

# Owner's Operating Service Instruction Manual

10¢

Model No.  
134-585A

- ASSEMBLY
- OPERATION
- REPAIR PARTS

## 38" ELECTRIC RIDER

### WARRANTY

For one year from date of purchase, MTD Products Inc will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units, refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. **UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.**

# IMPORTANT

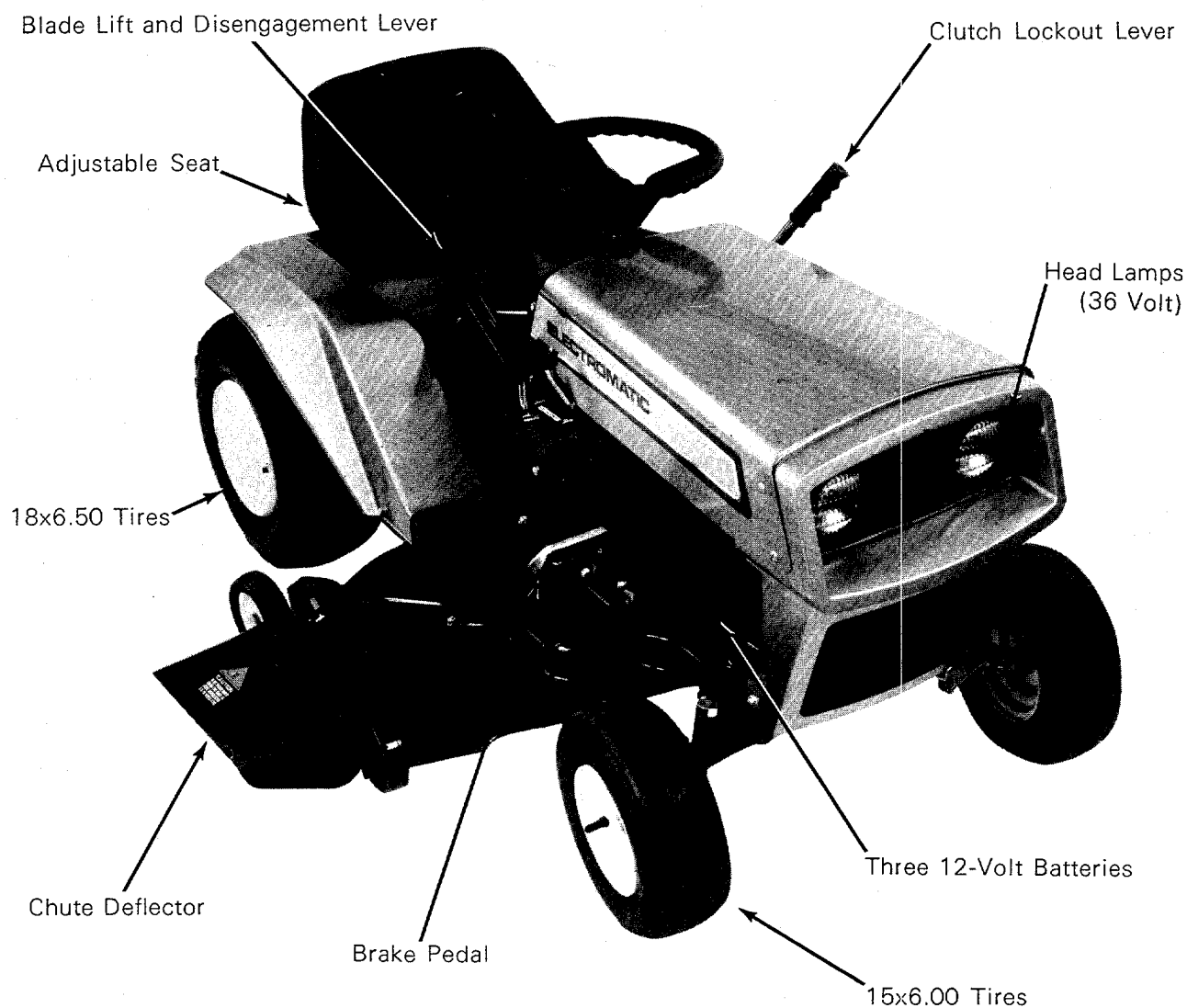
## SAFE OPERATION PRACTICES FOR ELECTRIC RIDER

- 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 instructions.
- 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 Place the clutch lockout in the disengaged position and shift into neutral before attempting to start the drive motor.
- 6 Stop motors before leaving operator position.
- 7 Stop motors before making any repairs or adjustments.
- 8 Disengage power by turning off switch when transporting or not in use.
- 9 Take all possible precautions when leaving vehicle unattended such as shifting into neutral, setting parking brake, stopping cutting deck blades, drive motor and removing key.
- 10 Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes, at a slow forward speed, 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. safely control and to limit current draw of drive motor.
  - 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.
- 14 Watch for traffic when crossing or near roadways.
- 15 When mowing, be careful not to direct discharge from mower toward bystanders. Do not allow anyone near vehicle while in operation.
- 16 The gasses produced while the batteries are being charged are highly combustible. Never use a match or any open flame to check the water level in the battery.
- 17 Keep the vehicle and attachment(s) in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
- 18 Keep all nuts, bolts and screws tight or in proper adjustment to be sure the equipment is in safe working condition.
- 19 To reduce fire hazard keep drive motor free of grass and leaves.
- 20 The drive motor and cutting motors should be stopped and the key removed before inspecting for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
- 21 When using the vehicle proceed as follows:
  - (1) Mow only in daylight or in good artificial light.
  - (2) Never make a cutting height adjustment while the motor is running if operator must dismount to do so.
  - (3) Stop the drive and cutting deck motors, remove key, before removing grass catcher and/or unclogging chute.
  - (4) Check blade mounting nuts for proper tightness at frequent intervals.
- 22 Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

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### Lawn Mower Features

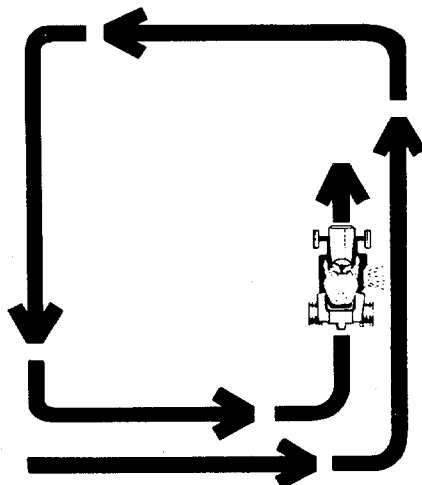


## Hints for Best Performance

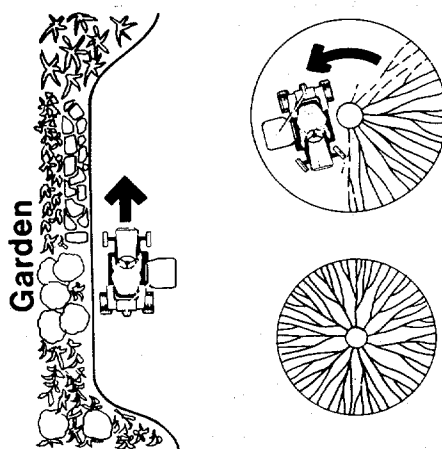
This electric riding mower is the ultimate in quietness and convenience. It has its own characteristics that must be considered in its operation. The "fuel" is in the form of stored electricity in three 12-Volt batteries wired in series to provide a 36-Volt system. The gasoline engine and the electric motor are similar in the way they consume fuel (either gasoline or electricity) by the fact that the harder the unit is operated, the faster the fuel is consumed. Cutting at the maximum ground speed in heavy grass will consume more electrical energy than cutting at an average speed in average or light grass. The length of operating time is in direct proportion to the way the unit is driven and the cutting conditions. As an example, the unit will cut light grass for approximately one hour at a modest forward speed. That time may be cut in half when cutting heavy grass at high speed. The size of lawn to be cut becomes the major influencing factor in how the unit is used. The built-in charging system takes 12 hours to 100% charge the batteries.

Your riding mower is engineered and designed to give you a manicured lawn with a minimum amount of effort for the operator. The twin blade cutting deck is designed to effectively discharge the cut grass from the deck onto the lawn or into a grass catcher.

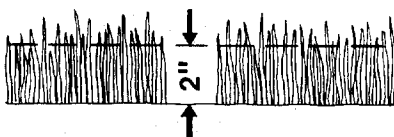
If you are cutting without a grass catcher and the grass is wet, thick or lush you should cut in a counter clockwise direction to discharge the grass towards the cut section of your lawn. Recutting large amounts of clippings will cause windrows of grass.



When cutting with a grass catcher kit, you can cut either clockwise or counter clockwise. Plan your cutting so you always trim with the left side of the deck and have clearance for the grass catcher.



Grasses such as Merion or Kentucky Blue should not be cut less than 2 inches high. Infrequent cutting removes too much of the leaf surface. Never cut off more than  $\frac{1}{3}$  of the grass blade.



It is important to have the blade of your mower sharp when cutting. Details on blade sharpening are explained in the Maintenance Section of this handbook. Cutting with a dull blade generally results in a white cast over a recent cut lawn and later the tips of the blades turn brown.

Avoid cutting wet grass because it will clog up under the deck and will not discharge properly. The general appearance will be much better when the grass is dry when you cut it. A new lawn has much softer blades of grass and has a higher moisture content. It is extremely important for this type of lawn to be cut with a sharp blade.

Following the same pattern every time when you mow your lawn can develop ridges at right angles to the direction of mowing. By changing your direction of mowing (diagonal or right angle) you can prevent this.

Grass Catcher Model No. 194-015A is available as optional equipment for the mower shown in this manual.

**Warning:** The mower shall not be operated without the entire grass catcher or chute deflector in place.

**Note:** Under normal usage bag material is subject to wear, and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations. Use factory replacement bag No. 764-122.

# Assembly

**NOTE:** Reference to Left or Right side of machine is from the operator's position in the seat facing forward.

The Riding Mower is packed and shipped in one container and is fully assembled except for the steering wheel, seat and activating the batteries.

## Attaching Steering Wheel

- 1 Place the steering wheel over the steering column extending through the dash. Line up the flats on the steering column with the flats in the steering wheel. (See figure 1.)
- 2 Place the washer with the cupped side down over the steering column and secure.
- 3 Place the cap over the center of the steering wheel and seat it with your hand.

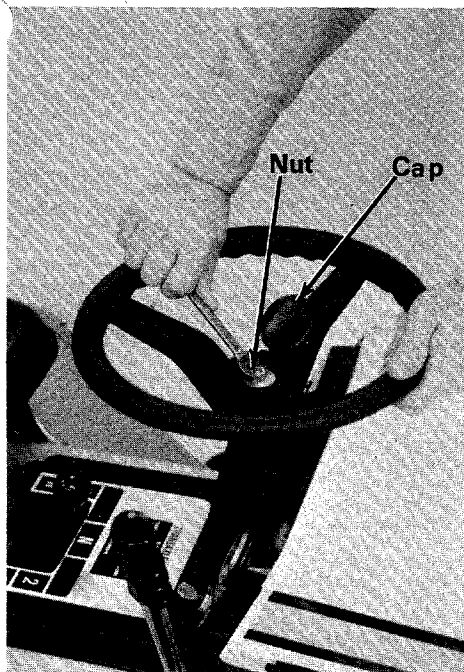


Figure 1

## Seat Assembly

- 1 Hook the carriage bolt into the slot in the bottom of the seat. See Figure 1.

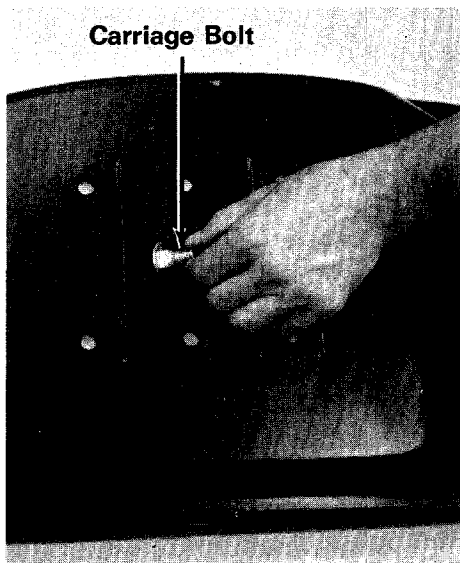


Figure 2

- 2 Place the seat on the spring in one of the four adjustment holes. (See figure 3.)
- 3 Secure the seat with the large lockwasher and nut.

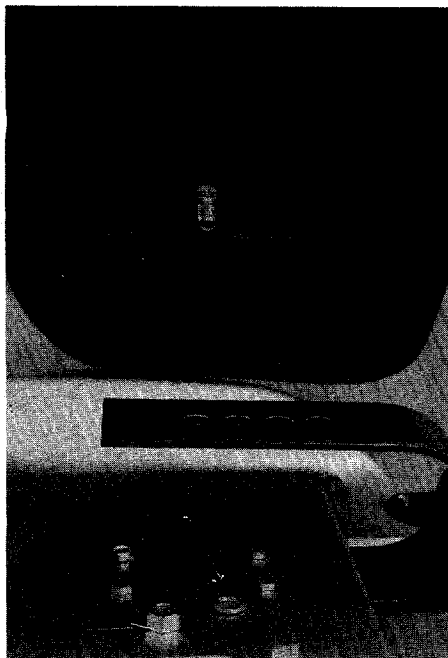


Figure 3

## Activating the Batteries

### Warning:

Electrolyte contains sulphuric acid which is harmful to skin, eyes and clothing. Avoid direct contact with the electrolyte at all times.

Fill batteries in an area where clean water is available for flushing the skin and eyes at all times.

Wear glasses (preferably safety glasses) to protect the eyes while handling electrolyte.

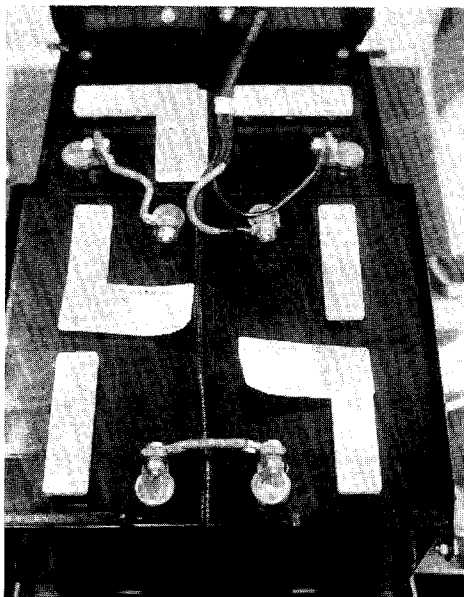
## Electrolyte Antidotes

**External:** Flood with water, then cover with moistened sodium bicarbonate (baking soda). If eyes are involved, wash first with water then with 1 per cent solution of freshly prepared sodium bicarbonate (baking soda). **Call physician immediately.**

**Internal:** Do not use emetics, stomach pumps, carbonates or bicarbonates. Give at least 2 to 3 oz. of milk of magnesia, or preferably aluminum hydroxide gel diluted with water. If these alkalies are not available, the whites of eggs (2 to 3) well beaten may be used. Give large quantities of water. Prevent collapse. **Call physician immediately.**

# Assembly

- 1 Compare the wiring of the batteries against figure 4 to be sure the batteries are wired as they should be. Batteries that are wired wrong could cause a dead short when they are activated.



**Figure 4**

- 2 It will be necessary to purchase locally 18 quarts of Sulphuric Acid Electrolyte (Sp. Gr. 1.265) to activate the battery.
- 3 Cut the sealed end from the fill tube on the acid pack. (See figure 5.)
- 4 Pinch the tube to keep the acid from flowing from the tube until you have the acid pack in position as shown in figure 6.



**Figure 5**

- 5 Fill the batteries with the acid. Only fill them until the acid level is  $\frac{1}{4}$ " above the plates. Do not fill to the split ring at this time.



**Figure 6**

- 6 Charge the batteries as outlined in the Maintenance Section of this handbook.
- 7 Add the remaining acid to fill the batteries to the split ring.

## Tire Pressure

For shipping purposes, the tires on your unit may be over-inflated. Tire pressure should be reduced before unit is put into operation. Pressure should not exceed 15 P.S.I. Equal tire pressure should be maintained.

# Operation

## CAUTION

- 1 Keep all shields and guards in place.
- 2 Before leaving operators position:  
Shift transmission into neutral  
Set the parking brake  
Disengage the blade engagement lever  
Shut off all motors  
Remove ignition key
- 3 Wait for all movement to stop, remove the ground wire to the battery before servicing the machine.
- 4 Keep people and pets a safe distance away from the machine.

## Main Key Switch

Turn the key to the START position to start the traction motor. The traction motor operates the drive to the rear wheels. Once the motor is running, release the key. The switch will return to the ON position. To stop the motor, turn the key to the OFF position. This switch must be in the ON position before the blades can be operated. (See figure 7.)

**Caution:** Remove the key from the riding mower when the mower is not in use to prevent accidental starting.

## Mower Blade Switch

Raise the switch to the START position. After the motors are running, release the switch and it will return to the ON position. Move the switch to the OFF position to stop the blades. The traction motor must be running before the mower blades can operate. Turning off the main key switch will shut off both the traction motor and the blade motors. (See figure 7.)

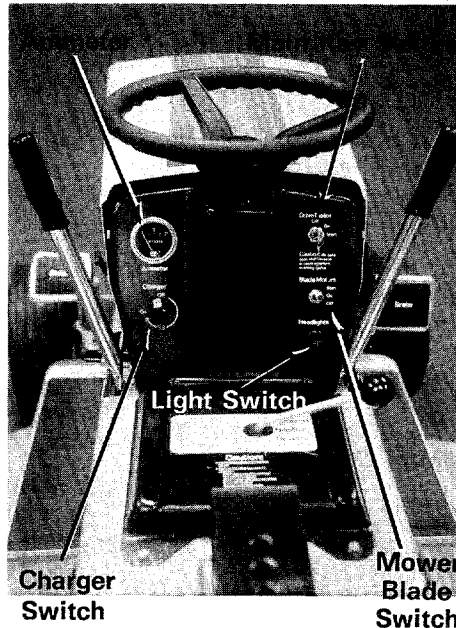


Figure 7

## Gear Shift Lever

The gear shift lever is used to shift into FORWARD, NEUTRAL or REVERSE. (See figure 8.)



Figure 8

## Brake Pedal

The brake pedal is located on the right side of the mower and is operated by depressing it with your right foot. When coming to a complete stop it is necessary to depress both the clutch and the brake. (See figure 9.)

## Brake Lock

The brake lock is located on the right side of the mower. To lock the brake, depress the brake pedal and lift up the lock button. The pedal will stay depressed. To release, depress the pedal. (See figure 9.)

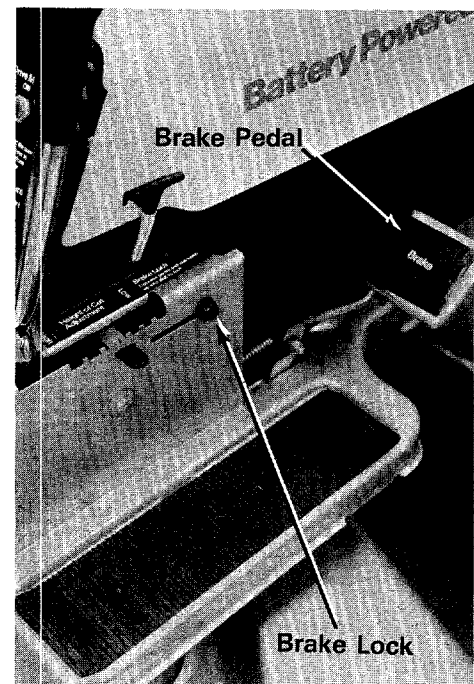


Figure 9

## Clutch Pedal

The clutch pedal is used to disengage the drive mechanism. Depressing the clutch pedal at any time will slow you down or, if depressed all the way, will stop the mower. (See figure 10.)

# Operation

## Clutch Lockout

When the clutch pedal is depressed all the way it can be locked by placing the clutch lockout in the START position as shown in figure 10.

## Stop Lever

The stop lever allows you to regulate the maximum ground speed of the riding mower by setting the stop lever in any one of the five settings. The farther forward the stop lever is set, the faster your ground speed. (See figure 10.)

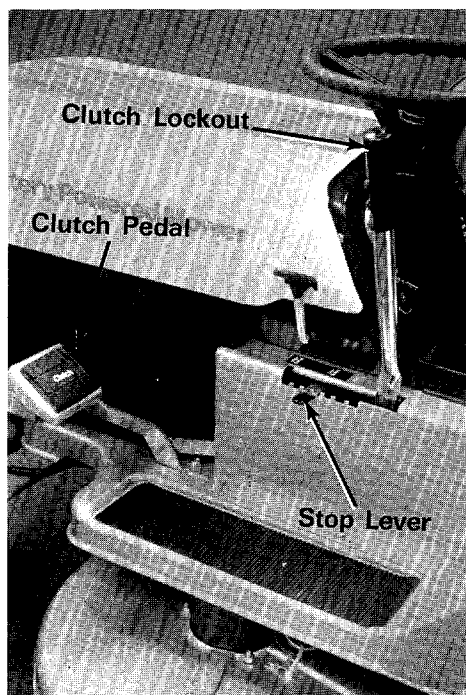


Figure 10.

## Light Switch

The headlamps are operated by pulling out the light switch located on the dash board. The headlamps will only operate when the traction motor is running. (See figure 7.)

## Ammeter

The ammeter registers the rate of battery charge. It only registers when the charger is plugged in and the switch is in the ON position. (See figure 7.)

## Charger Switch

This switch turns on the charger to recharge the batteries. The cord for the charger is located under the hood. Details for charging the batteries is in the Maintenance Section of this handbook. (See figure 7.)

## Lift Lever

The lift lever is used to raise the cutting deck. (See figure 11.)

## Cutting Controls

The cutting controls consist of the height of cut stop and the wheel height adjusters.

## Height of Cut Stop

Lift the stop and set it at the desired cutting height. (See figure 11.)

## Wheel Height Adjusters

Move the lever towards the wheel and set it in the desired cutting height. (See figure 12.)

There are six different cutting heights. The cutting height can be set in two different ways: FULL FLOAT position where the deck follows the contour of the ground, and the SUSPENDED position where the deck hangs from the frame of the rider. The suspended position is normally used for cutting rough uneven ground.

To set the cutting deck in the full float position, set the wheel height adjusters in the desired cutting height. Set the height of cut stop in the low position. (See figure 11.)

To set the cutting deck in the suspended position, set the height of cut stop in the desired cutting height and then set the deck wheels so they just clear the ground. (See figure 12.)

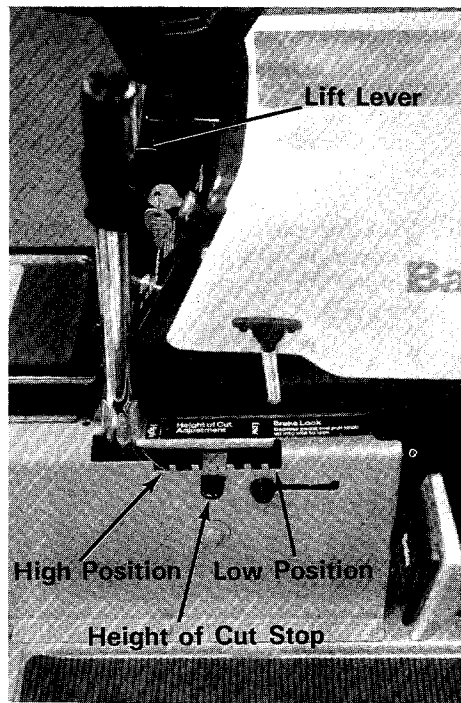


Figure 11

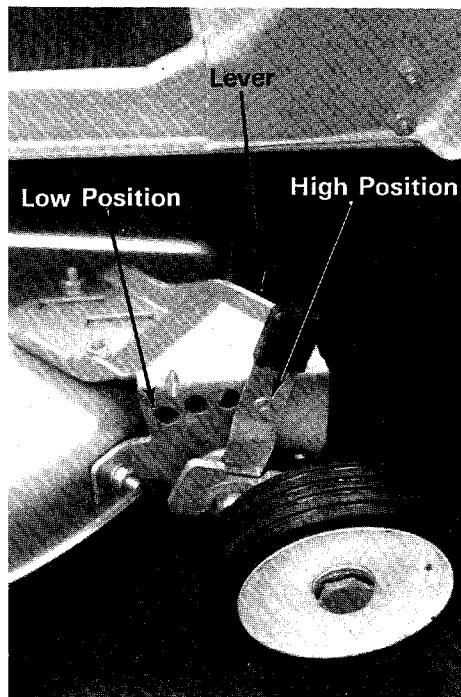


Figure 12

# Operation

## Starting the Traction Motor

- 1 Place the Clutch Lockout Lever in the START position.
- 2 Turn the Main Key Switch to the START position. As soon as the motor is running, release the key and the switch will return to the ON position.
- 3 Turn the key to the OFF position to stop the traction motor.

**Note:** The blade motors also shut off if the Main Key Switch is turned to the OFF position.

## Starting the Blade Motors

- 1 Start the traction motor as outlined in the paragraph above.
- 2 Raise the Mower Blade Switch to the START position. As soon as the motors are running, release the switch and it will return to the ON position.
- 3 To stop the blades from rotating, depress the mower blade switch to the OFF position.

**Note:** The blades will also shut off when the Main Key Switch is turned off.

### WARNING

Do not attempt to clear the chute or perform any cleaning or repairs of the riding mower without turning off the main key switch and removing the key from the switch.

## Operating the Mower

- 1 Set the desired cutting height.
- 2 Start the traction motor.
- 3 Set the clutch stop lever in the slow or medium speed range.

**Note:** As you become familiar with the operation of the mower you may wish to move the stop lever to a faster position.

- 4 While holding down the clutch pedal, move the clutch lockout lever forward.
- 5 Put the gear shift lever into either FORWARD or REVERSE.

**Note:** Do not force the gear shift lever. If the lever cannot be moved from NEUTRAL to one of the drive positions, release the clutch pedal slowly, depress it again, and then move the gear shift lever as required.

- 6 Once the machine is in motion, remove your foot from the pedal. The mower will now move ahead or to the rear, and the use of the steering wheel will provide directional control.

- 7 The mower is brought to a stop by pressing your right foot against the brake pedal and your left foot against the clutch pedal. The drive belt will be disengaged and the brake will be applied.

**Note:** The rider should be operated in the slow speeds when climbing a hill or descending. This reduces the current draw going uphill and retards the forward speed going downhill.

## Operating the Cutter Blades

The blades can be started either while the mower is moving or standing still.

Move the Mower Blade Switch to the START position, as soon as the motors are running, release the switch and it will return to the ON position.

To stop the blades from rotating, depress the Mower Blade Switch to the OFF position or, turn off the Main Key Switch.

**Note:** When the riding mower is being used for other than mowing operations the blades should be shut off.

Maintenance and adjustments for the engine are covered in the Engine Operating and Maintenance Instructions section of this handbook.

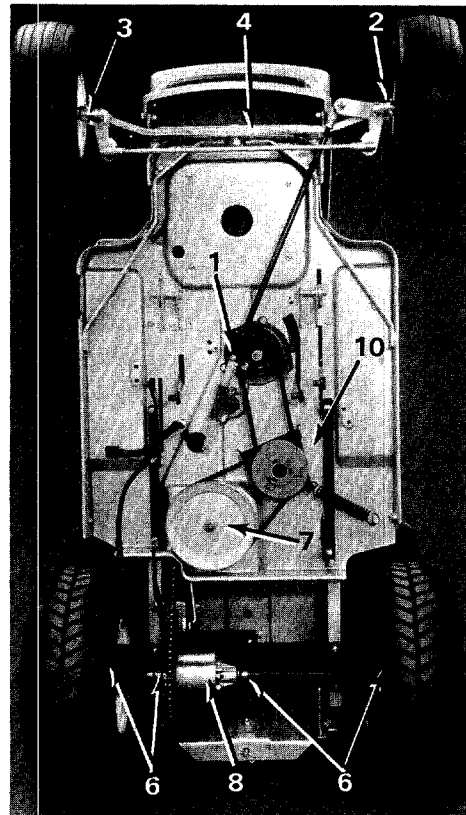


Figure 13

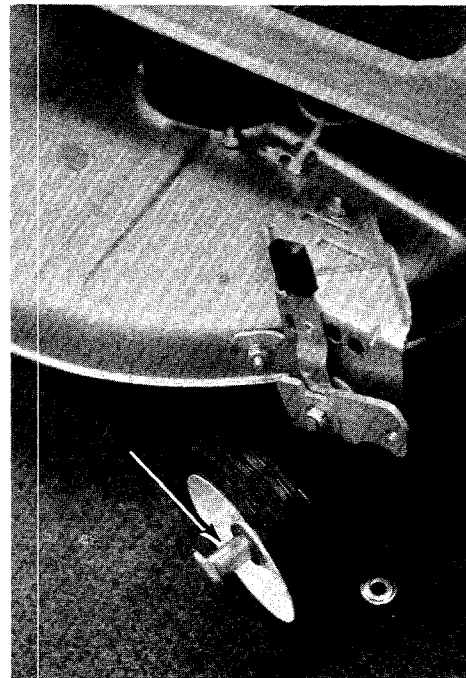


Figure 14

# Maintenance

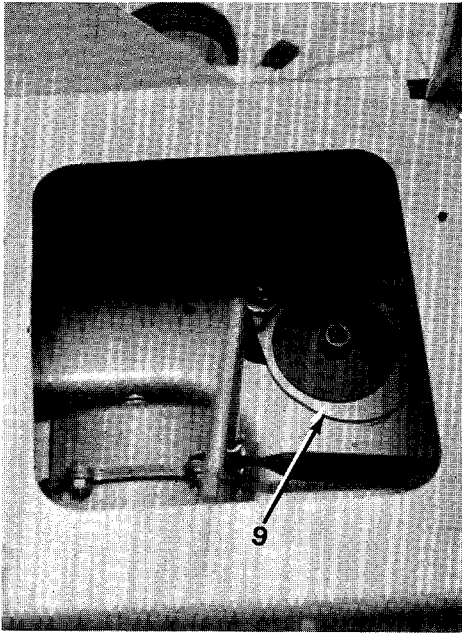


Figure 15

## Lubrication

**Steering 1**—Rack and pinion, lubricate with multi-purpose automotive grease once a year. (See figure 13.)

**King Pin 2**—Oil with SAE 30 oil once a year. (See figure 13.)

**Wheel Bearings 3**—Oil with SAE 30 oil four times a year. (See figure 13.)

**Front Pivot Bolt 4**—Oil with SAE 30 oil once a year. (See figure 13.)

**Deck Wheels 5**—Remove the axle bolts and lubricate with multi-purpose automotive grease once a year. (See figure 14.)

**Rear Axle Bearings 6**—Oil with SAE 30 oil once a year. Four bearings. (See figure 13.)

**Transmission 7**—The transmission is pre-lubricated and does not have to be checked. If disassembled, lubricate with 5 ounces of 450°F. grease. (See figure 13.)

**Differential 8**—The differential is pre-lubricated and does not have to be checked. If disassembled lubricate with 2 ounces of 450°F. grease. (See figure 13.)

**Variable Speed Pivot 9**—Lubricate with SAE 30 oil or very light grease every 25 hours or anytime the clutch pedal operates stiff. Remove the gear shift knob and transmission cover to lubricate. (See figure 15.)

**Variable Speed Pulley 10**—Lightly oil with SAE 10 oil so the center section of the pulley slides up and down freely. The two end bearings are sealed and require no lubrication.

**General**—The following parts should be oiled once a year with SAE 30 oil:

- All deck links
- Clutch and brake pivot points and linkage
- Height Adjustment Levers
- Steering Column bearings

The following items have sealed bearings and require no further lubrication.

- Idler Bearings
- Tie Rod Ends

## Battery Charger

### WARNING

THE GASES PRODUCED WHILE THE BATTERIES ARE BEING CHARGED ARE HIGHLY COMBUSTIBLE. THE HOOD SHOULD BE RAISED UNTIL THE CHARGER SWITCH RETURNS TO THE OFF POSITION. KEEP OPEN FLAMES AWAY FROM THE UNIT AND DO NOT SMOKE IN THE AREA.

The batteries in your riding mower are specially built to withstand repeated charging without damage. Whenever the mower is not being used, the charger cord should be plugged into a 110-125 volt AC grounded outlet. The charger will draw 7.5 amps. until the battery is charged to 80% of its capacity, and then it will taper off. After the cord is plugged into the outlet, turn the charger switch clockwise until it stops. The timer behind the switch will rotate it to the OFF position at which time the batteries will be charged to their fullest capacity. The switch will not begin to rotate until the batteries have reached 80% of their capacity. This will take approximately 5 hours maximum.

**Caution:** Always turn the charger switch to the OFF position before removing the cord from the outlet.

The charger cord should be left plugged into a live outlet at all times when the mower is not in use. A timer built into the charger will automatically turn on the charger once a day for a few minutes and charge the batteries. This will keep the batteries at full capacity. This is very important during winter storage. A battery will lose 50% of its capacity if it is not used for a 90 day period. This can cause a battery to freeze and crack during extreme cold weather. Some heat is generated from the charger while it is operating. This is normal. (See figure 16.)

# Maintenance

The ammeter shows you the rate at which your batteries are charging. Maximum charging rate is approximately 7 to 8 amps. The charging rate will drop to 3 amps during the latter part of charging.



**Figure 16**

## Charging Hints

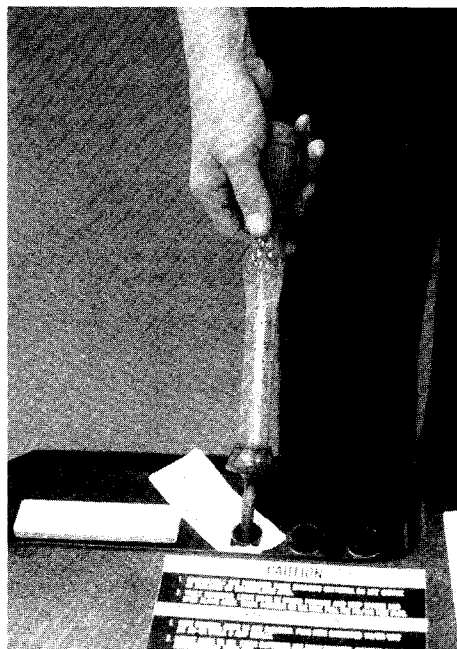
- 1 Be sure the outlet used to charge the battery is live and does not shut off when you turn off the lights.
- 2 Only use the charger built into the mower to charge the batteries. Do not use any other charger.
- 3 Do not use the battery in the mower to "jump" any other vehicle.

## Battery Maintenance

Follow the instructions in the above paragraph covering the charging of the batteries. To charge a set of batteries to 100% of capacity will take a maximum of 12 hours.

Reading your ammeter during the charging will give you an indication of the state of charge of your batteries. If the ammeter reading is over 6 Amps, you have less than 80% of capacity.

A hydrometer can be used to check the state of charge of the batteries. Always read a hydrometer at eye level to obtain a true reading. Keep the float vertical. A hydrometer is designed to give the correct reading at 80°F. This is the electrolyte temperature, not the air temperature. Draw enough electrolyte into the hydrometer so the float does not touch the bottom of the tube. A correction chart is necessary to obtain a true reading. (See figure 17.)



**Figure 17**

## Temperature Correction Chart

| °F. | Correction |
|-----|------------|
| 120 | +.016      |
| 115 | +.014      |
| 110 | +.012      |
| 105 | +.010      |
| 100 | +.008      |
| 95  | +.006      |
| 90  | +.004      |
| 85  | +.002      |
| 80  | 0          |
| 75  | -.002      |
| 70  | -.004      |
| 65  | -.006      |
| 60  | -.008      |
| 55  | -.010      |
| 50  | -.012      |
| 45  | -.014      |
| 40  | -.016      |
| 35  | -.018      |
| 30  | -.020      |
| 25  | -.022      |
| 20  | -.024      |
| 15  | -.026      |
| 10  | -.028      |

**Figure 18**

|            |            |                             |
|------------|------------|-----------------------------|
| 1.260 SpGr | 1.280 SpGr | 100% Chg                    |
| 1.230 SpGr | 1.250 SpGr | 75% Chg                     |
| 1.200 SpGr | 1.220 SpGr | 50% Chg                     |
| 1.170 SpGr | 1.190 SpGr | 25% Chg                     |
| 1.140 SpGr | 1.160 SpGr | Very little useful capacity |
| 1.110 SpGr | 1.130 SpGr | Discharged                  |

**Figure 19**

## Examples of Reading Specific Gravity

|                            |            |
|----------------------------|------------|
| Hydro. Read. (fig. 17)     | 1.230 SpGr |
| Electrolyte Temp.          | 30° F.     |
| Temp. Correction (fig. 18) | -.020      |
| Corrected SpGr*            | 1.210 SpGr |
|                            |            |
| Hydro. Read. (fig. 17)     | 1.230 SpGr |
| Electrolyte Temp.          | 100° F.    |
| Temp. Correction (fig. 18) | +.008      |
| Corrected SpGr*            | 1.238 SpGr |

\*Compare to figure 19.

# Maintenance

## Water

Drinking water, except mineral water, may be used in the batteries. If your local water has a high mineral content (hard water) use distilled water in your batteries. Do not add electrolyte if the liquid level is down, only water.

If you add water to the battery it will lower the specific gravity of the electrolyte but the battery has not lost any of its charge. If water is added during freezing weather be sure you charge the battery as outlined in Battery Charger paragraph. Failure to do this can freeze and crack a battery.

Batteries that use excessive amounts of water indicate that they are being over-charged and the riding mower should be examined by a serviceman.

## Battery Removal

If the batteries are removed from the riding mower for any reason, remove the plastic cover by pulling the pins and unsnapping it. Remove the cables in the order shown in figure 20.

This will help prevent your wrench from arcing if it slips.

**Note:** Refer to figure 20 when you reconnect the battery to make sure it is connected properly.

## Headlamps

The headlamps are 36-Volt. Use only authorized replacements. (GE 4350 or order from the mower manufacturer by part number 725-377)

## Automatic Reset Breakers

For your protection, both the traction motor and the mower blade motors have automatic reset breakers that will shut off the motors if they overheat as a result of overloading. Cutting high grass at an excessive speed is a common cause for overheating.

**Caution:** If one blade motor cuts out from overheating, both motors will stop.

If the automatic reset breaker on the traction motor opens, it will take about 30 minutes before it will reset itself.

If the automatic reset breaker on one of the blade motors opens, it will take about five minutes before they will reset themselves.

## Fuse (Buss WDA 100)

The 100 Amp. fuse is located inside the charger box in back of the dashboard. Unsnap the plastic cover to check the fuse. There are three extra fuses in your assembly pack. **DO NOT SUBSTITUTE** any other fuse or any other material in place of the correct fuse.

The fuse has two purposes. One is to protect the wiring against a direct short and the other is to protect the electrical circuit against overloads.

If either the traction motor or blade motors are overworked for a long period of time the automatic reset breakers will open and the overheated motor will shut off as explained in the above paragraphs.

If a heavy surge of current is drawn through either the traction motor or blade motors the 100 Amp. fuse can melt. An example of this would be cutting heavy grass while climbing a hill at a fast ground speed.

In the event of a melted fuse, review how the machine was operated prior to fuse melting. If the machine was not heavily loaded, a failure within the circuitry may have occurred and the reason for it melting should be corrected before a new fuse is installed.

To remove the fuse, remove the plastic cover, loosen the two nuts on each end of the fuse and take the free ends off the two terminals. Replace it with a Buss WDA 100 fuse. (Manufacturers number 725-376)

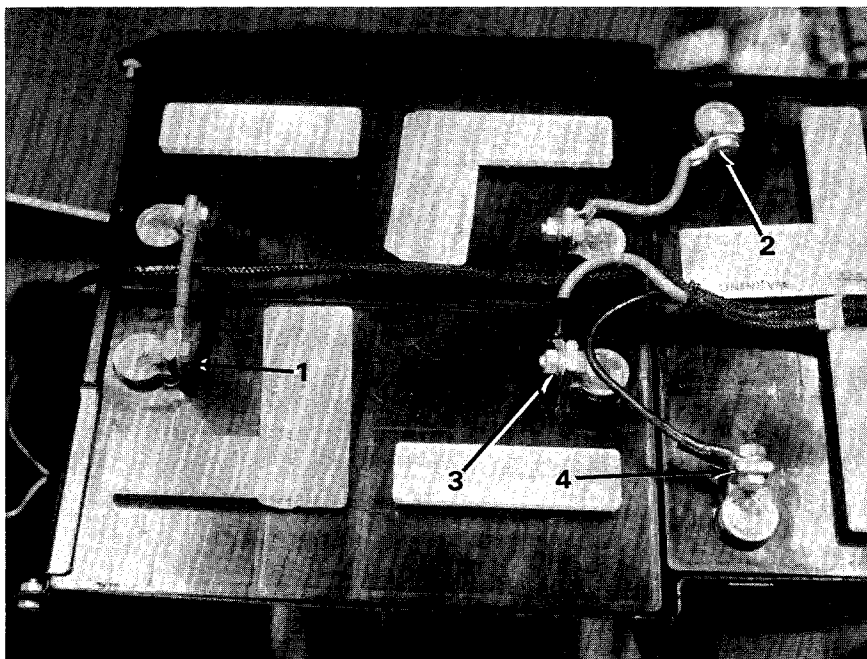
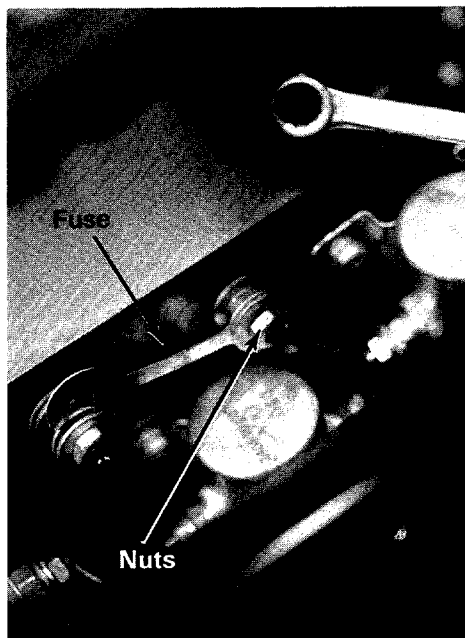


Figure 20

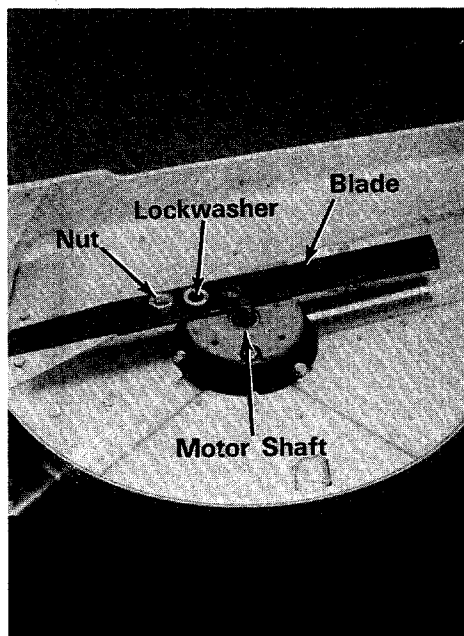
# Maintenance



**Figure 21**

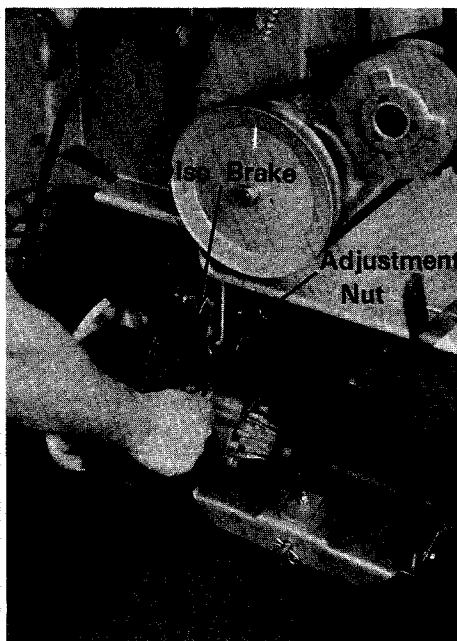
## Blade Replacement

Remove the retainer nut and lockwasher. Pull the blade from the motor shaft. (See figure 22.)



**Figure 22**

When grinding or filing the blade, remove equal amounts of metal from both edges to keep the blade in balance.



**Figure 23**

## Brake Adjustment

To adjust the brake on your rider, follow these steps:

- 1 Depress the brake pedal and lift the brake lock so the pedal stays in the depressed position.
- 2 Place the clutch lockout in the START position.
- 3 Try to push the rider. If the rider can be moved, tighten the brake adjustment nut as shown in figure 23.

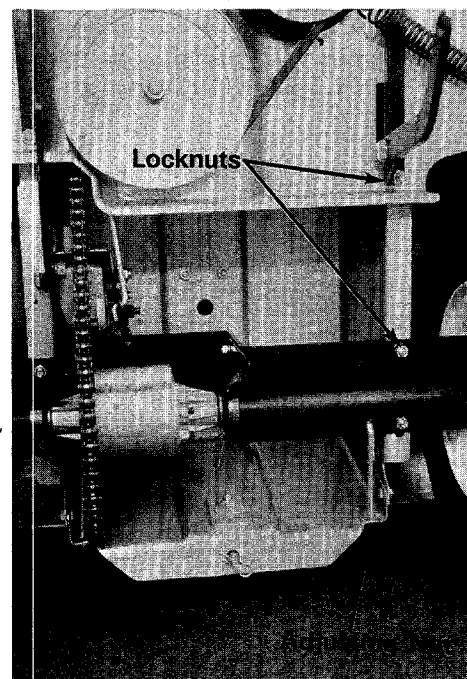
**Note:** It is not necessary to tip the rider up on end as shown in the photograph. The adjusting nut can be reached with the rider in the normal operating position.

- 4 Tighten the adjustment nut one turn and test the rider. Repeat if necessary.

## Chain Adjustment

To tighten the chain, loosen the two locknuts on each side of the rear axle. (See figure 24.)

Tighten the adjusting nuts equally on both sides. Tighten until the chain has  $\frac{1}{4}$  inch slack between the sprockets.



**Figure 24**

The adjusting nuts can be tightened individually to align the rear axle if necessary.

Tighten the four locknuts after the adjustment is made.

## Wheel Alignment

The caster (forward slant of the king pin) and the camber (tilt of the wheels out at the top) requires no adjustment. Automotive steering principles have been used to determine the caster and camber on the rider. The front wheels should toe-in  $\frac{1}{8}$  inch. See figure 25.)

To adjust follow these steps:

- 1 Remove the elastic locknut and drop the tie rod end from the steering arm. (See figure 25.)

# Maintenance

- 2 Loosen the hex jam nut on the tie rod.
- 3 Adjust the tie rod assembly for correct wheel alignment.

**Note:** Dimension B should be approximately  $\frac{1}{8}$  inch less than dimension A.

- 4 To increase dimension B screw the rod into the tie rod end.
- 5 To decrease dimension B unscrew the tie rod from the tie rod end.
- 6 Reassemble the rod. Check dimensions.

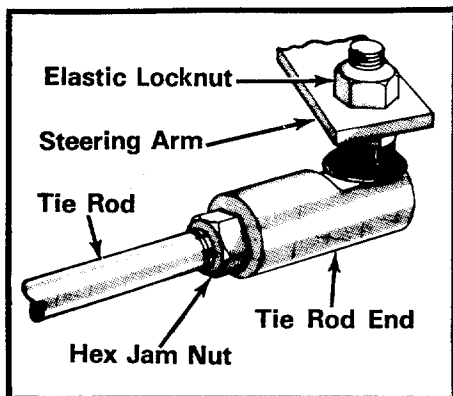


Figure 25

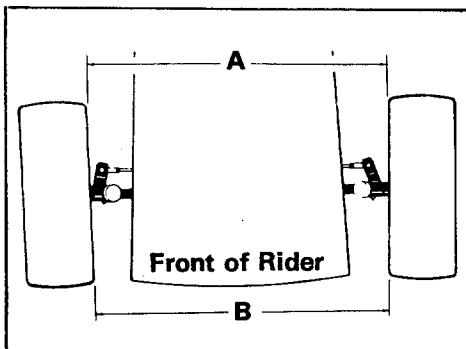


Figure 26

## Removing the Variable Speed Belts

The variable speed belts can be removed from the rider without removing the cutting deck and batteries, however, they can be removed as the photographs show to give you more working room.

### To Remove the Batteries and Cutting Deck

- 1 Before lifting up one end of the mower, remove the batteries as outlined in the Battery Removal Section of this manual.
- 2 Lift up the front of the rider and tip it back so it rests on the rear wheels and the seat back.
- 3 Remove the cutting deck by unplugging the two leads to the mower blade motors, and removing the six cotter pins on the lower deck links.
- 4 Place the lift lever in the locked out position.
- 5 Remove the nut and lockwasher on the transmission pulley and pull the pulley off the spindle. (See figure 27.)
- 6 Remove the lower belt from the variable speed pulley. (See figure 28.)
- 7 Slide the center section of the variable speed pulley towards you and unhook the upper belt.
- 8 Reassemble in reverse order with the new belts

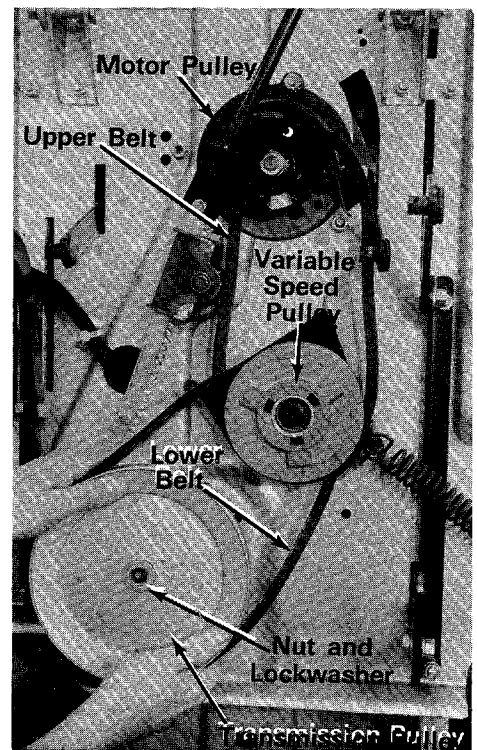


Figure 27

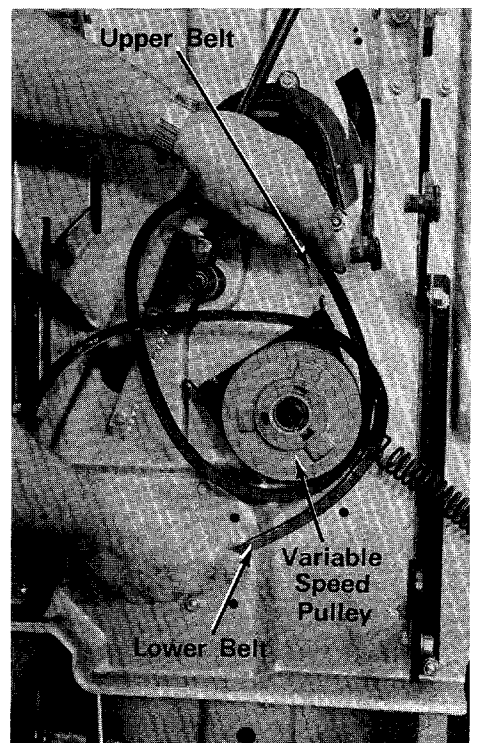


Figure 28

# Maintenance

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## Troubleshooting

If a problem is encountered which cannot be solved, refer to the chart on page 16 for a possible remedy.

## Off-season Storage

If the machine is to be inoperative for a period longer than 30 days, the following procedures are recommended:

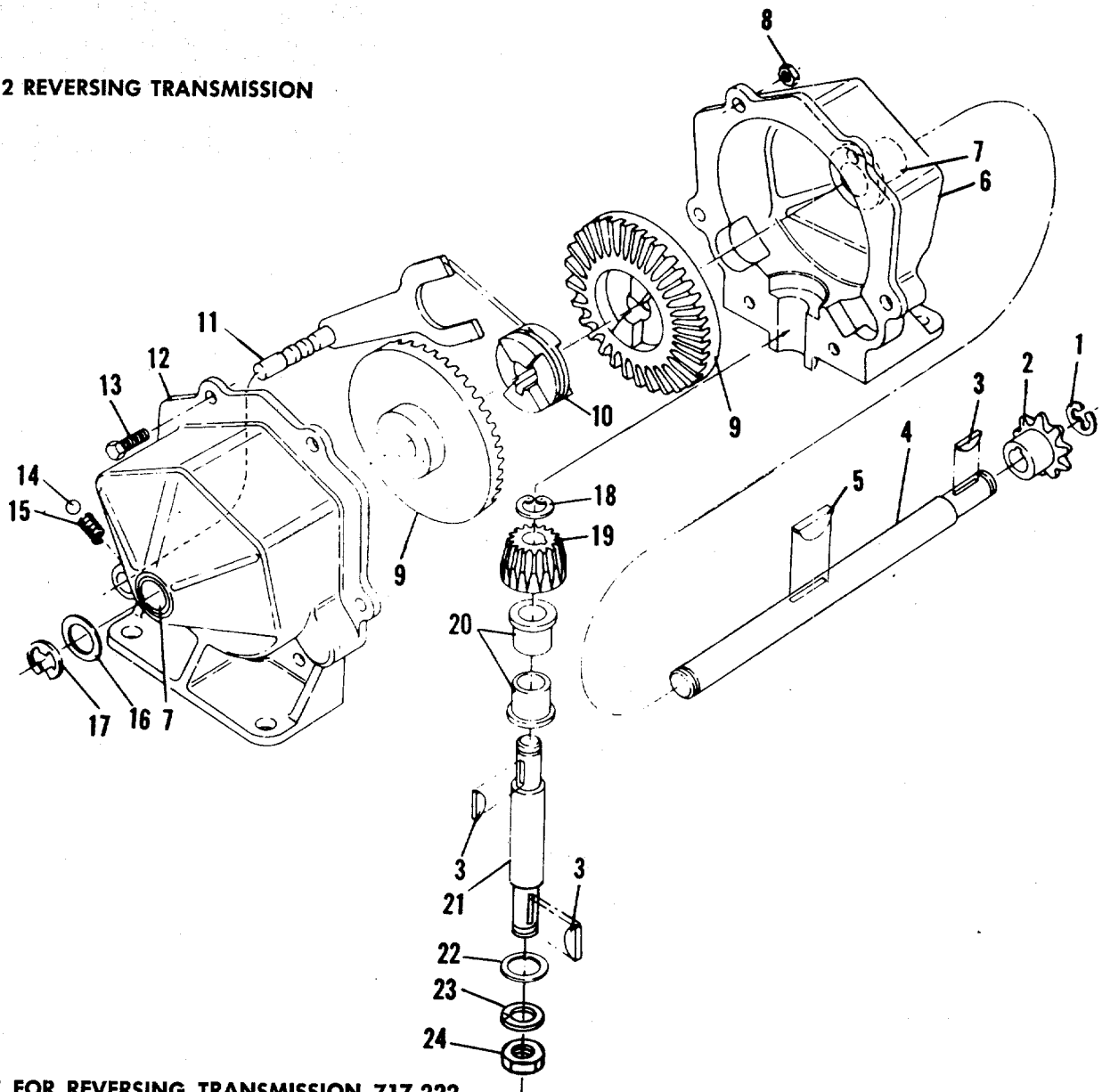
- 1** Clean the entire mower and motors thoroughly.
- 2** Lubricate all lubrication points indicated in figures 13 to 15, then wipe the entire machine with an oiled rag in order to protect the surfaces.
- 3** Check the water level in the batteries and add water if necessary.
- 4** Plug the charger into an outlet that has power all the time. Set the charger switch to the ON position. When the batteries are completely charged, the timer will turn on the charger once a day for a few minutes to keep the batteries at full charge.

# Trouble Shooting Chart

## Problem

|                                                   |                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Traction Motor will not run.                      | <b>A</b> Clutch lockout is not in the START position.<br><b>B</b> Defective key switch.<br><b>C</b> Motor overheated from excessive current draw. Allow the automatic reset breaker to reset itself. This takes about 30 minutes.<br><b>D</b> Main fuse blown.<br><b>E</b> Defective solenoid.<br><b>F</b> Wire loose or disconnected.<br><b>G</b> Defective motor. |
| Blade motors will not run.                        | <b>A</b> Traction motor not running.<br><b>B</b> Defective mower blade switch.<br><b>C</b> Motor overheated from cutting heavy grass at excessive speed. Allow the automatic reset breaker to reset itself. This takes about five minutes.<br><b>D</b> Defective solenoid.<br><b>E</b> Wire loose or disconnected.<br><b>F</b> Defective motor.                     |
| Mower will not move (Traction Motor running)      | <b>A</b> Transmission in neutral.<br><b>B</b> Clutch lockout is in the START position.<br><b>C</b> Broken or thrown V-belt.<br><b>D</b> Broken chain on rear axle.<br><b>E</b> Broken or missing key in transmission (input pulley, output sprocket, clutch collar or pinion gear on input shaft).<br><b>F</b> Gears in differential stripped.                      |
| Ammeter registers zero when charger is turned on. | <b>A</b> The charger is not plugged into a live outlet.<br><b>B</b> Loose cables between the batteries.<br><b>C</b> Loose wire in the charging system.<br><b>D</b> Charger is not working.<br><b>E</b> Fuse blown in the charger.                                                                                                                                   |
| Batteries will not hold a charge.                 | <b>A</b> Very low water level in batteries.<br><b>B</b> Battery (or batteries) defective.                                                                                                                                                                                                                                                                           |
| Uneven mowing.                                    | <b>A</b> Wheel adjusters are not set the same.<br><b>B</b> Bent deck.<br><b>C</b> Ground speed is too fast for full float cutting. Adjust deck so it is suspended and reduce speed.<br><b>D</b> Low battery voltage.                                                                                                                                                |
| Uncut strips of grass.                            | <b>A</b> Ground speed too fast.<br><b>B</b> Dull blades.<br><b>C</b> Short blade(s).<br><b>D</b> Bent deck.<br><b>E</b> Low battery voltage.                                                                                                                                                                                                                        |

# 717-222 REVERSING TRANSMISSION



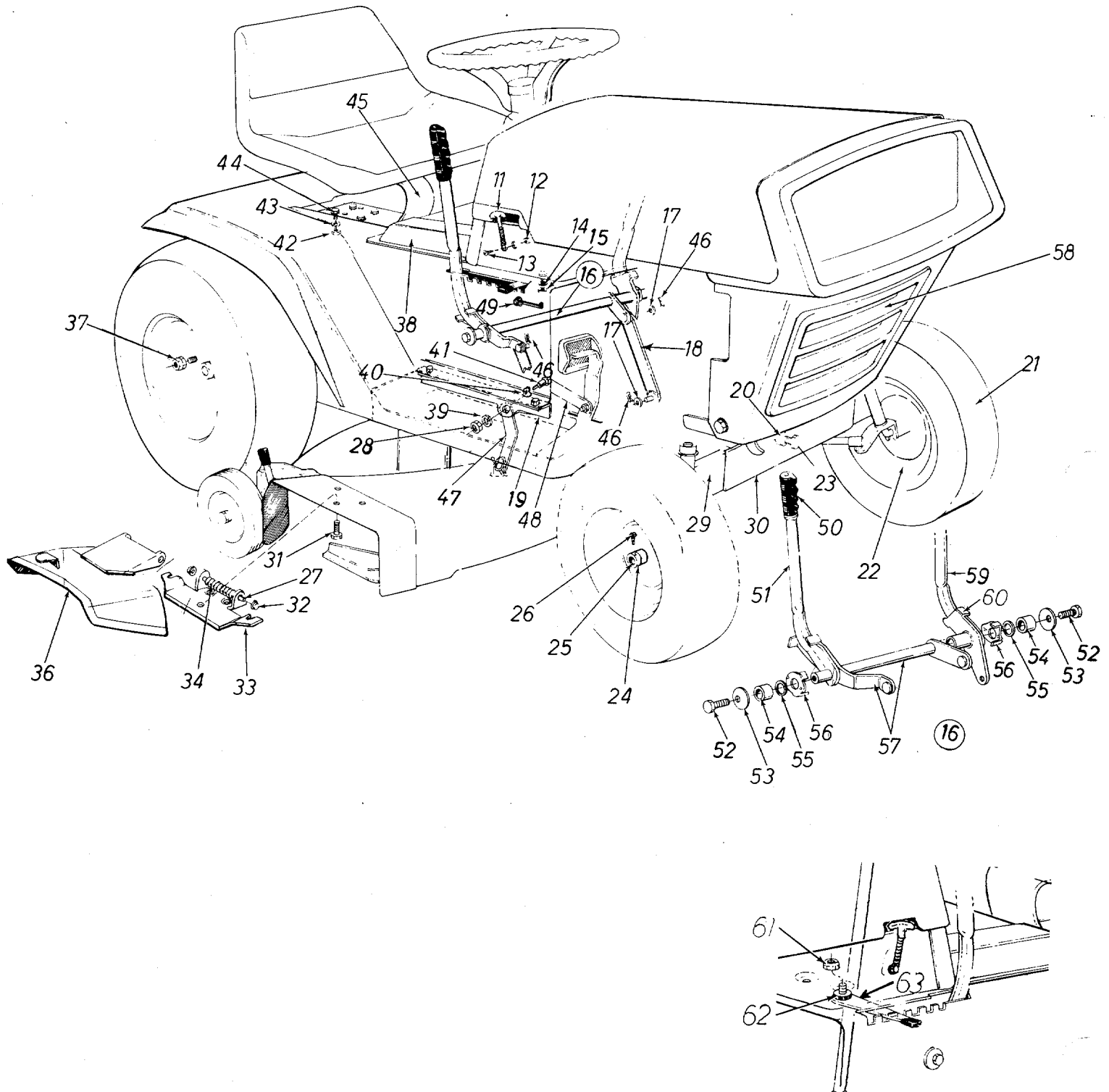
## PARTS LIST FOR REVERSING TRANSMISSION 717-222

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                                     | NEW PART | REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                       | NEW PART |
|----------|----------|------------|-------------------------------------------------|----------|----------|----------|------------|-----------------------------------|----------|
| 1        | 716-104  |            | E-Ring for .500" Dia. Shaft                     |          | 14       | 741-862  |            | Detent Ball                       |          |
| 2        | 748-204  |            | #41 Sprocket Center 8 Tooth                     |          | 15       | 732-863  |            | Detent Spring                     |          |
| 3        | 714-129  |            | #4 Hi-Pro Key 3/32 x 5/8" Dia.                  |          | 16       | 736-116  |            | Flat Washer .635 I.D. x .93 O.D.  |          |
| 4        | 711-854  |            | Output Shaft                                    |          | 17       | 716-106  |            | E-Ring for .625" Dia. Shaft       |          |
| 5        | 714-126  |            | #9 Hi-Pro Key 3/16 x 3/4" Dia.                  |          | 18       | 716-865  |            | Snap Ring for .500" Dia. Shaft    |          |
| 6        | 717-123  |            | Transmission Case—L.H. Complete                 |          | 19       | 748-866  |            | Pinion Gear                       |          |
| 7        | 748-855  |            | Flange Bearing                                  |          | 20       | 748-867  |            | Bearing .627 I.D.                 |          |
| 8        | 712-117  |            | Hex Centerlock 1/4-28*                          |          | 21       | 738-159  |            | Pinion Shaft                      |          |
| 9        | 748-856  |            | Bevel Gear                                      |          | 22       | 736-192  |            | Flat Washer .531 I.D. x .93 O.D.  |          |
| 10       | 748-857  |            | Clutch Collar                                   |          | 23       | 736-921  |            | Spring Lockwasher 1/2" Scr.*      |          |
| 11       | 8583     |            | Shift Yoke Assembly                             |          | 24       | 712-922  |            | Hex Jam Nut 1/2-20 Thd.*          |          |
| 12       | 717-124  |            | Transmission Case—R.H.—Comp. (With Detent Hole) |          | 25       | 737-120  |            | Grease—High Temp. 450° F. (5 oz.) |          |
| 13       | 710-195  |            | Hex Hd. Cap Scr. 1/4-28 x .62" Lg.*             |          | 26       | 717-222  |            | Transmission Complete             |          |

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# 134-585A

IF YOU WRITE TO US ABOUT THIS ARTICLE  
OR IF YOU ORDER REPLACEMENT PARTS AL-  
WAYS MENTION THIS MODEL & SERIAL NO  
MODEL



RIGHT HAND VIEW

# PARTS LIST FOR RIGHT HAND VIEW MODEL 134-585A

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                              | NEW PART |
|----------|----------|------------|------------------------------------------|----------|
| 11       | 723-296  |            | Hood Lock Ass'y.                         |          |
| 12       | 712-287  |            | Hex Nut 1/4-20 Thd.*                     |          |
| 13       | 710-289  |            | Hex Scr. 1/4-20 x .50" Lg.*              |          |
| 14       | 736-119  |            | Spring Lockwasher 5/16" Scr.*            |          |
| 15       | 712-267  |            | Hex Nut 5/16-18 Thd.*                    |          |
| 16       | —        |            | Lift Handle Ass'y. See Breakdown         |          |
| 17       | 736-192  |            | Flat Washer .531 I.D. x .93 O.D.         |          |
| 18       | 11869    |            | Lockout Link Ass'y.                      |          |
| 19       | 11494    |            | Lift Bracket—R.H.                        |          |
|          | 11493    |            | Lift Bracket—L.H. (Not Shown)            |          |
| 20       | 712-923  |            | Hex Center Locknut 5/8-18 Thd.           |          |
| 21       | 734-497  |            | Front Wheel Ass'y.—Comp. 15 x 6.00       |          |
|          | 734-498  |            | Front Wheel Tire Only                    |          |
| 22       | 734-499  |            | Front Wheel Rim Ass'y. Only              |          |
| 23       | 710-312  |            | Hex Scr. 5/8-18 x 1.31" Lg.              |          |
| 24       | 711-169  |            | Collar 5/8" I.D.                         |          |
| 25       | 750-207  |            | Front Wheel Bearing                      |          |
| 28       | 712-342  |            | Hex Jam Nut 3/8-16 Thd.*                 |          |
| 29       | 10555    |            | Front Pivot Bar Ass'y.                   |          |
| 30       | 10495    |            | Front Pivot Brkt.                        |          |
| 31       | 710-195  |            | Hex Scr. 1/4-28 x .62" Lg.*              |          |
| 32       | 726-106  |            | Push On Flange Palnut                    |          |
| 33       | 11399    |            | Adapter Plate Ass'y.                     |          |
| 34       | 732-261  |            | Torsion Spring                           |          |
| 35       | 11633    |            | Chute Cover Ass'y. Comp.                 |          |
| 36       | 11574    |            | Chute Cover Ass'y.                       |          |
| 37       | 712-193  |            | Cone Nut 3/8-24 Thd.                     |          |
| 38       | 11840    |            | Upper Frame Cover                        |          |
| 39       | 736-169  |            | Spring Lockwasher 3/8" Scr.*             |          |
| 40       | 736-232  |            | Wave Washer .530" I.D. x .78 O.D. x .013 |          |

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                             | NEW PART |
|----------|----------|------------|-----------------------------------------|----------|
| 41       | 738-234  |            | Shoulder Scr. .500" Dia. x .295         |          |
| 42       | 712-267  |            | Hex Nut 5/16-18 Thd.*                   |          |
| 43       | 736-119  |            | Spring Lockwasher 5/16-16 Thd.*         |          |
| 44       | 710-198  |            | Hex Hd. Sems Scr. 5/16-18 x 1.36"       |          |
| 45       | 732-255  |            | Seat Spring                             |          |
| 46       | 714-107  |            | Internal Cotter Pin 1/2" Dia.*          |          |
| 47       | 11023    |            | Deck Link Ass'y.                        |          |
| 48       | 11056    |            | Parking Brake—Lever Ass'y.—R.H.         |          |
| 49       | 726-121  |            | Push Cap 1/4" Dia.—Black                |          |
| 50       | 8118     |            | Grip                                    |          |
| 51       | 11030    |            | Lift Handle R.H.                        |          |
| 52       | 710-201  |            | Hex Hd. Cap Scr. 3/8-16 x .62" Lg.*     |          |
| 53       | 736-219  |            | Belleville Washer .400 I.D. x 1.13 O.D. |          |
| 54       | 748-201  |            | Spacer .635 I.D. x .88 O.D. x .57       |          |
| 55       | 736-233  |            | Wave Washer .660 I.D. x .82 O.D. x .029 |          |
| 56       | 11029    |            | Handle Pivot Bracket                    |          |
| 57       | 11032    |            | Lift Handle Brkt. Ass'y.                |          |
| 58       | 731-208  |            | Grille Insert                           |          |
| 59       | 11031    |            | Lift Handle L.H.                        |          |
| 60       | 11034    |            | Clutch Handle Brkt. Ass'y.              |          |
| 61       | 712-267  |            | Hex Nut 5/16-18 Thd.                    |          |
| 62       | 735-126  |            | Washer-Rubber                           |          |
| 63       | 11027    |            | Handle Brkt. Assy.                      |          |
| 64       |          |            | Rubber Grip                             |          |

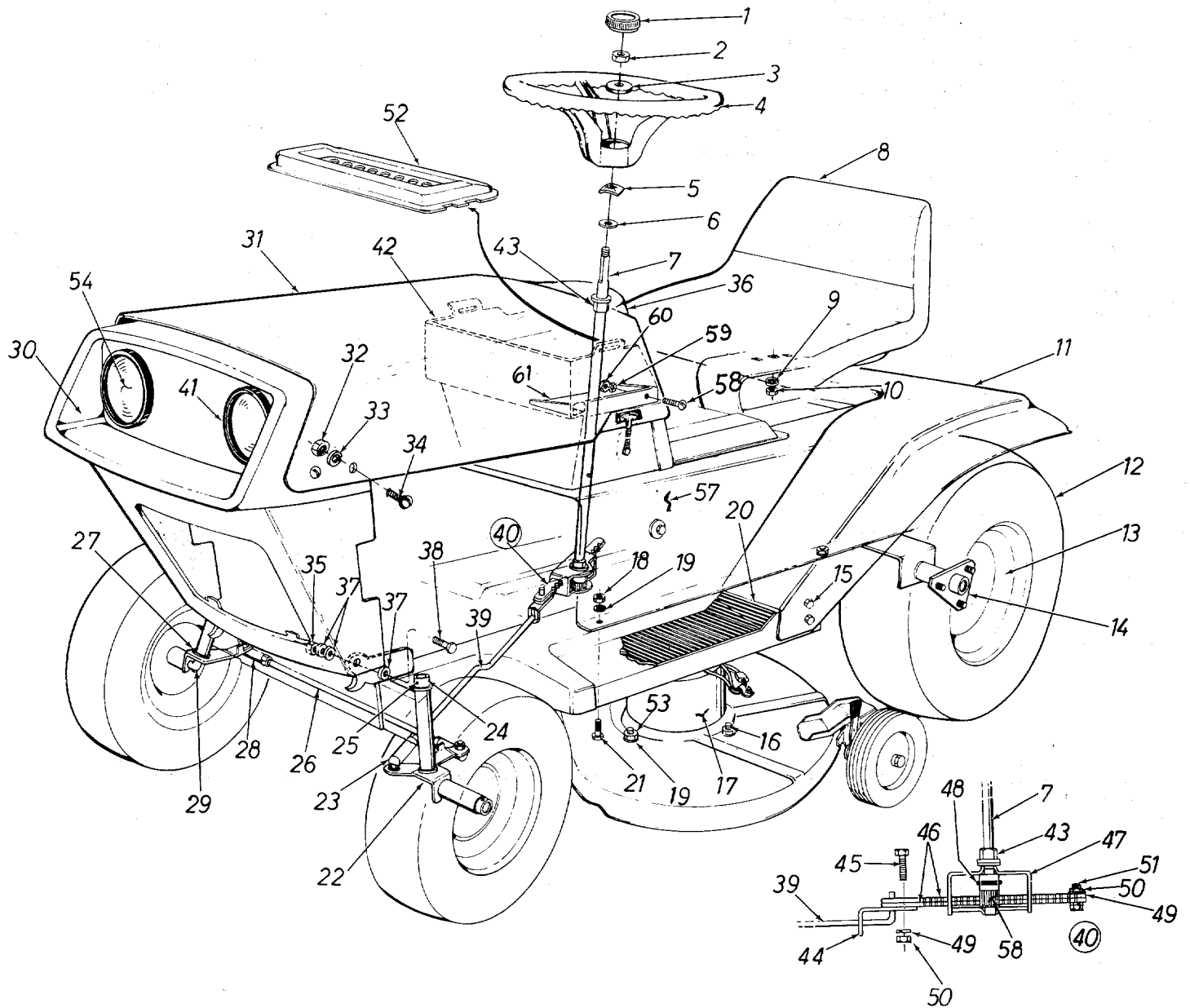
(459—Mag. Flake)

\*For faster service obtain standard nuts and bolts locally. If these items cannot be obtained locally, order by part number and size as shown on the parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Mag Flake finish—11839 (459).)

# 134-585A

IF YOU WRITE TO US ABOUT THIS ARTICLE  
OR IF YOU ORDER REPLACEMENT PARTS AL-  
WAYS MENTION THIS MODEL & SERIAL NO  
MODEL



LEFT HAND VIEW

# PARTS LIST FOR LEFT HAND VIEW MODEL 134-585A

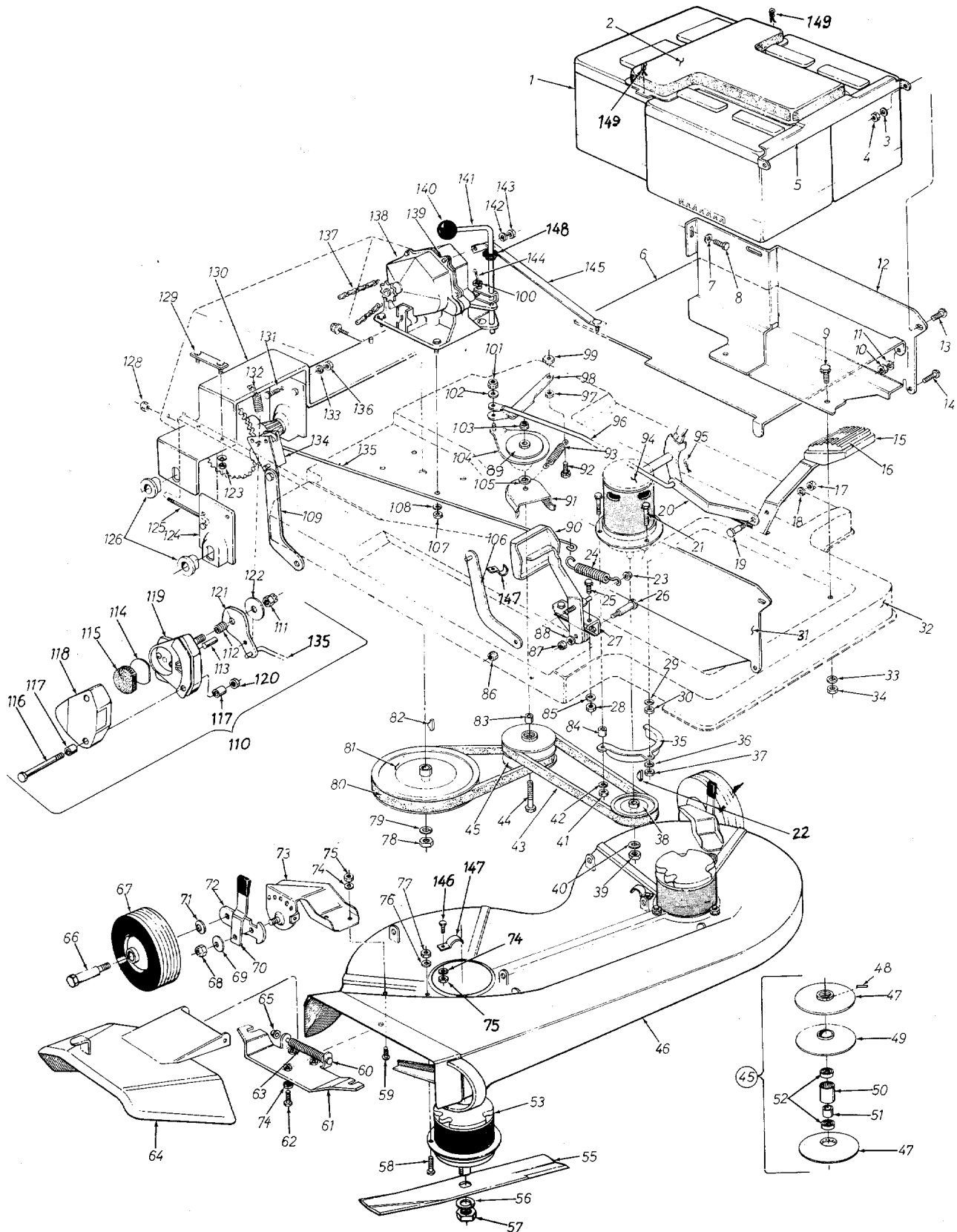
| REF. NO. | PART NO.  | COLOR CODE | DESCRIPTION                              | NEW PART | REF. NO. | PART NO.  | COLOR CODE | DESCRIPTION                             | NEW PART |
|----------|-----------|------------|------------------------------------------|----------|----------|-----------|------------|-----------------------------------------|----------|
| 1        | 731-220   |            | Steering Wheel Cap                       |          | 27       | 748-184   |            | Flange Bearing .630 I.D.                |          |
| 2        | 712-158   |            | Hex Center Locknut 5/16-18 Thd.          |          | 28       | 723-156   |            | Ball Joint Ass'y. (Tie Rod End)         |          |
| 3        | 736-219   |            | Belleville Washer .400" I.D. x 1.13 O.D. |          | 29       | 9095      |            | Front Axle Ass'y. R.H.                  |          |
| 4        | 731-219   |            | Steering Wheel 12.0 Dia.                 |          | 30       | 719-197   |            | Front Grille Comp.                      |          |
| 5        | 712-222   |            | Push Nut 5/8" Dia.                       |          | 31       | 11836—459 |            | Front Hood                              |          |
| 6        | 736-174   |            | Wave Washer .660" I.D. x .88 O.D.        |          | 32       | 712-287   |            | Hex Nut 1/4-20 Thd.*                    |          |
| 7        | 738-200   |            | Steering Shaft                           |          | 33       | 736-329   |            | Spring Lockwasher 1/4" Scr.*            |          |
| 8        | 757-241   |            | Seat Ass'y. Comp.—10.0"                  |          | 34       | 710-286   |            | Truss Hd. Mach. Scr. 1/4-20 x .50" Lg.* |          |
| 9        | 736-921   |            | Spring Lockwasher 1/2" Scr.*             |          | 35       | 712-375   |            | Hex Center Locknut 3/8-16 Thd.          |          |
| 10       | 712-206   |            | Hex Nut 1/2-13 Thd.                      |          | 36       | 11488     |            | Dash Panel                              |          |
| 11       | 11839—459 |            | Rear Fender                              |          | 37       | 736-105   |            | Belleville Washer                       |          |
| 12       | 734-528   |            | Rear Wheel Ass'y.—Comp. 18 x 6.50        |          | 38       | 710-253   |            | Hex Hd. Cap Scr. 3/8-16 x 1.00" Lg.*    |          |
|          | 734-294   |            | Rear Wheel Tire Only 18 x 6.50           |          | 39       | 747-138   |            | Steering Rod                            |          |
| 13       | 9262      |            | Rear Wheel Rim Ass'y.                    |          | 40       | —         |            | Steering Ass'y. See Breakdown           |          |
| 14       | 10473     |            | Rear Wheel Hub Ass'y.                    |          | 41       | 735-156   |            | Headlight Door Mounting                 |          |
| 15       | 710-258   |            | Hex Hd. Cap Scr. 1/4-20 x .62" Lg.*      |          | 42       | 12381     |            | Dash Panel—Box Ass'y.                   | N        |
| 16       | 710-198   |            | Hex Sems Scr. 5/16-18 x .75" Lg.*        |          | 43       | 748-228   |            | Hex Flange Bearing .505 I.D. Bronze     |          |
| 17       | 725-358   |            | Cutter Motor 36 Volts                    |          | 44       | 12372     |            | Steering Rod Bracket                    | N        |
| 18       | 712-267   |            | Hex Nut 5/16-18 Thd.*                    |          | 45       | 710-412   |            | Hex Hd. Cap Scr. 1/4-28 x .75" Lg.*     |          |
| 19       | 736-119   |            | Spring Lockwasher 5/16" Scr.*            |          | 46       | 11048     |            | Steering Segment                        |          |
| 20       | 723-241   |            | Foot Pad 15.75" Lg. x 4.0" Wide          |          | 47       | 11074     |            | Steering Housing Ass'y.                 |          |
| 21       | 710-259   |            | Hex Sems Scr. 5/16-18 x .62" Lg.*        |          | 48       | 715-120   |            | Spring Pin Spirol 3/8" Dia. x 1.00" Lg. |          |
| 22       | 9098      |            | Front Axle Ass'y. L.H.                   |          | 49       | 736-329   |            | Spring Lockwasher 1/4" Scr.*            |          |
| 23       | 723-156   |            | Ball Joint Ass'y. (Tie Rod End)          |          | 50       | 712-138   |            | Hex Nut 1/4-28 Thd.*                    |          |
| 24       | 711-169   |            | Collar 5/8" I.D.                         |          | 51       | 710-412   |            | Hex Scr. 1/4-28 x .75" Lg.*             |          |
| 25       | 710-494   |            | Sq. Hd. Set Scr. 5/16-18 x .38 Cup Pt.   |          | 52       | 731-232   |            | Dash Panel Cover                        |          |
| 26       | 711-256   |            | Tie Rod 3/8-24 (Threaded Both Ends)      |          | 53       | 712-267   |            | Hex Nut 5/16-18 Thd.*                   |          |
|          |           |            |                                          |          | 54       | 725-377   |            | 36 Volt Headlight                       |          |
|          |           |            |                                          |          | 57       | 11487     |            | Upper Frame                             |          |
|          |           |            |                                          |          | 58       | 710-473   |            | Tuss Mach. Scr. #10-24 x .50" Lg.*      |          |
|          |           |            |                                          |          | 59       | 736-147   |            | Ext. L-Wash. #10 Scr.*                  |          |
|          |           |            |                                          |          | 60       | 712-425   |            | Sq. Nut #10-24 Thd.*                    |          |
|          |           |            |                                          |          | 61       | 731-310   |            | Shield                                  | N        |

(459—Mag. Flake)

\*For faster service obtain standard nuts and bolts locally. If these items cannot be obtained locally, order by part number and size as shown on the parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above. (e.g. Mag Flake finish—11839 (459).)

# 134-585A



DECK AND FRAME VIEW

**PARTS LIST FOR DECK AND FRAME VIEW MODEL 134-585A**

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                                | NEW PART | REF. NO. | PART NO.  | COLOR CODE | DESCRIPTION                              | NEW PART |
|----------|----------|------------|--------------------------------------------|----------|----------|-----------|------------|------------------------------------------|----------|
| 1        | 725-374  |            | 12 Volt Battery—Deep Cycle (3)             |          | 42       | 736-119   |            | Spring Lockwasher 5/16" Scr.*            |          |
| 2        | 731-233  |            | Battery Cover                              |          | 43       | 754-157   |            | "V"-Belt 21/32-28" Lg.                   |          |
| 3        | 736-175  |            | Spring Washer .270" I.D. x .51 O.D. x .030 |          | 44       | 710-515   |            | Hex Hd. Cap Scr. 1/2-20 x 3.50" Lg.*     |          |
| 4        | 712-287  |            | Hex Nut 1/4-20 Thd.*                       |          | 45       | 10438     |            | Variable Speed Pulley Ass'y.             |          |
| 5        | 11492    |            | Battery Hold Bracket                       |          | 46       | 12390     |            | 38.0" Elec. Rider Deck Ass'y.            | N        |
| 6        | 11491    |            | Battery Plate                              |          | 47       | 748-177   |            | Sheave Half                              |          |
| 7        | 736-175  |            | Spring Washer .270" I.D. x .51 O.D. x .030 |          | 48       | 715-124   |            | Spring Pin—Spirol 5/32" Dia. x .62" Lg.* |          |
| 8        | 710-289  |            | Hex Scr. 1/4-20 x .50" Lg.*                |          | 49       | 748-181   |            | Movable Sheave Part Ass'y.               |          |
| 9        | 710-259  |            | Hex Sems Scr. 5/16-18 x .62" Lg.*          |          | 50       | 750-144   |            | Steel Tubing                             |          |
| 10       | 712-287  |            | Hex Nut 1/4-20 Thd.*                       |          | 51       | 750-146   |            | Spacer .520" I.D. x .692 O.D.            |          |
| 11       | 736-175  |            | Spring Washer .270" I.D. x .51 O.D. x .030 |          | 52       | 741-139   |            | Ball Bearing .50" I.D. x 1.38" C.D.      |          |
| 12       | 11490    |            | Battery Side Panel—R.H.                    |          | 53       | 725-358   |            | Cutter Motor 36 Volts                    |          |
| 13       | 710-286  |            | Truss Mach. Scr. 1/4-20 x .50" Lg.*        |          | 54       | 11497—452 |            | Deck Ass'y. Comp.                        |          |
| 14       | 710-286  |            | Truss Mach. Scr. 1/4-20 x .50" Lg.*        |          | 55       | 742-136   |            | 19.0 inch Blade                          |          |
| 15       | 11037    |            | Clutch Pedal Ass'y.                        |          | 56       | 736-158   |            | Spring Lockwasher 5/8" Scr.*             |          |
| 16       | 10614    |            | Pedal Pad Vinyl                            |          | 57       | 712-242   |            | Hex Jam Nut 5/8-11" Thd.*                |          |
| 17       | 712-798  |            | Hex Nut 3/8-16 Thd.*                       |          | 58       | 710-198   |            | Hex Sems Scr. 5/16-18 x .75" Lg.*        |          |
| 18       | 736-169  |            | Spring Lockwasher 3/8" Scr.*               |          | 59       | 710-289   |            | Hex Scr. 1/4-20 x .50" Lg.*              |          |
| 19       | 738-140  |            | Shoulder Scr. .437" Dia. x .180            |          | 60       | 711-571   |            | Pivot Pin                                |          |
| 20       | 11094    |            | Clutch Connecting Brkt.                    |          | 61       | 11399     |            | Adapter Plate Ass'y.                     |          |
| 21       | 710-322  |            | Hex Sems Scr. 5/16-18 x 1.00" Lg.          |          | 62       | 710-195   |            | Hex Scr. 1/4-28 x .62" Lg.*              |          |
| 22       | 714-129  |            | #4 Hi-Pro-Key 3/32 x 5/8" Dia.             |          | 63       | 732-261   |            | Tors on Spring                           |          |
| 23       | 726-100  |            | Push Nut 3/8" Rod                          |          | 64       | 11574—459 |            | Chute Cover Ass'y.                       |          |
| 24       | 732-245  |            | Brake Spring                               |          | 65       | 726-106   |            | Push Nut 1/4" Rod                        |          |
| 25       | 710-198  |            | Hex Sems Scr. 5/16-18 x .75" Lg.*          |          | 66       | 738-119   |            | Shoulder Scr. .625" Dia. x 1.75" Lg.     |          |
| 26       | 738-213  |            | Shoulder Scr. .498" Dia. x 1.450" Lg.      |          | 67       | 734-295   |            | Wheel Ass'y. 5.0" Dia.                   |          |
| 27       | 11039    |            | Pedal "U"—Brkt. Ass'y.                     |          | 68       | 712-116   |            | Hex Inserted Locknut 3/8-24 Thd.         |          |
| 28       | 712-267  |            | Hex Nut 5/16-18 Thd.*                      |          | 69       | 736-105   |            | Belleville Washer                        |          |
| 29       | 736-119  |            | Spring Lockwasher 5/16" Scr.*              |          | 70       | 10949     |            | Spring Lever Ass'y. with Knob            |          |
| 30       | 712-267  |            | Hex Nut 5/16-18 Thd.*                      |          | 71       | 736-105   |            | Belleville Washer                        |          |
| 31       | 11489    |            | Battery Side Panel—L.H.                    |          | 72       | 10937     |            | Wheel Pivot Bar                          |          |
| 32       | 11871    |            | Frame Ass'y.—Lower                         |          | 73       | 11236     |            | Wheel Bracket Ass'y.—R.H.                |          |
| 33       | 736-119  |            | Spring Lockwasher 5/16" Scr.*              |          |          | 11237     |            | Wheel Bracket Ass'y.—L.H.                |          |
| 34       | 712-267  |            | Hex Nut 5/16-18 Thd.*                      |          |          |           |            | Not Called Out                           |          |
| 35       | 11495    |            | Motor Belt Guard                           |          | 74       | 736-329   |            | Spring Lockwasher 1/4" Scr.*             |          |
| 36       | 736-119  |            | Spring Lockwasher 5/16" Scr.*              |          | 75       | 712-287   |            | Hex Nut 1/4-20 Thd.*                     |          |
| 37       | 712-267  |            | Hex Nut 5/16-18 Thd.*                      |          | 76       | 736-119   |            | Spring Lockwasher 5/16" Scr.*            |          |
| 38       | 756-207  |            | Motor Pulley 3.00" O.D. Split              |          | 77       | 712-267   |            | Hex Nut 5/16-18" Thd.*                   |          |
| 39       | 712-922  |            | Hex Jam Nut 1/2-20 Thd.                    |          | 78       | 712-922   |            | Hex Jam Nut 1/2-20 Thd.                  |          |
| 40       | 736-921  |            | Spring Lockwasher 1/2" Scr.*               |          | 79       | 736-921   |            | Spring Lockwasher 1/2" Scr.*             |          |
| 41       | 712-267  |            | Hex Nut 5/16-18" Thd.*                     |          | 80       | 754-136   |            | "V"-Belt 21/32 x 31" Lg.                 |          |
|          |          |            |                                            |          | 81       | 756-174   |            | Transmission Pulley .50" I.D.            |          |
|          |          |            |                                            |          | 82       | 714-129   |            | #4 Hi-Pro-Key 3/32 x 5/8" Dia.           |          |

(459—Mag. Flake)

\*For faster service obtain standard nuts and bolts locally. If these items cannot be obtained locally, order by part number and size as shown on the parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Mag Flake finish—11839 (459).)

**PARTS LIST (CONTINUED) FOR DECK AND FRAME VIEW MODEL 134-585A**

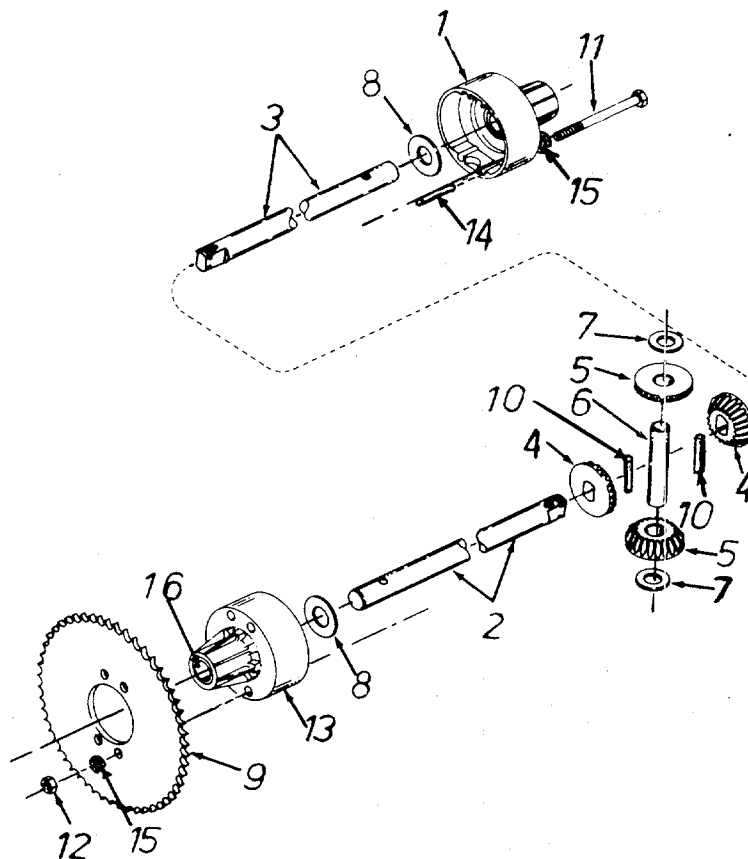
| REF. NO. | PART NO.    | DESCRIPTION                          | NEW PART | REF. NO. | PART NO.    | DESCRIPTION                              | NEW PA |
|----------|-------------|--------------------------------------|----------|----------|-------------|------------------------------------------|--------|
| 83       | 711-494     | Spacer .510" I.D. x .760 O.D. x .390 |          | 114      | HH-03-03097 | Backup-Wash.                             |        |
| 84       | 711-242     | Spacer .380" I.D. x 1.010 x .320     |          | 115      | HH-15-02533 | Friction Pad 1.600 Dia. x .370 Thk.      |        |
| 85       | 736-119     | Spring Lockwasher 5/16" Scr.*        |          | 117      | 761-138     | Spacer for Disc Brake                    |        |
| 86       | 712-429     | Hex Inserted Locknut 5/16-18 Thd.    |          | 118      | HH-12-03041 | Casting, Cam Side                        |        |
| 87       | 712-798     | Hex Nut 5/16-18 Thd.*                |          | 119      | HH-12-03045 | Casting, Carrier Side                    |        |
| 88       | 736-169     | Spring Lockwasher 3/8" Scr.*         |          | 120      | 712-375     | Hex Center Locknut 5/16-18 Thd.          |        |
| 89       | 11069       | Variable Speed Plate Ass'y.          |          | 121      | HH-18-02770 | Cam Lever                                |        |
| 90       | 11036       | Brake Pedal Brkt. Ass'y.             |          | 122      | HH-03-03032 | Thrust Washer 5/16" I.D.                 |        |
| 91       | 11065       | Vari. Spd.—Belt Guard Ass'y.         |          | 123      | 712-429     | Hex Inserted Locknut 5/16-18 Thd.        |        |
| 92       | 710-376     | Hex Scr. 5/16-18 x 1.00" Lg.*        |          | 124      | 10364       | Rear Axle Plate                          |        |
| 93       | 732-208     | Variable Drive Spring                |          | 125      | 710-437     | Chain Adjusting Link 5/16-18 x 4.38" Lg. |        |
| 94       | 725-357     | Traction Motor 36 Volts              |          | 126      | 748-151     | Flange Bearing with Flats .753 I.D.      |        |
| 95       | 714-507     | Cotter Pin 3/32" Dia. x .75" Lg.*    |          | 128      | 712-429     | Hex Inserted Locknut 5/16-18 Thd.        |        |
| 96       | 11064       | Clutch Rod—Vari. Spd.                |          | 129      | 10360       | Axle Bolt Plate Ass'y.                   |        |
| 97       | 712-429     | Hex Inserted Locknut 5/16-18 Thd.    |          | 130      | 10362       | Rear Axle Brkt. Ass'y.                   |        |
| 98       | 11072       | Variable Speed—Link                  |          | 131      | 710-198     | Hex Sems Scr. 5/16-18 x .75" Lg.*        |        |
| 99       | 711-404     | Shoulder Nut                         |          | 132      | 732-157     | Spring .38 O.D. x 3.25                   |        |
| 100      | 736-244     | Flat Washer .141 I.D. x .28 O.D.     |          | 133      | 736-119     | Spring Lockwasher 5/16" Scr.*            |        |
| 101      | 712-429     | Hex Inserted Locknut 5/16-18 Thd.    |          | 134      | 10398       | Disc Brake Brkt. Ass'y.                  |        |
| 102      | 736-264     | Flat Washer .344" I.D. x .62" O.D.   |          | 135      | 747-106     | Brake Rod .25" Dia. x 23.50" Lg.         |        |
| 103      | 719-922     | Hex Jam Nut 1/2-20 Thd.              |          | 136      | 712-267     | Hex Nut 5/16-18 Thd.*                    |        |
| 104      | 11067       | Vari. Speed—Eccenter Ass'y.          |          | 137      | 713-160     | # 420 Chain 1/2" Pitch x 87 Links        |        |
| 105      | 736-114     | Internal Lockwasher 1/2" Scr.*       |          |          | 713-154     | #420 Master Link 1/2" Pitch Type II      |        |
| 106      | 11056       | Parking Brake—Lever Ass'y.—R.H.      |          | 138      | 717-222     | Single Speed Transmission Ass'y.         |        |
| 107      | 712-267     | Hex Nut 5/16-18 Thd.*                |          | 139      | 710-412     | Hex Scr. 1/4-28 x .75" Lg.*              |        |
| 108      | 736-119     | Spring Lockwasher 5/16" Scr.*        |          | 140      | 722-115     | Ball Knob—Black                          |        |
| 109      | 11024       | Deck Link                            |          | 141      | 11853       | Transmission Shift Lever Ass'y.          |        |
| 110      | 761-137     | Disc Brake Ass'y.—Comp.              |          | 142      | 736-329     | Spring Lockwasher 1/4" Scr.*             |        |
| 111      | HH-02-03631 | Locknut                              |          | 143      | 712-138     | Hex Nut 1/4-28 Thd.*                     |        |
| 112      | HH-06-03031 | Compression Spring                   |          | 144      | 714-115     | Cotter Pin 1/8" Dia. x 1.00" Lg.*        |        |
| 113      | HH-05-03034 | Push Pin                             |          | 145      | 10396       | Transmission Support Brkt. Ass'y.        |        |
| 116      | 710-316     | Hex Scr. 5/16-18 x 3.50" Lg.         |          | 146      | 710-289     | Hex Scr. 1/4-20 x .50" Lg.*              |        |
|          |             |                                      |          | 147      | 746-133     | Wire Clip—Open Type                      |        |
|          |             |                                      |          | 148      | 731-309     | Bushing                                  |        |
|          |             |                                      |          | 149      | 714-101     | Intern. Cot. Pin 1/2 Dia.                | N      |

\*For faster service obtain standard nuts and bolts locally. If these items cannot be obtained locally, order by part number and size as shown on the parts list.

(459—Mag. Flake)

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Mag Flake finish—11839 (459).)

# DIFFERENTIAL 10483

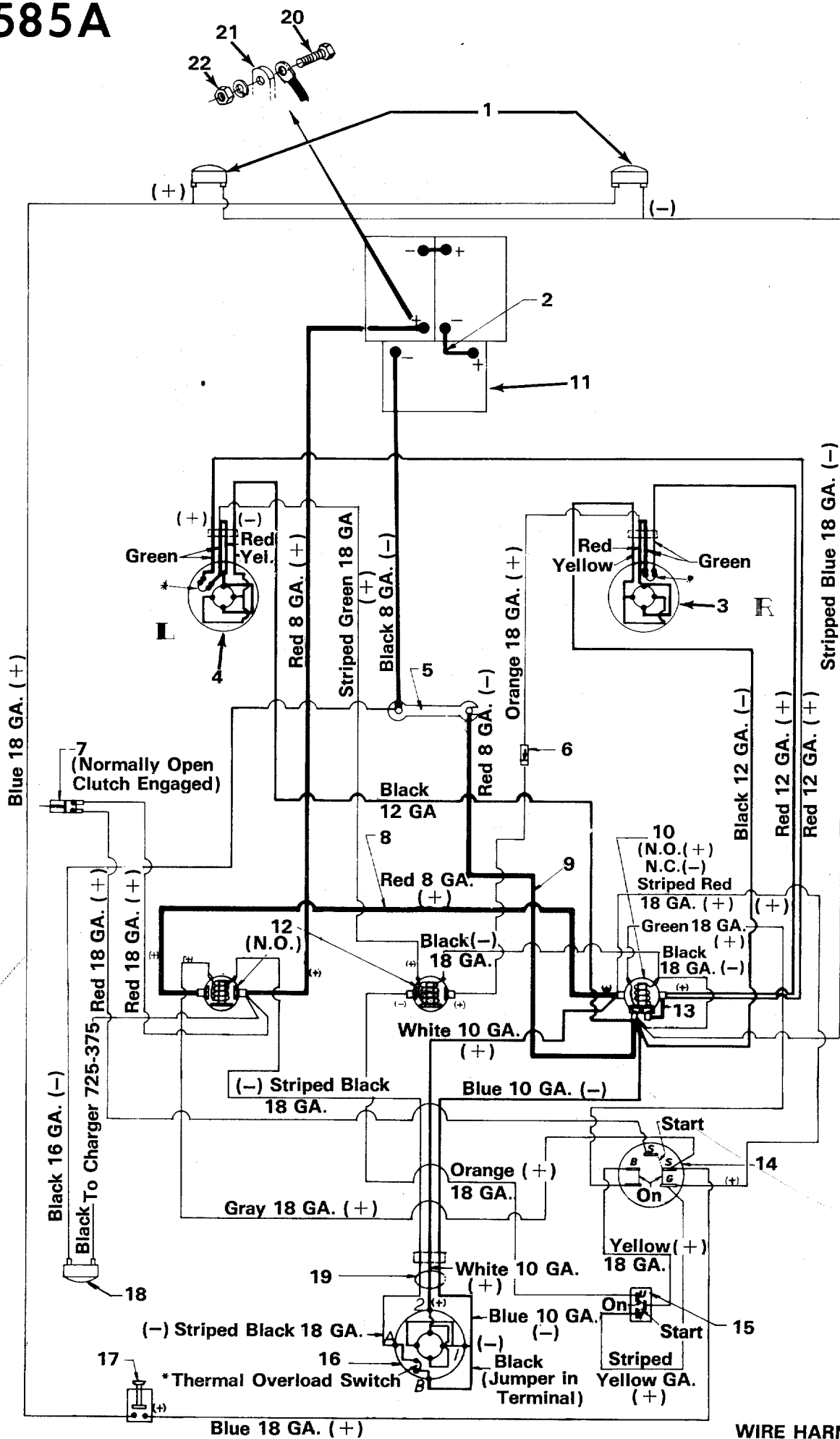


## PARTS LIST FOR DIFFERENTIAL 10483

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                               | NEW PART |
|----------|----------|------------|-------------------------------------------|----------|
| 1        | 719-150  |            | Housing Half (1)                          |          |
| 2        | 738-130  |            | Shaft—Short (1)                           |          |
| 3        | 738-131  |            | Shaft—Long (1)                            |          |
| 4        | 748-185  |            | Gear—Double "D" Hole (2)                  |          |
| 5        | 748-158  |            | Gear—Round Hole (2)                       |          |
| 6        | 711-276  |            | Drive Pin (1)                             |          |
| 7        | 736-187  |            | Flat Washer (2)                           |          |
| 8        | 736-188  |            | Washer (2)                                |          |
| 9        | 9133     |            | Sprocket (1)                              |          |
| 10       | 715-247  |            | Spirol Pin 3/16" Dia. x 1.00" Lg.* (2)    |          |
| 11       | 710-526  |            | Hex Hd. Cap Scr. 5/16-24 x 4.00" Lg.* (4) |          |
| 12       | 712-237  |            | Hex Locknut 5/16-24 Thd. (4)              |          |
| 13       | 719-150  |            | Housing Half (1)                          |          |
| 14       | 715-123  |            | Dowel Pin 3/16" Dia. x .62" Lg. (2)       |          |
| 15       | 736-119  |            | Spring Lockwasher 5/16" Scr.* (8)         |          |
| 16       | 748-169  |            | Flange Bearing (2)                        |          |
| 17       | 737-120  |            | Grease—High Temp. 450°F. (2 oz.)          |          |

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

# 134-585A

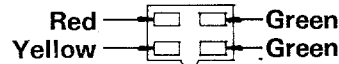


WIRE HARNESS 725-44

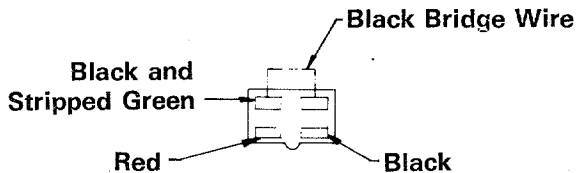
# PARTS LIST FOR SCHEMATIC

| REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                   | NEW PART | REF. NO. | PART NO. | COLOR CODE | DESCRIPTION                       | NEW PART |
|----------|----------|------------|-------------------------------|----------|----------|----------|------------|-----------------------------------|----------|
| 1        | 725-377  |            | 36 Volt DC Headlight          |          | 13       | 725-378  |            | Metal Strip                       |          |
| 2        | 725-388  |            | Electric Wire                 |          | 14       | 725-371  |            | Ignition Switch                   |          |
| 3        | 725-358  |            | Cutter Motor R.               |          |          | 725-201  |            | Ignition Key (Not Shown)          |          |
| 4        | 725-358  |            | Cutter Motor L.               |          | 15       | 725-372  |            | Cutter Switch                     |          |
| 5        | 725-376  |            | Fuse <b>100 AMP</b>           |          | 16       | 725-357  |            | Drive Motor                       |          |
| 6        | 725-373  |            | Diode                         |          | 17       | 725-202  |            | Light Switch                      |          |
| 7        | 725-268  |            | Safety Switch (Normally Open) |          | 18       | 725-386  |            | Ammeter                           |          |
| 8        | 725-150  |            | Electric Wire 8 Ga.-Red       |          | 19       | 725-368  |            | Motor Harness                     |          |
| 9        | 725-389  |            | Electric Wire                 |          |          | 725-440  |            | Wire Harness                      |          |
| 10       | 725-370  |            | Solenoid—36 Volt              |          | 20       | 710-198  |            | Hex Sems Scr. 5/16-18 x .75" Lg.* |          |
| 11       | 725-374  |            | 12 Volt Battery               |          | 21       | 736-119  |            | L-Wash. 5/16" Scr.*               |          |
| 12       | 725-369  |            | Solenoid—36 Volt              |          | 22       | 712-267  |            | Hex Nut 5/16-18 Thd.*             |          |

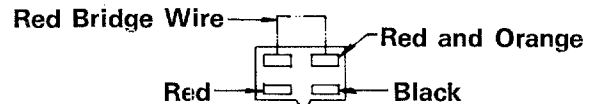
725-375 CHARGER 36-V.



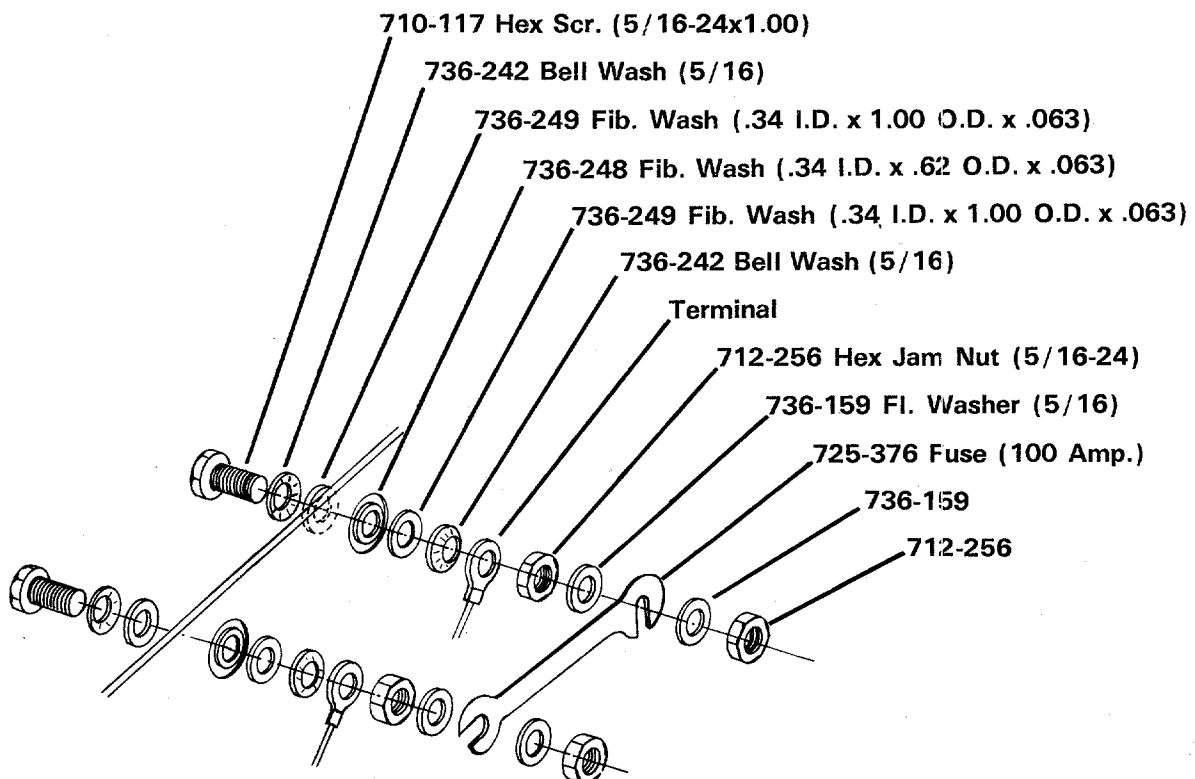
Drive Motor Connector Looking into Plug



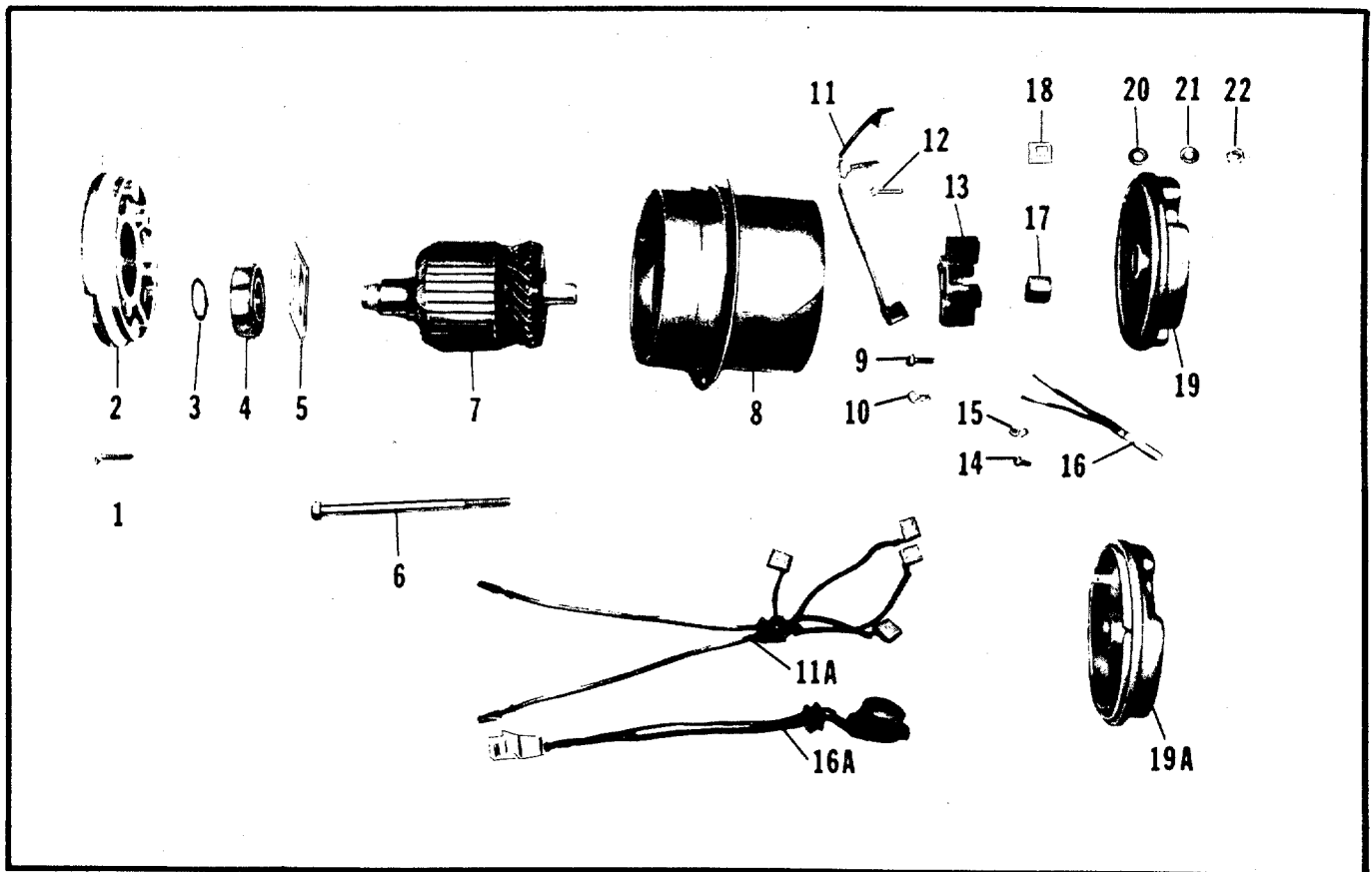
Harness Connector Looking into Plug Motor Marked II



Harness Connector Looking into Plug Motor Marked R



# Traction Motor

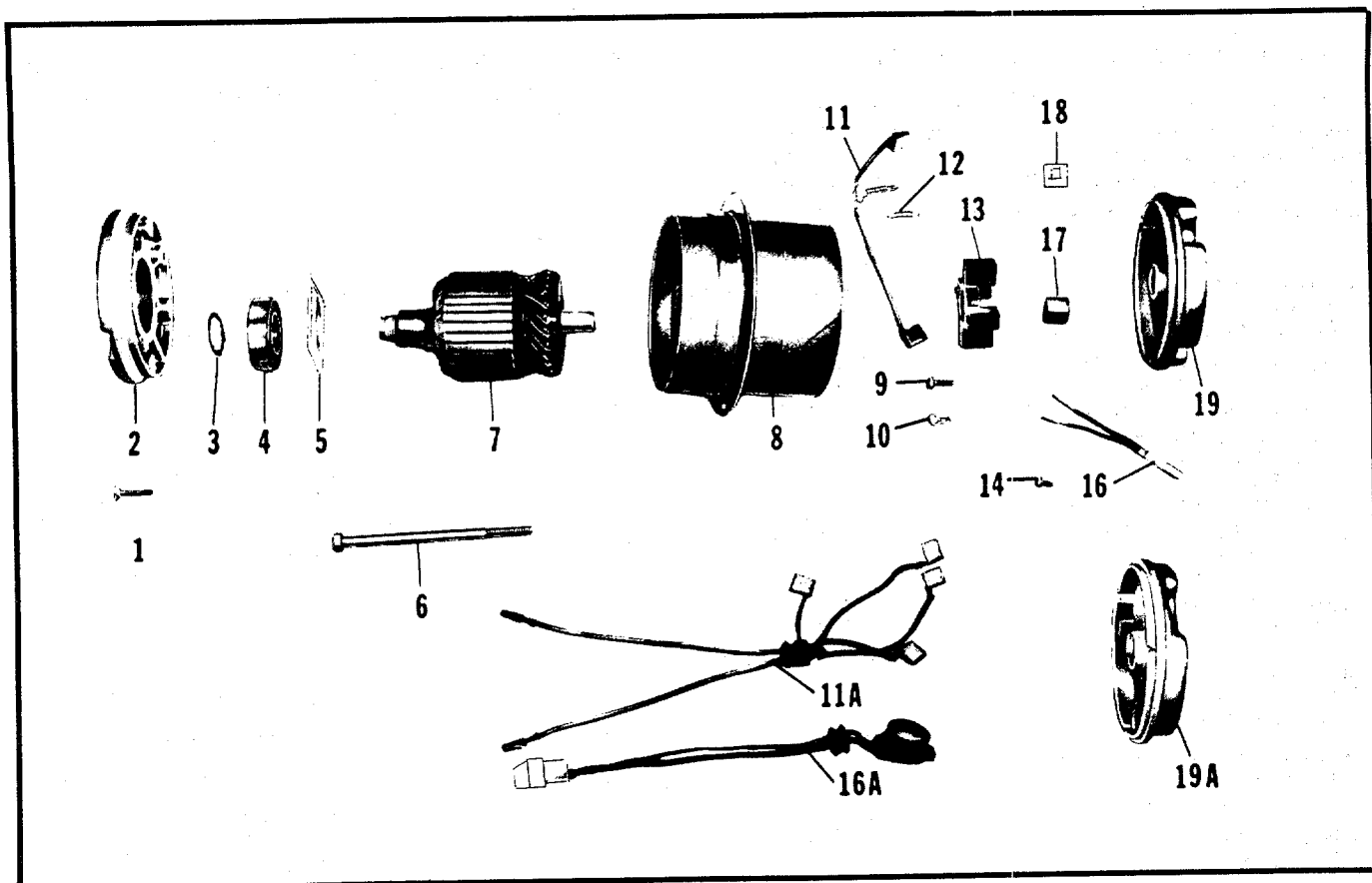


Model 725-357 C BOSH 06277-21-MO48HM

## PARTS LIST

| REF. NO. | PART NO.        | DESCRIPTION                  | REF. NO. | PART NO.        | DESCRIPTION                  |
|----------|-----------------|------------------------------|----------|-----------------|------------------------------|
| 1        | 01137-21-SC48HM | Scr., Bearing Retainer Plate | 12       | SP 551013       | Brush Spring                 |
| 2        | 06330-25-CP48HM | Cap, Drive End-Vent          | 13       | 01112-27-BH48HM | Brush Holder                 |
| 3        | Not required    |                              | 14       | SC 3080-1       | Scr., Motor Protector Holder |
| 4        | 01225-25-BB48HM | Bearing, Drive End           | 15       | EC 3046-4       | Holder, Motor Protector      |
| 5        | 01144-26-PL48HM | Plate, Bearing Retainer      | 16       | 01238-20-SW48HM | Motor Protector & Bracket    |
| 6        | 01141-23-SC48HM | Thru Bolts                   | 17       | 01111-29-BG48HM | Bearing, Commutator Cap      |
| 7        | 06327-21-AT48HM | Armature Assembly            | 18       | 01216-22-WA48HM | Washer, Insulating           |
| 8        | 06331-23-HC48HM | Hsg., Assy., Motor-Vent      | 19       | 06328-23-CP48HM | Cap, Commutator End          |
| 9        | 01113-25-SC48HM | Scr., Brush Holder Retain.   | 20       | WA 3074-1       | Washer, Insulating           |
| 10       | EC 3164         | Retainer, Brush Shunt        | 21       | WA 1-9 CA or ZN | Washer                       |
| 11       | 01219-24-BR48HM | Brush & Bolt Assy.           | 22       | NT 7-8 CA or ZN | Nut                          |

# Cutter Motor



Model 725-358 (01119-27-MO48HM)

## PARTS LIST

| REF. NO. | PART NO.         | DESCRIPTION              | REF. NO. | PART NO.        | DESCRIPTION                           |
|----------|------------------|--------------------------|----------|-----------------|---------------------------------------|
| 1        | 01137-21-SC48HM  | Screw, Bearing Retainer  | 11A      | 01107-24-CB48HM | Brush & Cable Assembly                |
| 2        | 01149-24-CP48HM  | Cap, Drive End           | 12       | SP 551013       | Brush Spring                          |
| 3        | 01138-23-RG48HM  | Ring, Retaining          | 13       | 01112-27-BH48HM | Brush Holder                          |
| 4        | 01127-22-BB48HM  | Bearing, Drive End       | 14       | SC 3080-1       | Screw, Thermal Overload Retainer      |
| 5        | 01144-26--PL48HM | Plate, Bearing Retaining | 16A      | 01217-20-SW48HM | Thermal Overload Switch & Cable Assy. |
| 6        | 01140-25-SC48HM  | Thru Bolts               | 17       | 01111-29-BG48HM | Bearing, Commutator Cap               |
| 7        | 01173-22-AT48HM  | Armature Assembly        | 18       | Not required    |                                       |
| 8        | 01162-23-HG48HM  | Housing Assembly, Motor  | 19A      | 01148-22-CP48HM | Cap, Commutator End                   |
| 9        | 01113-25-SC48HM  | Screw, Brush Holder      |          |                 |                                       |
| 10       | EC 3164          | Retainer, Brush Shunt    |          |                 |                                       |

# PARTS INFORMATION

## POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

**A 1 Engine & Mower Co.**  
327 East 9th Street  
Salt Lake City, Utah 84102

**American Electric Ignition Co.**  
124 N.W. 8th Street  
Oklahoma City, Oklahoma 73102

**Auto Electric & Carburetor Co.**  
2525 4th Avenue, S.  
P. O. Box 1948  
Birmingham, Alabama 35233

**Automotive Equipment Service Co.**  
3117 Holmes Street  
Kansas City, Missouri 64109

**Bailey's Rebuild Inc.**  
1325 E. Madison Street  
Seattle Washington 98102

**Bleckrie, Inc.**  
7900 Lorain Avenue  
Cleveland, Ohio 44102

**Brown Equipment Distributor Inc.**  
110 Beech Street  
Corydon, Indiana 47112

**Bullard Supply**  
2409 Commerce Street  
Houston, Texas 77003

**Carl A. Anderson Co.**  
623 S. 16th Street  
Omaha, Nebraska 68102

**Catto & Putty, Inc.**  
P. O. Box 2408  
510 Soledad Street  
San Antonio, Texas 78205

**Center Supply Company**  
6867 New Hampshire Avenue  
Takoma Park, Maryland 20012

**Dixie Sales Company**  
P. O. Box 1408  
327 Battleground Avenue  
Greensboro, North Carolina 27402

**East Point Cycle & Key Shop**  
1617 Whiteway  
East Point, Georgia 30044

**Gamble Distributors**  
West End Avenue  
Carthage, New York 13619

**Garden Equipment Co., Inc.**  
6600 Cherry Avenue  
Long Beach, California 90805

**Gardenville Supply, Inc.**  
Pipersville, Pennsylvania 18947

**Henry W. O'Neil & Assoc., Inc.**  
410 North Goodman Street  
Rochester, New York 14609

**Henzler, Inc.**  
2015 Lemay Ferry Road  
St. Louis, Missouri 63125

**Kenton Supply**  
8216 North Denver Avenue  
Portland, Oregon 97217

**Kimber's Inc.**  
115 W. Geddes St.  
Syracuse, New York 13204

**The Lawnmower Shop**  
1340 El Camino Real  
San Carlos, California 94070

**Marr Brothers**  
423 E. Jefferson  
Dallas, Texas 75203

**Mathews Auto Electric Co.**  
420 East 2nd Street  
Tulsa Oklahoma 74120

**McClure Lawn & Garden Supply**  
1114 Lexington Avenue  
Mansfield, Ohio 44907

**Memphis Cycle & Supply Co.**  
421 Monroe Avenue  
Memphis Tennessee 38103

**Morton B. Collins Co.**  
300 Birnie Avenue  
Springfield, Massachusetts 01107

**Moz-All of Florida, Inc.**  
365 Greco Avenue  
Coral Gables, Florida 33146

**National Central, Div. of**  
Joe Sterling, Inc.  
Drawer "D" 687 Seville Rd.  
Wadsworth, Ohio 44281

**Parts & Sales Inc.**  
2101 Industrial Pkwy.  
Elkhart, Indiana 46514

**Power Equipment Distributor**  
36463 So. Gratiot Avenue  
Mt. Clemens, Michigan 48043

**Power Lawn & Garden Equip. Co.**  
2551-2571 J. F. Kennedy Road  
Dubuque, Iowa 52001

**Radco Distributors**  
2403 Market Street  
P. O. Box 3216  
Jacksonville, Florida 32206

**Raub Supply Company**  
James & Mulberry Sts.  
Lancaster, Pennsylvania 17604

**Richmond Battery & Ignition**  
P. O. Box 25369 — 957 Myers St.  
Richmond, Virginia 23260

**Smith Hardware Company**  
515 N. George Street  
Goldsboro, North Carolina 27530

**South Denver Lawn Equip. Co.**  
527 West Evans  
Denver, Colorado 80223

**Suhren Engine**  
8330 Earhart Blvd.  
New Orleans, Louisiana 70118

**Sutton's Lawn Mower Shop**  
Route 4, Box 343  
North Little Rock, Arkansas 72117

**Warner Equipment**  
7520 Lyndale Avenue, So.  
Minneapolis, Minnesota 55423

**Woodson Sales & Service**  
1702 North Sylvania  
Ft. Worth, Texas 76111

**DEFECTIVE OR MISSING PARTS** must be reported to the factory immediately. Such claims must include your model number and date of purchase.

## WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

### CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.