

SEARS

owners manual

Model No.
502.255193



CRAFTSMAN[®]

12 HP. ELECTRIC START 40" MOWER 6 SPEED LAWN TRACTOR

CAUTION:

Read And Follow
All Safety Rules
And Instructions Before
Operating This
Equipment.

- Assembly
- Operation
- Maintenance
- Service and Adjustment
- Repair Parts

SAFETY RULES

Safe Operation Practices for Riding Vehicles
As Recommended by American National Standards Institute

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death to the operator or bystanders.

GENERAL OPERATION:

1. Read, understand, and follow all instructions in the Instruction Book, on the machine, on the engine, and with any attachments before starting.
2. Only allow responsible adults familiar with the instructions to operate the machine.
3. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blade.
4. Be sure the area is clear of other people before mowing. Stop the machine if anyone enters the area.
5. Never carry passengers.
6. Disengage all attachment clutches and shift into Neutral before attempting to start the engine.
7. Disengage power to the mower or any attachments before backing up. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
8. Be aware of the direction the mower discharge. Do not point discharge from the mower at anyone or at places where people may be. Do not operate the mower without either the entire grass bagger or the mower guard in place.
9. Slow down before turning.
10. Never leave a machine unattended with the engine running. Always disengage the blade(s), set the parking brake, stop the engine and remove the key before dismounting.
11. Disengage power to attachment(s) when transporting or not in use. Disengage the blade(s) when not mowing.
12. Stop the engine before removing the grass bagger or unclogging the chute.
13. Mow only in daylight or good artificial light.
14. Do not operate the machine while under the influence of alcohol or drugs or when very tired.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra caution when loading or unloading the machine when using a trailer or truck for transporting.
17. Always wear safety glasses or an eye shield when you operate the unit to protect your eyes from foreign objects that can be thrown from the unit. Always wear eye protection when you make an adjustment or repair to the machine.
18. Use care when pulling loads or using heavy equipment.
 - a. Use only approved drawbar hitch points.
 - b. Limit loads to those you can safely control.
 - c. Do not turn sharply. Use care when backing.
 - d. Use counterweights or wheel weights when suggested in the Instruction Book.

CHILDREN:

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and in the watchful care of an adult other than the operator.
2. Be alert and turn the engine off if children enter the area.
3. Before and when backing, look behind and down for small children.
4. Never carry children or any passengers. They may fall off and be seriously injured or interfere with the safe operation of the machine.
5. Never allow children to operate the machine. Instruct children in the dangers of the machine.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

SAFETY RULES - continued

SLOPE OPERATION:

Slopes and rough terrain are major factors related to loss of control and tip over accidents which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on the slope, do not mow it. See the "Slope Guide" in the back of this book to check for safe operation.

DO

1. Mow up and down slopes, not across.
2. Remove obstacles such as rocks, limbs, etc...
3. Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
4. Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope.
5. Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
6. Use extra care with grass baggers or other attachments, they can change the stability of the machine.
7. Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
8. Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

DO NOT

1. Do not turn on slopes unless absolutely necessary, then only turn slowly and gradually downhill, if possible.
2. Do not mow near drop-offs, ditches or embankments. A wheel over the edge or an edge caving in could cause a sudden overturn and an injury or death.
3. Do not mow on wet grass. Reduced traction could cause sliding.
4. Do not try to stabilize the machine by putting your foot on the ground.
5. Do not use a grass bagger or other rear mounted accessories on steep slopes (greater than 10°).

SERVICE:

1. Use extra care when handling gasoline and other fuels. Fuels are flammable and the vapors are explosive.
 - a. Use only an approved container.
 - b. Never remove the gas cap or add fuel with the engine running. Allow the engine to cool for several minutes before refueling. Do not smoke.
 - c. Never refuel the machine indoors.
 - d. Never store the machine with fuel in the tank or fuel container inside where there is an open flame, such as a water heater.
2. Never start or run the engine inside an enclosed area.
3. Keep all nuts and bolts, especially the blade attachment nuts tight. Frequently check the blade(s) for wear or damage such as cracks and nicks. A blade that is bent or damaged must be immediately replaced with a factory replacement blade. For safety, replace the blade every two years. Keep the equipment in good condition.
4. Never tamper with the safety devices. Check their proper operation regularly.
5. To reduce fire hazards keep the machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow the machine to cool before storing.
6. Stop and inspect the equipment if you strike an object. Repair, if necessary, before re-starting.
7. Never make adjustments or repairs with the engine running. The carburetor can be adjusted with the engine running. Do not change the engine governor settings or overspeed the engine.
8. Grass bagger components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. For storage, always make sure the grass bag is empty. Frequently check components and replace with manufacturer's recommended parts when necessary.
9. Mower blade(s) are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing them or the blade housing area.
10. Check the brake operation frequently. Adjust and service as required.
11. Wait for all movement to stop before servicing any part of the unit.



Look for this symbol to indicate important safety precautions. This symbol indicates: "Attention! Become Alert! Your Safety Is At Risk."

Congratulations on your purchase of a Sears Tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

If you experience any problem you cannot easily remedy, please see your nearest Sears Service Department. We have competent, well trained technicians and the proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your unit properly. Always observe the "Safety Rules".

CUSTOMER RESPONSIBILITIES

- Carefully read and follow the rules for safe operation. Inspect the unit.
- Follow all the assembly instructions. Correctly adjust the unit.
- Know how to operate all standard and accessory equipment on the unit. Make sure that the operator can correctly operate the unit.
- Operate the unit only with guards, shields, and other safety items in place and working correctly.
- Complete all maintenance on the unit. Service the unit only with authorized or approved replacement parts.

NOTE: This unit is equipped with an internal combustion engine and must 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 must 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. See an Authorized Service Center for a spark arrester for the muffler.

MAINTENANCE AGREEMENT

A Sears Maintenance Agreement is available on this unit. See the nearest Sears Store for information.

PRODUCT SPECIFICATIONS

Briggs & Stratton Engine 12 HP.
Charging System 3 amperes at 3600 rpm.
Fuel Tank Size 1 gallon
Type Of Fuel Unleaded Regular
Oil Capacity 3 pints
Oil Type Above 32° SAE 30 or 10W30
Below 32° SAE 5W30
Spark Plug (Gap 0.030") Champion J19LM
Sears 71-33312
STD361458
Tire Air Pressure Front and Rear 12 psi
All Gear Transaxle Six forward speeds and one reverse.
Ground Speed Forward 0-5.4 MPH.
Reverse 0-1.6 MPH.
Tilt Seat The seat tilts forward for easy access to the battery.
Mower Housing The full-floating suspension and twin blades give an even cut. The lift lever has six height positions from 2 to 4 inches.
Blade Nut Torque 30 foot pounds
Grass Bagger Size 4 bushels

LAWN TRACTOR

Record in the space below the serial number and the date of purchase of this unit.

The model number and serial number are found on a decal attached to the back of the frame.

Model Number: 502.255193

Serial Number: _____

Date of Purchase: _____

Keep these numbers for future reference.

LIMITED TWO YEAR WARRANTY ON ELECTRIC START RIDING EQUIPMENT AND GRASS BAGGER ATTACHMENT

For two years from the date of purchase, when this riding equipment and grass bagger attachment are maintained, lubricated, and tuned up according to the operating and maintenance instructions in the Owner's Manual, Sears will repair free of charge any defect in material or workmanship in this electric start riding equipment and grass bagger attachment.

This warranty excludes blade(s), blade adapter(s), spark plug(s), air cleaner, and belt(s), which are expendable and become worn during normal use.

This warranty does not cover:

- tire replacement or repair caused by punctures from outside objects (such as nails, thorns, stumps, or glass); and
- repairs necessary because of operator abuse or negligence, including the failure to maintain the equipment according to instructions contained in the Owner's Manual; and
- riding equipment and grass bagger attachment used for commercial or rental purposes.

FULL 90-DAY WARRANTY ON BATTERY

For 90 days from the date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. This warranty applies only while this product is in use in the United States.

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

Sears, Roebuck and Co., D/731CR-W, Sears Tower, Chicago, IL 60684

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TRACTOR ATTACHMENTS

Attachments That Add to the Usefulness of Your Craftsman Lawn Tractor

Sears offers a wide variety of attachments that fit your lawn tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years — more attachments may be added, changes may be made in these attachments, or some may no longer be available.

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching. You may order these attachments at most Sears retail stores, catalog sales offices and thru the catalog.

PERMANEX BAGGER lets you collect grass clippings and leaves for a healthier, neater-looking lawn. Two Permanex containers hold 33-gallon plastic bags.

LAWN SWEEPERS let you collect grass clippings and leaves. Select from these:

- 30-in. Path with a capacity of 9.0 cu. ft.
- 32-in. Path with a capacity of 10.0 cu. ft.
- 32-in. High Performance Path with a capacity of 10.0 cu. ft.
- 38-in. High Performance Path with a capacity of 12.5 cu. ft.

LAWN VAC for powerful collection of heavy grass clippings and leaves. Accepts optional wand attachment to pick up debris in hard-to-reach places. Has a 3hp. engine with 12 bushel capacity. **Requires a Chute Adapter.**

CARTS make hauling easy. Choose from these:

- 4 cubic foot Dump Cart with a capacity of 400 lb.
- 10 cubic foot Hauling Cart with a capacity of 1,000 lb.
- 10 cubic foot Dump Cart with a capacity of 1,000 lb.
- 14 cubic foot Dump Cart with a capacity of 1,250 lb.
- 17 cubic foot Dump Cart with a capacity of 1,500 lb.

ROLLER for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lb. of weight. Rounded edges prevent harm to turf. Adjustable scraper automatically cleans drum.

SPREADER/SEEDERS make seeding, fertilizing, and weed killing easy. Broadcast spreaders also useful for granular de-icers and sand.

- Drop type, 36-inch. 12-inch semi-pneumatic wheels. 100 lb. capacity steel hopper.
- Broadcasts a 4 to 12 foot swath. 70 lb. capacity steel hooper. Non-corrosive spreading spinner. Nylon gear box. Stainless steel shaft.
- Broadcasts 10 to 12 foot swath. 160 lb. capacity (covers 40,000 sq. ft.) No-rust polypropylene hopper and impeller. Vinyl hopper cover.
- Broadcasts 10 to 12 foot swath. 100 lb. capacity. No-rust polypropylene hopper and impeller. Vinyl hopper cover.

AERATOR promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in. Steel weight box for increased penetration.

CORING AERATOR takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips. 150 lb. capacity weight tray.

DETHATCHER loosens and flips thatch and matted leaves to lawn surface for easy pick up. Twenty spring steel tines (10 pairs) dethatch 40-inch swath. Useful to prepare bare areas for reseeding and for seed bed preparation after tilling. Rear mount.

DETHATCHER loosens and lifts thatch to lawn surface for easy pick up (with bagger, sweeper or vac). Ten spring steel tines, each with two "teeth", dethatch 38-inch path. Front mount.

TRACTOR COVER protects tractor from weather. Made of Evolution 3 fabric (water repellent, extremely breathable, lightweight, soft, non abrasive, pliable over a wide temperature range, durable, stain-tear-and puncture-resistant, will not shrink or stretch).

SEAT COVER is dense polyester shag, machine washable. Provides cooler, more comfortable ride in the summer heat. Protects seat for longer life.

SPRAYERS uses 12-volt DC electric motor that connects to tractor battery or other 12 volt source. Includes booms for automatic spraying when pulling, and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides, and liquid fertilizers.

- 50 psi maximum pressure with 12 foot wand length
- 25 psi maximum pressure with 10 foot wand length

SNOW BLADE for snow removal only. 14-inch high, 42-inch wide blade clears 38-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains, wheel weights.)

SNOW THROWER has 40-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts to 210° arc from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with tire chains, rear wheel weights.)

CART-N-VAC Large 12 bushel capacity. Converts to 4 cu. ft. hauling cart. Load capacity 250 lbs.

TIRE CHAINS are heavy duty; closely-spaced extra-large cross links give smooth ride, outstanding traction.

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal. In pairs. (30 lbs. ea.)

NOTE: Do not use pull-behind attachments on slopes that are greater than 10 degrees.

ASSEMBLY

PREPARATION

Before being put in the carton, the unit was carefully inspected. The carton was made to protect the unit during shipment. The unit is completely assembled except for the items shown on this page. These items are in the carton with a parts bag which contains the fasteners to assemble the unit. Find and remove these items. The fasteners are shown on the next page.

HOW TO REMOVE FROM THE CARTON

To remove the unit from the carton, follow the instructions below.

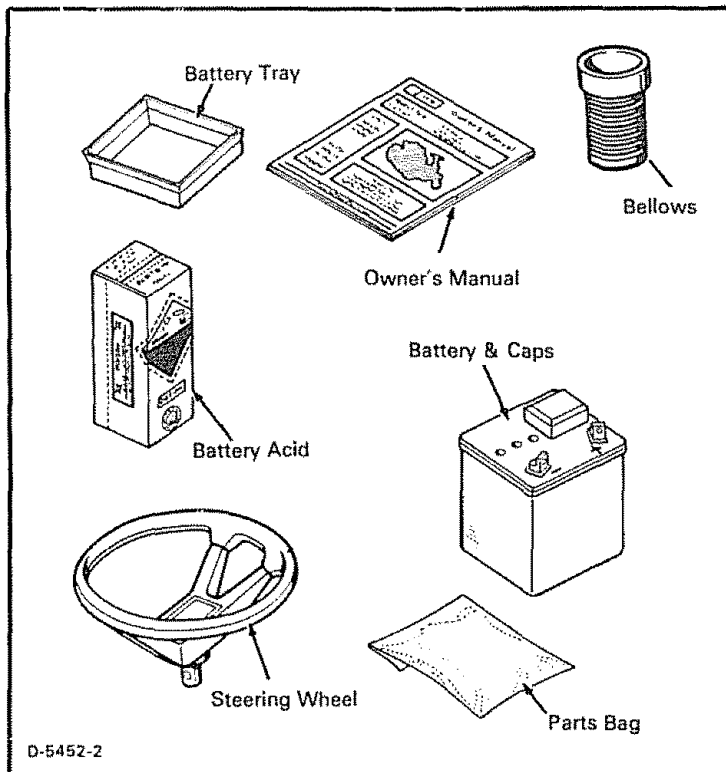
1. Open the top of the carton.
2. Remove the wood frame at the top of the carton.
3. Remove the boxes labeled (A) and (B) from the carton. Remove the seat. **NOTE:** the seat is covered with a protective sleeve. Remove the Grass Bagger Cover, the outer tube, the connector tube and the protective pad.
4. The items shown at the right are in a small unmarked box. Remove and check each item. Remove the small box.
5. Cut each corner of the carton from the top to the bottom with a knife.

NOTE: See the Operation section for the location of the controls.

6. Move the shift lever to the NEUTRAL position.
7. Move the lift lever to the HIGH position.

CAUTION: Check the bottom of the carton for staples. Remove any staples that are in the path of the tires.

9. From the back of the unit, carefully pull the unit backwards off the wood frame.

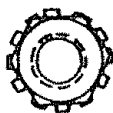


TOOLS YOU NEED TO ASSEMBLE THE UNIT

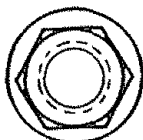
- | | |
|-----------------------------------|----------------------------|
| 1. Adjustable wrench (2 required) | 5. Phillips screwdriver |
| 2. Open end wrench 1/2" - 9/16" | 6. Low Tire pressure gauge |
| 3. Open end wrench 7/16" - 1/2" | 7. Knife |
| 4. Blade type screwdriver | 8. Socket Set (Optional) |

PARTS BAG - contents for Lawn Tractor

The fasteners and other loose parts are shown below. The fasteners are shown at full size with the quantities in brackets ().



(2) Locknut
For Battery Terminals
1/4"-20
15x66



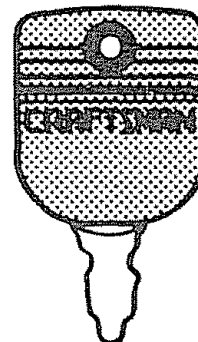
(1) Flange Hex Nut
For Steering Wheel
5/16"-24
15x90



(2) Lockwasher
For Seat
I.D. 5/16"
18x16



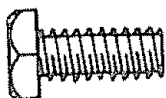
(Not shown full size)
(4) Hub Cap
24582



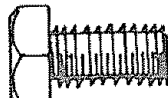
(2) Ignition Key
91275



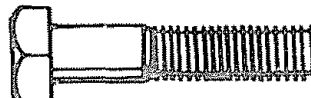
(Not shown full size)
(1) Battery Clip
91941



(2) Hex Bolt
For Battery Terminals
1/4"-20x5/8"
1x38



(2) Hex Bolt
For Seat
5/16"-18x5/8"
1x45



(1) Hex Bolt
For Steering Wheel
5/16"-24x1 3/8"
1x66



(1) Screw
For Battery Clip
26x184

ASSEMBLY

HOW TO PREPARE AND CHARGE THE BATTERY

NOTE: Before you install the battery, add the battery acid (Electrolyte) and charge the battery. Battery acid will damage paint and parts.



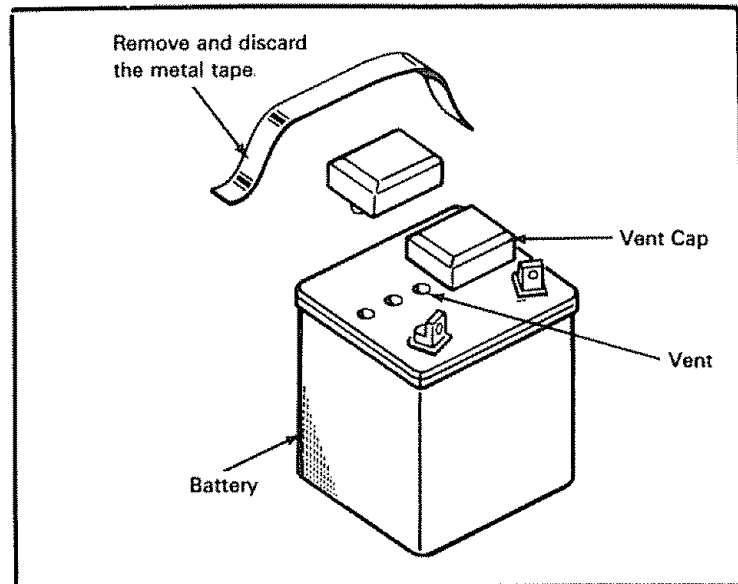
WARNING: Read the instructions included with the battery acid container. Protect your hands and eyes from the battery acid. Use clothing that will protect you.

1. If the vent caps are not installed on the battery, remove the vent caps from the plastic bag. Read the instructions included with the vent caps. Your unit will have one or the other types of batteries as shown.
2. If metal tape covers the vents, remove the metal tape from the vents. Discard the metal tape.
3. Pour battery acid into each battery cell until the battery acid touches the bottom of the vent as shown. Do not add the battery acid above the bottom of the vent. If you add too much battery acid, the excessive battery acid will flow from the battery when you charge the battery.
4. Wait 20 to 30 minutes before you put the vent caps on the battery. While you wait for the battery, you can continue with the assembly of the unit.
5. The level of the battery acid can drop below the vent described in step 3. Add more battery acid until the correct battery acid level is reached. Install the vent caps. Wash the top of the battery with water to remove any battery acid.
6. Discard the battery acid container and any battery acid that was not used as follows. Fill the container half full with water. Add baking soda and mix together using a piece of wood. Add more baking soda until the solution does not foam. Discard the solution and wash the container with water. Destroy the container.

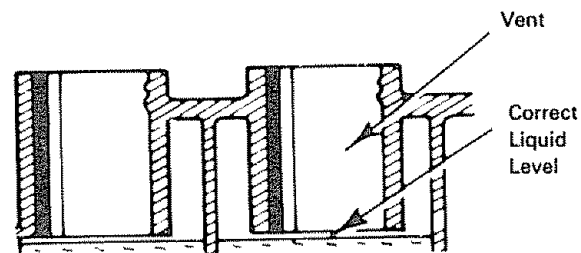


WARNING: When you charge the battery, do not smoke. Keep the battery away from any sparks. The fumes from the battery acid can cause an explosion.

7. Use a 12 volt battery charger to charge the battery. Charge at a rate of 6 amperes for 1 hour.
8. After the battery is charged, check the level of the battery acid. If the level of the battery acid falls, add water. Do not add battery acid to a charged battery or the result can be an explosion.
9. The engine has a 3 amperes charging system. If you frequently start the engine or frequently use the headlight (if equipped), the battery will not stay fully charged. For longer life of the battery, charge the battery every three months.



CUT AWAY VIEW



DANGER BATTERY ACID WILL CAUSE SEVERE BURNS



Contains sulphuric acid.

Do not let the battery acid come in contact with the skin, the eyes, or the clothing.

To prevent accidents, neutralize the battery acid that was not used. To neutralize, fill the container half full with water. Add baking soda and mix using a piece of wood until the solution does not foam. Discard the solution and wash the container with water. Destroy the container.

ANTIDOTE:

External - Wash the area with water, then wash with a solution of water and sodium bicarbonate.

Internal - Drink large amounts of water, milk, or milk of magnesia. Drink water mixed with the whites of eggs. Call a Doctor immediately.

Eyes - Flush with water for 15 minutes and then get immediate medical help.

POISON

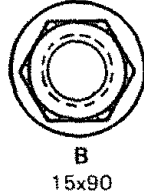
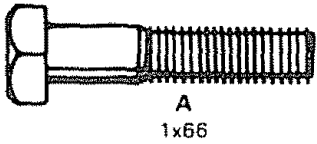
- KEEP AWAY FROM CHILDREN -

D-5213

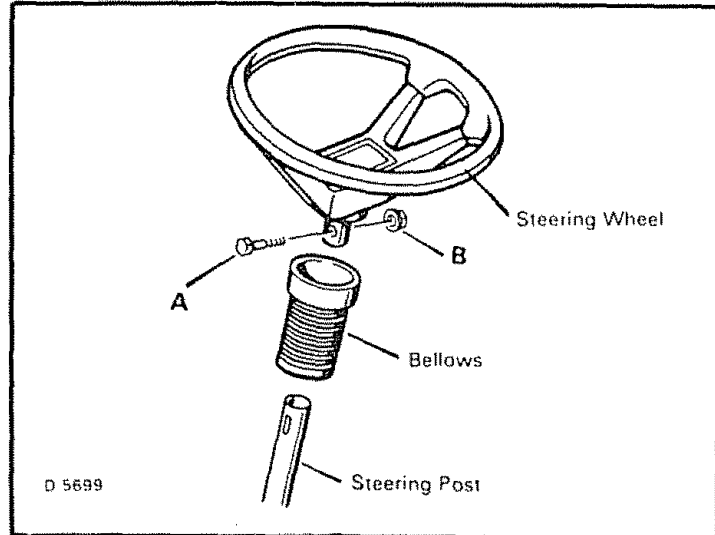
ASSEMBLY

HOW TO ASSEMBLE THE STEERING WHEEL

Use the fasteners shown below to install the steering wheel. The fasteners are shown at full size.

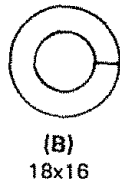
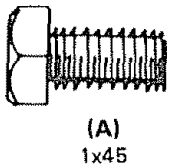


1. Make sure the front wheels point forward. Slide the bellows over the steering post. Make sure the collar of the bellows is on top. Push on the top of the bellows.
2. Attach the steering wheel to the steering post with the fasteners as shown. Tighten the fasteners.

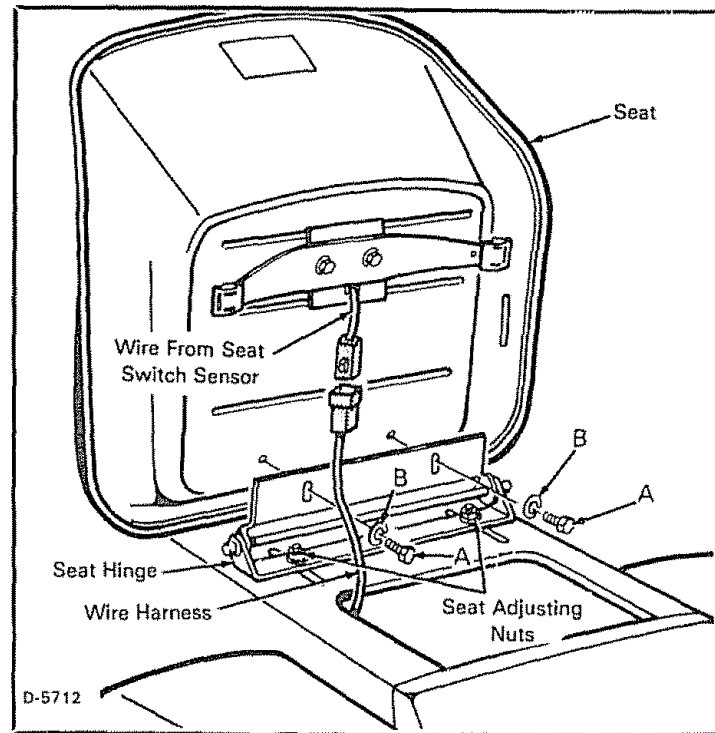


HOW TO INSTALL THE SEAT

Use the fasteners shown below to install the seat. The fasteners are shown at full size.



1. Carefully remove the protective sleeve and the plastic bag from the seat. Do not damage the wire attached to the bottom of the seat.
2. Align the holes in the seat hinge to the holes in the seat. Fasten the seat to the seat hinge with the fasteners as shown. Tighten the fasteners.
3. Check the operating position of the seat. If the seat needs to be adjusted, loosen the seat adjusting nuts on the seat hinge. Slide the seat forward or backward along the adjusting holes as shown. To keep the seat straight, align the rear edge of the seat hinge with the marks on the top of the console. Tighten the hex nuts.
4. Connect the wire from the seat switch sensor to the wire harness. Make sure the tab part of the connector, from the seat switch sensor, locks into the latch of the wire harness connector.



WARNING: For correct and safe operation of the unit, connect the wire from the seat switch sensor to the wire harness.

ASSEMBLY

HOW TO ATTACH THE HUB CAPS

Push each hub cap onto the center hub of each wheel. Make sure the washer holds the hub cap in place.

CHECK THE TIRES

Check the air pressure in the tires. Tires with too much air pressure will cause the unit to ride rough. Also, the wrong air pressure will keep the mower housing from cutting level. The correct air pressure (PSI) is 12 PSI (0.85 kg/cm²).

CHECK THE BELTS

Check the routing of the belts. Make sure the belts are not twisted. Make sure the belts are inside all the belt guides.

CHECK THE DRIVE BRAKE

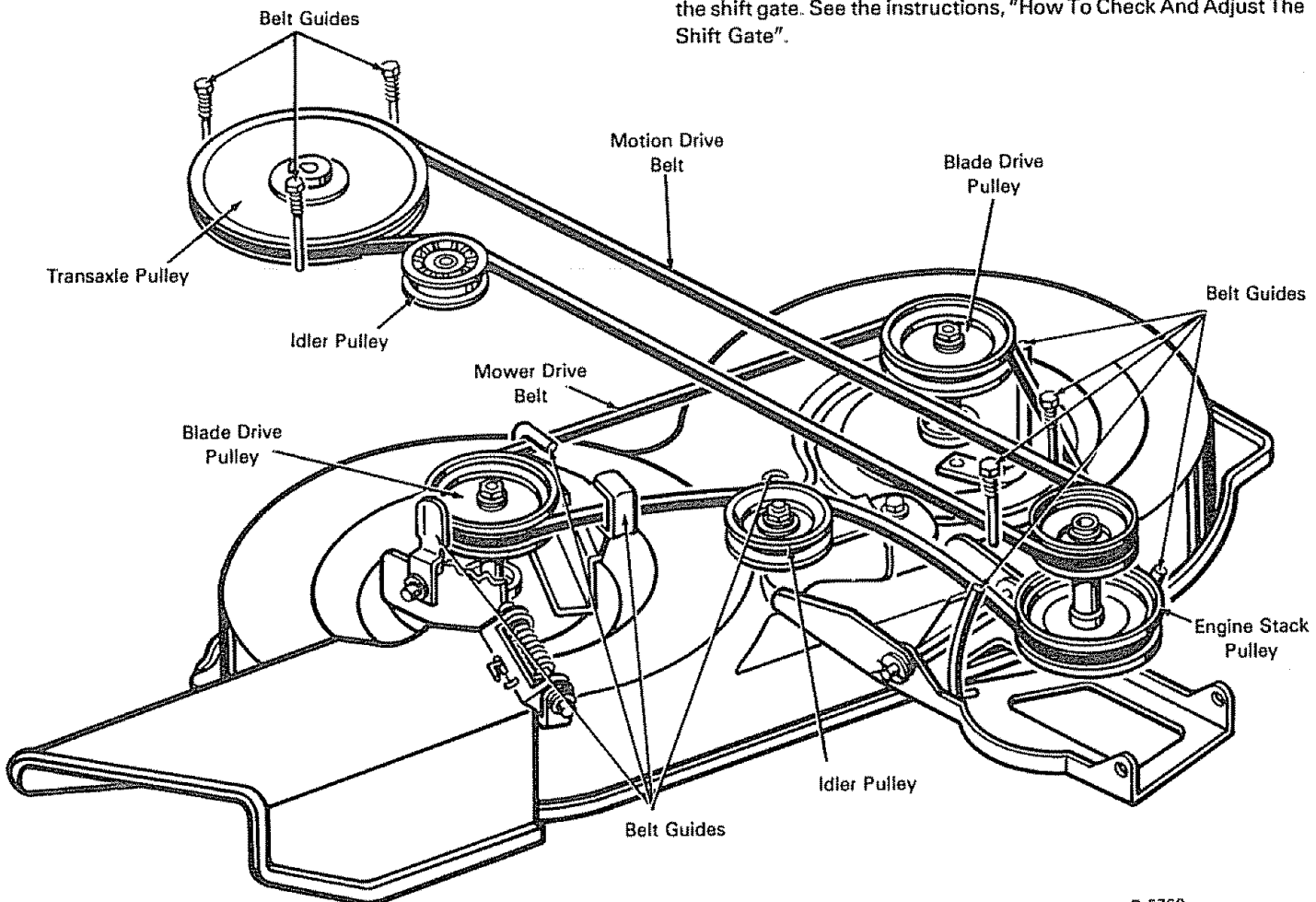
The drive brake can be easily checked as follows. Set the parking brake. Move the shift lever to the neutral (N) position. Push the unit. If the rear wheels rotate, adjust the drive brake. See "How To Check And Adjust The Drive Brake".

CHECK THE LEVEL OF THE MOWER HOUSING

The lever of cut was set at the factory. After the unit is fully assembled, completely read the Operation Section. Make sure the level of cut is set at the height you like for your lawn. Check the operation of the mower housing. Mow a short distance and look at the area that was cut. If the mower housing does not cut level, see the instructions on "How To Level The Mower Housing".

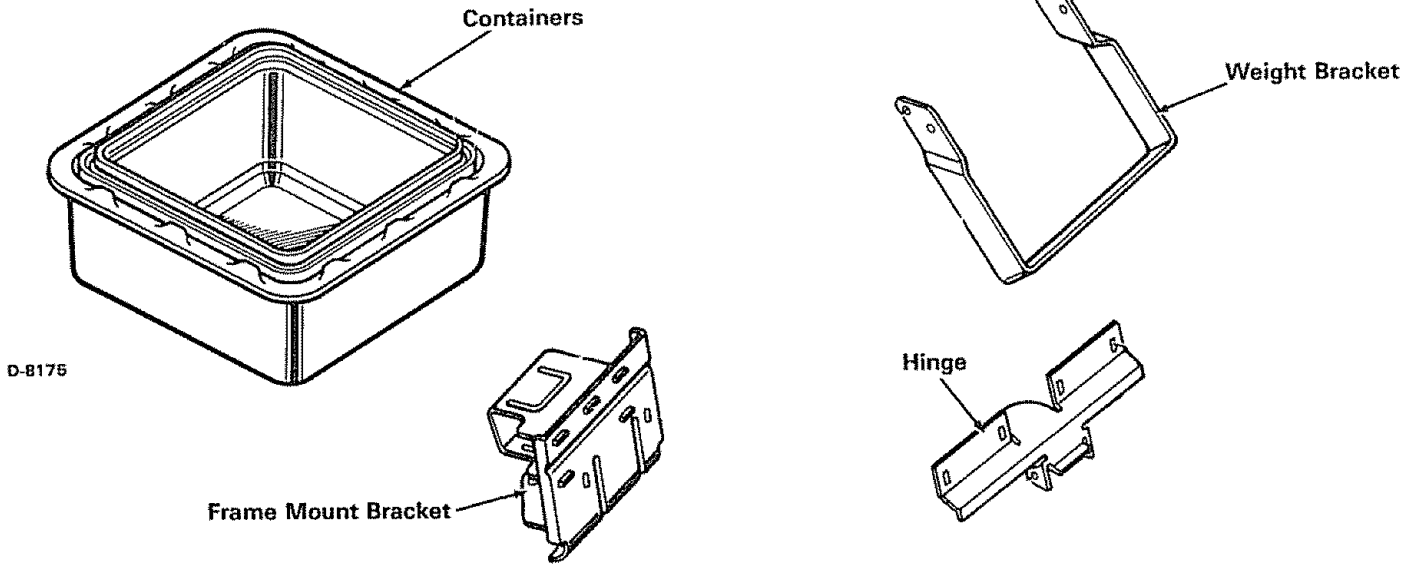
HOW TO CHECK THE ALIGNMENT OF THE SHIFT GATE

Follow the instructions in the Operation Section on "How To Use The Shift Lever". If it is difficult to change gears, first check the instructions, "How To Check And Adjust The Clutch". Then, adjust the shift gate. See the instructions, "How To Check And Adjust The Shift Gate".

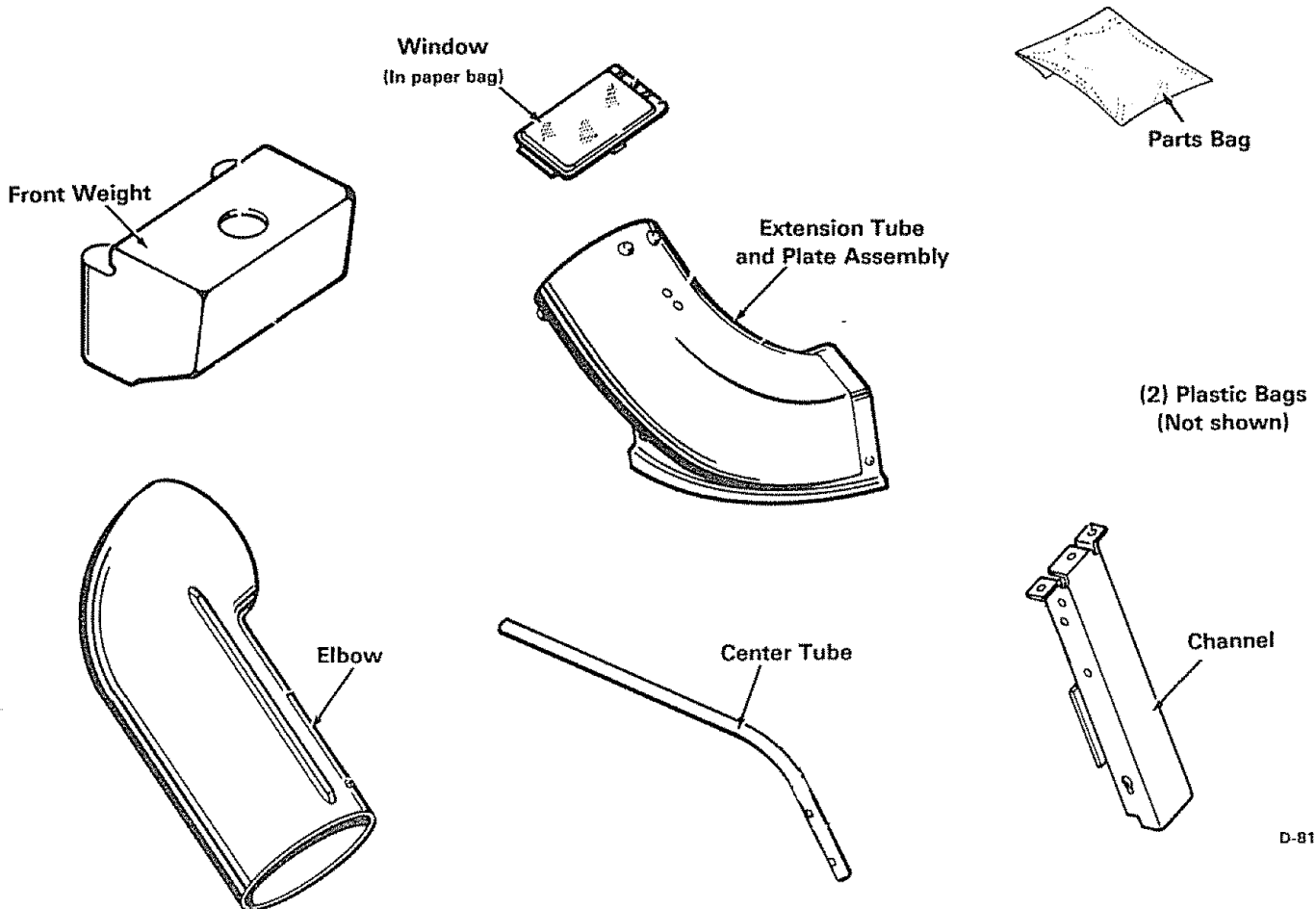


IMPORTANT: Remove and identify the contents of each box as shown below:

CONTENTS OF BOX A

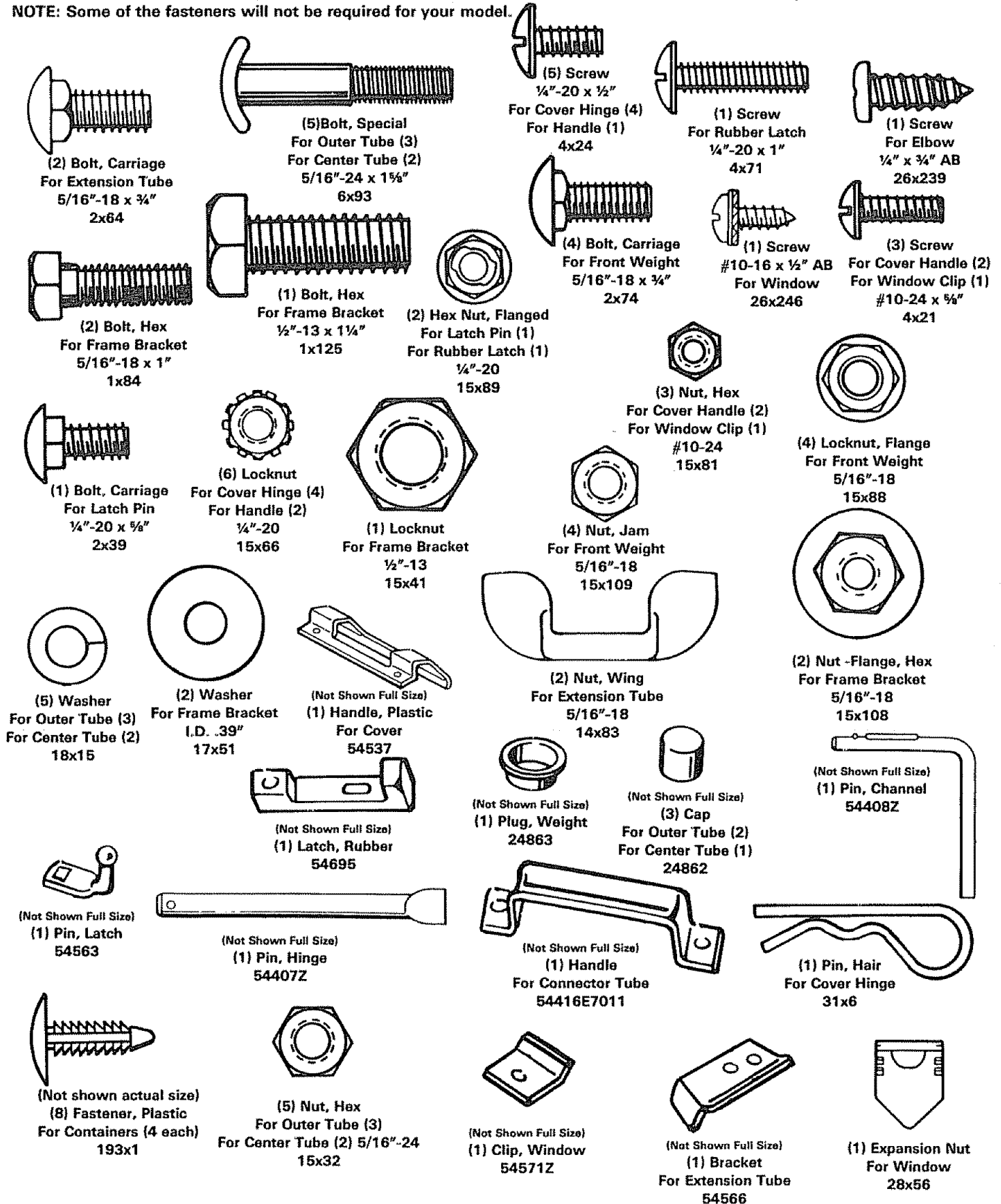


CONTENTS OF BOX B



PARTS BAG - contents for Grass Bagger

The fasteners and other loose parts are shown below. The fasteners are shown full size with the quantities in brackets ().
NOTE: Some of the fasteners will not be required for your model.



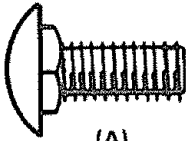
ASSEMBLY

HOW TO ASSEMBLE THE FRONT WEIGHT

Assemble the front weight support with the fasteners shown full size below.



(B)
15x109



(A)
2x74



(C)
15x88

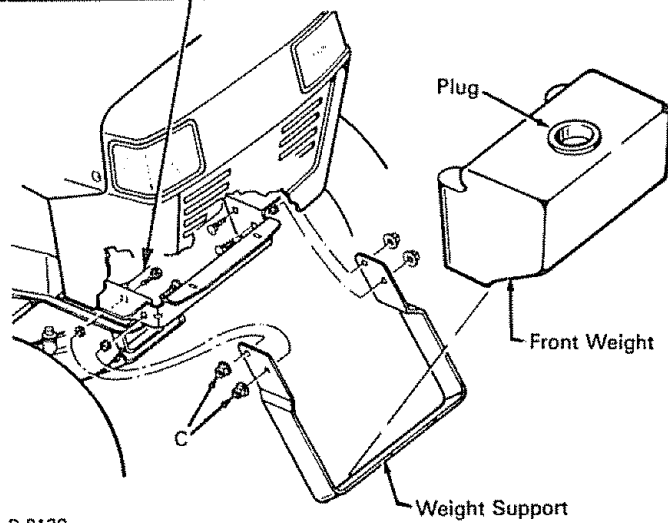
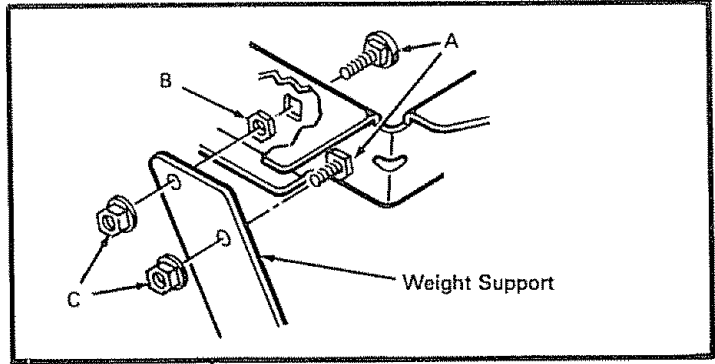
1. Assemble the four carriage bolts (A) and four jam nuts (B) to the tractor as shown. Make sure jam nuts (B) are tight.
2. Fit the front weight into the weight support with the hole for the plug on top as shown.
3. Set the weight and weight support in position on the carriage bolts you assembled in Step 1. Fasten the weight support with the four locknuts (C) as shown. Make sure locknuts (C) are tight.
4. Fill the front weight with sand. Install the plug in the front weight.



WARNING: Use the front weight when you mow on a slope or where the lawn is rough or not even.



WARNING: Do not ride up or down slopes that are too steep to back straight up. Never ride the unit across a slope. See the "Slope Guide" in the back of this book for information on how to check slopes.

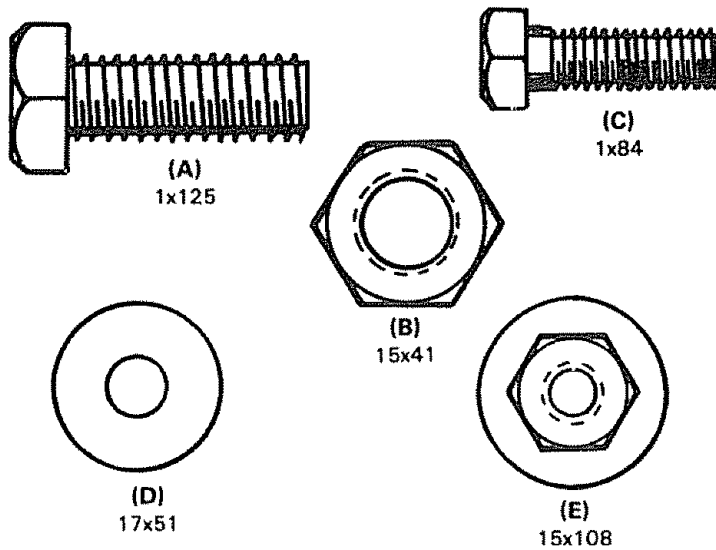


D-8130

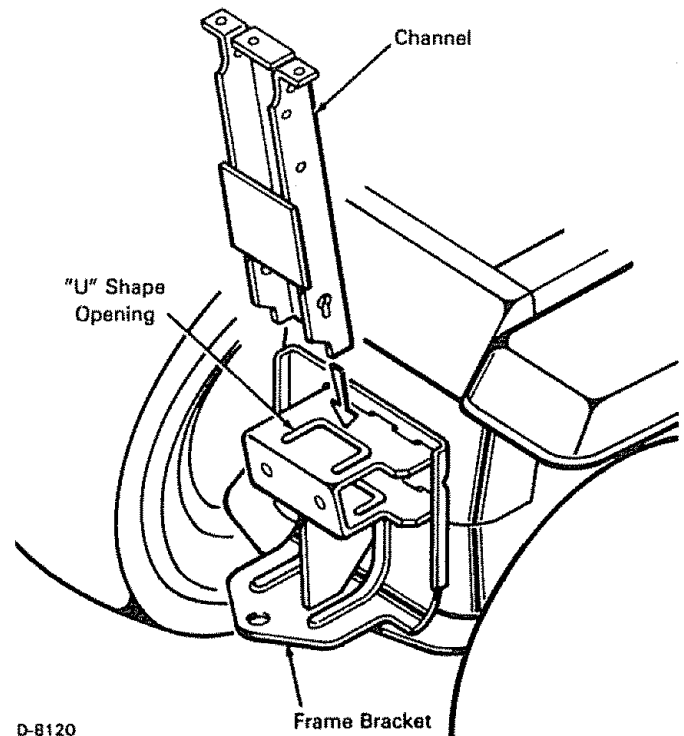
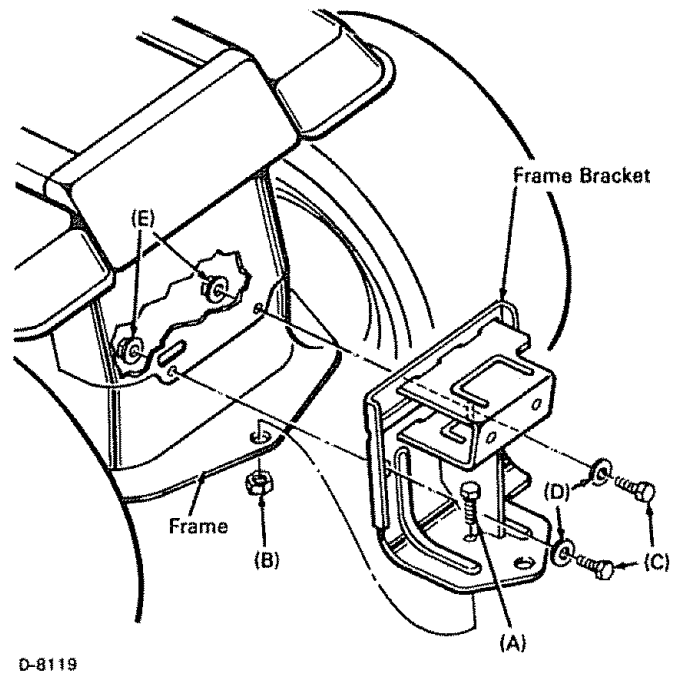
ASSEMBLY

HOW TO MOUNT THE FRAME ASSEMBLY

1. Remove and discard the two self-tapping screws from the rear of the frame. Use these two holes to mount the frame bracket.
2. Attach the bottom of the frame bracket to the frame with hex bolt (A) and locknut (B). Do not tighten at this time.



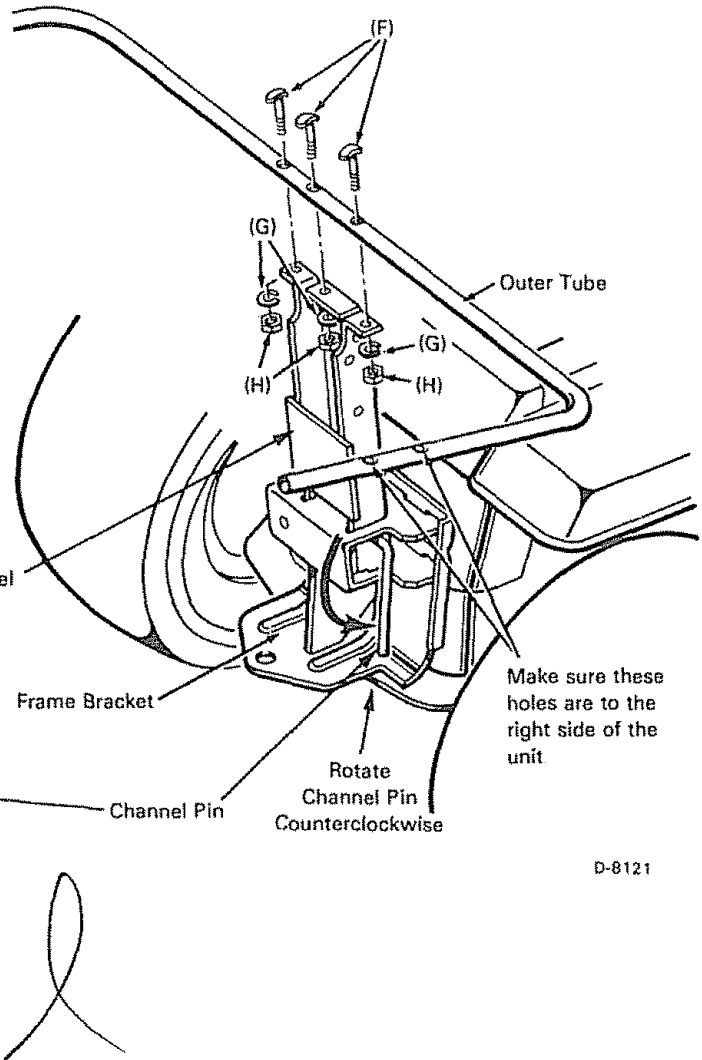
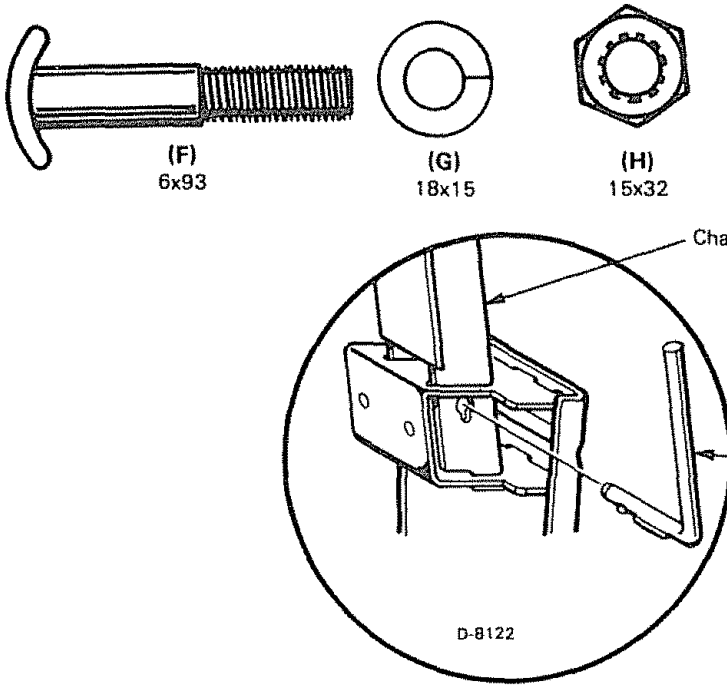
3. Attach the back of the frame bracket to the frame with bolts (C), washers (D) and flange nuts (E). Make sure bolts (C) and flange nuts (E) are tight.
NOTE: For easier assembly, use a ratchet and socket to tighten bolts (C).
4. Tighten bolt (A) and locknut (B).
5. Slide the channel in to the "U" shape opening in the top of the frame bracket as shown.



ASSEMBLY

- From the right side of the unit, install the channel pin through the channel as shown. Rotate the channel pin to lock the channel in place.
- Mount the outer tube to the channel as shown. Make sure the holes on one end of the outer tube are on the right side of the unit. Use the fasteners shown full size below. Make sure the fasteners are tight.

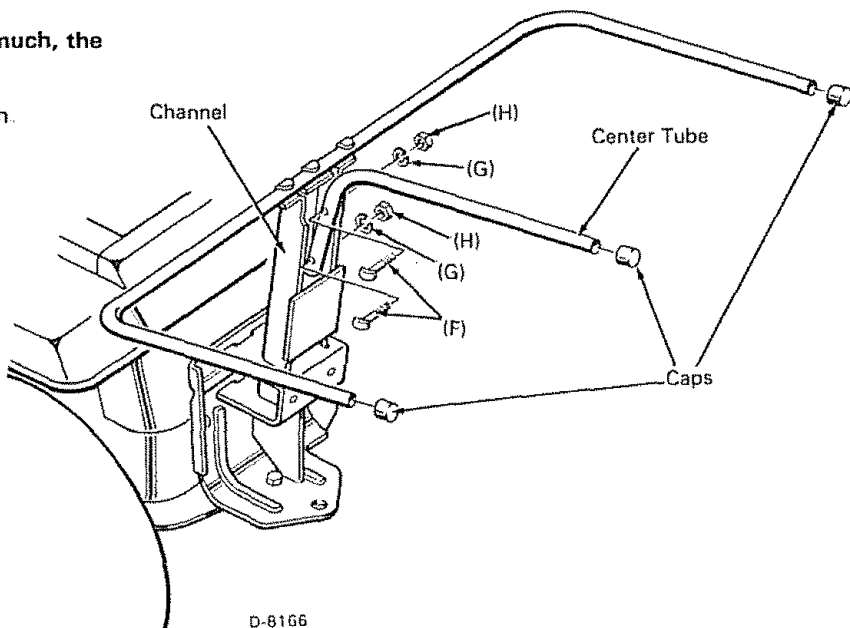
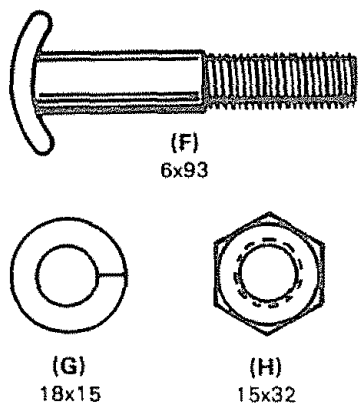
CAUTION: If the fasteners are tightened too much, the outer tube can be damaged.



- Mount the center tube to the channel as shown. Make sure the fasteners are tight.

CAUTION: If the fasteners are tightened too much, the center tube can be damaged.

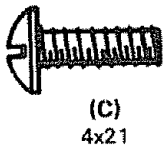
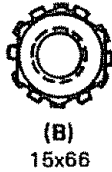
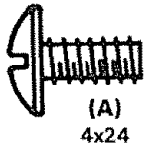
- Attach the caps to the end of the tubes as shown.



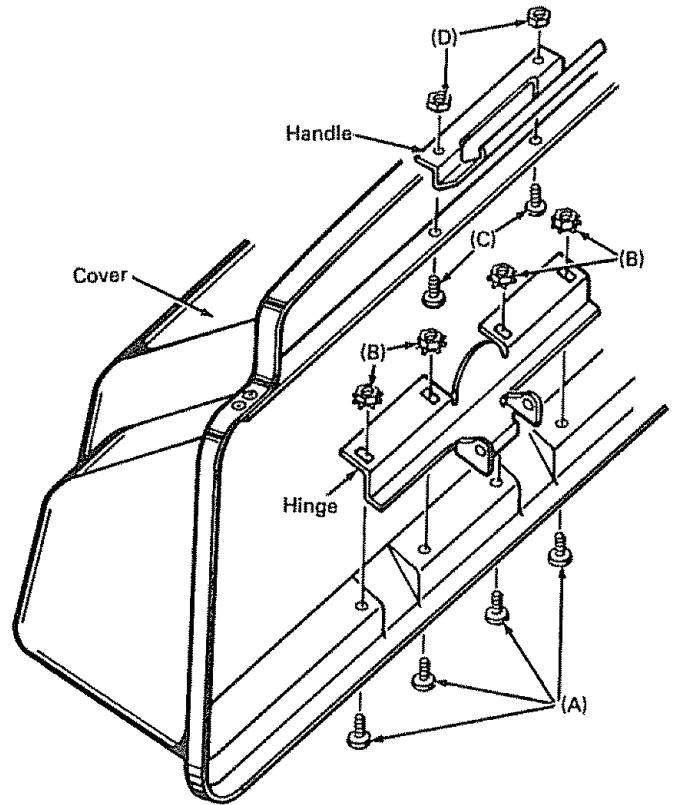
ASSEMBLY

HOW TO MOUNT THE COVER

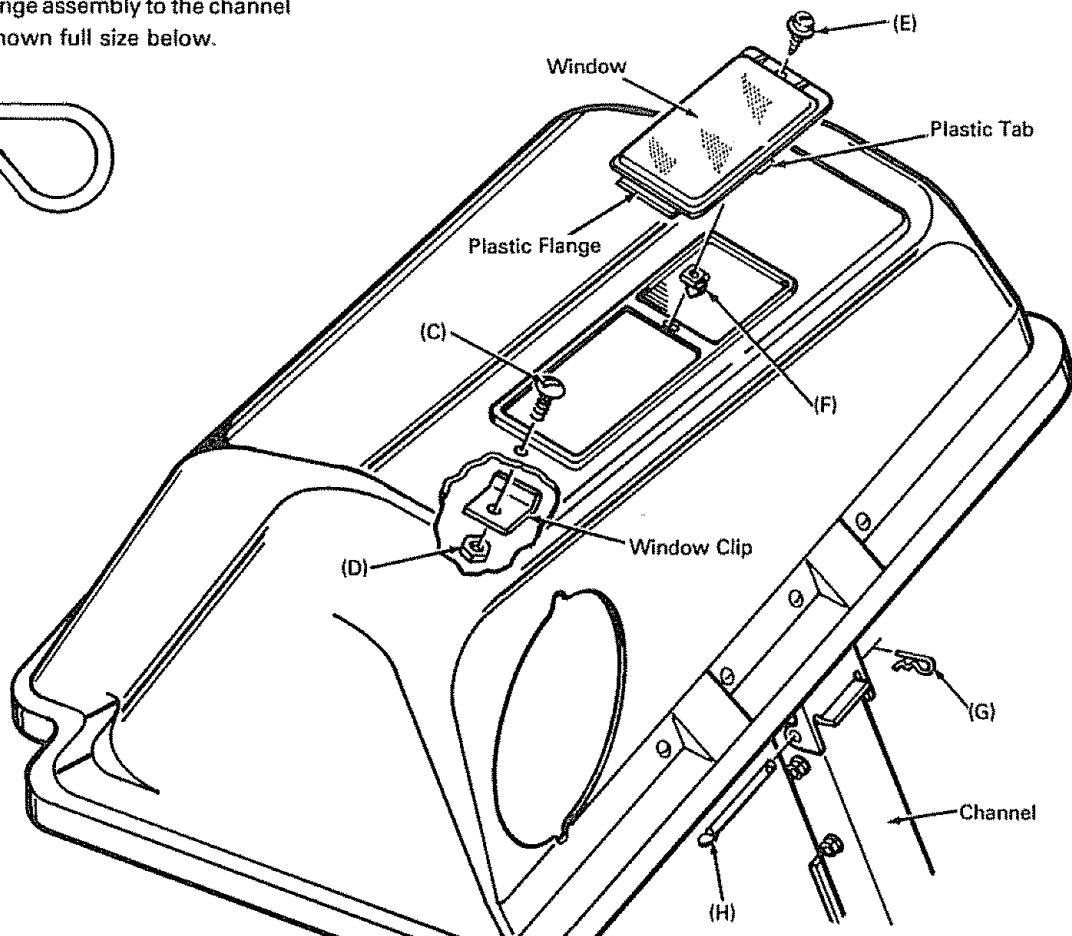
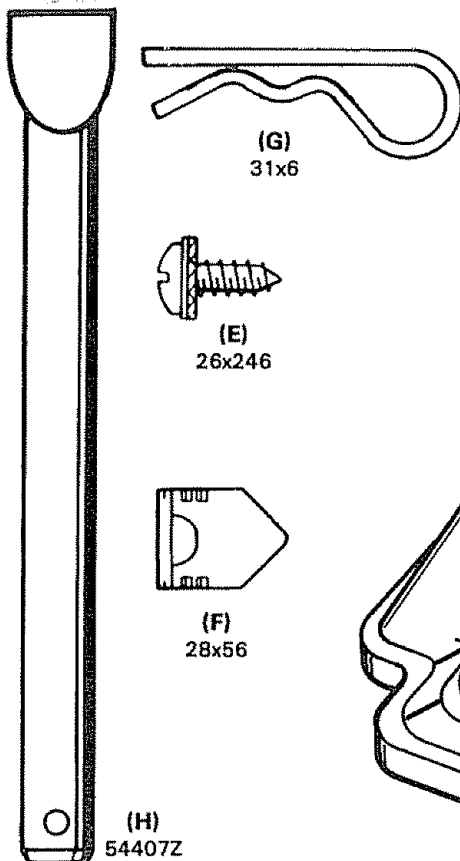
1. Assemble the hinge to the cover with the fasteners shown full size below. Push the hinge toward the top of the cover. Make sure the screws are at the bottom of the holes in the hinge. Tighten the fasteners.
2. Attach the handle to the cover with the fasteners as shown. Tighten the fasteners.



3. Push expansion nut (F) into the slot in the cover as shown. Mount the window to the cover with the fasteners as shown. Make sure the cover fits between the plastic flange and the cover, at the end of the window. Push on each side of the window until the two plastic tabs are locked in position. Fasten with screw (E) as shown. Put the window clip in position on the inside of the window. Align the hole in the window clip with the hole in the cover. Fasten the window clip with screw (C) and nut (D) as shown.
4. Set the cover in the operating position on the top of the outer tube assembly as shown. Align the holes in the hinge and the channel. Fasten the cover and hinge assembly to the channel with a hinge pin and hair pin shown full size below.



D-8124



ASSEMBLY

HOW TO MOUNT THE EXTENSION TUBE

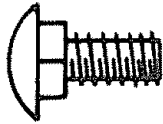
1. Assemble latch pin (A) to the extension tube with the fasteners shown below.



54563
A



15x89
B



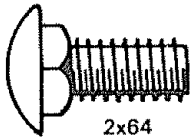
2x39
C

2. Move the lift lever to the highest cut position.
3. Disconnect the wire to the spark plug. Raise the deflector. Rotate the blade away from the discharge opening. Remove the carriage bolt and locknut from the mower housing as shown.



WARNING: The blade has sharp edges. Always be careful of the position of the blade.

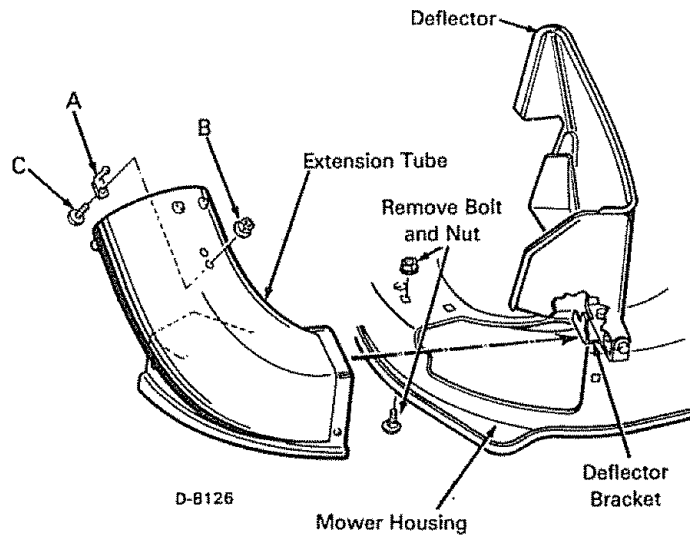
4. Slide the extension tube under the deflector bracket as shown. Fasten the extension tube to the front of the mower housing with the bolt (D) and wing nut (E) as shown. Make sure the wing nut is tight.
5. If not assembled to the extension tube, put the bracket in position at the back of the extension tube. Fasten the extension tube and the bracket with bolt (D) and wing nut (E) as shown. Make sure the wing nut is tight.



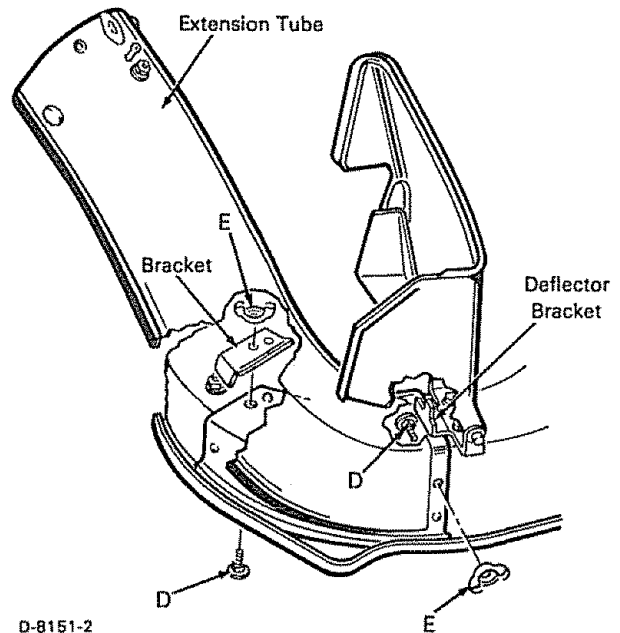
2x64
D



14x83
E



D-8126

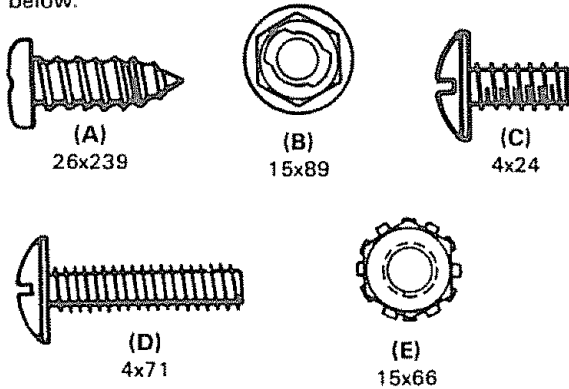


D-8151-2

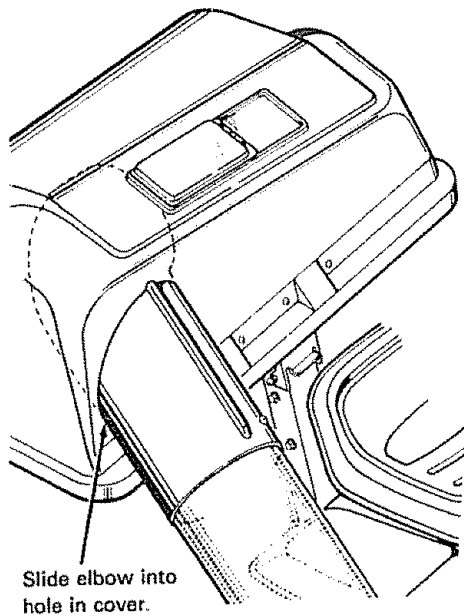
ASSEMBLY

HOW TO MOUNT THE CONNECTOR TUBE

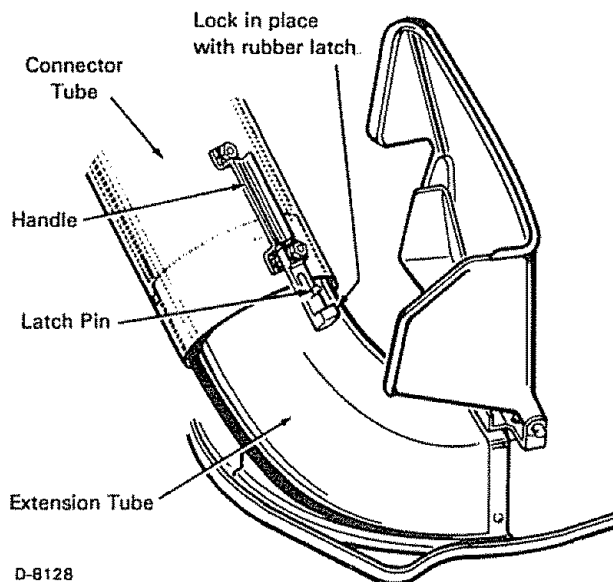
Mount the connector tube with the fasteners shown full size below.



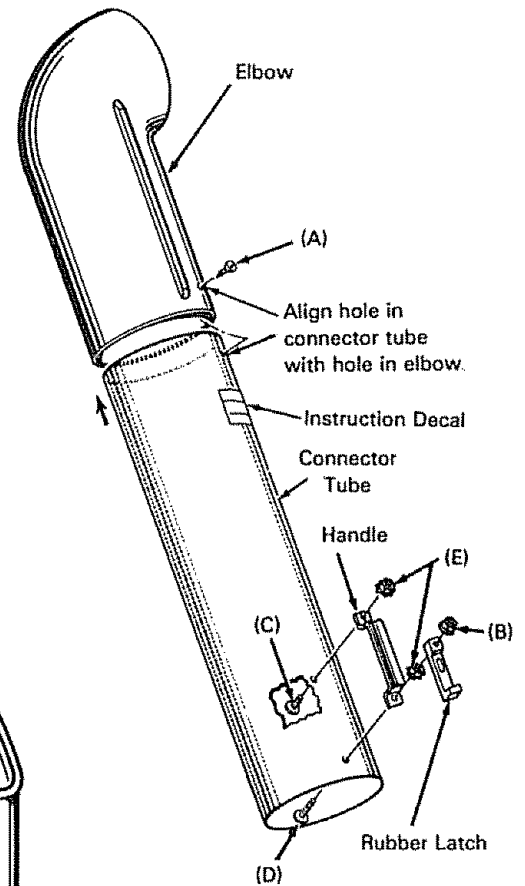
1. Assemble the handle and the rubber latch to the connector tube with the fasteners as shown. Hold the screws with a screwdriver and tighten the locknuts.
2. Align the hole in the connector tube with the hole in the elbow as shown.
3. Fasten the elbow to the connector tube with the self-tapping screw as shown. Tighten the screw until the head of the screw touches the elbow.
4. Move the lift lever to the lowest cut position.
5. Hold the handle on the connector tube. Put the end of the elbow in the hole of cover as shown.
NOTE: To help the elbow slide when you open or close the cover, put wax or polish on the elbow.
6. Rotate the elbow and connector tube assembly until the rubber latch is aligned with the latch pin.
7. Slide the bottom end of the connector tube over the extension tube. Lock in place with the rubber latch.



D-8133



D-8128



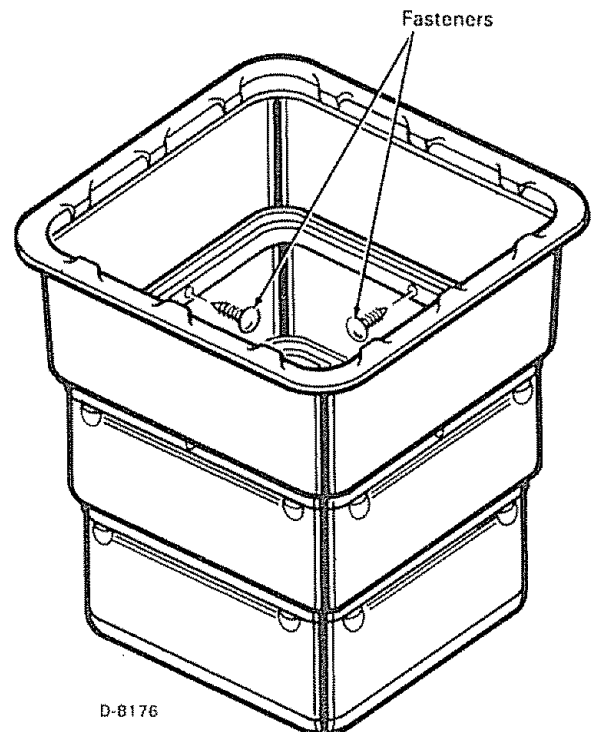
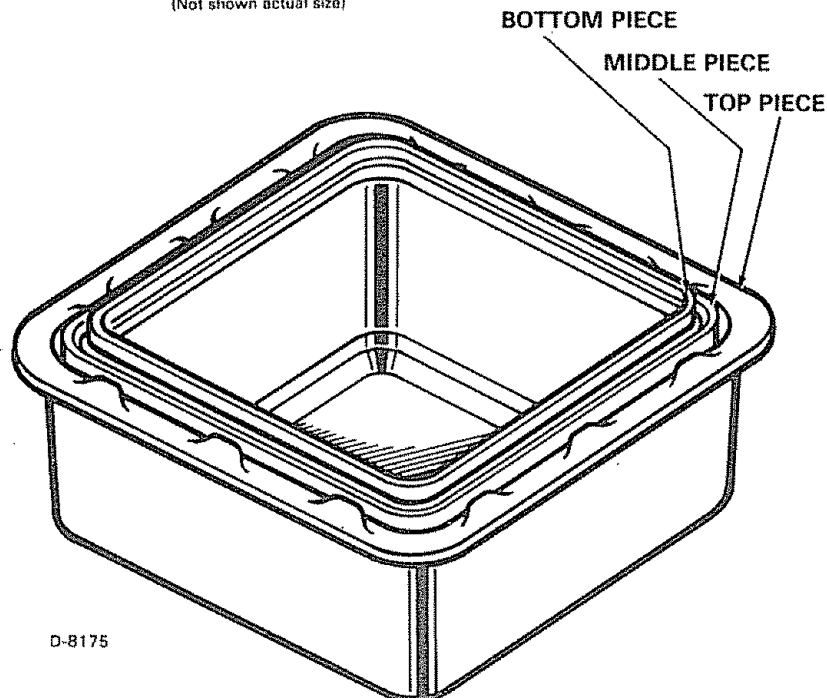
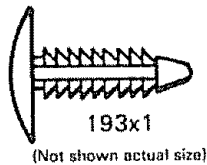
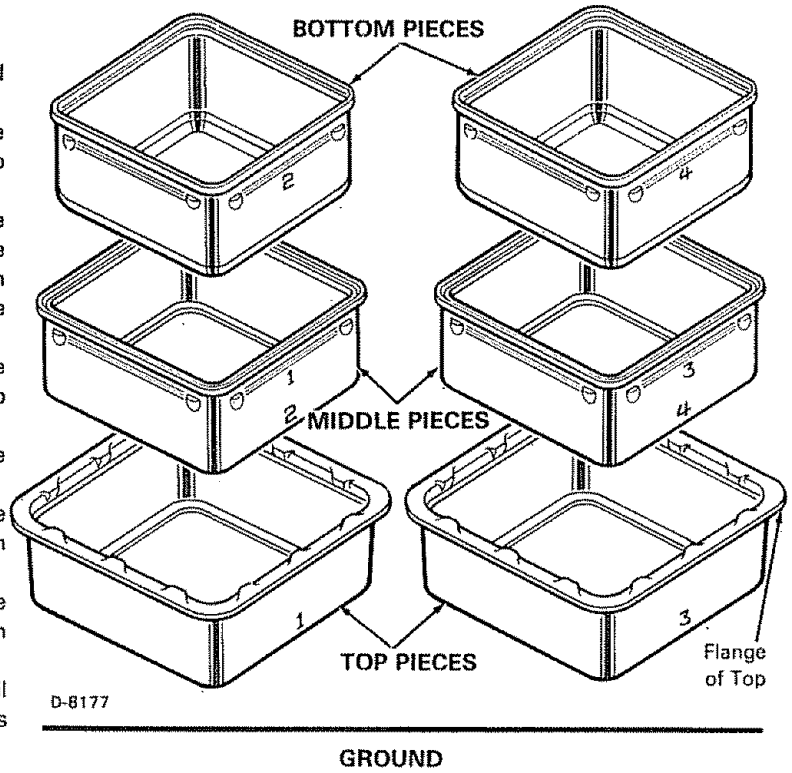
D-8129-1

ASSEMBLY

HOW TO ASSEMBLE THE CONTAINERS

NOTE: There is only one way that these containers can be put together. Carefully read and follow the instructions below.

1. Separate the six container pieces into two groups. You will have 2 tops, 2 middle and 2 bottoms pieces as shown.
2. Look for a number on one side of each top piece. The numbers for the two top pieces are 1 and 3. Set the two top pieces on the ground with the flange part up as shown.
3. Look for two numbers on one side of each middle piece. One middle piece has the numbers 1 and 2. The other middle piece has the numbers 3 and 4. Match the middle piece with the numbers 1 and 2 with top piece 1. Set the middle piece inside the matching top piece as shown.
4. Match the middle piece with numbers 3 and 4 with top piece 3 as shown. Set the middle piece inside the matching top piece as shown.
5. Look for a number on one side of each bottom piece. The numbers for the two bottom pieces are 2 and 4.
6. Match bottom piece 2 with the top piece 1 and middle piece that has the numbers 1 and 2. Set the matching bottom piece inside the middle piece as shown.
7. Match bottom piece 4 with the top piece 3 and middle piece that has the numbers 3 and 4. Set the matching bottom piece inside the middle piece as shown.
8. Put one foot inside the three pieces and lift the top piece until the three pieces connect together. Make sure all four corners of each piece are locked together.
9. Fasten the top and middle pieces of each container together using four fasteners for each container. Push each fastener into the hole in each side of the container from the inside as shown.



ASSEMBLY

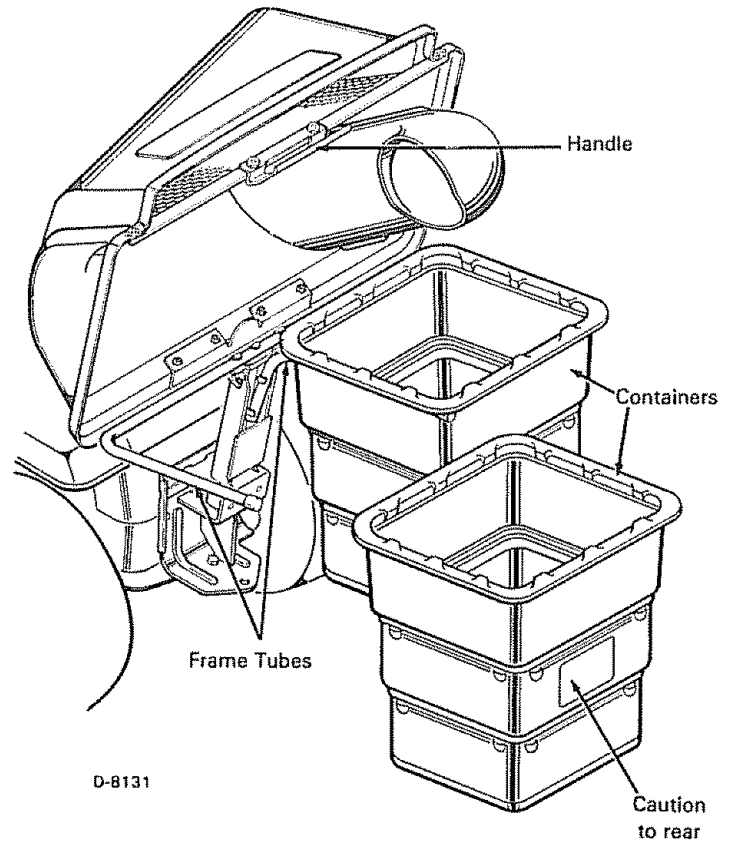
HOW TO ATTACH THE CONTAINERS

1. Tilt the seat forward. Hold the handle on the back of the cover. Pull back on the handle and lift to raise the cover.
2. Two plastic bag linings, not shown in the illustration, are included with the grass bagger. The plastic bag linings are optional accessories that can be used for easy removal of the grass.
3. Put the plastic bag linings in to the containers.
4. Slide the containers on to the frame tubes as shown. Make sure the "CAUTION" is to the rear as shown.
5. Lower the cover. Pull back on the handle and push the cover down until it locks into place.

IMPORTANT: For the grass bagger to work correctly, the cover must be in the down position.

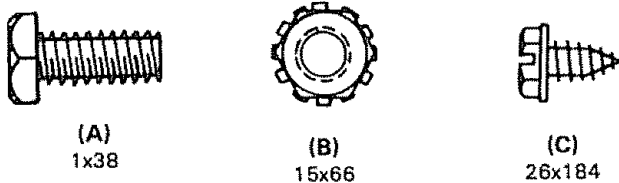
FINAL ASSEMBLY

1. The grass bagger has two containers. For easy removal of the grass, use a plastic lining inside the container. Use one of the following sizes.
 - 33 gallons
 - 4 bushels
 - 145 litres
2. Check the fasteners. Make sure that all bolts and nuts are tight.



HOW TO INSTALL THE BATTERY

Use the fasteners shown below to install the battery. The fasteners are shown at full size.

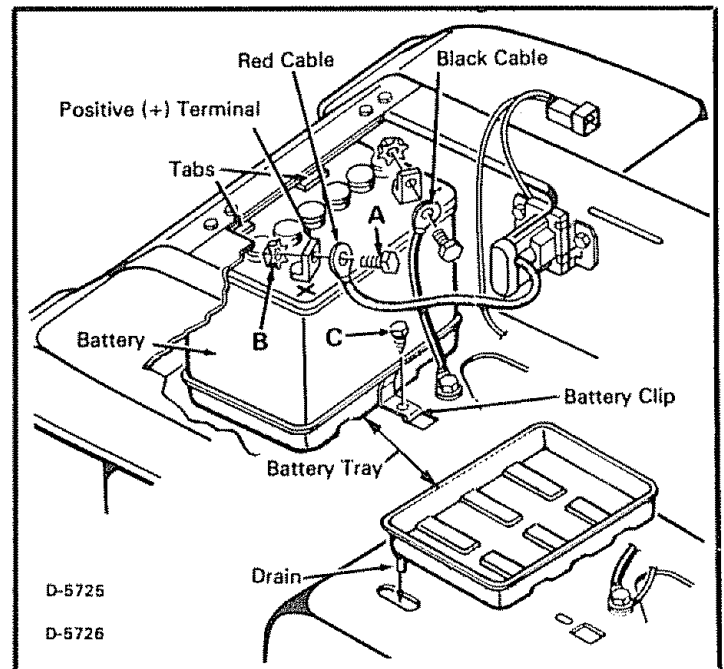


1. Tilt the seat forward. Install the battery tray. Make sure the drain on the bottom of the battery tray goes through the hole in the frame as shown.
2. Set the battery in the battery tray. Make sure the battery terminals are toward the front of the unit.
NOTE: Make sure the battery fits under the tabs at the back of the unit.
3. Fasten the battery clip in the slot in the frame. Attach the battery clip with the fastener as shown.



WARNING: To prevent sparks, fasten the red cable to the positive (+) terminal before you connect the black cable.

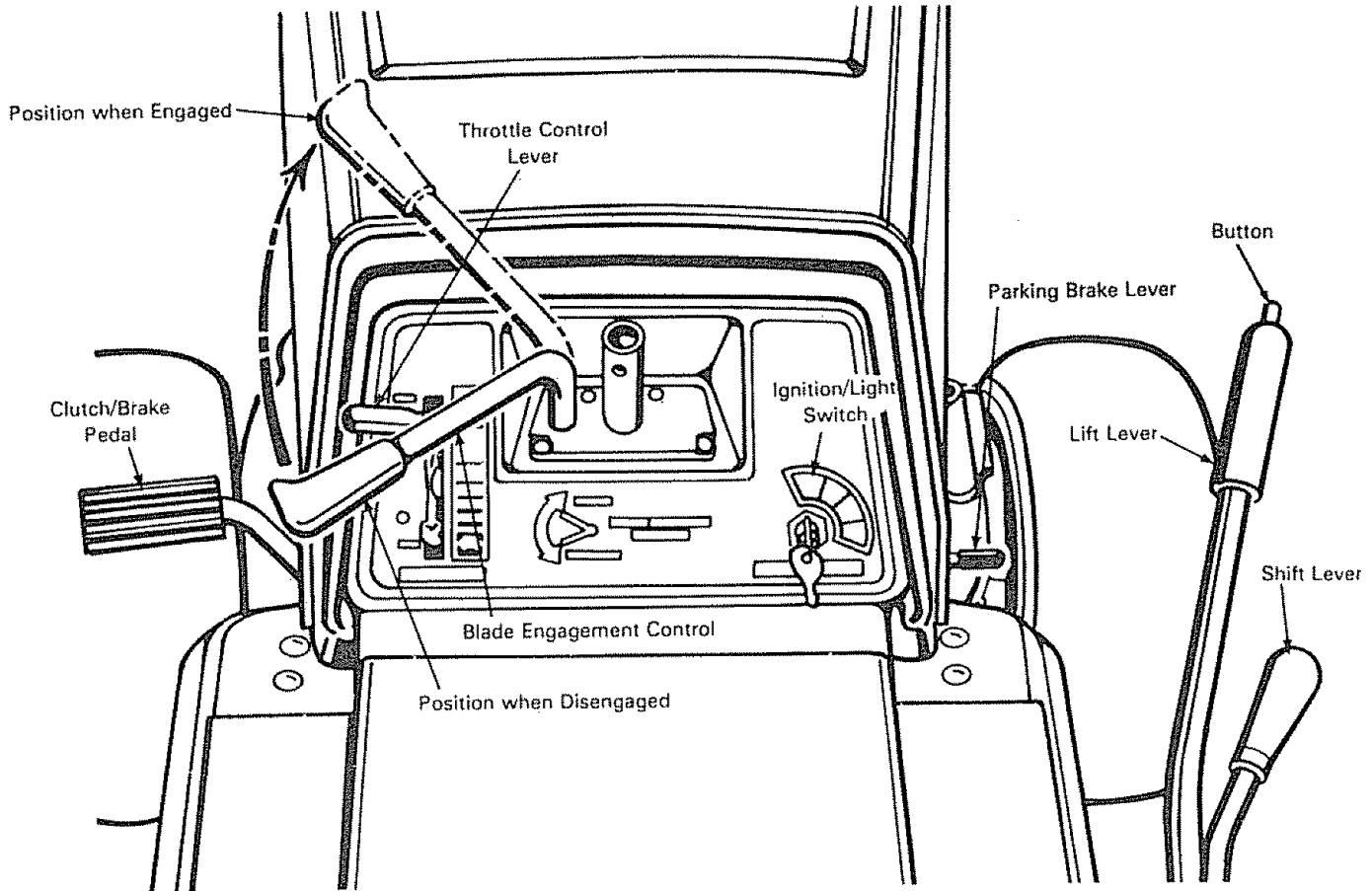
4. Fasten the red cable to the positive (+) terminal with the fasteners as shown.
5. Fasten the black cable to the negative (-) terminal with the fasteners as shown.



OPERATION

KNOW THE PRODUCT

Before you operate the unit, read this instruction book. If you understand the unit and how the unit operates, you will get the best performance. When you read this instruction book, compare the illustrations to the unit. Learn the location of the controls. To help prevent an accident, follow the operating instructions and the safety rules. Keep this instruction book for future reference.



MEETS CPSC SAFETY REQUIREMENTS

Sears Mowers conform to the safety standards of the American National Standards Institute, and the U.S. Consumer Product Safety Commission.

BLADE ENGAGEMENT CONTROL LEVER: Use the control lever to start and stop the rotation of the blade

CLUTCH/BRAKE PEDAL: The pedal has two functions. The first function is a clutch. The second function is a brake.

IGNITION/LIGHT SWITCH: The switch has two functions. The first function is for starting the engine. The second function is to turn on the headlight.

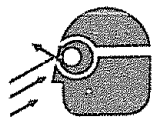
PARKING BRAKE: Use the parking brake to engage the brake when you leave the unit.

LIFT LEVER: Use the lift lever to change the height of the attachment.

SHIFT LEVER: Use the shift lever to change the speed of the unit.

THROTTLE CONTROL LEVER: Use the throttle control to increase or decrease the speed of the engine.

OPERATION



The operation of any lawn mower can result in foreign objects thrown in the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting your lawn mower and while mowing. We recommend the Wide Vision Safety Mask for over the spectacles or standard safety glasses, available at Sears Retail or Catalog Stores.

HOW TO USE THE MOWER

HOW TO SET THE PARKING BRAKE

1. Completely push the clutch/brake pedal forward.
2. Lift the parking brake lever.
3. Remove your foot from the clutch/brake pedal and then release the parking brake lever. Make sure the parking brake will hold the unit.
4. To release the parking brake, completely push the clutch/brake pedal forward. The parking brake will automatically release.



WARNING: Before you leave the operator's position, move the shift lever to the neutral (N) position. Set the parking brake. Move the blade engagement control to the DISENGAGE position. Stop the engine and remove the ignition key.

HOW TO STOP THE UNIT

1. Push the clutch/brake pedal completely forward to stop the unit. Keep your foot on the pedal.
2. Move the blade engagement control to the DISENGAGE position.
3. Move the shift lever to the NEUTRAL position.
4. Set the parking brake.
5. Move the throttle control to the SLOW position.
6. To stop the engine, turn the ignition key to the OFF position. Remove the key.

HOW TO USE THE SHIFT LEVER

HOW TO CHANGE DIRECTIONS

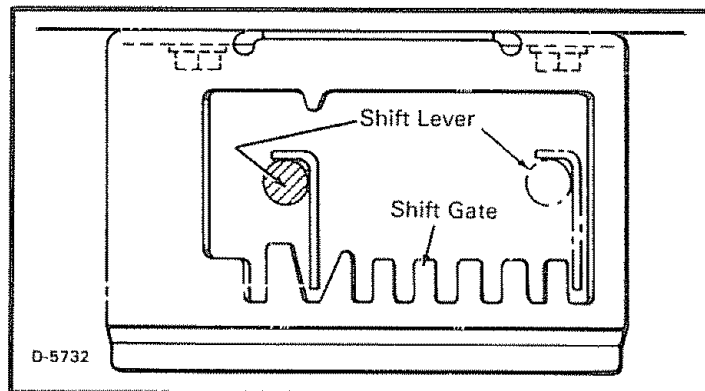
To change the direction of the unit, follow the steps below:

1. Completely push the clutch/brake pedal forward



WARNING: Before you change directions of travel, fully depress the clutch/brake pedal.

2. Pull the shift lever toward the seat until the lever disengages from the shift gate. Move the shift lever to FIRST or REVERSE. Make sure the shift lever engages into the shift gate.
3. Slowly release the clutch/brake pedal. Do not ride with your foot on the clutch/brake pedal



FUNCTION	SHIFT LEVER	THROTTLE
Trimming Snow Thrower	1	
Bagging grass	1 or 2	
Normal mowing	2 or 3	
Light mowing Snow Blade	4 or 5	
Transport	6	
Pull Behind Attachments	2 or 3	

HOW TO USE THE SHIFT-ON-THE-GO

1. While the unit moves forward, you can select any forward speed. Just move the shift lever to the next faster or next slower speed. You do not have to use the clutch/brake pedal.
2. The shift lever positions for operation of your unit are shown in the chart.

NOTE: Belt noise can occur when the clutch is engaged. This noise is normal and does not affect the operation of the unit.

OPERATION

HOW TO USE THE THROTTLE CONTROL

Use the throttle control to increase or decrease the speed of the engine.

1. To start a cold engine, move the lever to the START or CHOKE position.
2. The FAST position is marked with a detent. For normal operations and when using a grass bagger, move the lever to the FAST position. For maximum charging of the battery and also for a cooler running engine, operate the engine in the FAST position.
3. For transport and to tow pull behind attachments, move the throttle control to the needed speed.
4. The engine governor is set at the factory for maximum performance. Do not adjust the governor to increase the speed of the engine.

HOW TO CHANGE THE CUTTING HEIGHT

To change the cutting height, raise or lower the lift lever. Push the button on top of the lever to release the lever. Move the lever forward to lower the mower housing and back to raise the mower housing. The cutting height can be set from 2 to 4 inches. When you ride on a sidewalk or a road, move the lift lever to the highest position and move the blade engagement control to the DISENGAGE position.

HOW TO USE THE BLADE ENGAGEMENT CONTROL

See the location of the blade engagement control in the illustration. Use the blade engagement control to start and stop the rotation of the blade.

1. Before you start the engine, make sure the control lever is in the DISENGAGE position.
2. Move the control lever to the ENGAGE position to rotate the blade.
Note: If the engine stops when you engage the blade(s), the seat switch is not activated. Make sure you sit in the middle of the seat. Also, make sure the wire is connected to the seat switch.
3. Move the control lever to the DISENGAGE position to stop the rotary blade. Before you leave the operator's position, make sure the blade has stopped rotating.
4. Before you ride the unit on a sidewalk or a road, move the control lever to the DISENGAGE position.



WARNING: Always keep your hands and feet away from the blade, deflector opening, and the mower housing when the engine runs.

HOW TO TRANSPORT THE UNIT

To transport the unit, follow the steps below.

1. Move the blade engagement control to the DISENGAGE position.
2. Raise the lift lever to the HI position.
3. Move the throttle control to a position between SLOW and FAST.
4. To go faster, move the shift lever to a faster speed.

HOW TO OPERATE WITH THE MOWER HOUSING



WARNING: The deflector is a safety device. Do not remove the deflector. The deflector forces the discharged material toward the ground. Always keep the deflector in the down position. If the deflector is damaged, replace it with a factory replacement part.

1. Start the engine.
2. Move the lift lever to a height of cut position. In high or thick grass, cut the grass in the high position first and then lower the mower housing to a lower position.
3. Move the throttle control to the SLOW position.
4. Move the blade engagement control to the ENGAGE position.
5. Push the clutch/brake pedal completely forward.
6. Move the shift lever to one of the speed settings.
NOTE: When you mow in heavy grass or mow with a bagger, put the shift lever in the slowest speed.
7. Slowly release the clutch/brake pedal.
8. Move the throttle control to the FAST position. If you need to go faster or slower, move the shift lever to another speed setting.
9. Make sure the level of cut, set at the factory, is still correct. After you mow a short distance, look at the area that was cut. If the mower housing does not cut level, see the instructions on "How To Level The Mower Housing" in the maintenance section.



WARNING: For better control of the unit, always select a safe speed.

HOW TO OPERATE THE UNIT ON HILLS



WARNING: Do not ride up or down slopes that are too steep to back straight up. Never ride the unit across a slope. See the "Slope Guide" in the back of this book for information on how to check slopes.

1. Before you ride up or down a hill, move the shift lever to the slowest speed.
2. Do not stop or change speed settings on a hill. If you must stop, quickly push the clutch/brake pedal forward and set the parking brake.
3. To start again, make sure the shift lever is the slowest speed. Move the throttle control to the SLOW position. Slowly release the pedal.
4. If you must stop or start on a hill, always have enough space for the unit to roll when you release the brake and engage the clutch.
5. Be very careful when you change directions on a hill. When on a slope or in a turn on a hill, move the throttle control to the SLOW position to help prevent an accident.

OPERATION

HOW TO USE THE GRASS BAGGER



WARNING: Do not ride up or down slopes that are too steep to back straight up. Never ride the unit across a slope. See the "Slope Guide" in the back of this book for information on how to check slopes.

To operate the unit with the grass bagger, follow the steps below.

1. Put the throttle control in FAST position.
2. Put the shift lever in FIRST (1) position.
3. If the height of the grass is more than 3-1/2 inches (9 cm), move the mower housing to the highest position and cut the grass. Lower the mower housing and cut the grass again. You also can mow high thick grass at 1/2 to 2/3 of the full cutting width of the mower housing.

IMPORTANT: Do not cut wet grass. Wet grass will not discharge correctly in to the bagger.

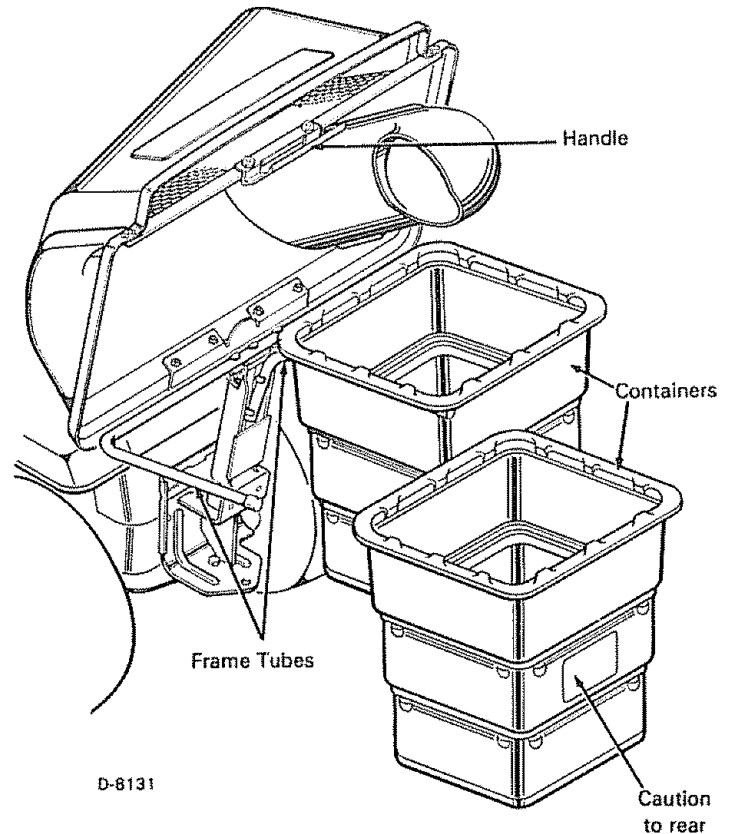
4. Look at the window(s) in the cover. When the containers are full, grass will begin to fill the cover which can be seen through the window(s). As soon as grass can be seen, empty the containers as follows.
5. Move the blade control lever to the DISENGAGE position.
6. Put the shift lever in NEUTRAL (N) position.
7. Engage the parking brake.
8. Stop the engine.
9. Raise the cover. Pull the handle back and lift the cover.
10. Remove the containers from the frame.



WARNING: Check the condition of the grass bagger and the connector tube for wear or deterioration. If worn or damaged, replace the parts only with approved factory replacement parts. For replacement parts, see the parts list in this book.

The connector tube is made of clear plastic. If the connector tube becomes filled with grass, remove and clean the connector tube and the extension tube. Before you remove the connector tube, stop the unit as follows.

1. Put the blade control lever in the DISENGAGE position.
2. Put the shift lever in neutral position.
3. Engaged the parking brake.
4. Stop the engine.



OPERATION

BEFORE STARTING THE ENGINE

CHECK OIL - Add as needed

NOTE: Do not check the level of the oil while the engine runs.

1. Make sure the unit is level.
2. Clean the area around the dipstick. Remove the dipstick. Wipe the oil from the dipstick.
3. Insert the dipstick into the oil fill tube. Turn the dipstick clockwise until it is tight. Remove the dipstick. Check the oil level on the dipstick. The oil level must reach the FULL mark on the dipstick.
4. If necessary, add oil until the oil reaches the FULL mark on the dipstick. The quantity of oil needed from ADD to FULL is shown on the dipstick. Do not add too much oil.

ADD GASOLINE

Fill the fuel tank with regular unleaded gasoline. Make sure the gasoline is fresh and clean. Leaded gasoline will increase deposits and shorten the life of the valves. Do not use premium unleaded gasoline.

CAUTION: A mixture of alcohol (ethanol or methanol) and gasoline (called gasohol), will attract moisture and cause acid deposits during storage. While the unit is in storage, the acids in the fuel can damage the fuel system.

To prevent engine problems with the fuel system, empty the fuel system before storage of 30 days or longer. Drain the fuel tank. Start the engine. Let the engine run until the fuel lines and the carburetor are empty. After storage, make sure you use fresh fuel. See the storage instructions for additional information. Never use engine cleaner or carburetor cleaner in the fuel tank or permanent damage can occur.



WARNING: Always use a safety gasoline container. Do not smoke when adding gasoline to the fuel tank. Do not add gasoline when you are inside an enclosure. Before you add gasoline, stop the engine and let the engine cool for several minutes.

CARBURETOR

The factory settings for the carburetor are for most conditions. If the engine is operated under the following conditions, you can adjust the carburetor mixture. See "How To Adjust The Carburetor" in the maintenance section.

1. The engine has a loss of power or does not run smooth.
2. A change from summer to winter operation.
3. A 40° change in the operation temperature. The carburetor was adjusted at 80° at the factory.
4. The engine is operated above 4,000 feet.

HOW TO START THE ENGINE

WARNING: The electrical system has an operator presence system that includes a sensor switch mounted in the seat. These components tell the electrical system if the operator is sitting on the seat. For your protection, always make sure this system operates correctly. This system will stop the engine when the operator leaves the seat if the blade engagement control is engaged.



NOTE: The engine will not start unless you depress the clutch/brake pedal, move the shift lever to the NEUTRAL position, and move the blade engagement control to the DISENGAGED position.

1. Sit in the middle of the seat. Completely push the clutch/brake pedal forward. Keep your foot on the pedal.
2. Move the shift lever to the NEUTRAL (N) position.
3. Move the blade engagement control to the DISENGAGE position.
4. Move the throttle control to the CHOKER position.
5. Turn the ignition key to the START position. Release the key when the engine starts.

NOTE: If the engine does not start after four or five tries, move the throttle control to the FAST position. Again try to start the engine. If the engine will not start, see the TROUBLE SHOOTING CHART.

6. After the engine starts, move the throttle control from CHOKER to a needed speed.
7. Before you begin work, let a cold engine run for several minutes. To start a hot engine, move the throttle control to a position between FAST and SLOW.

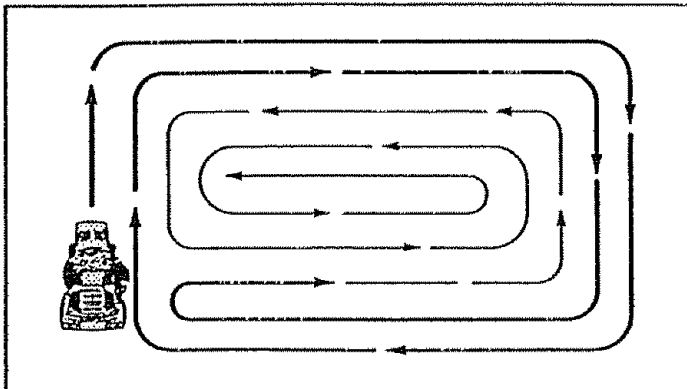
OPERATION

OPERATING TIPS

1. Check the blade engagement control for correct adjustment. For the blade(s) to disengage correctly, the adjustment must be correct.
2. Before you use the unit, check the oil in the engine and add oil if necessary.
3. If the engine will not start, first make sure the wire is attached to the spark plug.
4. Make sure all the belts are inside all the belt guides. See the instructions on how to remove and install the motion drive and mower drive belts.
5. Before you make an inspection, adjustment (except for the carburetor) or repair, make sure the wire from the spark plug is disconnected.
6. Make sure the seat switch wire is connected. If the wire is not connected, the engine will not start.
7. For longer life of the battery, charge the battery every three months.
8. Use the shift lever to change the ground speed, not the throttle control.
9. Belt noise can occur when the blade or clutch is engaged. This noise is normal and does not affect the operation of the unit.

MOWING AND BAGGING TIPS

1. For a lawn to look better, check the cutting level of the mower housing. See "How To Level The Mower Housing" in the maintenance section.
2. For the mower housing to cut level, make sure the tires have the correct amount of air pressure (PSI).
3. Every time you use the unit, check the blade. If the blade is bent or damaged, immediately replace the blade. Also, make sure the nut for the blade is tight.
4. Keep the blade(s) sharpened. Worn blades will cause the ends of the grass to turn brown.
5. Do not cut or bag grass that is wet. Wet grass will not discharge correctly. Let the grass dry before cutting.
6. Use the left side of the mower housing to trim near an object.
7. Discharge the cut grass onto the mowed area. The result is a more even discharge of cut grass.
8. When you mow large areas, start by turning to the right so that the cut grass will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left turns until finished.
9. If the grass is very high, cut two times to decrease the load on the engine. First cut with the mower housing in the HIGH position and then lower the mower housing for the second cut.
10. For better engine performance and an even discharge of the cut grass, always operate the engine with the throttle in FAST position.
11. When you use a bagger, operate the engine with the throttle in FAST position and the shift lever in first or second gear.
12. For better cutting performance and a quality cut, mow with the shift lever in one of the slower speed gears.
13. After each use, clean the bottom and top of the mower housing for better performance. Also, a clean mower housing will help prevent a fire.



MAINTENANCE SCHEDULE

PROCEDURE		EACH USE	FIRST 2 HOURS	EVERY 25 HOURS	EVERY 50 HOURS	EVERY 100 HOURS	BEFORE STORAGE	STORAGE DATES
TRACTOR	Blade, Inspect & Sharpen			X				
	Blade Engagement Control, Check			X				
	Brake, Check			X				
	Clutch, Check			X				
	Shift Lever, Check			X				
	Tires, Check			X			X	
	Battery, Check & Charge			X			X	
	Battery, Clean					X	X	
ENGINE	Lubrication				X		X	
	Oil, Check	X						
	Cooling System, Clean	X						
	Oil, Change		X		X		X	
	Air Filter, Clean				X		X	
	Muffler, Check				X			
	Spark Plug, Check				X		X	
	Fuel Filter, Replace					X		
Spark Plug, Replace					X			

MOWER GENERAL RECOMMENDATIONS

1. It is the owner's responsibility to correctly maintain this product which extends the life of the product and to maintain warranty coverage.
2. Once a year you must check the spark plug, drive brake, lubricate the unit, and clean the air filter.
3. Check the fasteners and make sure they are tight.
4. Follow the Maintenance Section to keep your unit in good operating condition.



WARNING: Before you make an inspection, adjustment (except carburetor), or repair, disconnect the wire from the spark plug.

WHERE TO LUBRICATE



Lubricate the areas shown with engine oil.

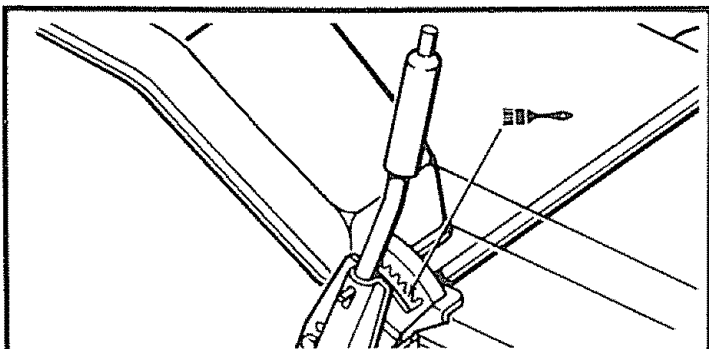
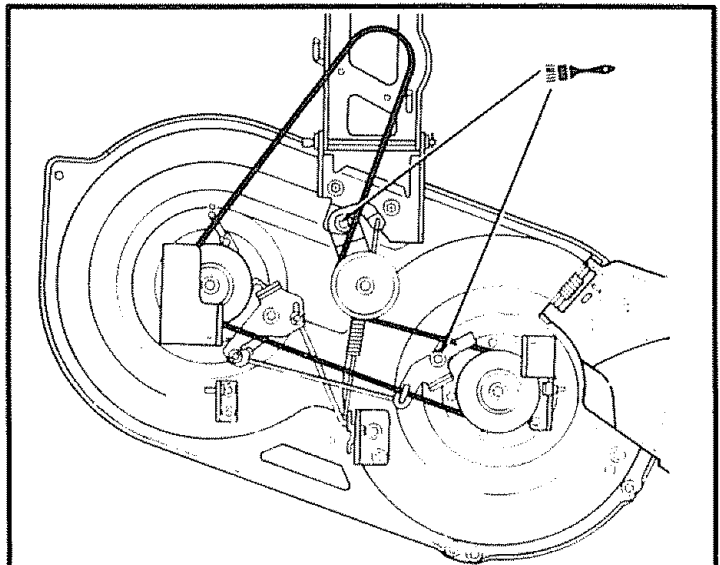
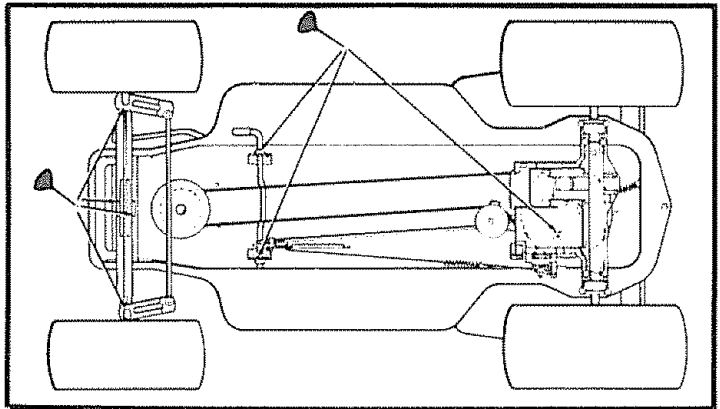


Apply grease with a brush to the areas shown.

NOTE: Apply grease to the steering gear assembly.

NOTE: If the unit is operated in dry areas that have sand, use a dry graphite spray to lubricate the unit.

CAUTION: Do not lubricate the nylon bearings for the front wheels. Oil or grease will damage the bearings.



MAINTENANCE

INSPECT BLADE



WARNING: Before you inspect or remove the blade, disconnect the wire to the spark plug. If the blade hits an object, stop the engine. Check the unit for damage. The blade has sharp edges. When you hold the blade, use gloves or cloth material to protect your hands.

If you keep the blade sharp and inspect the blade for damage, the blade will cut better and be safer to operate. Frequently check the blade for excessive wear, cracks, or other damage. Frequently check the nut that holds the blade. Keep the nut tight. If the blade hits an object, stop the engine. Disconnect the wire to the spark plug. See if the blade is bent or damaged. Check the blade adapter for damage. Before you operate the unit, replace damaged parts with a replacement part from the factory. Every three years, have an authorized service person inspect the blade or replace the old blade with a replacement blade from the factory.

HOW TO REMOVE AND INSTALL THE BLADE

1. Remove the mower housing. See the instructions on "How To Remove The Mower Housing".
2. Use a piece of wood to keep the blade from rotating.
3. Remove the nut that holds the blade.
4. Check the blade and the blade adapter according to the instructions for "Blade Service". Replace a badly worn or damaged blade with a replacement blade from the factory.
5. Clean the top and bottom of the mower housing. Remove all the grass and debris.
6. Mount the blade and blade adapter on the mandrel as shown.
7. Mount the blade so that the hi-lift edges are up as shown. If the blade is upside down, the blade will not cut correctly and can cause an accident.
8. Fasten the blade with the original washers and nut. Make sure the outside rim of the belleville washer is against the blade as shown.
9. Tighten the nut that holds the blade to a torque of 30 foot pounds (41.5N-m).
10. Connect the wire to the spark plug.



WARNING: Always keep the nut tight that holds the blade. A loose nut or blade can cause an accident.

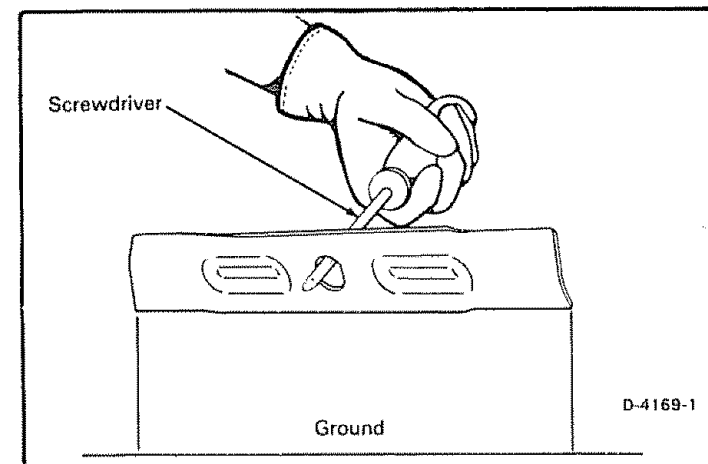
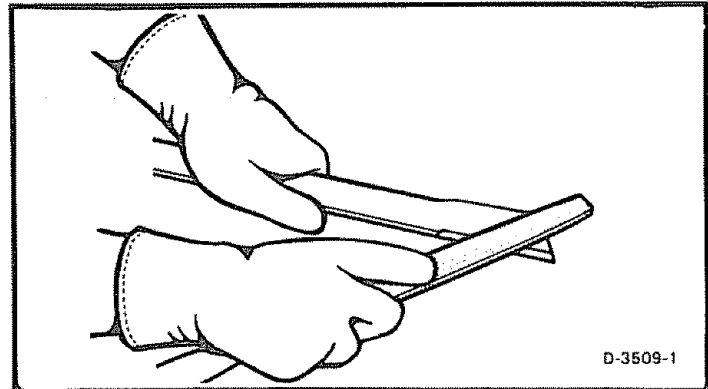
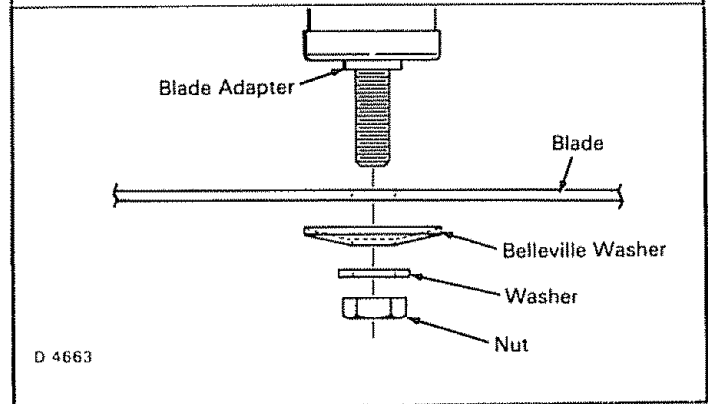
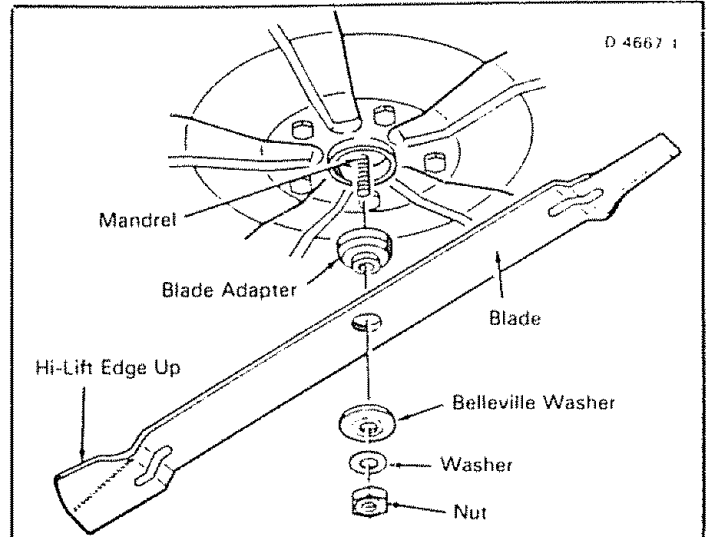
HOW TO SHARPEN THE BLADE



WARNING: Vibration can be caused if the blade is not correctly balanced or if the blade is damaged. A blade that is damaged with cracks can break and cause an accident.

Keep a sharp edge on the blade. A blade that is not sharp will cause the tips of the grass to become brown.

1. Sharpen the blade two times a year or every 25 hours.
2. Remove the blade according to the instructions in "How To Remove And Install The Blade".
3. Clean the blade with a brush, soap and water. Check the blade. Look for cracks, nicks, or other damage. Replace a badly worn or damaged blade with a replacement blade from the factory.
4. Sharpen the blade with a file. Make sure you keep the original bevel angle.
5. Make sure the blade is balanced. Use a screwdriver and hold the blade parallel to the ground as shown. A blade that is balanced will stay parallel to the ground. If the blade is not balanced, the heavy end will rotate toward the ground. Sharpen the heavy end until the blade is balanced.
6. A new blade will cut better than a badly worn blade. Every three years, have an authorized service person inspect the blade or replace the old blade with a replacement blade from the factory.
7. Assemble the blade according to the instructions "How To Remove And Install The Blade".



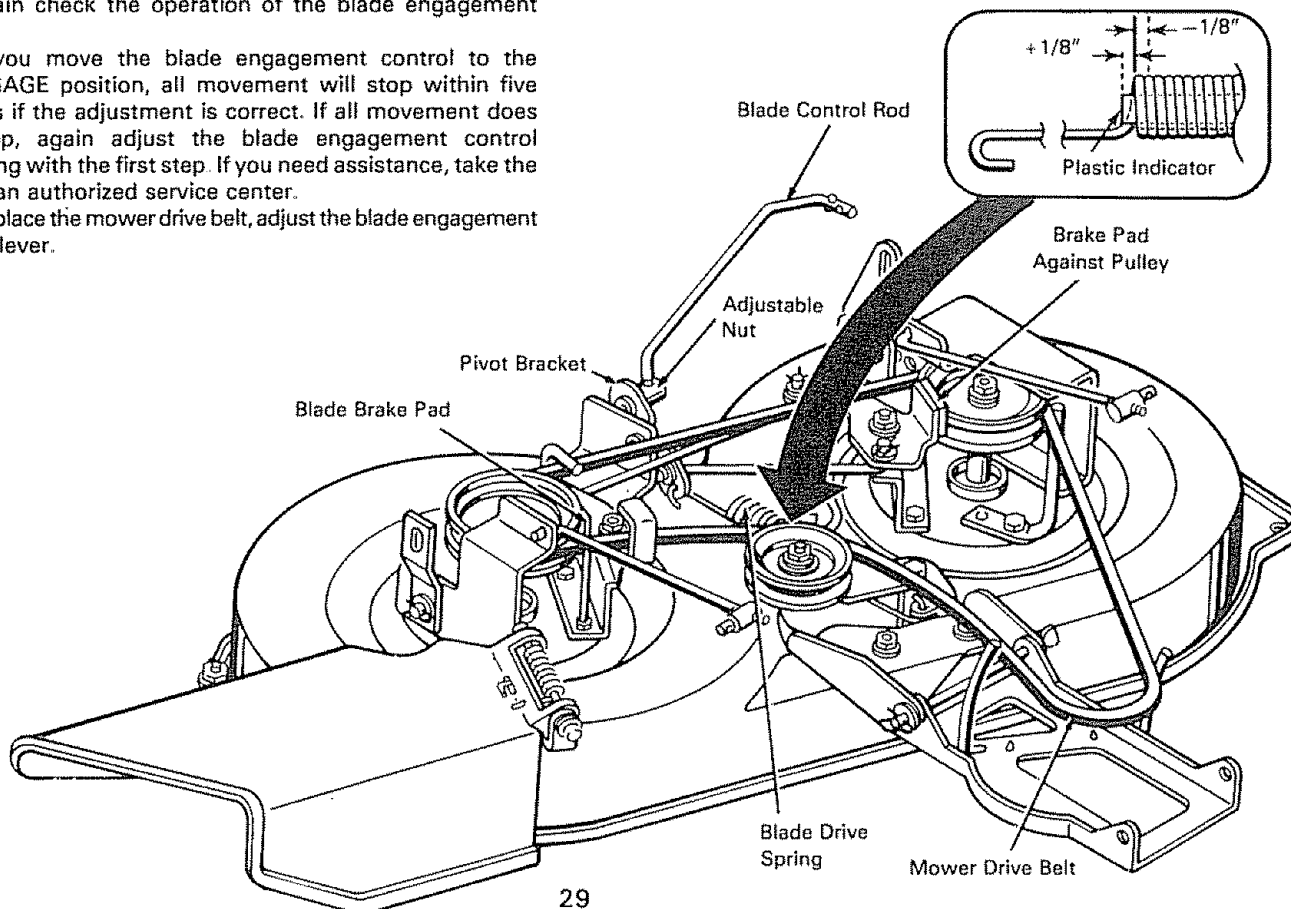
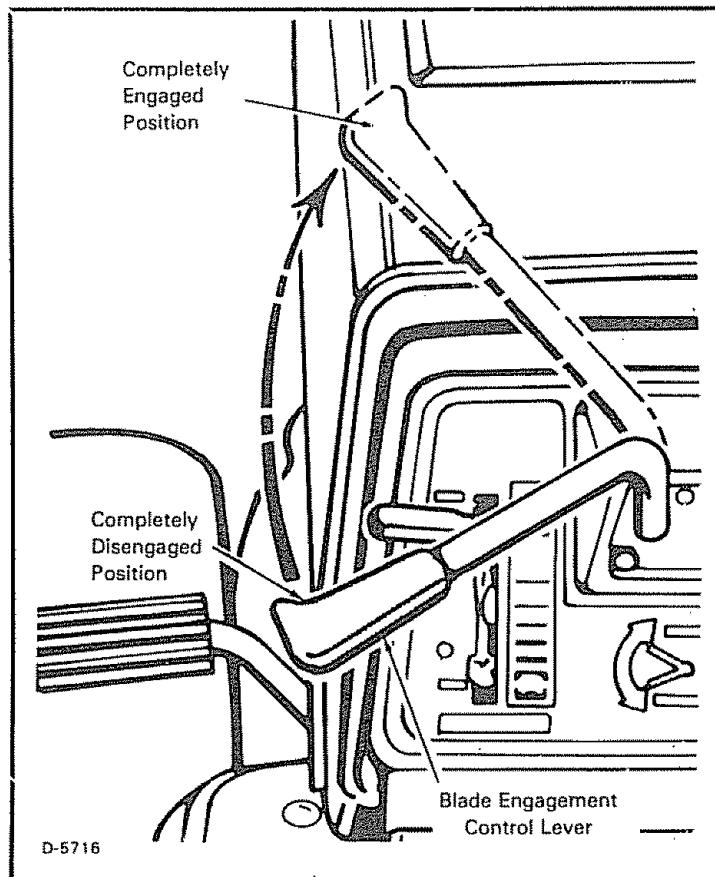
MAINTENANCE

HOW TO CHECK AND ADJUST THE BLADE ENGAGEMENT CONTROL



WARNING: To prevent an injury, the blade engagement control must operate correctly.

1. Stop the engine. Disconnect the wire from the spark plug.
2. Before you adjust the blade engagement control lever, check and level the mower housing. See "How To Level The Mower Housing."
3. Set the height of the mower housing in the lowest position.
4. Move the blade engagement control to the ENGAGE position. Check the blade drive spring. The end of the plastic indicator must be aligned with the last coil of the blade drive spring ($\pm 1/8$ inch / 3 mm).
5. If the plastic indicator is more than $1/8$ inch (3 mm) from the last spring coil, an adjustment is needed. Move the blade engagement control to the DISENGAGE position. Disconnect the blade control rod from the pivot bracket. Turn the adjustable nut clockwise to increase the length of the coils. Turn the adjustable nut counterclockwise to decrease the length of the coils.
6. Connect the blade control rod to the pivot bracket. Move the blade engagement control to the ENGAGE position. Check the adjustment of the blade drive spring.
7. Move the blade engagement control to the DISENGAGE position. Check the operation of the blade brake. Rotate the pulley with your hand. Make sure the blade brake pads press tightly against the pulleys.
8. Move the blade engagement control to the ENGAGE position. Check the blade brake pads. If the blade brake pads are excessively worn or damaged, replace the blade brake pad assemblies. Correct replacement parts and assistance are available from an authorized service center.
9. Attach the wire to the spark plug. Mow for a short distance and again check the operation of the blade engagement control.
10. When you move the blade engagement control to the DISENGAGE position, all movement will stop within five seconds if the adjustment is correct. If all movement does not stop, again adjust the blade engagement control beginning with the first step. If you need assistance, take the unit to an authorized service center.
11. If you replace the mower drive belt, adjust the blade engagement control lever.



MAINTENANCE

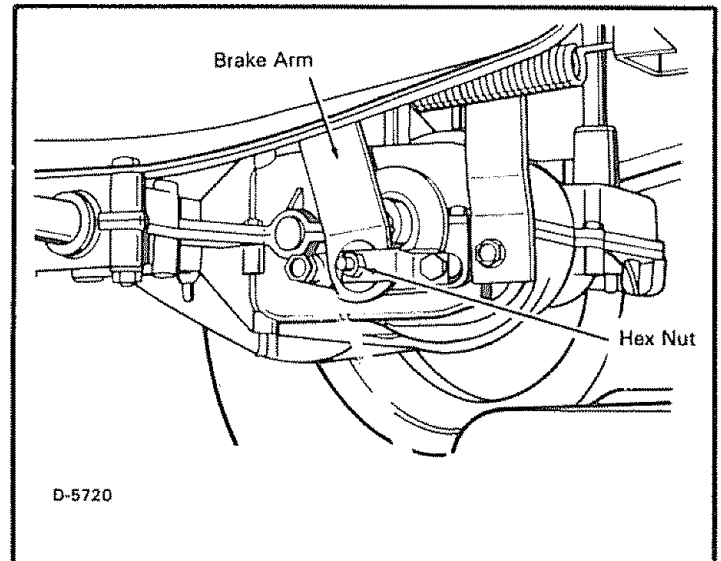
HOW TO CHECK AND ADJUST THE DRIVE BRAKE

Completely push the clutch/brake pedal forward. Set the parking brake. Move the shift lever to the neutral (N) position. Push the unit. If the rear wheels rotate, adjust or replace the brake pads. Adjust the drive brake as follows.

1. The location of the brake is on the right side of the gearbox.
2. Make sure the parking brake is set and the shift lever is in neutral (N). Turn the hex nut in a clockwise direction until the rear wheels do not turn when the unit is pushed forward.
3. Release the parking brake and push the unit. If the unit does not roll, turn the hex nut in a counterclockwise direction until the unit rolls.
4. Set the parking brake. Push the unit. If the rear wheels do not turn, the brake is correctly adjusted. Release the parking brake.



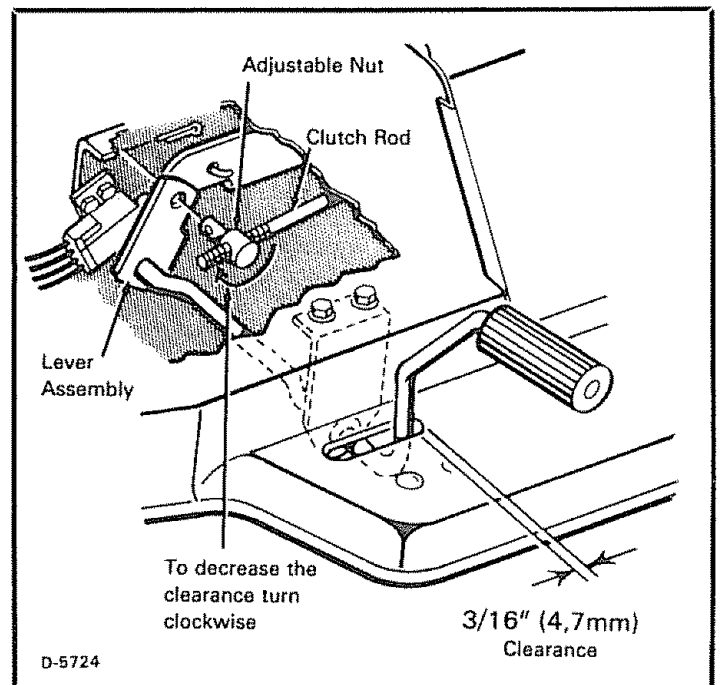
WARNING: If you cannot correctly adjust the drive brake, replace the brake pads. Correct replacement parts and assistance are available from an authorized service center.



HOW TO CHECK AND ADJUST THE CLUTCH

If the unit will not move when the clutch is engaged or if the belt slips when going uphill or when pulling a load, the motion drive belt is loose. Check the clearance between the rear of the pedal and the back of the hole as shown. If there is more or less than the clearance shown in the illustration, adjust the pedal as follows.

1. Disconnect the adjustable nut from the lever assembly as shown.
 2. Turn the adjustable nut clockwise to decrease the length of the clutch rod. This adjustment will decrease the clearance at the pedal.
 3. Assemble the adjustable nut to the lever assembly. Check the clearance at the pedal.
 4. After making an adjustment to the pedal, check the brake rod as described in the instructions on "How To Check And Adjust The Drive Brake." Also, check the adjustment of the shift lever. See the instructions on "How To Adjust The Shift Lever."
 5. If the belt is loose after the clutch has been adjusted, then the belt has stretched and must be replaced.
- NOTE:** Replace the motion drive belt with a factory replacement belt.

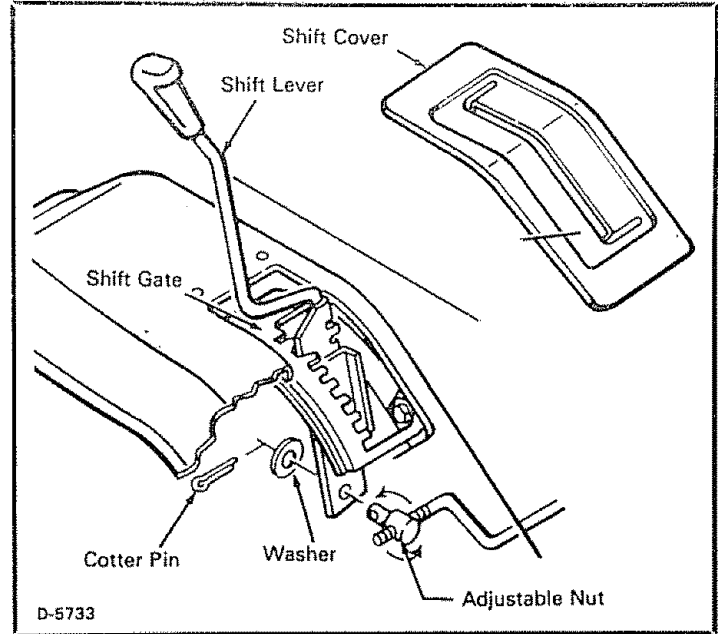


MAINTENANCE

HOW TO ADJUST THE SHIFT LEVER

NOTE: To help show the shift gate, the shift cover was removed in the illustration.

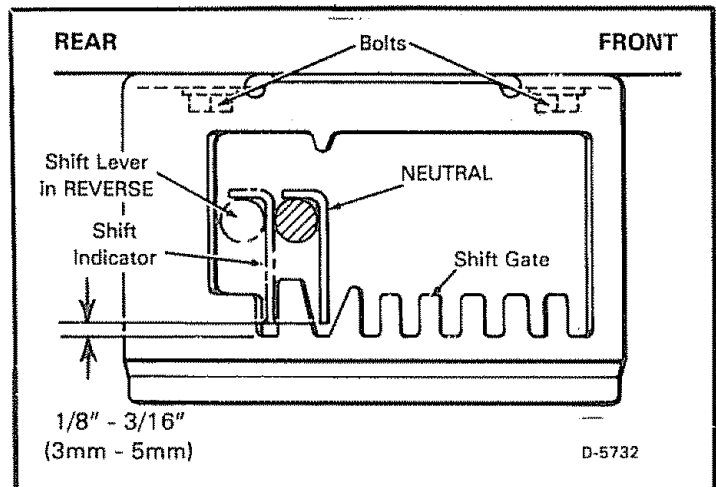
1. Move the shift lever to the NEUTRAL position. Carefully pull the shift cover away so that you can see the shift gate.
2. Carefully push the shift lever towards the seat until you feel the spring begin to extend. Measure the distance between the shift lever and the shift gate as shown. The distance must be approximately 1/8" to 3/16" (3mm to 5mm).
3. If the distance between the shift lever and the gate is incorrect, disconnect the adjustable nut at the shift lever as shown.
4. Check and adjust the clutch/brake pedal. See the instructions How To Check and Adjust The Clutch.
5. Turn the adjustable nut at the shift lever clockwise to decrease the distance between the shift lever and the gate or counterclockwise to increase the distance. Connect the adjustable nut to the shift lever.
6. Check the distance between the shift lever and the gate. See Step 2. If the distance is incorrect, repeat Steps 3 and 5.



HOW TO CHECK AND ADJUST THE SHIFT GATE

If it is difficult to change gears, adjust the shift gate as follows:

1. Set the parking brake.
2. Loosen the two bolts at the shift gate as shown.
3. Move the shift lever to the REVERSE position.
4. Make sure the shift indicator is in the center of the reverse notch in the shift gate. Push on the top of the shift gate while you tighten the rear bolt.
5. Then, tighten the front bolt.
6. Move the shift lever to the NEUTRAL position. Release the parking brake. Push the unit to make sure the rear wheels will turn.



MAINTENANCE

BATTERY

To charge or clean the battery, remove the battery from the unit as follows.



WARNING: To prevent sparks, disconnect the black battery cable from the negative (–) terminal before you disconnect the red cable.

WARNING: The battery contains sulphuric acid which is harmful to the skin, eyes and clothing. If the acid gets on your body or clothing, wash with water immediately.

1. Remove the black cable from the negative (–) terminal.
2. Remove the red cable from the positive (+) terminal.
3. Remove the battery clamp from the battery.
4. Remove the battery from the unit.

HOW TO CHECK AND CHARGE THE BATTERY

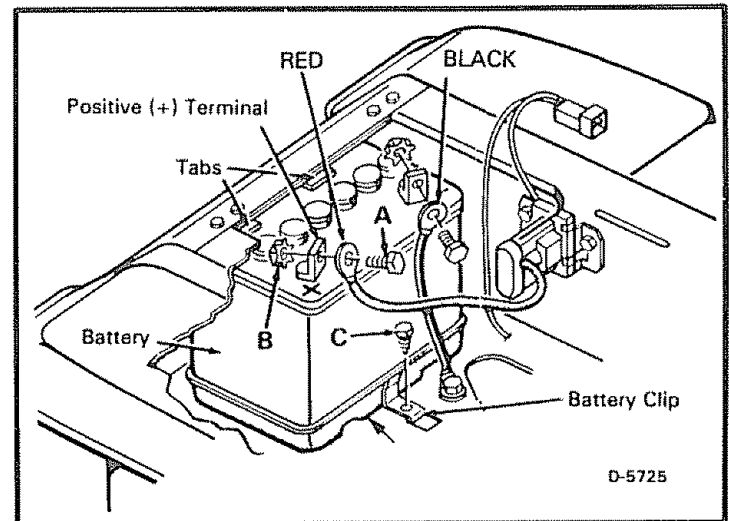
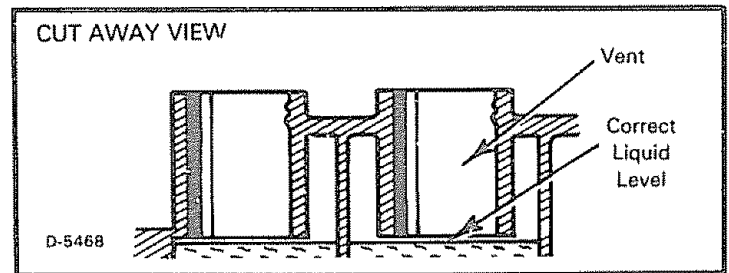


WARNING: When you charge the battery, do not smoke. Keep the battery away from any sparks. The fumes from the battery acid can cause an explosion.

1. The battery will be damaged if the battery acid is not kept at the correct level. Check the level of the battery acid. The battery acid must touch the bottom of the vent. If the battery acid has fallen below the correct level, add water to the correct level. Do not add battery acid to a charged battery or the result can be an explosion.
2. The engine has a 3 amperes charging system. If you frequently start the engine or frequently use the headlight, the battery will not stay fully charged. For longer life of the battery, charge the battery every three months.
3. Before you charge the battery, remove the battery.
4. Use a 12 volt battery charger to charge the battery. Charge at a rate of 3 amperes for 2 to 3 hours. After the battery is charged, check the level of the battery acid. If the level of the battery acid falls, add water. Do not add battery acid to a charged battery or the result can be an explosion.
5. Install the battery. See "How To Install The Battery" in the assembly section.

HOW TO CLEAN THE BATTERY

1. Remove the battery from the unit.
2. Wash the battery with a solution of one gallon of water and four tablespoons of baking soda (sodium bicarbonate). Make sure the solution does not get into the battery cells.
3. Clean the terminals and the ends of the cables with a wire brush.
4. Install the battery. See "How To Install The Battery" in the assembly section.
5. To prevent corrosion, apply grease to the battery terminals.



CHECK THE TIRES

Check the air pressure in the tires. Tires with too much air pressure will cause the unit to ride rough. Also, the wrong air pressure will keep the mower housing from cutting level. The correct air pressure (PSI) is 12 PSI (0.85 kg/cm²).

MAINTENANCE

ENGINE

HOW TO CHECK THE OIL

NOTE: Do not check the level of the oil while the engine runs.

1. Make sure the unit is level.
2. Clean the area around the dipstick. Remove the dipstick. Wipe the oil from the dipstick.
3. Insert the dipstick into the oil fill tube. Turn the dipstick clockwise until it is tight. Remove the dipstick. Check the oil level on the dipstick. The oil level must reach the FULL mark on the dipstick.
4. If necessary, add oil until the oil reaches the FULL mark on the dipstick. The quantity of oil needed from ADD to FULL is shown on the dipstick. Do not add too much oil.

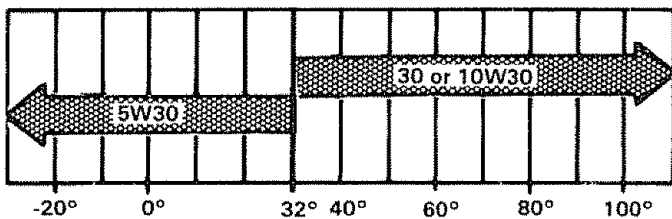
HOW TO CHANGE THE OIL

NOTE: Do not drain the oil from a cold engine. Before you drain the oil, let the engine run for several minutes. Make sure you do not get oil on the belts.

1. Remove the oil drain cap. Drain the oil completely from the engine. Install and tighten the oil drain cap.
2. Use a SD, SE or SF detergent grade oil. Detergent oil helps to clean the engine. Nothing must be added to the oil.
3. Before you change the oil, use the temperature chart below to select the viscosity grade of the oil to use.

Temperature range before the next oil change. Oil must be a SD, SE or SF grade oil.

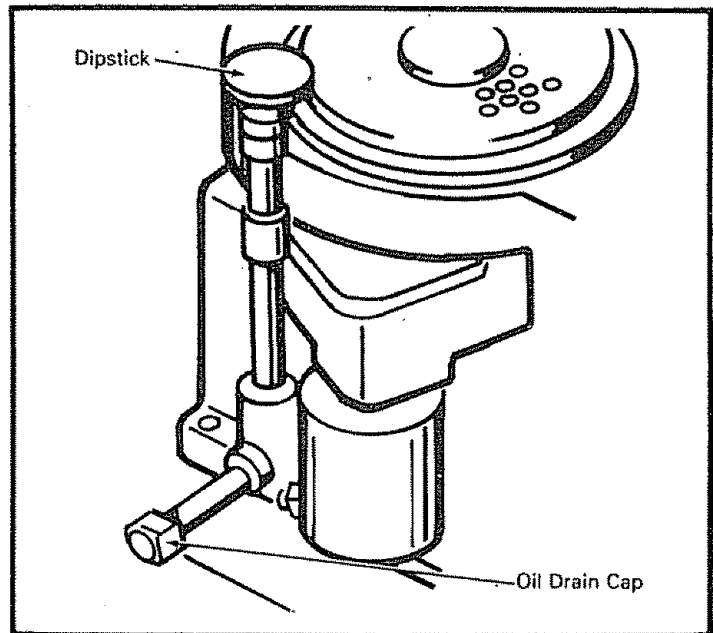
Required SAE viscosity grades



D-4682-1

CAUTION: To protect the starting system, use SAE 5W30 oil when the temperature is less than 32 °F.

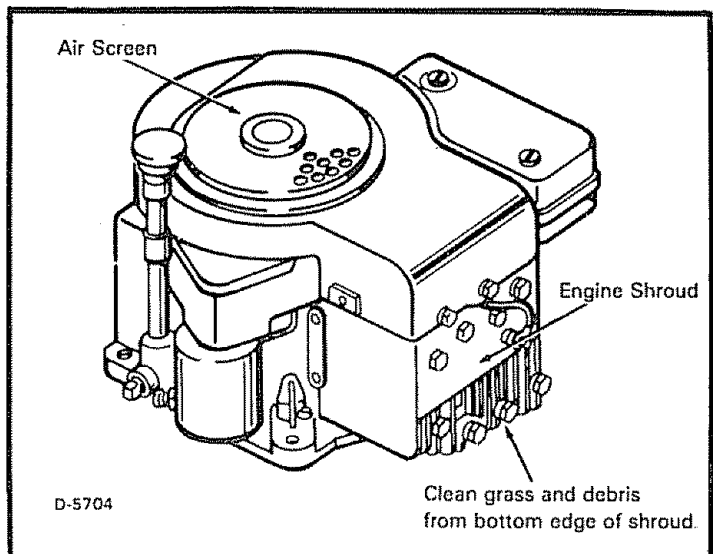
4. Clean the area around the dipstick. Remove the dipstick. Slowly pour approximately 3 pints (1.4 liters) of oil into the oil extension tube.
5. Insert the dipstick into the oil extension tube. Turn the dipstick in a clockwise direction until it is tight. Remove the dipstick. Check the oil level on the dipstick. The oil level must reach the FULL mark on the dipstick.



HOW TO CLEAN THE ENGINE COOLING SYSTEM

The engine on this unit is air cooled. The air that cools the engine enters through the air screen on top of the engine.

1. Remove any grass, dirt or debris from the air screen with a cloth or brush.
2. Inspect the edge of the engine shroud for grass or debris. Remove any grass or debris visible at the bottom edge of the engine shroud.



MAINTENANCE

HOW TO CLEAN THE AIR FILTERS

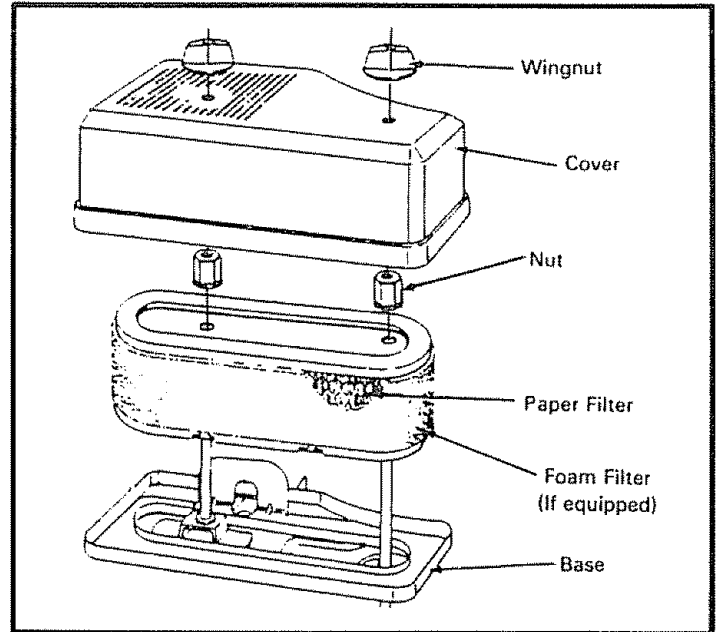
Some engines have two filters, an outer foam filter around an inner paper filter. Clean the air filters every 50 hours. If you operate in dirty conditions, service more often.

NOTE: Never run the engine with the air filters removed. The air filters will help protect the engine against wear. For the correct replacement filter, see the parts list for the engine.

1. Remove the two wingnuts from the cover.
2. Remove the cover from the air cleaner.
3. Remove the two nuts from the filters.
4. Remove the filters.
5. Clean the inside of the base and the cover with a cloth.
6. Remove the foam filter, (if equipped), from the paper filter.
7. If equipped, wash the foam filter in a detergent and water solution. To remove the water solution, tightly roll the foam filter in a dry cloth. Remove the foam filter from the cloth. Completely dry the foam filter.

CAUTION: Do not wash the filters in gasoline or other solvents that will burn.

8. Evenly apply S.A.E. 30W oil to the dry foam filter.
9. To clean the paper filter, lightly tap the paper filter against a hard flat surface.
10. If the paper filter is very dirty, replace the filter.
11. Assemble the air filters with the two nuts.
12. Install the cover. Fasten the cover with the two wingnuts.



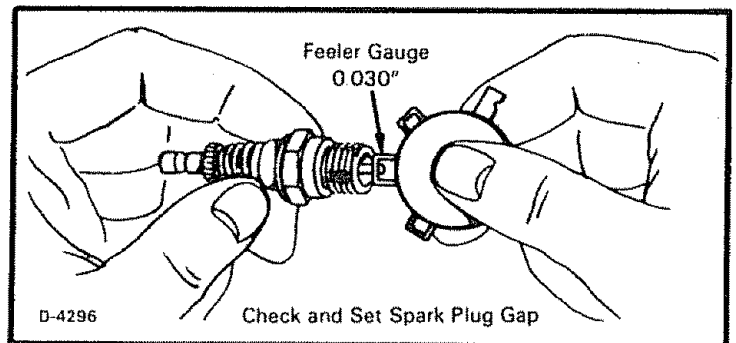
HOW TO CHECK THE MUFFLER

Check the muffler every 50 hours. Make sure the muffler is correctly mounted and is not loose. If the muffler is worn or burnt, replace with a new muffler. A worn muffler is a fire hazard and also can damage the engine.

If you mount a spark arrestor to the muffler, also check the spark arrestor when you check the muffler. If the spark arrestor is worn or damaged, replace it with a new spark arrestor.

HOW TO CHECK THE SPARK PLUG

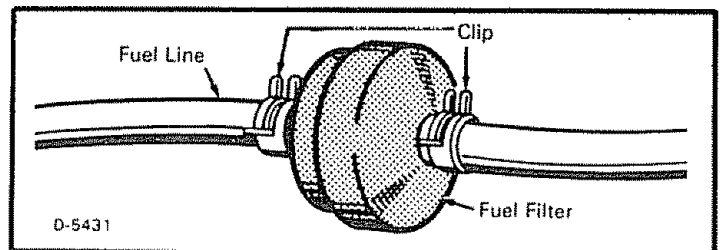
1. Check the gap of the spark plug with a feeler gauge. The correct gap is 0.030".
2. For easy starting and good performance, replace the spark plug every two years.



CHECK THE FUEL FILTER

NOTE: Before you replace the fuel filter or the fuel line, the fuel tank must be empty.

If the fuel filter is dirty, the engine will run rough and have less performance. Remove the old filter. Replace the old filter with a new filter. Use a factory replacement part.



SERVICE AND ADJUSTMENT

HOW TO ADJUST THE CARBURETOR

The factory settings for the carburetor are for most conditions. If the engine is operated under the following conditions, you can adjust the carburetor mixture.

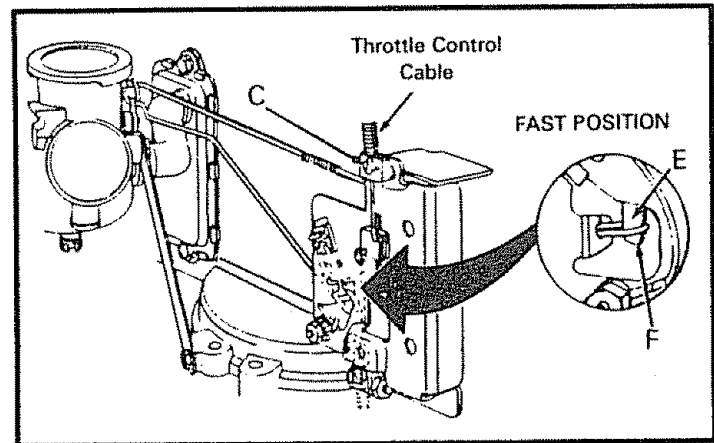
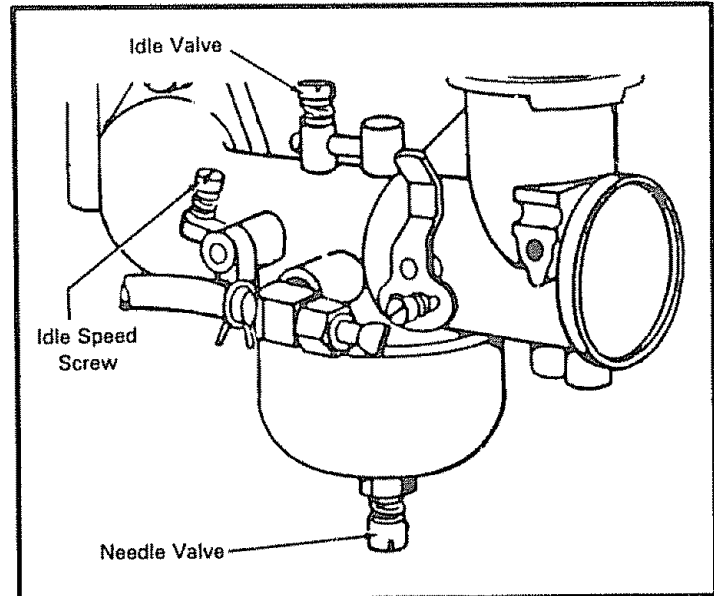
1. The engine has a loss of power or does not run smooth.
2. A change from summer to winter operation.
3. A 40° change in the operation temperature. The carburetor was adjusted at 80° at the factory.
4. The engine is operated above 4,000 feet

If an adjustment is needed, follow the steps below.

1. Turn the needle valve clockwise until it just closes. Turn the idle valve until it just closes.

CAUTION: If you turn the valves until they are tight, you can damage the valves.

2. Turn the needle valve 1-1/2 turns counterclockwise. Turn the idle valve 1-1/4 turns counterclockwise. This first adjustment will permit the engine to start and get warm so that a last adjustment can be done.
3. Move the throttle control to the FAST position. Turn the needle valve clockwise until the engine starts missing (lean mixture). Then turn the needle valve counterclockwise past the smooth operating position (rich mixture).
4. Turn the needle valve to a position between rich and lean so that the engine can run smooth. (3400 ± 100 RPM).
5. Adjust the RPM. Move the throttle control to the SLOW position. Turn the idle speed screw until a fast idle is obtained (1750 ± 200 RPM). Turn the idle valve clockwise (lean) and counterclockwise (rich) until the engine idles smoothly. Then, turn the idle speed screw so that the engine idles at 1750 ± 200 RPM).
6. Move the throttle control to the FAST position. If the engine does not accelerate correctly, adjust the carburetor to a rich mixture.



HOW TO ADJUST THE THROTTLE CONTROL

If the engine is difficult to start or will not run at 3500 RPM in FAST position, then adjust the throttle control as follows:

1. Move the throttle control to the FAST position.
2. Loosen screw (C) that holds the throttle cable in position.
3. Pull the throttle cable up until the lever (E) touches link (F) as shown.
4. Tighten screw (C). Move the throttle control to the SLOW position and then back to the FAST position. Make sure lever (E) touches link (F) as shown.

NOTE: Do not change the engine governor. If the engine governor needs an adjustment, go to the nearest Sears Service Center. They have the equipment and experience to make the adjustment.

SERVICE AND ADJUSTMENT

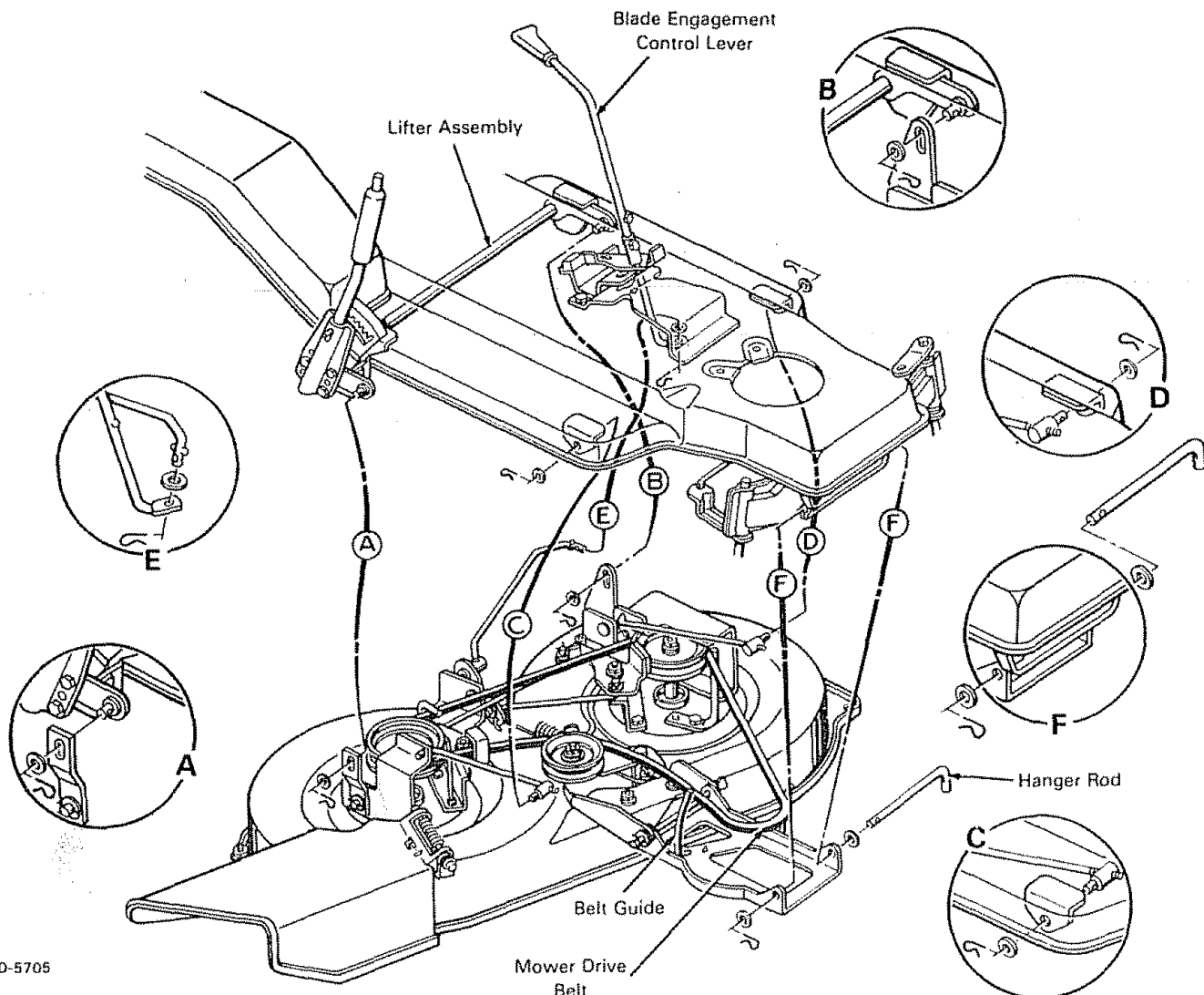
HOW TO REMOVE THE MOWER HOUSING

1. Move the lift lever to the lowest position.
2. Move the blade engagement control lever to the DISENGAGE position.
3. Remove the hair pins and the washers from the adjusting rods. See illustrations "C" and "D" below.
4. Remove the hair pins and the washers from the suspension link and the adjuster plate. See illustrations "A" and "B" below.
5. Remove the hair pin and washer from the blade control rod. See illustration "E" below.
6. Disconnect the front hanger from the axle support. See illustration "F" below.
7. Remove the mower drive belt from the stack pulley.
8. Pull the mower housing away from the right side of the unit.

HOW TO INSTALL THE MOWER HOUSING

1. Push the mower housing under the right side of the unit.
2. Put the mower drive belt around the stack pulley. Make sure the "V" side of the mower drive belt is against the stack pulley. Also, make sure the mower drive belt is not twisted.

3. Attach the front hanger to the axle support with the hanger rod. Fasten with the fasteners as shown. See illustration "F" below.
4. Make sure the mower drive belt is between the stack pulley and the belt guide.
5. Fasten the control rod to the blade engagement control with the washer and hair pin. See illustration "E" below.
6. Attach the suspension link and the adjuster plate to the lifter assembly. Fasten with the washers and hair pins. See illustrations "A" and "B" below.
7. Attach the right and the left adjusting rods to the suspension brackets. Fasten with the washers and hair pins. See illustrations "C" and "D" below.
8. Move the blade engagement control to the ENGAGE position. Make sure the mower drive belt is inside all the belt guides.
9. Make sure the mower housing is level. See the instructions on "How To Level The Mower Housing".
10. Check the operation of the blade engagement control. See the instructions on "How To Check And Adjust The Blade Engagement Control".

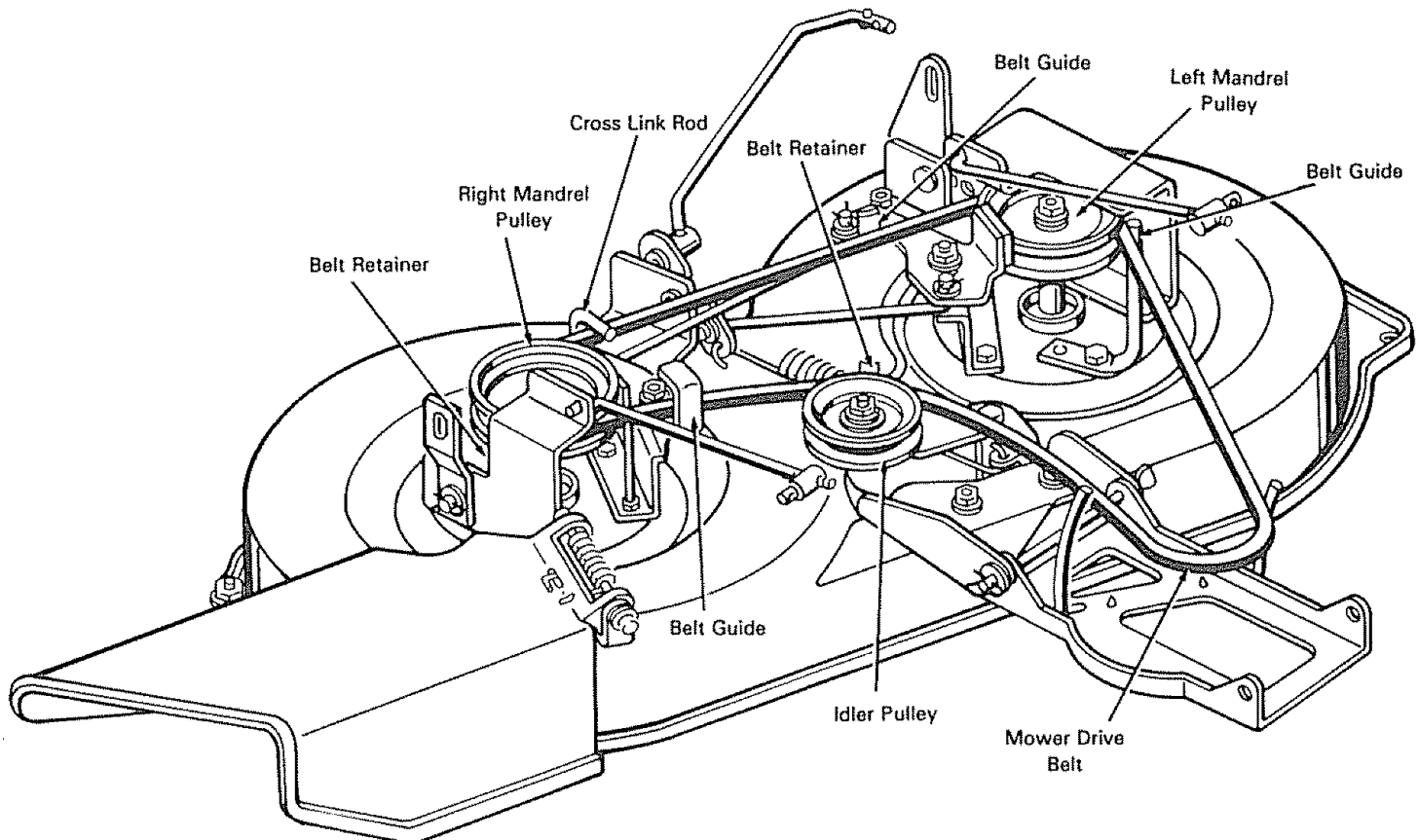


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SERVICE AND ADJUSTMENT

HOW TO REPLACE THE MOWER DRIVE BELT

1. Remove the mower housing. See the instructions on "How To Remove The Mower Housing".
2. Pull the belt retainer away from the idler pulley and remove the mower drive belt.
3. Pull the belt retainer away from the right mandrel pulley and remove the mower drive belt.
4. Remove the mower drive belt from the left mandrel pulley.
NOTE: Replace the mower drive belt with a factory replacement belt.
5. Install the new mower drive belt. Pull the belt retainer away from the right mandrel pulley. Put the belt around the right mandrel pulley.
6. Pull the belt retainer away from the idler pulley. Put the flat side of the mower drive belt around the idler pulley.
7. Put the belt around the left mandrel pulley.
8. Make sure the "V" side of the mower drive belt is against the mandrel pulleys as shown.
9. Make sure the mower drive belt is under the end of the cross link rod as shown.
10. Make sure the mower drive belt is inside all the belt guides.
11. Install the mower housing. See the instructions on "How To Install The Mower Housing".
12. Before you mow, check the blade engagement control. See the instructions on "How To Check And Adjust The Blade Engagement Control".

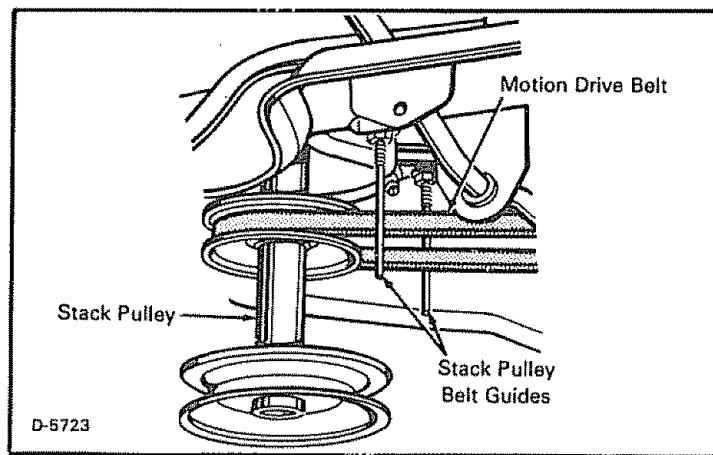
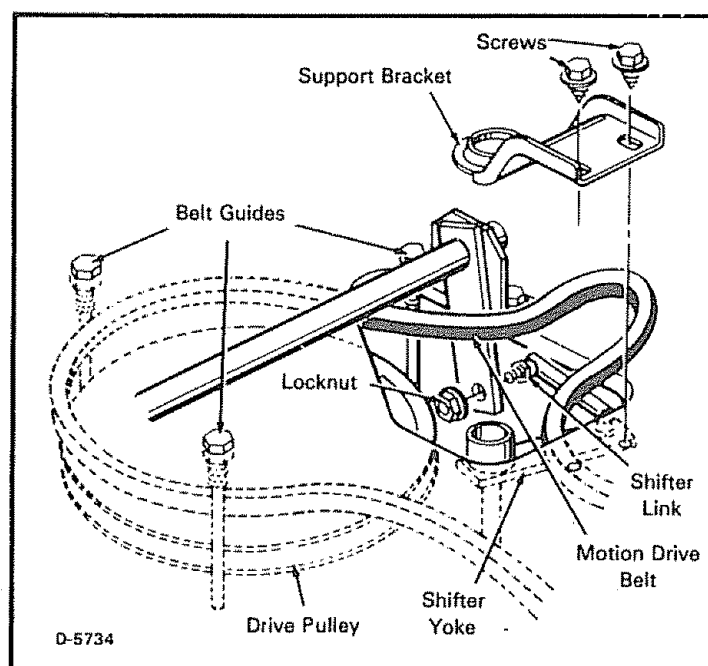
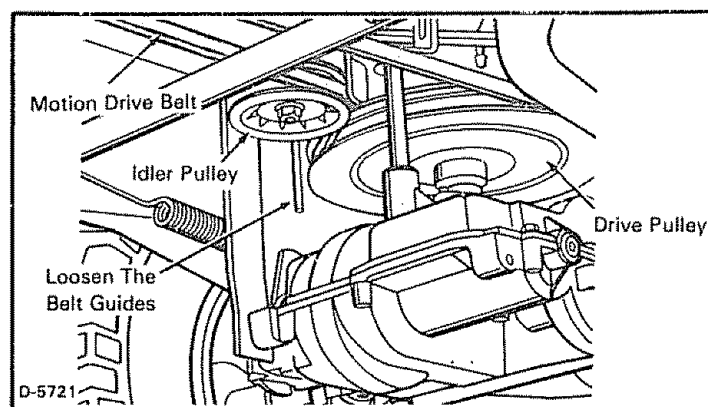


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SERVICE AND ADJUSTMENT

HOW TO REPLACE THE MOTION DRIVE BELT

1. Remove the mower housing. See the instructions on "How To Remove The Mower Housing" in this instruction book.
2. Completely push the pedal forward and engage the parking brake.
3. Remove the idler pulley.
4. Loosen the belt guides that are around the drive pulley.
5. Remove the belt from the drive pulley and the stack pulley.
6. Remove the two screws from the support bracket as shown. Remove the support bracket.
7. Disconnect the shifter link as shown.
8. Remove the motion drive belt. Replace the drive belt with a replacement belt from the factory.
9. Install the motion drive belt on the top pulley of the stack pulley. Make sure that the "V" side of the belt is against the pulley.
10. Install the end of the belt around the drive pulley.
11. Tighten the belt guides that are around the drive pulley as shown.
12. Put the belt around the idler pulley. Assemble the idler pulley. Fasten the pulley with the hex nut. Make sure the flat side of the belt is against the idler pulley as shown. Also, make sure the belt is not twisted.
13. Connect the shifter link as shown.
14. Assemble the support bracket. Fasten with the two screws as shown.
15. Make sure the motion drive belt is inside all the belt guides as shown.
16. Before you use the unit, check the pedal adjustment. See the instructions on "How To Check And Adjust The Clutch".
17. Install the mower housing. See the instructions on "How To Install The Mower Housing" in this instruction book.



SERVICE AND ADJUSTMENT

HOW TO LEVEL THE MOWER HOUSING

If the mower housing is level, the blade will cut easier and the lawn will look better.



WARNING: Before you make an inspection, adjustment, or repair to the unit, disconnect the wire to the spark plug. Remove the spark plug wire to prevent the engine from starting by accident.

1. Make sure the unit is on a hard level surface.
2. Check the air pressure in the tires. If the air pressure is incorrect, the mower housing will not cut level. Make sure the tires are inflated to 12 psi. (0.85 kg/cm²).
3. Move the lever for the blade engagement control to the **DISENGAGE** position. Move the lift lever to the number "4" cutting height position.
4. There are two adjustment procedures below that will level the mower housing.

THE FRONT TO BACK ADJUSTMENT

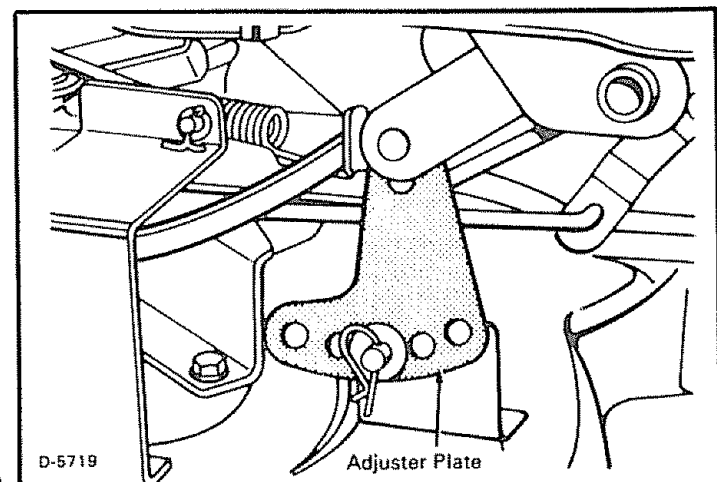
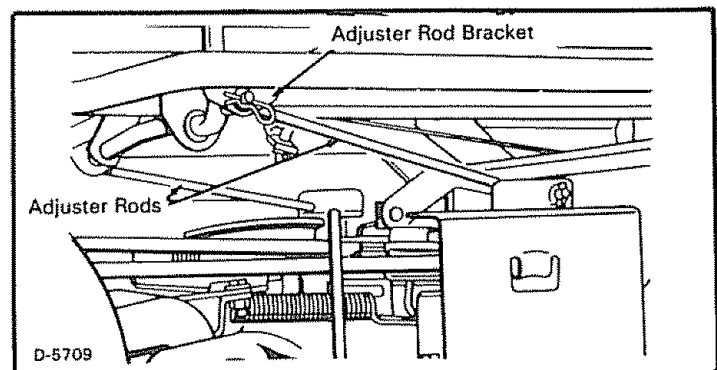
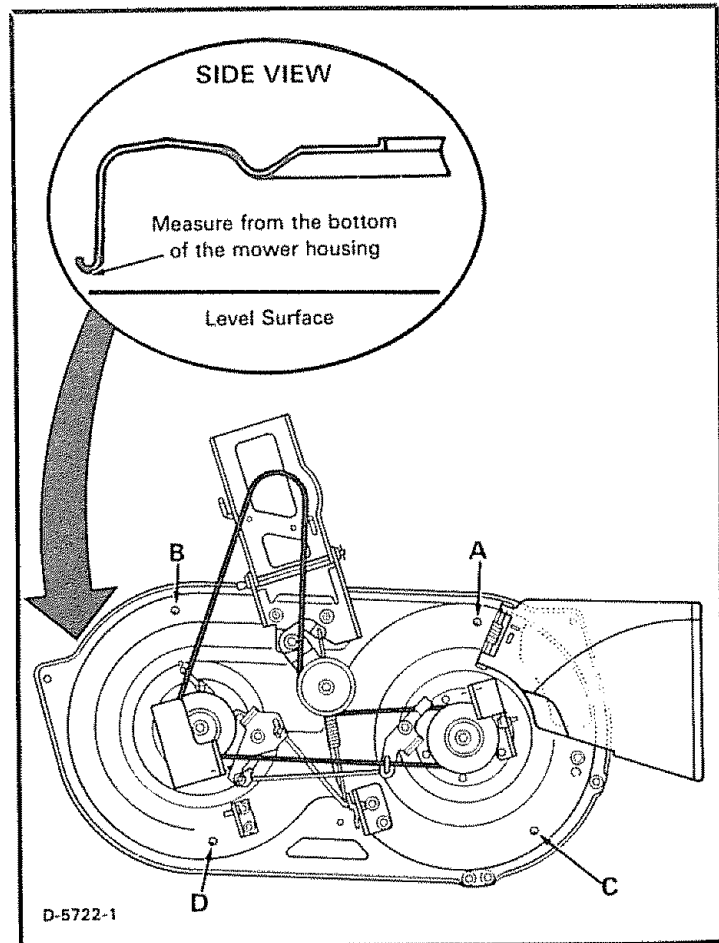
Use a ruler and measure the distance from the level surface to the bottom of the mower housing. Measure from the locations indicated by the small round dimples (or X marks) at points **B** and **D**. In correct adjustment, the front of the mower housing at point **B** will be from 0" to 1/2" (0 mm to 12 mm) higher than the back of the mower housing at point **D**.

1. Disconnect both adjuster rods from the adjuster rod brackets as shown.
2. Turn the adjustable nut clockwise to lower the front or counterclockwise to raise the front of the mower housing.
3. Connect the left adjuster rod to the adjuster rod bracket. Check the housing for the correct adjustment. Fasten the adjustable nut with the washer and hair pin.
4. Repeat the above steps for the right side using the small round dimples (or X marks) at points **A** and **C**.

THE SIDE TO SIDE ADJUSTMENT

Use a ruler and measure the distance from the level surface to the bottom of the mower housing. Measure from the locations indicated by the small round dimples (or X marks) at points **A** and **B**. In correct adjustment, the mower housing at points **A** and **B** must be within 1/4" (6 mm) of the same height. If the difference in the measurement is more than 1/4" (6 mm), adjust as follows.

1. Disconnect the adjuster plate from the mower housing as shown.
2. Move the adjuster plate to the front to raise or to the back to lower the left side of the mower housing. Connect the adjuster plate.
3. Check the housing for the correct adjustment. If necessary, repeat the adjustment.



SERVICE AND ADJUSTMENT

HOW TO REPLACE THE LIGHT BULB

1. Raise the tractor hood.
2. Pull the light socket from the bezel.
3. Pull the light bulb from the socket.
4. Install a new light bulb. Push the socket into the bezel.

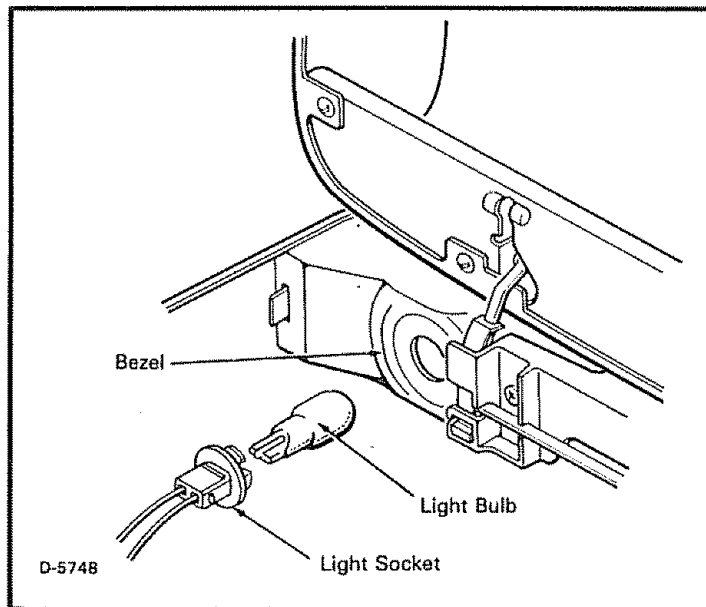
HOW TO CLEAN THE MOWER HOUSING



WARNING: Before you clean the mower housing, stop the engine and disconnect the wire to the spark plug.

Grass and other debris on top of the mower housing can keep the belt from working correctly. Clean the mower housing as follows.

1. Move the lever for the blade engagement control to the ENGAGE position.
2. Clean the top of the mower housing.
3. Move the lever for the blade engagement control to the DISENGAGE position.
4. Again clean the top of the mower housing.
5. After you cut the grass, clean the bottom of the mower housing.



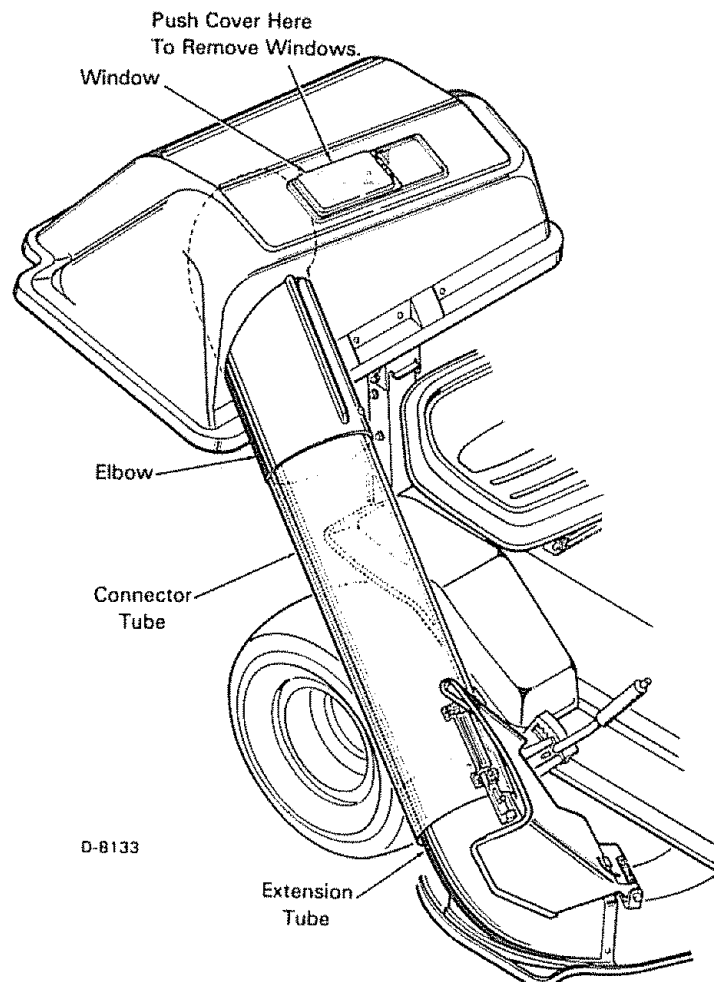
HOW TO CLEAN THE UNIT



WARNING: Before you clean the grass bagger or the top of the mower housing, stop the engine. Disconnect the wire to the spark plug.

For good performance, frequently clean the grass bagger as follows.

1. Clean the extension tube, the connector tube, and the elbow with soap and water.
2. To clean the window(s), first remove the screws that hold the window(s). To release the window tabs, press on the cover directly above the window tabs. Clean the window(s) with soap and water.
3. For correct operation of the belt drive system, clean the top and the bottom of the mower housing as follows.
4. Put the blade control lever in the ENGAGE position.
5. Remove grass and debris from the top of the mower housing.
6. Put the blade control lever in the DISENGAGE position.
7. Remove grass from the top of the mower housing.
8. Clean the bottom of the mower housing.



SERVICE AND ADJUSTMENT

HOW TO START WITH A WEAK BATTERY

If the battery is too weak to start the engine, the battery needs to be charged. If "Jumper Cables" are used to start the engine in an emergency, follow the procedure below.

NOTE: The unit is equipped with a 12 volt negative to ground system. Also, the other vehicle must have a 12 volt negative to ground system.



WARNING: Do not smoke. The fumes from the battery acid can cause an explosion. Keep the battery away from any flames or sparks. To prevent sparks, fasten the red jumper cable to the positive (+) terminal before connecting the black jumper cable.

1. Put a wet cloth over the vent caps of each battery.
2. Connect each end of the RED "Jumper Cable" to the positive (+) terminals of each battery. Make sure you do not touch the chassis with the cables.
3. Connect one end of the BLACK "Jumper Cable" to the negative (-) terminal of the charged battery.
4. Connect the other end of the BLACK "Jumper Cable" to the engine block.
5. Start the engine that has the weak battery last. Allow the engine to run.
6. To disconnect the "Jumper Cables", reverse the above steps.

HOW TO REPLACE THE FUSE

If the fuse is blown, the engine will not start. The location of the fuse is next to the battery. Remove the fuse and replace with a 15 amp. Automotive fuse.

FRONT WHEEL ALIGNMENT

The alignment of the front wheels cannot be adjusted. If the steering is damaged and the alignment has changed, see your nearest Sears Service Center.

STORAGE (Over 30 Days)

At the end of each year, prepare the unit for storage as follows.

MOWER

CLEAN THE UNIT

1. Clean the mower housing. See "How To Clean The Mower Housing".
2. Wash the unit. Use wax to protect the unit.

LUBRICATE THE UNIT

See the "Lubrication" instructions in this book.

ENGINE

1. Clean the dirt and grass from the engine.
2. Change the oil. See the instructions, "How To Change The Oil".
3. Check the spark plug. See "How To Check The Spark Plug".

THE FUEL SYSTEM



WARNING: Do not drain the gasoline inside a building or near a fire. Do not smoke or the fumes from the fuel can cause an explosion.

CAUTION: During storage, it is important to prevent deposits from occurring in fuel system parts like the carburetor, fuel filter, fuel hose and the fuel tank. Alcohol gasoline mixtures (called gasohol or using ethanol or methanol) attract moisture causing acid deposits during storage. While the unit is in storage, the acids in the fuel can damage the fuel system. To prevent engine problems with the fuel system, empty the fuel system before storage of 30 days or longer.

1. Start the engine.
2. Run the engine until the fuel tank and the carburetor are out of fuel and the engine stops. Do not leave fuel in the fuel tank or the carburetor. The fuel can damage the function of the fuel system.
3. After storage, make sure you use fresh fuel.

BATTERY

1. Completely charge the battery. See the instructions, "How To Check And Charge The Battery".
2. Clean the battery terminals of any deposits. See "How To Clean The Battery".

NOTE: After a long period of time in storage, the battery must be charged.

TROUBLE SHOOTING CHART

(Recoil-Start And Electric Models)

PROBLEM: The engine will not start.

1. Follow the steps, How To Start The Engine in this book.
2. Clean the battery terminals. Tighten the cables.
3. Check for a loose wire. Tighten the limit switches. (See the wiring diagram.)
4. Drain the fuel tank. Clean the fuel line. Replace the fuel filter.
5. Remove the spark plug(s). Move the throttle to the SLOW position. Turn the ignition key to the ON position. Try to start the engine several times. Install the spark plug.
6. Replace the spark plug.
7. Adjust the carburetor.

PROBLEM: The engine will not turn over.

1. Follow the steps, How To Start The Engine in this book.
2. Check the level of the acid in the battery. If needed, add water. Charge the battery.
3. Replace the fuse.
4. Check the wiring harness for damage or a loose connection. Repair the damaged wire.
5. Electric-Start Models: replace the solenoid.
Recoil-Start Models: replace the module.

PROBLEM: The engine is difficult to start.

1. Adjust the carburetor.
2. Replace the spark plug.
3. Replace the fuel filter.

PROBLEM: The engine does not run smooth or has a loss of power.

1. Check the oil.
2. Clean the air filter.
3. Clean the air screen.
4. Replace the spark plug.
5. The engine is working to hard. Use a lower gear.
6. Adjust the carburetor.
7. Replace the fuel filter.

PROBLEM: The engine does not run smooth at fast speed.

1. Replace the spark plug.
2. Adjust the throttle control.
3. Clean the air filter.
4. Replace the fuel filter.

PROBLEM: The engine stops when the blades are engaged.

1. To activate the seat sensor, always sit in the middle of the seat.
2. Check the wiring harness for damage or a loose connection. Repair the damaged wire.

PROBLEM: On slopes, the engine stops.

1. Mow up and down slopes. Never mow across a slope.
2. To activate the seat sensor, always sit in the middle of the seat.

PROBLEM: The engine will not idle.

1. Replace the spark plug.
2. Clean the air filter.
3. Adjust the carburetor.
4. Adjust the throttle control.
5. Drain the fuel tank. Clean the fuel line. Replace the fuel filter.

PROBLEM: A hot engine causes a decrease in power.

1. Clean the air screen.
2. Check the oil.
3. Adjust the carburetor.
4. Replace the fuel filter.

PROBLEM: Excessive vibration.

1. Replace the blade.
2. Check for loose engine bolts.
3. Decrease the air pressure in the tires.
4. Adjust the carburetor.
5. Check for a damaged belt or damaged pulley. Replace the damaged parts.

PROBLEM: The grass does not discharge correctly.

1. Stop the engine. Clean the mower housing.
2. Raise the height of cut.
3. Replace or sharpen the blade(s).
4. Move the shift lever to a slower speed.
5. Move the throttle control to the FAST position.
6. Replace the spring for the blade idler.

PROBLEM: The mower housing does not cut level.

1. Check the air pressure in the tires.
2. Adjust the level of the mower housing.
3. Check the front axle. If the front axle does not freely pivot, loosen the two axle bolts.

PROBLEM: The mower blades will not rotate.

1. Check the mower drive belt. Make sure the belt is installed correctly.
2. Replace the mower drive belt.

PROBLEM: The unit will not move when the clutch is engaged.

1. Adjust the clutch.
2. Replace the motion drive belt.
3. Check the motion drive belt. Make sure the belt is installed correctly.

PROBLEM: The unit moves slower or stops when the clutch is engaged.

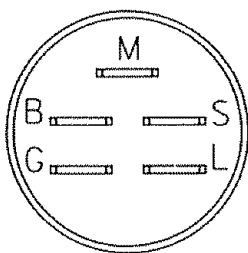
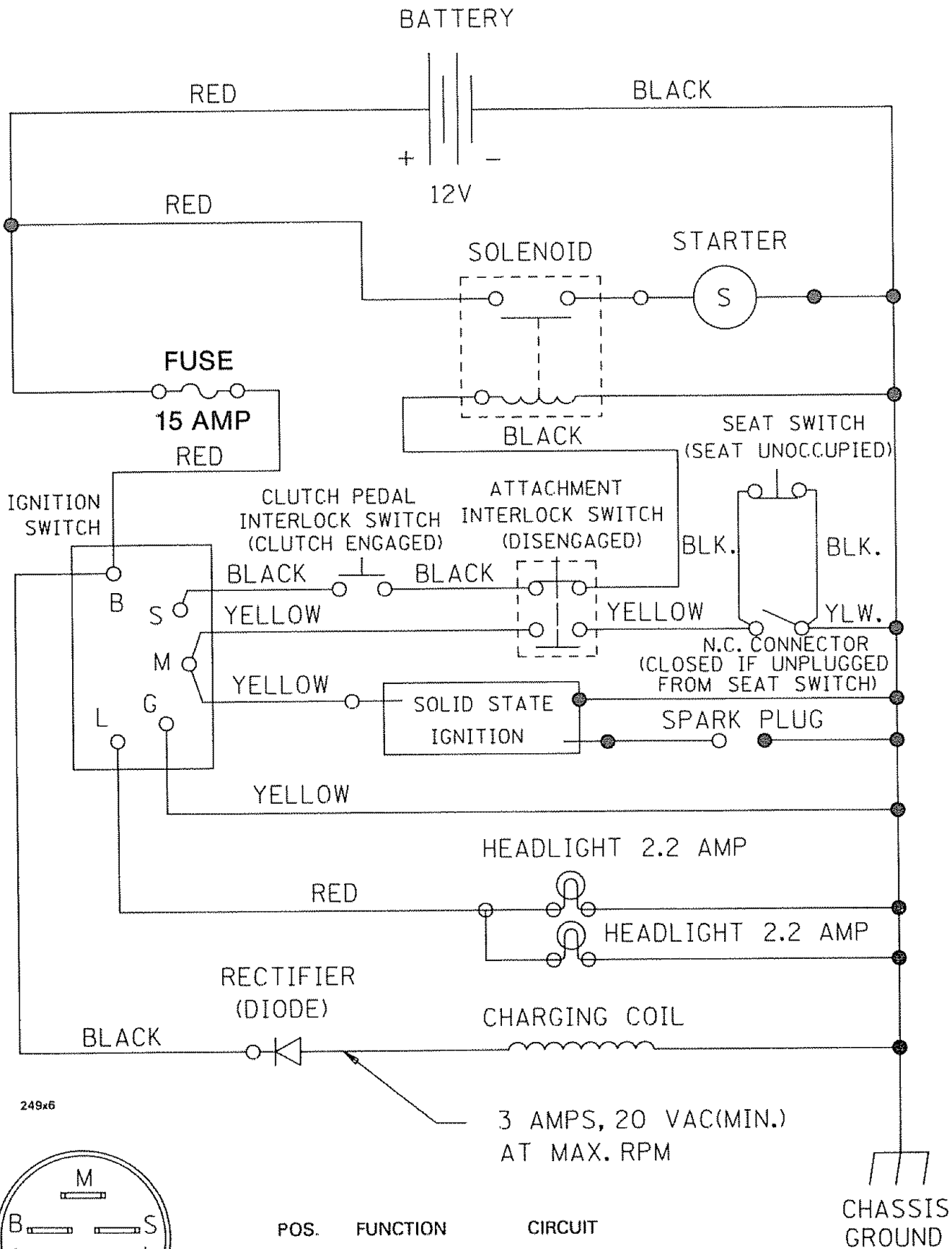
1. Replace the motion drive belt.
2. Adjust the clutch.

PROBLEM: When the clutch/brake pedal is released, belt noise can be heard.

1. Temporary belt noise does not change the operation of the unit. If belt noise is continuous, check the routing of the belt. Make sure the belt is inside all belt guides.
2. If the noise is continuous, adjust the clutch.

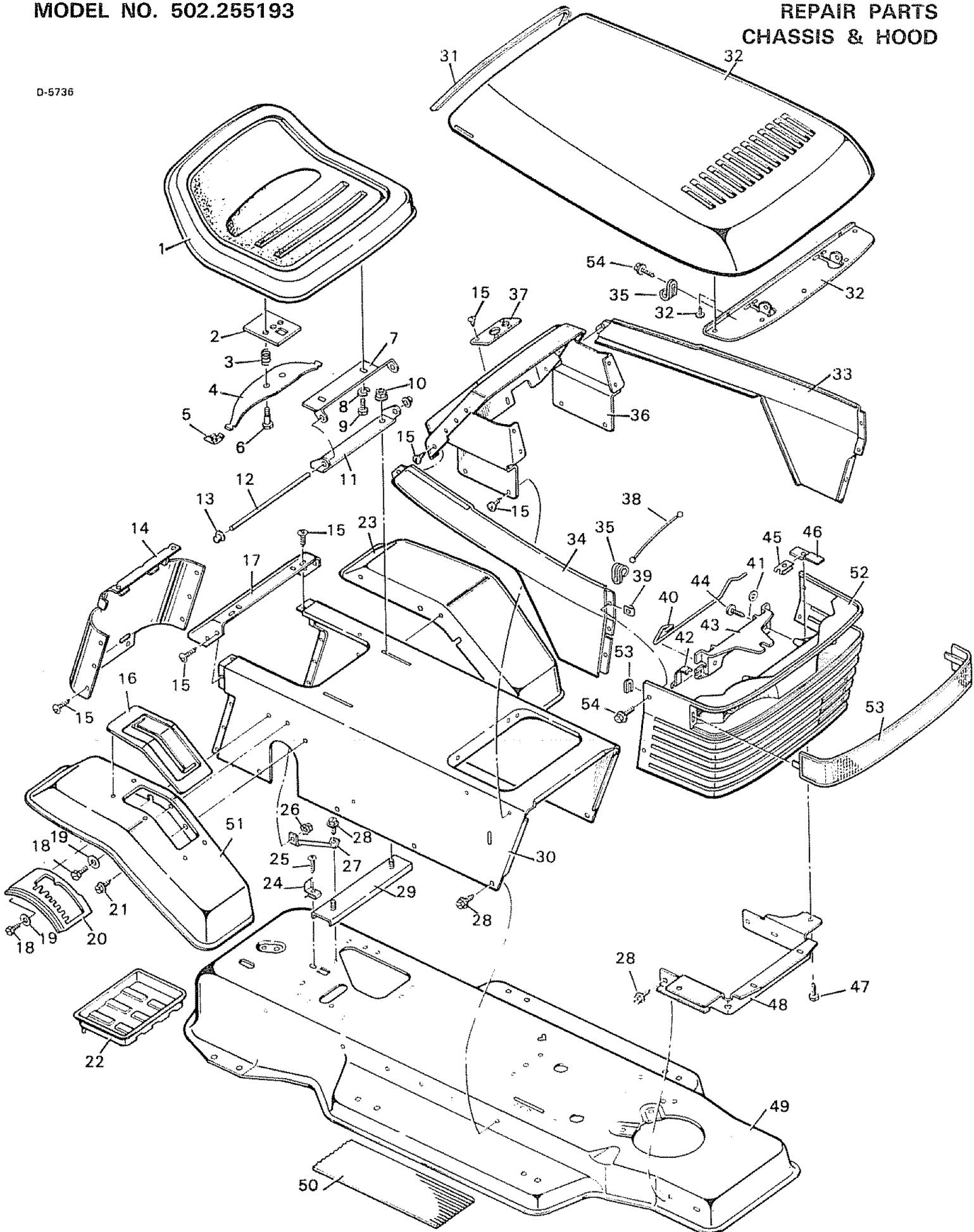
PROBLEM: The rear wheels spin over uneven terrain.

1. Check the front axle. If the front axle does not freely pivot, loosen the two axle bolts.



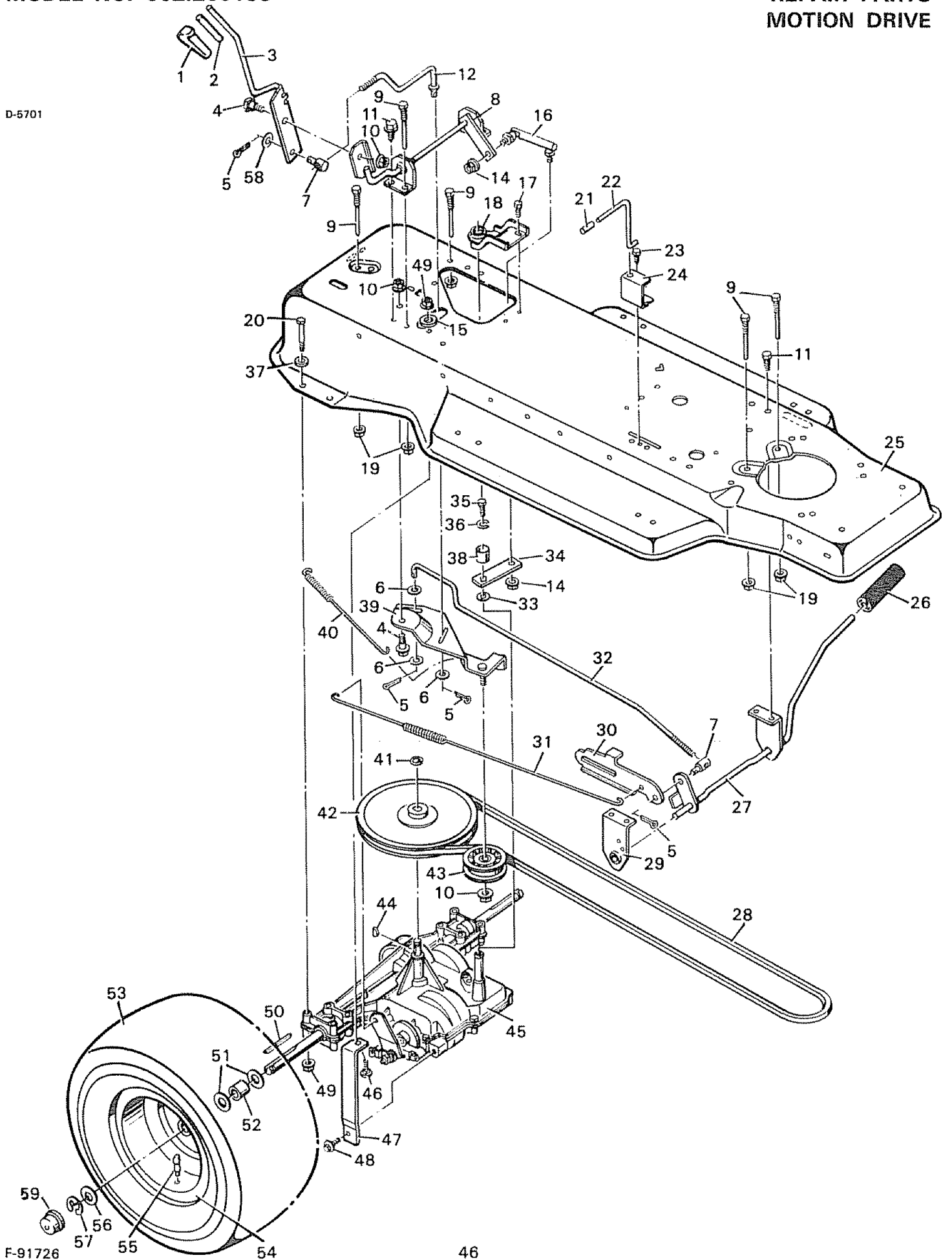
POS.	FUNCTION	CIRCUIT
4	START	B + S
3	RUN	ALL OPEN
2	RUN LIGHTS	B + L
1	OFF	G + M

D-5736



KEY NO.	DESCRIPTION	PART NO.	MFG. NO.	KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Seat	56542		33	Panel, Left	91779E601	
2	Plate Assembly, Switch	91963Z		34	Panel, Right	91778E601	
3	Spring, Compression	164x25		35	Clip, Cable	92013	
4	Spring, Seat	91964		36	Dash Assembly	91858E601	
5	Glide, Spring	91822		37	Bearing	91759	
6	Bolt, Shoulder	9x38		38	Cable	92087	
7	Support, Seat	91728E700		39	U-Fastener	28x59	
8	Lockwasher	STD551131	18x16	40	Rod, Hinge	91980Z	
9	Bolt, Hex	STD523106	1x45	41	Washer	17x143	
10	Locknut, Flange	STD541431	15x88	42	Spring, Hood	91979	
11	Bracket, Pivot	91729E700		43	Bracket, Hood Mount	91978	
12	Rod, Pivot	91730E700		44	Screw	26x253	
13	Cap, Push On	28x23		45	Nut, Speed	28x61	
14	Cap, Console	91704E601		46	Shield, Heat	92005Z	
15	Screw, Tap	26x250		47	Screw	26x252	
16	Cover, Shift	91905		48	Support, Grille	91723E601	
17	Fender, Apron	91724E601		49	Frame	91700E601	
18	Bolt, Hex	STD522506	1x38	50	Mat	92058	
19	Washer	17x38Z		51	Fender, Right	91894E601	
20	Gate, Shift	91892Z		52	Grille	92168SE	
21	Screw	26x214		53	Lens	91850	
22	Tray, Battery	91895		54	Screw	26x220	
23	Fender, Left	91715E601		--	Instruction Book	F-91726	
24	Clip, Battery	91941		--	Decal, Left Hood	44x1081	
25	Screw	26x184		--	Decal, Left Front Hood	44x1063	
26	Locknut	STD541425	15x66	--	Decal, Right Hood	44x1080	
27	Strut, Console	91910E601		--	Decal, Console Panel	44x1095	
28	Screw	26x249		--	Decal, Top Console	44x656	
29	Channel Assembly	91857E601		--	Decal, Right Fender	44x1168	
30	Console	91731E601		--	Decal, Fender Apron	44x1065	
31	Trim, Edge	21765		--	Decal, Right Channel	44x1082	
32	Hood Assembly	92089E601		--	Decal, Left Channel	44x1165	

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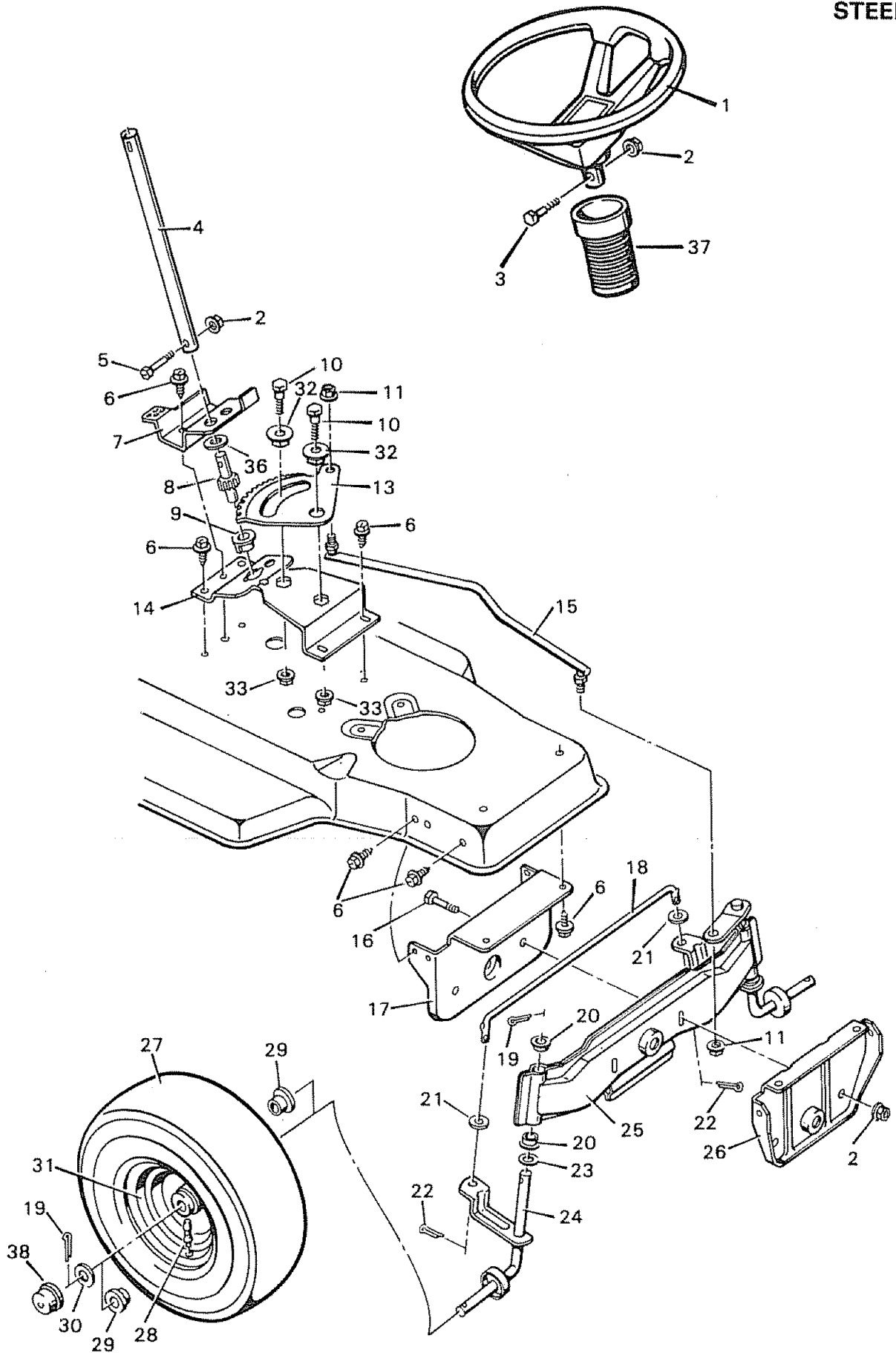


KEY NO.	DESCRIPTION	PART NO.	MFG. NO.	KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Grip	92055		32	Rod, Clutch	91808Z	
2	Grip, Inner	20476		33	Washer	17x148	
3	Handle, Shift	92031Z		34	Yoke, Shift	92041Z	
4	Bolt, Shoulder	9x39		35	Bolt, Hex	1x82	
5	Pin, Cotter	STD560907	30x20	36	Lockwasher	STD551125	18x32
6	Washer	STD551031	17x47Z	37	Washer	17x146Z	
7	Nut, Adjustable	21920		38	Pilot, Support	91889	
8	Shifter Assembly	92044E700		39	Bracket Assembly, Idler	92029Z	
9	Guide, Belt	91754		40	Spring, Motion Drive	165x76	
10	Locknut, Flange	STD541437	15x84	41	Ring, Retainer	STD582062	11x7
11	Screw	26x249		42	Pulley, Motion Drive	91807	
12	Link, Clutch	91877		43	Pulley, Backside Idler	91179	
14	Locknut, Flange	STD541537	15x87	44	Key, Woodruff #9	STD580025	20697
15	Washer	17x45		45	Transaxle, Complete **	92216	
16	Shifter Link Assembly	92085			Peerless No. 143.930-011		
17	Screw	26x249		46	Bolt, Carriage	STD533107	2x64
18	Bracket, Support	91899Z		47	Support, Transaxle	91804E700	
19	Nut, Flange	STD541031	15x79Z	48	Screw	26x216	
20	Bolt, Hex	1x124		49	Locknut, Flange	STD541431	15x88
21	Grip	91079		50	Key, Square	STD580105	21553
22	Rod, Control	91727E700		51	Washer	17x160	
23	Screw	26x214		52	Spacer, Transaxle	91757E700	
24	Guide, Bracket	91825E700		53	Tire (Incl'd with Key 54)*	90586	
25	Frame	91700E601			— Tube (Incl'd with Key 54)	407049	
26	Clutch and Brake Pedal	21544		54	Wheel and Tire Assembly	91504E601	
27	Lever Assembly	91862E700		55	Stem, Valve (Incl'd with Key 54)	24373	
28	Belt, Motion Drive	37x61		56	Washer	17x115	
29	Bracket, Support	91713E700		57	E-Ring	STD581075	11x3
30	Latch, Park Brake	91712Z		58	Washer	STD551037	17x53Z
31	Spring, Brake Extension	165x82		59	Hub Cap	24582	

* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

** For repair parts, see the transaxle parts list page.

D-5699-3

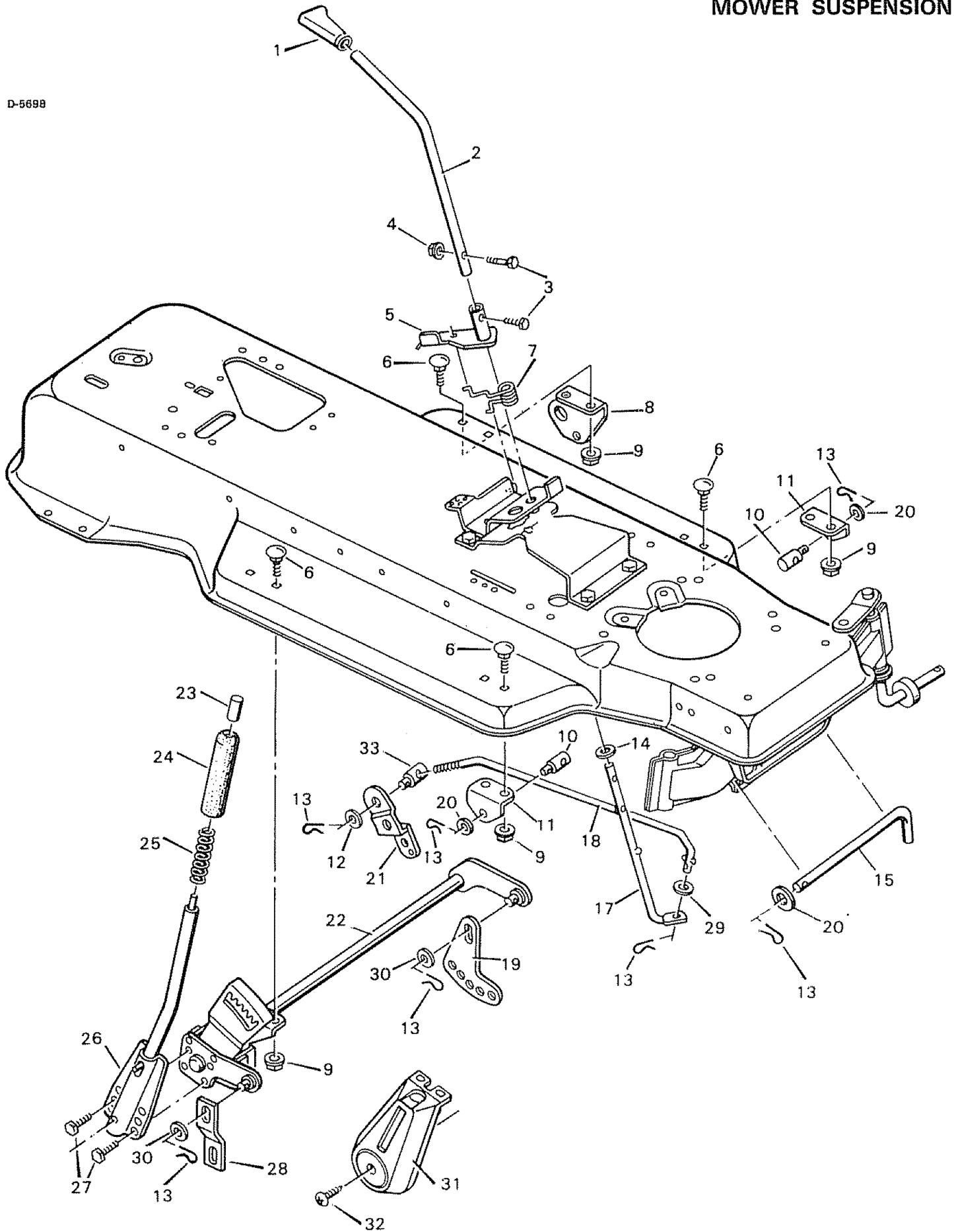


KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Wheel, Steering	92077	
2	Nut, Hex	STD541531	15x90
3	Bolt, Hex	STD623115	1x66
4	Shaft, Steering	91860Z	
5	Bolt, Hex	STD623112	1x74
6	Screw	26x249	
7	Bracket, Sector **	91716E700	
8	Gear, Pinion	402075	
9	Bearing **	91756	
10	Bolt, Hex **	STD523110	1x84
11	Locknut, Flange	STD541537	15x87
13	Gear, Sector	402075	
14	Bracket, Sector **	91708E700	
15	Link, Drag	91749E700	
16	Bolt, Hex	1x138	
17	Support -Rear, Axle	91702E700	
18	Rod, Tie	90038E700	
19	Pin, Cotter	STD561220	30x49
20	Bearing	90035	
21	Washer	STD551043	17x57
22	Pin, Cotter	STD560907	30x20
23	Washer	17x113	
24	Spindle Assembly, Right	91828E700	
25	Spindle Assembly, Axle & Left	91827E700	
26	Support, Front Axle	91701E700	
27	Tire (Incl'd with Key 31)*	90591	
—	Tube (Incl'd with Key 31)	407047	
28	Stem, Valve (Incl'd with Key 31)	24373	
29	Bearing, Wheel (Incl'd with Key 31)	91334	
30	Washer	17x115	
31	Wheel and Tire Assembly	90593E601	
32	Bearing **	92097	
33	Locknut, Flange **	15x113	
36	Washer **	17x83	
37	Bellows, Steering Post	91298	
38	Hub Cap	24582	

* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

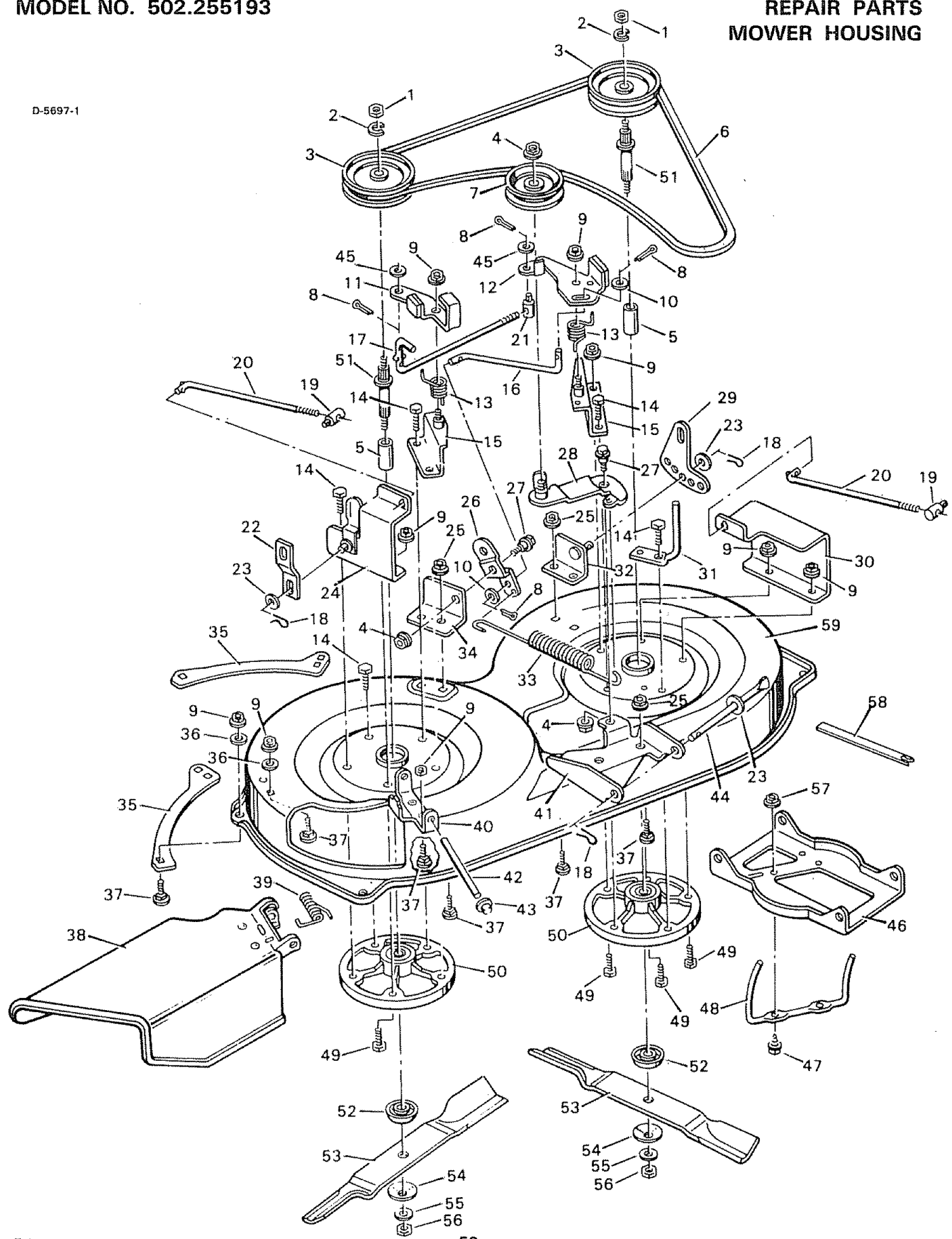
** These parts are included when you order part number 402075 (key number 8 or 13).

D-5698



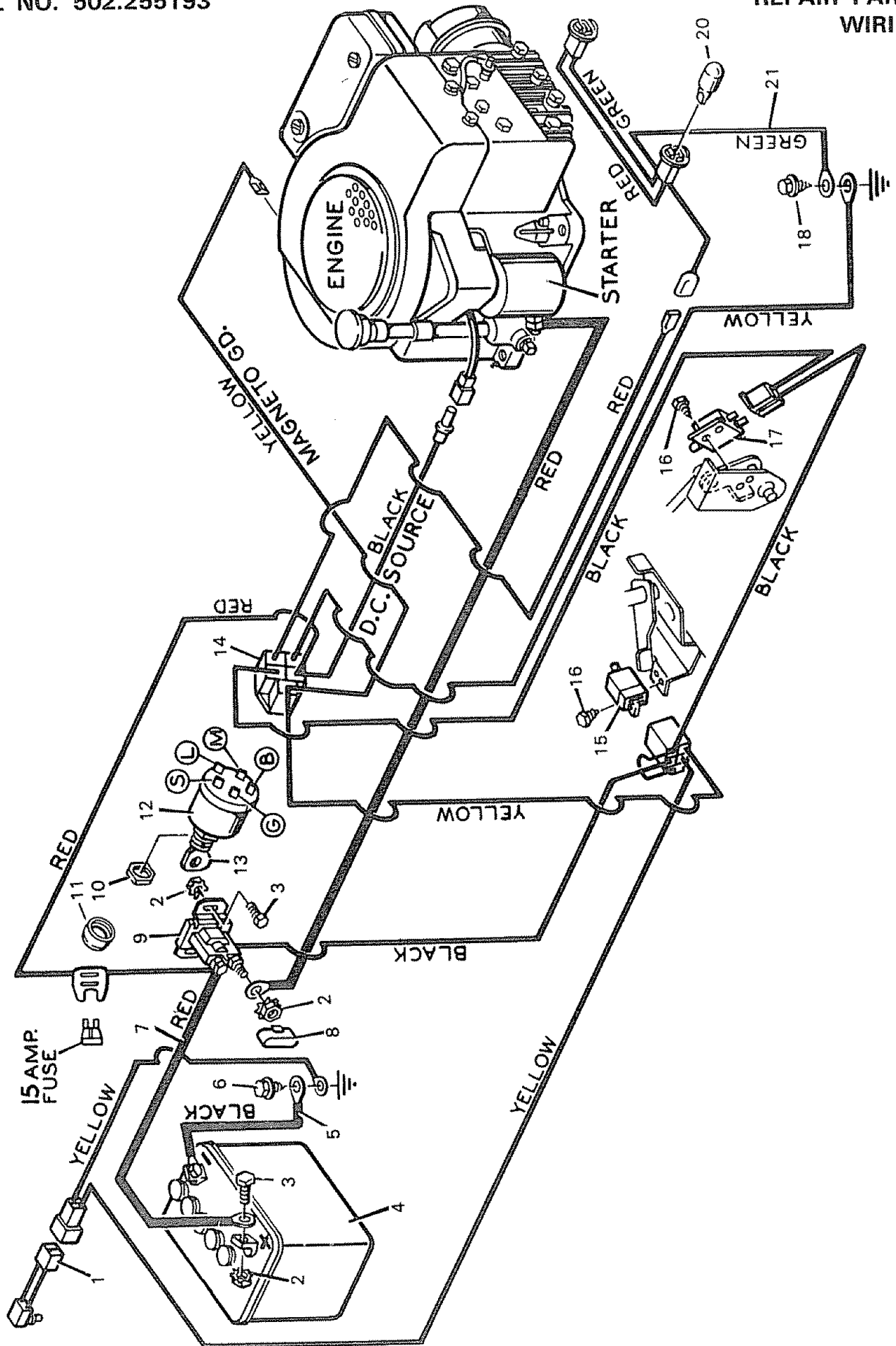
KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Grip	92055	
2	Lever, Blade Control	91781Z	
3	Bolt, Hex	25x3	
4	Locknut, Hex	STD541425	15x67
5	Lever Assembly, Switch	91917E700	
6	Bolt, Carriage	STD533107	2x53
7	Spring, Torsion	166x32	
8	Bracket, Left Rear Hanger	92066E700	
9	Nut, Flange	STD541031	15x79
10	Nut, Adjusting	92131	
11	Bracket, Adjuster Rod	92133E700	
12	Washer	STD551037	17x124
13	Pin, Hair	STD624005	31x4
14	Washer	STD551050	17x67
15	Pin, Pull	90827Z	
17	Lever, Lower Blade Control	91787E700	
18	Rod, Blade Control	91795Z	
19	Plate, Adjuster	91741E700	
20	Washer	STD551050	17x103
21	Bracket, Pivot	92033E700	
22	Lifter Assembly	92065E700	
23	Knob, Steel	91261	
24	Grip	91398	
25	Spring, Compression	164x21	
26	Handle Assembly	91823E700	
27	Screw	26x49	
28	Link, Suspension	92064E700	
29	Washer	STD551031	17x47Z
30	Washer	17x91Z	
31	Cover, Lift Lever	92157	
32	Screw	26x238	
33	Nut, Adjusting	21920	

D-5697-1



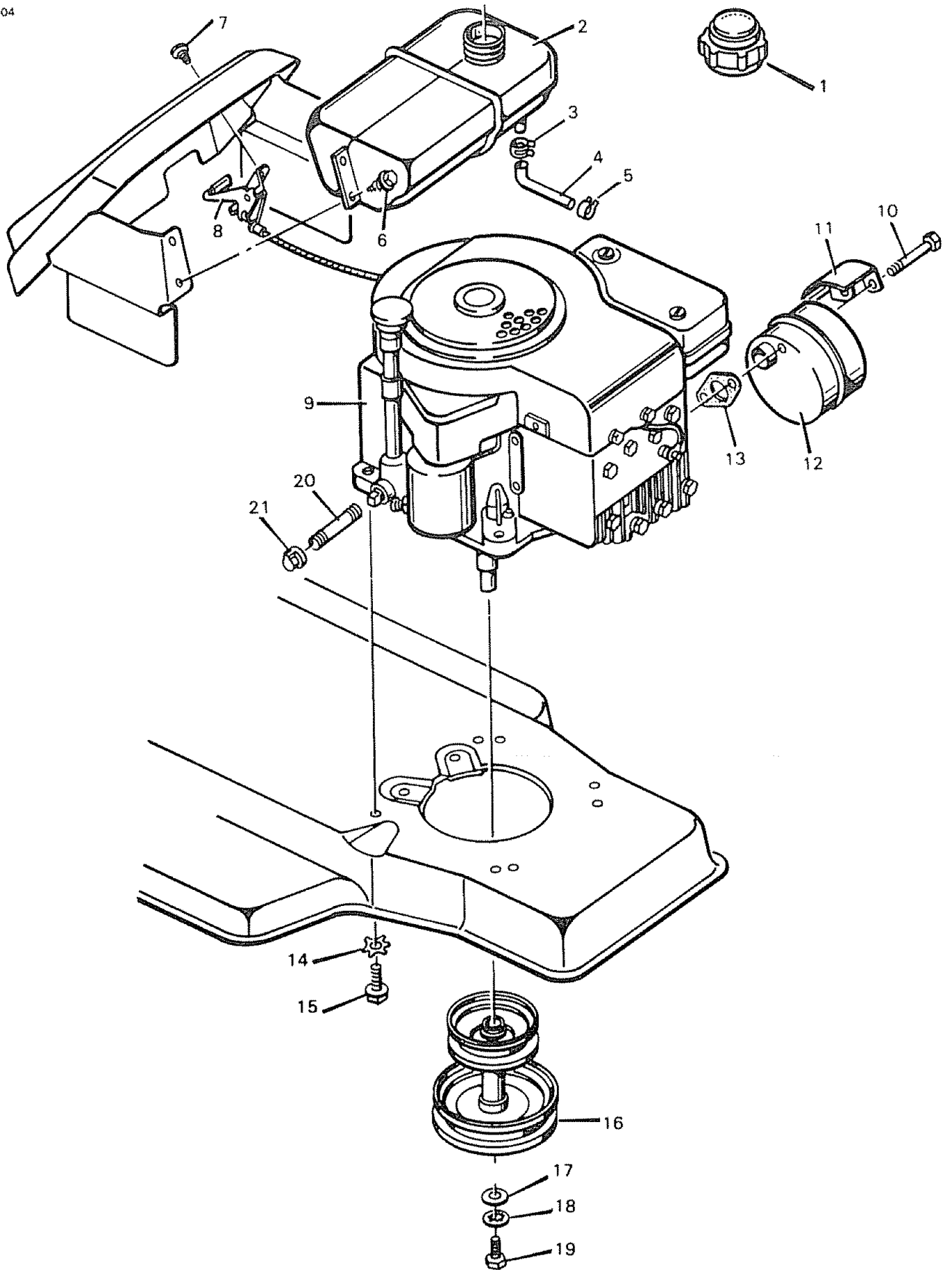
KEY NO.	DESCRIPTION	PART NO.	MFG. NO.	KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Nut, Hex	15x101		31	Guide, Belt	91797E700	
2	Lockwasher	18x33		32	Bracket Assy., Left Lifter	91813E700	
3	Pulley, Jackshaft	91943		33	Spring, Extension	165x72	
4	Locknut, Flange	STD541437	15x84	34	Bracket, Pivot	91743E700	
5	Spacer	91903		35	Plate	91770E700	
6	Belt, Blade Drive	37x62		36	Washer	STD551043	17x57
7	Pulley, Idler	91801		37	Bolt, Carriage	STD533107	2x53
8	Pin, Cotter	STD560907	30x20	38	Deflector Assembly, Chute	91982SE	
9	Locknut, Flange	STD541431	15x88	39	Spring, Torsion	166x4	
10	Washer	STD551031	17x46Z	40	Bracket, Hinge	91765E700	
11	Brake Assembly, Right	92186E700		41	Bracket, Front Hanger	91875E700	
12	Brake Assembly, Left	92187E700		42	Rod, Deflector	91767Z	
13	Spring, Torsion	166x27		43	Cap, Push On	28x23	
14	Bolt, Hex	25x6		44	Rod, Hanger	91739Z	
15	Bracket Assembly, Brake	92072E700		45	Washer	17x124	
16	Rod, Brake	91745Z		46	Hanger, Front	92119E700	
17	Rod, Cross Link	92183Z		47	Screw	25x4	
18	Pin, Hair	STD624005	31x4	48	Guide, Belt	92095E700	
19	Nut, Adjustable	92131		49	Bolt, Hex	STD523110	1x84
20	Rod, Adjuster	91872Z		50	Housing, Jackshaft	90905	
21	Nut, Adjustable	21920		51	Jackshaft	91922	
22	Link, Suspension	92064E700		52	Adapter, Blade	91926	
23	Washer	STD551050	17x103	53	Blade (2 required)	91871E700	
24	Bracket Assy., Right Lifter	92194E700		54	Washer, Belleville	17x166	
25	Nut, Flange	STD541031	15x79	55	Washer	17x165	
26	Bracket, Pivot	92033E700		56	Nut, Hex	15x100	
27	Bolt, Carriage	9x39		57	Locknut, Flange	STD541425	15x82
28	Arm Assembly, Idler	92032E700		58	Indicator, Plastic	92163	
29	Plate, Adjuster	91741E700		1-59	Complete Mower Housing	403229	
30	Cover, Pulley	91792E700					

D-5749



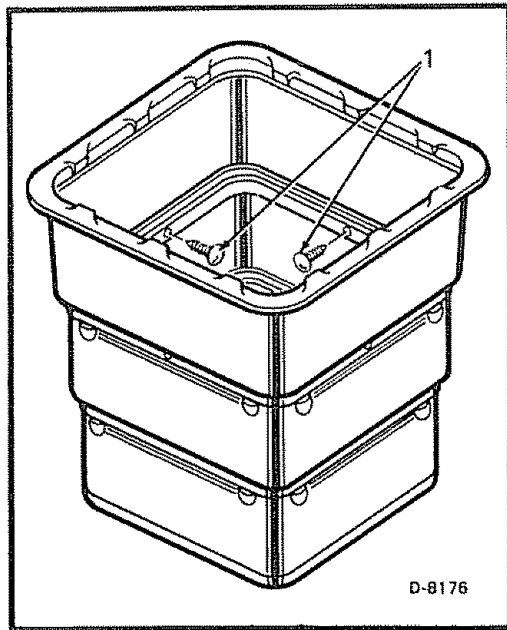
KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Switch, Seat Sensor	91031	
2	Locknut	STD541425	15x66
3	Bolt, Hex	STD522506	1x38Z
4	Battery - Type: U1-L	92198	
-	Acid, Battery (Electrolyte)	90665	
5	Cable, Battery Ground	24x9	
6	Screw	26x249	
7	Cable, Red Battery	24x12	
8	Cover, Solenoid	56049	
9	Solenoid	24285	
10	Nut, Hex	91489	
11	Cap. Ignition Switch	91488	
12	Switch, Ignition	91846	
13	Key & Ring, Ignition	91275	
14	Harness, Chassis Wire	250x22	
-	Fuse, Replacement	54212	
-	Holder, Fuse Replacement	407078	
15	Switch, PTO	91299	
16	Screw	26x233	
17	Switch, Clutch	24273	
18	Screw	26x214	
20	Bulb, Light	92098	
21	Harness, Light Wire	250x30	

n-5704

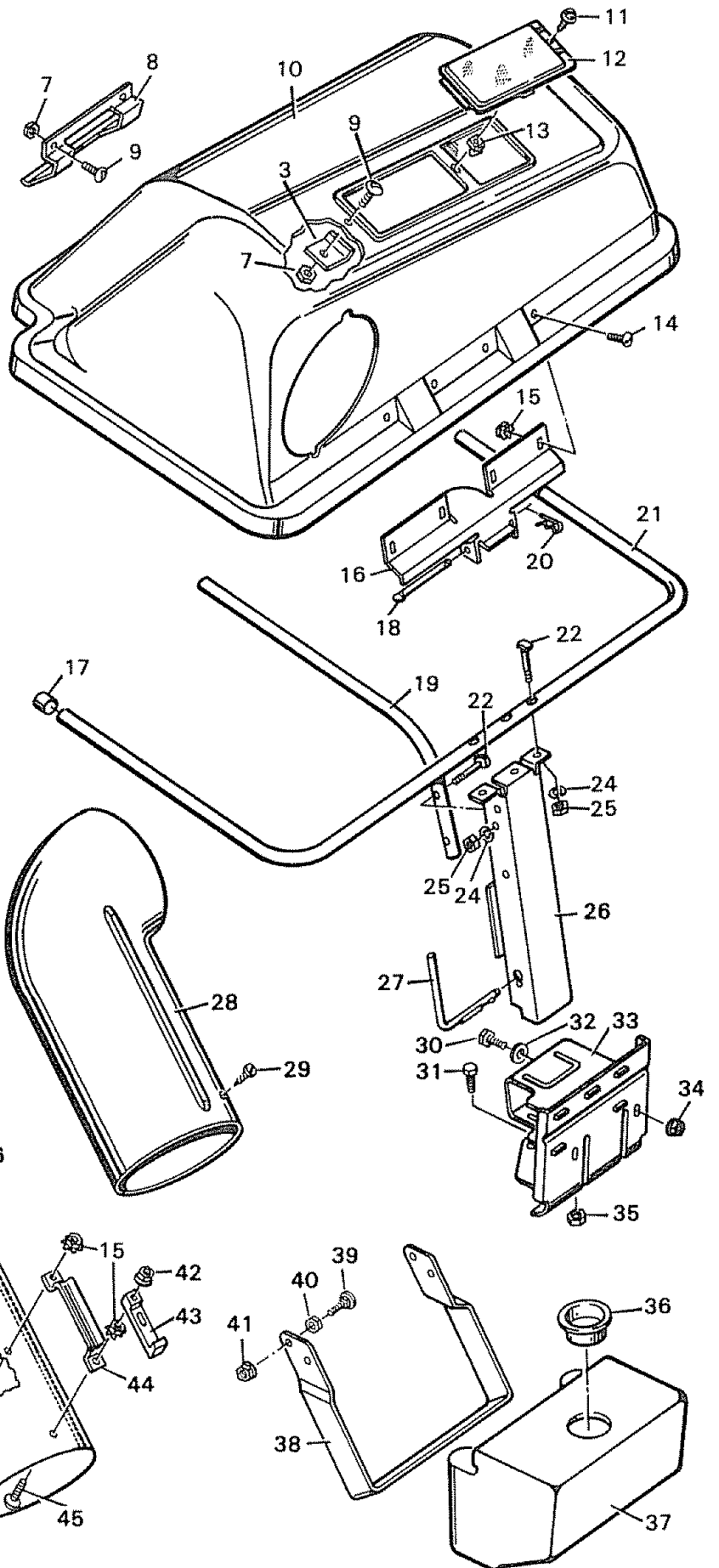


KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Fuel Cap	55988	
2	Fuel Tank	91869	
3	Hose Clamp	91174	
4	Fuel Line	92160	
5	Hose Clamp	23713	
6	Screw	26x214	
7	Screw	STD610803	26x201
8	Throttle Control	91983	
9	Engine Briggs & Stratton * Model: 281707-0428-01	92099PA	
10	Bolt, Hex	1x134	
11	Shield, Muffler Heat	91277	
12	Muffler	91271	
13	Gasket	91309	
14	Washer	STD551237	19x8
15	Bolt, Engine Mount	25x7	
16	Stack Pulley Assembly	92246Z	
17	Washer	17x170	
18	Lockwasher	STD551243	19x35
19	Bolt, Hex	1x140	
20	Tube, Oil Drain	24066	
21	Cap, Oil Drain	21651	

* For repair parts, see the engine parts list pages.



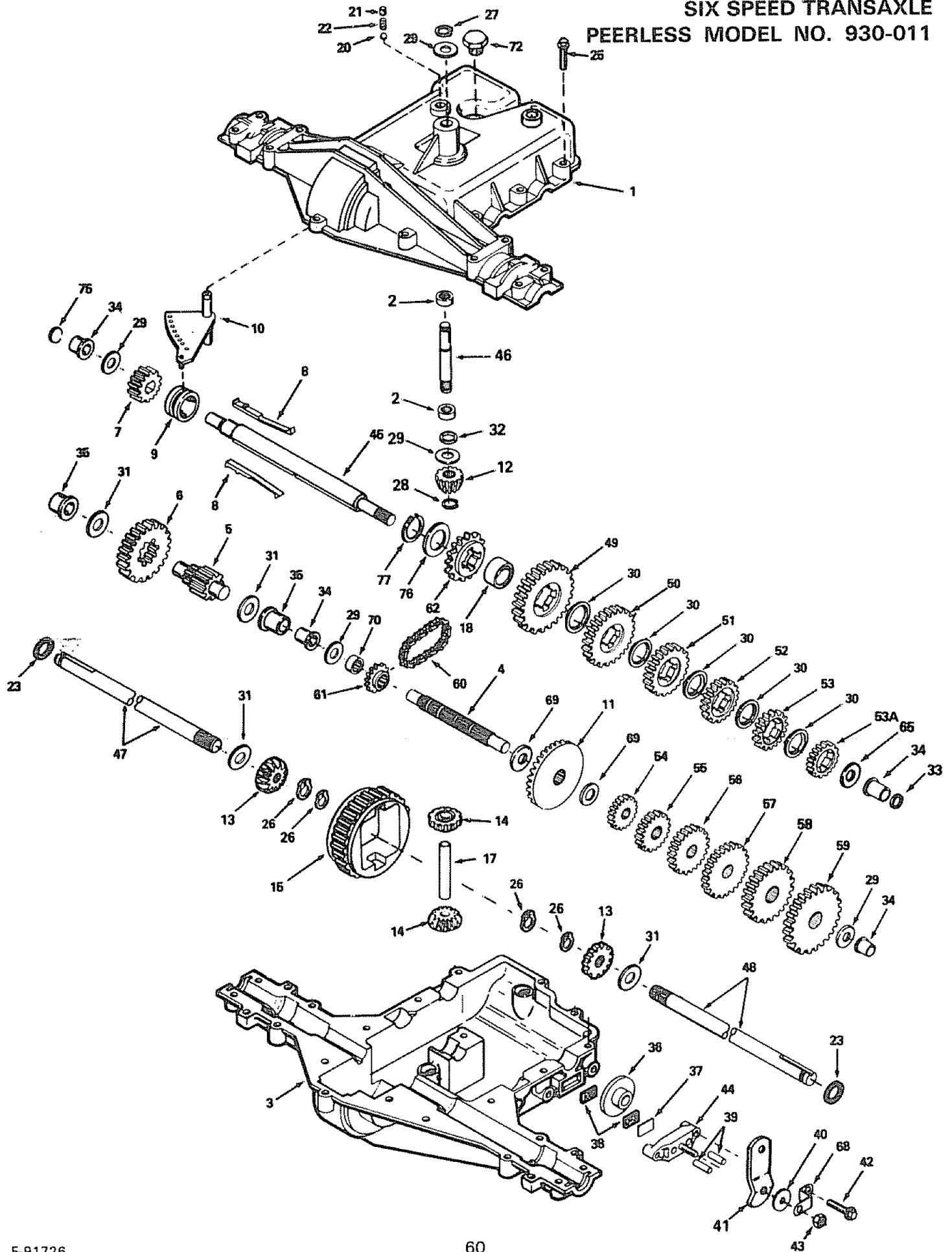
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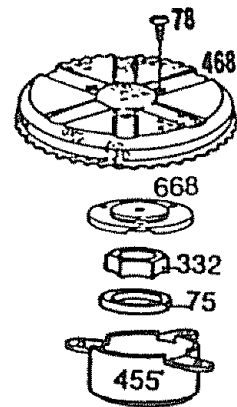
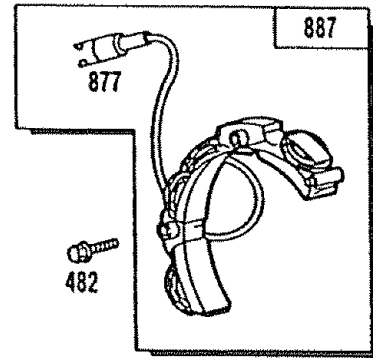
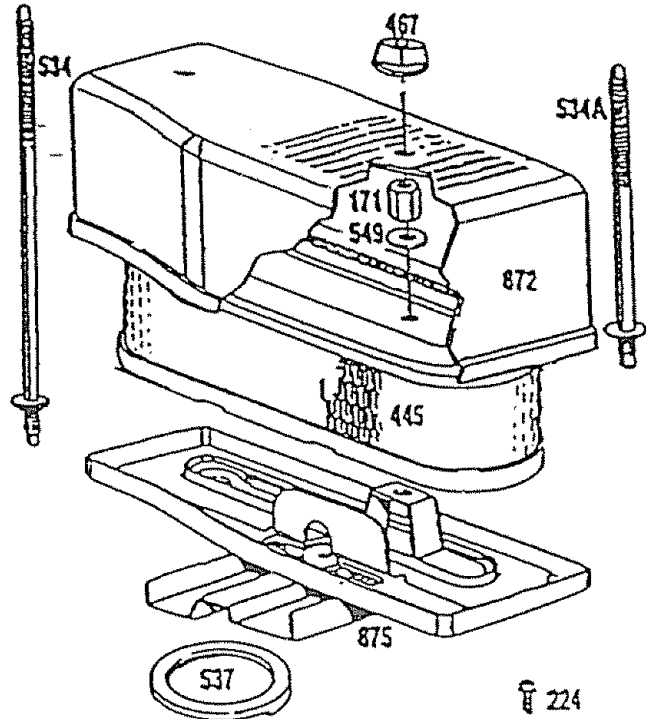
KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Fastener (Included with key no. 2)	193x1	
2	Containers (Quantity of 2 included)	54727SE	
3	Window Clip	54571Z	
7	Locknut, Hex	STD541410	15x81
8	Handle, Plastic	54537	
9	Screw	STD511007	4x21
10	Cover	91968	
11	Screw	26x246	
12	Window	54557	
13	Nut, Expansion	28x56	
14	Screw	STD512505	4x24
15	Nut, Keps	STD541425	15x66
16	Hinge, Cover	54398E700	
17	Cap, End	24862	
18	Pin, Hinge Cover	54407Z	
19	Tube, Center	54412E700	
20	Pin, Hair	STD624003	31x6
21	Tube, Outer	54410E700	
22	Bolt, Special	6x93	
24	Lockwasher	STD551131	18x15
25	Nut, Hex	STD541131	15x32
26	Channel Assembly	54422E700	
27	Pin, Channel	54408Z	
28	Elbow	91944	
29	Screw	26x239	
30	Bolt, Hex	STD523110	1x84
31	Bolt, Hex	STD525012	1x125
32	Washer	17x51Z	
33	Bracket, Frame	91961E700	
34	Locknut, Flange	15x108	
35	Nut, Stover Hex	STD541450	15x41
36	Plug, Weight	24863	
37	Weight, Front	55441	
38	Support, Front Weight	54552E700	
39	Bolt, Carriage	2x74	
40	Nut, Jam	STD541231	15x109
41	Locknut, Flange	STD541431	15x88
42	Locknut, Flange	STD541425	15x89
43	Latch, Rubber	54695	
44	Handle, Connector Tube	54416E701	
45	Screw	STD512510	4x71
46	Tube, Connector	91967	
47	Tube, Extension	54564SE	
48	Bolt, Carriage	STD533107	2x64
48	Screw	4x70	
49	Nut, Wing	STD541631	14x83
51	Pin, Latch (Square Hole)	54563	
53	Bracket	54566	
—	Bag, Assembly Hardware	91966	

* These parts are included when ordering key number 6.

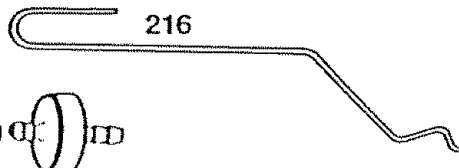
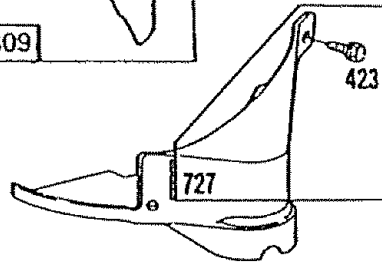
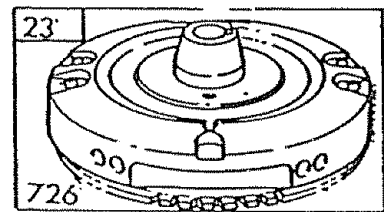
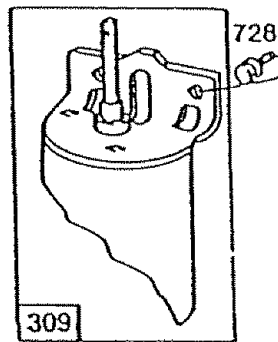
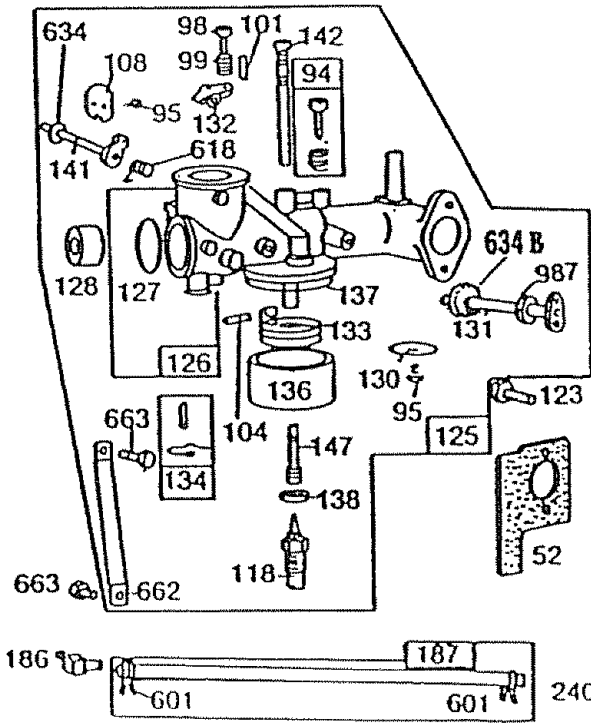


KEY NO.	DESCRIPTION	PART NO.	KEY NO.	DESCRIPTION	PART NO.
1	Cover, Transaxle	772108	41	Lever, Brake	790060
2	Bearing, Needle	780086	42	Screw, Flanged Hex hd. ¼-20x1¼	792073
3	Case, Transaxle	770102	43	Nut, Lock 5/16-24	792075
4	Shaft, Counter	776260	44	Holder, Brake Pad	790025
5	Shaft Pinion Assembly, Output	776219	45	Shaft, Brake (2 keyed)	776315
6	Gear, Output	778139	46	Shaft, Input	776135
7	Gear, Spur (15 teeth)	778272	47	Axle (12-3/8" Long)	774638
8	Key, Shifter	792136	48	Axle (17" Long)	774837
9	Collar, Shifter	784352	49	Gear, Spur (37 teeth)	778191
10	Rod & Fork Assembly, Shift	784358	50	Gear, Spur (35 teeth)	778125
11	Gear, Bevel (42 teeth)	778229	51	Gear, Spur (30 teeth)	778124A
12	Bevel Pinion, Input	778113A	52	Gear, Spur (25 teeth)	778123A
13	Gear, Bevel	778221	53	Gear, Spur (22 teeth)	778122A
14	Gear, Bevel Pinion	778068	53A	Gear, Spur (19 teeth)	778209
15	Gear, Ring	778260	54	Gear, Spur (12 teeth)	778230
17	Pin, Drive	786139	55	Gear, Spur (15 teeth)	778151
18	Spacer	786102	56	Gear, Spur (20 teeth)	778126A
20	Ball, Steel (5/16" dia.)	792077	57	Gear, Spur (25 teeth)	778127A
21	Set Screw ⅜-16x⅜	792078	58	Gear, Spur (28 teeth)	778128A
22	Spring	792079	59	Gear, Spur (31 teeth)	778163
23	Ring, Felt	788061	60	Chain, Roller (No. 41 chain, 24 Links)	786081
25	Screw, Flange Hex Hd. ¼-20x1¼	792073	61	Sprocket (9 teeth)	786082
26	Ring, Retainer (Pkg. of 2)	792125	62	Sprocket (18 teeth)	786123
27	Ring, Retainer	792035	65	Washer, Thrust	780109
28	Ring, Retainer	788040	68	Bracket, Brake Lever	786086
29	Washer, Thrust	780072	69	Washer, Thrust	780051
30	Washer, Thrust	780108	70	Spacer	786118
31	Washer	780001	72	Plug, Threaded	792074
32	"O" Ring	792001	75	Disk	786116
33	Seal, Square Cut	788051	76	Washer, Thrust	780090
34	Bushing, Flanged	780105A	77	Ring, Retaining	788075
35	Bushing, Flanged	780118A			
36	Disk, Brake	790003			
37	Plate, Brake Pad	790007			
38	Pad, Brake	790006			
39	Pin, Dowel	786026			
40	Washer, Flat	792076			

ENGINE PARTS ILLUSTRATION 12 HP.
BRIGGS & STRATTON - MODEL 281707-0428-01

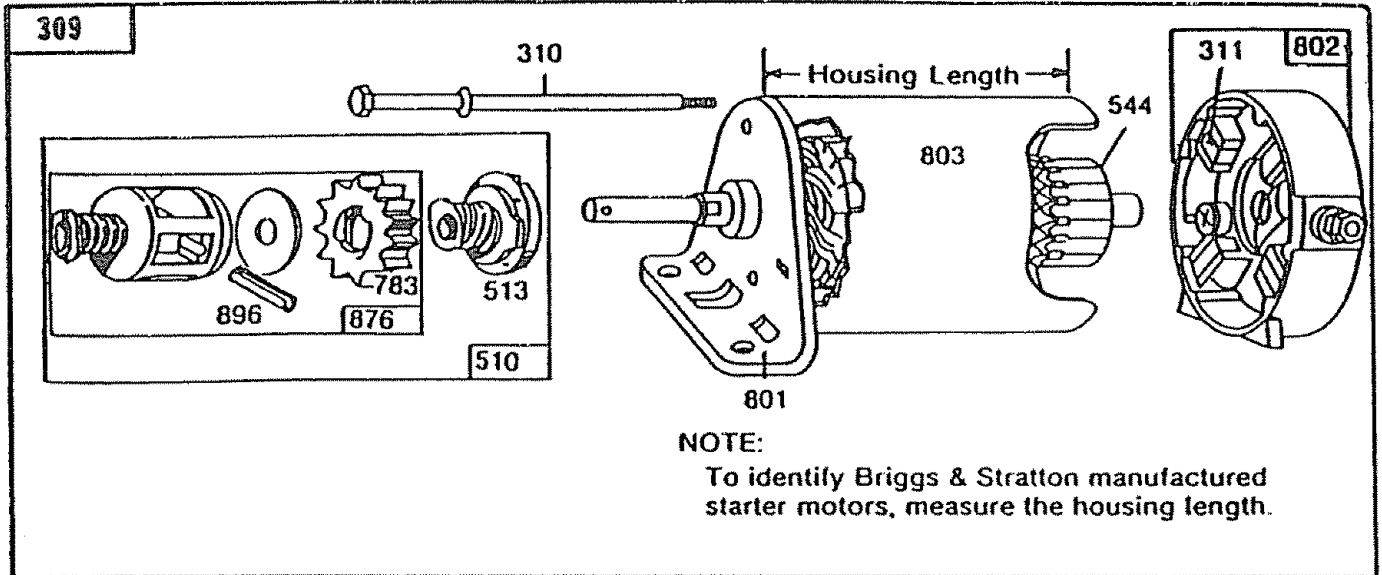


121 CARBURETOR OVERHAUL KIT



Assemblies include all parts shown in frames.

ENGINE PARTS ILLUSTRATION 12 HP.
BRIGGS & STRATTON - MODEL 281707-0428-01



Assemblies include all parts shown in frames.

**ENGINE PARTS LIST 12 HP.
BRIGGS & STRATTON - MODEL 281707-0428-01**

KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
1	Cylinder Assembly	490450	32	Screw -Connecting Rod	92909
2	Bearing, Cylinder NOTE: Requires special tools for installation.	399265	33	Valve -Exhaust	262246
3	Seal -Oil	391086	34	Valve -Intake	262247
5	Head -Cylinder	491491	35	Spring -Intake Valve	65906
7	Gasket -Cylinder Head	* 271866	36	Spring -Exhaust Valve	26828
8	Breather Assembly	391406	37	Guard -Flywheel	223752
9	Gasket -Valve Cover	* 27803	40	Retainer -Intake Valve	221596
10	Screw -Sem	93394	41	Rotocoil -Exhaust Valve	292260
11	Tube -Breather	280100	42	Retainer -Exhaust Valve (2)	93630
12	Gasket -Crankcase Cover 1/64" Gasket -Crankcase Cover 0.005" Gasket -Crankcase Cover 0.009"	* 271916 * 271996 * 271997	45	Tappet -Valve	262248
13	Screw -Cylinder Head (3")	93723	46	Gear -Cam	212897
15	Plug -Oil Drain	91084	52	Gasket -Carburetor Mounting	* 270872
16	Crankshaft NOTE: To Replace Crankshaft Woodruff Key, Order 94196.	* 490466	78	Screw -Sem	93805
18	Base -Engine	490452	94	Valve Assy. -Carburetor Idle	+ 292681
20	Seal -Oil	291675	95	Screw -Throttle & Choke Valve	93499
22	Screw -Base Mounting Sem	94305	98	Screw -Machine 8-32x5/8"	91920
23	Flywheel & Ring Gear Assy.	492326	99	Spring -Throttle Adjustment	26157
24	Key -Flywheel	222698	101	Pin -Throttle Stop	93043
25	Piston Assembly -Standard Piston Assembly -0.010" O.S. Piston Assembly -0.020" O.S. Piston Assembly -0.030" O.S. PISTON RING SET: NOTE: For Chrome Ring Set- Standard Size- Order 392331.	394661 394662 394663 394664	104	Pin -Float Hinge	+ 230896
26	Ring Set -Piston -Std. Ring Set -Piston -0.010" O.S. Ring Set -Piston -0.020" O.S. Ring Set -Piston -0.030" O.S.	394665 391781 391782 391783	108	Valve Choke	222010
27	Lock -Piston Pin	260924	118	Valve -Needle	+ 396568
28	Pin Assembly -Piston Std Pin Assy. -Piston 0.005" O.S.	299691 391286	121	Carburetor Overhaul Kit	394698
29	Rod Assembly -Connecting NOTE: For Connecting Rod with 0.020" undersize Crankpin Bore -Order 490469.	490348	123	Screw -Carburetor Mtg.	93357
31	Lock -Connecting Rod Screw	222299	125	Carburetor Assembly	491031
			126	Body Assembly -Carburetor	490473
			127	Plug -Welch	+ 221997
			128	Venturi -Carburetor	211960
			130	Valve -Throttle	222433
			131	Shaft and Lever -Throttle	491006
			132	Stop -Throttle	211712
			133	Float -Carburetor	299707
			134	Valve -Fuel Inlet	+ 394681
			136	Bowl -Float	221995
			137	Gasket -Float Bowl	+ 270511
			138	Washer -Float Bowl	+ 222014
			141	Shaft and Lever -Choke	390684
			142	Nozzle -Carburetor	+ 299740
			147	Screw -Nozzle	+ 231323
			171	Nut, Air Cleaner Mtg.	231532
			186	Connector -Fuel Pipe	67218
			187	Line -Fuel	66608
			188	Screw -Sem (3/4" long)	93535
			201	Link -Governor	262348
			209	Spring -Governor	260695
			216	Link -Choke	261610

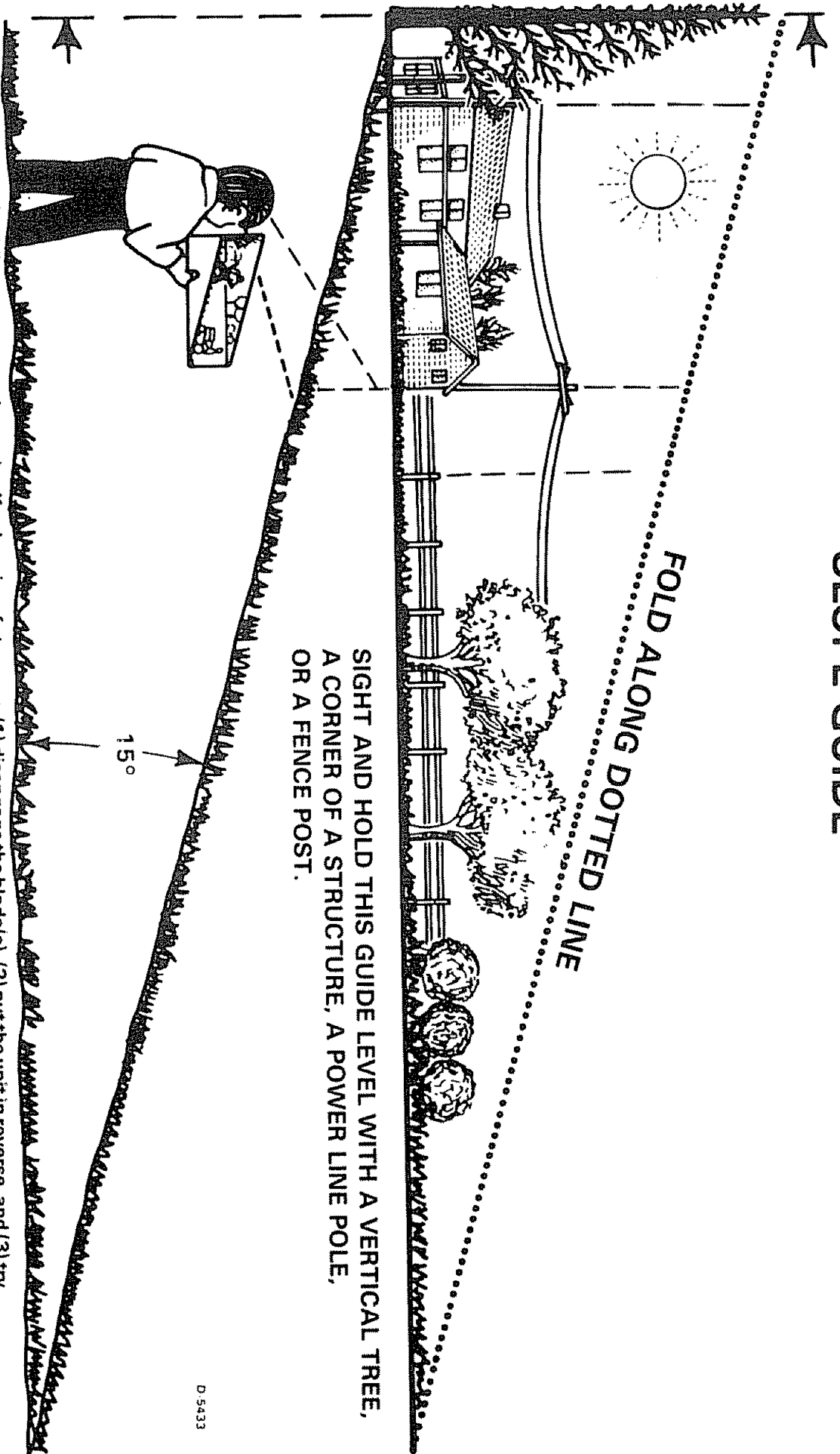
**ENGINE PARTS LIST 12 HP.
BRIGGS & STRATTON - MODEL 281707-0428-01**

KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
219	Oil Slinger, Gov. Gear & Bkt.	490815	544	Armature Assembly	390837
222	Plate -Governor Control	491594	549	Washer -Air Cleaner	94249
224	Screw -Air Cleaner Sem	94018	552	Bushing -Governor Crank	231597
225	Crank -Governor (1/4" dia.)	231058	562	Bolt -Governor Lever	92613
227	Lever Assy. Governor	490927	592	Nut -Hex, No.10-24	231082
230	Washer -Governor Crank	222450	601	Clamp -Fuel Pipe	93053
232	Spring -Governor Link	260584	614	Cotter -Hair Pin	93306
240	Filter -Fuel	298090	615	Retainer, E-Ring	93307
265	Clamp -Casing	221535	618	Spring -Choke Return	261116
284	Screw -Clamp Mtg.	93572	634	Washer -Choke Shaft	270382
304	Housing -Blower	490689	634A	Seal -Oil	491323
305	Screw -Blower Housing Mtg.	93158	634B	Washer -Throttle Shaft Seal	271853
306	Shield -Cylinder	223715	635	Elbow -Spark Plug	66538
307	Screw -Cylinder Shield Mtg.	93163	657	Screw -Sem	93496
308	Cover -Cylinder Head	491490	662	Bracket -Carburetor	222311
309	Motor -Starting (12 Volt)	394805	663	Screw -Carburetor	93572
310	Thru Bolt Assembly	94003	668	Spacer	280848
311	Brush Assembly	395538	726	Gear -Ring (Incl. Mtg. Parts)	392134
332	Nut -Hex	92284	727	Cover -Starter (Incl. Screws)	490324
333	Armature -Magneto	492341	728	Screw -Sem	93535
334	Screw -Armature Mtg.	93381	741	Gear -Timing	262135
337	Plug -Spark	802592	757	Link -Counterweight	212359
346	Screw -Hex Head	93705	758	Counterweight Assembly	399891
353	Washer -Lock Shakeproof	92791	759	Pin -Counterweight (1)	298909
354	Nut -Hex No.8-32	90576	761	Screw -Counterweight (1)	93875
356	Wire -Ground	398808	801	Drive, End Cap Assy.	394857
358	Gasket Set	490525	802	Commutator, End Cap Assy.	395537
363	Puller -Flywheel	19203	803	Housing Assy. (3-21/32" Long)	393825
383	Wrench -Spark Plug	89838	842	Seal -Oil Fill Cap	270920
422	Clamp -Oil Fill Tube	223721	847	Fill Group -Oil	490474
423	Screw -Sem	93984	851	Terminal -Ignition Cable	221798
445	Cartridge -Air Cleaner	399806	869	Seat -Intake Valve (Standard)	261463
455	Cup -Screen Mounting	222561	870	Seat -Exhaust Valve (Standard)	210940
467	Knob -Air Cleaner	212706	871	Guide -Exhaust Valve	261961
468	Screen -Flush Rotating	222562		NOTE: Guide -Intake Valve (Brass) 231218	
482	Screw -Sem	93621		See Repair Manual	
510	Drive Assembly Incl. Keys 513, 783, 876, 896	490421	872	Cover -Air Cleaner	223700
513	Clutch Assembly	398003	875	Body -Air Cleaner	490332
520	Terminal -Spade	93722	877	Diode & Connector Assy (Dual Circuit)	393814
523	Cap and Dipstick -Oil	490327	887	Stator Assembly Alternator (D.C.)	391529
524	Seal -Filler Tube	68838	985	Insulator Assembly	398525
525	Tube -Oil Filler	280741	987	Seal, Throttle Shaft	398970
534	Stud -Air Cleaner	94248	1005	Fan -Flywheel	280687
534A	Stud -Air Cleaner	94246	1006	Retainer -Fan	223726
537	Gasket -Air Cleaner	270853	1019	Label Kit	491155
			1020	Eccentric -Crankshaft	262243
			1021	Pin -Eccentric	94160

* Included in Gasket Set -Part No. 490525

+ Included in Carburetor Overhaul Kit -Part No. 394698

SLOPE GUIDE



SIGHT AND HOLD THIS GUIDE LEVEL WITH A VERTICAL TREE,
A CORNER OF A STRUCTURE, A POWER LINE POLE,
OR A FENCE POST.

D 5433

On riding mowers, to determine if a slope is safe to mow: (1) disengage the blades(s), (2) put the unit in reverse, and (3) try to back straight up the slope. If you can back up the slope, it is generally safe to mow, however, if you do not feel safe, or if you are not completely sure, use this guide and do not mow a slope that is greater than 15°. If the riding mower is used with a pull-behind attachment, do not operate the unit on a slope that is steeper than 10°.

A 15 degree slope is a hill that increases in height at approximately 2.5 feet in 10 feet.
A 10 degree slope is a hill that increases in height at approximately 1.7 feet in 10 feet.



Use extreme care at all times, and avoid sudden turns or maneuvers. Follow other instructions in this manual for safety in mowing on slopes. Operate a riding mower up and down slopes, never across the face of slopes. Operate a walk-behind mower across the face of slopes, never up or down slopes. Use extra care when operating on or near slopes and obstructions.

SEARS

owners manual

**Model No.
502.255193**

How to Order Repair Parts

CRAFTSMAN®

12 HP. ELECTRIC START 40" MOWER 6 SPEED LAWN TRACTOR

The Model Number for the mower is found on a decal attached to the back of the frame. The Model Number for the engine is found on the blower housing above the spark plug. Always give the Model Number when you call for service or order repair parts for your unit.

Repair parts can be ordered from any Sears Service Center/Departments and most Sears Stores.

WHEN ORDERING REPAIR PARTS, ALWAYS HAVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

- PRODUCT - LAWN TRACTOR
- MODEL NUMBER - 502.255193
- ENGINE MODEL NO. - 281707-0428-01
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians. Sears technicians have the necessary parts, tools, and equipment to meet the Sears pledge, "We Service What We Sell".