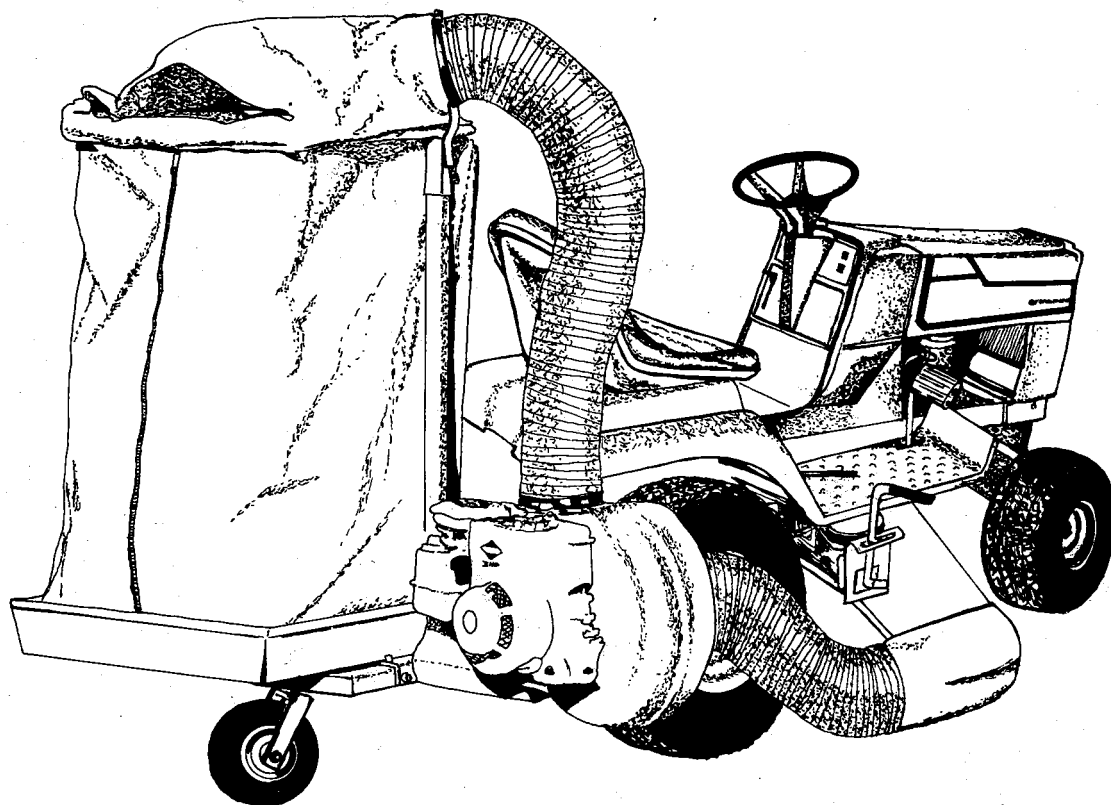


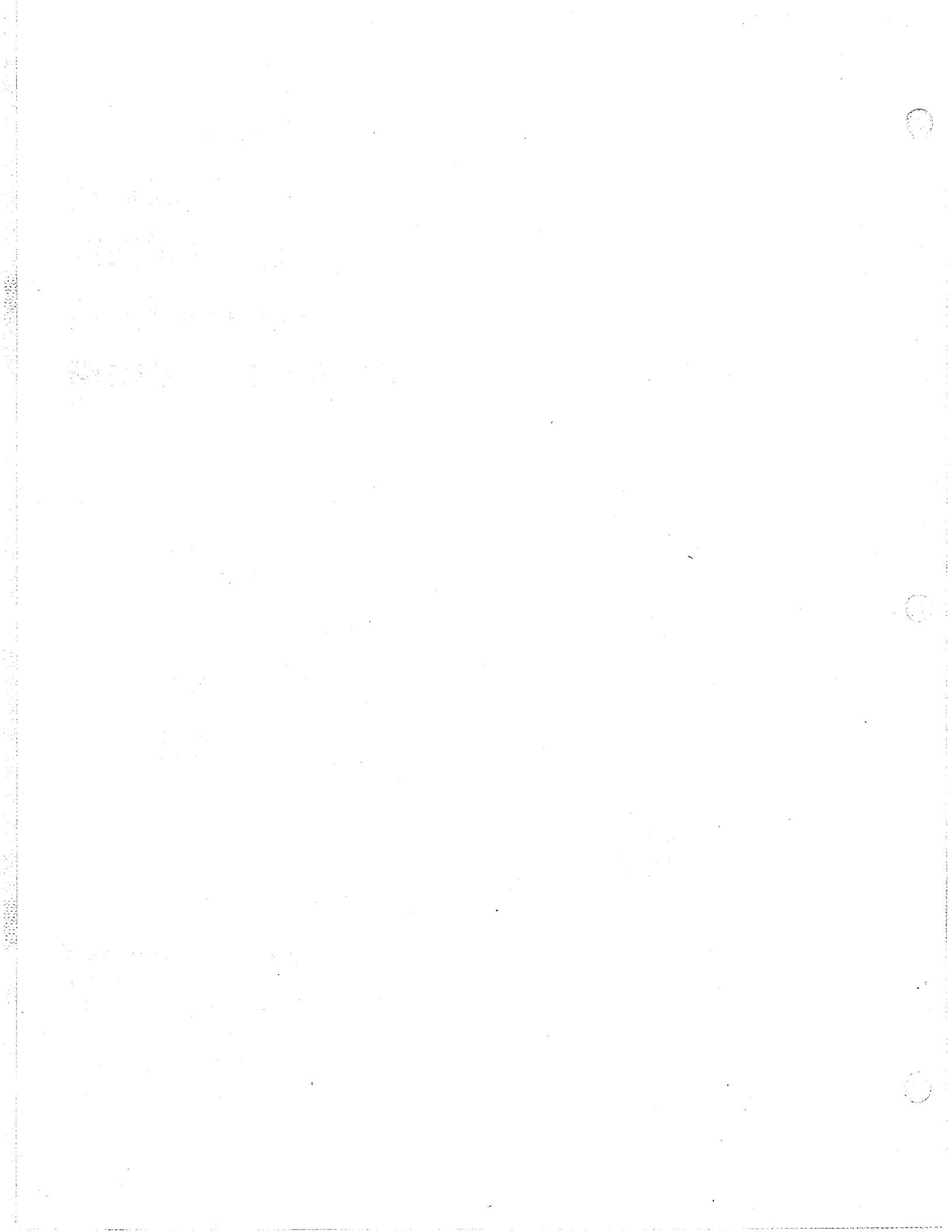
105

OPERATOR'S MANUAL ENGINE DRIVEN VACUUM COLLECTOR



**VACUUM COLLECTOR
MFG. NO. 1690563
36" MOWER ADAPTER
MFG. NO. 1690228
42 - 48" MOWER ADAPTER
MFG. NO. 1690227**

**FORM 1667649
Printed in USA 803**



Dear Customer:

Congratulations on your selection and purchase of this Engine Driven Vacuum Collector attachment. It has been carefully designed and constructed to give you years of dependable service. To ensure yourself of the utmost value and performance from this Vacuum Collector, read this manual carefully. Be certain that your Vacuum Collector is assembled and installed properly.

For your protection, be sure that you (and anyone who will operate this machine) know how to use the machine safely. Read this manual and your tractor manual thoroughly and become familiar with all controls before actual operation.

Also, carefully read and follow the safety rules in this manual and those in your tractor manual. Review this safety information often; it is there for your benefit and it is important.

This manual provides you with step-by-step installation, operation, assembly, and service procedures for your Vacuum Collector. If help is needed with any of these procedures, however, your dealer will be happy to assist you.

Measurements are given in this manual with metric equivalents in parentheses. For example, behind the measurement 1/8 will appear: (3 mm). So, the metric equivalent of 1/8 inch is 3 millimetres.

These metric measurements are provided for your convenience as an aid in converting to the metric system. A list of metric terms and abbreviations is given below.

LIST OF ABBREVIATIONS OF METRIC TERMS

mm - millimetre
cm - centimetre

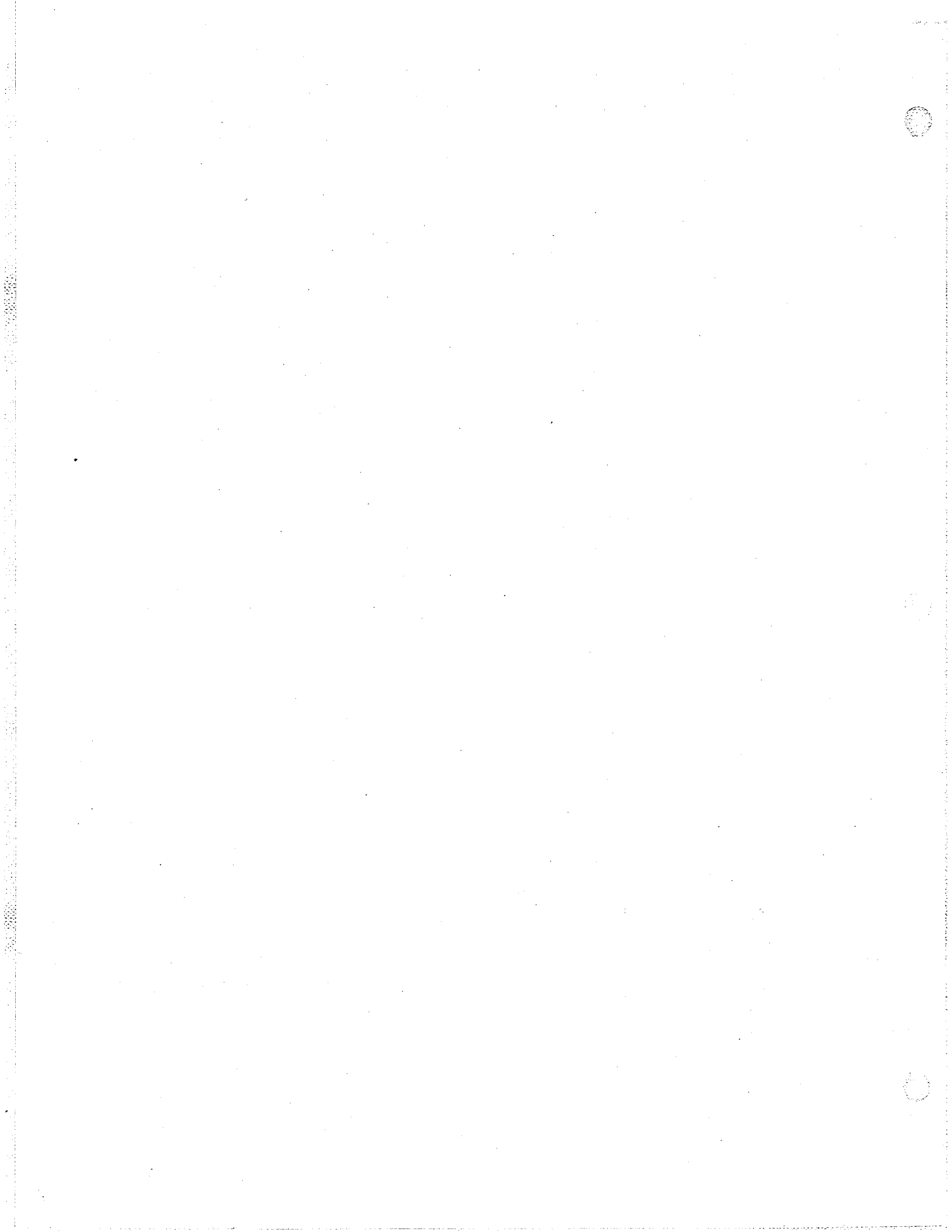


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WARNING

Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself or bystanders, or damage to property or equipment affecting safety.

Safety Rules



This notation preceding Caution's and Warnings in the text signifies important precautionary steps which, if not properly followed, could result in personal injury or damage to your equipment affecting safety.

General

- Read the Operating and Service Instructions carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Do not carry passengers.
- Use only attachments or accessories designed for your machine. See your dealer for a complete list of recommended attachments or accessories.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- When using any attachments, never direct discharge of material toward bystanders nor allow anyone near the vehicle while in operation.
- Make sure:
 - a. tractor and attachments are in good operating condition,
 - b. all safety devices and shields are in good working condition, and
 - c. all adjustments (cutting height, etc.) have been made.

Preparation

- Make sure entire unit is properly installed. Never operate vacuum collector without adapter, discharge tube, hoses, and collector bag fully connected.
- Handle gasoline with care — it is highly flammable.
 - a. Use approved gasoline container.
 - b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
- Do not run tractor engine indoors. Exhaust fumes are deadly.
- Clear the work area of objects which might be picked up and thrown.
- Disengage all attachment clutches and shift into neutral before attempting to start the engine.
- Wear heavy footwear. Do not operate tractor when barefoot or when wearing open sandals or canvas shoes.

Operation


- Disengage power to attachment(s) and stop the engine before leaving the operator's position.
- Disengage power to attachment(s) and stop the engine before making any repairs or adjustments.
- Stop tractor and vac engines and remove key before unclogging hoses or emptying collector bag.
- Stay alert for holes in the terrain and other hidden hazards. Be extra careful when operating on wet or slippery surfaces.
- The vehicle and attachments should be stopped and inspected for damage after striking a foreign object, and the damage should be repaired before restarting and operating the equipment.
- Disengage power to mower and shut off collector engine when transporting or not in use.

- When mowing, proceed as follows:
 - a. Mow only in daylight.
 - b. Never operate the tractor without the mower clutch safety interlock switch properly attached and working.
 - c. Check the blade mounting bolts for proper tightness at frequent intervals.
- Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of slopes — never across the face.
- Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Use extreme caution when changing direction on slopes.
- Watch out for traffic when crossing or near roadways.
- If equipment begins to vibrate abnormally, disengage power to attachments and stop engine at once. Inspect for damage and correct before restarting tractor.
- Be especially careful not to touch tractor or attachment parts which might be hot from operation. Allow such parts to cool before attempting to maintain, adjust, or service.
- Use counterweight(s) or wheel weights when suggested in the operator's manual.
- Take all possible precautions when leaving the vehicle unattended, such as disengaging the power take off, lowering the attachment(s), shifting into neutral, setting the parking brake, stopping the vacuum collector engine, stopping the tractor engine, and removing the key.
- Keep the vehicle and attachments in good operating condition, and keep safety devices in place.

Maintenance and Storage

- Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- Do not change the engine governor settings or overspeed engine.
- To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
- Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

ALL WARNING, CAUTION and instructional messages on this unit and on your tractor and mower should be carefully read and obeyed. Personal bodily injury can result when these instructions are not followed. The information is for your safety, and it is important. The following is on your vacuum collector attachment.



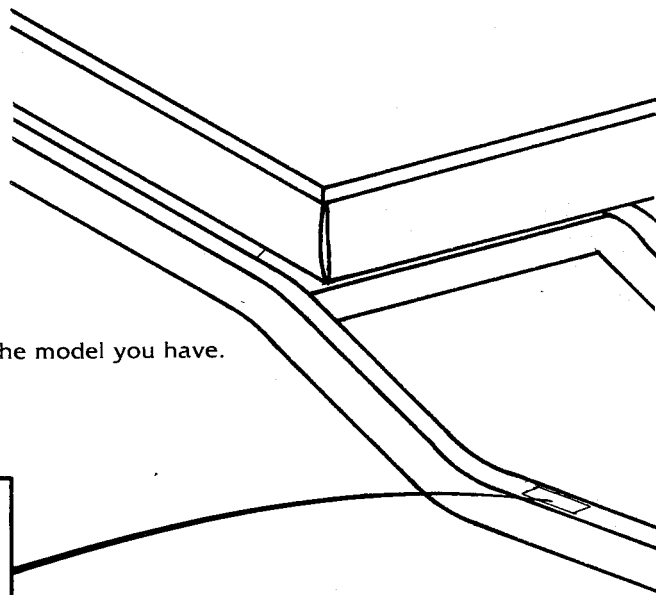
WARNING

Shut off Vacuum Collector and Tractor before removing inlet tubes, Mower Adapter or blower discharge tube.

LOCATION: AT TOP OF BLOWER HOUSING

Identification

When ordering replacement parts for your vacuum collector, be prepared to give your dealer the identification number found on the identification plate shown below.



Models illustrated in this manual may vary slightly from the model you have.

Refer to ID no. when
writing or ordering parts.
ID NO. 1690563 00000

Serial Number

Accessories

See your dealer to purchase any of the following accessories for your tractor or vacuum collector.

Required Accessories

Mower Adapters 36" or 42"/48"
Front Weight 1690257

Optional Accessories

Hour Meter - Records tractor operating time in tenths of an hour
Plastic Bag Liner 1690435 (One Dozen)
Rear Wheel Weights (2 Reqd.) 1690555 (for operation on slopes in excess of 15% / 8.5°)

Never operate on slopes greater than 27 percent (15 degrees).

Assembly

In order to install a vacuum collector the tractor must be equipped with the following: the appropriate mower adapter and front weight.

CONTENT OF SECTION

The procedure given in this section covers preparation and assembly of the vacuum collector. For installation, see Operation section.

PREPARATION

INSTALLING 36" ADAPTOR (1690228)

To install the 36" vacuum collector adapter on the 36" righthand discharge mower, proceed as follows:



WARNING

FOR YOUR SAFETY, STOP TRACTOR ENGINE AND REMOVE IGNITION KEY. DO NOT ATTEMPT TO REMOVE MOWER GRASS DEFLECTOR OR INSTALL VACUUM COLLECTOR ADAPTOR UNTIL YOU ARE CERTAIN THAT MOWER BLADES HAVE STOPPED ROTATING.

1. To remove the mower deflector, remove the nuts and lockwashers (items B and C, Fig. 1A) which hold it in place. These will be used again.
2. Place the two push nuts (item D) provided on the original carriage bolts as shown. The push nuts hold the carriage bolts in place and can be left in position if the mower deflector is re-installed.
3. Install the nut retainer (item G) provided in the square hole on the front of the mower housing near the discharge opening. From inside of mower housing, slip one end of the nut retainer into the square hole and press it into place using a screwdriver. The nut retainer can remain in place if the mower deflector is reinstalled.

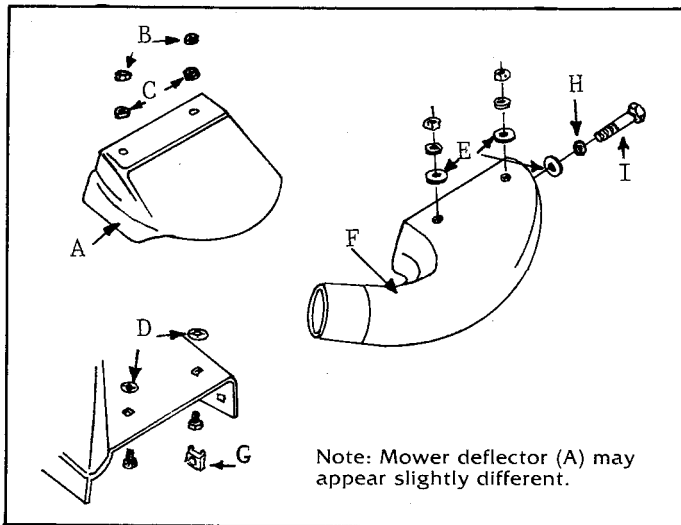


Figure 1a - 36" Adapter

- Position the adaptor on the mower with the two carriage bolts through the holes at the top of the adaptor. Using two of the large washers (item E) provided and the original nuts and lockwashers (item B and C), install the adaptor.
- Place the lockwasher (item H) and remaining large washer on the capscrew (item I). Thread the capscrew into the nut retainer and tighten it in place.



WARNING

THE VACUUM COLLECTOR ADAPTOR MUST BE USED ONLY WHEN FULLY CONNECTED TO THE VACUUM COLLECTOR AT THE REAR OF TRACTOR. IF THE VACUUM COLLECTOR IS REMOVED, ALWAYS INSTALL THE ORIGINAL MOWER DEFLECTOR BEFORE OPERATING THE MOWER.

INSTALLING 42/48" ADAPTOR 1690227

To install the 42/48" vacuum collector adaptor on the 42/48" righthand discharge mower, proceed as follows:



WARNING

FOR YOUR SAFETY, STOP TRACTOR ENGINE AND REMOVE IGNITION KEY. DO NOT ATTEMPT TO REMOVE MOWER GRASS DEFLECTOR OR INSTALL VACUUM COLLECTOR ADAPTOR UNTIL YOU ARE CERTAIN THAT MOWER BLADES HAVE STOPPED ROTATING.

- To remove the mower deflector, remove the nuts and lockwashers (items B and C, Fig. 1B) which hold it in place. These will be used again.
- Place the two push nuts (item D) provided on the original carriage bolts as shown. The push nuts hold the carriage bolts in place and can be left in position if the mower deflector is reinstalled.
- Remove the carriage bolt nearest the discharge opening from the stone guard. The nut (item H) will be used again.

- Replace the bolt with the longer, 1 1/4 inch carriage bolt (item G) provided and reinstall original nut (item H). Put one of the 5/16 inch washers (item I) on the bolt after the nut.
- Position the adaptor on the mower with the two carriage bolts through the hole at the top of the adaptor and the 1 1/4 inch carriage bolt through the hole at the front of the adaptor. Using the two large washers (item E) provided and the original nuts and lockwashers (items B and C), install the adaptor.
- Place the remaining 5/16 inch washer (item I), lockwasher (item J), and nut (item K) onto the 1 1/4 inch bolt and tighten in place.



WARNING

THE VACUUM COLLECTOR ADAPTOR MUST BE USED ONLY WHEN FULLY CONNECTED TO THE VACUUM COLLECTOR AT THE REAR OF TRACTOR. IF THE VACUUM COLLECTOR IS REMOVED, ALWAYS INSTALL THE ORIGINAL MOWER DEFLECTOR BEFORE OPERATING MOWER.

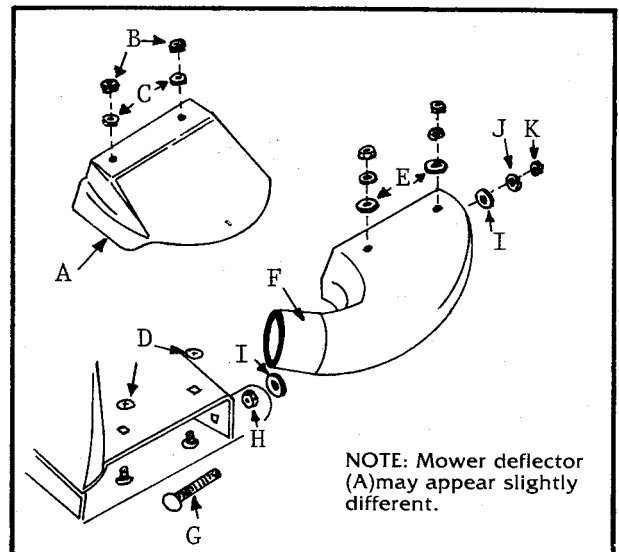


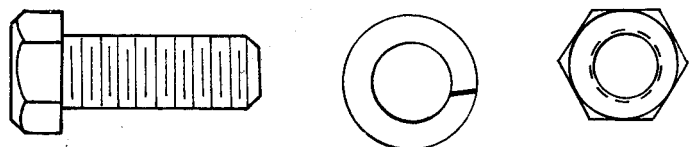
Figure 1b 42/48" Adaptor

ASSEMBLY

NOTE: The right and left side of your Vac is determined from the operators position.

Step 1 (Refer to Figure 2)

Locate Hitch (A) under drawbar of tractor. Place Support Channel (B) on top of drawbar, align holes. Secure with (3) Hex Bolts, (3) Lockwashers, and (3) Hex Nuts. (Shown full size below.)



3/8" - 16 x 1" hx bolt 3/8" lockwasher 3/8" - 16 hx nut

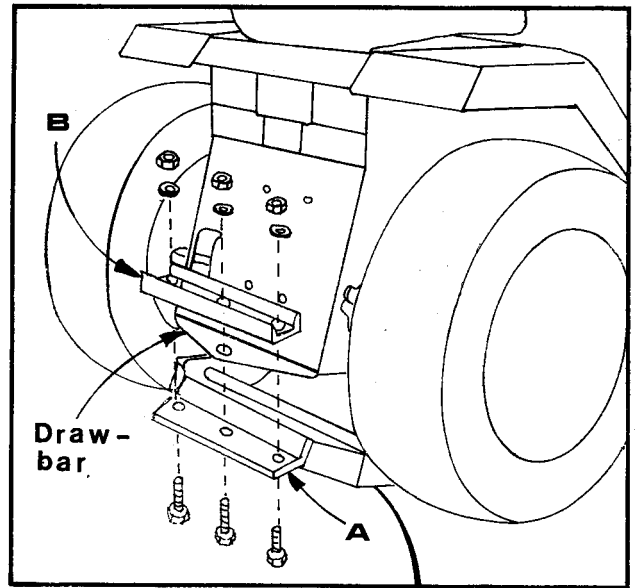
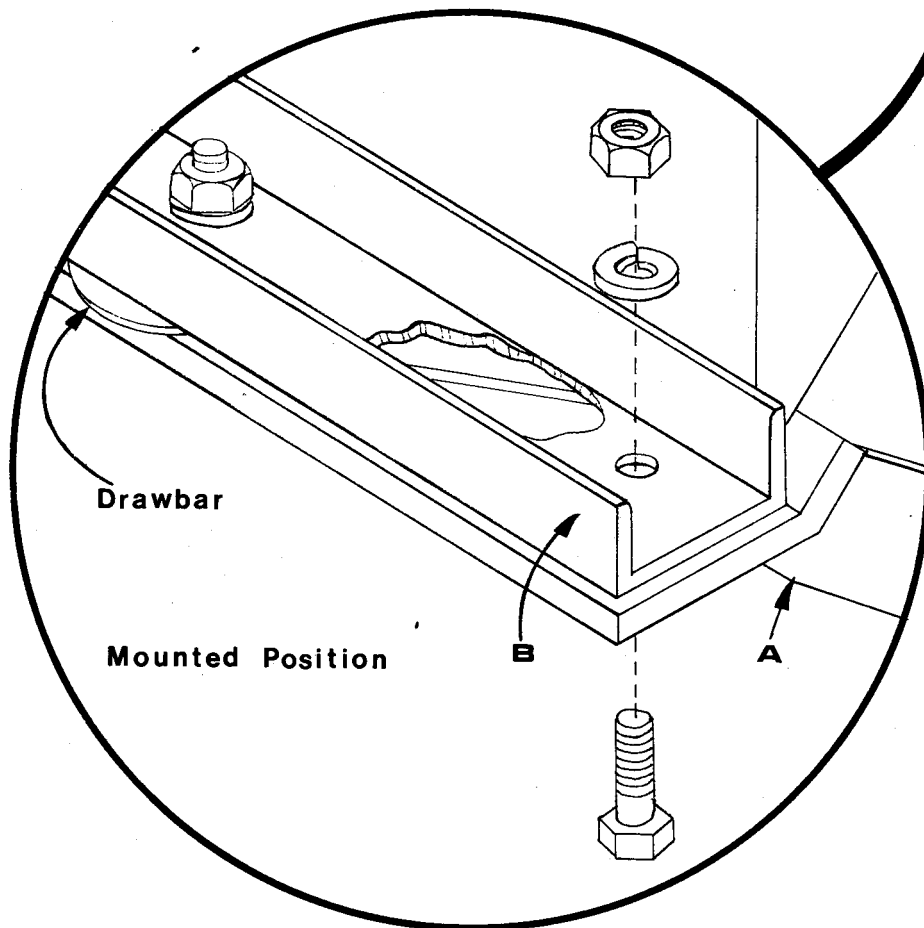


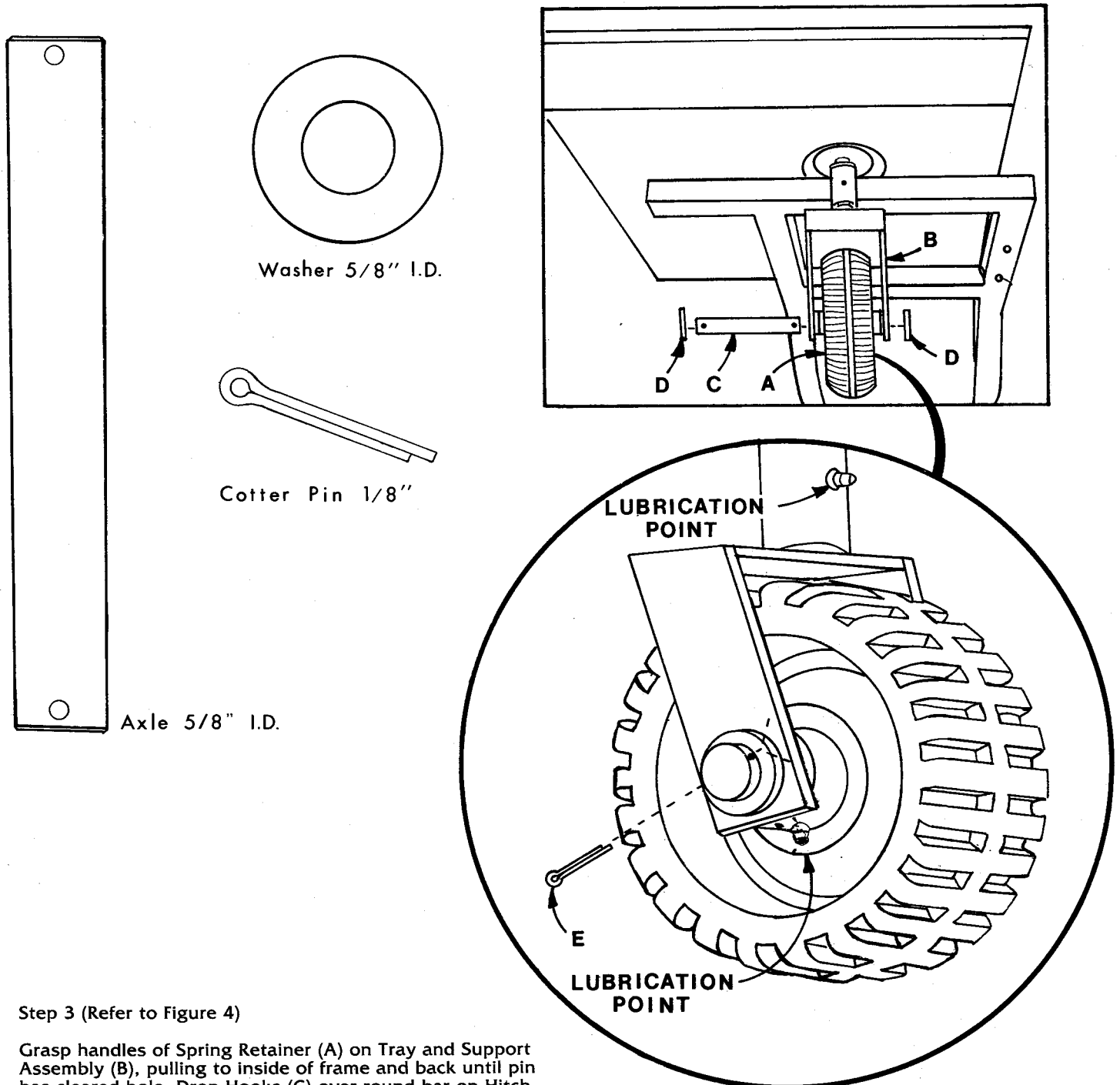
Figure 2



Step 2 (Refer to Figure 3)

Slide Wheel (A) between legs of Caster Frame (B), insert Axle (C) through holes in Caster Frame and Wheels, add (2) Flatwashers (D) over end end of Axle. Secure with (2) Cotter Pin (E) spreading prongs of cotter pins after insertion. (Hardware shown full size below.)

Figure 3



Step 3 (Refer to Figure 4)

Grasp handles of Spring Retainer (A) on Tray and Support Assembly (B), pulling to inside of frame and back until pin has cleared hole. Drop Hooks (C) over round bar on Hitch (D). Slide Spring Retainers forward until pins drop into hole, locking Tray and Support Assembly (B) into place.

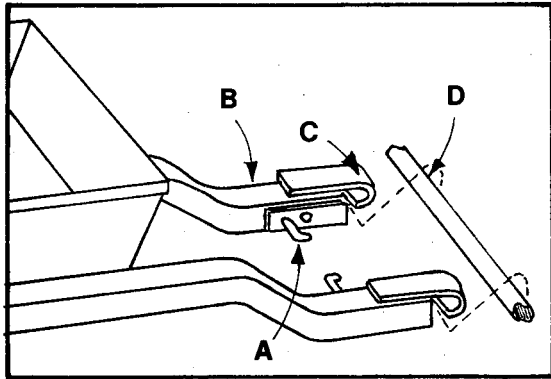
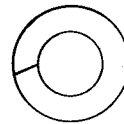


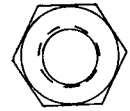
Figure 4

Step 5 (Refer to Figure 6)

Mount Engine and Blower (A) on Engine Support and Upright (B). Align holes and secure with (4) Hex Bolts, (4) Lockwashers and (4) Hex Nuts. (Shown full size below.)



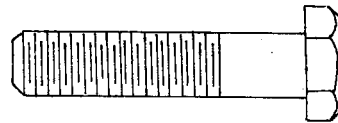
5/16 Lockwasher



5/16-18 Hex Nut

Step 4 (Refer to Figure 5)

Place Engine Support and Upright (A) on right hand of Tray and Support Assembly (B). Place Angle (C) underneath rail of Tray and Support Assembly (B). Align holes and secure with (4) Hex Bolts, (4) Lockwashers, and (4) Hex Nuts. Shown below.



5/16-18 x 1 1/2 Hex Bolt

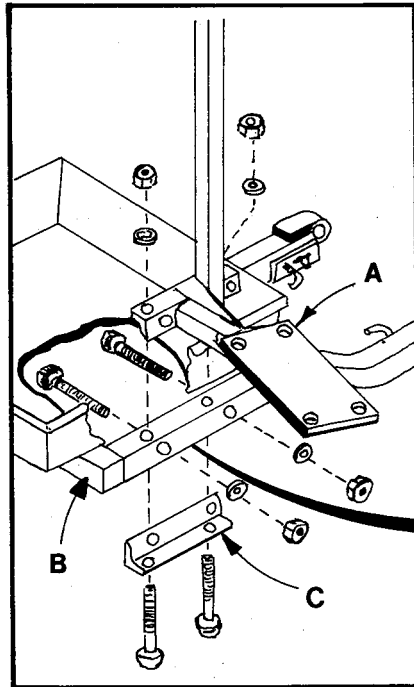
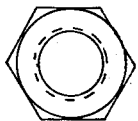
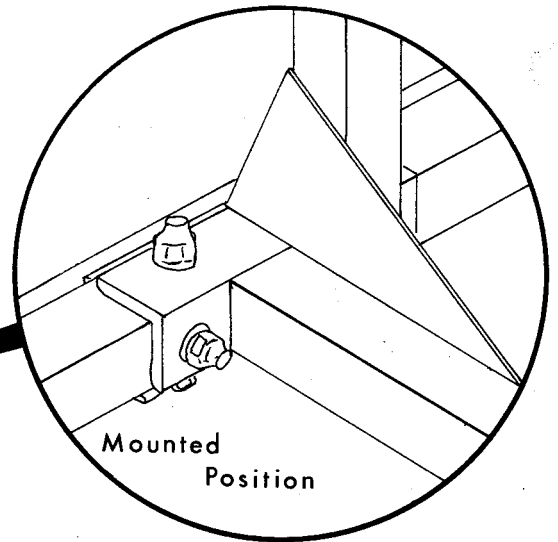
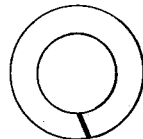


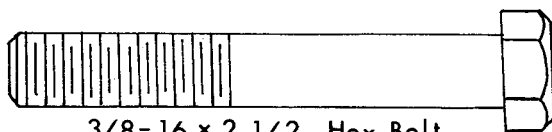
Figure 5



Hex Nut, 3/8-16



Lockwasher, 3/8



3/8-16 x 2 1/2 Hex Bolt

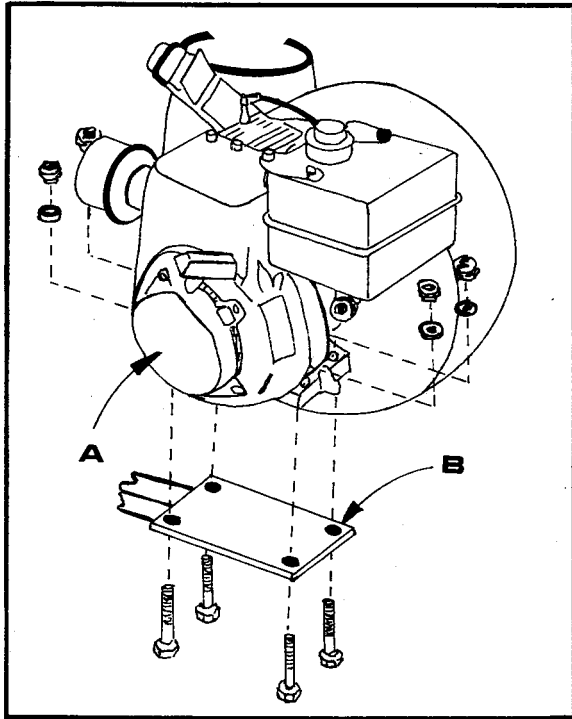


Figure 6

Step 6 (Refer to Figure 7)

Place Bag Support Ring (A) on the Engine Support and Upright (B). Ensure that Support Ring slides full onto Upright.

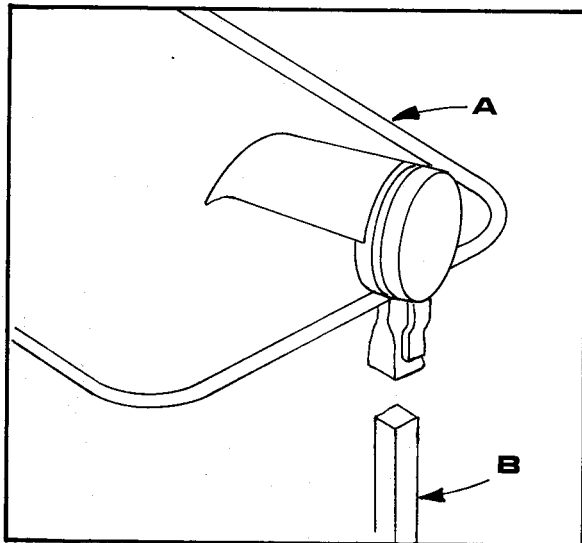


Figure 7

Step 7 (Refer to Figure 8)

Place 6" Hose Clamp (A) over each end of the Flex Hose (B). Attach one end of Hose to Blower Housing (C). Tighten Clamp. Bend Hose and slide onto tube on Bag Support Ring (D). Tighten Clamp.

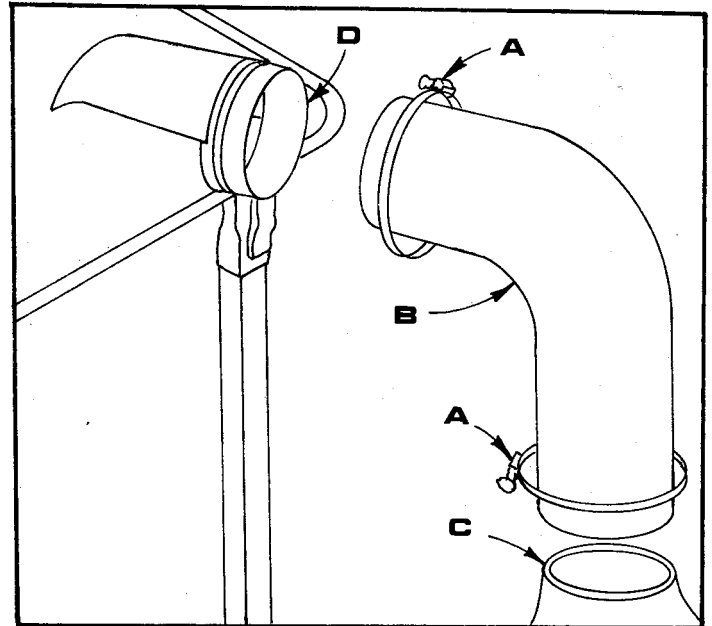


Figure 8

Step 8 (Refer to Figure 9)

Place Canvas Bag in Tray Assembly open end up, zipper side to the rear. Pull Bag upward through Bag Support Ring about 1 - 1 1/2" (38mm) center zipper in rear rolling edge of Bag inside out over Bag Support Ring (as shown in Section View). Tighten Pull Cord ensuring that top edge of Bag fits over the Bag Support Ring and is snug against the pin in each corner. Secure Pull Cord in catch. (See Figure 9 Section View)

View 9 (Refer to Figure 10)

Insert Plastic Bag Liner into Canvas Bag. Leave about 1 to 2 inches (25 to 58 mm) to stretch over edge of Canvas Bag and Bag Support Ring.

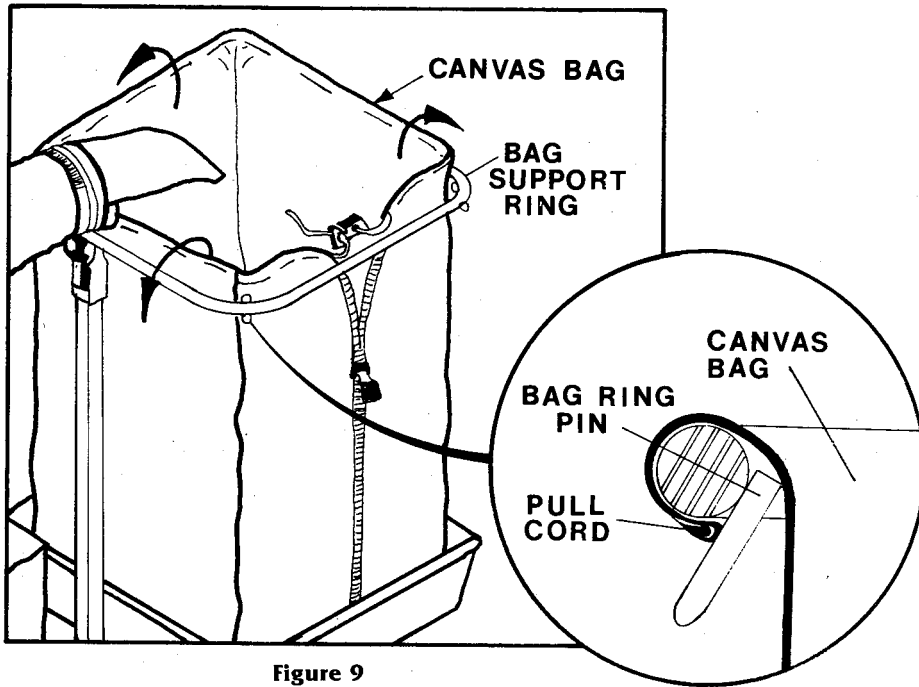


Figure 9

Step 10 (Refer to Figure 11)

Install Canvas Bag Cover to Bag Ring by sliding 6" (153 mm) dia. opening in Cover over Bag Ring Deflector, then inlet tube. Tighten Pull Cord and tie in bow knot. The Cover may now be placed over Bag Support Ring. The Air Outlet and Screen should face away from the operator. The Bag Cover hem with Pull Cord is rolled over the Bag Support Ring and is resting against the pin in each corner. Tighten Pull Cord, and secure in catch.

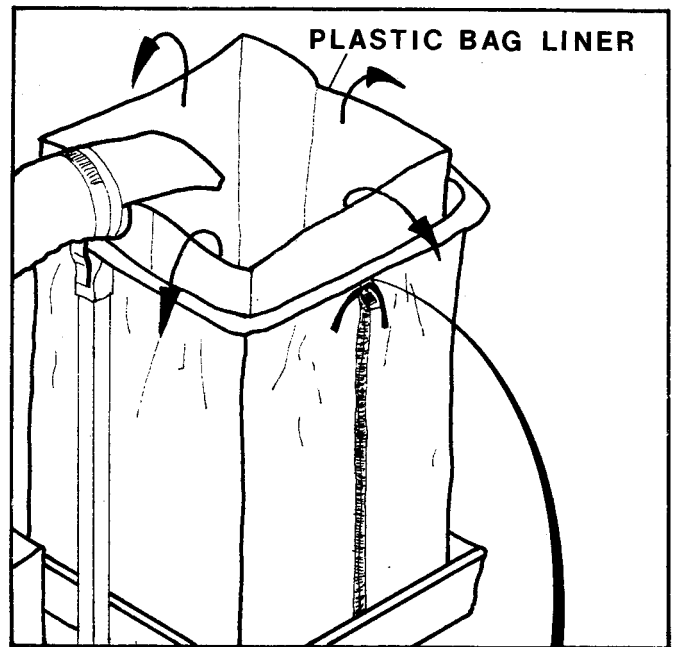
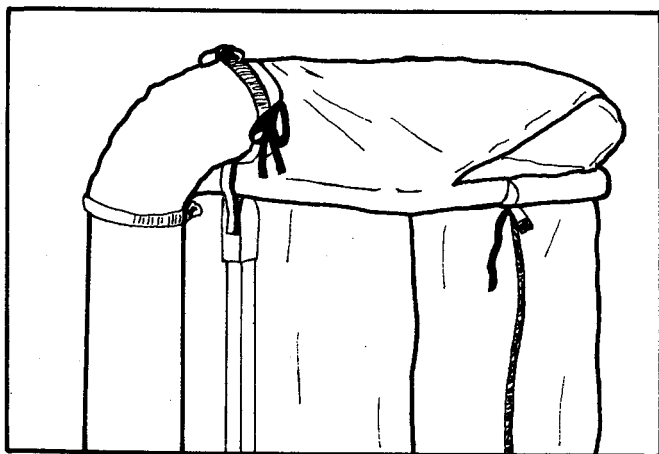
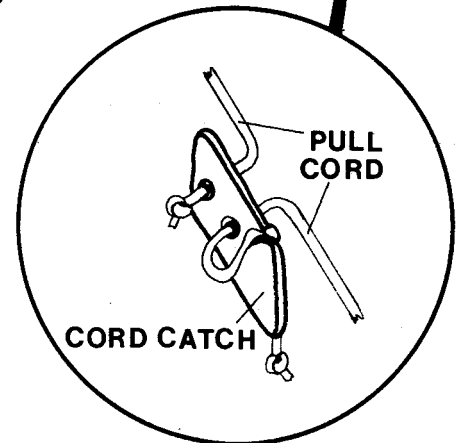


Figure 10



Bag Top to Bag Ring
Figure 11



Operation

CONTENT OF SECTION

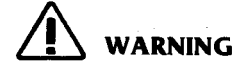
This section provides operating procedures for the vacuum collector. Included are procedures for removing the vacuum collector, as well as lawn cleaning hints.

CHECKS BEFORE STARTING

The checks listed below should be performed before each use of the vacuum collector.

1. Be sure you are familiar with the safety precautions, controls, and operation of the tractor. Read the tractor Operator's Manual very carefully.

2. Check the mower and vacuum collector to be sure they are properly installed and to be sure that all nuts, bolts, and pins are securely fastened.



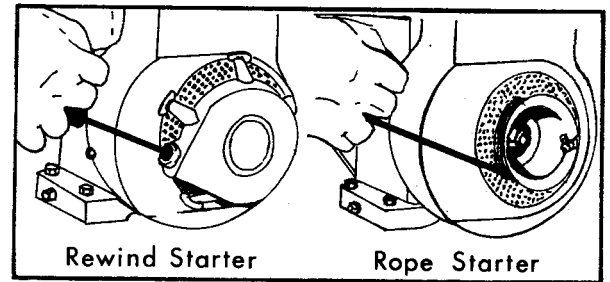
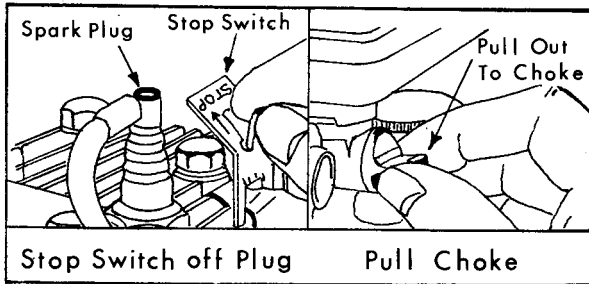
NEVER OPERATE THE MOWER UNLESS THE GRASS DISCHARGE DEFLECTOR OR THE ENTIRE VACUUM COLLECTOR ASSEMBLY IS SECURELY IN PLACE.

3. Refer to the Normal Care Section of this manual to determine and perform any needed care of the vacuum collector.
4. Clear the lawn of all sticks, stones, wire, and other debris which may be caught or thrown by the mower blades and vacuum blower.

STARTING & STOPPING YOUR ENGINE

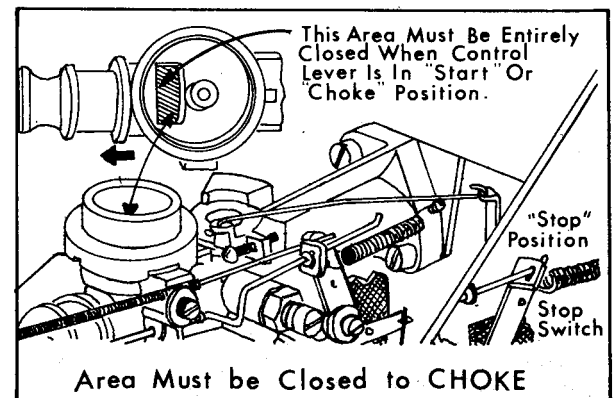
NOTE: Also refer to the engine Operating and Maintenance Instructions.

1. **CHOKER ENGINE** - Engine may be equipped with either manual or Lever controls.
 - a. **Manual Choke and Stop**
Be sure stop switch is away from spark plug. Pull choke as illustrated.
 - b. **Lever Control**
Move throttle lever half way between STOP and FAST. Pull choke as illustrated.



NOTE: ENGINE MAY NOT START if controls do not close choke fully.

3. **STOP ENGINE** -
 - a. **Manual Control**
Push stop switch against end of spark plug.
 - b. **Lever Control**
Move control lever to "STOP" position.



2. **START ENGINE** -
CAUTION: ALWAYS KEEP HANDS AND FEET CLEAR OF MOWER BLADE OR OTHER ROTATING MACHINERY.

Grasp starter as illustrated and pull out cord rapidly. Repeat if necessary with choke opened slightly. When engine starts, open choke gradually. Adjust throttle lever for desired speed.

OPERATING THE VACUUM COLLECTOR



WARNING

DO NOT WORK AROUND THE MOWER HOUSING OR BLOWER AREA UNTIL YOU ARE CERTAIN THAT THE MOWER BLADES AND THE BLOWER FAN HAVE STOPPED ROTATING. ALWAYS STOP THE TRACTOR ENGINE AND VACUUM COLLECTOR ENGINE BEFORE REMOVING ANY OF THE HOSES OR ATTEMPTING TO CLEAN OUT ANY PART OF THE VACUUM COLLECTOR.

Before operating the vacuum collector, be sure you are thoroughly familiar with the operation of your tractor. Consult your tractor's operator's manual if you have any questions on its operation.

For average dry conditions set the vacuum collector engine throttle about $\frac{3}{4}$ open and operate mower at normal ground speeds. Under damp conditions or when collecting thick heavy material run engine at full throttle and use slow ground speed.

When collecting leaves and tall grass raise the mower to highest cutting height on first pass, then lower it for the second pass.

In extremely heavy or tall green grass it may be necessary to cut only half the width of the mower to prevent the hoses from clogging up. Check the hoses and blower housing periodically to make sure the material does not accumulate and block the flow to bag.

NOTE

It is recommended that you do not try to collect grass or leaves that are wet with external moisture such as rain or dew.

Best results for filling the canvas bag can be obtained with at least a $\frac{3}{4}$ or more engine speed throttle setting.

OPERATION ON SLOPES

Always use caution when operating on slopes. Avoid fast starts and adjust ground speed to fit conditions. Use lower gears. Obey the following three warnings:



WARNING

NEVER OPERATE ON SLOPES GREATER THAN 27 PERCENT (15 DEGREES).



WARNING

WHEN OPERATING ON SLOPES THAT ARE GREATER THAN 15 PERCENT (8.5°) BUT LESS THAN 27 PERCENT (15°) USE REAR WHEEL WEIGHTS (SEE YOUR DEALER). ALWAYS MOW UP AND DOWN THE FACE OF SLOPES AND NEVER ACROSS THE FACE. USE CAUTION WHEN TURNING.



WARNING

ALWAYS USE THE FRONT COUNTERWEIGHT.

EMPTYING BAG



WARNING

ALWAYS STOP THE TRACTOR AND VACUUM COLLECTOR ENGINE BEFORE REPLACING OR EMPTYING THE BAG. THIS WILL PREVENT GRASS CLIPPINGS OR DUST FROM BEING BLOWN INTO YOUR EYES.

To empty Bag unhook Pull Cord from catch and throw Bag top over inlet deflector, unzip Canvas Bag, pull Plastic Bag Liner through zipper opening.

When collecting wet lush grass clippings, the weight of a filled plastic bag liner, may be difficult to handle. Under such conditions, it is recommended that the bag liner be removed when half to three-quarters full.

INSTALLING THE VACCUM COLLECTOR



WARNING

WHEN WORKING WITH THE COLLECTOR, STOP TRACTOR AND VAC ENGINES. LET ALL BLADES COME TO A FULL STOP BEFORE REMOVING HOSES FROM DECK OR BLOWER.

Secure your hitch to the tractor drawbar as the first step of installation. To mount the collector frame and tray assembly, pull the spring latches inward and back. Raise the legs of the tray and place the frame hooks of the legs across the hitch bar. Slide the spring retainers forward until they snap into position flush with the side of the leg. If the latches will not lock, pull back against the unit until the frame hooks are against the hitch bar. Attach the blower cone to the blower housing and secure with the two wing bolts. Finally slide the intake hose over the deck adaptor discharge and secure with a hose clamp. For deck adaptor mounting, see Preparation section on Pg. 5.

REMOVING THE VACUUM COLLECTOR FROM TRACTOR

Loosen the clamp and slide the intake hose from the mower adapter. Pull latches back fully and lift frame hooks from hitch bar. To remove the inlet hose from the blower, loosen the two wing bolts on the blower housing and remove hose and cone assembled. Remove the adapter and install the mower deflector (see Figure 1 or 2).



WARNING

DO NOT OPERATE MOWER WITHOUT DEFLECTOR OR ADAPTER ATTACHED TO THE MOWER HOUSING. THE VACUUM COLLECTOR ADAPTER MUST BE USED WITH THE VACUUM COLLECTOR, AND SHOULD NOT BE USED BY ITSELF IN PLACE OF THE MOWER DEFLECTOR.

Normal Care

CONTENT OF SECTION

Your vacuum collector was designed and built to provide years of service with only minor care. Certain tasks, however, must be performed to keep it in good operating condition and to avoid costly repairs. This section describes and provides procedures for the necessary care of the vacuum collector.



WARNING

To avoid serious injury, perform maintenance on the vacuum collector only after stopping the vacuum collector engine and tractor engine and waiting for all moving parts to come to a complete stop. Set the parking brake. Always remove the ignition key before beginning the maintenance to prevent accidental starting of the engine.

STORAGE

To protect your vacuum collector, store it in an enclosed dry area. To prepare it for off-season storage, perform the following:

1. Remove unit from tractor. (Refer to procedure in Operation Section.)
2. Clean vacuum collector to remove all grass and dirt from bag impeller and inside of housing.
3. Coat all bare metal surfaces with paint or a light coat of oil to prevent rusting.

4. NEVER STORE YOUR VACUUM COLLECTOR WITH A FULL OR PARTIALLY FILLED BAG. SEE RULES FOR SAFE OPERATION. YOU SHOULD NEVER LEAVE YOUR VACUUM COLLECTOR EXPOSED TO THE ELEMENTS. WHILE THE METAL PARTS ARE PROTECTED WITH A HIGH QUALITY PAINT, THE CANVAS BAG AND COVER WILL DETERIORATE IF EXPOSED TO RAIN OR SNOW. IT IS HIGHLY RECOMMENDED THAT YOU LIFT THE BAG TOP AND DRAPE IT OVER THE BAG SUPPORT RING SO THAT THE BAG BOTTOM IS NOT RESTING IN THE TRAY. THIS ALLOWS AIR TO CIRCULATE THROUGH THE BAG AND COVER, PROLONGING THEIR LIFE CONSIDERABLY. A CANVAS BAG WHICH IS LEFT WET OR FILLED WITH GRASS CLIPPINGS WILL BE QUICKLY RUINED THROUGH MILDEW AND THE ACID FROM THE GRASS.

SCHEDULED CARE

A schedule for routine care of the vacuum collector is provided in figure 13. Some of the schedule requirements are based on operating hours. For this reason, it will be necessary to determine or estimate total operating time. This is easily accomplished if your tractor is equipped with an hourmeter. If not, you can determine normal times for regular jobs. Multiply these normal times by the number of times you perform these jobs and add any unusual operating time to estimate the total operating time.

CARE REQUIRED	EVERY 10 HOURS	AFTER EACH USE	BEFORE EACH USE
Check to be sure all screws, nuts, bolts, and pins are present and secure	●		
Clean vacuum collector, hoses and cover of all grass and dirt.		●	
Engine*			
* Refer to Maintenance Care Instructions furnished with your engine.			

Figure 13 Summary of Scheduled Care

Troubleshooting

CONTENT OF SECTION

This section provides troubleshooting and repair instructions for the more common and easily corrected problems.



WARNING

TO AVOID SERIOUS INJURY, PERFORM MAINTENANCE ON THE VACUUM COLLECTOR ONLY AFTER STOPPING THE VACUUM COLLECTOR ENGINE AND TRACTOR ENGINE AND WAITING FOR ALL MOVING PARTS TO COME TO A COMPLETE STOP. SET THE PARKING BRAKE. ALWAYS REMOVE THE IGNITION KEY BEFORE BEGINNING THE MAINTENANCE TO PREVENT ACCIDENTAL STARTING OF THE ENGINE.

TROUBLESHOOTING PROCEDURES

Troubleshooting procedures are provided in figure 14. To use these procedures, first locate the problem description that best describes the trouble that you have encountered. Check the possible causes one at a time in the order that they are listed. Correct any problems that are found and operate the vacuum collector again to verify that you have eliminated the trouble.

Figure 14 Troubleshooting

PROBLEM	CAUSE
1. Leaves and grass not being completely picked up.	<ul style="list-style-type: none"> A. Engine speed too slow. Run at $\frac{3}{4}$ to full throttle B. Ground speed too fast. Use lower gear. C. Hose connections loose. Check and tighten any loose connections. D. Hose plugged. Unplug hose.
2. Hoses plug easily.	<ul style="list-style-type: none"> A. Grass or leaves too wet. Wait for drier conditions. B. Grass too high. Reduce tractor ground speed, reduce cutting width, or raise mower adjustment for the first pass, lower it for the second pass. C. Bag full. Empty. D. Buildup of cut grass in mower or adapter. Clean thoroughly. E. Engine speed too slow. Run $\frac{3}{4}$ to full.
3. Vacuum collector blower vibrates abnormally.	<ul style="list-style-type: none"> A. Dirt built up on blower fan blades. Remove blower cone to expose fan then clean and remount blower cone. B. See your dealer.

Specifications

HOSES	Wire Reinforced Urethane
BLOWER ASSEMBLY	Cast Aluminum Housing with Rotating Alloyed Aluminum Blades on Engine PTO
CAPACITY	Accepts 12 Bushels
POWER SOURCE	4 H.P. Briggs & Stratton Engine
OVERALL DIMENSIONS	Width (895.35 mm) 35 $\frac{1}{4}$ " (Less Blower Elbow; Bottom Hose and Discharge Adaptor)
	Height (1422.4 mm) 56" (Approximate from Ground.)
	Length (793.75) 31 $\frac{1}{4}$ " (From Center Hole of Tractor Draw Bar.)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

