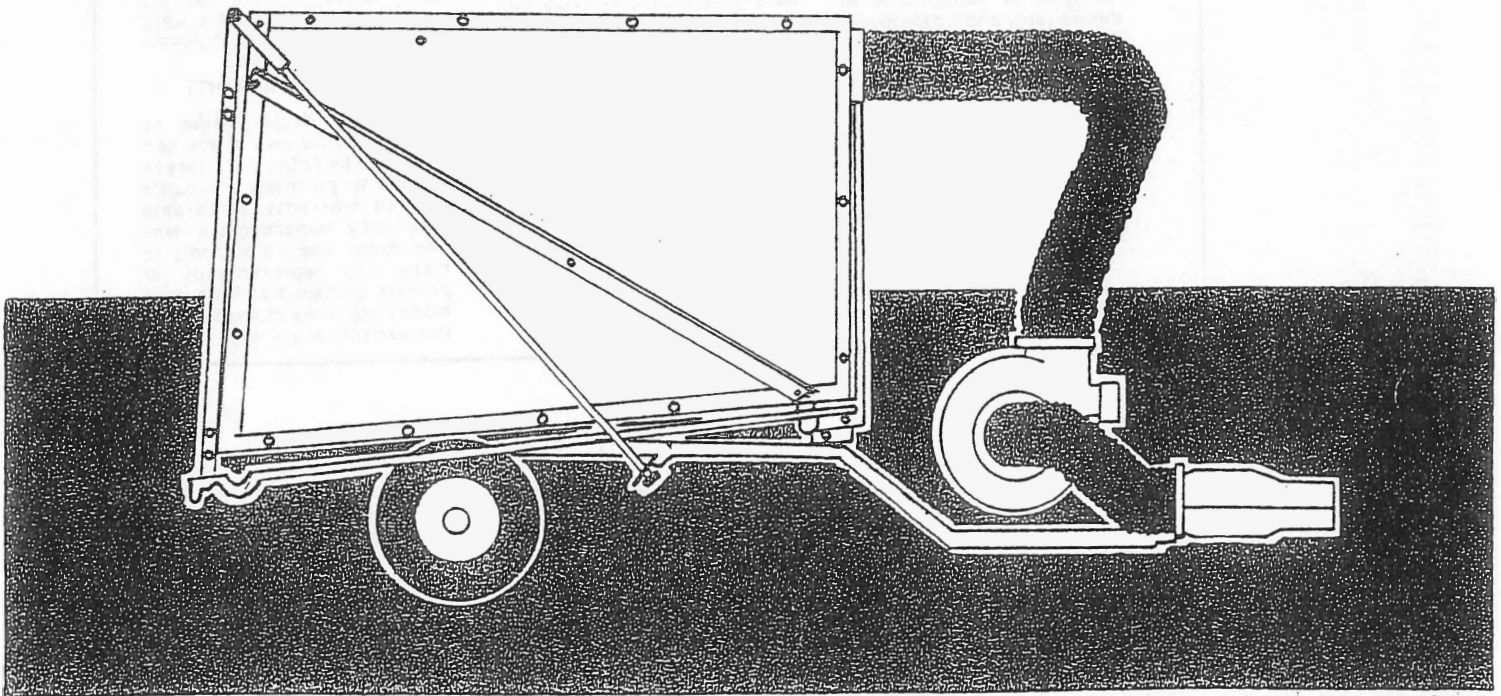


PeCo

OWNERS MANUAL

For Lawn Vac Model 693601 - 900 Series Briggs & Stratton Engine
693602 - 6.5 hp Briggs & Stratton Vanguard Engine



P# Q0097

Congratulations

Congratulations on your purchase of a PeCo product. It has been designed, engineered and manufactured to give you dependability and performance. Should you experience any problem you cannot easily remedy, please contact PeCo, Inc. They have competent, well trained technicians and the proper tools and parts to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble, operate and maintain your attachment properly. Always observe the Safety Instructions.

PeCo Limited Warranty For New Products

A. WHAT IS WARRANTED?

PeCo extends the following warranties to the original purchaser of each new PeCo consumer product subject to the following limitations:

1. PRODUCT WARRANTY.

Any part of any consumer product, which is defective in material or workmanship as delivered to the purchaser will be repaired or replaced, as PeCo elects, without charge for parts or labor, if the defect appears within 12 months from the date of delivery of the product to the original purchaser. **ALL DEFECTIVE PARTS MUST BE RETURNED TO PECO FOR INSPECTION TO DETERMINE VALIDITY OF WARRANTY CLAIMS.** Freight and mailing charges will be borne by the customer.

PARTS REPLACED DURING WARRANTY.

Any new PeCo part which is furnished in performance of this warranty and is defective in material or workmanship as delivered to the purchaser will be repaired or replaced, as PeCo elects, without charge if the defect appears within 90 days from the date of installation of such part or before the expiration of the original warranty period, whichever is later.

B. SECURING WARRANTY ADJUSTMENTS.

Damaged or broken parts other than engines or batteries, must be returned to PeCo, Inc., P.O. Box 1197, Arden, NC 28704, before any warranty adjustment can be authorized. At the time of requesting warranty adjustment, the purchaser must present evidence of the date of delivery of the product. The purchaser shall pay any charge for transporting the product to and from Arden, N.C.

C. ITEMS NOT COVERED BY PECO WARRANTY.

Engines and batteries attached to PeCo products are covered under a separate warranty by the respective manufacturer.

D. UNAPPROVED ALTERATION OR MODIFICATION.

All obligations of PeCo, Inc. under this warranty shall be terminated if products are altered or modified in ways not approved by PeCo, Inc.

E. ACCIDENTS AND NORMAL MAINTENANCE.

The warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear, accident, improper use or abuse of products. The cost of normal maintenance and normal replacement of service items such as belts, cutting blades, hoses, etc., which are not defective shall be paid for by the purchaser.

F. NO REPRESENTATIONS - ADDITIONAL WARRANTIES.

Neither PeCo, Inc. nor any company affiliated with it makes any warranties, representations or promises as to the quality of performance of its products other than those set forth herein. **Except as described above, PeCo, Inc. makes no other warranties AND SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY.**

G. ANY MACHINE USED FOR RENTAL OR COMMERCIAL PURPOSES ARE GUARANTEED FOR 45 DAYS FROM DATE OF ORIGINAL SALE ONLY.

H. REMEDIED EXCLUSIVE.

THE ONLY REMEDIES THE PURCHASER HAS IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON PECO, INC. CONSUMER PRODUCTS, ARE THOSE SET FORTH ABOVE. IN NO EVENT WILL PECO BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

I. NO DEALER WARRANTY.

The selling dealer makes no warranty on his own or any item warranted by PeCo, Inc. unless he delivers to purchaser a separate written warranty certificate specifically warranting the item. The dealer has no authority to make any representation or promise on behalf of PeCo or to modify the terms of limitations of this warranty in any way.

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NOTE: Read the Owners Manual before you assemble your PeCo vac.

SAFETY INSTRUCTIONS

Recommended by Outdoor Power Equipment Institute

WARNING TO PURCHASERS OF INTERNAL COMBUSTION ENGINE EQUIPPED MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA:

The equipment which you have purchased does not have a spark arrester muffler. If this equipment is to be used on any forest covered and brush covered land or grass covered un-improved land in the state of California, the law required that a spark arrester muffler be installed and be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

1. Read the owner's manual carefully and familiarize yourself with the proper use of your attachment. Do not allow anyone who is not acquainted with the Safety Instructions to use your attachment.
2. Know the controls and how to stop quickly. READ THE OWNER'S MANUAL.
3. Do not allow children to operate the vehicle. Do not allow adults to operate it without proper instruction.
4. Be especially watchful of children and pets darting into the area while operating.
5. Keep your eyes and mind on your tractor while mowing or operating your attachment. Don't let others distract you.
6. Do not attempt to operate your tractor or mower when not in the drivers seat.
7. Always stop Vac engine when emptying the container. This will prevent grass clippings or debris from being blown in your eyes.
8. Stop tractor and vac engines and remove spark plug wire before removing or replacing hose, boot, blower cone or performing any maintenance.
9. Mow up and down the face of slopes (not steeper than 10°); never across the face of the slope.
10. It is recommended that the container be kept only half full when negotiating any slopes. Start mowing on slopes when the container is empty.
11. Inspect your lawn and remove any foreign objects before mowing. Never deliberately run mower across any foreign objects.

WARNING

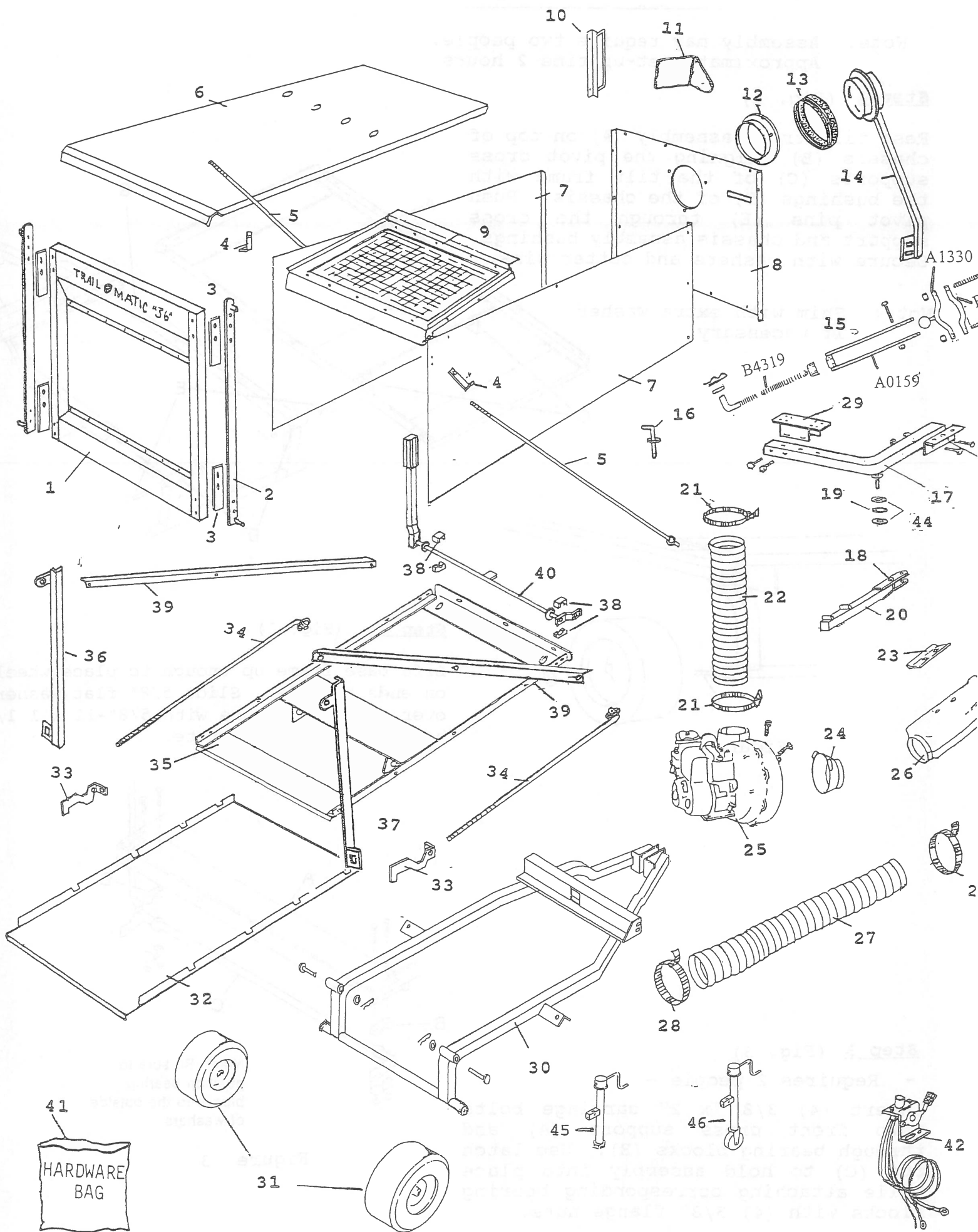


This symbol marks important instructions relating to your personal safety. To avoid the possibility of injury, read and follow such instructions carefully.

Parts List

PECC

Ref. No.	Part No.	Description	Qty.
1	A0949	Door Assembly	1
2	A0474	Door Hinge Rod Assembly	2
3	B2377	Hinge Support Plate	4
4	B2268	Pivot Rod Strap	2
5	A0478	Door Pivot Rod Assembly	2
6	C0002	Box Top	1
7	C0001	Box Side (left or right)	2
8	C1181	Box Front Panel	1
9	A0469	Screen Frame Assembly	1
10	A0372	Door Handle Assembly	1
11	C1184	Fill Gage Plate	1
12	E8003	Inlet Flange 7"	1
13	J0527	Inlet Seal	1
14	A0246	Upright Assembly	1
15	A0480	Engine Stay Assembly	1
16	A0342	Hitch Pin	1
17	A0242	Engine Support Arm Assembly	1
18	N0403	Bronze Bushing	2
19	N5001	Thrust Washer Bearing	1
20	A0380	Tongue Assembly	1
21	J6011	Hose Clamp 6"	4
22	F1008	Flex Hose 6" x 42"	1
23	A0850	Boot Clamp Kit	1
24	----	Cone	1
25	----	Engine/Blower/Blade Assembly	1
	D4003	5 HP Tecumseh	
	D4002	5.5 HP Briggs & Stratton	
	D4004	5 HP Tecumseh electric start	
	E4052A	Blower Housing	
	A0640	Impeller--4 blade	
26	-----	Boot (must specify deck size)	1
27	-----	Flex Hose Lower (must specify diameter)	1
28	-----	Hose Clamp lower hose (must specify diameter)	2
29	A0243	Engine Mount Assembly	1
30	A0396	Base Frame Assembly	1
31	H1011	Wheel-18 x 8.5 x 8	2
32	C1179	Box Bottom	1
33	B1418	Latch Hooks	2
34	A0475	Latch Rod Assembly	2
35	A0132	Box Frame Assembly	1
36	A0157	Door Rail Hitch-left hand	1
37	A0158	Door Rail Hitch-right hand	1
38	C7001	Latch Bearing Block	4
39	B5263	Box Side Support Rail	2
40	A0477	Latch Assembly	1
41	A08167	Hardware Bag	1
42		Electric Start Controls (optional)	
43	B2285	Engine Stay Plate	1
44	K9706	Flat Washer 1"	2
45	006571	Jack Stand less wheel (optional)	
46	006572	Jack Stand with wheel (optional)	



Note: Assembly may require two people.
Approximate set-up time 2 hours.

Step 1 (Fig. 1)

Rest tilt frame assembly (A) on top of chassis (B) aligning the pivot cross supports (C) of the tilt frame with the bushings (D) of the chassis. Push pivot pins (E) through the cross support and chassis assembly bushings. Secure with washers and cotter pins.

Note: Shim with extra washer if necessary!

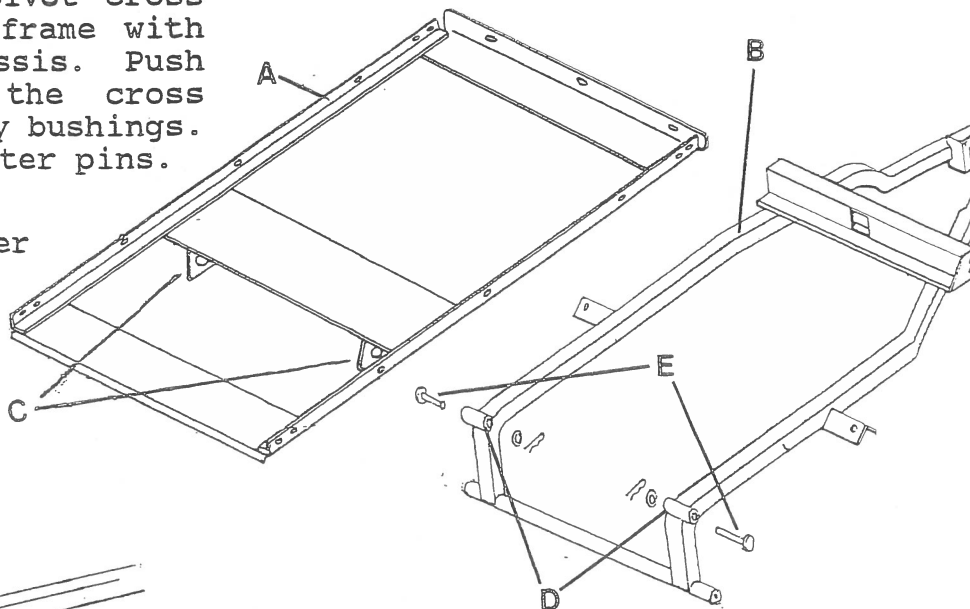


Figure 1

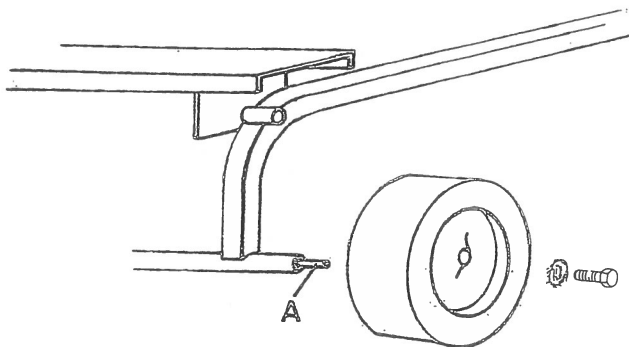
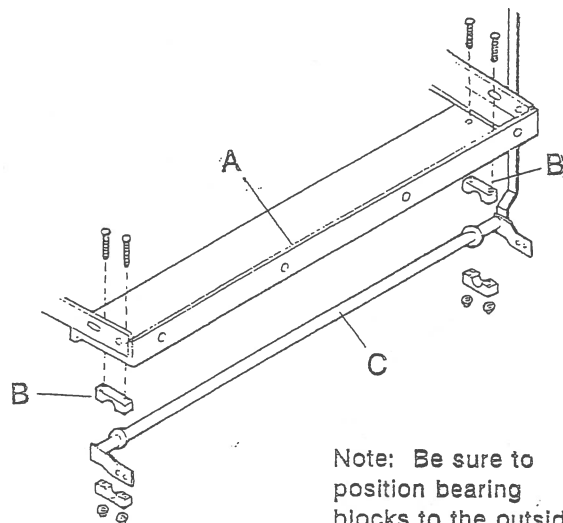


Figure 2

Step 2 (Fig. 2)

Lift base frame up enough to place wheels on ends of axle. Slide 5/8" flat washer over axle and secure with 5/8"-11 x 1 1/4 hex bolt with fiber-tite.



Note: Be sure to position bearing blocks to the outside of washers

Figure 3

Step 3 (Fig. 3)

- Requires 2 people -

Insert (4) 3/8" x 2" carriage bolts into front cross support (A) and through bearing blocks (B). Use latch rod (C) to hold assembly into place while attaching corresponding bearing blocks with (4) 3/8" flange nuts.

Step 4 (Fig. 4)

Lay the bottom aluminum panel (with notches) on top of the tilt box frame assembly. Slide forward leaving no gap at the front. Align notches in panel with slots in frame.

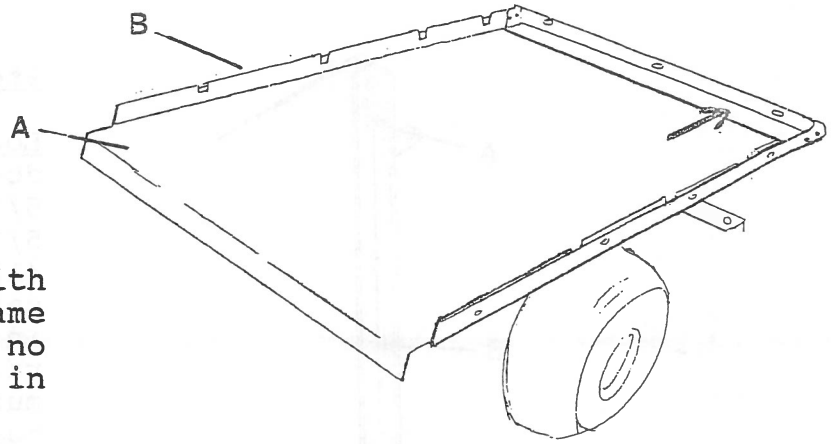


Figure 4

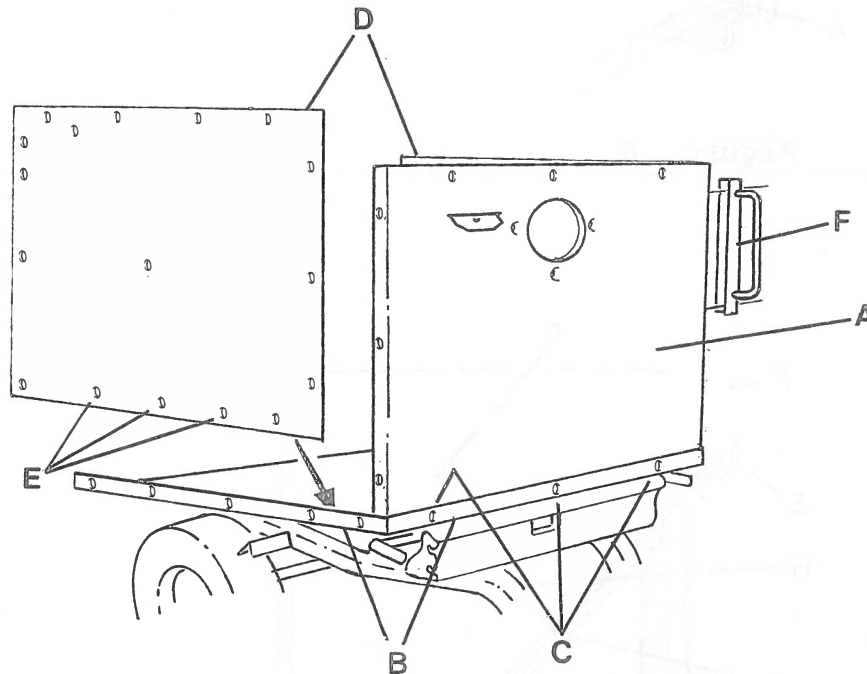


Figure 5

Step 5 (Fig. 5)

Loosely attach box front panel (A) inside of the tilt box frame and box bottom panel (B) by securing the 3 center holes (C) to the aligning slots in the tilt box frame with three 1/4" x 1/2" carriage bolts and three 1/4" flange nuts.

Stand the side panels (D) up against the inside of tilt box frame (B) and up against the inside of box front panel (A). Secure loosely the three center holes (E) to the aligning slots in the tilt box frame with three 5/16" x 3/4" carriage bolts and three 5/16" flange nuts.

Before securing the right side (as viewed from the hitch), put the dump handle (F) in place, align the top two holes and secure with the carriage bolts and flange nuts.

NOTE: All bolts should be installed with heads on the inside of the box.

Step 8 (Fig. 8)

First, place (4) large clips into the slots on the back of the screen frame assembly, with the smooth side of the clip facing up. (See Inset.) Remove the flange nuts and carriage bolts which attach the side rails and the door rails at the top two holes (A). Place screen frame assembly (B) on the inside of the side panels (C). Replace the carriage bolts and the flange nuts loosely, reattaching the side rail and door rail on each side. From center side hole (D) attach screen frame assembly (B) to hole (E) on side panels (C) using (1) 1/4" x 5/8" carriage bolt and (1) 1/4" flange nut for each side.

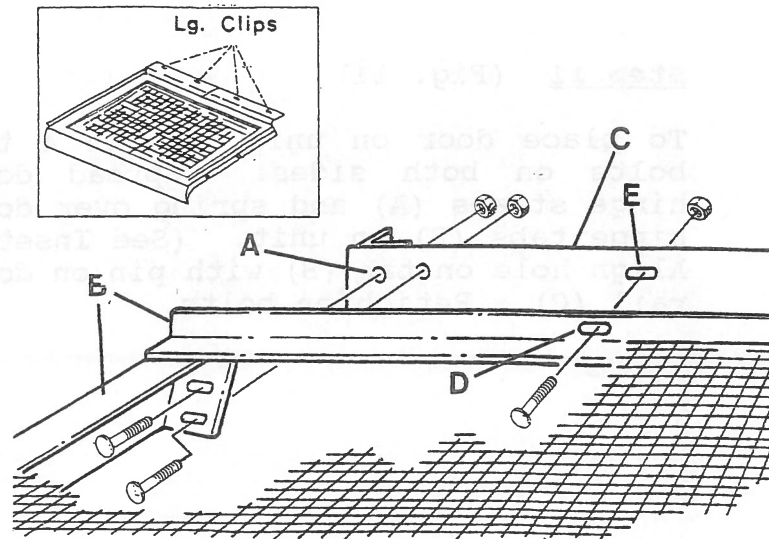
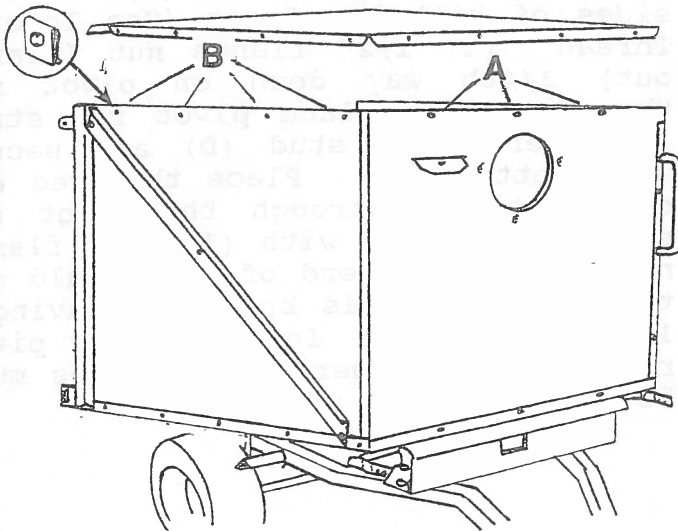


Figure 8

Step 9 (Fig. 9)

Place three small tinnerman clips along top edge of box front panel at holes (A), flat side of clip faces out. Place (8) small clips along top edges of box side panels at holes (B), again with flat side of clips facing out. You will need to loosen the flange nuts in the rear of unit where the side rails, door rails, screen frame and side panels attach. The top panel edge will need to be positioned against the outside of the side panels. Re-attach after positioning. Secure with eleven (11) tinnerman screws all around. Tighten all bolts.



Step 10 (Fig. 10)

Align the slots in the top panel (A) to the clips over the holes in screen frame assembly using a screwdriver. Secure with (4) tinnerman screws.

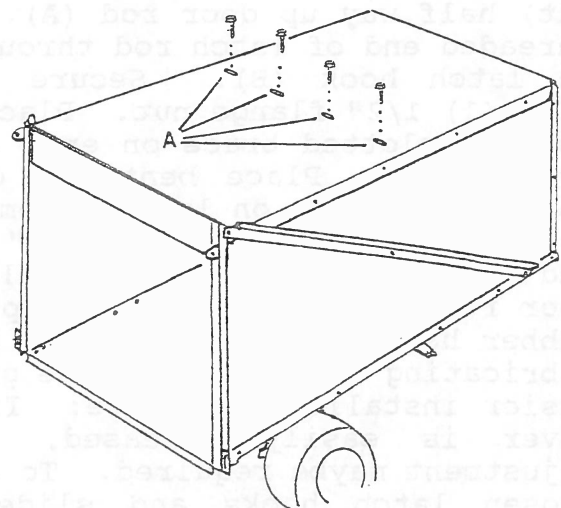


Figure 10

Step 11 (Fig. 11)

To place door on unit, loosen 4 top bolts on both sides. Spread door hinge straps (A) and spring over door hinge tabs (B) on unit. (See Inset.) Align hole on tab (B) with pin on door rail (C). Retighten bolts.

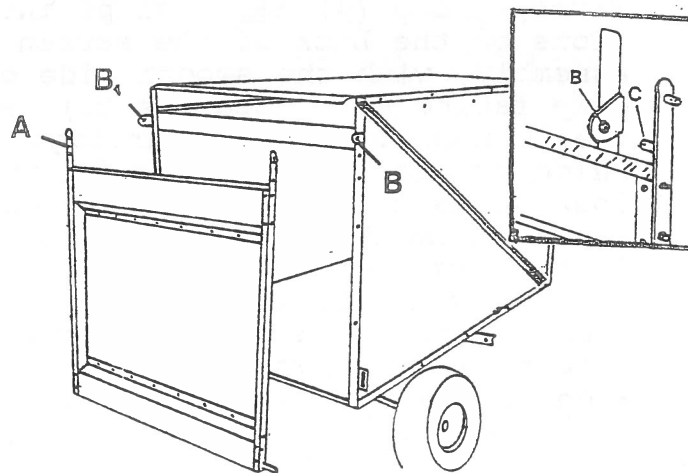


Figure 11

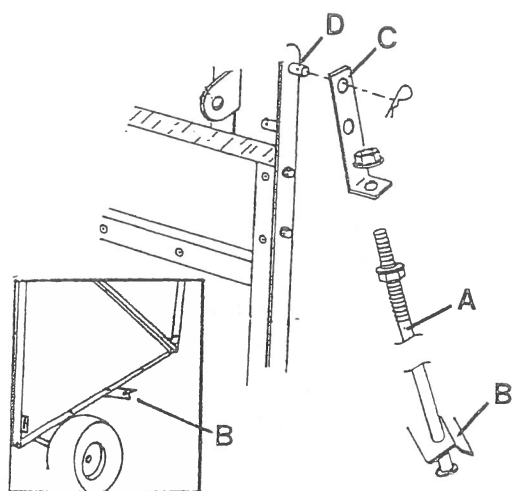


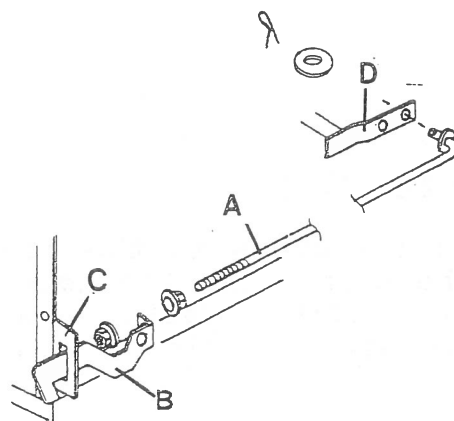
Figure 12

Step 12 (Fig. 12)

Tilt unit up and slide pivot rods (A) up through extended tabs (B) at outer sides of tilt box frame (See Inset). Thread (1) 1/2" flange nut (flange out) 3/4th way down on pivot rod thread. Next place pivot rod strap (C) over first stud (D) and secure with cotter pin. Place threaded end of pivot rod through the pivot rod strap and secure with (1) 1/2" flange nut. Washer on end of rod should not touch side chassis brackets leaving a 1/2" to 1" gap. Install other pivot rod in same manner. Both sides must be even.

Step 13 (Fig. 13)

Thread (1) 1/2" flange nut (flange out) half way up door rod (A). Place threaded end of latch rod through hole in latch hook (B). Secure loosely with (1) 1/2" flange nut. Place latch hook to slotted brace on ends of side frames (C). Place bent end of door rod to last hole on latch assembly tab (D). Secure with a (1) 1/2" washer and (1) hairpin cotter. Install other door rod in same manner. Slip yellow rubber handle grip over latch handle, lubricating the inside of the grip for easier installation. Note: If latch lever is easily released, further adjustment maybe required. To adjust, loosen latch hooks and slide hooks back toward front of box until handle is snug in lock position.



Step 14 (Fig. 14)

Place inlet ring (A) in place over hole in front panel and align holes. Secure with (3) tinnerman screws and (3) flat nuts. Place the foam strip (B) flat against inlet collar (C) (See Inset) (The strip will be more flexible and easier to wrap when adhesive strip cover is peeled away). Wrap the entire strip around the collar. Align holes in upright assembly (D) to plate on side base frame box support (E). Secure with (2) $3/8"$ x 1" carriage bolts and (2) $3/8"$ flange nuts. Tighten bolts after aligning upright collar with inlet ring.

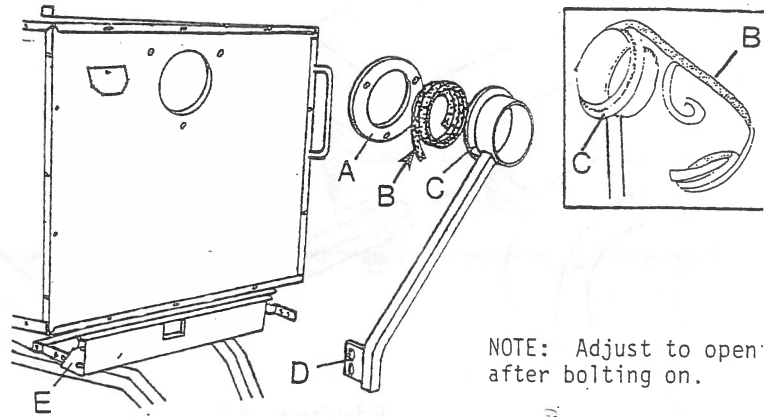
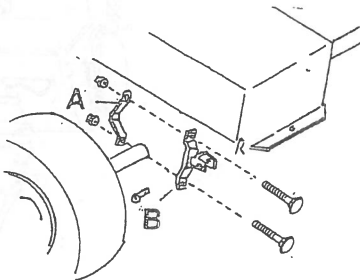


Figure 14

NOTE: Adjust to open after bolting on.

Figure 15



Step 15 (Fig. 15)

Place axle clamp (A) to tractor axle. Place clamp (B) to other side and secure with (2) $3/8"$ x 4" carriage bolts and (2) $3/8"$ flange nuts.

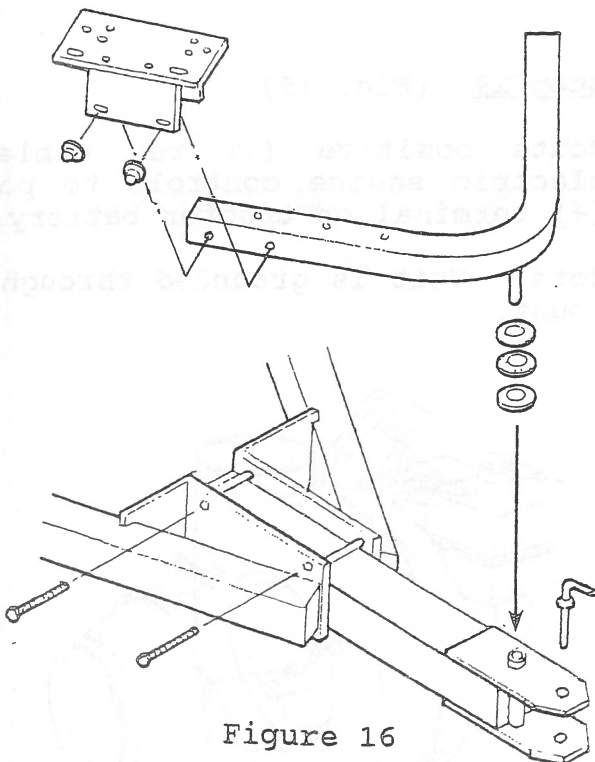


Figure 16

Step 16 (Fig. 16)

Attach tongue assembly to base frame with (3) $1/2"$ x $3-1/2"$ hex bolts and (3) $1/2"$ flange nuts. Install engine support arm with (1) 1" bronze thrust washer between (2) 1" flat steel washers. Attach engine stay plate to support arm with (2) $3/8"$ x 3" hex bolts and (2) $3/8"$ flange nuts. Attach ball clevis assembly to engine stay plate with hairpin cotter and attach the other end to mower's axle (as shown). Attach engine mount to engine support arm with (2) $3/8"$ x 3" hex bolts and (2) $3/8"$ flange nuts.

Note: Engine mount is for both left hand and right hand discharge mower decks.

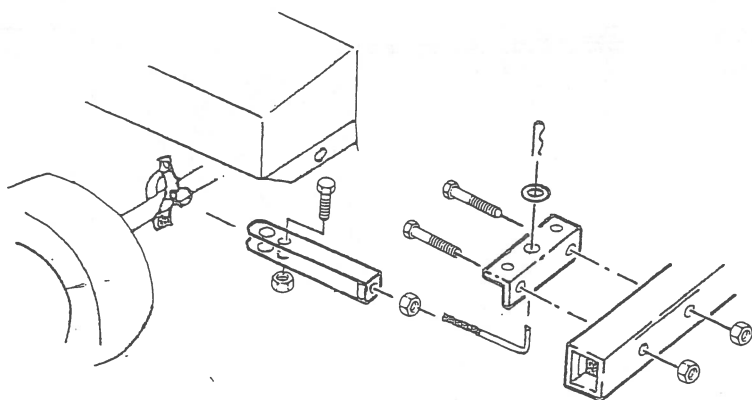


Figure 17

Step 18 (Fig. 18)

Secure engine on engine mount plate with (4) 5/16" x 1-1/2" hex bolts and (4) 5/16" flange nuts.

CAUTION: Failure to keep lock ring and muffler nipple tight may result in engine damage. Failure to keep impeller bolt tight may result in either engine damage, housing damage, impeller damage, or all of the above. CHECK BEFORE EVERY USE!

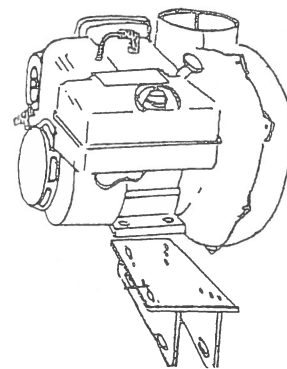


Figure 18

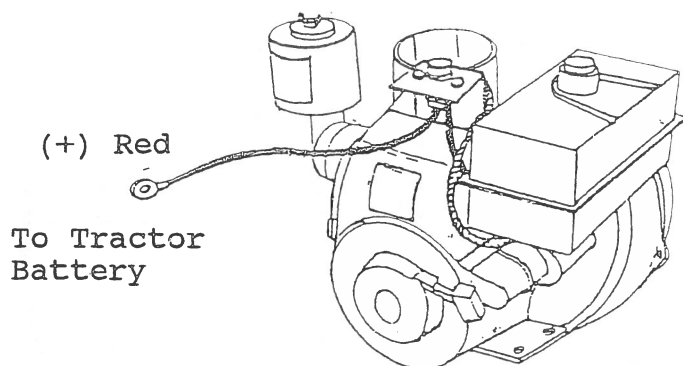


Figure 19

Step 20 (Fig. 20)

Place blower cone (A) to blower assembly (B) as shown. Position cone so that bottom edge rests on raised tab at front of blower. Ears on cone should fit underneath the two threaded bosses on blower face. Secure with (2) 5/16" x 2" all thread hex bolts.

Step 17 (Fig. 17)

Place hole of ball clevis on joint (A) and secure with (1) 3/2-1/4" and (1) 3/8" nyloc nut. Thread end of rod into nut (B) on other of ball clevis and secure. Insert bent end of rod up into hole of engine stay plate (C). Secure with (1) flat washer and (1) hairpin clip.

Note: On tractors equipped with exposed rotating axles, or axles far forward to attach to, use straight end of ball clevis to weld 5" of end of tractor frame and 1" with engine mount arm. It may be necessary to drill a 17/32" hole for mounting.

Step 19 (Fig. 19)

Route positive (+) red cable for electric engine controls to positive (+) terminal on tractor battery.

Note: Unit is grounded through engine mount.

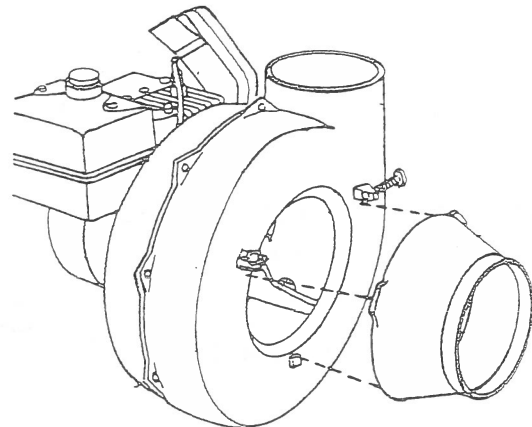


Figure 20

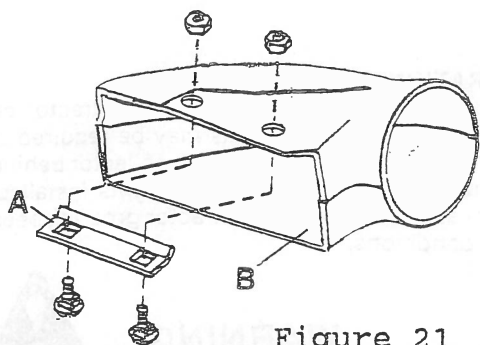


Figure 21

Step 21 (Fig. 21)

Attach boot clamp (A) to boot (B) using (2) $\frac{3}{8}$ " x $1\frac{1}{4}$ " hex bolts and (2) $\frac{3}{8}$ " flange nuts. DO NOT TIGHTEN.

Step 22 (Fig. 22)

Place boot (A) with clamp assembled over end of mower deck (B). Top of mower deck fits between clamp and top of boot. Push boot fully onto deck and forward until bolts are snug against deck lip. Tighten nuts.

Note: It is not necessary to drill any holes in the mower deck to fit the boot to mower!

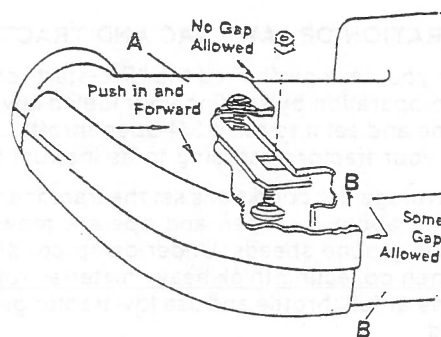


Figure 22

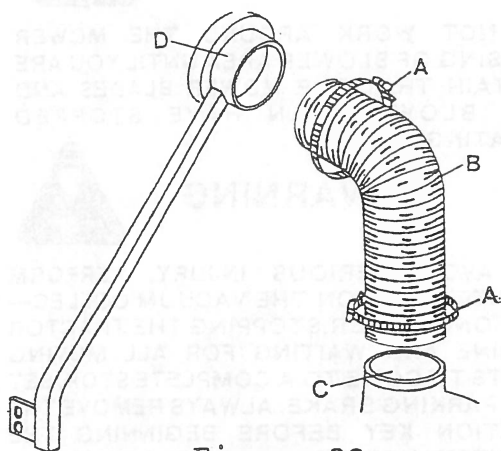


Figure 23

Step 23 (Fig. 23)

Place hose clamp (A) over each end of flex hose (B). Attach one end of hose to blower housing discharge (C). Tighten clamp. Slide other end of hose over inlet ring (D).

Step 24 (Fig. 24)

Place hose clamp (A) over each end of flex hose (B). Attach one end of hose to blower cone (C). Tighten clamp. Slide other end of hose over boot (D). Tighten clamp.

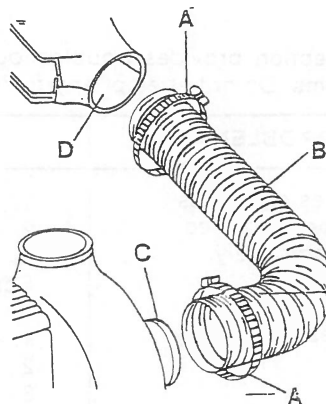


Figure 24

OPERATING INSTRUCTIONS

PRE-START CHECK LIST

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 your tractor manual 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.

OPERATION OF LAWN VAC AND TRACTOR

After you have performed the "Pre-start" check, begin operation by starting your fueled lawn vac engine and set it to run a 3/4 open throttle. Next start your tractor according to its instructions.

For average dry conditions set the tractor engine throttle about 3/4 open and operate mower at normal ground speeds. Under damp conditions or when collecting thick heavy material, run vac engine at full throttle and use low tractor ground speed.

In extremely heavy or tall grass it may be necessary to cut only half the width of the mower deck or raise the cutting height on the first pass to prevent clogging of hoses. Check them and the blower housing periodically for blockage.

TROUBLESHOOTING

TROUBLESHOOTING PROCEDURES

Troubleshooting procedures are provided in the chart below. 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 problem.

OPERATION ON SLOPES

Always use caution when operating tractor on slopes. Front wheel weights may be required to offset the weight of the vacuum collector behind the tractor. Even with wheel weights installed, avoid fast starts and adjust tractor ground speed to fit conditions.

WARNING



FOR YOUR PERSONAL SAFETY, ALWAYS MOW UP AND DOWN THE FACE OF SLOPES, AND NEVER ACROSS THE FACE. NEVER ATTEMPT TO MOW EXCESSIVELY STEEP SLOPES AND USE CAUTION WHEN TURNING ON ANY SLOPE.

WARNING



NEVER OPERATE THE MOWER UNLESS THE DISCHARGE GUARD AND EITHER THE DEFLECTOR ASSEMBLY OR THE VACUUM COLLECTOR ADAPTER ARE FASTENED SECURELY IN PLACE.

WARNING



DO NOT WORK AROUND THE MOWER HOUSING OF BLOWER AREA UNTIL YOU ARE CERTAIN THAT THE MOWER BLADES AND THE BLOWER FAN HAVE STOPPED ROTATING.

WARNING



TO AVOID SERIOUS INJURY, PERFORM MAINTENANCE ON THE VACUUM COLLECTOR ONLY AFTER STOPPING THE 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 ACCIDENTALLY STARTING OF THE ENGINE.

This section provides troubleshooting and repair instructions for the more common and easily corrected problems. Do not attempt any major repairs without first contracting your dealer.

PROBLEM	CAUSE	SOLUTION
Leaves and grass not being picked up completely.	1. Engine speed too slow. 2. Ground speed too fast. 3. Hose plugged. Screen blocked with dried grass.	A. Run at 3/4 to full throttle. B. Use lower gear. C. Check and tighten all hoses. D. Unplug hose.
Hoses plug easily.	1. Grass or leaves too wet. 2. Grass too high. 3. Container full. 4. Grass buildup in boot or under mower deck.	A. Wait for drier conditions. B. Reduce tractor ground speed. C. Empty. D. Clean thoroughly.
Vacuum collector blower vibrates excessively.	1. Dirt buildup on blower blades. 2. Bent or chipped blade.	A. Remove cone and clean blades. B. Contact your dealer.

NORMAL CARE

Your Lawn Vac 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 Lawn Vac.

SCHEDULED CARE

A schedule for routine care of the vacuum collector is provided. 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 or estimate the total operating time.

STORAGE

Never store your Lawn Vac with a full or partially filled container; decaying grass and leaves may constitute a fire hazard if left too long. Never leave your Vac exposed to the elements. While the metal parts are protected with a quality paint the engine and other unprotected parts may deteriorate if left exposed to rain or snow.

SCHEDULE	CARE REQUIRED
Before Each Use	Check engine oil Check all hose connections.
After Each Use	Clean collector hoses, and engine of all grass and dirt. Metal screen should be rinsed off.
Every 10 Hours	Check to be sure all screws, nuts, bolts, pins, etc. are present and secure.

PARTS INFORMATION

PeCo Lawn Vac owners should record the name and telephone number of their tractor dealer.

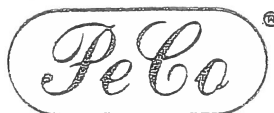
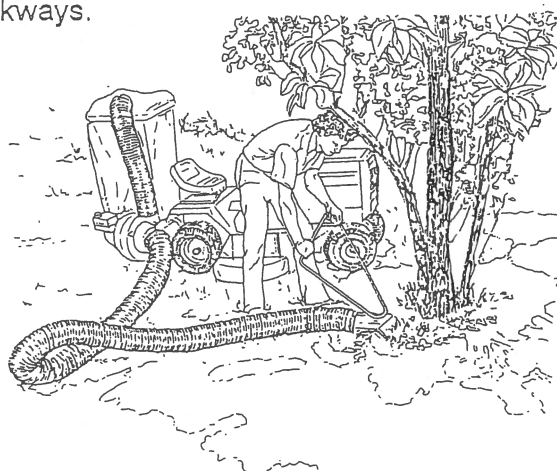
Your dealer will be happy to supply replacement parts, accessories and do any service or repairs to your lawn vac.

If your dealer has moved or closed his business you may contact PeCo directly for your part replacement. CALL TOLL FREE 1-800-438-5823. Direct mail order to PeCo, P.O. Box 1197, Arden, NC 28704.

Have the following information ready when placing your call: Lawn Vac Model No., Serial No., Part No. and a Description from parts list.

PECO WAND ATTACHMENT

Make your PeCo Lawn Vac the total lawn grooming tool, with the PeCo wand attachment. Now you can clean all those hard to reach places such as under bushes and shrubs, flower gardens, and walkways.



PeCo, Inc., Phone Toll Free 1-800-438-5823
P.O. Box 1197, Arden, NC 28704

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