see Fig. 2).

⚠ CAUTION ⚠

Before making any adjustment, turn main key switch OFF and remove key from the switch.

BRAKE ADJUSTMENT (Figure 15)

The brake adjustment is made at the brake caliper (see Fig. 15).

1. Loosen the lock nut and adjust the brake with the adjusting nut so that it becomes tight when the brake pedal is pushed down 1½".
2. Release the brake and make sure the brake disc turns freely.
3. Lock the adjusting nut with the lock nut and recheck to make sure of the adjustment.
4. Check the operation of the parking brake.

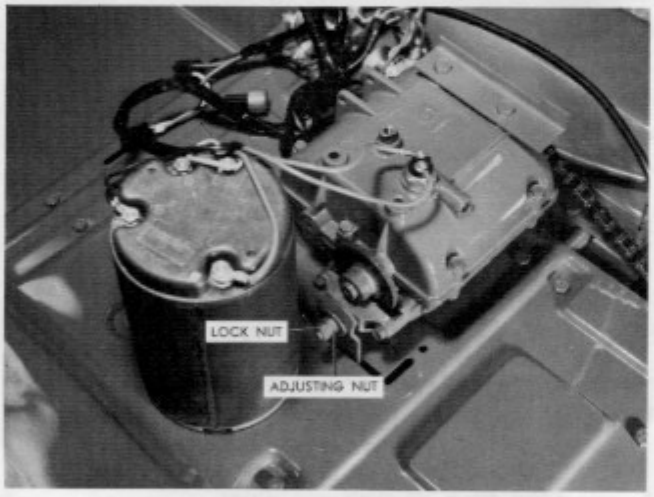

FIG. 15. Brake Adjustment

BRAKE PEDAL HEIGHT ADJUSTMENT (Figure 16)

Adjust the pedal height as follows:

1. Remove the hairpin cotter from the brake rod trunnion and remove the trunnion from the brake pedal rod (see Fig. 3).
2. Adjust the trunnion on the threaded brake rod as required to obtain a pedal height of 4 inches as measured from the front lower edge of the pedal to the top edge of the body (see photo).
3. Reinstall the trunnion in the brake pedal rod and install the hairpin cotter.
4. Recheck the operation of the brake.

FIG. 16. Pedal Height

CHAIN DRIVE ADJUSTMENT (Figure 17)

After the first 5 hours of operating time, and once each month after that, check chain tension. The chain should be reasonably tight, but not taut. A loose chain can jump the sprocket. Too tight a chain will wear out.

To allow for chain adjustment, the holes on which the rear axle bearings are mounted have been slotted. To adjust chain tension the axle can be moved using these slots (see figure 17). First place the transmission in neutral. Block the front wheels, then jack up the rear of the A-60; place supports under the three adjustment slot brackets. **Remove both rear wheels.**

Loosen the nuts which secure the bearing housings. Move the axle an equal amount on each side to take the slack out of the chain. **Be sure the axle remains perpendicular to the frame.** After the adjustment has been made, retighten all nuts to 35 ft. lbs.

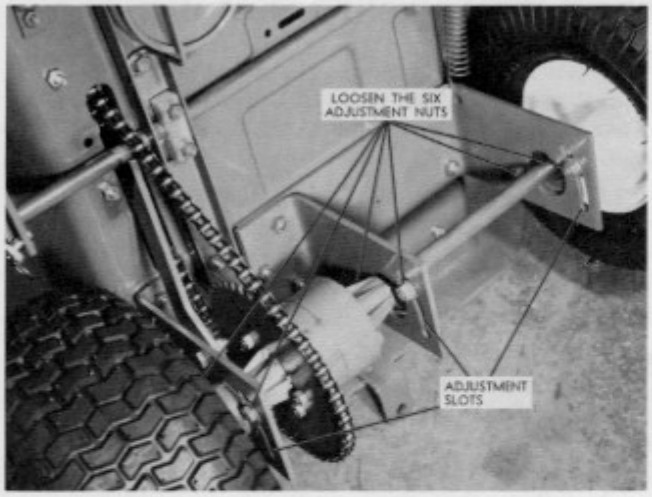

FIG. 17. Chain Adjustment

CLUTCH PEDAL HEIGHT ADJUSTMENT

Adjust the pedal as follows:

1. Loosen the trunnion adjustment lock nut on the clutch rod (see Fig. 3).
2. Remove the hairpin cotter and washer from the clutch rod trunnion and remove the trunnion from the clutch pedal rod.
3. Adjust the trunnion on the threaded clutch rod, as required, to obtain a pedal height of 4 inches as measured from the front lower edge of the pedal to the top edge of the body (see Fig. 16).
4. Reinstall the trunnion on the clutch pedal rod and install the washer and hairpin cotter.
5. Tighten the lock nut on the threaded rod against the trunnion.

BELT REPLACEMENT

To replace the traction motor belt, first loosen the belt guides (see Fig. 18). Then, while depressing the clutch pedal, remove the old belt and install the new one. Upon release of the clutch pedal a spring-loaded device will seat the belt. Retighten the belt guides.

NOTE: Always use genuine Wheel Horse belts for replacement purposes. These belts are specifically designed for each individual application.

MOWER ADJUSTMENTS (Figure 19)

For efficient mowing the mower should be checked at the time of initial use and periodically thereafter to make sure a level alignment has been maintained. To adjust the mower level:

1. Place the A-60 on a level floor and put the lift control in a middle height position. Locate level adjustment above the left side of the mower.
2. Remove the hairpin cotter from the adjusting trunnion (Fig. 19). Move the trunnion back on the rod to lift the front of the mower, or forward on the rod to lower it. Adjust the trunnion as required so the mower blades are slightly lower at the front than at the rear.
3. To check, measure the distance from the blade tip to the floor with the blade at the front, then turn the same blade tip to the rear and measure again. The best leveling is achieved by having the front measure about $\frac{1}{8}$" lower than the rear.

If the mower interferes with the rider wheels during sharp turns, a positioning adjustment may be required. If the interference involves the front wheels, the mower must be positioned farther to the rear. If the rear wheels are involved, the mower must be moved forward.

To adjust the mower positioning, remove the clevis pin securing the mower deck to the adjusting bolt and bracket located at the front of the mower between the two front support links. Thread the bolt in or out of the trunnion to position the mower. Take care not to move the mower too far in the opposite direction.

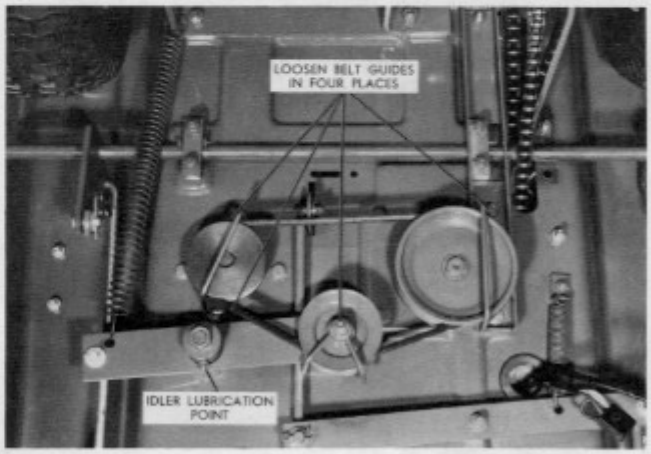

FIG. 18. Belt Guides and Idler Lubrication

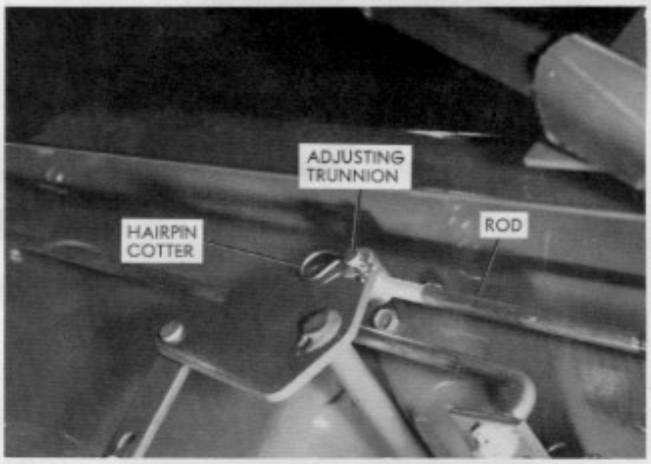

FIG. 19. Mower Level Adjustment

STORAGE

THE ONLY PROVISIONS REQUIRED FOR PROLONGED STORAGE ARE THAT THE CHARGER REMAIN ON, THE HOOD BE LEFT UP, AND PERIODIC CHECKS BE MADE TO MAINTAIN THE BATTERY ELECTROLYTE FLUID AT FULL LEVEL. IF FLUID LEVEL IS LOW, ADD WATER, AS INSTRUCTED IN ELECTRICAL SYSTEM SECTION, "SERVICING THE BATTERIES".

CAUTION

Make certain that the storage area, like any charging area, is well ventilated.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Traction motor does not start	Transmission not in neutral	Place transmission in neutral
	Defective key switch	Test switch — replace
	Wiring disconnected	Check wiring — repair or replace
	Defective transmission neutral safety switch	Test switch — replace
	Blown 70 Amp. fuse	Check for cause and replace fuse
	Dead batteries	Check and charge batteries
	Traction motor circuit defective	Check wiring and connections on solenoid, switches and traction motor
	Traction motor defective	Check and repair motor as required
	Traction motor thermal switch open due to overheating	Let motor cool. Thermal switch will close after cooling — may take 10 to 20 minutes
Traction motor starts but stops when key is released to run position	Defective key switch	Replace key switch
Blade motors do not start	Traction motor not running	Refer to **Traction motor does not start** problem
	Loose wire connections	Check and tighten connections
	Motor circuit breakers open	Will reset automatically
	Blade motor circuit defective	Check wiring and connections on solenoid, switches and blade motor
Blade motors start but stop when released to run position	Defective blade motor switch	Test and replace switch as required
	Defective diode	Test and replace diode as required
Only one blade motor runs	Wiring or connectors to non-running motor disconnected	Check wiring and connectors
Unit will not move in either direction — traction motor runs OK	Broken or loose drive belt	Adjust or replace belt as required
	Drive chain broken or off sprocket	Adjust or replace chain as required
	Faulty transmission, differential, axles or axle keys	Check and repair as required
Unit will not move in one direction — moves OK in opposite direction	Faulty transmission	Check and repair as required
Dead batteries	Defective charger	Check and repair or replace as required
	No current reaching charger	Check AC cord and current source
	Defective battery	Check and replace as required
Uneven mowing	Mower not hanging evenly	Check and correct as required
	Uneven tire pressure	Even up tire pressure
	Ground speed too fast	Shift transmission to lower speed
Uncut grass	Dull mower blades	Sharpen or renew blades
	Blades too short	Renew blades
	Ground speed too fast	Shift transmission to lower speed

1975 NEW PRODUCT WARRANTY

"Wheel Horse Products, Inc. warrants that it will replace without charge any part supplied as an original equipment component of any 1975 or later model garden tractor, lawn tractor, riding mower or serialized attachment, carrying the brand name "Wheel Horse", which proves to be defective due to faulty workmanship or material in manufacture for one year (365 days) after purchase by the original owner. The exceptions are: "Wheel Horse" brand batteries which are covered by a separate Battery Warranty. Engines and Peerless Transmissions are covered by their respective manufacturers under their own separate warranty policies.

All service work must be performed by an Authorized Wheel Horse dealer. Transporting the unit to and from the servicing dealer and any state and local taxes are the responsibility of the owner.

The foregoing warranty states the entire obligation of Wheel Horse Products, Inc. and is in lieu of all other warranties whether expressed or implied."

1975 BATTERY WARRANTY ON ELECTRIC HORSE™ RIDING MOWERS

"Wheel Horse Products, Inc. warrants that it will replace without charge any "Wheel Horse" brand battery installed as original equipment in any 1975 or later Wheel Horse "Electric Horse" riding mower which proves to be defective due to faulty workmanship or material in manufacture within one year (365 days) after purchase of the "Electric Horse" riding mower by the original owner.

After 12 months (365 days) but within 36 months (1095 days) the battery will be replaced upon payment of a Pro Rata usage charge equal to one-thirty-seventh (1/37) of the factory suggested list price for such battery at the time of replacement for each month (30 days) or substantial portion thereof which has elapsed between the date of the original purchase of the "Electric Horse" riding mower and the date of the battery replacement.

Transporting the battery to and from the servicing dealer and any other state and local taxes are the responsibility of the owner.

The foregoing warranty states the entire obligation of Wheel Horse Products, Inc. and is in lieu of all other warranties whether expressed or implied."

PROCEDURE TO OBTAIN SERVICE UNDER YOUR WHEEL HORSE WARRANTY

1. Contact your Authorized Wheel Horse dealer from whom you purchased your equipment.
2. Or, contact *any* Authorized Wheel Horse dealer if for some reason it is impractical for you to contact the dealer from whom you purchased your equipment. If you do not know his name check the yellow pages of your local telephone book under "Lawn Mowers".
3. The engine in your new Wheel Horse is warranted separately by its manufacturer. In most cases, your Authorized Wheel Horse dealer will also be an Authorized Service Dealer for the engine in your new Wheel Horse tractor or riding mower.

   If he is not, check the yellow pages of your local telephone book under "Engines - Gasoline" for the name of the engine manufacturer's service dealer nearest you.
4. If you need further assistance on an *engine related* problem, you should contact the Service Department of the respective manufacturer of the engine, as shown below:

   Kohler Engine Company
   Kohler, Wisconsin 53044
   (414) 457-4441

   Tecumseh Power Products Company
   Lauson-Power Products Division
   Grafton, Wisconsin 53024
   (414) 377-2700

   Briggs & Stratton Engine Company
   Milwaukee, Wisconsin 53201
   (414) 461-1212
5. Peerless transmissions are the responsibility of Tecumseh Power Products Company and any assistance, if required, should be referred to them, as listed in paragraph 4.
6. If you still are unable to get a tractor or engine warranty problem solved, please write to "Customer Service Department" Wheel Horse Products, Inc., 515 West Ireland Road, South Bend, Indiana 46614, giving the following information:
   A. Model and serial number of your tractor, riding mower and/or engine.
   B. Original purchase date.
   C. Dealer from whom you purchased the unit.
   D. Your name, address and telephone number.
   E. Describe your problem as completely as possible.

You will be contacted promptly.

Wheel Horse has been matching lawn and garden needs since 1946.

PERFORMANCE

Thousands of owners each year can attest to our determination to fit the right tractor to the job. We've been building lawn and garden equipment for 29 years. That's why Wheel Horse has grown from a backyard garage shop to a large, modern manufacturing facility. Automated assembly procedures, tight quality control and demanding inspections carry on the uniform quality that began back in 1946.

ENGINEERING

Quality tractors require innovative engineering. Examples are our patented Uni-drive transmission — a cast iron encased unit with heavy-duty parts throughout or our manual attachment clutch that is easily serviced or repaired. All products are engineered for minimum maintenance. We're confident you'll enjoy many trouble-free hours of service with your Wheel Horse tractor.

DEALER SALES AND SERVICE

Rounding out Wheel Horse dependability is a nationwide network of dealers who sell and service our tractors. Should your Wheel Horse need service some day, your authorized Wheel Horse dealer is specially trained to do the job. He stocks genuine Wheel Horse parts and attachments to meet your exacting needs. You'll find him listed in the yellow pages under "Lawn Mowers."

"I've Got a Horse" decals are yours free, just for sending a self-addressed stamped envelope to:

DECALS — WHEEL HORSE PRODUCTS, INC.
515 WEST IRELAND ROAD • SOUTH BEND, INDIANA 46614

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