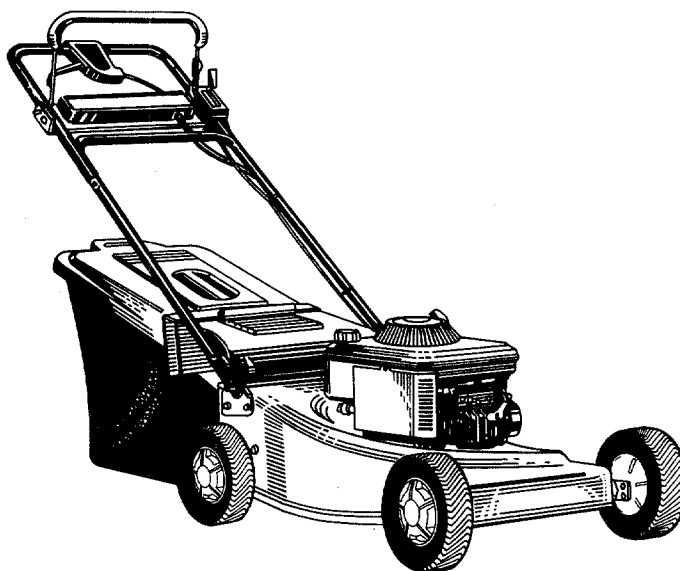


\$1.00

OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



21"
ELECTRIC
START
ROTARY
MOWERS

Model Numbers
129-469E000
129-476E000
129-479E000

Important: Read Safety Rules and Instructions Carefully

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Dear Customer,

So often throughout the year we are all in a rush to meet our daily obligations.

However, we at MTD Products Inc are taking a quick moment out to say...

"Thank you for your business."

Sincerely,
MTD PRODUCTS INC



INSTRUCTIONS GIVEN WITH THIS SYMBOL ARE FOR PERSONAL SAFETY. BE SURE TO FOLLOW THEM.

LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, Peerless components, motor, battery (except as noted below) or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

A battery which proves defective within ninety (90) days will be replaced without charge. After 90 days but within one year from the date of purchase, MTD will replace the defective battery for a charge of 1/12 of the current retail price of the battery for each full 30 day period between the date of purchase and the date of return.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

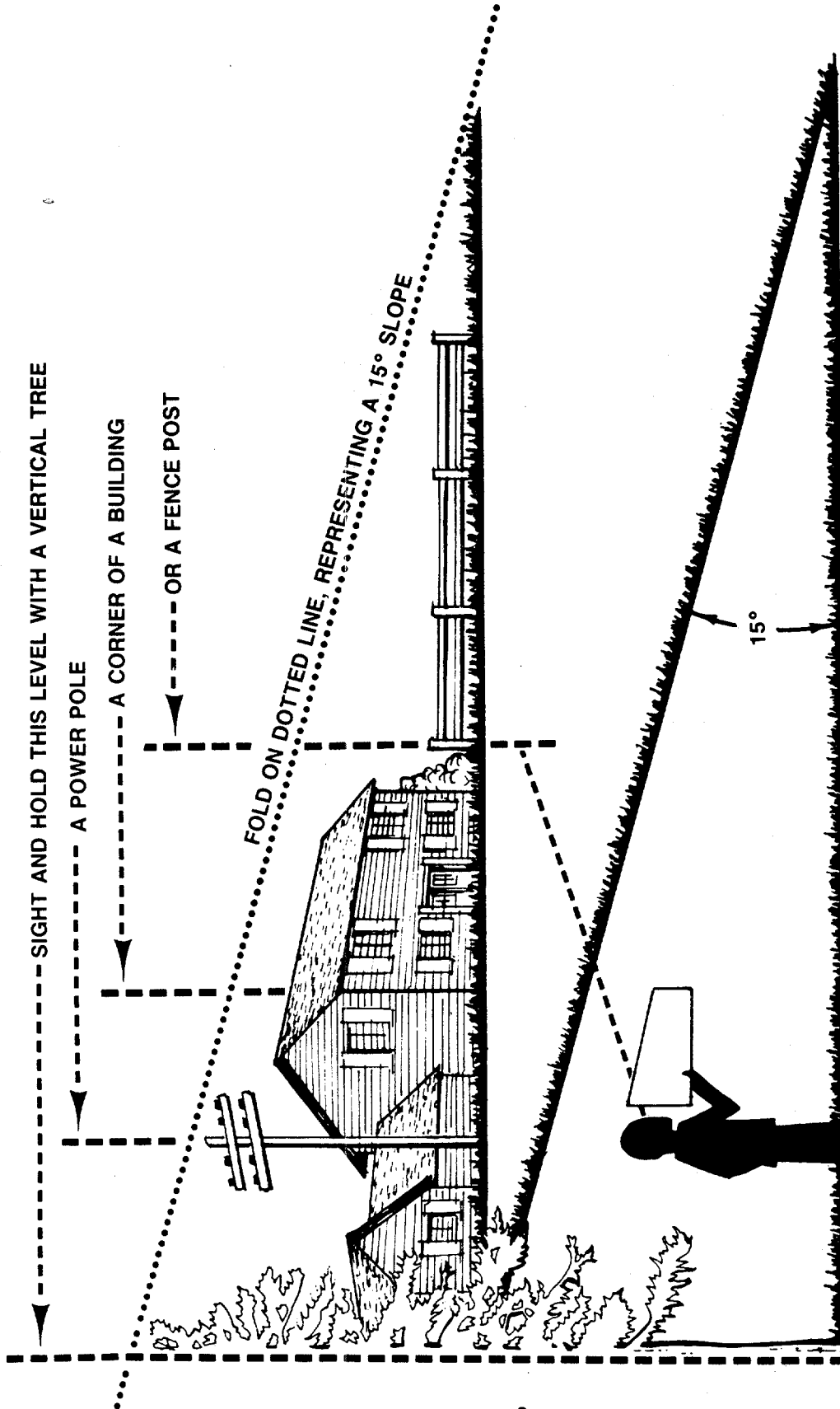
In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer.

Cut Along This Line

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)



Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

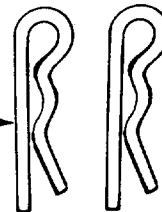
Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

CONTENTS OF HARDWARE PACK/PARTS IDENTIFICATION

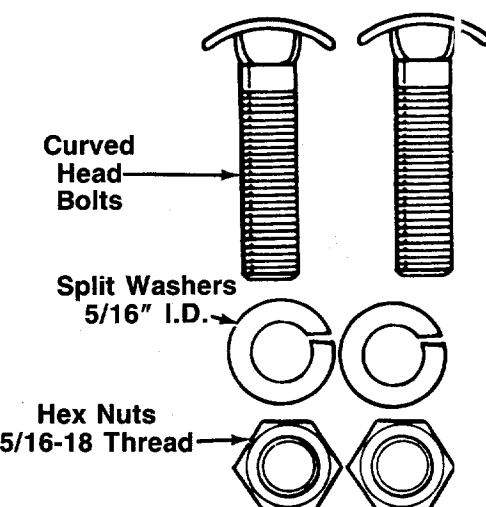
Remove this sheet from your owner's manual and lay the hardware on the illustration for identification purposes. After assembly, keep the Slope Gauge which is on the reverse side of this sheet for future use.
(Hardware pack may contain extra items which are not used on your unit.)

A ATTACHING THE LOWER HANDLE



Hairpin Clips

B ATTACHING THE UPPER HANDLE

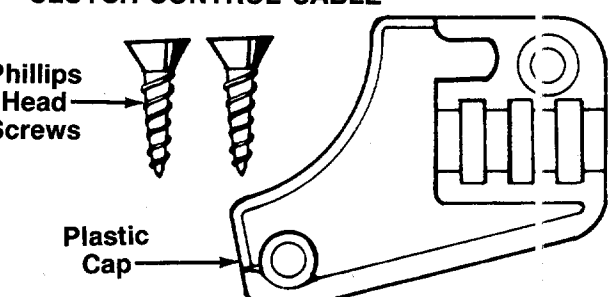


Curved Head Bolts

Split Washers
5/16" I.D.

Hex Nuts
5/16-18 Thread

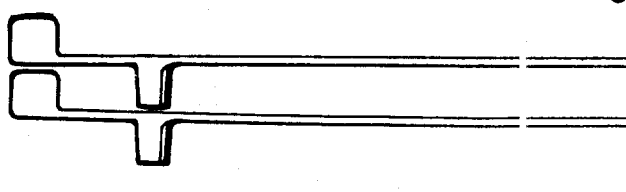
C ATTACHING THE DRIVE CLUTCH CONTROL CABLE



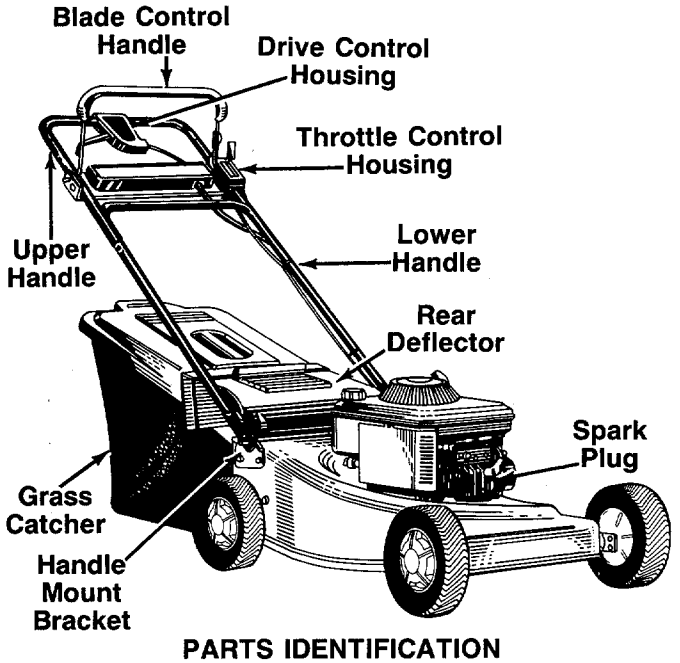
Phillips Head Screws

Plastic Cap

D SECURING THE CABLES



Cable Ties



Blade Control Handle

Drive Control Housing

Throttle Control Housing

Upper Handle

Lower Handle

Rear Deflector

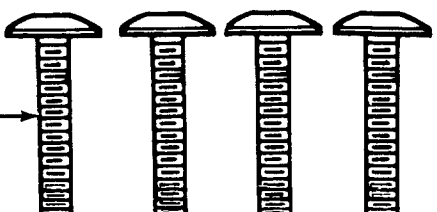
Spark Plug

Grass Catcher

Handle Mount Bracket

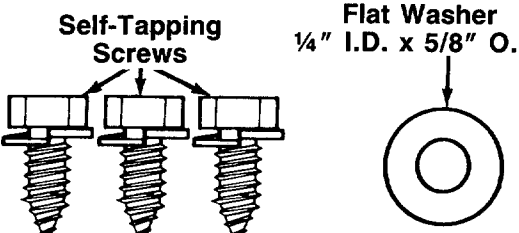
PARTS IDENTIFICATION

E ASSEMBLY OF GRASS CATCHER Model 469E (Soft Grass Bag):



Self-Tapping Screws

Models 476E and 479E (Hardtop Grass Bag):



Self-Tapping Screws


Flat Washer
1/4" I.D. x 5/8" O.D.



IMPORTANT

RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LAWN MOWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.**



Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.



TRAINING

1. Read this owner's manual carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Never allow children to operate a power mower. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower to help prevent blade contact or thrown object injury. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.



PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.
2. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.
3. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts to avoid entanglement in the moving parts. Never operate a unit in bare feet, sandals, or sneakers.
4. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or until engine has been allowed to cool for two minutes after running. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions.
7. Never attempt to make a wheel or cutting height adjustment while the engine is running.
8. Never operate the equipment in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run. Mow only in daylight or in good artificial light.

9. For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.



OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
3. Stop the blade when crossing gravel drives, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
7. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
8. Do not run the engine indoors.
9. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. Always be sure of your footing. A slip and fall can cause serious personal injury.
10. Never operate mower without proper guards, plates or other safety protective devices in place.
11. Do not operate this mower with the chute door open, unless the complete grass catcher is properly mounted on the mower.



MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
5. Check the grass catcher bag frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.

➔ **IMPORTANT:** This unit is shipped **WITHOUT GASOLINE** or **OIL**. After assembly, service engine with gasoline and oil as instructed in the separate engine manual packed with your unit.

➔ **NOTE:** Reference to right or left hand side of the mower is observed from the operating position.

ASSEMBLY INSTRUCTIONS

Tools Required for Assembly

- (1) Pair of Pliers
- (1) 1/2" Wrench*
- (1) 5/16" Wrench or Nutdriver*
- (1) Phillips Screwdriver
- (1) Flat Blade Screwdriver

*Or one 6" Adjustable Wrench.

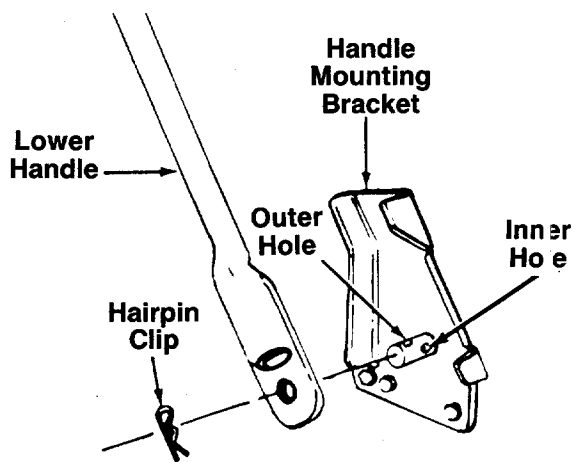


FIGURE 1.

UNPACKING

1. Remove the lawn mower from the carton by opening the top flaps and lifting the unit out. Be careful of the staples. Make certain all parts and literature have been removed from the carton before the carton is discarded.
2. Disconnect and ground the spark plug wire against the engine. Check beneath the deck for any cardboard packaging. Remove if present.
3. Stretch out all control cables and place on the floor. Be careful not to bend or kink the cables at any time during assembly.
4. Remove page four from this manual and lay the contents of the hardware pack on the illustration for identification.

ATTACHING THE LOWER HANDLE (Hardware A)

1. Attach the lower handle by placing the bottom holes in the lower handle over the weld pins on the handle mounting brackets on the rear of the deck. Make certain the instruction label on the lower handle can be read from the operating position.
2. Using a pair of pliers, squeeze one leg of the lower handle against the handle mounting bracket. Insert the hairpin clip into the inner hole on the weld pin. See figure 1. Repeat on other side.

➔ NOTE

There are two (2) holes in the handle mounting brackets. Place the hairpin clip in the inner hole for operation. Outer hole is for storage.

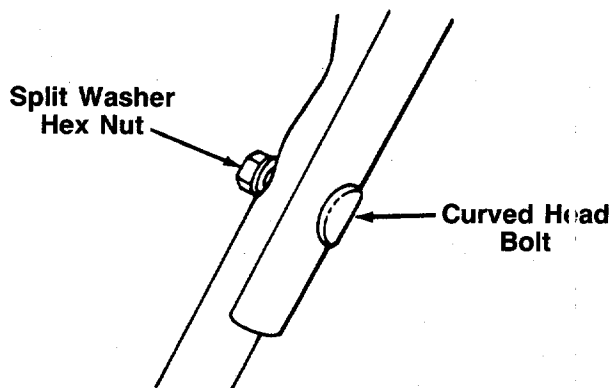


FIGURE 2.

ATTACHING THE UPPER HANDLE (Hardware B)

Place the upper handle in position over the lower handle. The label on the throttle control housing and the control lever must be facing up. Secure the upper handle using two curved head bolts, split washers and hex nuts as shown in figure 2.

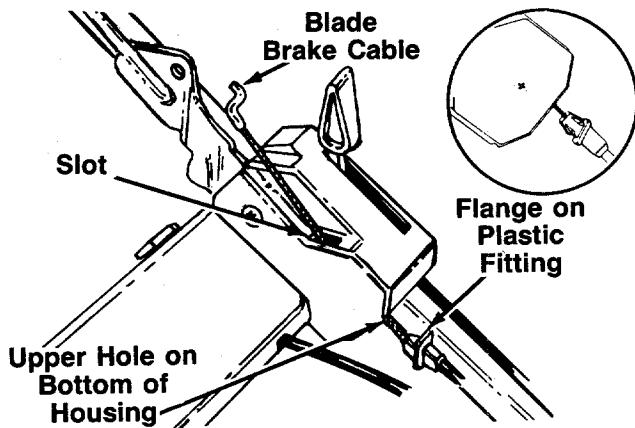


FIGURE 3.

ATTACHING THE BRAKE CABLE

1. The brake cable is attached to the engine, and has a "Z" fitting on the loose end. Route the brake cable below the lower handle. Place end of cable into the upper hole on the bottom of the control housing, and through the slot as shown. The angle of the plastic flange must be positioned downward as shown in figure 3. Be careful not to bend or kink the cable at any time.
2. Push the plastic fitting until it locks into the control housing.



WARNING

Brake cable must be assembled as shown for proper blade brake operation.

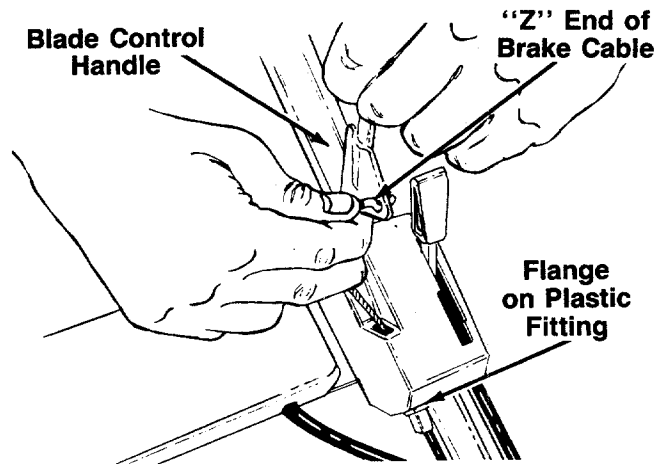


FIGURE 4.

3. Hook the "Z" end of the brake cable into the hole in the blade control handle from the inside to the outside as shown in figure 4.

ATTACHING THE THROTTLE CABLE

1. Push the throttle control lever on the handle all the way forward to CHOKE position. See figure 5.
2. The throttle control cable is attached to the upper handle. Route the throttle control cable under the lower handle and inside the handle mounting bracket. Hook the "Z" end of the throttle control cable into the hole in the control lever on the engine. See figure 5.
3. Using a 5/16" wrench or nutdriver, remove the screw on the cable clamp shown in figure 5. Slip the control cable under the clamp. Replace the screw (cable should be above the screw), but do not tighten (cable must still move freely beneath the clamp). Make certain the tab on the cable clamp is seated into the slot on the engine.
4. Push the control lever on the engine as far toward the **outside** of the engine as it will go. The edge of the control lever should be flush with the bracket on the engine. See figure 5. Hold the control lever in this position as you tighten the screw on the cable clamp to secure the throttle cable.
5. Loosen the screw on the clamp on the side of the engine. Slip the cable casing under the clamp to secure the cable **away from the muffler**. Be careful not to bend or kink the cable. Tighten the screw.

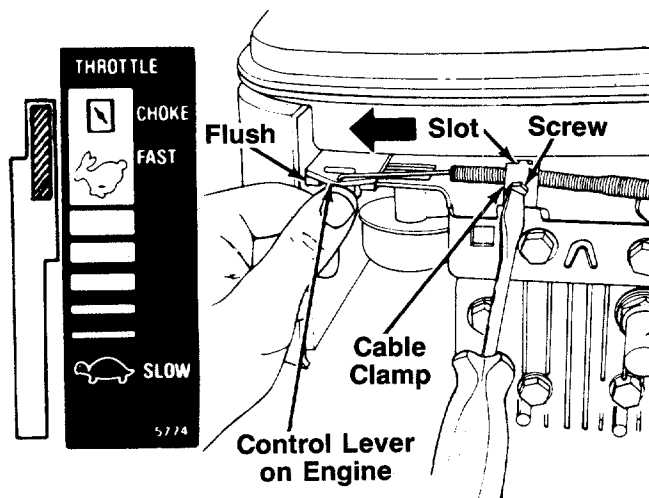


FIGURE 5.

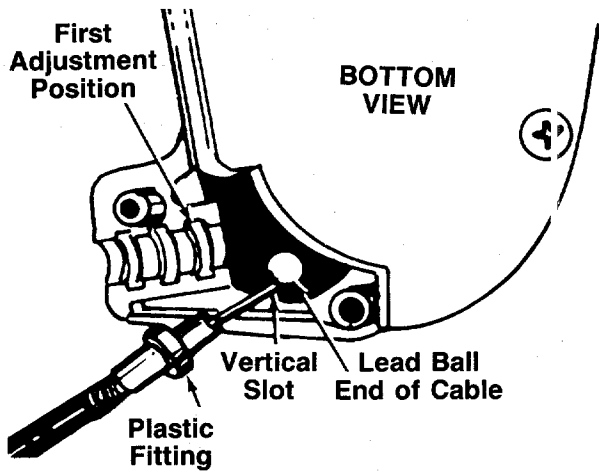


FIGURE 6.

ATTACHING THE DRIVE CLUTCH CONTROL CABLE (Hardware C)

The drive clutch control cable is attached to the deck. Attach the cable to the lever in the clutch control housing, located in the middle of the upper handle, as follows.

1. Place the lead ball end of the cable into the fitting provided in the end of the clutch control lever. Slip the braided wire into the vertical slot as shown in

← figure 6.

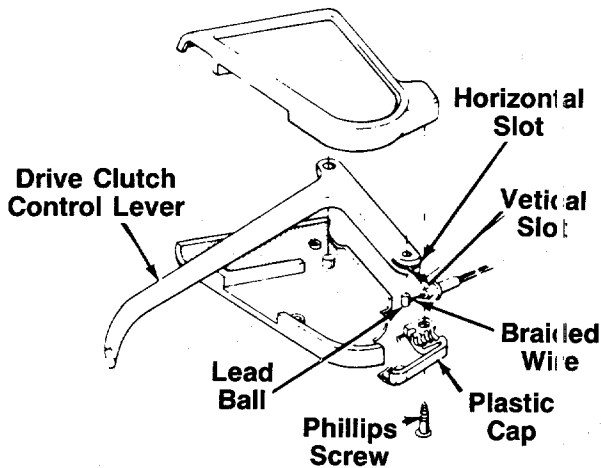


FIGURE 7.

2. Slide the braided wire around in the horizontal slot. See figure 7.

←

3. Place the plastic fitting on the control cable into the first adjustment position in the clutch control housing. See figure 6.
4. Secure the plastic cap to the clutch control housing using the two Phillips head screws. See figure 7.



WARNING

Drive clutch adjustment must be checked before the unit is operated, as described in the operation section.

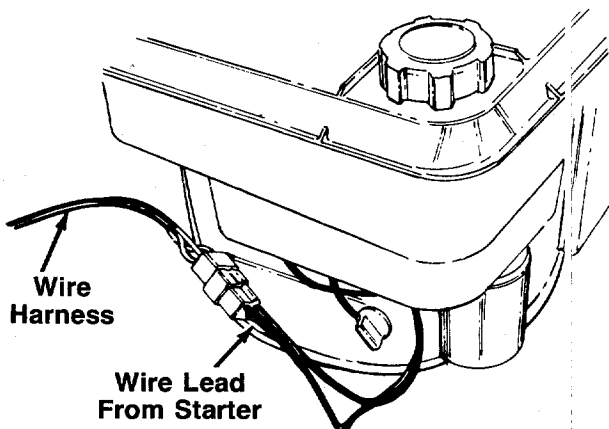


FIGURE 8.

ATTACHING THE WIRE HARNESS

Plug the end of the wire lead coming from the starter on the engine into the plug on the end of the wire harness. See figure 8.

←

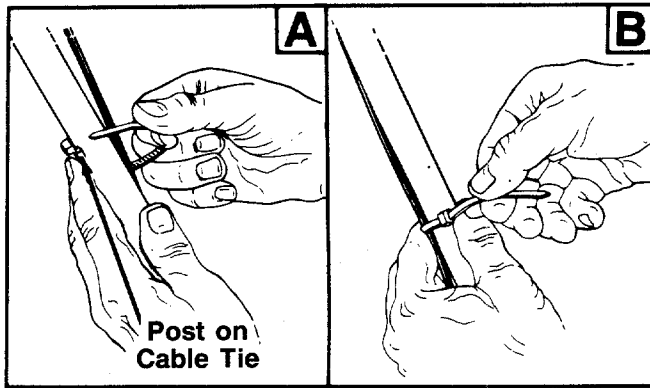


FIGURE 9.

SECURING THE CABLES (Hardware D)

Secure all cables to the left side of the handle as follows.

- A. Insert posts on cable ties into holes provided on the lower handle. The holes may be either on the inside or outside of the handles. See figure 9A.
- B. Secure the cables with the cable ties. See figure 9B.
- C. Trim excess ends of cable ties.

FINAL ASSEMBLY OF MOWER

1. Attach hub caps (optional) to the wheels by lining up the hub caps with the wheels. Push to lock in position.
2. Make certain **all** nuts and bolts are tightened securely.
3. **Be certain to charge the battery** as instructed in "Before Starting" section under Operation. Read instructions carefully.

ASSEMBLY OF GRASS CATCHER (Hardware E)

There are two different types of grass catchers, those with soft grass bags and those with hardtop grass bags. Follow the instructions which pertain to your unit.

NOTE

Make certain the grass bag is turned right side out before assembling (warning label will be on the outside).

Model 469E (Soft Grass Bag):

1. Join the rear frame and front frame assembly as shown in figure 10.
2. Place bag over frame (black plastic side is the bottom of bag). Hooks on the front frame go toward the top of the bag.

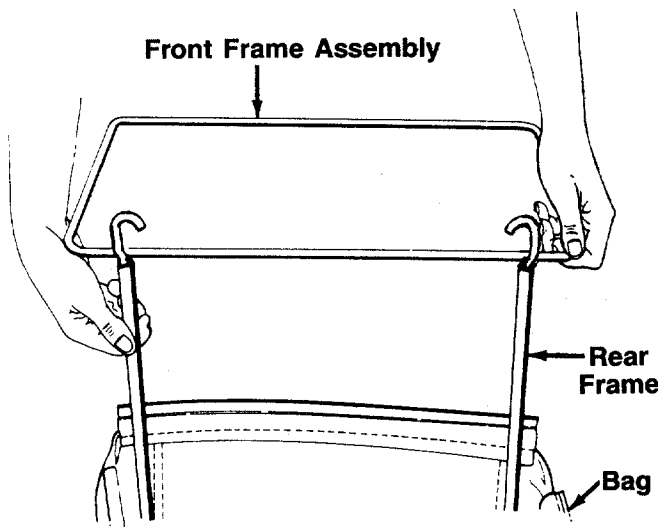


FIGURE 10.

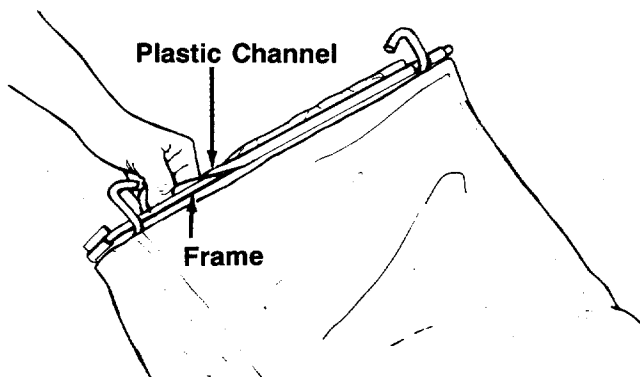
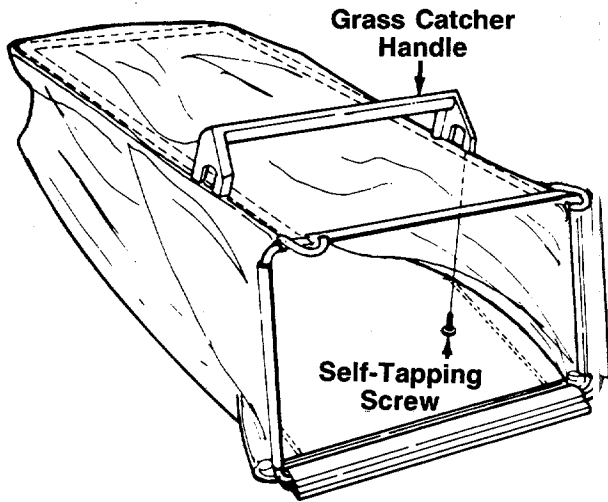


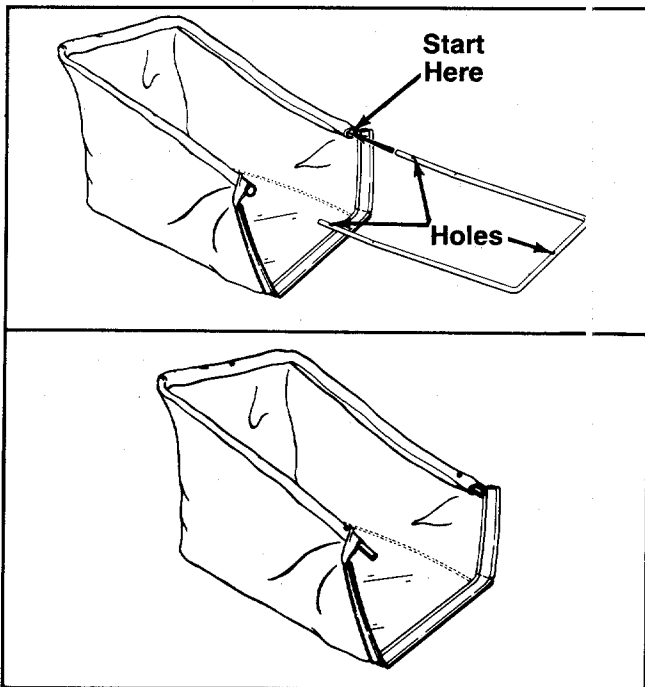
FIGURE 11.

3. Secure front of bag to frame by working the plastic channels on bag over frame. See figure 11.



4. Place the grass catcher handle in position on top of the grass bag and frame as shown in figure 12. Secure with four self-tapping screws.

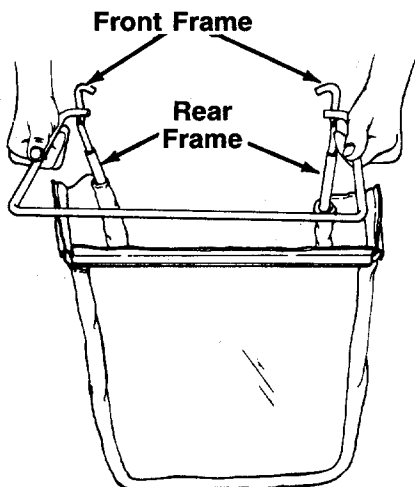
FIGURE 12.



Model 479R (Hardtop Grass Bags):

1. There are three holes in the rear frame. With the holes on the upper side as shown in figure 13, insert one end of the rear frame into the cloth channel on the edge of the grass catcher bag. Feed all the material on one side of the frame before working it around the frame. See figure 13.

FIGURE 13.



2. Slide the ends of the front frame assembly into the ends of the rear frame as shown in figure 14.

FIGURE 14.

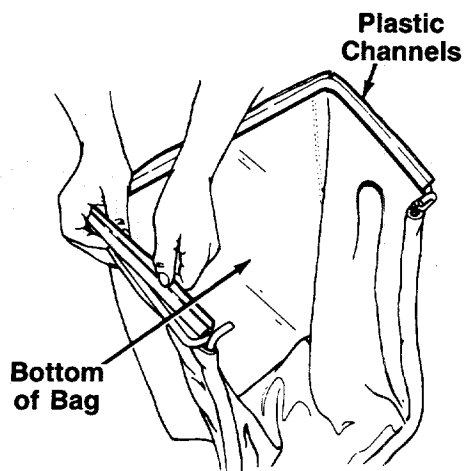


FIGURE 15.

3. Secure front of bag to front frame by slipping plastic channels on sides and bottom of bag over frame. See figure 15.

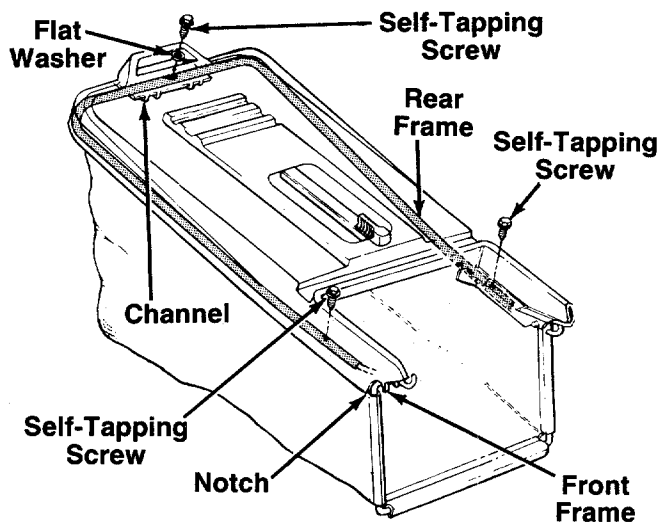


FIGURE 16.

4. Attach the hardtop cover to the grass catcher as follows. See figure 16.

- a. Place the cover in position on top of the grass catcher. Press the rear frame into the channel on the rear of the cover (beneath the rear handle).
- b. Slide the notches on the sides of the cover over the front catcher frame.
- c. Attach rear of cover to frame using the flat washer and one self-tapping screw as shown in figure 16. Attach the sides of the cover to frame with the other two self-tapping screws.

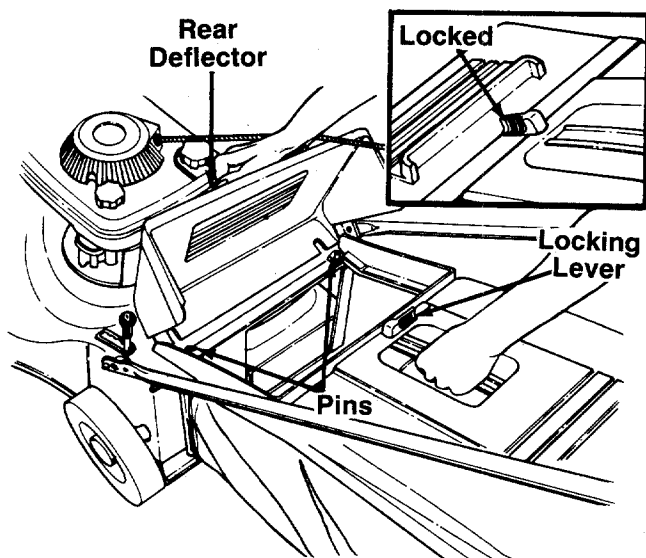


FIGURE 17.

ATTACHING BAG TO MOWER

Lift the rear deflector on the mower. Place the hooks on the grass catcher over the pins on the back of the mower. See figure 17. Release the rear deflector. Turn the locking lever to the locked position to secure the rear deflector. See figure 17, inset.

To remove the grass catcher, turn the locking lever to the unlocked position and lift the rear deflector on the mower. Lift the grass catcher up, over the pins on the back of the mower. Release the deflector.

CONTROLS

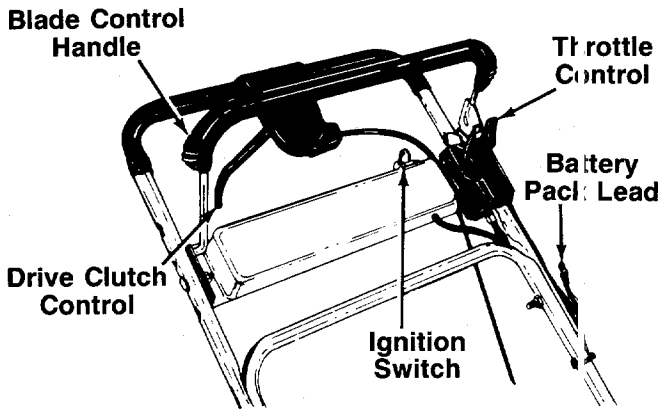


FIGURE 18.

BLADE CONTROL HANDLE

WARNING
THIS CONTROL MECHANISM IS A SAFETY DEVICE NEVER ATTEMPT TO BYPASS ITS OPERATIONS

The blade control handle is located on the upper handle of the mower. See figure 18. The blade control handle must be depressed in order to operate the unit. Release the blade control handle to stop the engine and blade.



The blade will be rotating whenever the engine is running.

THROTTLE CONTROL

The throttle control is located on the left side of the upper handle. It is used to regulate the engine speed. The engine should be started with the engine in the CH-OK position.



The throttle control cannot be used to stop the engine.

IGNITION SWITCH

The ignition switch is located on the left side of handle panel. It is used for starting only. See figure 18.

DRIVE CLUTCH CONTROL

Squeezing the drive clutch control engages the drive mechanism to the rear wheels. Releasing the clutch control stops the rear wheels from driving. Release the drive clutch control to slow down when negotiating an obstacle, making a turn or stopping. See figure 18.

OPERATION



FIGURE 19.

Keep hands and feet away from the chute area on cutting deck. See figure 19.

NOTE

For shipping purposes your mower is set with the wheels in a low cutting height position. For best results raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment section.

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your mower. Read instructions carefully.



Never fill fuel tank indoors, with engine running or until the engine has been allowed to cool for at least two minutes after running.

BEFORE STARTING



The battery contains corrosive fluid and toxic material. HANDLE WITH CARE. Keep away from children. Do not puncture, disassemble, mutilate or incinerate. Explosive gases could be vented during charging or discharging. Use in a well-ventilated area, away from sources of ignition.

1. **Charge battery for 16 hours before initial use. DO NOT CHARGE LONGER THAN 20 HOURS.**



CAUTION

Use only the battery charger supplied with this mower.

To charge the battery, first remove the protective cap from the end of the battery pack lead. Always plug charger lead into battery pack lead before inserting battery charger plug into 120 volt standard household outlet.

After charging, disconnect battery charger plug from household outlet first, then disconnect charger lead from battery pack lead.



WARNING

Do not remove the battery pack from the handle panel for any reason other than replacement. When replacing the battery pack, refer to instructions in Maintenance section.

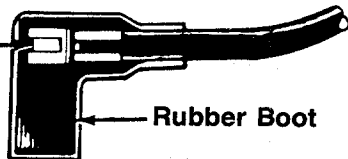
2. Before each use, check for proper drive clutch operation by performing the following before starting the engine:

With the drive clutch control released, push mower forward. It should move freely. **Pull mower backward. It should move freely.**

If it does not and the rear wheels tend to lock up, the clutch may not be releasing completely. Do not start the engine until corrections have been made. Check the control cable for severe bend, kinks and binding, or grass build-up in the pulley groove. Correct and adjust as required.

3. Attach spark plug wire to spark plug. Make certain the metal loop on the end of the spark plug wire (inside the rubber boot) is fastened securely over the metal tip on the spark plug. See figure 20.

Metal Loop on Spark Plug Wire



Rubber Boot

FIGURE 20.

4. The fuel shut-off valve is located beneath the fuel tank. The fuel shut-off valve should be in the open position. See figure 21. Open fuel shut-off valve if it is closed.

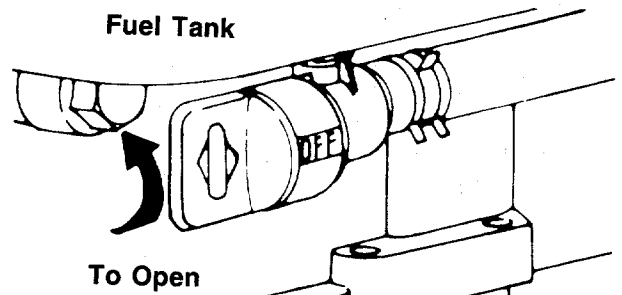


FIGURE 21.

TO START ENGINE AND ENGAGE BLADE



WARNING

When starting the unit for the first time, face the mower against a solid object such as a wall, fence, etc. Start the unit, and if it shows any signs of motion with the drive clutch control disengaged, shut the engine off immediately. Check the position of the drive clutch control cable. The plastic fitting must be assembled in the first adjustment position inside the housing, all the way to the right, as shown in figure 6.

1. Move the throttle control lever to **CHOKE** position.

NOTE

A warm engine may not require choking.

2. Standing behind the unit, depress the blade control handle and hold it against the upper handle as shown in figure 22. Be certain the drive clutch handle is released.

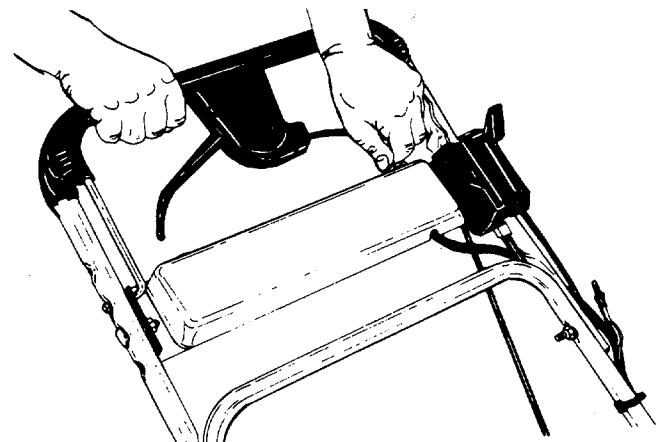


FIGURE 22.

3. Turn the ignition key to the right to start the engine. Release the key after engine starts.
4. After engine starts, move throttle control to **FAST** or desired engine speed. Move the throttle control at least halfway back, then forward to obtain **FAST** position.

➔ NOTE

The engine on your unit is provided with an auxiliary recoil starter system. To start the engine using the auxiliary starter system, proceed as follows.

A. Depress the blade control handle, and hold it against the upper handle.

B. Grasp the recoil starter handle, slowly pull the rope out from the engine about two feet and hold rope in this position.

C. Step behind the handle into the operating position. With the blade control handle still depressed, pull recoil starter handle using a quick, firm motion. Repeat until engine starts. After engine starts, return rope slowly to the engine.

TO STOP ENGINE AND BLADE

1. Release the blade control handle to stop the engine and blade.



The blade continues to rotate for a few seconds after the engine is shut off.

2. Disconnect the spark plug wire and ground it against the engine to prevent accidental starting while equipment is unattended.

➔ NOTE

If any problems are encountered, refer to the Trouble Shooting Guide on page 19.

USING YOUR ROTARY MOWER



Never operate your unit without either the rear deflector or entire grass catcher assembly in place.

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.

For the best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut. Blade speed should be adjusted to the condition of the lawn.

For best results, cut off one-third or less of the total length of the grass. Lawn should be cut in the fall as long as there is growth.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.

➔ IMPORTANT

If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

ADJUSTMENTS



Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

DRIVE CLUTCH CONTROL ADJUSTMENT

If the unit does not self-propel with the drive clutch control engaged, remove the plastic cap from beneath the drive clutch control housing. Move the plastic fitting on the control cable to the next adjustment position on the left. Reassemble the plastic cap and retest. See figure 23.

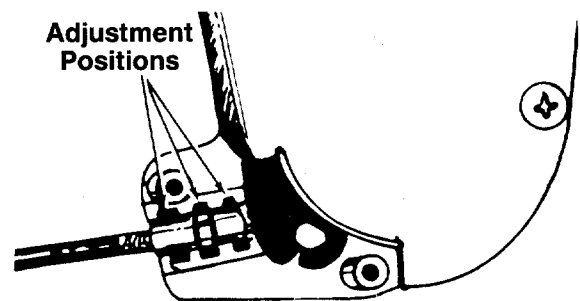


FIGURE 23.

CUTTING HEIGHT ADJUSTMENT

The height adjustment handle is located on the left side of the deck. The handle may be placed in one of nine cutting height positions. Push the handle to the left and then either forward to lower the cutting height or backward to raise the cutting height. See figure 24.

For rough or uneven lawns, move the height adjustment handle to a position which will give a higher cutting height.

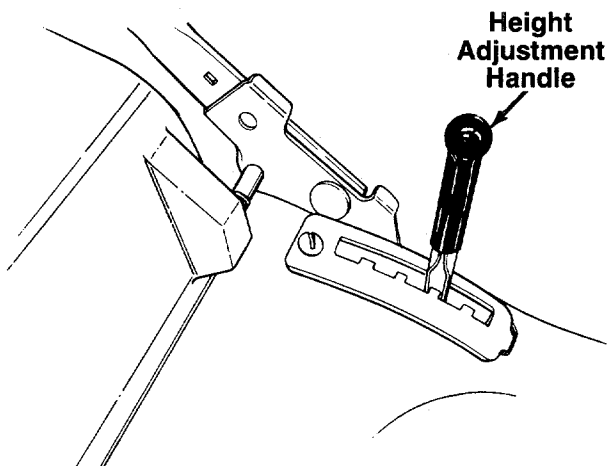


FIGURE 24.

THROTTLE

The throttle control wire assembly can be adjusted if necessary. Loosen the screw on the cable clamp shown in figure 5. Adjust as instructed in steps 1 and 4 of "Attaching the Throttle Control Cable" in Assembly Instructions.

CARBURETOR ADJUSTMENTS



If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load. Refer to the separate engine manual packed with your mower for carburetor adjustment information.



A dirty air cleaner will cause an engine to run rough. Be certain air cleaner is clean and attached to the carburetor before adjusting carburetor.

LUBRICATION



Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

Blade Control—Lubricate the pivot points on the blade control handle and the brake cable at least once a season with light oil. See figure 25. The blade control must operate freely in both directions.

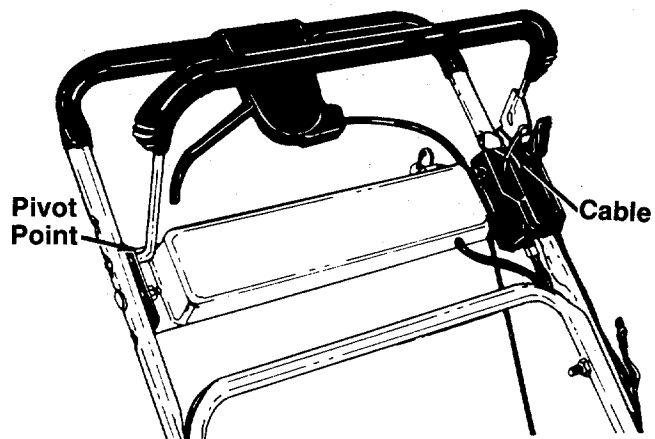


FIGURE 25.

Chute Deflector Mechanism—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

Wheels—Mower may be provided with ball bearing wheels. Lubricate at least once a season with light oil. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

Engine—Follow engine manual for lubrication instructions.

Throttle—Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil for ease of operation.

Transmission—The transmission is pre-lubricated and sealed at the factory. It does not require checking. If disassembled for any reason, fill with 2 ounces of Alvania grease, part number 737-0168.

MAINTENANCE



Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.



When tipping the unit, empty the fuel tank and keep engine spark plug side up.

TROUBLE SHOOTING

Refer to page 19 of this manual for trouble shooting information.

BATTERY PACK REPLACEMENT

Remove the battery pack from the handle panel for replacement only. Do not separate the batteries for any reason. Dispose of batteries properly.



Batteries contain sulfuric acid which may cause burns. Do not short circuit or mutilate in any way. Do not put batteries in fire. They may burst or release toxic materials.

When replacing battery pack in handle panel, battery pack must be positioned with the positive terminal to the right hand side and the negative terminal to the left hand side of panel. See figure 26. Replacing the battery pack incorrectly will cause serious damage.

The positive lead on the wire harness has the smaller connector. Connect the positive lead to the positive side of the battery pack, then connect the negative side.

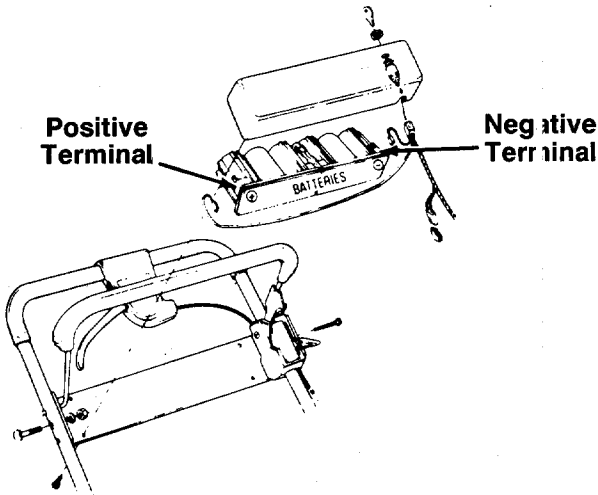


FIGURE 26.

IN-LINE FUSE

The unit is equipped with an in-line fuse. If unit fails to start, check the fuse in the wiring harness by turning the end of the fuse holder and pulling apart. See figure 27. Replace with standard automotive 7 1/2 amp fuse.

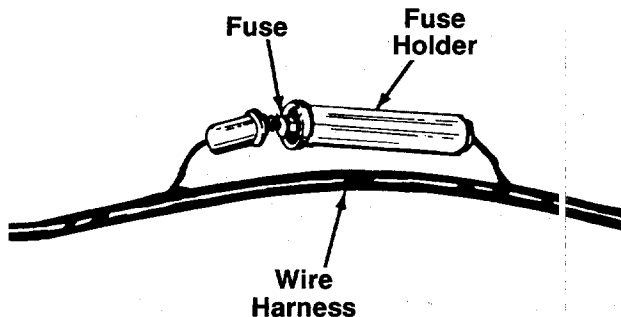


FIGURE 27.

CUTTING BLADE

When removing the cutting blade for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade. Remove the bolt and blade bell washer which hold the blade and adapter to the engine crankshaft. Remove the blade and adapter from the crankshaft.



Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the engine crankshaft, the inner surface of the blade adapter and the center bolt with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

Blade Mounting Torque

Center Bolt: 375 in. lb. min., 450 in. lb. max. If lacking torque wrench, tighten until the blade bell washer is flattened.

To insure safe operation of your unit, **all** nuts and bolts must be checked periodically for correct tightness.

DECK

The underside of mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

ENGINE

Refer to the separate engine manual for all engine maintenance instructions.

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service **air cleaner** every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt and combustible debris from muffler area.

STORAGE OF THE BATTERY

The battery must be stored with a full charge. A discharged battery will freeze.

➔ IMPORTANT

All batteries discharge during storage.

Recharge battery every two months and before returning to service. Refer to charging instructions on page 13.

BELT REMOVAL AND REPLACEMENT

1. Disconnect the spark plug wire and ground it against the engine.
2. Drain the fuel tank or place a piece of plastic beneath the cap to prevent gasoline leakage.
3. Tip the mower back on its handle. Block securely.
4. Remove the rear belt baffle by removing the lock washer and hex nut shown in figure 28. Then remove one Torx bolt, using a #27 Torx driver. A 9/64" Allen wrench may also be used. Then remove one carriage bolt, lock washer and nut as shown.

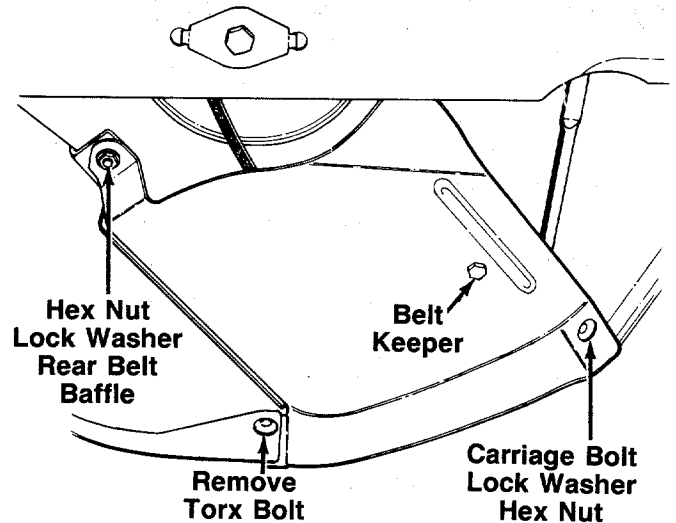


FIGURE 28.

5. Roll the belt off the transmission pulley. Remove the belt from between the idler pulley and belt guard. See figure 29.
6. Remove the belt from the pulley on the engine crankshaft, and pull it over the blade.

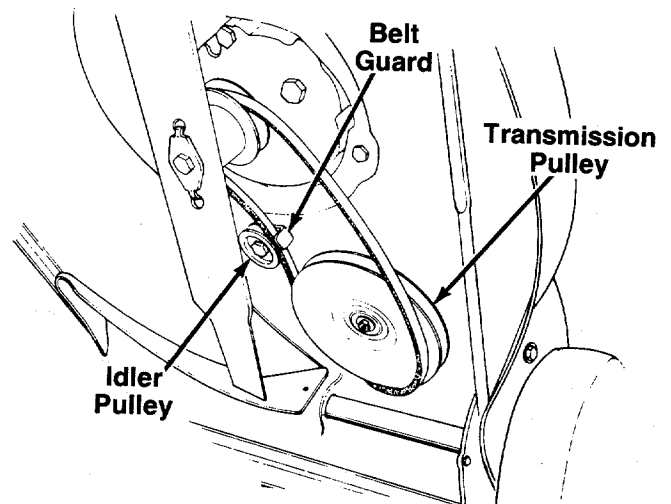


FIGURE 29.

7. Reassemble in reverse order with the new belt.

➔ NOTE

When reassembling the rear belt baffle, make certain the belt keeper is outside of the belt, and the edge of the rear belt baffle is between the rear chute baffle and the rear panel as shown in figure 28. Make certain to tighten all nuts and bolts securely. If plastic was placed under the gas cap, be certain to remove it.

OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Follow battery storage instructions on page 17.
5. Store mower in a dry, clean area.

NOTE

When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rustproof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

HANDLE STORAGE

The handle may be placed in an upright position for storage. Move hairpin clips to outer hole on weld pins. See figure 1. Press outward on the bottom of the lower handle and push forward. The handle will lock in this position.

Reverse the above procedure to place the handle in the operating position.

NOTE

The use of any accessory on this Rotary Mower other than those manufactured by the mower manufacturer is **not** recommended.



To reduce the risk of injury, do not operate mower unless rear trailing shield and guard or entire grass catcher is in its proper 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.

For replacement bags, use only factory authorized replacement bag.

Trouble Shooting Guide

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	<ol style="list-style-type: none"> 1. Blade control handle disengaged. 2. Spark plug wire disconnected. 3. Throttle control lever not in CHOKE position. 4. Fuel shut-off valve closed. 5. Discharged battery. 6. Fuel tank empty, or stale fuel. 7. Blocked fuel line. 8. Faulty spark plug. 9. Engine flooded. 	<ol style="list-style-type: none"> 1. Engage blade control handle. 2. Connect wire to spark plug. 3. Move throttle lever to CHOKE position. 4. Open fuel shut-off valve. 5. Charge battery or use auxiliary recoil starter as instructed in Operation section. 6. Fill tank with clean, fresh gasoline. 7. Clean fuel line. 8. Clean, adjust gap or replace. 9. Remove spark plug, dry the plug, and crank engine with plug removed and throttle in off position. Replace spark plug, connect wire and resume starting procedures.
Engine runs erratic	<ol style="list-style-type: none"> 1. Unit running in CHOKE position. 2. Spark plug wire loose. 3. Blocked fuel line or stale fuel. 4. Vent in gas cap plugged. 5. Water or dirt in fuel system. 6. Dirty air cleaner. 7. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Move throttle lever to FAST position. 2. Connect and tighten spark plug wire. 3. Clean fuel line; fill tank with clean, fresh gasoline. 4. Clear vent. 5. Drain fuel tank. Refill with fresh fuel. 6. Clean air cleaner. † 7. Adjust carburetor. †
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Air flow restricted. 3. Carburetor not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Remove blower housing and clean. † 3. Adjust carburetor. †
Occasional skip (hesitates) at high speed	<ol style="list-style-type: none"> 1. Carburetor idle speed too slow. 2. Spark plug gap too close. 3. Carburetor idle mixture adjustment improperly set. 	<ol style="list-style-type: none"> 1. Adjust carburetor. † 2. Adjust gap to .030". 3. Adjust carburetor. †
Idles poorly	<ol style="list-style-type: none"> 1. Spark plug fouled, faulty or gap too wide. 2. Carburetor improperly adjusted. 3. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Reset gap to .030" or replace spark plug. 2. Adjust carburetor. † 3. Clean air cleaner. †
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced. 2. Bent cutting blade. 	<ol style="list-style-type: none"> 1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not discharge grass	<ol style="list-style-type: none"> 1. Engine speed too low. 2. Wet grass. 3. Excessively high grass. 	<ol style="list-style-type: none"> 1. Set throttle between 3/4 and full throttle. 2. Do not mow when grass is wet; wait until later to cut. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting swath (1/2 width).
Uneven cut	Dull blade.	Sharpen or replace blade.

†Refer to separate engine manual packed with your unit.

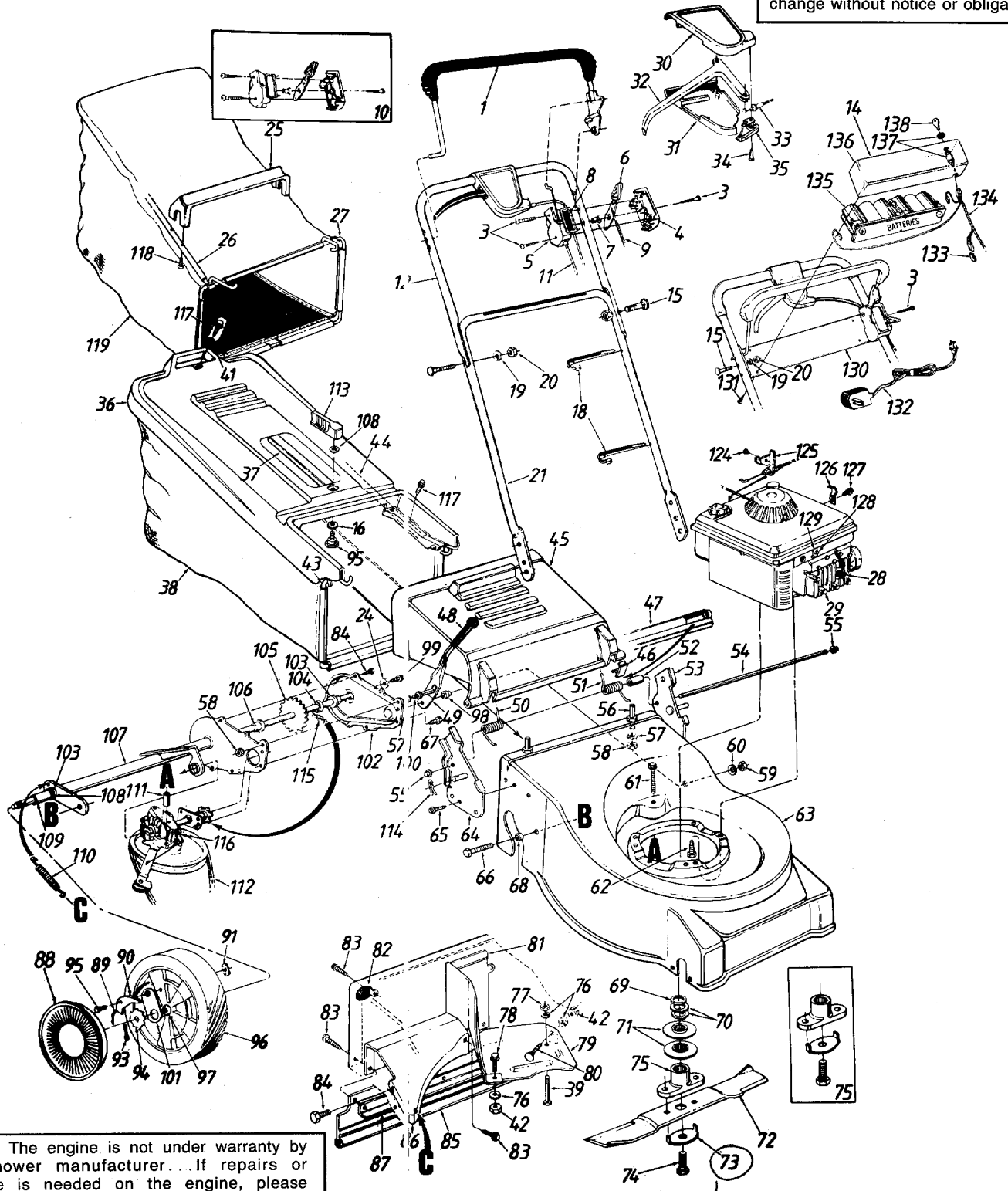
Note: For repairs beyond the minor adjustments listed above, contact your local authorized service dealer.

Models 469E, 476E and 479E

NOTE

This instruction manual covers various models, and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

44 AXLE
SPACER
748-0190



NOTE: The engine is not under warranty by the mower manufacturer... If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

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Models 469E, 476E and 479E

PARTS LIST FOR MODELS 469E, 476E AND 479E ROTARY MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	731-0609		Control Handle Ass'y.	62	710-0654A	N	Hex L-Wash. Hd. Scr.
3	710-0796		Truss Mach. B-Tap Scr. #12 x 1.5" Lg.	63	16997	638	21" Deck Ass'y.
4	731-0817		Control Panel Half	64	12296A	N	Handle Brkt. Ass'y.—R.H.
5	731-0816		Clutch Panel Half	65	710-0892		Hex L-Wash. Hd. AB-Tap Scr.
6	731-0972		Throttle Control Lever				1/4 x .62" Lg.
7	731-0524		Control Disc Pin	66	710-1006		Hex Wash. Hd. Tap Scr.
8	777-5774		Control Label—Throttle				3/8-16 x .75" Lg.
9	746-0672		Throttle Wire—58" Lg.	67	710-0599		Hex Wash. Hd. Tap Scr.
10	753-0430		Control Housing Comp.				1/4-20 x .5" Lg.
11	746-0477A	N	Control Cable—43" Lg.	68	750-0736		Spacer .383" I.D.
12	749-0439A	N	Upper Handle	69	736-0409		Serrated Washer 1.0" I.D.
14	777-6575		Instruction Label—Handle	70	736-0408		Wave Washer 1.005" I.D.
15	710-0671		Curved Carriage Bolt 5/16-18 x 1.38" Lg.	71	756-0502		Serrated Pulley Half
16	736-0286		Bowed Washer	72	742-0306		21" Blade
18	726-0240		Cable Tie	73	736-0415		Blade Bell-Wash. .44" I.D.
19	736-0119		L-Wash. 5/16" I.D.*	74	710-0757		Hex Bolt 7/16-20 x 1.5" Lg.
20	712-0267		Hex Nut 5/16-18 Thd.*	75	753-0463		(Gr. 5)
21	749-0504C	N	Lower Handle	76	736-0329		Blade Adapter Kit
24	736-0270		Bell-Wash. .265" I.D. x .75"	77	712-0298		L-Wash. 1/4" I.D.*
25	731-0801		Bag Handle†	78	710-0252		Hex Jam Nut 1/4-20 Thd.
26	749-0764A	N	Rear Catcher Frame†	79	17013		Hex Bolt 1/4-20 x .85" Lg.
27	747-0700A	N	Front Catcher Frame†	80	710-0167		Rear Belt Baffle
28	735-0639		Spark Plug Boot	81	17006		Carr. Bolt 1/4-20 x .50" Lg.*
29	—		Engine	82	731-0931		Rear Panel Baffle
30	731-0617A	N	Control Cover Half—Upper	83	710-1017		Corner Plug
31	731-0618A	N	Control Cover Half—Lower				Torx Mach. AB-Tap Scr. 1/4 x
32	731-0620		Control Lever	84	710-0352		.62" Lg.
33	746-0651		Drive Cable—53" Lg.	85	731-0668 0669		Hex B-Tap Scr. 1/4 x .38" Lg.
34	710-0841		Flat C-Sunk Hd. Tap Scr. #10 x .75" Lg.	86	17008		Rear Flap
35	731-0619A	N	Cable Mtg. Cap	87	14847		Rear Chute Baffle
36	731-0857A	N	Hardtop Bag Cover††	88	731-0981A	N	Retaining Strip
37	731-0856		Hardtop Handle††	89	10622B	N	Hub Cap
38	764-0252		Grass Bag††	90	748-0188B	N	Plastic Spring
39	710-0166		Truss Mach. Scr. 1/4-20 x 1.0" Lg.	91	712-0189		Pawl .345" I.D.
41	736-0463		FI-Wash. .281" I.D. x .62"††	92	714-0115		Weld Nut 1/4-20 Thd.
42	712-0287		Hex Nut 1/4-20 Thd.*	93	748-0318		Cotter Pin 1/8" Dia.
43	747-0693B	N	Front Catcher Frame††	94	748-0318		Ratchet Wheel 1.62" O.D.
44	749-0736A	N	Rear Catcher Frame††	95	738-0137		Shld. Bolt .342" Dia. x .268"
45	731-0859		Chute Deflector	96	734-1510A	N	Wheel Ass'y. Comp.—Rear
46	731-0970A	N	Deflector Plug	97	734-0486B	N	Bearing 1/2" I.D.
47	731-0858		Seal—Extrusion	98	750-0624		Shld. Spacer .50" Dia.
48	720-0223		Grip	99	710-0751		Hex Bolt 1/4-20 x .62" Lg.
49	732-0580		Spring Lever	100	711-0805		(Gr. 5)
50	732-0578A	N	Torsion Spring—R.H.	101	16855	N	Shld. Pin 3/8-24 x 1.43" Lg.
51	732-0577A	N	Torsion Spring—L.H.	102	17053A	N	Pawl Plate
52	750-0566		Spacer .255" I.D.	103	741-0324		Chain Cover Ass'y.
53	12297A	N	Handle Brkt. Ass'y.—L.H.	104	736-0160		Hex Flange Brg. .506" I.D.
54	747-0698		Hinge Pin 17.75" Lg.	105	738-0719A	N	FI-Wash. .531" I.D. x .93"
55	726-0106		Cap Speed Nut	106	741-0522		Rear Axle Ass'y.
56	711-0805		Shld. Pin 3/8-24 x 1.43" Lg.	107	17009		Hex Flange Bearing
57	736-0169		L-Wash. 3/8" I.D.*	108	736-0498		Chain Axle Ass'y.
58	712-0711		Hex Jam Nut 3/8-24 Thd.	109	748-0407 11-0313		Internal L-Wash. 1/4" I.D.
59	712-0296		Hex L-Nut 3/8-24 Thd.	110	732-0481		Spacer .513" I.D.
60	736-0105		Bell-Wash. .38" I.D. x .88"	111	750-0589		Extension Spring 3.8" Lg.
61	710-0778		Hex Wash. Hd. Tap Scr. 1/4-20 x 1.5" Lg.	112	754-0346		Spacer .325" I.D.
				113	720-0224		V-Belt
				114	714-0104		Grass Catcher Locking Knob
							Internal Cotter Pin 5/16" Dia.

Models 469E, 476E and 479E

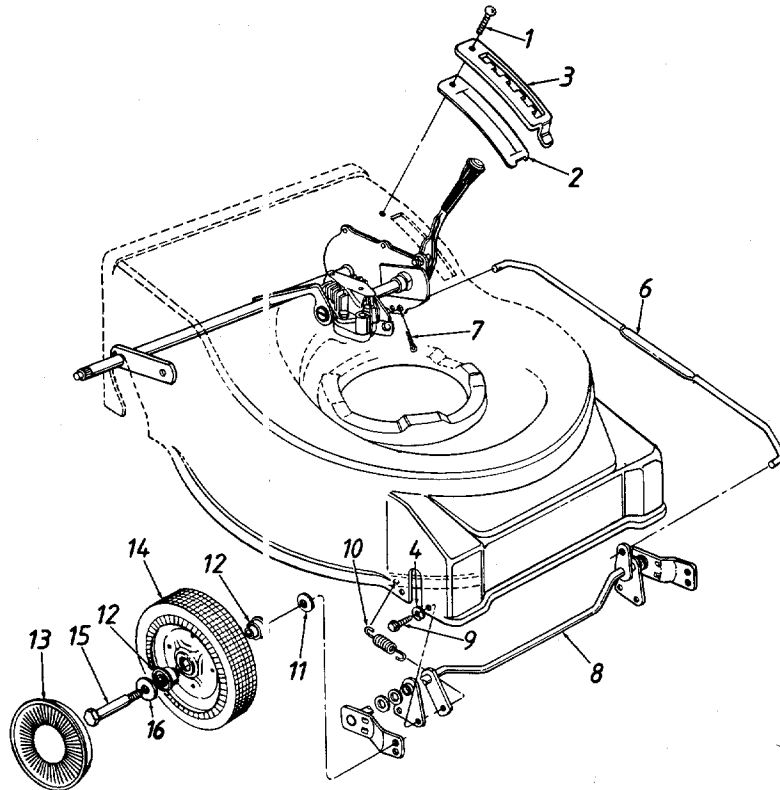
PARTS LIST FOR MODELS 469E, 476E AND 479E ROTARY MOWERS (CONTINUED)

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
115	713-0353		#48 Chain .50" Pitch x 30 Links	127	710-0429		Hex B-Tap Scr. #10 x .38" Lg.
116	717-0417		Transmission Comp. (See Breakdown)	128	710-0436		Hex B-Tap Scr. #10 x .62" Lg.
117	710-0892		Hex L-Wash. H.D. AB-Tap Scr. 1/4 x .62" Lg.††	129	751-0463	N	Cable Clamp
118	710-1025		Hex AB-Tap Scr. #12 x 1.25" Lg.†	130	16542A		Lower Battery Tray
119	764-0246		Grass Bag†	131	710-0969		Hex AB-Tap Scr. 1.0" Lg.
124	728-0171		Pop Rivet .156" Dia.	132	725-0727		Battery Charger
125	14924		Cable Brkt.	133	725-1206		Plug
126	12894A	N	Cable Clamp	134	725-1283A		Wire Harness
				135	725-1276		12 Volt Battery
				136	731-0891		Upper Battery Tray
				137	725-0873		Key Switch
				138	725-0201		Key

†Model 469E Only.

††Models 476E and 479E Only.

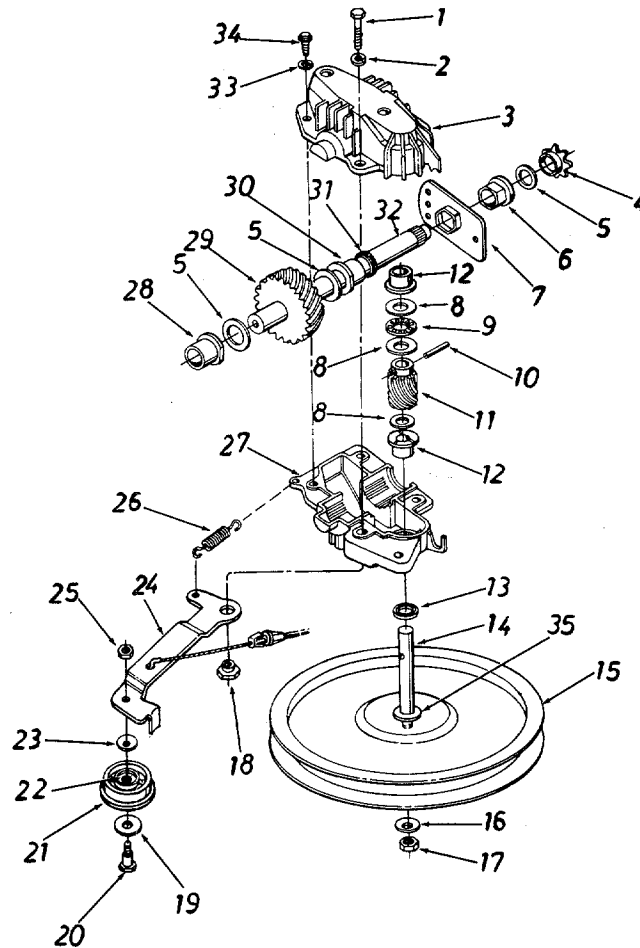
Models 469E, 476E and 479E



PARTS LIST FOR MODELS 469E, 476E AND 479E ROTARY MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-1017		Torx Mach. AB-Tap Scr. 1/4 x .62" Lg.	10	732-0589		Extension Spring 2.39" Lg.
2	721-0216		Height Adjustment Support	11	736-0105		Bell-Wash. .380" I.D. x .88" O.D.
3	17323		Height Adjustment Plate	12	741-0180		Flange Ball Bearing 1/2" I.D.
4	736-0329		L-Wash. 1/4" I.D.*	13	731-0981A	N	Hub Cap
6	747-0699		Height Adj. Connecting Rod	14	734-1513A	N	Wheel Ass'y. Comp.—Front
7	714-0507		Cotter Pin 3/32" Dia.	15	738-0102		Shld. Bolt .498" Dia. x 1.45"
8	17022		Front Axle Ass'y.	16	736-0160		Fl-Wash. .531" I.D. x .93" O.D.
9	710-0352		Hex L-Wash. Hd. AB-Tap Scr. 1/4 x .38" Lg.				

Models 469E, 476E and 479E



PARTS LIST FOR MODELS 469E, 476E AND 479E ROTARY MOWERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0106		Hex Bolt 1/4-20 x 1.25" Lg.*	18	738-0440		Shld. Spacer .375" Dia. x .170"†
2	736-0329		L-Wash. 1/4" I.D.*	19	736-0344		FI-Wash. .390" I.D. x 1.0"†
3	717-0418A	N	Upper Hsg. Half	20	738-0691		Shld. Bolt .375" Dia. x .40"†
4	713-0400		#48 Sprocket 7 Tooth x 1/2 Pitch	21	756-0447		FI-Idler Plastic 1.50" Dia.†
5	736-0336		FI-Wash. 5/8" I.D. x .030	22	741-0482		Needle Brg. .375" x .31"†
6	741-0413		Hex Flange Brg. .631" I.D.	23	736-0270		Bell-Wash. .265" I.D. x .75"†
7	16500A	N	Hex Bearing Cup	24	17052		Idler Brk't. Ass'y.†
8	736-0314		Thrust Wash. .382" I.D. x .70" O.D.	25	712-0138		Hex Patch L-Nut 1/4-28 Thd.†
9	741-0479		Thrust Bearing .375" I.D. x .812" O.D.	26	732-0357		Extension Spring 1.12" Lg.†
10	715-0152		Spring Pin Spir. 1/8" x .62" Heavy	27	717-0419A	N	Lower Hsg. Half
11	717-0420		11 Tooth Helical Gear	28	741-0415		Flange Bearing .566 Dia.
12	748-0208A	N	Flange Bearing	29	717-0422		33 Tooth Helical Gear
13	721-0212		Oil Seal	30	741-0414		Flange Bearing .629 Dia.
14	738-0708B	N	Pulley-Transmission Shaft	31	721-0213		Oil Seal .625 Dia.
15	756-0330		FI-Pulley 5.06" O.D.†	32	738-0607		Gear Sprocket Shaft
16	736-0270		Bell-Wash. .265" I.D. x .75"†	33	736-0722		L-Wash. #10 I.D.
17	712-0351		Hex L-Nut 1/4-28 L.H. Thd.†	34	710-0436		Hex B-Tap Scr. #10 x .62"
				35	736-0410		Hex Washer .26" x .88"†
				—	717-0417		Transmission Comp.

†Not Part of 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.

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

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

NOTE: If any parts are found to be missing or defective upon assembly of this unit, write to advise the factory so that immediate replacement can be made.

ALABAMA	BIRMINGHAM	NEW YORK	CARTHAGE
Auto Electric & Carburetor Co.	2625 4th Ave. S. Box 246635233	Gamble Dist., Inc.	West End Ave. Box 38913619
ARKANSAS	NORTH LITTLE ROCK	NORTH CAROLINA	GREENSBORO
Sutton's Lawn Mower Shop	5301 Roundtop Drive Box 368, Rt. 472117	Dixie Sales Company	335 N. Green Box 140827402
CALIFORNIA	PORTERVILLE	OHIO	CARROLL
Billious	75 North D Street93257	Stebe's Mid-State Mower Supply	Box 366, 71 High St.43112
COLORADO	DENVER	Bleckrie, Inc.	CLEVELAND
Spitzer Industrial Products Co.	6601 N. Washington St.80229	National Central	7900 Lorain Ave.44102
FLORIDA	JACKSONVILLE	Burton Supply Co.	WADSWORTH
Radco Distributors	4909 Victor St. Box 545932207	PENNSYLVANIA	687 Seville Rd.44281
Small Eng. Dist.	HIALEAH	EECO Inc.	YOUNGSTOWN
GEORGIA	7995 W. 26th Court33016	Thompson Rubber Co.	1301 Logan Ave. Box 92944501
East Point Cycle & Key Inc.	EAST POINT	Bluemont Co.	HARRISBURG
ILLINOIS	2834 Church St.30344	Frank Roberts & Sons	4021 N. 6th St.17110
Keen Edge Co.	LYONS	Scranton Auto Ignition Co.	WILLOW GROVE
INDIANA	8615 Ogden Ave.60534	Ace Distributors	850 Davisville Rd.19090
Parts & Sales Inc.	ELKHART	American Sales & Service, Inc.	PITTSBURGH
IOWA	2101 Industrial Pkwy. Box 27746516	TEXAS	11101 Frankstown Rd.15235
Power Lawn & Garden Equip.	DUBUQUE	Marr Brothers, Inc.	PUNXSUTAWNEY
LOUISIANA	2551 J.F. Kennedy.52001	Engine House Inc.	R.D. 215767
Jourdan Engine Co.	LAFAYETTE	TENNESSEE	SCRANTON
MARYLAND	214 W. Vermillion St. Box 350370501	Ace Distributors	1133-35 Wyoming Ave.1850 ⁶
Center Supply Co.	TAKOMA PARK	American Sales & Service, Inc.	KNOXVILLE
MASSACHUSETTS	6867 New Hampshire Ave.20912	UTAH	3035-43 Bellbrook38116
Morton B. Collins Co.	SPRINGFIELD	Powered Products	DALLAS
MICHIGAN	300 Birnie Ave.01107	VIRGINIA	423 E. Jefferson75203
Power Equipment Dist.	MOUNT CLEMENS	RBI Corp.	SAN ANTONIO
MINNESOTA	340 Hubbard48043	Equip. Northwest	4918 Golden Quail78249
Hance Distributing Inc.	PLYMOUTH	WASHINGTON	SALT LAKE CITY
Oscar Wilson Engine & Parts	12795 16th Ave. North55441	Equip. Northwest	1661 N. Beck St.84116
MISSOURI	EARTH CITY	WISCONSIN	ASHLAND
Oscar Wilson Engine & Parts	4159 Shoreline Dr.63045	Wisconsin Magneto Inc.	101 Cedar Ridge Dr.23005
Automotive Equip. Service	KANSAS CITY	PUERTO RICO	SEATTLE
NEW JERSEY	3117 Holmes St.64109	CIE & Associates, Inc.	1410 14th Ave.98122
Piersons	ALLOWAY	MILWAUKEE	MILWAUKEE
	Canal St., Box 49408001	4727 N. Teutonia St.53209	AGUADILLA
		Box 427 Ramey Station00604	

WARRANTY PARTS AND SERVICE POLICY

(0588)

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, Serial Number and/or Data Code of unit involved.
2. Date unit was purchased or first put into service.
3. Date of Failure.
4. Nature of Failure.