

GRASS COLLECTION SYSTEM

OPERATOR'S MANUAL



Boss XL Series

Vac Model # 49621203

ASSEMBLY • OPERATION • MAINTENANCE

PECO GRASS COLLECTION SYSTEM TABLE OF CONTENTS

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Safety

- **1.** Read the operator'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 OPERATOR'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 unit while mowing or operating your attachment. Don't let others distract you.
- **6.** Do not attempt to operate your unit or mower when not in the driver's seat.
- **7.** Always stop unit when emptying the container.
- **8.** Stop unit, shut off deck attachment, set parking brake, shut off mower engine and remove spark plug wire before removing clogs, removing or replacing hose, boot, blower cone, or performing any maintenance.
- 9. Mow up and down the face of slopes (not steeper than 10 degrees); never up and down 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 the mower across any foreign object.
- **12.** Wear ear protection if the noise level is offensive.
- **13.** Wear eye protection to prevent debris from damaging your eyes.

SAFETY

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 deck boot or the blower area until you are certain that the mower blades and the blower impeller have stopped rotating.

WARNING! To avoid serious injury, perform maintenance on the vacuum collector; **ONLY AFTER STOPPING THE MOWER'S ENGINE AND WAITING FOR ALL MOVING PARTS TO COME TO A COMPLETE STOP.** Set the parking brake. Always remove the ignition key before beginning maintenance.

WARNING! For your own personal safety, **ALWAYS** mow **ACROSS** the face of slopes and **NEVER UP** and **DOWN** the face. **NEVER** attempt to mow excessively steep slopes, and use caution when turning on any slope.

Safety Alert Symbol



This Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!"

This symbol is used to call attention to safety precautions that Should be followed by the operator to avoid accidents. When you see this symbol, carefully read the message that follows and heed its advice. Failure to comply with safety precautions could result in death or serious bodily injury.

Safety Signs

The signal words **DANGER, WARNING,** and **CAUTION** are used on the equipment safety signs. These words are intended to alert the viewer to the existence and the degree of hazard seriousness.



This signal word indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

White letters on **RED**



This signal word indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

It may also be used to alert against unsafe practices.

Black letters on **ORANGE**



Black letters on YELLOW

This signal word indicates a potentially hazardous situation exist which, if not avoided, will result in minor or moderate injury.

It may also be used to alert against unsafe practices.

PECO LIMITED WARRANTY FOR NEW PRODUCTS

A. WHAT IS UNDER WARRANTY?

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 will be borne by the customer.

2. 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.

Call PECO for Return Authorization. Damaged or broken parts other than engines or batteries, must be returned to New PECO, Inc. 10 Walden Dr., 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 the product to and from Arden, NC.

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 New PECO, Inc. under this warranty shall be terminated if products are altered or modified in ways not approved by New 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, DISCLAIMER.

Neither New 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, New PECO, Inc. makes no other warranties **AND SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY.**

G. ANY MACHINE USED FOR RENTAL 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 New PECO, Inc. consumer products are set forth above. In no event will PECO be liable for special incidental or consequential damages.

1. NO SERVICE CENTER WARRANTY.

The selling Service Center makes no warranty on his own on any item warranted by New 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 this warranty in any way.

SECTION I INTRODUCTION AND DESCRIPTION

1-1 Introduction

Your grass collection system has been designed to give you a low maintenance, simple, and effective way to collect the grass clippings from your mower. This manual is provided to give you the necessary instructions to properly mount and operate the collection system on your mower. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety decal precautions on the machine and noted throughout the manual.

NOTE: all references made to right, left, front, rear, top or bottom are as viewed from the normal operator's position on the mower.

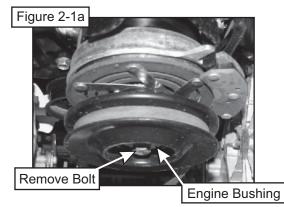
1-2 Description

The grass collection system is designed for turf maintenance where there is a need to collect the grass clippings as the mower cuts the turf. It is also used for picking up leaves and in pre-season and post-season clean-up. The blower, mounted on the right side of the unit, uses a belt and gearbox system from the engine PTO shaft. Drive train protection comes through belt slippage. The blower draws grass clippings from the discharge area of the cutter deck back to the 12 cubic foot aluminum box at the rear portion of the mower frame. The operator can engage the blower with a push of the over-center linkage on the right side of the unit. Once the container is full, the operator can easily push and raise the dump handle, opening the rear door on the container and pivoting the box to the ground. Once empty, the operator can easily lower and pull the dump handle, pivoting the box back into position and closing the door.

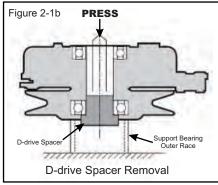
Section II INSTALLATION FOR USE

2-1 Preparation Of Mower

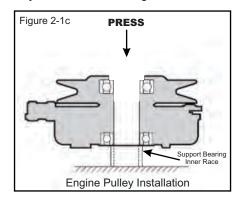
Remove deck drive belt from the clutch pulley (refer to your Country Clipper operator's manual). From the underside of the engine, disconnect the wiring harness attached to the electric clutch. Remove the bolt and electric clutch from the mower. Refer to Figure 2-1a.



Remove the D-drive spacer using an arbor press or equivalent. On removal, adjacent bearing OUTER race must be supported or bearing damage may occur. Refer to Figure 2-1b.



The engine pulley assembly must be installed using an arbor press or equivalent. Upon Installation, opposite bearing inner race must be supported or bearing damage may occur. Refer to Figure 2-1c.



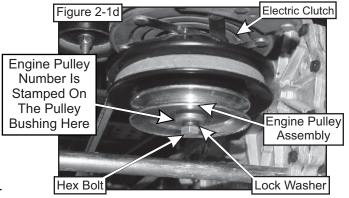
Kawasaki FX801V / 27HP Kohler / 29HP Kohler Use engine pulley assembly #25 P#(A1200), (1) 7/16" lock washer P#(K0140) and 7/16"-20 x 4-1/2" hex bolt

lock washer P#(K0140), and 7/16"-20 x 4-1/2" hex bolt P#(K0427).

Kawasaki FX1000V

Use engine pulley assembly #24 P#(A1176), (1) 7/16" lock washer P#(K0140), and 7/16"-20 x 4-1/2" hex bolt P#(K0427).

The added pulley will power the collection system. Note that the center of the hub that is extended, should be upward toward the engine (Figure 2-1d). Torque the bolt to 55 ft./lbs. Please inspect that lock washer is properly in place when the crankshaft bolt is fully tightened.



2-2 Lower Main Frame Bracket Installation

First, remove (2) existing top bolts 3/8"-16 x 1" FHCS and (2) 3/8"-16 nyloc nuts that secure the top rear engine guard bar. Also, remove the (2) existing 1/2"-13 x 2" FHCS and (2) 1/2"-13 nyloc nuts from the right side of the top and bottom rear engine guard bars. Next, remove the (1) existing 1/2"-13 x 2" FHCS and (1) 1/2"-13 nyloc nut from the left side of the top rear engine guard bar. Secure the Lower Main Frame Bracket P#(B0873) to the top engine guard bar using (2) 3/8"-16 x 1-1/4" HHCS P#(K1192) and (2) 3/8"-16 Ny-Flange locknuts P#(K2038). Refer to Figure 2-2a.

Secure the Left PTO Mount Plate P#(B0852) and Lower Main Frame Bracket to the top and bottom rear engine guard bars using (2) 1/2"-13 x 2-1/2" HHCS P#(K1235) and (2) 1/2"-13 Ny-Flange locknuts P#(K2012). Secure the left side of the main frame bracket to the top rear engine guard bar and

battery mount box, using (1) 1/2"-13 x 2-1/2" HHCS P#(K1235) and (1) 1/2"-13 Ny-Flange locknuts P#(K2012) as shown in Figure 2-2b.

See Page 7, Figure 2-2c for completed assembly image.

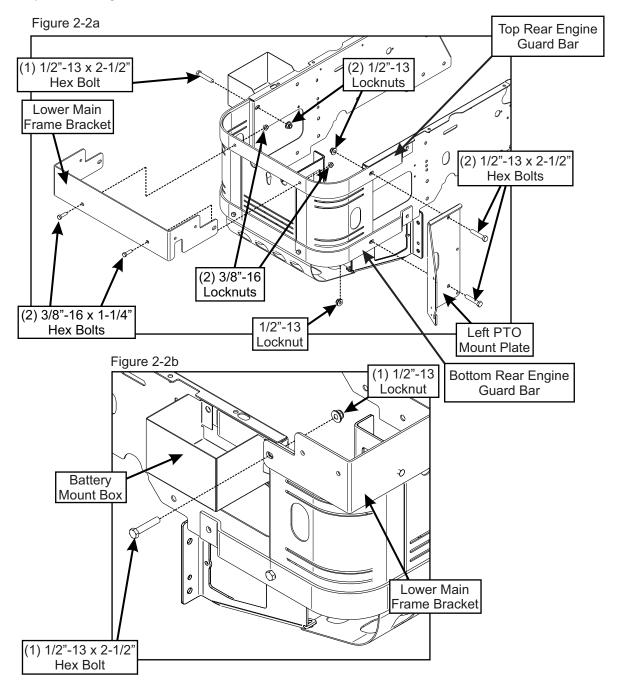
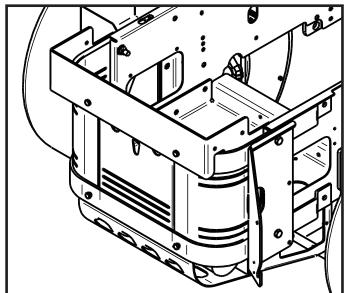
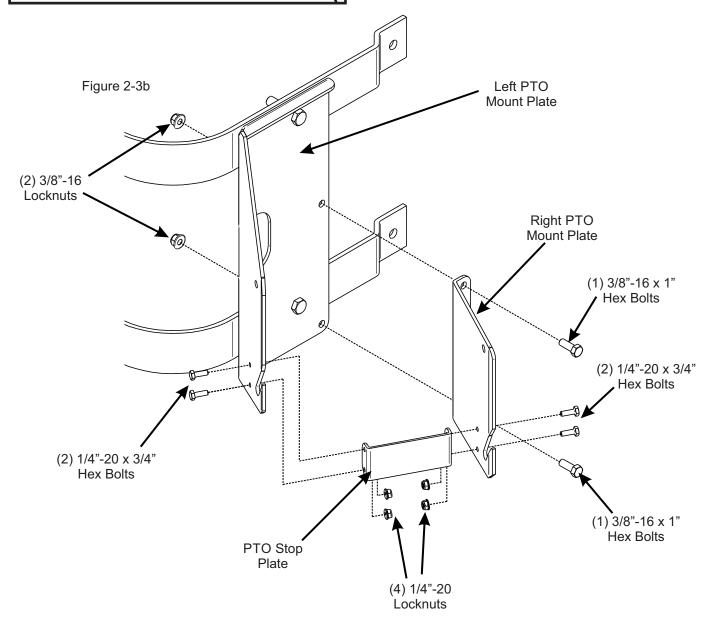


Figure 2-2c



2-3 PTO Mount Plate Components Installation

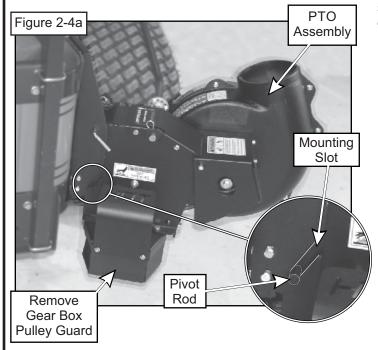
Secure the right PTO mount plate P#(B0854) to the left PTO mount plate, using (2) 3/8"-16 x 1" HHCS P#(K1191) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Do not tighten the hardware completely. Insert the PTO stop plate P#(B0736) between the left and right PTO mount plates and secure using (4) 1/4"-20 x 3/4" HHCS P#(K1222) and (4) 1/4"-20 nylon flange locknuts P#(K2014). Tighten all PTO component hardware at this time. Refer to Figure 2-3b.

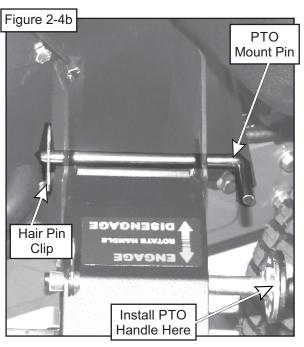


2-4 PTO Assembly Installation

To mount the PTO assembly, insert the pivot rod on the PTO assembly P#(A1950) into the mounting slots located on the left & right PTO mount plates (Figure 2-4a). Tilt the PTO assembly upward and insert the PTO mount pin P#(B0274) through the hole in the top of the right PTO mount plate assembly. Secure the PTO mount pin using 1/8" x 2-3/8" hair pin clip P#(K0086) as shown in Figure 2-4b.

<u>Note:</u> Remove the gearbox pulley guard in preparation for the belt installation. Refer to Figure 2-4a.



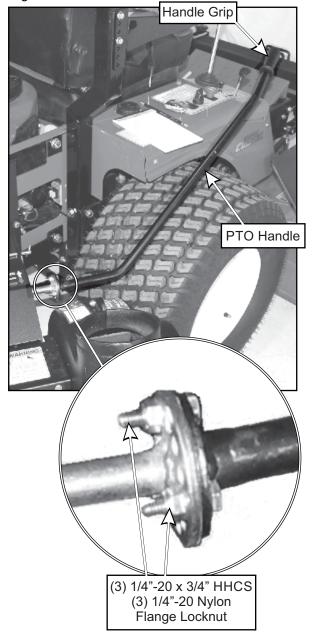


2-5 PTO Handle Installation

Attach the PTO handle P#(A1142) to the PTO assembly using (3) 1/4"-20 x 3/4" HHCS P#(K1222) and (3) 1/4"-20 nylon flange locknuts P#(K2014). Attach the handle grip P#(J0522) to the PTO handle. Refer to Figure 2-5.

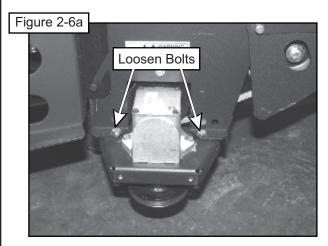
NOTE: The PTO Handle can be adjusted after performing Step 2-8 to achieve proper belt adjustment. To adjust the handle, remove (3) 1/4"-20 x 3/4" HHCS P#(K1222) and (3) 1/4"-20 nylon flange locknuts P#(K2014), rotate handle until positioned in the desired location (while aligning holes) and reattach. The bolts should be kept approximately 120 degrees apart to ensure proper fastening.

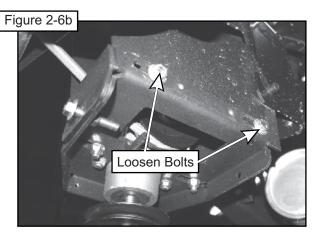
Figure 2-5



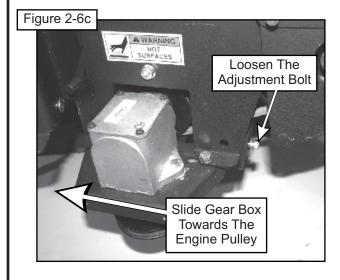
2-6 Belt Installation and Adjustment

Loosen the (4) bolts P#(K1191), (2) on each side, that secure the gear box assembly to the PTO assembly P#(A1950) (Figure 2-6a and 2-6b).

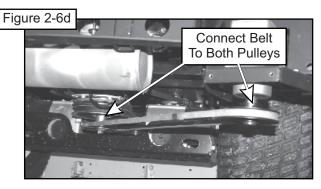




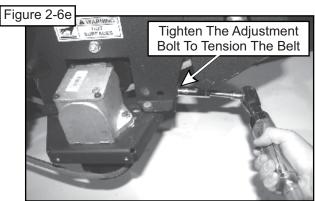
Loosen the adjustment bolt P#(K0348) until the gear box assembly is at its far left adjustment (the gear box is moved toward the mower's engine pulley). Refer to Figure 2-6c.



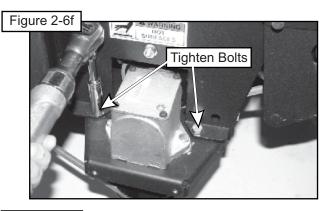
Connect the belt A57K P#(M0256) from the engine pulley to the lower gear box pulley (Figure 2-6d).

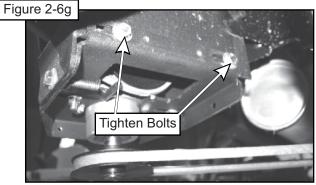


To tension the drive belt, turn the adjustment bolt clockwise (Figure 2-6e) until there is 1" of deflection, with 10-11 lbs. of pressure, at the center of the belt between the engine pulley and the gear box pulley.



Once the correct tension of the belt is achieved, tighten the (4) bolts that secure the gear box assembly. Refer to Figures 2-6f and 2-6g. Replace the belt guard and hardware that was removed in Section 2-4.





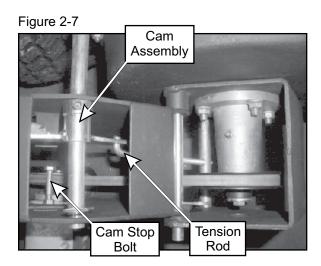
2-7 Cam Assembly Adjustment

The cam assembly P#(A0422), which controls the blower belt tension, comes from the factory pre-adjusted.

If the belt is too tight or becomes too loose, remove the hair pin clip P#(K0130) from the belt tension rod P#(K0326) and pull the "L" end of the rod out of it's hole in the cam assembly.

The tension rod may then be screwed out to tighten the belt or screwed in to loosen the belt. Replace the "L" end into the top hole in the cam and replace the hair pin clip.

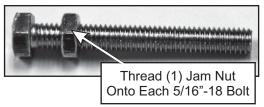
Adjust the cam stop bolt P#(K1159) to allow the cam to rotate slightly over center when the blower is engaged (Figure 2-7).



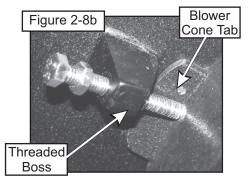
2-8 Blower Cone Installation

Thread (1) 5/16"-18 jam nut P#(K0120) onto each end of (2) 5/16"-18 x 2-1/2" HHCS P#(K0125) as shown in Figure 2-8a.

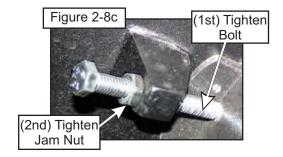
Figure 2-8a



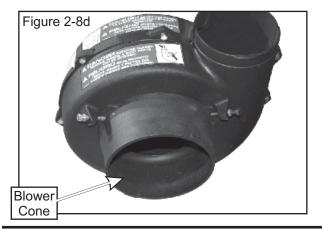
Now partially thread (1) bolt into each of the two threaded bosses located on the blower housing. Place blower cone so the two tabs line up with the bolts and tighten completely as shown in Figure 2-8b.



Once the (2) bolts are tight, tighten the jam nuts against the threaded boss as shown in Figure 2-8c.

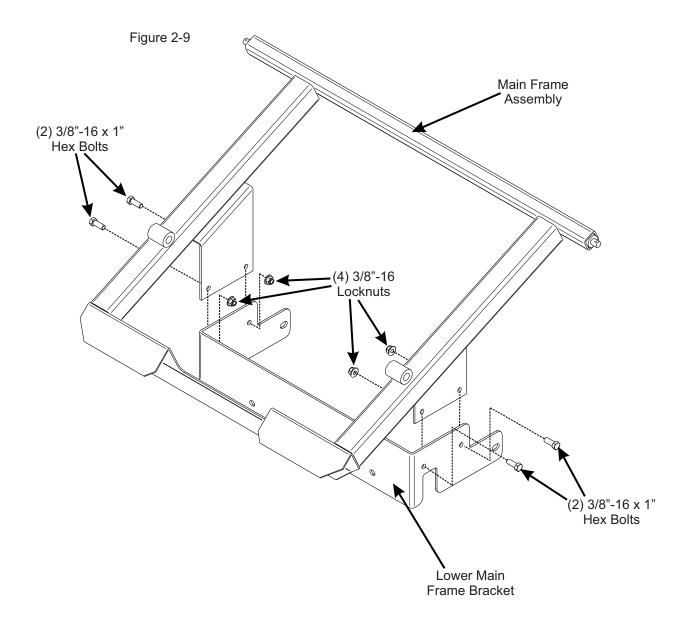


Refer to Figure 2-8d for proper blower cone installation reference.



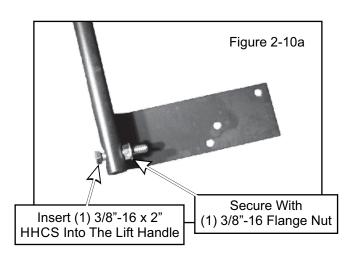
2-9 Main Frame Assembly Installation

Secure the main frame assembly P#(A0601) to the lower main frame bracket P#(B0873) using (4) 3/8"-16 x 1" HHCS P#(K1191) and (4) 3/8"-16 nylon flange locknuts P#(K2038). Refer to Figure 2-9.

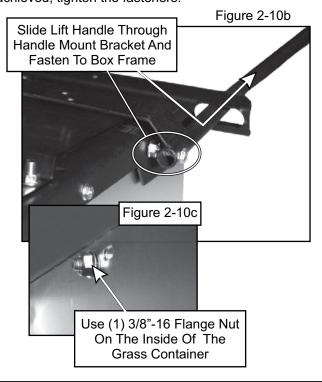


2-10 Lift Handle Installation

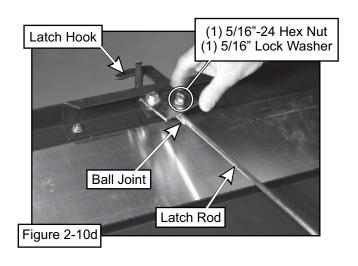
NOTE: Before continuing the lift handle installation, have someone assist you in turning the grass container upside down. Insert (1) 3/8"-16 x 2" HHCS P#(K1208) into the lift handle P#(A0273), and secure with (1) 3/8"-16 flange nut P#(K1215). Thread the flange nut onto the bolt upside down, as shown in Figure 2-10a. Do not tighten the nut fully at this time.



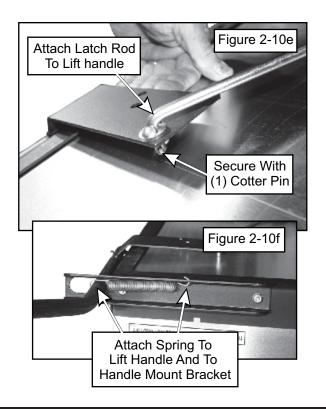
Slide the lift handle through the slot on the handle mount bracket. Insert the lift handle into the box frame as shown in Figure 2-10b, and secure using (1) 3/8"-16 flange nut P#(K1215) on the inside of the container as shown in Figure 2-10c. Now test the movement of the handle. It should have full-range of movement in the slot. If the handle does not have full-range of movement, adjust the 3/8"-16 flange nut from step 2-10a. Once achieved, tighten the fasteners.



Fasten the ball joint P#(K1442) to the end of the latch rod P#(A0620). Tighten the ball joint to approximately half way down the threads on the latch rod. Attach the ball joint to the latch hook as shown in Figure 2-10d, using (1) 5/16"-24 hex nut P#(K1444) and (1) 5/16" lock washer P#(K0043).

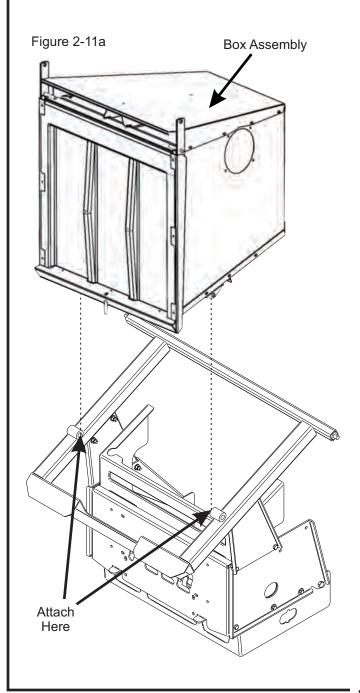


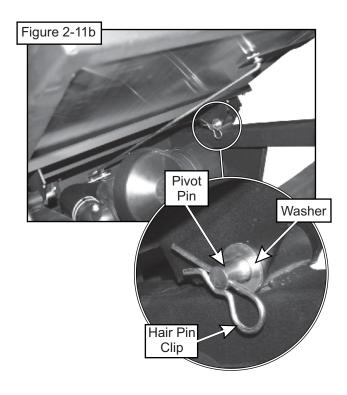
Attach the other end of the latch rod to the lift handle, as shown in Figure 2-10e. Attach one end of the spring P#(J0176) to the lift handle and the other end of the spring to the handle mount bracket as shown in Figure 2-10f. Adjust the ball joint up or down on the latch rod threads until the latch hook closes completely. After adjusting the latch hook, secure the latch rod to the lift handle using (1) cotter pin P#(K0094).



2-11 Aluminum Grass Container Installation

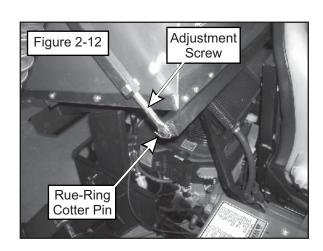
NOTE: It is recommended that (2) people assist in mounting the container. Lower the container onto the frame while inserting the pivot pins P#(K0172) through the holes. Insert the pins from the outside to the inside. Secure with (1) 5/8" washer P#(K0058) and (1) 5/32" x 2-5/8" hair pin clip P#(K0088) per pivot pin (Figure 2-11b). Reattach the bottom ends of the door opening linkages to the main frame by using (1) Rue-Ring cotter pin P#(K1437) per side. To test the functionality of the dump mechanism, pull the lift handle away from the unit, and lift upward. The door of the container should open and the box should pivot clockwise towards the ground.





2-12 Dump Mechanism Adjustment

The linkage may be adjusted in two places, at the adjusting screw P#(K1435) and the latch assembly items. See page 18 for visual clarification. To change the door closure tightness, thread the adjusting screw (Figure 2-12) in or out. To adjust the latch, change the length of the latch rod by threading the latch adjusting ball joint in or out. The latch hook pivot should be in the middle of the slot in the latch hook pivot plate. Slide the pivot back or forth and then re-tighten.



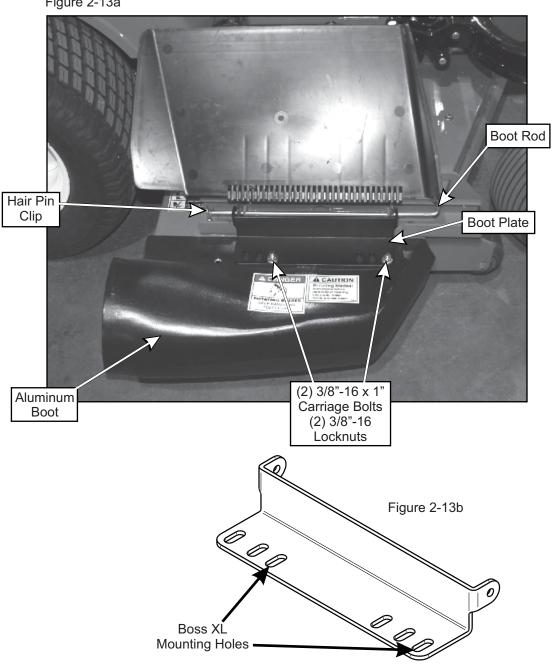
2-13 Boot Plate Installation

Secure the boot plate P#(B0820) to the aluminum boot P#(E1902) using (2) 3/8"-16 x 1" carriage bolts P#(K1182) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Insert the carriage bolts from the inside of the boot so the threads are on the top of the boot. This will prevent grass clippings from collecting on the threads. Leave the hardware loose until the boot plate has been attached to the mower deck. Refer to Figure 2 -13a and 2-13b for reference.

2-14 Boot To Mower Deck Installation

Remove the hardware from the grass deflector and insert (1) boot rod P#(B4331) into the grass deflector mounting holes as shown in Figure 2-13a. Secure the boot rod using (1) hair pin clip P#(K0099). With the carriage bolts from Section 2-13a still loose, adjust the position of the boot so that there is no gap between the mower deck and the boot. Tighten the hardware at this

Figure 2-13a



2-16 Length Of Hose Adjustment

The hoses in steps 2-17 and 2-18 must be cut to fit your machine. Follow steps 2-17 and 2-18. Do not cut the hoses until you have tried to fit them on your machine. Remember that the hoses need to be long enough to allow for the opening and closing of the collection system, PTO blower housing engagement, as well as allowing ample clamping surface between each component.

2-17 Upper Hose Installation

Slide a pre-assembled hose clamp P#(J0060) onto both ends of the 6" upper hose (Figure 2-19). Slide one end of the 6" hose onto the plastic inlet P#(V1054). Make sure there is about a two-inch overlap between the hose end and the hose ring. Proceed to slide the opposite end of the 6" hose onto the outlet of the blower assembly. See (Figure 2-19) for details. Make sure both ends of the hose are clearly attached to the inlet and the blower assembly inlet. Tighten the hose clamps.

2-18 Lower Hose To Blower Cone Installation

Slide a hose clamp P#(J0080) over both ends of the lower hose. Then proceed to slide the lower hose onto the blower cone. Tighten the hose clamp. Refer to Figure 2-19.

2-19 Lower Hose To Boot Installation

Take the unattached end of the lower hose and slide it over the circular end of the boot. Use the lower hose clamp to secure the hose to the boot (Figure 2-19). Tip: Before securing clamp rotate hose counter-clockwise (away from yourself) approximately 1" to aid in retaining boot to mower deck.

Note: For maximum collection system performance, adjust the hose lengths (Step 2-19) to achieve the smoothest transition between components. Avoid any sharp bends in the upper and lower hoses.

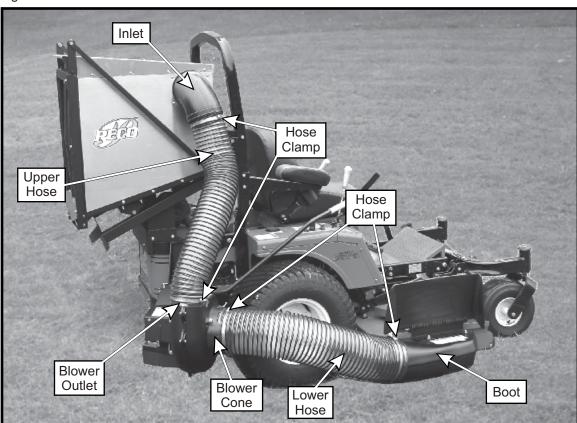


Figure 2-19

2-20 Impeller Blade Removal/Replacement

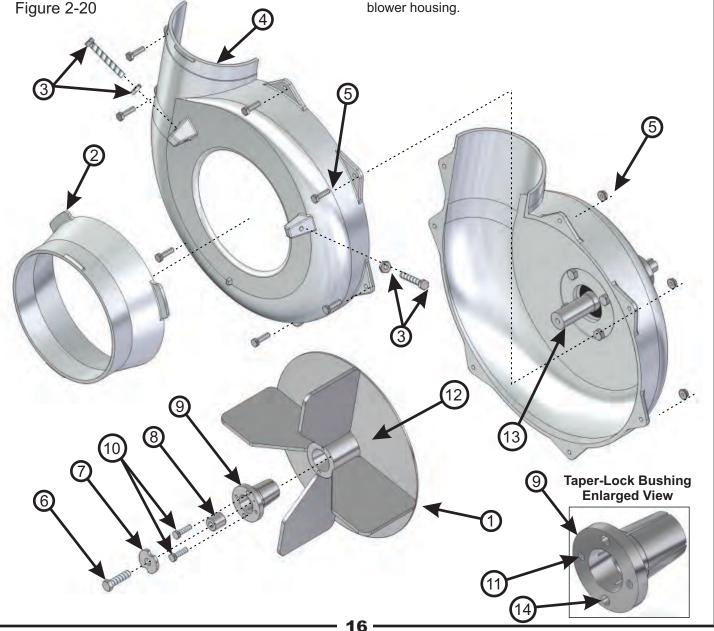
To gain impeller blade **(#1)** access, first remove the blower cone **(#2)** from the blower housing, located on the PTO assembly P#(A1821), by removing two blower cone bolts and nuts **(#3)**. Next, remove the blower housing front **(#4)** by removing seven bolts and nuts **(#5)** around the outer housing edge. Refer to Figure 2-20.

To Remove: First, remove one 3/8"-16 x 1-1/2" HHCS P#(K1211) (#6), one taper-lock bushing washer P#(K0278) (#7) and one spacer bushing P#(S3242) (#8) from the taper-lock bushing (#9). See Figure 2-20. Next, remove two 1/4"-20 x 1" HHCS (#10) and place them into the threaded holes (#11) of the taper-lock bushing P#(S4302). Last, gradually thread each bolt evenly into the taper-lock bushing, forcing the blade to break-away from the taper-lock bushing.

Tips on removing impeller blade;

- 1 Try carefully hitting the base of the impeller blade (#1), between each vein (#12), with a rubber mallet to loosen the taper-lock bushing hold.
- 2 Spray break-free lubricant into the surrounding areas of the taper-lock bushing (#9) and repeat Tip 1.

To Replace: First, place the impeller blade (#1) over the drive shaft (#13). Next, slide the taper-lock bushing (#9) on to the drive shaft and into the impeller blade, aligning the non-threaded holes (#14) of the taper-lock bushing to the threaded holes of the impeller blade. Then, fasten by using two 1/4"-20 x 1" HHCS (#10), one spacer bushing (#8) one taper lock bushing washer (#7), and one 3/8"-16 x 1-1/2" HHCS (#6). Torque all bolts to the specifications located in the chart towards the back of this manual. Last, rotate the impeller blade to ensure that the blade is clear of contact on all sides of the



2-21 Front Weight Installation

Before installing Weight Kit, remove the front step and mounting hardware from the front caster assembly. Reference your Country Clipper owner's manual and Figure 2-21a. Fasten the Weight Brackets P#(B0418) and the Weight Bracket Clamps P#(B0834) to the front casters using (4) 3/8"-16 x 1" Carriage Bolts P#(K1182) and (4) 3/8"-16 Ny-Flange Locknuts P#(K2038). Tighten bolts only finger tight at this point. Insert (3) Weight Assemblies P#(A0852) into the Weight Mount Brackets. Secure the Weight Assemblies using (2) 3/8" x 6-1/8" Clevis Pins P#(K1624) and (2) hair pin clips P#(K0086). Last, tighten the nuts on the Weight Bracket Clamps. See Figure 2-21b for reference.

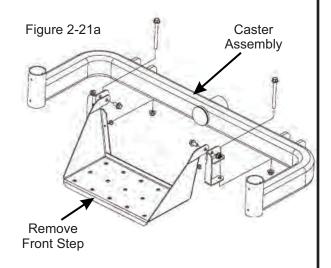
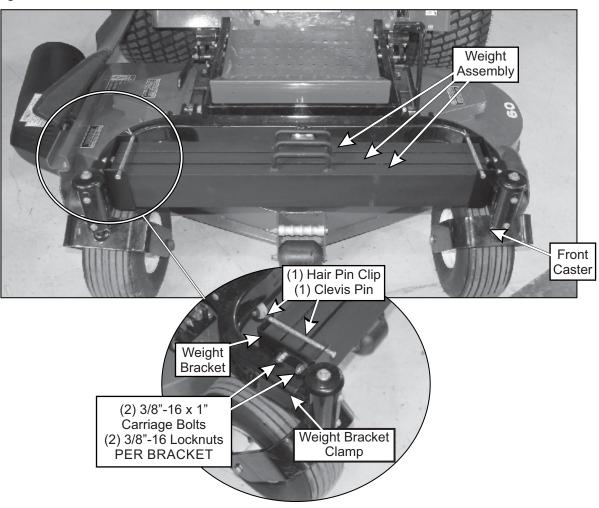
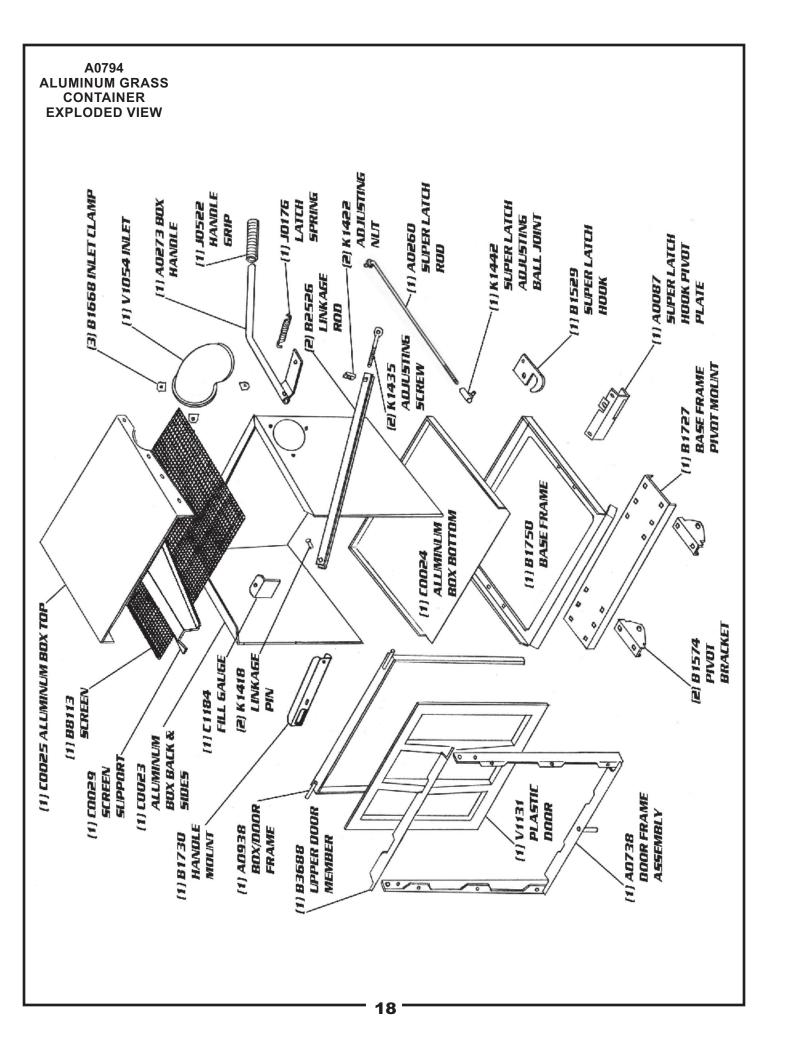


Figure 2-21b



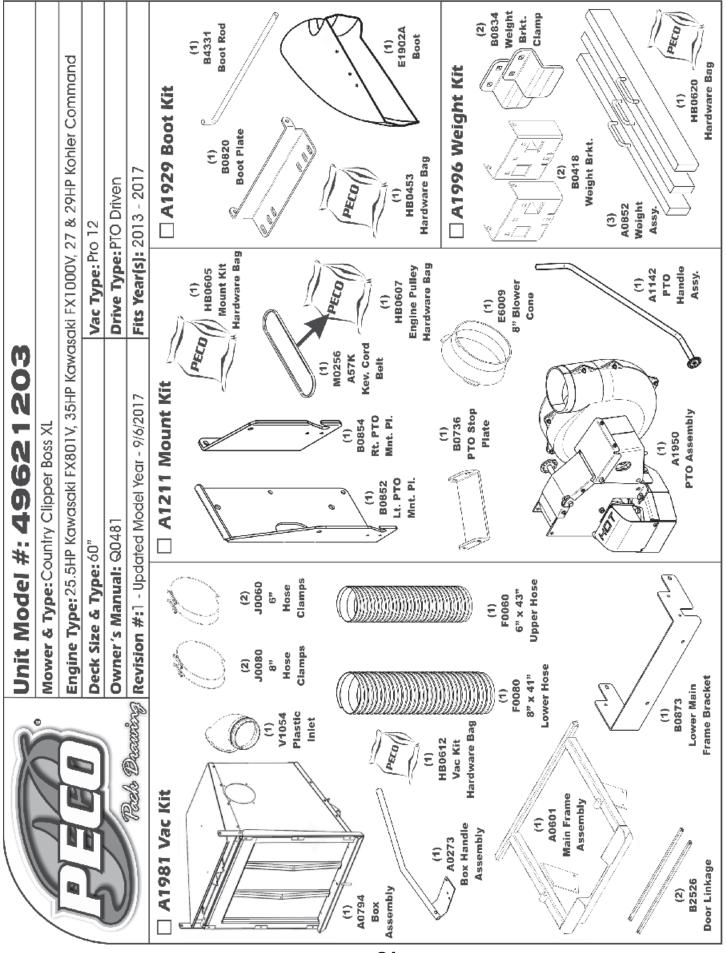


Exploded Parts View A1950 PTO Assembly)) 40 0 (38) • 36 (15) (17) 11) (2) (5) (32) (3)

PTO Parts List

A1950 PTO Assembly

Item Number	Document Number	Title	Quantity
1	A0429	GEAR BOX ASSEMBLY	1
2	K0348	3/8"-16 x 2" ALL THREAD HHCS	1
3	K0047	3/8" FLAT WASHER 1.00 OD x .446 ID x .075 T	5
4	K0353	1/4"-20 x 1/2" HHSTS	8
5	K1159	5/16"-18 x 2" ALL THREAD HHCS	1
6	K1178	5/16"-18 FLANGE NUT	1
7	A0144	BLOWER MOUNT BRACKET ASSEMBLY	1
8	B1755	BLOWER PIVOT ROD	1
9	K0086	.125 OD x 2.50 HAIR PIN CLIP	2
10	B0121	BLOWER BELT GUARD	1
11	A0604	PTO HANDLE MOUNT ASSY	1
12	A0422	CAM BRACKET ASSEMBLY	1
13	K0356	3/8"-16 TAPERED SET SCREW	1
14	K0326	BELT TENSION ROD 3/8"-16	1
15	K0130	.091 OD x 1.625 L HAIR PIN CLIP	1
16	J0254	3/16" SQ. x 3/4" LONG KEYWAY	1
17	M0228	BLOWER PULLEY	1
18	K1446	1.187 OD x .380 ID x .187 WASHER	1
19	K1190	3/8"-16 x 3/4" HHCS	1
20	E4004A	BLOWER HSG. ASSY.	1
21	K1193	3/8"-16 x 1-1/2" HHCS	4
22	K1215	3/8"-16 FLANGE NUT	12
23	A0645	SMALL 4-BLADE IMPELLER	1
24	S4302	TAPER-LOCK BUSHING	1
25	S3242	PLATED BUSHING	1
26	K1225	1/4"-20 X 1" HHCS GRADE 8	2
27	K0278	TAPER-LOCK BUSHING WASHER	1
28	K1211	3/8"-16 x 1-1/2" HHCS GRADE 8	1
29	B0269	GEAR BOX PULLEY GUARD	1
30	B0270	PTO ARM GUARD	1
31	A0622	PTO ARM ASSY.	1
32	A0624	BASE PLATE ASSY.	1
33	K1191	3/8"-16 x 1" HHCS	6
34	K1197	3/8"-16 X 2 1/2" HHCS	1
35*	M0250	A30K KEVLAR BELT	1
36	E0121	PTO SHAFT HOUSING	1
37	N0147	BEARING 2.0472 OD, 0.9843 ID, 0.5906 W (6205RS PEER)	1
38	N0148	BEARING 1.625 OD, 0.75 ID, 0.4375 W (9R12 PEER)	1
39	B1758	PTO SHAFT	1
40	J0801	1/4"-28 ZIRC FITTING	1



SECTION III OPERATING INSTRUCTIONS

3-1 General Safety

Only qualified people familiar with this operator's manual and the mower's operator's manual should operate this machine.

3-2 Operation And Tips On Mowing

- A. Perform BEFORE EACH USE the maintenance list In paragraph 4-1.
- B. Start mower.
- C. With the mower at high idle speed, engage the mower deck.
- D. While seated in the operator's seat, rotate the engagement handle of the collection system away from the mower. Continue to rotate the handle until it stops in an over-center position. With the blower engaged, you can proceed to operate the control levers of the mower.

NOTE: If the collection system does not appear to be collecting the grass clippings; disengage the deck, and blower, engage the parking brake and turn the mower off. Check the upper hose, lower hose, top screen and boot for clogs. To obtain the maximum effectiveness from your collection system the tips listed below should be followed:

- * If needed, adjust hose lengths to achieve smooth transitions between components. Avoid sharp bends.
- * Watch your speed- Normal conditions will allow a speed of up to approximately 5 mph, but thick, heavy damp conditions will require reduced ground speed.
- * Install hi-lift blades to maximize the grass flow to the collection system boot.
- * Mow with sharp blades- A sharp blade cuts cleaner.
- * Wet grass and leaves will decrease effectiveness and will increase horsepower requirements.
- * Mow at higher cutting heights- Remove and mulch no more than 2" of grass length with each mowing. (Experts recommend not cutting off more than 1/3 of the grass blade length at any given time.)
- * Mow twice, at different height settings, (high, then low), if grass is extra tall.

* Remember that horsepower requirements will vary with the mowing conditions such as type and height of turf grass, moisture content, amount of leaves, whether the terrain is flat or hilly, etc.

3-3 Disengagement Of The BlowerPTO MODELS

A. To disengage the blower, rotate the engagement handle towards the mower.

WARNING: The blower will continue to spin. DO NOT TOUCH the blower, pulleys, or the belt until the tractor is turned off. DO NOT adjust the belt tension until the mower is turned off. Refer to section the Belt Installation and Adjustment of this manual.

3-4 Unloading The Collection System

- A. Stop the forward movement of the mower, engage the parking brake.
- B. Disengage the mower deck.
- C. Disengage the blower.
- D. Verify that the dump area is clear.
- E. Push the dump handle, on the left of the operator, away from the unit. While holding the handle pushed away, move the handle upward. The container door will swing upward and the container will rotate downward. The container will release its contents.
- F. Once the contents of the container have fallen out, the container is ready to move back into its normal operating position. With the handle in the 'away' position, pull the handle downward until it stops. Move the handle towards the center of the mower. This motion will allow the latch to lock back into collection position.

NOTE: If you do not hold the handle away from the mower as you pull the handle downward, the latch will not lock and the container can unexpectedly release the contents collected.

SECTION IV MAINTENANCE

4-1 Maintenance Checklist

NOTE: REMOVE PTO ASSEMBLY BEFORE RAISING DECK FOR MAINTENANCE.

Before each use:

- Check blades and spindles to be sure that no foreign objects, such as wire or steel strapping bands, are wrapped around them.
- 2. Inspect blades for wear. Replace if necessary. If it is necessary to sharpen the blades, remove the blades from the spindles before sharpening. DO NOT sharpen blades while still attached to the mower.

- Make sure all shields are in place and in good condition. Repair or replace any missing or damaged shields.
- 4. Perform lubrication per paragraph 4-2.
- 5. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.
- 6. With the engine off, engage the blower assembly. Check the belt tension and inspect the pulley belt for cracks or tears.
- 7. Check for wear or deterioration of the upper or lower hoses. If there are any portions of the hose that have been torn or worn through, replace with genuine PECO parts.

After Each Use:

- 1. Clean all debris from machine especially from the container, underneath the belt shields, and safety decals. Replace any missing or illegible decals.
- Inspect the unit for worn or damaged components.
 Repair or replace before the next use. Any
 replacement component installed during repair shall
 include the component's current safety decal specified
 by the manufacturers to be affixed to the component.
- 3. Check belt for proper tension.

4-2 Lubrication

Every 200 hours of use: Check oil levels in gear box. Oil in gear box should cover the gears. If necessary, fill using an EP90 weight oil. 6oz. will fill the gear box from empty.

SECTION V PARTS AND SERVICE

5-1 Parts And Service Information

PECO collection system owners should record the name and telephone number of their Service Center. Your Service Center will be happy to supply replacement parts, accessories, and do any service or repairs to your collection system. If for any reason your Service Center is unable to service your collection system or supply replacement parts, contact PECO and include the following information on the chart below.

Dealer's/Distributor's			
Dealer/Distributor Na	me:		
Date of purchase:		_	
Unit Serial Number:			
Unit Engine Size:			
Unit Model Number:			

Address: New PECO Inc.
10 Walden Dr.
Arden, NC 28704
Phone #: (828) 684-1234 or Toll Free: (800) 438-5823

Email: peco@lawnvac.com

SAFETY DECALS

To promote safe operation, PECO supplies safety decals on all products manufactured. Damage can occur to safety decals either through shipment, use or reconditioning. Contact your local Service Center for replacement decals.

DANGER ROTATING BLADES! FINGERS, HANDS, & BODY PARTS CAN BE SEVERED!







DANGER NEVER USE HANDS TO CLEAR DEBRIS WITH BLOWER RUNNING!

PELIGRO NUNCA USE MANOS PARA LINPIAR BASURA CON LA HOJA EN MARCHA!

#R2007

#R2008







Part #: R1053

Part #: R1049

Part #: R1069

TO DUMP GRASS: PUSH HANDLE OUT AND LIFT

Part #: R1055





Part #: R1057 Red Reflector Label

IMPORTANT

Hoses are subject to normal wear and deterioration. Check hoses frequently and if they become defective, install new hoses.

For best collection results, trim hoses so there are no more than 2 inches excess hose with mower deck lowered.

Part #: R1054



Part #:R4015





Part #: R4037

Part #: R4027



Part #:R1083



Part #: R1065



Stop engine before removing or cleaning this chute. Keep hands and feet clear!

Part #:R4008



Part #:R1051



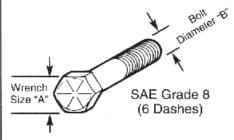
TORQUE SPECIFICATIONS

AMERICAN

Bolt Head Markings

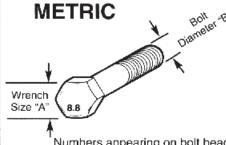






Recommended Torque in Foot Pounds (Newton Meters).*

WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
7/16	1/4 - 28 UNF	6 (8)	10 (13)	14 (18)
1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
9/16	3/8 - 16 UNC	20 (27)	31 (42)	44 (60)
9/16	3/8 - 24 UNF	23 (31)	35 (47)	49 (66)
5/8	7/16 - 14 UNC	32 (43)	49 (66)	70 (95)
5/8	. 7/16 - 20 UNF	36 (49)	55 (75)	78 (106)
3/4	1/2 - 13 UNC	49 (66)	76 (103)	106 (144)
3/4	1/2 - 20 UNF	55 (75)	85 (115)	120 (163)
7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207)
7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
15/16	5/8 - 11 UNC	97 (131)	150 (203)	212 (287)
15/16	5/8 - 18 UNF	110 (149)	170 (230)	240 (325)
1-1/8	3/4 - 10 UNC	144 (195)	266 (360)	376 (509)
1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569)
1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
1-1/2	1 - 8 ŲNC	250 (339)	644 (873)	909 (1232)
1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381)
1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(1745)
1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (1957)
1-7/8	1-1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (2462)
1-7/8	1-1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (2728)
2-1/16	1-3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (3228)
2-1/16	1-3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (3675)
2-1/4	1-1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (4283)
2-1/4	1-1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (4820)



Numbers appearing on bolt heads indicate ASTM class.

*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.

Recommended torque in foot pounds (newton Meters).*

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
8	5	1.8 (2.4)		5.1 (6.9)	6.5 (8.8)
10	6	3 (4)		8.7 (12)	11.1 (15)
13	8	7.3 (10)		21.1 (29)	27 (37)
16	10	14.5 (20)		42 (57)	53 (72)
18	12	25 (34)	74 (100)	73 (99)	93 (126)
21	14	40 (54)	118 (160)	116 (157)	148 (201)
24	16	62 (84)	167 (226)	181 (245)	230 (312)
30	20	122 (165)	325 (440)		449 (608)
33	22		443 (600)		611 (828)
36	24	211 (286)	563 (763)		778 (1054)
41	27		821 (1112)		1138 (1542)
46	30	418 (566)	1119 (1516)		1547 (2096)

Troubleshooting Collection System Performance

Problem	Possible Cause	Corrective Action	
	Cutting blades are bent or unbalanced	Install new cutting blade	
Abnormal Vibration	Loose blower pulley or pulley assembly	Tighten the pulley	
	Impeller blade out of balance	Contact dealer to replace	
	Low engine speed	Always operate collection system at full throttle	
Reduced collection system performance	Plugged screen	Remove debris, leaves, or grass clippings from the	
	• Loose belt	screen	
	Full collection bags	 Install new cutting blade Tighten the pulley Contact dealer to replace Always operate collection system at full throttle Remove debris, leaves, or 	
	Collection bags are too full	Dump more frequently	
	Low engine speed		
	Grass is too wet	Cut grass when it is dry	
Blower and hoses plugging too frequently	Grass is too long	Cut the grass several times	
	Ground speed is too fast	Drive slower at full throttle	
	Worn belt	Replace belt	
	Loose belt	 Install new cutting blade Tighten the pulley Contact dealer to replace Always operate collection system at full throttle Remove debris, leaves, or grass clippings from the screen Replace/tighten belt Dump more frequently Always operate collection system at full throttle Cut grass when it is dry Cut the grass several times Drive slower at full throttle Replace belt Adjust the pulley and tighten belts Dump more frequently Clean the collection system Drive more slowly at full throttle Clean the blower housing Contact dealer to replace 	
	Collection bags are too full	Replace/tighten belt Oump more frequently Always operate collection system at full throttle Cut grass when it is dry Cut the grass several times Drive slower at full throttle Replace belt Adjust the pulley and tighten belts Dump more frequently Clean the collection system Drive more slowly at full	
Debris blowout	Plug/clog in the collection system	Clean the collection system	
	Ground speed is too fast		
	Plug in the blower housing	Clean the blower housing	
Impeller doesn't rotate freely	Worn impeller blade	Contact dealer to replace	
	Shaft bearings bad/failing	Contact dealer to replace	



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