

PTO GRASS **SYSTEM**

DESIGNED TO FIT:

2012-2013 MODEL YEAR

Cub Cadet Tank

LZ* & SZ - 48", 54" & 60" Decks

*LZ MODELS: COLLECTION SYSTEM REQUIRES INSTALLATION OF ADDED WEIGHT KIT 59A30037150 (A1149) FOR SAFE OPERATION!

COLLECTION SYSTEM

MODEL #: 59A30033150



OPERATOR'S MANUAL

ASSEMBLY • OPERATION • MAINTENANCE

PECO GRASS COLLECTION SYSTEM

TABLE OF CONTENTS

S	SECTION	PAGE	S	ECTION	PAGE
	Safety	3		2-14 Length Of Hose Adjustment 2-15 Upper Hose Installation 2-16 Lower Hose To Blower Cone Installation 2-17 Lower Hose To Boot Installation	27 27
I	INTRODUCTION AND DESCRIPTION 1-1 Introduction 1-2 Description	5 5		2-18 Impeller Blade Removal/Replacement - 2-19 Weight Kit Installation 2-20 Installation/Removal of Collection Bags Exploded Part Views and Assemblies	28 29 30
II	INSTALLATION FOR USE 2-1 Preparation Of Mower 2-2 PTO Mount Plate Assembly Installation 2-3 Lower Mount Assembly Installation - 2-4 PTO Assembly Installation 2-5 Belt Installation and Adjustment 2-6 Cam Assembly Adjustment		III	OPERATING INSTRUCTIONS	39 39 39
	2-7 Blower Cone Installation 2-8 Safety Interlock Harness Installation 2-9 Upper Frame Assembly Installation - 2-10 Top Assembly To Upper Frame	10 11-12	IV	MAINTENANCE	39-40
	Assembly Installation 2-11 Hinge Kit Installation 2-12 Deck Baffle Installation 2-13 Boot To Mower Deck Installation	14 15		PARTS AND SERVICE	40 41

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 them quickly. READ THE OPERATOR'S MANUAL!
- 3. Do not allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Be especially watchful of children and pets entering into the area while operating.
- **5.** Keep your eyes and mind on your machine while mowing or operating your attachment. Don't let others distract you.
- **6.** Do not attempt to operate your machine when not in the driver's seat.
- **7.** Always shut off blades and engine when emptying the container.
- **8.** Stop machine, shut off deck attachment, set parking brake, shut off engine and remove ignition key before removing clogs, removing or replacing hose, boot, blower cone, or performing any maintenance.
- **9.** Mow across the face of slopes (not more than 10 degrees); never up and down the face.
- **10.** It is recommended that the container be emptied when half full while operating on 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 hearing protection.
- **13.** Wear eye protection to prevent debris from getting into 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.

Black letters on **ORANGE**

It may also be used to alert against unsafe practices.



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

It may also be used to alert against unsafe practices.

Black letters on YELLOW

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, before the expiration of the original warranty period, whichever is later.
- **3. COMMERCIAL USE:** Products put to personal use around a single household or residence is considered 'Residential'; Products put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered 'Commercial.' Products designated as 'Commercial' are warrantied for 12 months from the date of delivery of the product to the original purchaser when used for in commercial applications. Products designated as 'Residential' are warrantied for 90 days from the date of delivery of the product to the original purchaser when in commercial applications.

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. at 10 Walden Drive, 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. PRODUCTS USED FOR RENTAL OR LEASE PURPOSES ARE WARRANTIED 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

We are pleased to have you as a PECO customer. Your 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 (3) - 4 cubic foot collection bags P#(G0003) 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 bags are full with clippings, they can be released to make for easy dumping.

<u>LZ Models:</u> Collection system requires installation of added weight kit 59A30037150 (A1149) for safe operation! SZ models do not require a weight kit. Refer to Section 2-20 in this manual for weight kit installation instructions. Contact your Cub Cadet dealer to order weight kit 59A30037150 (A1149).

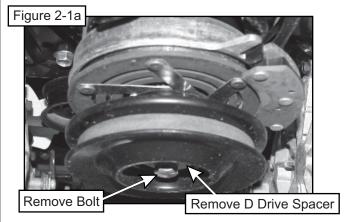


Section II - INSTALLATION FOR USE

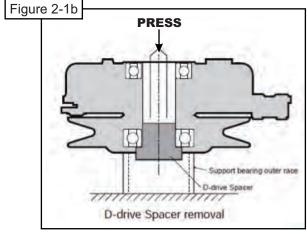
2-1 Preparation Of Mower

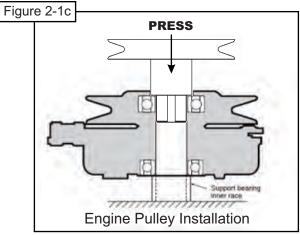
NOTE: The mower deck PTO belt must be removed from the electric clutch before continuing with the installation. Refer to your Cub Cadet mower owner's manual for instructions on PTO belt removal.

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.



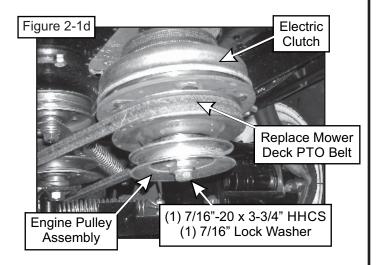
Remove the D-drive spacer using an arbor press or equivalent. On removal, adjacent bearing OUTER race must be supported or bearing damage may occur. Refer to Figure 2-1b.





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

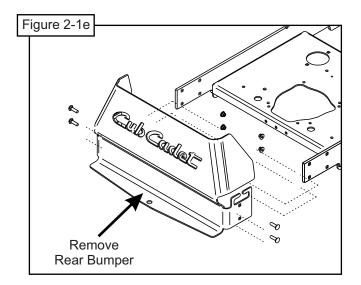
Upon pressing the engine pulley to the clutch, replace the completed assembly to the mower's engine shaft to fasten.



Fasten engine pulley assembly number 18 P#(A1109) to the electric clutch using (1) 7/16"-20 x 3-3/4" HHCS P#(K0350) and (1) 7/16" helical spring lock washer P#(K0140). Torque the bolt to 55ft./lbs. Refer to Figure 2-1d for reference.

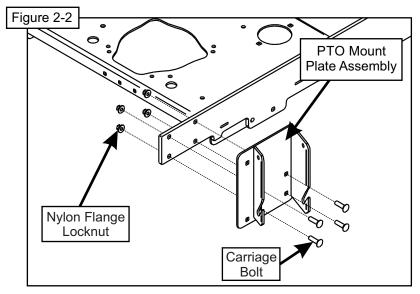
NOTE: Replace the mower deck PTO belt removed at the beginning of this section.

Remove the rear bumper and hardware from the mower as shown in Figure 2-1e.



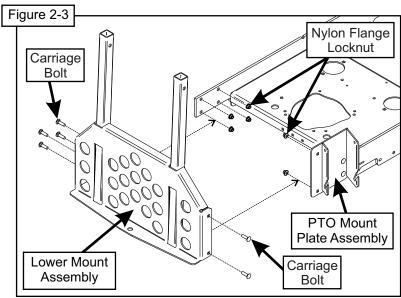
2-2 PTO Mount Plate Assembly Installation

Secure the PTO mount plate assembly P#(A1108) to the chassis of the mower using (4) 3/8"-16 x 1-14" carriage bolts P#(K1183) and (4) 3/8-16 nylon flange locknuts P#(K2038). Leave the hardware loose until the lower mount assembly is installed in the next section. Refer to Figure 2-2.



2-3 Lower Mount Assembly Installation

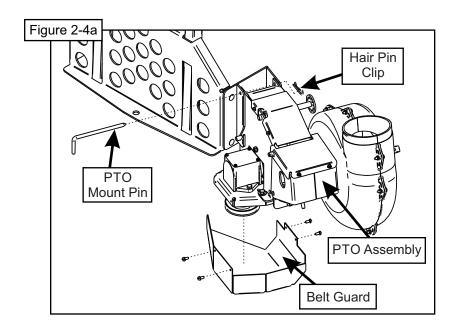
Secure the lower mount assembly P#(A1110) to the rear frame of the mower using (4) 3/8"-16 x 1-1/4" carriage bolts P#(K1183) and (4) 3/8"-16 nylon flange locknuts P#(K2038). Leave the hardware loose. Secure the lower mount assembly to the PTO mount plate assembly using (2) 3/8"-16 x 1-1/4" carriage bolts P#(K1183) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Tighten all hardware from Sections 2-2 and 2-3 at this time. Refer to Figure 2-3.



2-4 PTO Assembly Installation

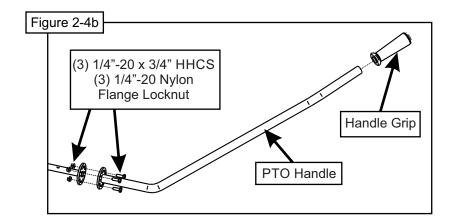
Insert the PTO assembly P#(A1821) into the slots on the PTO mount plate assembly. Secure the PTO assembly with (1) mount pin P#(B0274) and (1) hair pin clip P#(K0086).

Remove the belt guard P#(B0679) and hardware in preparation for the belt installation. Refer to Figure 2-4a.



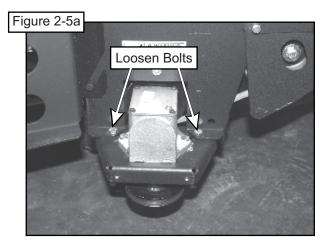
Attach the PTO handle P#(A1142) to the PTO assembly using (3) 1/4"-20 x 3/4" HHCS P#(K1222) and (3) 1/4"-20 nylon flange locknuts P#(K2014). Attach the handle grip P#(J0522) to the PTO handle. Refer to Figure 2-4b.

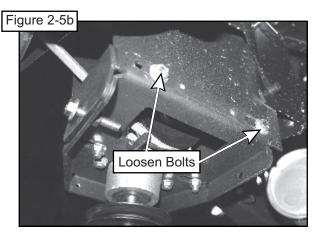
NOTE: The PTO Handle can be adjusted after performing Step 2-6 to achieve proper belt adjustment. To adjust the handle, remove (3) 1/4"-20 x 3/4" HHCS P#(K1222) and (3) 1/4"-20 nylon flange locknuts P#(K2014), rotate handle until positioned in the desired location (while aligning holes) and reattach. The bolts should be kept approximately 120 degrees apart to ensure proper fastening.



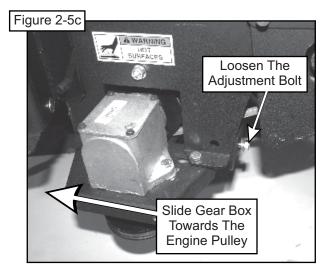
2-5 Belt Installation and Adjustment

Loosen the (4) bolts P#(K1191), (2) on each side, that secure the gear box assembly to the PTO assembly P#(A1803) (Figure 2-5a and 2-5b).

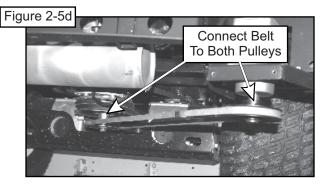




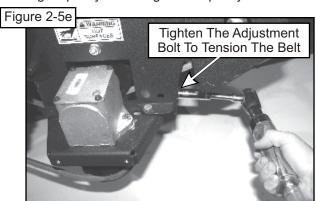
Loosen the adjustment bolt P#(K0348) until the gear box assembly is at its far left adjustment (the gear box is moved toward the mower's engine pulley). Refer to Figure 2-5c.



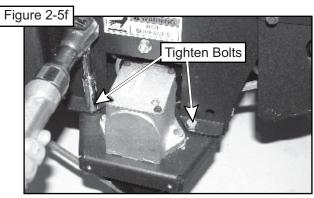
Connect the kevlar cord belt A58K P#(M0236) from the engine pulley to the lower gear box pulley (Figure 2-5d).

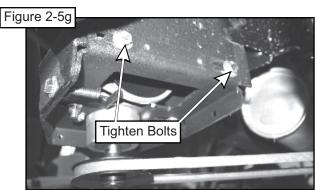


To tension the drive belt, turn the adjustment bolt clockwise (Figure 2-5e) until there is 1" of deflection, with 10-11 lbs. of pressure, at the center of the belt between the engine pulley and the gear box pulley.



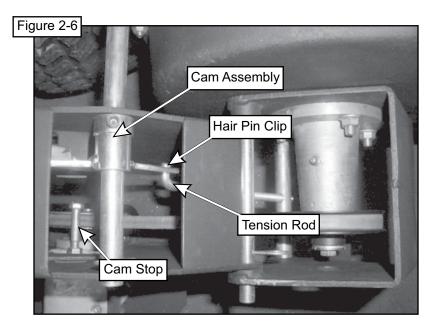
Once the correct tension of the belt is achieved, tighten the (4) bolts that secure the gear box assembly. Refer to Figures 2-5f and 2-5g. Replace the belt guard and hardware that was removed in Section 2-4.





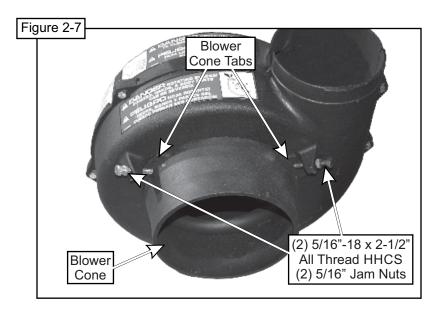
2-6 Cam Assembly Adjustment

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#(K0099) 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 disengaged (Figure 2-6).



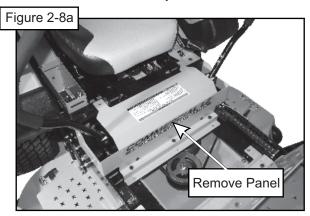
2-7 Blower Cone Installation

Thread (1) 5/16"-18 jam nut P#(K0120) onto each end of (2) 5/16"-18 x 2-1/2" HHCS P#(K0125). Now partially thread the bolts into each of the two tabs located on the blower housing. Place blower cone so the two tabs line up with the bolts then tighten completely. See Figure 2-7.

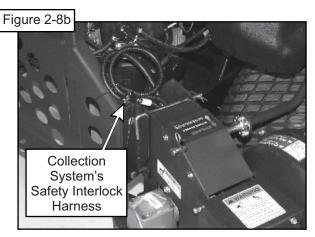


2-8 Safety Interlock Harness Installation

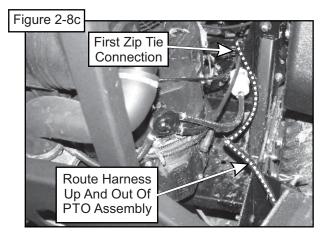
Remove the panel shown in Figure 2-8a in order to gain access to the mower's safety interlock switch.



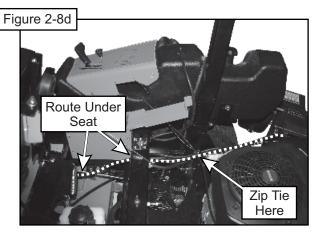
Now, locate the collection system's safety interlock harness P#(P0208) located on the PTO assembly, Figure 2-8b. This harness will need to be connected to the mower safety interlock switch, and then secured to the mower frame with the zip ties P#(J0245) included in the mount kit hardware bag. See page 36 for the safety interlock wiring harness schematic diagram.



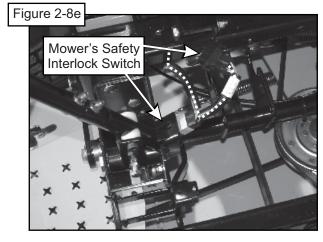
Lift the mower's operator seat. Clip the zip tie on the collection system's wiring harness and route the harness up and over the PTO assembly to the first zip tie connection, near the R.O.P.S. shown in Figure 2-8c.

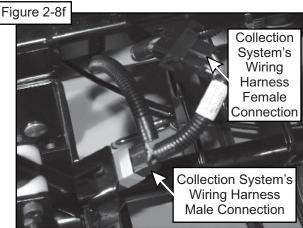


Route the remaining safety interlock wiring harness as shown in Figure 2-8d. Use zip ties where indicated.



Disconnect the mower's safety interlock switch (See mower's Owner's Manual for location). Plug the male end of the collection system's wiring harness into the port where the mower's safety interlock switch was removed. Then, plug the mower's safety interlock switch into the female end of the collection system's wiring harness. Refer to Figure 2-8e & 2-8f (Larger Connection View). Zip tie the wiring harness to the mower in such a way that the wiring harness is clear from any moving parts, or heat sources. Replace the panel and hardware shown in Figure 2-8a.

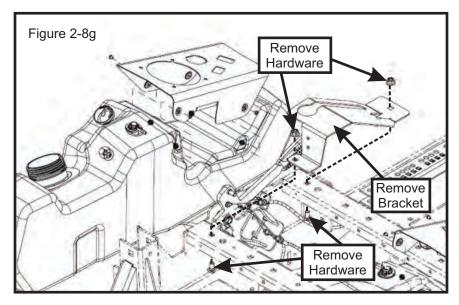




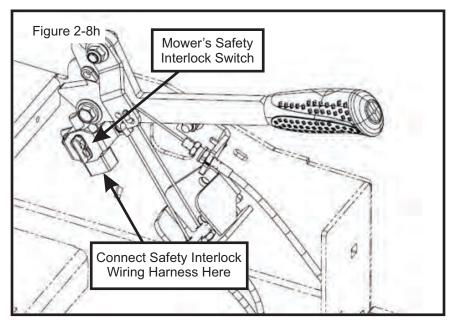
2-8 Safety Interlock Harness Installation for the SZ Model

Remove the bracket and hardware shown in Figure 2-8g to gain access to the SZ model safety interlock switch.

Use the instructions on the previous page as a reference for routing the safety interlock wiring harness from the PTO assembly to the safety interlock switch. Use zip ties where needed, to secure the wiring harness P#(P0208) away from all moving parts and all heat sources that could potentially damage the wiring harness.



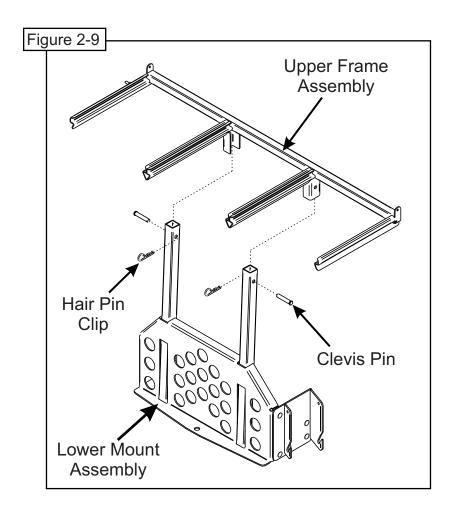
Locate the mower's safety interlock switch as shown in Figure 2-8h. Disconnect the mower's existing wiring harness from the safety interlock switch and connect the safety interlock wiring harness P#(P0208). Connect the mower's wiring harness to the safety interlock wiring harness P#(P0208). Replace the panel and hardware removed from Figure 2-8g.



2-9 Upper Frame Assembly Installation

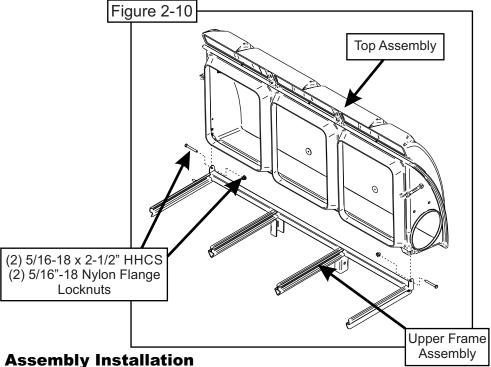
NOTE: During this step, it is suggested that two people install the upper frame to the lower mount tube.

Lift the upper frame assembly P#(A1058) above the lower mount assembly and lower the top assembly onto the two vertical tubes. Secure the top assembly to the lower mount assembly using (2) clevis pins P#(K0133) and (2) hair pin clips P#(K0088). Refer to Figure 2-9.



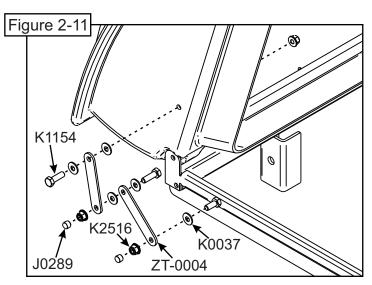
2-10 Top Assembly To Upper Frame **Assembly Installation**

Position the top assembly P#(A1139) above the upper frame assembly as shown in Figure 2-10. Fasten the top assembly to the upper frame assembly using (2) 5/16"-18 x 2-1/2" HHCS P#(K0125) and (2) 5/16"-18 nylon flange locknuts P#(K2516). Leave the locknuts slightly loose, to allow the top assembly to open and close easily. Refer to Figure 2-10 for hardware location.



2-11 Hinge Kit Assembly Installation

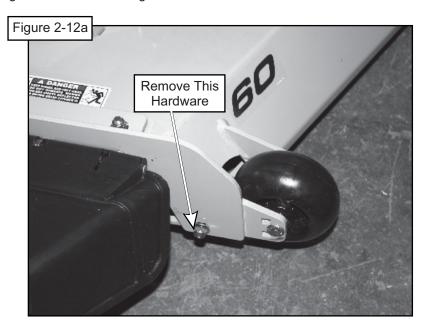
Assemble the hinge kit as shown in Figure 2-11, using (2) 5/16"-18 x 1" HHCS P#(K1154), (3) 5/16"-18 nylon flange locknuts P#(K2516), (5) 1/4" flat washers P#(K0037) and (2) swing arm brackets P#(ZT-0004). Place (1) vinyl cap P#(J0289) on the end of the hex bolts as shown in Figure 2-11. Leave the nuts loose enough to allow fluid movement of the top when opening and closing. When opened, the top should rest on the middle joint of the hinge allowing it to remain up.



2-12 Deck Baffle Installation

A deck baffle must be installed on Select Cut model decks.

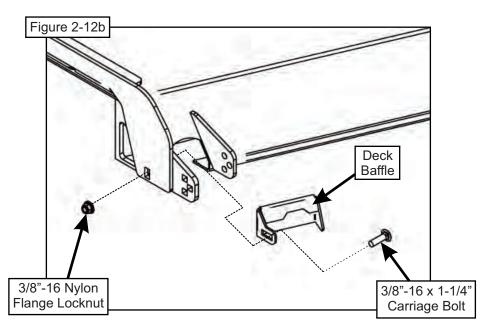
Remove (1) 3/8"-16 carriage bolt and (1) 3/8"-16 nut from behind the front right caster shown in Figure 2-12a.



NOTE: Some hardware has been removed from Figure 2-12b for visual clarification.

Insert the deck baffle P#(B0660) as shown in Figure 2-12b. Secure the deck baffle to the mower deck using (1) 3/8"-16 x 1-1/4" carriage bolt P#(K1183) and (1) 3/8"-16 nylon flange locknut P#(K2038).

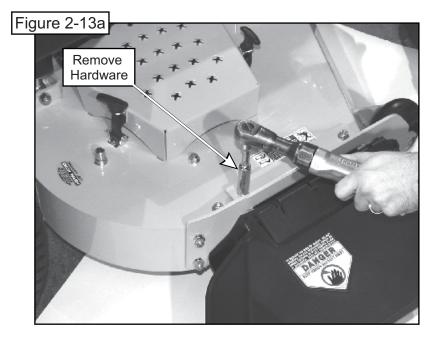
Leave the hardware loose until the boot has been installed.



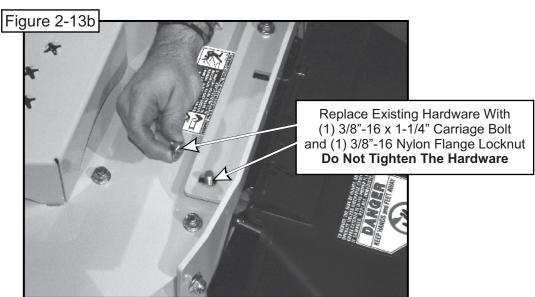
2-13 Boot To Mower Deck Installation

NOTE: The aluminum boot P#(E0020) is designed to fit the 48", 54" and 60" deck. In order to achieve a snug fit from the boot to the mower deck, the boot must be attached to the deck and positioned forward or back, upwards or down depending on the deck size. Follow the step-by-step instructions provided in this section thoroughly and leave all the hardware loose until the boot has been correctly positioned. Then tighten the bolts **only** in the sequence specified.

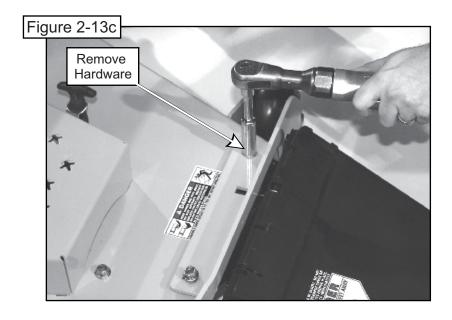
Step 1: Remove the 3/8"-16 carriage bolt and 3/8"-16 nut shown in Figure 2-13a.



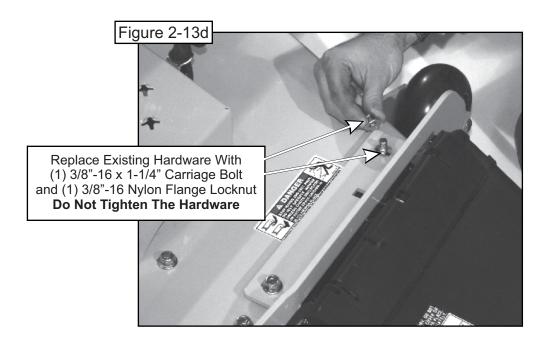
Step 2: Replace the hardware removed in Step 1 with (1) 3/8"-16 x 1-1/4" carriage bolt P#(K1183) and (1) 3/8"-16 nylon flange locknut P#(K2038) as shown in Figure 2-13b. **Do not tighten the hardware.**



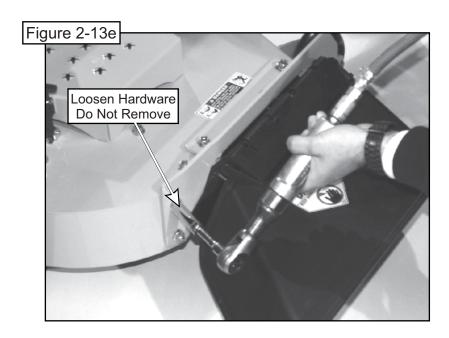
Step 3: Remove the 3/8"-16 carriage bolt and 3/8"-16 nut shown in Figure 2-13c.



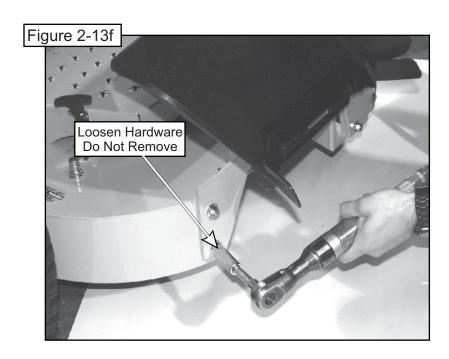
Step 4: Replace the hardware removed in Step 3 with (1) 3/8"-16 x 1-1/4" carriage bolt P#(K1183) and (1) 3/8"-16 nylon flange locknut P#(K2038) as shown in Figure 2-13d. **Do not tighten the hardware.**



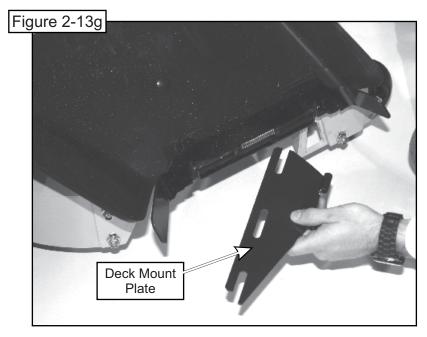
Step 4: Loosen, but DO NOT REMOVE the (1) 3/8"-16 carriage bolt and (1) 3/8"-16 nut shown in Figure 2-13e.



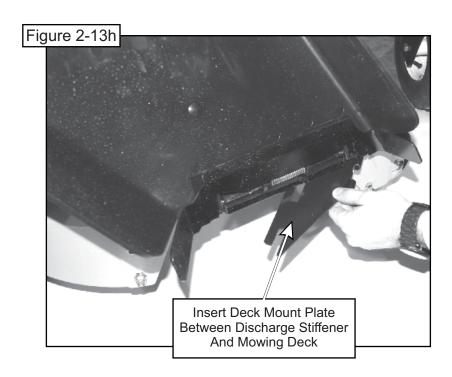
Step 5: Loosen, but DO NOT REMOVE the (1) 3/8"-16 carriage bolt and (1) 3/8"-16 nut shown in Figure 2-13f.



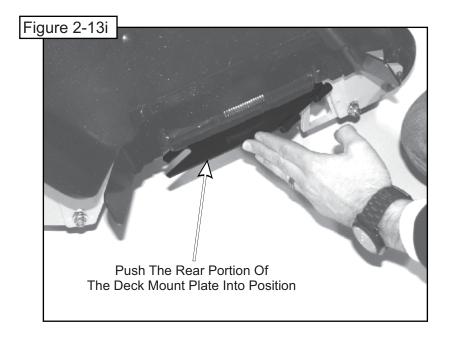
Step 6: Locate the deck mount plate P#(A1120). Lift the discharge chute and position the deck mount plate as shown in Figure 2-13g.



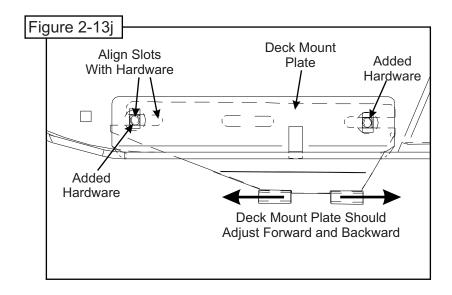
Step 7: Insert the deck mount plate in-between the discharge stiffener and the top of the mowing deck, aligning the front slot on the deck mount plate with the front set of hardware that was replaced in Step 4. Refer to Figure 2-13h.



Step 8: With the front slot on the deck plate aligned with the hardware added in Step 4, push the rear portion of the deck mount plate into position so that the rear slot on the deck mount plate is aligned with the hardware that was replaced in Step 2. Refer to Figure 2-13i.

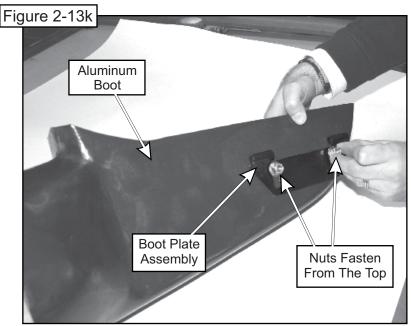


When both slots on the deck mount plate are aligned with the hardware added in Step 2 and Step 4, the deck mount plate should slide forward and backward, allowing for adjustment. Use Figure 2-13j for reference in proper alignment of the deck mount plate.

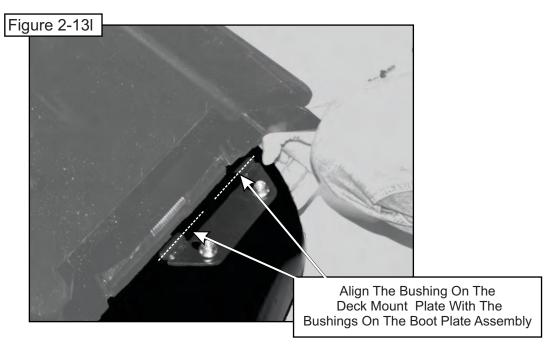


Step 9: Locate the aluminum boot P#(E0020) and the boot plate assembly P#(A1121). Secure the boot plate assembly to the boot as shown in Figure 2-13k, using (2) 3/8"-16 x 1" carriage bolts P#(K1182) and (2) 3/8"-16 nylon flange locknuts P#(K2038).

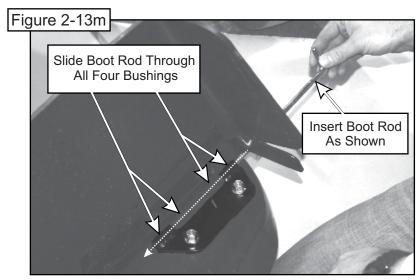
NOTE: Insert the carriage bolts from inside of the boot so that the threads are on top of the boot as shown in Figure 2-13k. This will prevent grass clipping from collecting on the bolt threads. DO NOT TIGHTEN THE HARDWARE.



Step 10: Lift the discharge chute on the mower deck and position the boot assembly as shown in Figure 2-13l. Align the bushings on the boot plate assembly with the bushings on the deck mount plate.

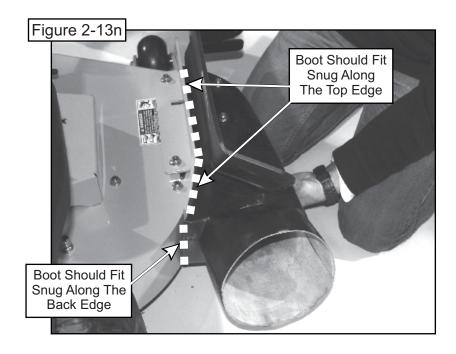


Step 11: Secure the boot plate assembly to the deck mount plate using (1) boot rod P#(B0244). Insert the boot rod from the front of the deck as shown in Figure 2-13m.

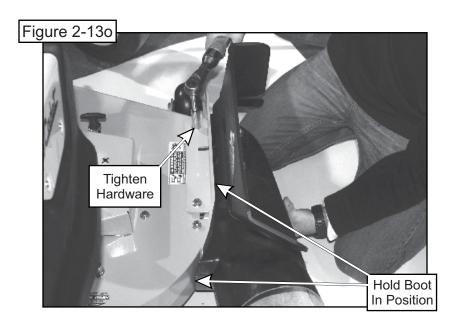


Step 12: Hold the edge of the boot flush to the mower deck and slide the entire boot kit (deck mount plate, boot plate and boot) forwards or backwards to create a snug fit on the top and back edge of the boot as shown in Figure 2-13n.

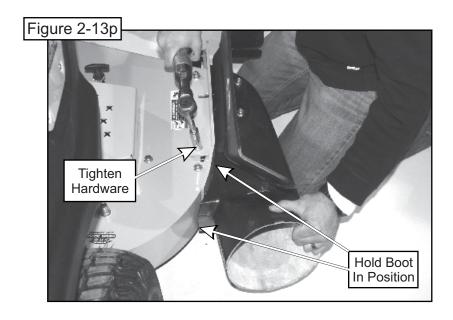
NOTE: To maximize the effectiveness of your collection system, you want to minimize any gaps between your boot and the mower deck. The boot kit assembly is designed to fit all deck sizes available for the LZ and SZ, therefore your actual fit-up may look slightly different than Figure 2-13p. Figure 2-13p shows the fit-up for an LZ model with a 60 inch select-cut deck.



Step 13: While holding the boott snug to the mower deck as shown in Figure 2-13n on the previous page, tighten the hardware shown in Figure 2-13o. **NOTE:** Tighten hardware in the following sequence only.

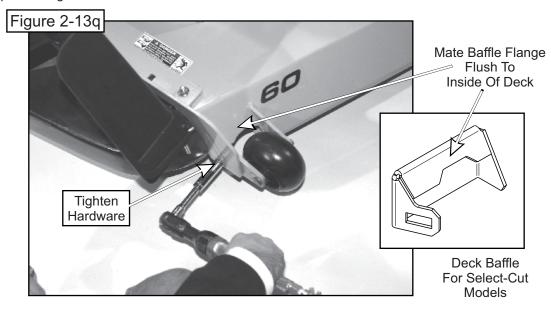


Step 14: Still holding the boot snug to the mower deck, tighten the hardware shown in Figure 2-13p.

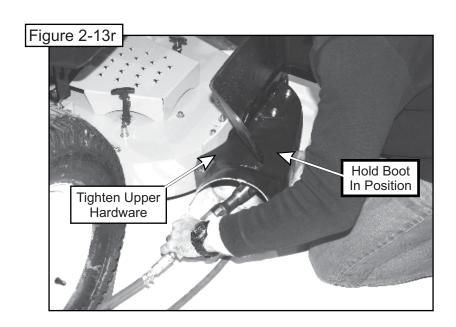


Step 15: Tighten the hardware shown in Figure 2-13q.

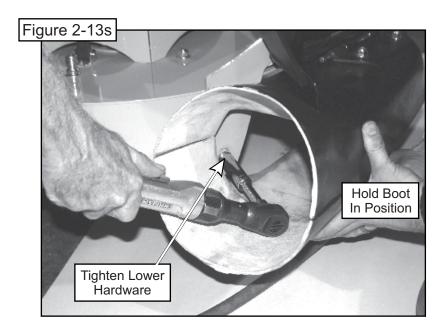
NOTE: (For Select-Cut Models Only) Adjust the deck baffle so that the angle on the baffle flange matches the slope on the cutting deck. Refer to Section 2-12 for reference on deck baffle positioning.



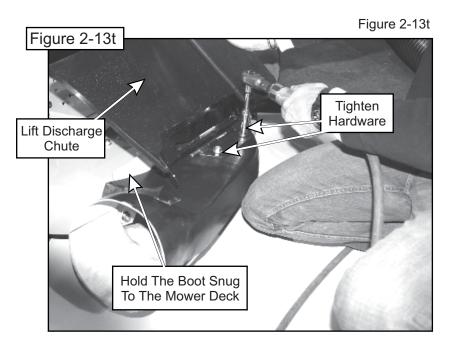
Step 16: While holding the boot snug to the mower deck, tighten the top set of hardware on the discharge chute stiffener. You can access this hardware through the boot opening as shown in Figure 2-13r.



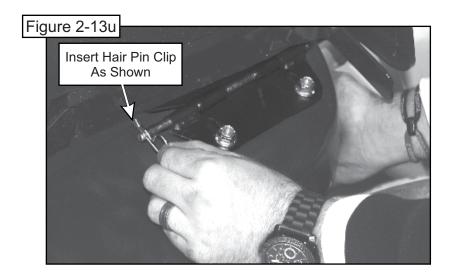
Step 17: While still holding the boot snug to the mower deck, tighten the lower set of hardware on the discharge chute stiffener. You can access this hardware through the boot opening shown in Figure 2-13s.



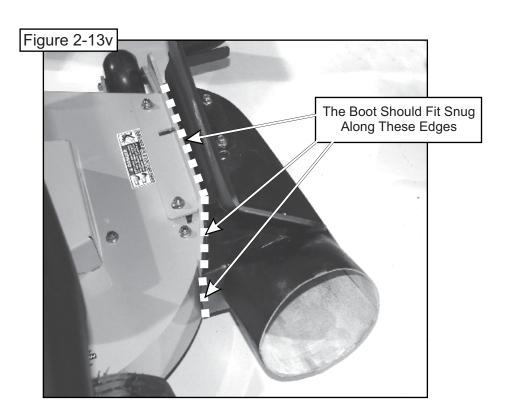
Step 2-18: While holding the boot snug to the mower deck, lift the discharge chute. Tighten the two 3/8"-16 nylon flange lock nuts on the boot plate as shown in Figure 2-13t.



Step 19: Insert (1) hair pin clip P#(K0099) as shown in Figure 2-13u, to secure the boot rod.



Step 20: Examine the boot fit-up closely. Ensure that there are no excessive gaps between the boot and the mower deck. The aluminum boot should completely cover the deck opening,



2-14 Length Of Hose Adjustment

The hoses in steps 2-15 and 2-16 must be cut to fit your machine. Follow steps 2-15 and 2-16. Do not cut the hoses until you have tried to fit them on your machine. Remember that the hoses have to be long enough to adjust for the blower assembly's movement as well as allow for enough clamping surface between the inlet, blower assembly, and the deck boot.

2-15 Upper Hose Installation

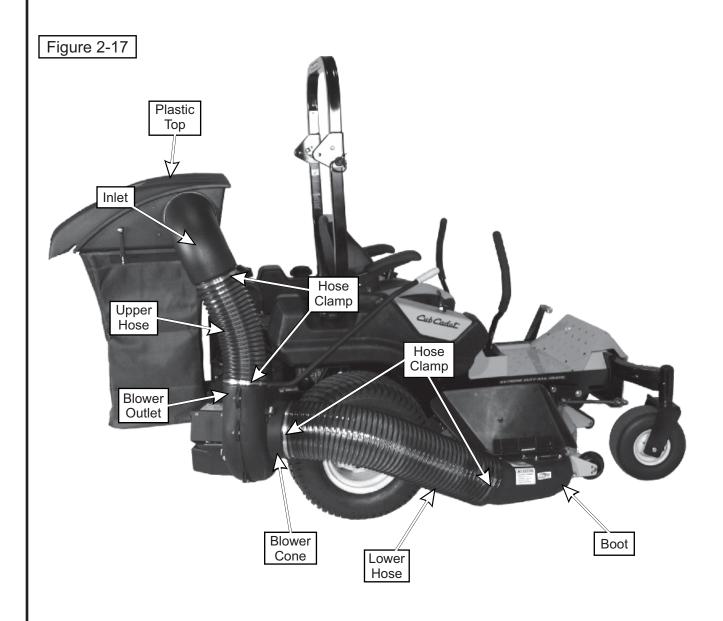
Fasten the inlet to the plastic top by sliding the inlet from the inside of the top to the outside and lock into place. Slide a 6" hose clamp P#(J0060) onto both ends of the 6" upper hose (Figure 2-17). Then slide one end of the 6" hose onto the inlet. Make sure there is about a two-inch overlap between the hose end and the container inlet. Proceed to slide the opposite end of the 6" hose onto the outlet of the blower assembly. See (Figure 2-17) for details. Make sure both ends of the hose are clearly attached to the inlet and the blower assembly inlet. Tighten the hose clamps.

2-16 Lower Hose To Blower Cone Installation

Slide a 8" 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. The assembly should look like Figure 2-17.

2-17 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 2-17). Tip: Before securing clamp rotate hose counter-clockwise (away from yourself) approximately 1" to aid in retaining boot to mower deck.



2-18 Impeller Blade Removal/Replacement

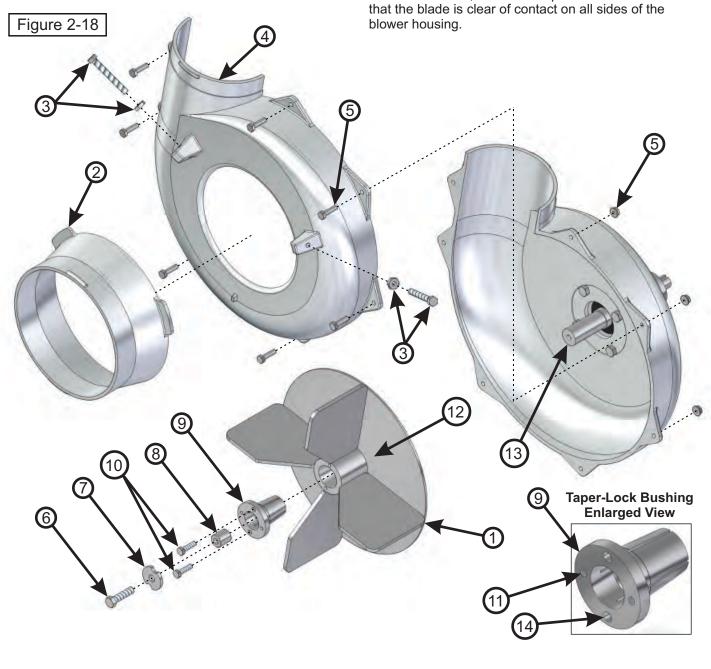
To gain impeller blade **(#1)** access, first remove the blower cone **(#2)** from the blower housing, located on the PTO assembly P#(A1821), by removing two blower cone bolts and nuts **(#3)**. Next, remove the blower housing front **(#4)** by removing seven bolts and nuts **(#5)** around the outer housing edge. Refer to Figure 2-18.

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 2-18. 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.

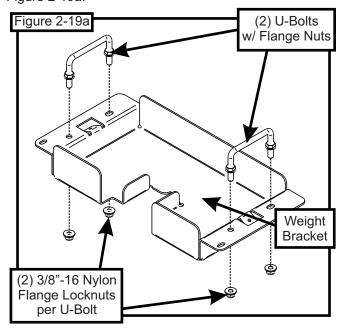
To Replace: First, place the impeller blade (#1) over the drive shaft (#13). Next, slide the taper-lock bushing (#9) on to the drive shaft and into the impeller blade, aligning the non-threaded holes (#14) of the taper-lock bushing to the threaded holes of the impeller blade. Then, fasten by using two 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



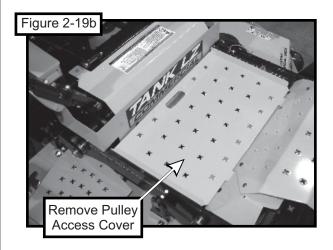
2-19 Weight Kit Installation

<u>Cub Cadet 2012 Tank LZ Models -</u> Installing a weight kit is mandatory for safe operation of the collection system. SZ models do not require a weight kit.

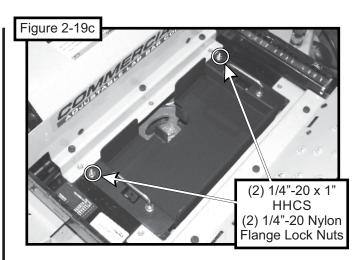
Completely thread (2) 3/8"-16 flange nuts P#(K1215) onto (1) 3/8"-16 U-bolt P#(K0407). Repeat process again to create two sets. Secure each U-Bolt, w/ attached flange nuts, to the weight bracket P#(B0703) using (2) 3/8"-16 nylon flange locknuts P#(K2038) as shown in Figure 2-19a.



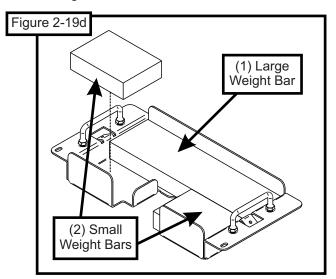
Remove the mower's pulley access cover shown in Figure 2-19b.



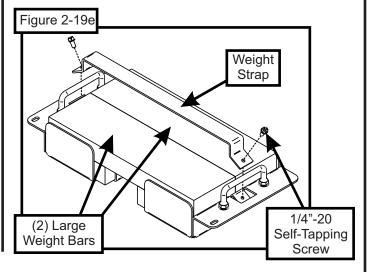
Insert the weight bracket assembly into the recess as shown in Figure 2-20c. Align the weight bracket's mounting holes to the mower's frame and secure using (2) 1/4"-20 x 3/4" HHCS P#(K1222) and (2) 1/4"-20 nylon flange locknuts P#(K2014). Insert the bolts from the bottom of the weight bracket so that the nuts fasten to the top of the bracket as shown in to Figure 2-19c.



One at a time, add (1) large weight bar P#(B0704) to the weight bracket, then (2) small weight bars P#(B0741). Refer to Figure 2-19d.



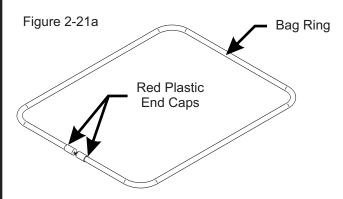
Add the remaining (2) large weight bars P#(B0704) to the weight bracket. Secure the weights to the weight bracket with (1) weight strap P#(B0719) and (2) 1/4"-20 self-tapping screws P#(K0353). Refer to Figure 2-19e. Replace mower's pulley access cover when completed.



2-20 Installation/Removal Of Collection Bags

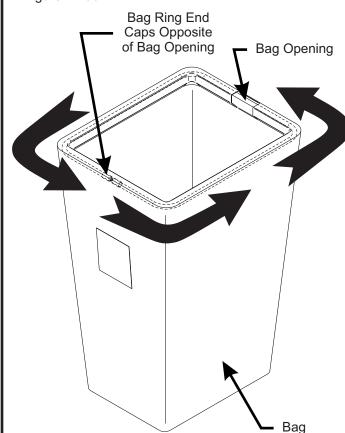
IMPORTANT!

To prevent bag wear, install (2) red plastic end caps P#(J0274), as shown in Figure 2-20a, on each bag ring before installing bags.

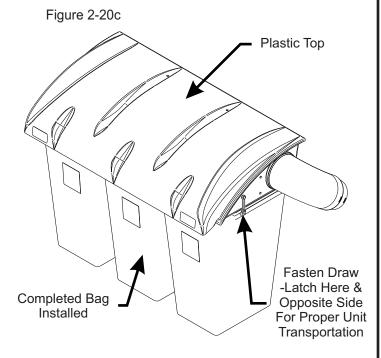


To install the bag onto the bag ring, place the seam openings of the bag onto the bag ring openings and turn the bag one full turn (360°) so the plastic end caps are located opposite to the opening in the bag (Figure 2-20b). Do this for each of three bags.

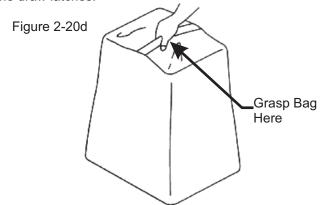
Figure 2-20b



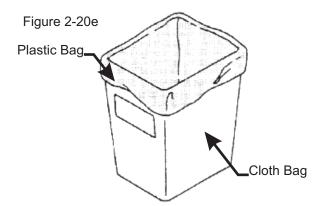
Install the completed assemblies onto the support frame and close the plastic top. Fasten both draw-latches to hold the plastic top closed (Figure 2-20c).



To empty the bag, first unlatch and lift top, next remove the bag and bag ring by sliding rearward, then grasp the loop on the bottom of the bag, and last turn it upside down to empty the collected debris (Figure 2-20d). Repeat for the other bags. Reinstall all bags, line with plastic bags if desired, close the plastic top and reattach the draw latches.

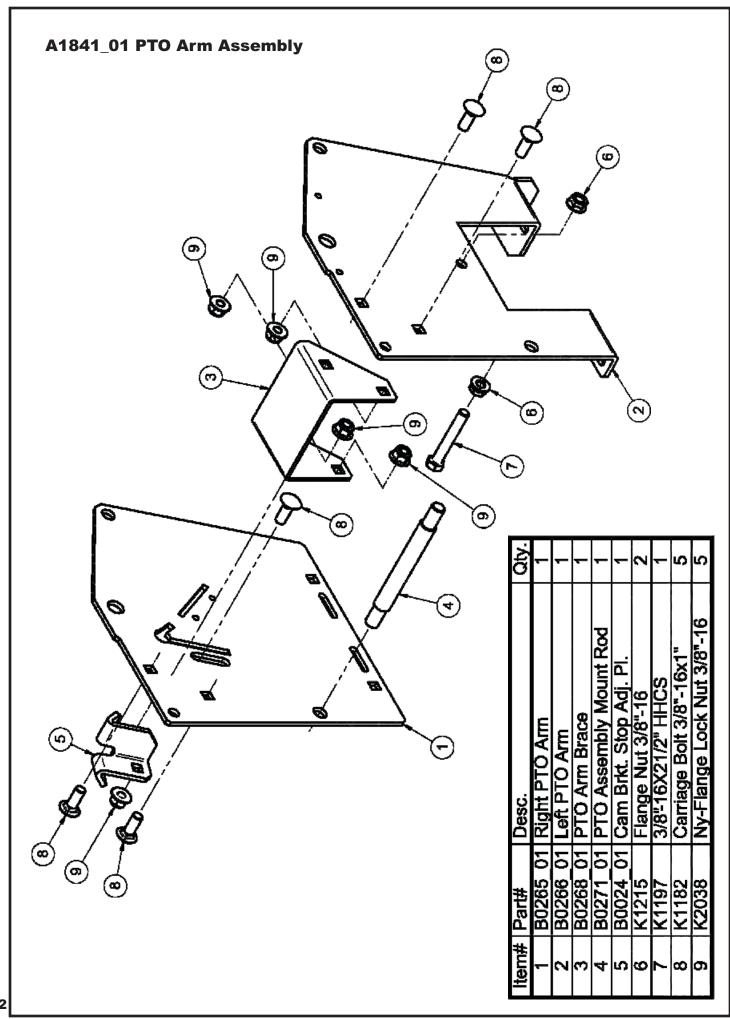


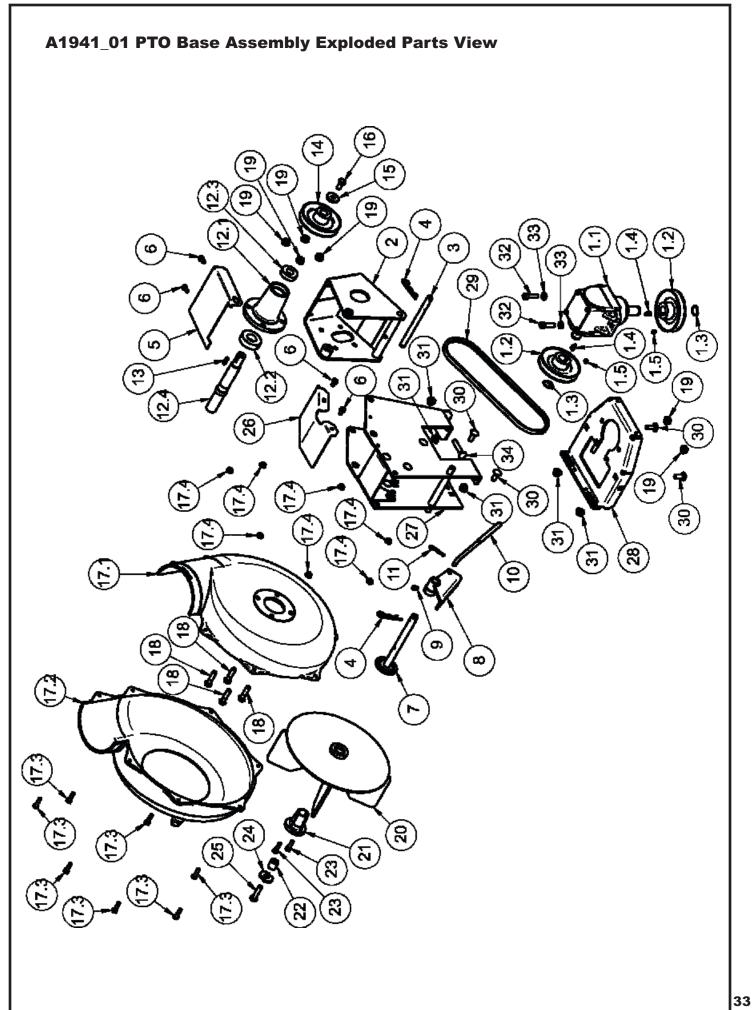
Plastic lawn and leaf bags, 33 gallon size, may be used inside the cloth bags. Be sure to leave enough plastic bag hanging over the frame so the plastic bags can be twist tied before emptying (Figure 2-20e).



Exploded Parts View A1139 Top Assembly (19) (14)

Item #	Doc#	Title	Qty
1	V0022	PRO 3 BAGGER TOP	1
2	B0676	Hinge Stop Pl.	1
3	K0114	BLACK PLASTIC RIVET	14
4	C0069	DUST GUARD BRACE	1
5	K1030	1/4"-20 x 1-1/4" CARRIAGE BOLT	2
6	J4009	SHORT RUBBER STRAP W/S HOOK	2
7	K0037	1/4" FLAT WASHER .75 OD x .314 ID x .060 T	2
8	K1128	1/4"-20 NYLOC NUT	2
9	C0026	GRASS DEFLECTOR	1
10	K0062	3/16" x 1-1/2" FENDER WASHER, Z	4
11	K1265	BLACK PANEL RETAINER	3
12	V1120	SCREEN	1
13	V1118	DUST GUARD	1
14	R0006	CUB CADET LOGO	1
15	R1057	2" x 4" Red Reflector Label	2
16	R1069	Warning - Turn Off Blower Label	1
17	R1065	Made In USA Label	1
18	R1054	Important Check Hoses	1
19	R1051	Warning - Use Hearing Protection	1

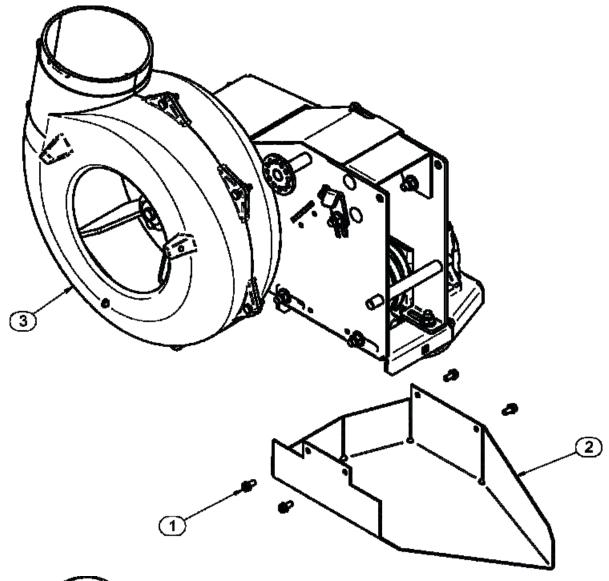


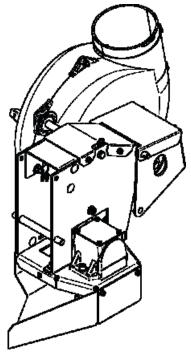


A1941_01 PTO Base Assembly Exploded Parts List

Item#	Part#	Desc.	Qty.
1	A0429	Gear Box Assy.	1
1.1	A0431	Gearbox	1
1.2	A0498	Pulley Assy. / GearBox	2
1.3	K0360	Snap Ring / 7/8"Shaft	2
1.4	J0272	Woodruff Key #9	2
1.5	K0035	Set Screw 5/16"-18x1/4" CupPoint	2
2	A0144	Blower Mnt. Brkt. Assy.	1
3	B1755	BLOWER PIVOT ROD	1
4	K0086	Hair Pin Clip.1250Dx2.50	2
5	B0121	Blower Belt Guard	1
6	K0353	HWHTCS 1/4"-20x1/2"	4
7	A0604	PTO HANDLE MOUNT ASSY	1
8	A0422	CAM BRACKET ASSEMBLY	1
9	K0356	3/8"-16 TAPERED SET SCREW	1
10	K0326	BELT TENSION ROD 3/8"-16	1
11	K0130	.091ODx1.625L HAIR PIN CLIP	1
12	A0306	PTO Shaft Assy.	1
12.1	E0121	PTO Shaft Housing	1
12.2	N0147	Bearing (2.0472OD,0.9843ID,0.5906W)	1
	N0148	Bearing (1.625OD,0.750ID,0.4375W)	1
12.4	B1758	PTO Shaft	1
13	J0254	Key / 3/16" x3/16" x3/4"	1
14	M0228	Pulley / Impeller Shaft	1
15	K1446	PTO Housing Washer	1
16	K1190	HHCS / 3/8"-16x3/4"	1
17	E4004A	BLOWER HSG. ASSY.	1
17.1	E4004B	BLOWER HSG. BACK	1
17.2	E4004F	BLOWER HSG. FRONT	1
17.3	K1125	HHCS 1/4" -20X1" GR2	7
17.4	K1126	Flange Nut 1/4"-20	7
18	K1193	HHCS 3/8" -16X1-1/2"GR5	4
19	K1215	Flange Nut 3/8"-16	6
20	A0645	4-Blade Impeller Assy	1
21	S4302	TAPER - LOCK BUSHING	1
22	S3242	Spacer Bushing / .750IDx.380IDx.830L	1
23	K1225	HHCS 1/4"-20X1" GR8	2
24	K0278	Double Indented Washer 7/1671.375ODx.440IDx.179T	1
25	K1211	3/8"-16x1-1/2"HHCS GR8	1
26	B0270	PTO Arm Guard	1
27	A1804_01	PTO Arm Assembly	1
28		Base Plate Assembly	1
29	M0250	A30K KEVLAR BELT	1
30	K1182	Carriage Bolt 3/8"-16x1"	4
31	K2038	Ny-Flange Lock Nut 3/8"-16	5
32	K0309	3/8"-16x1-1/4"SHCS	2
33	K0048	Lock Washer 3/8"	2
34	K1184	Carriage Bolt 3/8*-16x2**	1

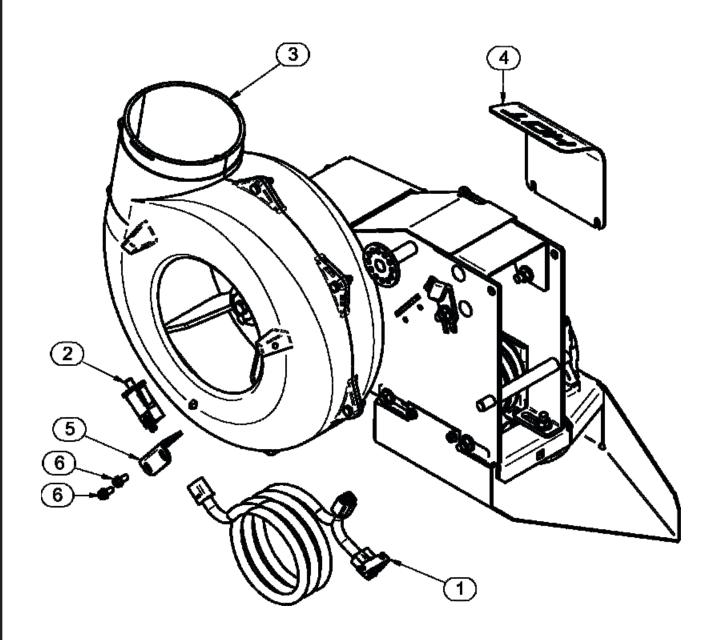
A1623 PTO Assembly w/ Pulley Guard Exploded Parts List



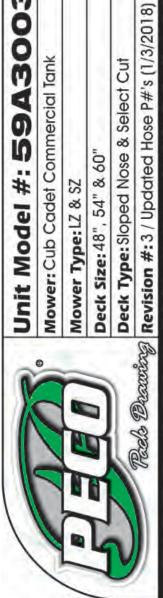


ltem#	Part#	Description	Qty.
1	K0353	HWHTCS 1/4"-20x1/2"	4
_		Large Pulley Guard	1
3	A1941_01	PTO Assy / Generic	1

A1821 PTO Assembly w/ Safety Interlock Exploded Parts List



Item#	Part#	Description	Qty.	Rev#
1	P0208	SafetyInterlockHamess	1	
		PlungerSwitch	1	
3	A1623	PTOAssy/LargePulleyGuard	1	3
4	B0833	GearBoxHeatGuard	1	
		SwitchMountBracket/Cub	1	
6	K0353	HWHTCS1/4"20x1/2"	2	



Unit Model #: 59A30033150 (21131507)

Owner's Manual: Q0425 Mower: Cub Cadet Commercial Tank

Mower Type: LZ & SZ

Deck Type: Sloped Nose & Select Cut Deck Size: 48", 54" & 60"

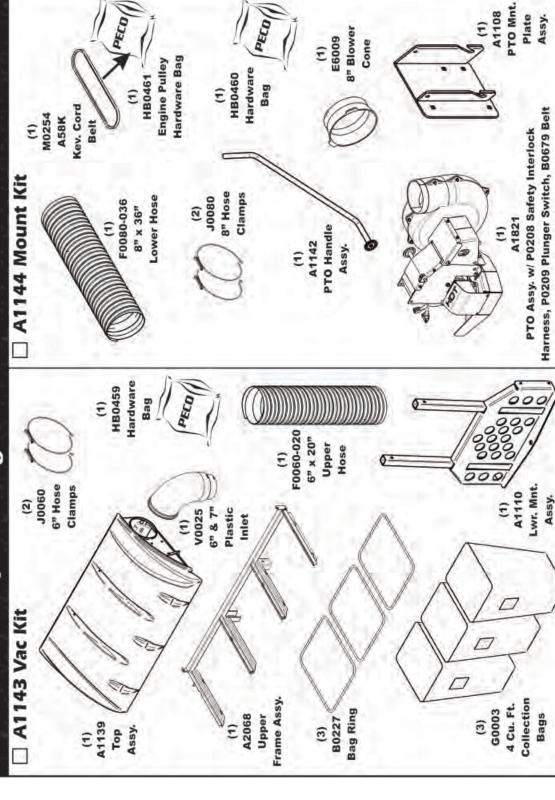
Drive Type:Rear PTO Drive

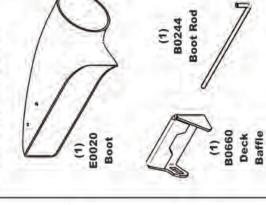
Vac Type: 15 Cu. Ft. Pro 3 Bagger

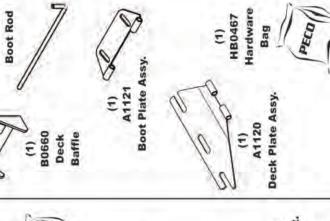
A1150 Boot Kit

Fits Year(s): 2012-2013

LZ Mowers Require Weight Kit 59A30037150 (A1149) - Not Included On Pack



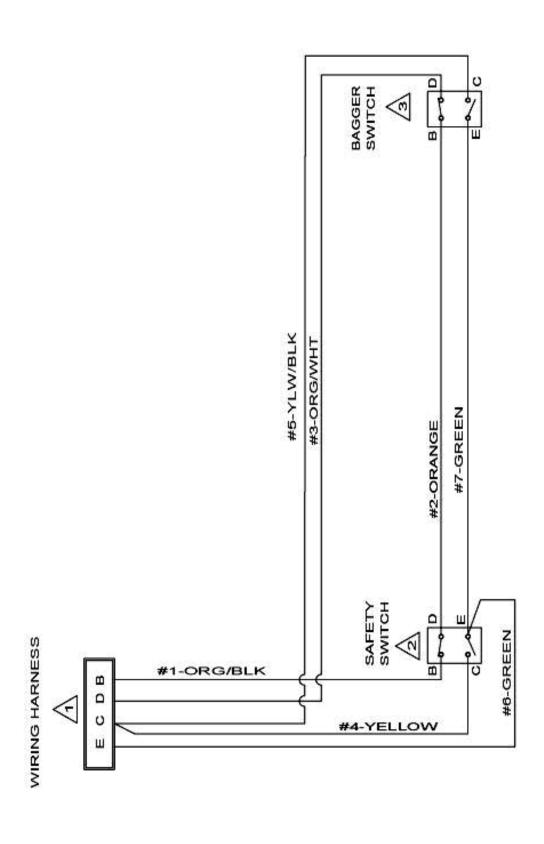




Guard & B0833 Heat Guard

Wiring Diagram

P0208 Safety Interlock Wiring Harness



SECTION III OPERATING INSTRUCTIONS

General Safety

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

Operation And Tips On Mowing

- A. Perform BEFORE EACH USE the maintenance list referenced in Section IV.
- 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 PTO assembly 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 PTO assembly, then, engage the parking brake and turn the mower off. Check upper and lower hoses for any clogs.

To obtain the maximum effectiveness from your collection system, the tips listed below should be followed:

- * Watch your speed- Normal conditions will allow a speed of up to approximately 4 mph, but thick, heavy damp conditions will require reduced ground speed.
- * 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.

Disengagement Of The PTO Assembly

A. To disengage the PTO assembly, rotate the engagement handle towards the mower.

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

Unloading The Collection System

NOTE: To determine when the collection bags are full, follow the following steps:

- A. Stop the forward movement of the mower.
- B. Disengage the mower deck.
- C. Disengage the PTO assembly.
- D. Engage the parking brake.
- E. Once the parking brake has been engaged, then and only then, walk behind the mower and check the collection bags by first unhooking the rubber strap with S-hook that secures the plastic top, then lift the plastic hood. Load in bags should not exceed the height of the installed bag.
- F. To remove the bags from the frame, slide bags out and turn bags over to deposit clippings.
- G. Slide empty bags back onto the frame and secure plastic top with the rubber strap with S-hook.

NOTE: Do not allow collection bags to become overfilled as potential damage may occur to your equipment. Also, be sure to clean the hood screen as needed.

SECTION IV MAINTENANCE

Maintenance Checklist

Before each use:

- 1. Check blades and spindles to be sure that no foreign objects, such as wire or steel strapping bands, are wrapped around them.
- 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.

- 3. Make sure all shields are in place and in good condition. Repair or replace any missing or damaged shields.
- 4. Perform lubrication per instructions.
- 5. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.
- 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 immediately.

After Each Use:

- 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. Under normal usage, the bag material is subject to deterioration and wear and should therefore be frequently checked for necessary replacement. Any replacement bag should be checked to ensure compliance with the original manufacturer's recommendations or specifications.
- 4. Check belt for proper tension.

4-2 Lubrication

Gearbox:

NOTE: The gearbox is filled with 6.0 oz. of Mobilube HD Plus 80W-90 oil and permanently sealed. There is no need for scheduled lubrication. The oil level should only be checked if a leak is observed or if a change in gearbox noise is noticed.

Operators are recommended to check for leaks weekly. If a leak is observed, both the gasket and the seals are recommended to be replaced.

Replace the oil using 5.5 oz. of the recommended Mobilube HD Plus 80W-90 oil. Be sure to not overfill.

Blower Assembly:

NOTE: The following is for older PTO models that contain a greaseable zirc fitting. Newer models contain maintenance-free bearings and are without a greasable fitting.

- 1. On initial use: Grease the fitting on the blower shaft.
- 2. Every 25 hours of use: Re-grease the grease fitting.

NOTE: Use only white lithium based grease for lubrication of the shaft on the blower assembly.

SECTION V - PARTS & SERVICE

5-1 Parts And Service Information

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 New PECO, Inc. and include the following information on the chart below.

DOCUMENT THE FOLLOWING INFORMATION FOR FUTURE REFERENCE

Phono Numbori		
Address:	State:	Zip:
Dealer/Distributor Name:		
Date of purchase:/	I	
Unit Serial Number:		
Unit Engine Size:		
Unit Model Number:		

New PECO, Inc. 10 Walden Dr | Arden, North Carolina 28704

Phone: 1-800-438-5823 | 828-684-1234 Fax: 828-684-0858

Email: peco@lawnvac.com
Website: www.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.



Part #: R0006 - Cub Cadet Label



Part #: R1051 Warning: Hearing Protection 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 Important: Check Hoses Label



KEEP HANDS AND FEET CLEAR

Part #: R4015 Danger: Rotating Blades Label



*USE CAUTION IN TURNING AND BACKING MOWER.

Part #: R1069 Warning: Turn Off Blower Label

CAUTION

Rotating blades!

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

Part #: R4008 Caution: Rotating Blades Label





Part #: R1057 Red Reflector Label



Part #: R1065 Made In America Label



Part #: R1052 Small Warning: Turn Off Blower Label



Part #:R1083 Engage/Disengage Label



Part #: R4037 Warning: Hot Surface Label



Part #: R2007 Danger: Never Use Hands Label DANGER ROTATING BLADES! FINGERS, HANDS, & BODY PARTS CAN BE SEVERED! ELIGRO HOJA ROTANTE! DEDOS, MANOS Y PARTES DEL CUERPO PUEDAN SER CORTADOS!



Part #: R2008 Danger: Rotating Blades Label

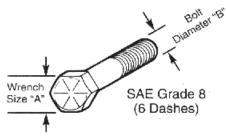
TORQUE SPECIFICATIONS

AMERICAN

Bolt Head Markings



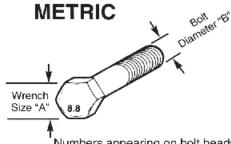




Proper toque for American fasteners used on Peco equipment.

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 UNC	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)



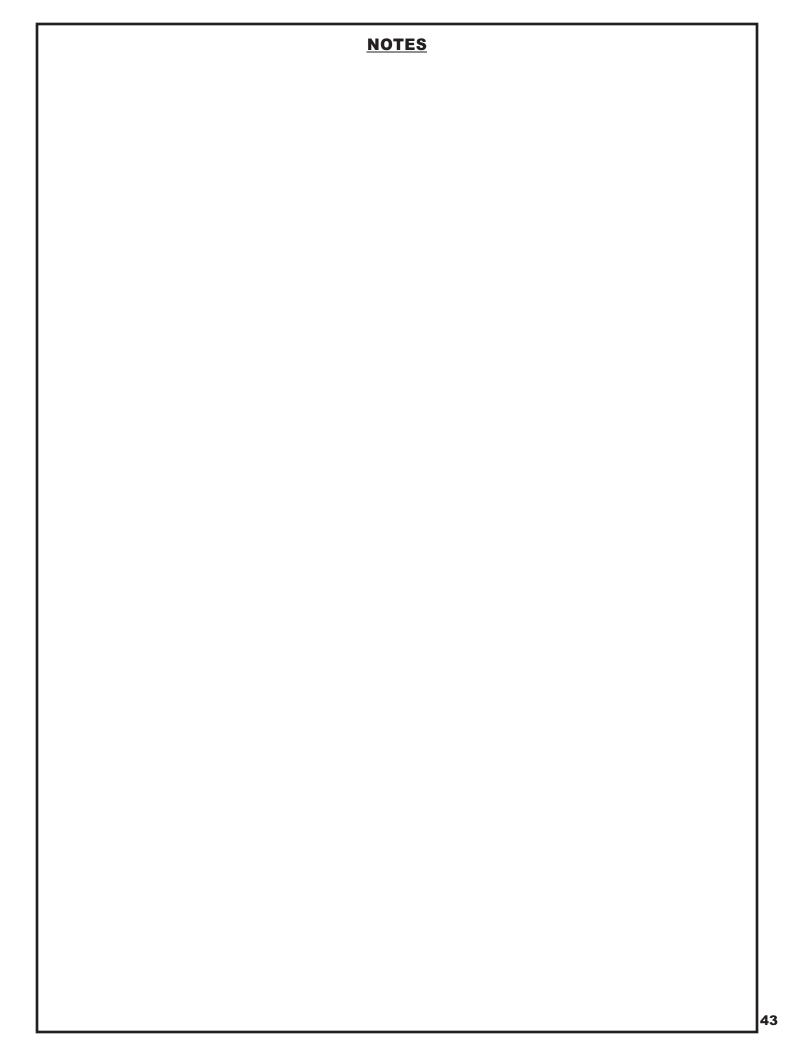
Numbers appearing on bolt heads indicate ASTM class.

Proper torque for metric fasteners used on Peco equipment.

Recommended torque in foot pounds (newton Meters).*

	trade in the position (item to it in the item).				
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)

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





Cub Cadet LLC P.O. Box 361131 Cleveland, Ohio 44136-0019 Phone: 1-877-282-8684

MTD Products Limited Kitchener, ON N2G 4J1 1-800-668-1238